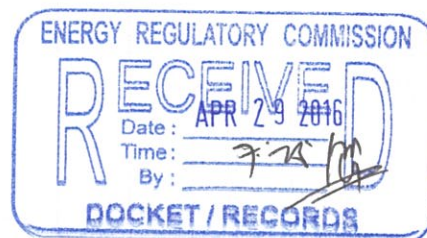


Republic of the Philippines
ENERGY REGULATORY COMMISSION
San Miguel Avenue, Pasig City

IN THE MATTER OF THE
APPLICATION FOR THE
APPROVAL OF THE POWER
SUPPLY AGREEMENT (PSA)
BETWEEN MANILA ELECTRIC
COMPANY (MERALCO) AND
ST. RAPHAEL POWER
GENERATION CORPORATION
(SRPGC), WITH MOTION FOR
CONFIDENTIAL TREATMENT
OF INFORMATION,

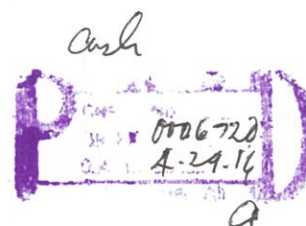


ERC CASE NO. 2016 - 093 RC

MANILA ELECTRIC COMPANY
(MERALCO) AND ST. RAPHAEL
POWER GENERATION
CORPORATION (SRPGC),

Applicants.

X-----X



JOINT APPLICATION
with
MOTION FOR CONFIDENTIAL TREATMENT OF
INFORMATION

Applicants **MANILA ELECTRIC COMPANY ("MERALCO")** and **ST. RAPHAEL POWER GENERATION CORPORATION ("SRPGC")**, through their respective undersigned counsel, respectfully state:

1. Applicant MERALCO is a private corporation existing under the laws of the Republic of the Philippines, with principal office located at Ortigas Avenue, Barangay Ugong, Pasig City. It may be served with notices and other processes of this Honorable Commission through its counsel at the address indicated herein.

2. MERALCO has a legislative franchise to operate and maintain a distribution system in the cities/municipalities of Metro Manila, Bulacan, Cavite and Rizal and certain cities, municipalities and barangays in Batangas, Laguna, Quezon and Pampanga, pursuant to Republic Act No. 9209, and is authorized to charge all its

customers for their electric consumption at the rates approved by this Honorable Commission.

3. Applicant SRPGC is a corporation duly organized and existing under the laws of the Republic of the Philippines, with its principal office address at Brgy. Baclaran, Balayan, Batangas. It may be served with notices and other processes of this Honorable Commission through its counsel at the address indicated herein.

4. SRPGC shall construct, own, operate, manage and maintain a 2 x 350 MW (rated) coal-fired power generating facility in Calaca, Batangas (the "**Plant**"), on the island of Luzon in the Philippines.

5. Based on MERALCO's Distribution Development Plan, "from 2015 to 2024, energy sales is forecasted to grow by a compounded average growth rate of 3.7%."

6. In order to ensure continuous and reliable electricity for MERALCO's customers with the expected continuous increase in demand and load growth, and mitigate exposure to the Wholesale Electricity Spot Market ("**WESM**"), there is a need for MERALCO to source additional capacity through bilateral power supply contracts.

7. Under Section 45(b) of Republic Act No. 9136 ("**EPIRA**"), it is provided that "*Distribution utilities may enter into bilateral power supply contracts subject to review by the ERC xxx*".

8. Accordingly, following extensive negotiations, on 26 April 2016, MERALCO executed a Power Supply Agreement ("**PSA**") with SRPGC, for the purchase of up to 400 MW Contract Capacity¹ and Associated Energy from the Plant that SRPGC shall construct, own, operate, manage and maintain.

9. The PSA, a copy of which is attached as **ANNEX "A"** and made an integral part hereof, contains the following salient features:

"2.1 Purpose

The purpose of this Agreement is to set out the rights and obligations of each Party with regard to the sale and purchase of Contract Capacity and Associated Energy of the Plant.

¹ Initially set at 200MW to be increased to 400MW upon Operations Effective Date (Unit 2)

2.2 Term of Agreement

- 2.2.1 Subject to Article 3, this Agreement shall become effective on the Effective Date.
- 2.2.2 The term of this Agreement (the “**Term**”) shall commence on the Operations Effective Date (Unit 1) and shall expire on the date falling twenty (20) years and four (4) months thereafter xxx

xxx xxx xxx

3.2 Commencement Date

- 3.2.1 The “Commencement Date” shall occur upon the satisfaction of the conditions below:
- (a) The conditions set out in Section 3.1 have been fulfilled;
 - (b) Each Party has delivered to the other Party a certification dated no earlier than two (2) Days prior to the proposed Commencement Date to the effect that its representations and warranties contained herein shall be true and correct in all material respects on and as of the Commencement Date;
 - (c) On or before the Longstop Date, the ERC shall have approved in the ERC Final Approval, this Agreement, including the pricing structure as set out herein (or as otherwise acceptable to Power Supplier); and
 - (d) The Acceptance Date has occurred.

Within seven (7) Days after the satisfaction of the conditions referred to in this Section 3.2, Meralco and Power Supplier shall issue a joint certification confirming that the Commencement Date has occurred.

3.3 Operations Effective Date

- 3.3.1 The Operations Effective Date shall occur on the twenty-sixth (26th) Day of the fifty-second (52nd) month from the Commencement Date for Unit 1 (the “**Operations Effective Date (Unit 1)**”) and four (4) months thereafter for Unit 2 (the “**Operations Effective Date (Unit 2)**”) (or collectively, “**Operations Effective Date**”).

xxx xxx xxx

3.4 Commercial Operations Date

- 3.4.1 The Plant shall achieve Commercial Operations Date upon delivery by Power Supplier of the documents enumerated below, in form and substance satisfactory to Meralco:²

² With respect to Commercial Operations Date of each of Unit 1 and Unit 2:

- (a) Capacity Test Certificate;
- (b) a Net Plant Heat Rate Test Certificate;

3.5. Early Occurrence of the Commercial Operations Date

- 3.5.1 In the event that Power Supplier achieves Commercial Operations Date prior to the occurrence of the Operations Effective Date, Power Supplier shall promptly deliver to Meralco written notice thereof on or before the Commercial Operations Date, which may contain a request for early occurrence of the Operations Effective Date and the intended Operations Effective Date.
- 3.5.2 Within ten (10) Days from receipt of such written notice, Meralco shall, by written notice:
- (a) Inform Power Supplier that it agrees to the early occurrence of Operations Effective Date and the revised Operations Effective Date; or
 - (b) Elect to have Power Supplier deliver, on a non-firm basis until the occurrence of the Operations Effective Date, such portion of the Contract Capacity and Associated Energy required by Meralco, for which it shall pay the Non-Firm Price.

Article 5 Sale and Purchase of Contract Capacity and Associated Energy

5.1 Supply of Power

Subject to the terms and conditions of this Agreement:

- 5.1.1 From the Operations Effective Date until the expiration or earlier termination of this Agreement, Power Supplier shall:
- (a) make available to Meralco, and Meralco shall purchase from Power Supplier, at the Price determined in accordance with Appendix E, the Contract Capacity of the Plant; and
 - (b) sell to Meralco, and Meralco shall purchase from Power Supplier, at the Price determined in accordance with Appendix E, the Associated Energy, to the extent of Meralco's relevant day-ahead nominations.
- 5.1.2 Unless otherwise expressly permitted by this Agreement, Power Supplier shall not, without Meralco's prior written consent:
- (a) sell, divert, grant, transfer, dedicate, reserve or assign all or any portion of the Contract Capacity and Associated Energy to any Person other than Meralco; or

-
- (c) all permits, licenses, authorizations and other approvals from all Government Instrumentalities and third parties needed for the operation of the Plant and the supply of electricity by Power Supplier to Meralco;
 - (d) a Commercial Operations Date Certificate; and
 - (e) Power Supplier certification that the insurances required under this Agreement relevant for at least the first Contract Year have been obtained.

- (b) provide Meralco with capacity and/or electrical energy from any source other than the Plant.

xxx xxx xxx

Article 8 Outages

8.1 Outage Allowances

- 8.1.1 Power Supplier is allowed Scheduled and Forced Outages not to exceed an aggregate of forty-five (45) Full Load Equivalent Days for each Contract Year ("Full Load Equivalent Outage Allowance Days") during the Term, during which times reduced or no supply of Contract Capacity or Associated Energy will be available to Meralco. Unutilized Full Load Equivalent Outage Allowance Days shall not be carried forward to any subsequent Contract Year.
- 8.1.2 During the conduct of the Major Maintenance of each Unit of the Plant which occurs once every five (5) years reckoned from Commercial Operations Date of each Unit, the Full Load Equivalent Outage Allowance Days shall be increased by an additional fifteen (15) Full Load Equivalent Outage Days; provided that Power Supplier may only undertake Major Maintenance for a total of three (3) times during the Term; provided further that the first Major Maintenance shall occur no earlier than the fifth (5th) year after the occurrence of the Commercial Operations Date.
- 8.1.3 In case an Event of Force Majeure coincides with a Scheduled Outage, any downtime shall be credited against the Full Load Equivalent Outage Allowance Days.

8.2 Replacement Electrical Output During Outages

- 8.2.1 During Outages within the Full Load Equivalent Outage Allowance Days, Power Supplier shall not be required to supply Meralco with Replacement Energy. In such circumstances, Meralco, at its own cost, shall source the Replacement Energy from the WESM. Power Supplier shall not invoice Meralco for such portion of Contract Capacity and Associated Energy that is not made available or supplied for the duration of Scheduled Outages within the Full Load Equivalent Outage Allowance Days. If during any Contract Year, the Outages exceed the Full Load Equivalent Outage Allowance Days, Power Supplier shall procure at Power Supplier's own cost, such Replacement Energy and electrical output from third parties (including the WESM) to satisfy the relevant day-ahead nominations of Meralco. During such period, Meralco shall pay Power Supplier the Price. In the event Power Supplier fails to procure such quantities of electrical energy for Meralco, Power Supplier shall indemnify and hold Meralco harmless from any loss, cost, expense or penalty incurred or paid by Meralco.

xxx xxx xxx

Article 9 Assignment or Transfer of Contract Capacity

- 9.1 Meralco shall be entitled to assign, transfer, designate, delegate or allocate (collectively in this context, "Transfer") its rights and obligations to purchase a portion of Contract Capacity and Associated Energy that is no longer required by Meralco to any of its business segments or wholly-owned Affiliates without the prior consent of the Power Supplier.

Meralco shall also be entitled to Transfer its rights and obligations to purchase a portion of Contract Capacity and Associated Energy that is no longer required by Meralco to any other Person, subject to the consent of Power Supplier, which consent shall not be unreasonably withheld, delayed or conditioned, it being understood that withholding consent would not be considered unreasonable if the proposed Transfer would be contrary to the reasonable requirements of Finance Parties under the Finance Documents, as evidenced by a written confirmation by the relevant Finance Parties. xxx

xxx xxx xxx

Article 10 Billing and Payment

xxx

10.2 Payments

- 10.2.1 Meralco shall pay the entire amount indicated in the Final Invoice (subject to Appendix H) when due and payable, provided that Meralco shall not be required to make payment on any Invoice that is manifestly in error, apparently invalid or not in the form or substance contemplated by this Agreement.

xxx xxx xxx

Article 11 Taxes, Fees and Costs

xxx

11.2 Charges Due to Change in Law

- (a) If as a result of a Change in Law, Meralco becomes liable to pay any new charges, fees, taxes, duties, assessments or other similar amounts ("**New Charges**"), or any increase in existing charges, fees, taxes, duties, assessments or other similar amounts ("**Increased Charges**") become payable with respect to this Agreement, the New Charges or Increased Charges shall form part of the price that Meralco will charge to its customers.
- (b) If as a result of a Change in Law (other than a change in income taxes payable by Power Supplier), Power Supplier becomes liable to pay New Charges or Increased Charges with respect to this Agreement, and such liability materially and adversely affects the ability of Power Supplier to perform its obligations under this Agreement, materially and adversely affects its sale of Contract Capacity and Associated Energy in accordance with this Agreement, makes the administration or

operational aspects of such performance materially more burdensome or causes or may cause serious damage to, or materially and adversely affects the financial condition of Power Supplier, Power Supplier shall send a notice of Change in Law to Meralco and the provisions of Section 17.6.6 will apply. Provided that if the Change in Law results in a change in the business taxes payable by Power Supplier, Power Supplier shall send notice of such change in business taxes to Meralco and, if the Parties agree, Meralco shall file the necessary application with the ERC for the adjustment of the Price; provided further, that the adjustment shall only be effective upon approval by the ERC. Notwithstanding any provision in this Agreement to the contrary, in no case shall the Power Supplier be entitled to terminate this Agreement as a result of the change in its business taxes.

- (c) In the event that, as a result of a Change in Law and pursuant to a corresponding order of the ERC or any Governmental Instrumentality:
 - (i) Meralco is no longer permitted to pass through to its customers any amounts that it is permitted to pass through as of the date of this Agreement, including but not limited to the amounts specified in Section 11.1.2; or
 - (ii) any portion of the Price that has been paid to Power Supplier is required to be refunded to Meralco or Meralco's customers in connection with the ERC Application or any petition, claim, case, proceeding or other action involving any of the Parties brought before any judicial, administrative or quasi-judicial body,

the Parties shall enter into good faith negotiations to agree on a satisfactory solution regarding the amendment of this Agreement to restore Meralco's commercial position prior to such Change in Law, including an adjustment of the Price. If the Parties fail to reach a mutually satisfactory resolution within sixty (60) Days from the commencement of negotiations, the provisions of Section 17.6.6 (b) will apply.

xxx xxx xxx

Article 13 Covenants

xxx

13.2 ERC Approval

- 13.2.1 Subject to the non-occurrence of the Longstop Date, upon receipt of the ERC Final Approval, Meralco shall provide a copy of such ERC Final Approval to Power Supplier. Power Supplier shall have ten (10) Days from the date of receipt from MERALCO of such ERC Final Approval to notify Meralco in writing that (i) it accepts such ERC Final Approval or (ii) it does not accept the ERC Final Approval, stating the grounds for non-acceptance.

- 13.2.2 In case of Power Supplier's non-acceptance, Power Supplier shall be free to file with the ERC a motion for reconsideration. Any order on a motion for reconsideration shall be treated as an ERC Final Approval for purposes of the processes under this Section 13.2.
- 13.2.3 Following (i) a written notice of acceptance from Power Supplier with respect to the ERC Final Approval (including upon reconsideration under Section 13.2.2 above), or (ii) the lapse of the period referred to in Section 13.2.1 without Power Supplier communicating its acceptance or non-acceptance in writing, the Acceptance Date shall be considered as having occurred on the date of the written notice of acceptance or on the last Day of such period, as applicable ("Acceptance Date"), provided, in each case, that Meralco has not filed any motion for reconsideration or appeal subsequent to the Power Supplier's acceptance of such ERC Final Approval and the Longstop Date has not occurred. xxx
- 13.2.5 In the event that the Acceptance Date has not occurred by the Longstop Date, either Party may terminate this Agreement by serving a thirty (30) Day written notice to the other.

xxx xxx xxx

Article 16 Force Majeure

xxx

16.5 Effect of Extended Force Majeure

If any Event of Force Majeure prevents Power Supplier from making available the Contract Capacity or Associated Energy or Meralco from accepting Contract Capacity or Associated Energy, in each case for a continuous period of more than one hundred eighty (180) Days, then either Party may upon written notice, require the other Party to meet as soon as practicable to reasonably discuss any modification, change or amendment of this Agreement under such reasonable terms, to the extent necessary to resolve the issues arising from the Event of Force Majeure and maintain, to the extent feasible, the rights and obligations of the Parties under this Agreement.

If the Parties do not reach such satisfactory solution within ninety (90) Days from the end of the one hundred eighty (180) Day period, or such other time as may be agreed upon, either Party may terminate this Agreement in accordance with Section 17.6.5.

xxx xxx xxx

Article 17 Events of Default and Termination

17.1 Power Supplier Events of Default

Each of the events described below shall constitute a Power Supplier Event of Default, provided that such events (with the

exception of Sections 17.1(d) and Section 17.1(e) (i), (ii) and (iii)) results in or is accompanied by an actual failure by Power Supplier to make Available the Contract Capacity and/or deliver the Associated Energy of Meralco in accordance with the terms of this Agreement: xxx

xxx

17.2 Meralco Events of Default

Each of the events described below shall constitute a Meralco Event of Default, provided that such event (with the exception of Section 17.2(d)) results to or is accompanied by an actual failure by Meralco to receive, and pay for, the Contract Capacity and Associated Energy in accordance with this Agreement:

xxx

For the avoidance of doubt, it is understood and agreed that, subject to Section 16.2(d) being applicable, the expiration and/or non-renewal of the Franchise shall not be considered a Meralco Event of Default.

10. The Payment Structure, as provided in Appendix E of the PSA shall be as follows:

"2 PAYMENT STRUCTURE

The payment to be made in each Billing Period during the Term for Contract Capacity and Associated Energy shall consist of a Capacity Payment, Energy Payment, Additional Reimbursable Costs and applicable value-added tax. The Capacity Payment consists of Component A (MCP) and Component B (MFOM), the Energy Payment consists of Component C (FP) and Component D (MVOM), the Reimbursable Costs consists of Component E (RC), and Component F (VAT). Thus, the Monthly Power Bill ("MPB") payment for Contract Capacity and Associated Energy for each Billing Period shall be equal to:

$$\text{MPB} = \text{MCP} + \text{MFOM} + \text{FP} + \text{MVOM} + \text{RC} + \text{VAT}$$

All payments to Power Supplier under this Agreement will be made in Philippine Pesos (PHP). All computations for payments to Power Supplier shall not be rounded off, except for the final PHP amount, which shall be rounded off to the nearest centavo.

xxx xxx xxx"

11. Given the foregoing, a sample calculation of the base contract price under the PSA, given a certain set of assumptions,

results in an annual effective rate of PhP3.7549 per kWh (at plant gate), as shown in the sample calculation below:

SRPGC PSA - Rate Impact
(YEAR 2021)

BILLING COMPONENT	UNIT	BASE RATE ^[a]	CPI Adj Factor ^[b]	BILLING DETERMINANT ^[c]	AMOUNT (PHP)
A. Capacity Payment (MCP)					
Peso Portion	(Php/kW-yr) ^[b]	14,984.0250		400,000 (kW)	5,993,610,000.00
B. Fixed O&M Payment (MFOM)					
US Dollar Portion Escalating	(USD/kW-yr) ^[b]	34.1370	1.000000	400,000 (kW)	629,076,636.00
Peso Portion Escalating	(Php/kW-yr) ^[b]	967.8230	1.000000	400,000 (kW)	387,129,200.00
C. Fuel Payment (MFP)					
Peso Portion	(Php/kWh) ^[c]	0.9999		2,803,200,000 (kWh)	2,803,010,234.20
D. Variable O&M Payment (MVOM)					
Peso Portion	(Php/kWh)	0.0995	1.000000	2,803,200,000 (kWh)	278,918,400.00
E. Reimbursable Cost Payment (RCP) ^[d]					
Real Property Tax	(Php)				293,278,000
Start-up Costs	(Php)				-
Shutdown Costs	(Php)				-
Supplemental Payments	(Php)				140,713,210
TOTAL PAYMENT	(Php)				10,525,735,679.80
Effective Rate at Plant Gate	(Php/kWh)				3.7549
WESM Line Rental Rate ^[e]	(Php/kWh)				0.1082
Delivered Rate	(Php/kWh)				3.8631
Effective Cost at WESM Price ^[f]	(Php/kWh)				7.0640
Increase / (Decrease) over WESM Price	(Php/kWh)				(3.2009)
Meralco Captive Energy Demand ^[g]	(kWh)				34,658,621,088
Increase / (Decrease) in Generation Cost	(Php)				(8,972,776,426.81)
Increase / (Decrease) in Generation Cost	(Php/kWh)				(0.2589)

NOTE:

^[a] Base Rates as set forth in Schedule 1 of Appendix E of the PSA

^[b] Annual Capacity Rate and Annual Fixed O&M Rate are converted into monthly rates by applying the formulas shown in Appendix E of the PSA

^[c] Fuel Payment calculated based on Guaranteed Net Plant Heat Rate at 91.25% plant load factor, Newcastle Index = USD 50.38/MT, and Forex rate at PhP 46.07/USD (current prices as of Mar 2016)

^[d] Reimbursable Payments (pass through costs) based on estimated taxes

^[e] Assumed estimated SRPGC line rental rate

^[f] Cost if equivalent volume of SRPGC was sourced from the WESM based on forecast average Jan - Dec 2021 hourly prices

^[g] Meralco Captive Energy Demand based on 2021 forecast

^[h] Assumed no CPI escalation

^[i] Energy Payments based on 80.00% plant capacity factor

12. As seen in the rate impact above, given the above assumptions, the simulated delivered price under the PSA would result in the reduction of MERALCO's generation charge by about PhP0.2589 per kWh.

13. Notably, the Plant offers greater reliability compared to existing plants that are past their expected plant life, at a price competitively at par with the rates of the existing plants despite its newness.

14. It bears emphasis that there is an urgent need for the final approval of the PSA considering the requirement of lenders for the Honorable Commission's final approval of the PSA prior to financial closure. Only thereafter can SRPGC commence construction of the Plant to meet the target Commercial Operations Date and allow for

delivery of MERALCO's needed capacity and associated energy by then.

15. Verily, this Honorable Commission's approval of the PSA will send strong signals to lenders of the viability of financing power generation projects in the Philippines, and thus, set the pace for infusion of similar investments by the private sector.

16. Additionally, the realization of this project and its contribution to achieving the government's target of available capacity as per the Department of Energy's Philippine Development Plan would largely depend on the timely approval of this Application.

17. In support of this Joint Application, the Judicial Affidavit of **MR. CIPRINILO C. MENESES**, Head of MERALCO's Energy Sourcing Office, is attached as **ANNEX "B"** and made an integral part hereof.

18. Likewise, in support of the instant Joint Application, the Applicants provide this Honorable Commission with the following documents, which underwent the pre-filing conference of this Honorable Commission:

Description of Document	Annex
SRPGC Certificate of Registration with the Securities and Exchange Commission	C
SRPGC Articles of Incorporation & By-Laws	D
Latest General Information Sheet of SRPGC	E
Latest Audited Financial Statements of SRPGC	F
SRPGC Affidavit Re: Non-Registration with the Board of Investments	G
SRPGC Environmental Compliance Certificate	H
Executive Summary of the PSA	I
SRPGC Source of Funds/Financial Plans*	J
SRPGC Purchased Power Rate and Financial Model*	K
SRPGC Project Cash Flow*	L
SRPGC Operating Expenses*	M
Indicative Loan Agreement*	N
MERALCO's procurement process	O
NGCP Certification Re: System Impact Study	P
Written explanation regarding Department of Energy Certification	Q
Plant Description	R

SRGCP Affidavit of Undertaking Re: COC and other Government Authorizations and Permits in relation to Power Plant	S
[NOT USED]	T
Excerpt of the Load Forecast Projections from MERALCO's 2015-2024 Distribution Development Plan	U
Coal Supply Offer*	V
Written explanation regarding: <ul style="list-style-type: none"> a. Certification of the net heat rate b. Simulation of the no. of operating units necessary to meet the MEOT c. Potential Cost (absolute amounts and PhP/kWh) of Ancillary Services. 	W
Details on the procurement process	X
Demand Side Management (DSM) program	Y

** Subject of the Motion for Confidential Treatment of Information.*

ALLEGATIONS IN SUPPORT OF MOTION FOR CONFIDENTIAL TREATMENT OF INFORMATION

19. Under Rule 4 of the ERC Rules of Practice and Procedure, the Honorable Commission may, upon request of a party and determination of the existence of conditions which would warrant such remedy, treat certain information submitted to it as confidential.

20. Pursuant thereto, SRPGC respectfully moves that the **SRPGC Source of Funds/Financial Plans (Annex "J")**, **SRPGC Purchased Power Rate and Financial Model (Annex "K")**, **SRPGC Project Cash Flow (Annex "L")**, **SRPGC Operating Expenses (Annex "M")**, **Indicative Loan Agreement (Annex "N")**, and **Coal Supply Offer (Annex "V")** to be submitted in support of the instant Application (the "**Confidential Documents**") not be disclosed and be treated as confidential. SRPGC respectfully submits that the foregoing documents contain certain non-public information, data and calculations involving business operations and financial trade secrets reflecting SRPGC's investment and business calculations.

21. SRPGC hereby submits one (1) copy of each of the foregoing Confidential Documents in a sealed envelope, with the envelope and each page of the document stamped with the word "Confidential."

PRAYER

WHEREFORE, premises considered, it is respectfully prayed that the Honorable Commission:

a) **ISSUE** an Order: (i) treating the Confidential Documents and the information contained therein as confidential, (ii) directing their non-disclosure pursuant to Rule 4 of the ERC Rules, and (iii) prescribing the guidelines for the protection thereof; and

b) after hearing on the merits, a Decision be rendered **APPROVING** the PSA between Applicants MERALCO and SRPGC.

Other reliefs just and equitable under the circumstances are likewise prayed for.

Pasig City, 28 April 2016.

MANILA ELECTRIC COMPANY

Applicant

MERALCO Compound, Lopez Building,
Ortigas Avenue, Pasig City

By:



FRANCIS DINO S. ANTONIO

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PTR No. 1473407; 01/21/16; Pasig City

IBP No. 1023724; 01/08/16; RSM

MCLE Compliance No. V-0004608; 6 November 2014



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Roll of Attorneys No. 55945

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IBP No. 1023723; 01/08/16; RSM

MCLE Compliance No. V-0004623; 6 November 2014



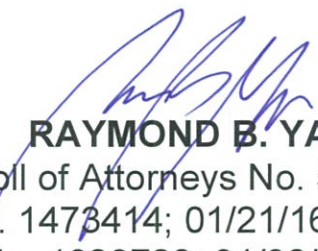
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MCLE Compliance No. V-0002588; 9 June 2014



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IBP No. 1023728; 01/08/16; CapiZ

MCLE Compliance No. V-001784; 26 March 2014

7th Floor, Lopez Building,
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Tel no. 1622-2260; Fax No: 1622-3550

Makati City for Pasig City, 26 April 2016.

ST. RAPHAEL POWER GENERATION CORPORATION
Applicant

PUYAT JACINTO & SANTOS

Counsel for Applicant

St. Raphael Power Generation Corporation

10F 8 Rockwell

Plaza corner Hidalgo Drive

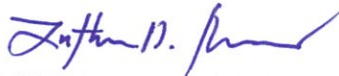
Rockwell Center, Makati City

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Fax No. (632) 810.0890

Email: pjs@pjslaw.com

By:



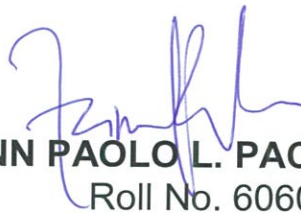
LUTHER D. RAMOS

Roll No. 50919

IBP No. LRN 09466/01-04-2011/Cagayan

PTR No. 5323313/01-04-2016/Makati City

MCLE Compliance No. IV-0018419/4-24-13³



ZANN PAOLO L. PACIFICADOR

Roll No. 60605

IBP LRN. 010901/Antique/14 Mar. 2012

PTR No. 5323327/01-04-2016/Makati City

MCLE Compliance No. V-0010059/8-26-15

³ Issuance of MCLE V Compliance No. in process.

REPUBLIC OF THE PHILIPPINES)
CITY OF PASIG)s.s.

VERIFICATION
AND CERTIFICATION OF NON-FORUM SHOPPING

I, **JOSE RONALD V. VALLES**, Filipino, of legal age, married, with office address at 7th Floor, Lopez Building, MERALCO Compound, Ortigas Avenue, Barangay Ugong, Pasig City, after being sworn in accordance with law, hereby depose and say that –

1. I am the Vice President and Head, Regulatory Affairs Office, of Applicant Manila Electric Company (“MERALCO”). In such capacity, I have caused the preparation and filing of the foregoing Application;

2. Moreover, I have been authorized by the Board of Directors of MERALCO to certify that Applicant has not heretofore filed any similar action, pleading or application involving the same issues before the Supreme Court, the Court of Appeals or any other lower courts or administrative bodies. A copy of the Secretary’s Certificate authorizing me to cause the preparation of the instant Application and sign this Verification and Certification is attached hereto as **ANNEX “Z”**;

3. I have read and understood the allegations contained therein and the same are true and correct based on my personal knowledge and authentic records made available to me in the ordinary course of business of MERALCO;

4. To the best of my knowledge, no similar action or proceeding is pending before the Supreme Court, the Court of Appeals, the lower courts or administrative bodies;

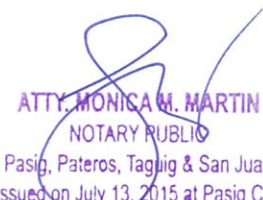
5. If I should hereafter learn that a similar action has been filed before the Supreme Court, the Court of Appeals, the lower courts or administrative bodies, I undertake to report such fact to this Honorable Commission within five (5) days from notice of such fact.

IN WITNESS WHEREOF, I have hereunto affixed my signature this APR 28 2016 at Pasig City, Philippines.


JOSE RONALD V. VALLES
Affiant

SUBSCRIBED and SWORN to before me this APR 28 2016, affiant having exhibited to me his Social Security System ID bearing the number 33-10900088.

Doc. No. 342 ;
Page No. 70 ;
Book No. IV ;
Series of 2016.


ATTY. MONICA M. MARTIN
NOTARY PUBLIC
Pasig, Pateros, Taguig & San Juan
Issued on July 13, 2015 at Pasig City
until December 31, 2016
Roll No. 55693; IBP No. 1023726; 01/08/16; RSM Chapter
PTR No. 1473411; 01/21/16; Pasig City
7th Floor, Lopez Bldg., Ortigas Ave., Pasig City

REPUBLIC OF THE PHILIPPINES)
MAKATI CITY) S.S.

**VERIFICATION AND CERTIFICATION
OF NON-FORUM SHOPPING**

I, **JOHN R. SADULLO**, Filipino, of legal age, and with office address at c/o 2/F DMCI Plaza, 2881, Don Chino Roces Avenue, Makati City, after having been sworn in accordance with law depose and state:

1. I am the Corporate Secretary and duly appointed attorney-in-fact of St. Raphael Power Generation Corporation ("SRPGC"), the Co-Applicant in this case.

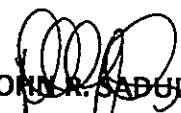
2. I caused the preparation of the foregoing Joint Application. I have read the allegations therein and certify that the same are true and correct of my own knowledge and belief and based on authentic documents made available to me in the ordinary course of business of SRPGC.

3. Moreover, I have been authorized by the Board of Directors of SRPGC to certify that Applicant has not heretofore filed any similar action, pleading or application involving the same issues before the Supreme Court, the Court of Appeals or any other lower courts or administrative bodies. A copy of the Secretary's Certificate authorizing me to cause the preparation of the instant Joint Application and sign this Verification and Certification is attached hereto.

4. To the best of my knowledge, SRPGC has not commenced any action or proceeding involving the same issues before any other tribunal or quasi-agency, and to the best of my knowledge, no such action or proceeding is pending involving the same issues and parties.

5. If I should hereafter learn that the same or similar petition or proceeding has been filed or is pending I undertake to promptly inform the Honorable Commission within five (5) days therefrom.

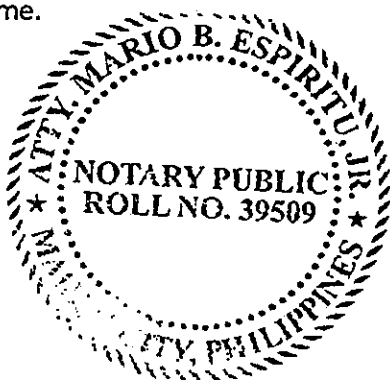
IN WITNESS WHEREOF, I have hereunto set my hand on APR 26 2016 in Makati City, Philippines

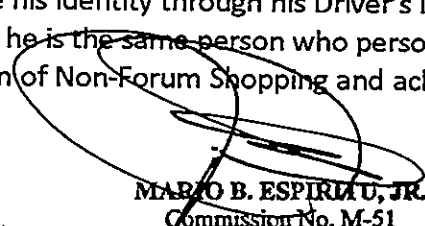

JOHN R. SADULLO
Affiant

APR 26 2016

SUBSCRIBED AND SWORN, to before me on this ____ day of April 2016, at Makati City, by John R. Sadullo who has satisfactorily proven to me his identity through his Driver's License with No. N01-02-005690 valid until July 22, 2017, and that he is the same person who personally signed before me the foregoing Verification and Certification of Non-Forum Shopping and acknowledged that he executed the same.

Doc No. 95;
Page No. 17;
Book No. XI;
Series of 2016.




MARIO B. ESPIRITU, JR.
Commission No. M-51
Notary Public for City of Makati
Until December 31, 2017
4th Floor MNP Bldg,
2283 Pasong Tama Ext. Makati City
PTR No. 0044466 01-06-16 Kawit, Cavite
IBP No. 1019453 01-04-16 Cavite Chapter
MCLE No. V-0010283 09-11-15
Roll No. 39509

POWER SUPPLY AGREEMENT

Between

MANILA ELECTRIC COMPANY

and

ST. RAPHAEL POWER GENERATION CORPORATION

April 26, 2016

an

Handwritten signatures and initials:
A large stylized signature at the top right.
A circular stamp or signature below it.
A cluster of initials and signatures at the bottom right, including what appears to be "Q", "1", "K", and "Q".

POWER SUPPLY AGREEMENT

This Power Supply Agreement (the "Agreement") is entered into as of April 26, 2016 by and between:

1. **Manila Electric Company** (hereinafter "**Meralco**"), a corporation duly organized and existing under the laws of the Republic of the Philippines, with its address at Ortigas Avenue, Pasig City, Metro Manila; and
2. **St. Raphael Power Generation Corporation** (hereinafter "**Power Supplier**"), a corporation duly organized and existing under the laws of the Republic of the Philippines, with principal office address at Brgy. Baclaran, Balayan, Batangas.

Each of the above-mentioned parties to this Agreement are referred to as a "**Party**," and together, the "**Parties**".

RECITALS

- A. Meralco is a Distribution Utility operating an electric power Distribution System (as defined below) in Metro Manila and the surrounding provinces on the island of Luzon in the Philippines by virtue of its legislative franchise under Republic Act No. 9209 (the "**Franchise**").
- B. Power Supplier shall own and operate an approximately 2 x 350 MW (rated) coal-fired power generating facility in Calaca, Batangas (the "**Plant**"), on the island of Luzon in the Philippines.
- C. Power Supplier wishes to sell to Meralco capacity and electrical output from the Plant on the terms and conditions contained herein.
- D. Meralco desires to purchase up to 400 MW of such capacity and associated energy from Power Supplier, under the terms and conditions contained herein.
- E. Meralco and Power Supplier desire to define in this Agreement their respective rights and obligations with respect to the sale and purchase of capacity and associated energy from the Plant and other related matters.

NOW, THEREFORE, in view of the foregoing and in consideration of the mutual covenants and agreements set out in this Agreement, the Parties hereby agree as follows:

Article 1 Definitions and Interpretation

1.1 Definitions

When used in this Agreement, the capitalized words, phrases and terms set out in this Article 1 shall have the following meanings:

Acceptable Bank has the meaning given to it in Section 4.1.

Acceptance Date means the date of written acceptance by Power Supplier of the ERC Final Approval in accordance with Article 13.2.3



Affiliate means, with respect to any Person, any other Person that directly or indirectly through one or more intermediaries, Controls, is Controlled by, or is under common Control with, such Person.

Agreement means this Power Supply Agreement, including its appendices, attachments, and schedules, as amended from time to time in accordance with this Agreement.

Associated Energy means the energy declared at the WESM as BCQ by Power Supplier for Meralco.

Available or Availability means that the Plant is capable of generating electricity whether or not it is actually generating electricity.

Bilateral Contract Quantity or BCQ refers to the quantity of electrical energy as declared by Power Supplier at the WESM for Meralco for any Trading Interval/s.

Benefits to Host Communities Charges means the financial benefits due to the host local government unit as mandated by the DOE's Energy Regulations 1-94.

Billing Period means: (i) each successive period ending on the twenty-fifth (25th) Day of each successive calendar month thereafter, and (ii) for the final Billing Period, the period starting immediately after the end of the next to last Billing Period of the Term to the last Day of the Term, or, if this Agreement is terminated earlier in accordance with the terms hereof, from the twenty-sixth (26th) Day of the calendar month preceding the calendar month in which this Agreement is terminated until the Day of termination; provided that, prior to the first Billing Period, each monthly period ending on the twenty-fifth (25th) Day of a calendar month shall be used for calculating and billing for any Commissioning Energy Charges accrued and Replacement Energy procured prior to the Commercial Operations Date; provided, however, that if the Market Operator imposes a mandatory change to the billing cycle of WESM that cannot be reconciled with the foregoing schedule, the Parties agree to revise the Billing Period under this Agreement to conform with such changed WESM billing cycle, so long as such revised Billing Period is commercially reasonable.

Business Day means any Day from Monday to Friday on which banking institutions are open for the transaction of business, excluding national holidays in the Philippines and local holidays in Pasig City or Makati City, as the context may require.

Capacity Payments has the meaning given to it in Appendix E.

Capacity Test Certificate means a certificate attesting to the results of the NDC Test, signed by a licensed engineer.

Change in Law means:

- (a) the adoption or enactment of any Law or Legal Requirement by any Governmental Instrumentality that was not in existence as of the date of this Agreement; or
- (b) any change in or repeal of any Law or Legal Requirement or the application, enforcement, interpretation or implementation thereof by a Governmental Instrumentality at any time after the date of this Agreement, including in respect of (a) and (b) the adoption or enactment, or any change or repeal with respect

to the imposition of taxes, duties, levies, fees, charges and similar imposts, and the right to remit or convert currencies, but in all cases excluding any Legal Requirement or the application or interpretation thereof in existence at such date which by its terms became effective after the date of this Agreement;

Change of Control means, with respect to Power Supplier, any direct or indirect sale and/or transfer of stock or membership interests, reorganization, merger, consolidation or other form of business transaction or series of business transactions, involving more than fifty percent (50%) of the voting interests of Power Supplier (or the reorganized, merged or consolidated entity's then outstanding voting interests) or any direct or indirect change in the power to direct or cause the direction of the management policies of Power Supplier.

Claim means, with respect to any Person, any and all suits, sanctions, legal proceedings, claims, assessments, judgments, damages, penalties, fines, liabilities, demands, reasonable out-of-pocket expenses of whatever kind and losses incurred or sustained by or against such Person.

Commencement Date has the meaning given to it in Section 3.2.

Commercial Operations means the generation of electricity for sale or disposition upon achievement by the generation facility of certain operational and capability criteria in accordance with standard engineering practice for generation facilities.

Commercial Operations Date means Commercial Operations Date (Unit 1) and/or Commercial Operations Date (Unit 2).

Commercial Operations Date (Unit 1) means the date that the conditions set out in Section 3.4.1(a) (other than the Commercial Operations Date Certificate) have been satisfied and that the first unit of the Plant shall have consequently entered into Commercial Operations.

Commercial Operations Date (Unit 2) means the date that the conditions set out in Section 3.4.1(b) (other than the Commercial Operations Date Certificate) have been satisfied and that the second unit the Plant shall have consequently entered into Commercial Operations.

Commercial Operations Date Certificate means a certificate signed by a licensed engineer, attesting to the occurrence of the Commercial Operations Date.

Commissioning means the act of putting the Plant into operation after the completion of the construction and erection works prior to the Commercial Operations Date.

Commissioning Energy has the meaning given to it in Section 3.6.

Commissioning Energy Charge has the meaning given to it in Section 3.6

Confidential Information has the meaning given to it in Section 21.4.

Connection Agreement means the Connection Agreement executed or to be executed and in effect from time to time between Power Supplier and NGCP.

Connection Charges means the fees, charges and other amounts assessed by the Transmission Service Provider as approved by the ERC.

Contract Capacity shall be initially set at 200 MW upon the Operations Effective Date (Unit 1) and shall increase to 400 MW upon the Operations Effective Date (Unit 2), subject to Article 9.

Contract Year means:

- (a) for the first (1st) Contract Year, the period commencing from the Operations Effective Date (Unit 1) and ending on the last Day of the fourth successive Billing Period therefrom.
- (b) thereafter, each successive period consisting of twelve (12) Billing Periods, provided that the final Contract Year shall end on the last Day of the Term.

Control shall mean, in respect of any company or corporation, the ownership (whether directly or indirectly) of more than fifty percent (50%) of the total issued voting share capital of that company or corporation, or the ability to otherwise direct the business and affairs of that company or corporation or the ability to appoint a majority of the members of the board of directors or similar corporate body or bodies of that company or corporation through the ownership of securities with voting power or otherwise, and the terms Controls and Controlled shall have correlative meanings.

Coordinating Committee means the committee established pursuant to Section 7.1.5.

Day means a 24-hour period beginning 0000H and ending at 2400H Philippine time. Unless expressly stated otherwise, a Day shall refer to a calendar day.

Delay Limit Date means the date one hundred twenty (120) Days after the Operations Effective Date, subject to any adjustment for each Day of relief afforded to Power Supplier in accordance with Section 17.6.2.

Delivery Point means the high side of the Plant's step-up transformer in the Plant switchyard.

Direct Agreement means an agreement among Meralco, Power Supplier, and Finance Parties (or their appointed trustee) regarding the terms and relative rights of such parties in connection with collateral assignment of this Agreement.

Dispatch and Dispatch Instructions means the instructions issued by the System Operator to Power Supplier to schedule and control the generation of electricity by the Plant in order to increase or decrease the electrical energy generated by the Plant.

Dispute has the meaning given to it in Section 19.1.

Distribution Code means the Philippine Distribution Code adopted by the ERC under ERC Resolution No. 115, for the operation, maintenance and development of the Distribution Systems, including amendments, modifications, exclusions, replacements or re-enactments thereof, as the case may be, and all other sets of rules, requirements, procedures and standards governing Distribution Utilities in the Philippines.

Distribution Systems means the system of wires and associated facilities belonging to a franchised distribution utility extending between delivery points on the Philippine Grid or from the generator connection to the point of connection at the premises of the end-user.

DOE means the Department of Energy of the Philippines.

Downgrade Event shall have the meaning given to it in Section 4.4.

Effective Date has the meaning given to it in Section 3.1.

Electrical Interconnection Facilities means the switchyard adjacent to the Plant and the associated protective relaying, metering, control, data acquisition and communications facilities required to integrate the operation and control of the Plant with that of the Luzon Grid.

Energy Imbalance Fees means the ex-post settlement fees, charges or other similar amounts assessed by the Market Operator on Power Supplier in relation to trading imbalances, in accordance with the WESM Rules.

Energy Payments has the meaning given to it in Appendix E.

Environmental Law means any applicable national, provincial, municipal Legal Requirement or other Legal Requirement governing or relating to (i) the environment, (ii) releases or threatened releases of Hazardous Materials, including without limitation investigations, monitoring and abatement of such releases, and (iii) the manufacture, handling, transport, use, treatment, storage or disposal of Hazardous Materials or materials containing Hazardous Materials.

Equity Interests in the Power Supplier means, at any date, the ownership rights as shareholders of the Power Supplier.

Equity Transfer Procedures means procedures to be agreed between holders of Equity Interests in the Power Supplier, Meralco, and the Finance Parties in respect of the creation, maintenance and execution of Meralco's rights or obligations to acquire Equity Interests in the Power Supplier under Section 17.3 without creating recourse obligations of such holders and while protecting the Finance Parties' security interests in the Equity Interests of the Power Supplier and the Plant.

EPIRA means Republic Act No. 9136, otherwise known as "The Electric Power Industry Reform Act of 2001".

ERC means the Energy Regulatory Commission of the Philippines or any successor Governmental Instrumentality.

ERC Application has the meaning given to it in Section 13.1.

ERC Conditional Approval has the meaning given to it in Section 13.2.4.

ERC Final Approval means the final approval of the ERC of this Agreement (including the Price).

Event of Default means a Power Supplier Event of Default or a Meralco Event of Default, as the context may require.

Event of Force Majeure has the meaning given to it in Article 16.

Final Invoice has the meaning given to it in Appendix H.

Finance Documents means the agreements for the making available of any loan, credit facility, notes (including floating rate notes and commercial paper), bonds, subordinated debt or other funds other than equity or equity-related funds and including working capital and any letters of credit (and related agreements), security agreements, swap agreements, any other hedging agreements, and any other documents, relating to the financing or refinancing of the development, construction, acquisition, ownership, operation and maintenance of the Plant.

Finance Parties means the creditors and their representatives which are parties to the Finance Documents.

Forced Outage means (a) any interruption of the Plant's generating capability resulting in an unplanned reduction or suspension of the electrical output from a Unit or the Plant and/or unavailability of capacity in whole or in part from the Plant; (b) any automatic shutdown of any part of the Plant; and (c) any other unavailability of the Plant for operation, in whole or in part, for maintenance and/or repair, and in each of (a), (b) or (c), that is not a Scheduled Outage and not the result of an Event of Force Majeure or the circumstances described in Section 17.5, and that affects the Plant's ability to generate and export all or any portion of the Contract Capacity or Associated Energy.

Franchise shall have the meaning given to it in the Recitals.

Full Load Equivalent Days has the meaning given to it in Appendix E.

Full Load Equivalent Force Majeure Days Taken means an Event of Force Majeure that results in (a) any interruption of the Plant's generating capability resulting in an unplanned reduction or suspension of the electrical output from a Unit or the Plant and/or unavailability of capacity in whole or in part from the Plant; (b) any automatic shutdown of any part of the Plant; or (c) any other unavailability of the Plant for operation, and in each of (a), (b) and (c), stated on a full load equivalent basis. By way of example but not by way of limitation, a Full Load Equivalent Force Majeure Day Taken is the equivalent of (i) the Contract Capacity of Plant being unavailable for one (1) Day due to an Event of Force Majeure, or (ii) one-half of the Contract Capacity of the Plant being unavailable for two (2) Days due to an Event of Force Majeure.

Full Load Equivalent Outage Allowance Days has the meaning given to it in Section 8.1.1. By way of example but not by way of limitation, a Full Load Equivalent Outage Allowance Day is the equivalent of (a) the Contract Capacity of Plant being unavailable for one (1) Day due to an Outage, or (b) one-half of the Contract Capacity of the Plant being unavailable for two (2) Days due to an Outage. A sample calculation of Full Load Equivalent Outage Days is set forth in Appendix E.

Full Load Equivalent Outage Days Taken means a full or partial Outage taken by Power Supplier during a Billing Period stated on a full load equivalent basis. A sample calculation of Full Load Equivalent Outage Days Taken is set forth in Appendix E.

Government means the government of the Philippines.

Governmental Authorizations means all authorizations, consents, decrees, permits, waivers, privileges and approvals from and filings with all Governmental Instrumentalities necessary for the execution and performance of this Agreement.

Governmental Instrumentality means the Government or any ministry, department, agency, bureau, commission, judicial, quasi-judicial or administrative body, or political subdivision thereof, and any state-owned company, in each case within the Philippines.

Grid Code means the Philippine Grid Code adopted by the ERC under ERC Resolution No. 115 for the operation of the Philippine Grid, including amendments, modifications, exclusions, replacements or re-enactments thereof, as the case may be, and all other rules adopted by the ERC or other Governmental Instrumentality for the operation of the Philippine Grid.

Grid Management Committee or "GMC" means the committee established under the Grid Code.

Guaranteed Net Plant Heat Rate or "GNPHR" has the meaning given to it in Appendix E.

Hazardous Materials means any petroleum or petroleum products, radioactive materials, asbestos in any form that is or could become friable, urea formaldehyde foam insulation, and transformers or other equipment that contain dielectric fluid containing polychlorinated biphenyls and any other chemical, material, substance or any of their derivatives, which by its nature or concentration or quantity, either directly or indirectly, can pollute and/or harm the environment, health, the perpetuation of livelihood of human and other living creatures, and are now or hereafter become defined as or included in the definition of "hazardous substances", "hazardous wastes", "hazardous materials", "extremely hazardous wastes", "toxic substances" or "toxic pollutants" under, or are regulated or become regulated as such, by Environmental Laws or in the regulations promulgated pursuant to said Laws.

Increased Charges has the meaning given to it in Section 11.2.

Invoice has the meaning given to it in Appendix H.

Laws means any decree, resolution, law, statute, act, ordinance, rule, rulings, direction, order, treaty, code or regulation (including any of the foregoing relating to health or safety matters or any Environmental Law) or any interpretation of the foregoing, as enacted, issued or promulgated by any Governmental Instrumentality, including amendments, modifications, exclusions, replacements or re-enactments thereof.

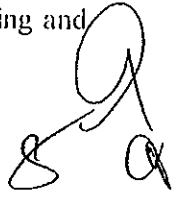
Legal Requirements means all Laws, Governmental Authorizations and other licenses, permits, approvals and agreements and any injunction or final judgment directly applicable to the relevant Party of any Governmental Instrumentality having jurisdiction over the matter in question.

Longstop Date means the date falling six (6) months from the filing of the ERC Application by both parties.

Luzon Grid means the high voltage backbone system of interconnected transmission lines, substations, and related facilities located in Luzon, Philippines for the purpose of conveyance of bulk power forming part of the Philippine Grid.

Major Maintenance means any maintenance work involving a major component of the Plant, such as the turbine, generator, and boiler.

Market Operator means the person or entity in its role as such tasked with operating and administering the WESM in accordance with the WESM Rules.

7   

Meralco has the meaning given to it in the first paragraph of this Agreement, and its permitted successors and assigns.

Meralco Event of Default means the events specified in Section 17.2

Meralco Parties has the meaning given to it in Section 15.1.1.

Metering Service Agreement means the Metering Service Agreement executed or to be executed and in effect from time to time between Power Supplier and the Metering Services Provider.

Metering Services Provider means the person or entity authorized by the ERC to provide metering services subject to compliance requirements under existing ERC regulations and WESM Rules.

MW means MegaWatts.

MWh means MegaWatt-hours.

NDC Test has the meaning given to it in Section 7.4.1.

Net Dependable Capacity or NDC means the capacity of the Plant net of the station service as determined during the most recent NDC Test.

Net Plant Heat Rate Test has the meaning given to it in Section 7.4.2.

Net Plant Heat Rate Test Certificate means a certificate attesting to the results of the Net Plant Heat Rate Test signed by a licensed engineer.

New Charges has the meaning given to it in Section 11.2.

NGCP means National Grid Corporation of the Philippines (or its successor in interest as System Operator, Transmission Services Provider or Metering Services Provider).

Non-Defaulting Party has the meaning given to it in Section 17.7.2

Non-Firm Price has the meaning given to it in Appendix E.

OATS Rules means the "Rules, Terms and Conditions for the Provision of Open Access Transmission Service", as adopted by the ERC pursuant to ERC Case No. 2006-015RC, including amendments, modifications, exclusions, replacements or re-enactments thereof, as the case may be.

Obligations to Finance Parties means, at any date, the total unpaid principal amount owed by the Power Supplier to the Finance Parties under the Finance Documents and accrued and unpaid interest (including default interest) thereon plus any winding-up costs, prepayment charges, or similar charges or costs for which the Power Supplier is responsible under the Finance Documents.

Operating Procedures means the procedures set out in Appendix G.

Operations Effective Date means Operations Effective Date (Unit 1) and/or Operations Effective Date (Unit 2).

Operations Effective Date (Unit 1) has the meaning given to it in Section 3.3.1.

Operations Effective Date (Unit 2) has the meaning given to it in Section 3.3.1.

Outage means a Forced Outage and/or a Scheduled Outage.

Payment Date has the meaning given to it in Appendix H.

PDST-R2 means the Philippine Dealing System Treasury Reference Rate for a term equivalent to three months, or if there is no equivalent term, the next longest term closest to three months, as posted or displayed at 1700H (Manila time) on the relevant page of the website of the Philippine Dealing and Exchange Corp.; provided, that if the rate, page or website is not available on the relevant date, the applicable rate shall be the last rate posted or displayed on such page before the rate, page or website became unavailable; provided further, that if the page or website ceases to be available, the applicable rate shall be that rate posted or displayed on such page, website or other relevant service to be agreed upon by the Parties.

Performance Security has the meaning given to it in Section 4.1.

Person means any individual, corporation, partnership, association, joint stock company, unincorporated organization, joint venture or Governmental Instrumentality.

Pesos or PHP means the lawful currency of the Philippines.

Philippines means the Republic of the Philippines.

Philippine Grid means the high voltage backbone system of interconnected transmission lines, substations, and related facilities located in the Philippines for the purpose of conveyance of bulk power.

Plant has the meaning given to it in the recitals of this Agreement, as more particularly described in Appendix A.

Power Supplier has the meaning given to it in the first paragraph of this Agreement, and its permitted successors and assigns.

Power Supplier Event of Default means the events specified in Section 17.1.

Power Supplier Parties has the meaning given to it in Section 15.1.1.

Price means the terms upon which the amounts to be paid by Meralco to Power Supplier for the purchase of Contract Capacity and Associated Energy pursuant to this Agreement as provided in Appendix E are calculated, including any indexation thereof and all adjustments and modifications thereto.

Proportionate P_{min} means the ratio of the Net Dependable Capacity to the Contract Capacity multiplied by the aggregate P_{min} of the Plant's generating unit/s online, as registered in the WESM.

Prudent Operating Practices means, at a particular time, those practices, methods and acts that are in accordance with standards of prudence applicable to the international coal-fired electric utility industry which would have been expected to accomplish the desired result consistent with reliability, safety, environmental protection and expedition.

Relevant Operating Regulations means (i) EPIRA; (ii) the WESM Rules; (iii) the OATS Rules; (iv) the Grid Code; (v) the Distribution Code; and (vi) all ERC rules and regulations applicable to this Agreement.

Relevant Permits means: (i) Power Supplier's certificate of compliance as a generation company issued by the ERC; and (ii) Meralco's legislative franchise and administrative certificate of public convenience and necessity as a distribution utility.

Replacement Energy means the electric energy procured by the Power Supplier or Meralco, as the case may be, from the WESM or third parties not exceeding the Contract Capacity during any Trading Interval for delivery to Meralco under the terms and conditions of this Agreement.

Rules has the meaning given to it in Section 19.2.1.

Scheduled Outage means a removal of the Plant or any portion thereof from service initiated by Power Supplier for regular scheduled inspection, testing, preventive maintenance, corrective maintenance, repairs, replacement or improvement, including Major Maintenance, that has been scheduled in accordance with Section 8.3.

Scheduled Outage Period means the schedule of Scheduled Outages for a Contract Year in accordance with Article 8, as such schedule of Scheduled Outages may be revised from time to time with System Operator's approval.

Security Amount has the meaning given to it in Section 4.1.

Site means the land on which the Plant is located, as described in Appendix A.

System Emergency means any unforeseeable condition affecting the System (as defined in the Grid Code), which may cause (i) the disconnection of the Plant from the Luzon grid or any disruption in the supply of electric energy from the Plant for reasons other than a Forced Outage, or (ii) suspension of electric energy off-take from Power Supplier in order to prevent or avoid significant disruption of service to Meralco or danger to life or property.

System Operator means the entity responsible under the WESM Rules in its role as such for generation dispatch, the provision of ancillary services, and the operation and control of the Philippine Grid to ensure its safety, power quality, stability, reliability and security.

Target Full Load Equivalent Days of Availability has the meaning given to it in Appendix E.

Technical Limits means the limits and constraints relating to the operation, maintenance and dispatch of the Plant described in Appendix B.

Term has the meaning given to it in Section 2.2.2.

Termination Notice has the meaning given to it in Section 17.4(a).

Termination Notice Dispute has the meaning given to it in Section 17.4(c).

Trading Interval has the meaning given to it in the WESM Rules.

Transfer has the meaning given to it in Section 9.1.

Transmission Failure means the inability of the transmission system to transmit the full or portion of the capacity of the Plant.

Transmission Service Agreement means the Transmission Service Agreement executed or to be executed and in effect from time to time between Power Supplier and NGCP.

Transmission Services Provider means NGCP in its role as operator of the Philippine Grid.

Tribunal has the meaning given to it in Section 19.2.1.

Unit means each of the power units of the Plant, together with such Unit's associated facilities.

Unit 1 means the first unit of the Plant to achieve Commercial Operations.

Unit 2 means the second unit of the Plant to achieve Commercial Operations.

USD\$ means the lawful currency of the United States of America.

WESM means the Wholesale Electricity Spot Market established by the DOE under DOE Circular No. 2006-06-008 pursuant to Section 30 of the EPIRA.

WESM Differential has the meaning given to it under Section 3.4.2.

WESM Market Fees means the charges imposed on Power Supplier by the Market Operator, as approved by the ERC.

WESM Rules means the rules promulgated by the DOE under Department Circular No. 2002-006-003 pursuant to Section 30 of the EPIRA, including amendments, modifications, exclusions, replacements or re-enactments thereof, as the case may be, that establish the basic rules, requirements, procedures and standards that govern the operation of the Philippine electricity market.

1.2 Interpretation

In this Agreement, unless otherwise specified:

1.2.1 references to "Meralco" mean references to Meralco's Distribution Utility business segment and its successors and assigns;

1.2.2 any actions, occurrences, events and omissions (including without limitation any Events of Default and Events of Force Majeure) shall be considered as separate, distinct and independent of any actions, occurrences, events and omissions (including without limitation any Events of Default and Events of Force Majeure) under any other agreement for the supply of power between Meralco and Power Supplier;

1.2.3 the table of contents and the headings are inserted for convenience only and do not affect the interpretation of this Agreement;

- 1.2.4 references to Articles, Sections, sub-Sections, Appendices and Schedules are to articles, Sections and sub-Sections of, and Appendices and Schedules to, this Agreement, and references in an Appendix or a Schedule to a paragraph or an attachment are to a paragraph of or an attachment to that Appendix or Schedule;
- 1.2.5 references to this Agreement or any other document are to that document as from time to time amended, varied, added to, substituted, renewed, extended, restated, novated or replaced;
- 1.2.6 a reference to any agreement is a reference to that agreement as amended;
- 1.2.7 references to any Law includes any subordinate legislation made under it;
- 1.2.8 a reference to any Law shall be construed as a reference to the Law as amended, modified, supplemented, consolidated or replaced from time to time; -
- 1.2.9 references to time are to Philippine time;
- 1.2.10 references to "the date of this Agreement" is a reference to the date of this Agreement as shown in the Preamble of this Agreement.
- 1.2.11 if any amount payable under this Agreement falls due on a date that is not a Business Day, payment shall be made on the next succeeding Business Day;
- 1.2.12 the word "including" shall not limit the generality of any preceding words or be construed as being limited to the same class as the preceding words where a wider construction is possible;
- 1.2.13 the singular includes the plural and vice versa, and without limiting the generality of the foregoing, any word or expression defined in the singular has the corresponding meaning used in the plural and vice versa;
- 1.2.14 a reference to any gender includes the other genders; and
- 1.2.15 a reference to writing includes printing, typing, lithography and other means of reproducing words in a visible form.

Article 2 Purpose; Term

2.1 Purpose

The purpose of this Agreement is to set out the rights and obligations of each Party with regard to the sale and purchase of Contract Capacity and Associated Energy of the Plant.

2.2 Term of Agreement

- 2.2.1 Subject to Article 3, this Agreement shall become effective on the Effective Date.
- 2.2.2 The term of this Agreement (the "Term") shall commence on the Operations Effective Date (Unit 1) and shall expire on the date falling twenty (20) years and four (4) months thereafter, unless terminated earlier in accordance with the terms of this Agreement or extended by the application of Section 2.2.3 or Section 16.3.3.

- 2.2.3 After the eighteenth (18th) anniversary, but no later than the nineteenth (19th) anniversary, of the Operations Effective Date (Unit 1), the Parties shall enter into good faith negotiations to decide on whether to extend the Term; provided that any extension of the Term shall be for an additional five (5) years; provided further that, except for the Term, the same terms and conditions of this Agreement shall govern the extension. The duration of the negotiations for extension shall not exceed ninety (90) Days from the start thereof.

Article 3 Conditions Precedent, Effective Date, Commencement Date and Operations Effective Date

3.1 Effective Date

The Effective Date shall be the date the following conditions precedent have been satisfied or waived by the relevant Party (the "**Effective Date**"): -

- (a) Each of the Parties shall have received from the other Party evidence confirming the other Party's corporate approvals for the execution, delivery and performance of this Agreement.
- (b) Power Supplier has received from Meralco the documents and evidence set forth in Part 2 of Appendix C.
- (c) Meralco has received from Power Supplier the documents and evidence set forth in Part 1 of Appendix C.

Subject to Section 3.2, the Parties' rights and obligations shall commence as of the Effective Date.

The representations and warranties of Power Supplier and Meralco contained herein shall be true and correct in all material respects on and as of date of the execution of this Agreement, the Effective Date, the Commencement Date, each of the Operations Effective Date and each of the Commercial Operations Date.

For the avoidance of doubt, notwithstanding the preceding sentences of this Section 3.1, the provisions of Section 13.1, Article 16, Article 17, Article 18, Article 19 and Article 20, and Article 21 shall be effective from the date of execution of this Agreement.

Within seven (7) Days after the satisfaction of the conditions referred to in Section 3.1, Meralco and Power Supplier shall issue a joint certification confirming that the Effective Date has occurred.

3.2 Commencement Date

The "**Commencement Date**" shall occur upon the satisfaction of the conditions below:

- (a) The conditions set out in Section 3.1 have been fulfilled;
- (b) Each Party has delivered to the other Party a certification dated no earlier than two (2) Days prior to the proposed Commencement Date to the effect that its

representations and warranties contained herein shall be true and correct in all material respects on and as of the Commencement Date;

- (c) On or before the Longstop Date, the ERC shall have approved in the ERC Final Approval, this Agreement, including the pricing structure as set out herein (or as otherwise acceptable to Power Supplier); and
- (d) The Acceptance Date has occurred.

Within seven (7) Days after the satisfaction of the conditions referred to in this Section 3.2, Meralco and Power Supplier shall issue a joint certification confirming that the Commencement Date has occurred.

3.3 Operations Effective Date

3.3.1 The Operations Effective Date shall occur on the twenty-sixth (26th) Day of the fifty-second (52nd) month from the Commencement Date for Unit 1 (the "Operations Effective Date (Unit 1)") and four (4) months thereafter for Unit 2 (the "Operations Effective Date (Unit 2)") (or collectively, "Operations Effective Date").

3.3.2 Following occurrence of the Operations Effective Date (as contemplated in Section 3.3.1, Section 3.5.2(a) or Section 3.5.6, as applicable), the obligations of Power Supplier and Meralco under this Agreement with respect to sale and purchase of Contract Capacity and Associated Energy, and Replacement Energy, shall become effective.

3.4 Commercial Operations Date

3.4.1 The Plant shall achieve Commercial Operations Date upon delivery by Power Supplier of the documents enumerated below, in form and substance satisfactory to Meralco:

- (a) in respect of Unit 1, Power Supplier shall submit to Meralco the following documents:
 - (i) Capacity Test Certificate dated no earlier than fifteen (15) Days prior to the date of the Commercial Operations Date Certificate confirming a value of the Net Dependable Capacity of the Plant;
 - (ii) a Net Plant Heat Rate Test Certificate dated no earlier than fifteen (15) Days prior to the date of the Commercial Operations Date Certificate;
 - (iii) all permits, licenses, authorizations and other approvals from all Government Authorities and third parties needed for the operation of the Plant and the supply of electricity by the Power Supplier to Meralco, including but not limited to, the certificate of compliance of the Power Supplier as a generation company issued by the ERC, its registration as a member of the WESM and evidence of its execution of a Market

Participation Agreement with the Philippine Electricity Market Corporation, have been obtained as certified by Power Supplier;

- (iv) a Commercial Operations Date Certificate; and
 - (v) Power Supplier certification that the insurances required under this Agreement relevant for at least the first Contract Year have been obtained, as certified by Power Supplier's insurance advisor or broker.
- (b) in respect of Unit 2, Power Supplier shall submit to Meralco the following documents:
- (i) Capacity Test Certificate dated no earlier than fifteen (15) Days prior to the date of the Commercial Operations Date Certificate confirming a value of the Net Dependable Capacity of the Plant;
 - (ii) a Net Plant Heat Rate Test Certificate dated no earlier than fifteen (15) Days prior to the date of the Commercial Operations Date Certificate;
 - (iii) all permits, licenses, authorizations and other approvals from all Government Authorities and third parties needed for the operation of the Plant and the supply of electricity by the Power Supplier to Meralco, including but not limited to, the certificate of compliance of the Power Supplier as a generation company issued by the ERC, its registration as a member of the WESM and evidence of its execution of a Market Participation Agreement with the Philippine Electricity Market Corporation, have been obtained as certified by Power Supplier;
 - (iv) a Commercial Operations Date Certificate; and
 - (v) Power Supplier certification that the insurances required under this Agreement relevant for at least the first Contract Year have been obtained, as certified by Power Supplier's insurance advisor or broker.

3.4.2 If the Commercial Operations Date has not occurred by the Operations Effective Date, Power Supplier shall provide Replacement Energy at the Price until the Delay Limit Date, subject to Section 17.6.2. For the avoidance of doubt, Power Supplier shall not be entitled to any Outage during this period. If Power Supplier fails to provide Replacement Energy, Power Supplier shall be liable to pay Meralco the amount equivalent to the difference between (i) the WESM cost of the Replacement Energy and (ii) the amount Meralco would have paid for the Replacement Energy had it been paid at the Price (the "WESM Differential"). For the avoidance of doubt, if the WESM Differential is a negative number, Meralco shall have no liability whatsoever to Power Supplier.

3.4.3 After Meralco receives the provisional invoice from the WESM that includes the WESM Differential, Meralco shall be entitled to invoice Power Supplier for payment of the WESM Differential. Power Supplier shall pay the WESM Differential within five (5) Days from receipt of such invoice, provided that Parties shall settle any difference within five (5) Days from receipt of the final invoice from the WESM.

- 3.4.4 In the event Power Supplier fails to pay Meralco the WESM Differential within the period stated in Section 3.4.3, Meralco shall be entitled to draw on the Performance Security, subject to the obligation of Power Supplier to replenish the Performance Security in accordance with Section 4.6.
- 3.5. **Early Occurrence of the Commercial Operations Date**
- 3.5.1 In the event that Power Supplier achieves Commercial Operations Date prior to the occurrence of the Operations Effective Date, Power Supplier shall promptly deliver to Meralco written notice thereof on or before the Commercial Operations Date, which may contain a request for early occurrence of the Operations Effective Date and the intended Operations Effective Date.
- 3.5.2 Within ten (10) Days from receipt of such written notice, Meralco shall, by written notice:
- (a) Inform Power Supplier that it agrees to the early occurrence of Operations Effective Date and the revised Operations Effective Date; or
 - (b) Elect to have Power Supplier deliver, on a non-firm basis until the occurrence of the Operations Effective Date, such portion of the Contract Capacity and Associated Energy required by Meralco, for which it shall pay the Non-Firm Price.
- 3.5.3 In the event that Meralco elects the option under Section 3.5.2(b), the Parties understand and agree that Power Supplier shall be free to sell the Contract Capacity and Associated Energy to the WESM or to any third party during such period.
- 3.5.4 Notwithstanding Section 3.5.3, from and after the Commercial Operations Date and subject to the execution of the nomination protocol by the Parties, (i) Power Supplier shall provide information on its available and uncontracted Contract Capacity and Associated Energy; and (ii) Meralco may respond with its binding nominations. Power Supplier shall declare Meralco's nomination as BCQ for Meralco, and Meralco shall pay the Non-Firm Price therefor.
- 3.5.5 Notwithstanding Section 3.5.4, in the event that Power Supplier achieves Commercial Operations Date prior to the occurrence of the Operations Effective Date and (i) any of Meralco's power suppliers suffers a forced outage and (ii) Power Supplier has available Contract Capacity and Associated Energy that has not been contracted under bilateral power sales agreements, Meralco shall have priority over such uncontracted Contract Capacity and Associated Energy. Meralco shall be entitled to nominate its energy requirements (by stating the capacity required for each Trading Interval of such Day and the estimated duration of such outage) by giving notice at least two (2) hours prior to the first Trading Interval in which such energy requirements are needed, for which Meralco shall pay the Non-Firm Price. In the event that Power Supplier would be unable to declare as BCQ Meralco's energy requirements during the first Trading Interval, Power Supplier shall inform Meralco of the earliest Trading Interval during which Power Supplier is able to commence BCQ declarations. *provided that* such Trading Interval shall not be more than four (4) hours from the first Trading Interval requested by Meralco.

- 3.5.6 Although Meralco has not elected the option under Section 3.5.2(a) at the first instance, Meralco may still be entitled to exercise the option under Section 3.5.2(a) upon the giving of written notice to Power Supplier, and subject to the agreement by Power Supplier, at least five (5) Days prior to the intended Operations Effective Date.

3.6 Commissioning

During Commissioning prior to the Commercial Operations Date, Power Supplier may sell, and Meralco may purchase, the electrical energy quantities in MWh generated by the Plant (the "**Commissioning Energy**") at the times and at dispatch levels which are necessary for proper, efficient, and timely testing and commissioning of the Plant. Such purchases shall be on a take-and-pay basis and at a rate equivalent to the actual landed fuel cost plus the Monthly Variable O&M Payment plus any value-added tax and any other applicable taxes, fees and charges (the "**Commissioning Energy Charge**") calculated in accordance with Appendix E.

Article 4 Performance Security

- 4.1 Power Supplier shall, within fifteen (15) Days from the Acceptance Date, deliver to Meralco one or more security (each, a "**Performance Security**") in an aggregate amount equivalent to Nine Hundred Sixty Million Pesos (PHP960,000,000.00) (the "**Security Amount**"). Each Performance Security shall (i) be an irrevocable stand-by letter of credit or bank guarantee in the form customarily issued by an Acceptable Bank, (ii) at the time of issuance thereof, be issued by an Acceptable Bank, and (iii) have a face value, when aggregated with the other Performance Securities, equivalent to not less than the Security Amount.

As used herein, "**Acceptable Bank**" means a domestic bank that is not an Affiliate of Power Supplier and is included in the list of banks agreed between the Parties, provided that, as of the date of the execution of this Agreement, the initial list of Acceptable Banks shall be as follows: (i) Bank of the Philippine Islands, (ii) BDO Unibank Inc., (iii) China Banking Corporation, (iv) Metropolitan Bank and Trust Company, (v) Philippine National Bank, (vi) Rizal Commercial Banking Corporation, and (vii) Security Bank Corporation.

- 4.2 Within sixty (60) Days from each anniversary of the Acceptance Date, the Parties shall meet to review the list of Acceptable Banks and mutually agree on the list of Acceptable Banks from which any amended or replacement Performance Security shall be procured.
- 4.3 If a Performance Security is subject, pursuant to its terms, to a fixed expiry date, Power Supplier shall, not less than ten (10) Days prior to such expiry date, amend or replace the Performance Security with a duly-executed amended or replacement Performance Security, compliant with the requirements under Section 4.1 of this Agreement.
- 4.4 If, at any time, a Downgrade Event occurs in respect of the issuing bank of the Performance Security or the issuing bank ceases to be an Acceptable Bank, Power Supplier shall procure a replacement Performance Security from another Acceptable Bank within thirty (30) Days of the occurrence of the Downgrade Event. For this purpose, "**Downgrade Event**" means that the Acceptable Bank's total equity as

reported in the latest quarterly published Balance Sheet/Statement of Condition submitted to the *Bangko Sentral ng Pilipinas* falls below PHP 40 billion.

- 4.5 Each Performance Security shall stand as security for the faithful and proper compliance by Power Supplier of its obligations under this Agreement and shall be procured and maintained by Power Supplier until Commercial Operations Date (Unit 2) of the Plant.
- 4.6 If any amounts are drawn from the Performance Security by Meralco in accordance with Section 3.4.4, Power Supplier shall, on or before the date that is three (3) Days after the draw, deliver an additional irrevocable stand-by letter of credit or bank guarantee in an amount equivalent to the amount drawn by Meralco, to restore the amount of the Performance Security to the Security Amount, provided that if the third Day falls on a non-Business Day, Power Supplier shall have the immediately succeeding Business Day to provide the additional irrevocable stand-by letter of credit or bank guarantee.
- 4.7 Within thirty (30) Days after the Commercial Operations Date (Unit 2), Meralco shall return to Power Supplier the Performance Security less any amount properly due and owing from Power Supplier to Meralco under this Agreement. For the avoidance of doubt, any breach by Power Supplier of its obligation under this Agreement following the release of the Performance Security shall be governed by Article 17.
- 4.8 Meralco may draw the entire amount of the Performance Security and hold the proceeds in trust as cash collateral if Power Supplier fails to procure a replacement Performance Security within the time required under Sections 4.3 and 4.4 above.

Article 5 Sale and Purchase of Contract Capacity and Associated Energy

5.1 Supply of Power

Subject to the terms and conditions of this Agreement:

- 5.1.1 From the Operations Effective Date until the expiration or earlier termination of this Agreement, Power Supplier shall:
 - (a) make available to Meralco, and Meralco shall purchase from Power Supplier, at the Price determined in accordance with Appendix E, the Contract Capacity of the Plant; and
 - (b) sell to Meralco, and Meralco shall purchase from Power Supplier, at the Price determined in accordance with Appendix E, the Associated Energy, to the extent of Meralco's relevant day-ahead nominations.
- 5.1.2 Unless otherwise expressly permitted by this Agreement, Power Supplier shall not, without Meralco's prior written consent:
 - (a) sell, divert, grant, transfer, dedicate, reserve or assign all or any portion of the Contract Capacity and Associated Energy to any Person other than Meralco; or

- (b) provide Meralco with capacity and/or electrical energy from any source other than the Plant.

5.1.3 In the event that Meralco nominates BCQ above the proportionate Pmin but below the Contract Capacity, Power Supplier may sell the difference between the nominated capacity and the Contract Capacity to the WESM.

5.1.4 The supply of the Contract Capacity and Associated Energy by Power Supplier to Meralco shall be in accordance with WESM Rules. Moreover, each Party shall, during the Term, always keep and maintain its registration as Direct WESM Member Trading Participant.

5.1.5 Power Supplier shall source its supply for Meralco from the Plant except (i) for the period from Operations Effective Date until Commercial Operations Date; and (ii) during Outages (x) in excess of the Full Load Equivalent Outage Allowance Days or (y) when Power Supplier opts not to utilize its Full Load Equivalent Outage Allowance Days. For avoidance of doubt, supply from sources other than the Plant, shall be charged at the Price determined in accordance with Appendix E.

5.1.6 The Associated Energy shall have been delivered to Meralco upon its declaration in the WESM by Power Supplier as its bilateral sell quantities at the WESM Node set out in Appendix F with Meralco as the counterparty in accordance with the WESM Rules.

5.2 Title Transfer and Risk of Loss

Title and risk of loss over the Contract Capacity and Associated Energy shall transfer from Power Supplier to Meralco at the Delivery Point.

5.3 Nominations

5.3.1 The Parties shall comply with the protocol provided in Appendix G in relation to the year ahead, month-ahead, week-ahead, and day-ahead nominations.

5.3.2 If Meralco nominates BCQ below the Proportionate Pmin, Power Supplier has the following options: (a) sell the Contract Capacity not nominated by Meralco to any third party, including the WESM, and all losses and costs incurred by Power Supplier from such sale to third parties shall be borne solely by Power Supplier, or (b) when allowed under existing Relevant Operating Regulations, suspend operations or shut down the Plant, and any shut down and start up costs and expenses shall form part of the Price. If Power Supplier exercises its option to suspend operations or shut down the Plant under this Section 5.3.2, any outage resulting therefrom shall not be counted towards the Full Load Equivalent Outage Allowance Days. In any case, Meralco shall remain liable to make full payment to Power Supplier of Components A and B of Capacity Payments under Appendix E.

5.4 WESM Declarations

5.4.1 Power Supplier shall ensure that its day-after daily declaration of BCQs reported to the Market Operator (as required by the WESM Rules) accurately reflects the day-ahead nominations furnished by Meralco under Section 5.3.1, including the appropriate reductions in accordance with Section 6 of Appendix G. Any amounts assessed by the Market Operator on the Parties as a result of an erroneous declaration by Power

Supplier of its BCQs shall be borne by Power Supplier, and Power Supplier shall indemnify and hold Meralco harmless from any loss, cost, expense or penalty incurred or paid by Meralco as a result of any such erroneous declaration. If the Market Operator invoices Meralco for any such amounts, Power Supplier shall reimburse Meralco within seven (7) Days from receipt of written demand therefore. Further, Power Supplier shall pay Meralco an administrative fee of One Hundred Fifty Thousand Pesos (PHP150,000.00) for every third incident of erroneous daily declaration of BCQs in accordance with WESM Rules, if such error is due to Power Supplier's fault.

- 5.4.2 On a daily basis, Power Supplier shall furnish Meralco with copies of the prior Day's hourly declaration of BCQs reported by Power Supplier to the Market Operator for the prior Day. Meralco shall have the right, but not the obligation, to review such reports and upon its review, shall inform Power Supplier of any discrepancies or exceptions it may find. Power Supplier shall immediately notify Market Operator of any corrections to its declaration of BCQs in accordance with the WESM Rules.

Article 6 Interconnection, Transmission and Metering

6.1 Connection Agreement, Transmission Service Agreement and Metering Service Agreement

Power Supplier shall enter into a Connection Agreement, Transmission Service Agreement and Metering Service Agreement with NGCP to connect the Plant to the Luzon Grid. Power Supplier shall be solely responsible for, and shall bear all costs of obtaining such services, including any applications, studies and approvals, construction and installation of interconnection facilities and network upgrades.

6.2 Copies of Documents; Amendments

Within fifteen (15) Days from the execution thereof, Power Supplier shall furnish Meralco with full and complete copies of the Connection Agreement, Transmission Service Agreement and Metering Service Agreement. Power Supplier shall notify Meralco of any intention and/or proposal to amend the Connection Agreement, Transmission Service Agreement and/or Metering Service Agreement and shall provide Meralco with a copy of any amendment of the Connection Agreement, Transmission Service Agreement and Metering Service Agreement within fifteen (15) Days after the effective date thereof. Power Supplier shall provide Meralco with thirty (30) Days' prior written notice of Power Supplier's intent to assign the Connection Agreement, Transmission Service Agreement and Metering Service Agreement.

6.3 Interconnection and Transmission Undertaking

At all times from and after the Commercial Operations Date, all interconnection, transmission and other agreements necessary for Power Supplier to perform its obligations hereunder (including the Connection Agreement, Transmission Service Agreements and Metering Service Agreement) shall be in full force and effect.

Article 7 Operation and Maintenance of the Plant

7.1 Operation, Maintenance and Repair

- 7.1.1 Power Supplier shall at all times during the Term, operate, maintain and repair the Plant

in a manner consistent with all Legal Requirements (including the Relevant Operating Regulations and Environmental Laws) and Prudent Operating Practices. Power Supplier shall also operate the Plant in accordance with the Operating Procedures, including but not limited to Meralco's day-ahead nominations, the Dispatch Instructions and subject to the Technical Limits.

- 7.1.2 Power Supplier shall employ in the Plant all safety devices and safety practices required by the applicable Legal Requirements (including the Relevant Operating Regulations), the requirements of all insurance policies and Prudent Operating Practices. Power Supplier shall keep accurate records of any accident or other occurrence at the Site which results in injury to persons or damage to property. Upon Meralco's request, Power Supplier shall provide to Meralco reports and notices on such accidents and other occurrences at the Site, subject to Section 21.4.
- 7.1.3 Power Supplier shall ensure that its operating personnel are on duty at the Plant, twenty-four (24) hours a Day and seven (7) Days a week, commencing as of the Operations Effective Date.
- 7.1.4 The appointment by Power Supplier of any plant operator or other sub-contractor shall not relieve Power Supplier of any of its liabilities or obligations hereunder.
- 7.1.5 The Parties shall maintain close coordination at all times in respect of all matters relating to the supply of electricity under this Agreement. Power Supplier shall keep Meralco sufficiently informed of all significant developments affecting the Plant. For this purpose, the Parties shall establish a Coordinating Committee comprised of six (6) members, three (3) appointed by each of Power Supplier and Meralco. The obligations and responsibilities of the Coordinating Committee and the rules governing meetings of the Coordinating Committee shall be as set out in Appendix G.

7.2 Coordination with Market Operator and System Operator

Power Supplier shall maintain operating communications between the Plant and each of Meralco, the Market Operator and the System Operator in accordance with the procedures to be developed by the Coordinating Committee and consistent with the WESM Rules and the Grid Code.

7.3 Operations Log

Power Supplier shall keep a daily operations log for the Plant and the Electrical Interconnection Facilities, which shall include information on Availability of the Plant, Scheduled Outages, Forced Outages, circuit breaker trip operations requiring a manual reset and any significant events related to the operation of the Plant and the Electrical Interconnection Facilities. Meralco may request a report from Power Supplier, which request shall not be unreasonably denied, regarding any significant event or information relating to the operation of the Plant and the Electrical Interconnection Facilities.

7.4 Tests

- 7.4.1 Power Supplier shall, at its own cost, conduct in connection with achieving Commercial Operations Date for either Unit, a Net Dependable Capacity test ("NDC Test").

- 7.4.2 Power Supplier shall, at its own cost, conduct a heat rate test ("**Net Plant Heat Rate Test**") prior to Commercial Operations Date in order to establish the GNPHR. The GNPHR shall be factored in the computation of the Invoice in accordance with the relevant provisions of Appendix E. In the event that Meralco disputes the results of the Net Plant Heat Rate Test on the basis that the results are beyond 5% of the GNPHR values to be submitted by Power Supplier to Meralco prior to Effective Date, a retest shall be conducted.

7.5 **Emergency Planning**

Power Supplier shall cooperate with Meralco in establishing agreed emergency plans for the Plant, including, without limitation, recovery from a local or widespread electrical blackout and voltage reduction in order to effect load curtailment, subject in each case to the Technical Limits.

Article 8 Outages

8.1 **Outage Allowances**

- 8.1.1 Power Supplier is allowed Scheduled and Forced Outages not to exceed an aggregate of forty-five (45) Full Load Equivalent Days for each Contract Year ("**Full Load Equivalent Outage Allowance Days**") during the Term, during which times reduced or no supply of Contract Capacity or Associated Energy will be available to Meralco. Unutilized Full Load Equivalent Outage Allowance Days shall not be carried forward to any subsequent Contract Year.
- 8.1.2 During the conduct of the Major Maintenance of each Unit of the Plant which occurs once every five (5) years reckoned from Commercial Operations Date of each Unit, the Full Load Equivalent Outage Allowance Days shall be increased by an additional fifteen (15) Full Load Equivalent Outage Days; *provided that* Power Supplier may only undertake Major Maintenance for a total of three (3) times during the Term; *provided further* that the first Major Maintenance shall occur no earlier than the fifth (5th) year after the occurrence of the Commercial Operations Date.
- 8.1.3 In case an Event of Force Majeure coincides with a Scheduled Outage, any downtime shall be credited against the Full Load Equivalent Outage Allowance Days.

8.2 **Replacement Electrical Output During Outages**

- 8.2.1 During Outages within the Full Load Equivalent Outage Allowance Days, Power Supplier shall not be required to supply Meralco with Replacement Energy. In such circumstances, Meralco, at its own cost, shall source the Replacement Energy from the WESM. Power Supplier shall not invoice Meralco for such portion of Contract Capacity and Associated Energy that is not made available or supplied for the duration of Scheduled Outages within the Full Load Equivalent Outage Allowance Days. If during any Contract Year, the Outages exceed the Full Load Equivalent Outage Allowance Days, Power Supplier shall procure at Power Supplier's own cost, such Replacement Energy and electrical output from third parties (including the WESM) to satisfy the relevant day-ahead nominations of Meralco. During such period, Meralco shall pay Power Supplier the Price. In the event Power Supplier fails to procure such quantities of electrical energy for Meralco, Power Supplier shall indemnify and hold Meralco harmless from any loss, cost, expense or penalty incurred or paid by Meralco.

- 8.2.2 For avoidance of doubt, the supply by Power Supplier of the Replacement Energy shall be deemed fulfilment of Power Supplier's obligation to make available the Contract Capacity and to deliver the Associated Energy during such period.

8.3 Scheduling Outages

- 8.3.1 Power Supplier acknowledges that Meralco needs to schedule outages among its various suppliers to minimize or prevent scheduled outages of multiple suppliers at the same time.
- 8.3.2 Power Supplier shall furnish Meralco with its proposed Scheduled Outage for the succeeding calendar year prior to its submission to the System Operator. Meralco may recommend changes to the proposed Scheduled Outage within five (5) Days upon receipt of the proposed Scheduled Outage from Power Supplier, which Power Supplier may consider in its discretion. By not later than October 31 of each year, Power Supplier shall inform Meralco of its Scheduled Outages for the succeeding calendar year as submitted to the System Operator. Power Supplier shall keep Meralco informed of any revisions thereby approved or initiated by the System Operator at least forty five (45) Days prior to the start of such revised Scheduled Outage.

8.4 Notification of Outages

- 8.4.1 When a Forced Outage occurs, Power Supplier shall notify Meralco of the existence, nature and expected duration of the Forced Outage as soon as practicable after such occurrence and in any event within one hour after such occurrence. Power Supplier shall inform Meralco promptly of changes in the expected duration of a Forced Outage.
- 8.4.2 Within twenty-four (24) hours after the occurrence of a Forced Outage, Power Supplier shall furnish Meralco with an incident report on the occurrence, nature, cause, duration and remedial action taken with respect to such Forced Outage.
- 8.4.3 No later than three (3) Days after the end of each Billing Period, Power Supplier shall furnish Meralco with a report on the occurrence, nature and duration of Scheduled Outages and Forced Outages during such Billing Period in accordance with the Operating Procedures.

Article 9 Assignment or Transfer of Contract Capacity

- 9.1 Meralco shall be entitled to assign, transfer, designate, delegate or allocate (collectively in this context, "**Transfer**") its rights and obligations to purchase a portion of Contract Capacity and Associated Energy that is no longer required by Meralco to any of its business segments or wholly-owned Affiliates without the prior consent of the Power Supplier.

Meralco shall also be entitled to Transfer its rights and obligations to purchase a portion of Contract Capacity and Associated Energy that is no longer required by Meralco to any other Person, subject to the consent of Power Supplier, which consent shall not be unreasonably withheld, delayed or conditioned, it being understood that withholding consent would not be considered unreasonable if the proposed Transfer would be contrary to the reasonable requirements of Finance Parties under the Finance Documents, as evidenced by a written confirmation by the relevant Finance Parties.

Subject to the provisions of the Finance Documents, in the event the consent of the Finance Parties is required for the approval of the proposed Transfer, only the consent of the Finance Parties representing no more than seventy-five (75%) of the debt plus undrawn commitments shall be sufficient.

Meralco shall endeavor to cooperate with Power Supplier by providing documents and information in relation to the Transfer as may be reasonably required by the Finance Parties.

- 9.2 In case of Transfers, Meralco shall give a written notice to the Power Supplier of such Transfer at least sixty (60) Days prior to the first Day of the next Billing Period or by such date as would be sufficient for timely notice to WESM of such change.

Subject to the receipt of Meralco and the Power Supplier of the written acceptance of such Transfer by the transferee:

- (i) Meralco shall cease to have any rights and obligations under this Agreement, and
- (ii) the transferee shall assume all rights and obligations of Meralco under this Agreement.

in respect of such portion of the Contract Capacity transferred under Section 9.1, commencing from the first Day of the Billing Period immediately following the aforesaid notice, upon execution of acceptable documentation for such transferred Contract Capacity and Associated Energy.

Article 10 Billing and Payment

10.1 Billing

Power Supplier shall render to Meralco an itemized Invoice for each Billing Period in accordance with the provisions of Appendix H. Meralco shall pay Invoices when due and payable in accordance with Appendix H.

10.2 Payments

- 10.2.1 Meralco shall pay the entire amount indicated in the Final Invoice (subject to Appendix H) when due and payable, provided that Meralco shall not be required to make payment on any Invoice that is manifestly in error, apparently invalid or not in the form or substance contemplated by this Agreement.
- 10.2.2 If Meralco disputes all or any portion of an Invoice for a reason other than a manifest error in, or the apparent invalidity or incorrect form or substance of, such Final Invoice, Meralco shall nonetheless pay the full amount of such Invoice (subject to Appendix H). Any payment by Meralco under this Section 10.2.2 is without prejudice to Meralco's right at a later date to dispute, protest or question any amount so paid.
- 10.2.3 If applicable, Meralco will endeavor to dispute, protest or question a Final Invoice within fifteen (15) Days from the date of its receipt. In such a case, the dispute, protest or question shall be resolved within thirty (30) Days from the date of filing thereof. If

the dispute, protest or question is not resolved, Meralco may at any time refer such dispute, protest or question for resolution in accordance with Article 19.

- 10.2.4 If any withheld amount under Section 10.2.1 is subject to objection or Dispute, or sum set forth in a Final Invoice, or any other sum payable under this Agreement has been paid under protest or is subject to objection, or is the subject of a Dispute, then after agreement between the Parties or after settlement of the Dispute, any sum so agreed by the Parties or determined pursuant to Article 19 to be owing (including the refund of any amount so paid under protest or subject of a Dispute) shall be paid within the later of (a) the original due date of such payment and (b) seven (7) Days from such agreement or settlement, with interest accruing thereon from the original due date (or, if payment has been made under protest or Dispute, from the date the disputed amount was paid) until the award or settlement amount is paid. Interest shall be calculated on the actual number of days elapsed over a three hundred sixty-five (365) Day basis equivalent to the PDST-R2 plus two hundred (200) basis points in each month in which the sum was due and payable; provided however, that if the protest or Dispute is resolved by the Parties and payment is made, in each case within thirty (30) Days from the date of filing thereof, the Parties agree to waive payment of any interest due on the amount owing (or, if payment has been made under protest or Dispute, due on the amount to be refunded).
- 10.2.5 For the avoidance of doubt, if Meralco makes payment of a disputed Final Invoice and thereafter refers such Dispute for resolution in accordance with Article 19 and such Dispute is resolved in Meralco's favor, Power Supplier shall in addition to refunding the disputed amount, be liable, subject to the waiver under Section 10.2.4, for the payment of interest, which shall be calculated on the actual number of days elapsed over a three hundred sixty-five (365) Day basis equivalent to the PDST-R2 plus two hundred (200) basis points in each month in which the sum was due and payable accruing from the date the disputed Invoice amount was paid by Meralco until the time the award is paid.
- 10.2.6 If any Party fails to make payment to another Party of any amount due under this Agreement, where such amount is not the subject of a Dispute, including but not limited to the award or settlement amount due under Section 10.2.5, interest thereon from the date when payment was originally due until payment thereof is received shall be calculated on the actual number of days elapsed over a three hundred sixty-five (365) Day basis equivalent to the PDST-R2 plus two hundred (200) basis points in each month in which the sum was due and payable.
- 10.2.7 Any reference to a "payment" required hereunder (including the consequences of any delay in such payment) shall also apply to any required reimbursement or "credit memo", and the due date shall be the date required for such reimbursement or "credit memo" to be made.

10.3 Setoff

Each Party reserves to itself all rights of setoff, counterclaim and other remedies and/or defenses that such Party is or may be entitled to assert arising from or out of this Agreement.

Article 11 Taxes, Fees and Costs

11.1 Responsibility for Taxes, Fees and Costs

11.1.1 Power Supplier shall make timely payment of the following amounts:

- (a) WESM Market Fees;
- (b) Energy Imbalance Fees incurred by Power Supplier;
- (c) Benefits to Host Communities Charges; and
- (d) Applicable value-added tax on any of the foregoing amounts in accordance with Philippine Bureau of Internal Revenue ("BIR") and ERC regulations.

If Connection Charges are imposed on Power Supplier after the Operations Effective Date, Power Supplier shall make timely payment of the same, and these amounts (inclusive of applicable value-added tax) shall be charged to Meralco in proportion to its Contract Capacity vis-à-vis Net Dependable Capacity.

11.1.2 The following amounts that Meralco is responsible for paying to third parties shall form part of the price that Meralco will charge to its customers:

- (a) Value-added tax on Contract Capacity and Associated Energy in accordance with Philippine tax Laws and regulations;
- (b) WESM line rental charges for the transmission of Associated Energy from the Plant to the Delivery Point; and
- (c) Any fees, charges and other amounts assessed by the NGCP.

11.1.3 Each Party shall be liable for their respective income taxes.

Meralco shall deduct and withhold from the amounts payable under a Final Invoice, the applicable creditable withholding tax and Meralco shall remit any amounts withheld for such tax to the relevant taxing authorities. If Power Supplier believes such withholding tax is not applicable to it, Power Supplier shall provide Meralco with such documents and evidence to demonstrate that payments to Power Supplier are not subject to such withholding tax. Meralco shall no longer deduct and withhold creditable withholding tax from the amounts payable under a Final Invoice upon its reliance on the documents and evidence submitted by Power Supplier.

Power Supplier shall indemnify Meralco for any final assessment, liability, surcharge, interests, penalties and other costs or fees arising from Meralco's failure to withhold creditable withholding tax from payments due under this Agreement in accordance with applicable BIR rules and regulations, provided that such failure by Meralco to withhold is (a) upon Power Supplier's request, or (b) due to any change, reversal or ruling affecting Power Supplier's status or claim of exemption from withholding tax. The Parties agree that any outstanding obligations of Power Supplier in respect of its obligation to indemnify under this Section 11.1.3 shall not be considered a ground for termination.

11.1.4 Meralco shall remit to Power Supplier the applicable VAT on Contract Capacity, Associated Energy and Replacement Energy, except in respect of any portion thereof that applies to VAT zero-rated/VAT-exempt customers of Meralco, in accordance with regulations, orders, circulars or other issuances applicable to a distribution utility issued by relevant governmental instrumentalities, including, but not limited to, BIR Revenue Memorandum Circular No. 61-2005 and ERC Resolution No. 20-2005. Meralco shall issue, for each Billing Period, a certification containing:

- (a) the amount of VAT related to the actual energy volume covered by this Agreement and allocated as sold to Meralco's VAT zero-rated/VAT-exempt customers; and
- (b) the amount of VAT billed for energy covered by this Agreement that is uncollected from Meralco's customers which are neither VAT zero-rated nor VAT-exempt; and
- (c) detailed information of such customers, including the amount of VAT, business names, and on an annual basis, the place of business, tax identification number, and information required by the BIR under BIR Revenue Memorandum Circular No. 61-2005 and ERC Resolution No. 20-2005.

With respect to any VAT billed to Meralco by Power Supplier pertaining to actual energy volume for Meralco's VAT zero-rated and VAT-exempt customers, Power Supplier shall issue a credit memo reversing the corresponding amount of VAT billed to Meralco. Meralco shall indemnify Power Supplier for any final assessment, liability, surcharge, interests, penalties and other costs or fees ("**Assessments**") arising from Meralco's failure to remit the VAT collected from its customers. For purposes of this Article 11, Power Supplier shall notify Meralco of such Assessments, and the Parties shall meet and discuss within thirty (30) days from such notification, in order to reconcile the amount of unremitted VAT. The Parties agree that any outstanding obligations of Meralco in respect of its obligation to indemnify under this Article 11 shall not be considered a ground for termination.

In its monthly VAT remittance to Power Supplier, Meralco shall show the amount of VAT being remitted for the current and prior months' billings. Meralco shall provide Power Supplier an annual statement of its VAT balances with Power Supplier, including a certification indicating the VAT amount related to any receivables written off attributable to Power Supplier.

11.2 Charges Due to Change in Law

- (a) If as a result of a Change in Law, Meralco becomes liable to pay any new charges, fees, taxes, duties, assessments or other similar amounts ("**New Charges**"), or any increase in existing charges, fees, taxes, duties, assessments or other similar amounts ("**Increased Charges**") become payable with respect to this Agreement, the New Charges or Increased Charges shall form part of the price that Meralco will charge to its customers.
- (b) If as a result of a Change in Law (other than a change in income taxes payable by Power Supplier), Power Supplier becomes liable to pay New Charges or

Increased Charges with respect to this Agreement, and such liability materially and adversely affects the ability of Power Supplier to perform its obligations under this Agreement, materially and adversely affects its sale of Contract Capacity and Associated Energy in accordance with this Agreement, makes the administration or operational aspects of such performance materially more burdensome or causes or may cause serious damage to, or materially and adversely affects the financial condition of Power Supplier, Power Supplier shall send a notice of Change in Law to Meralco and the provisions of Section 17.6.6 will apply. Provided that if the Change in Law results in a change in the business taxes payable by Power Supplier, Power Supplier shall send notice of such change in business taxes to Meralco and, if the Parties agree, Meralco shall file the necessary application with the ERC for the adjustment of the Price; provided further, that the adjustment shall only be effective upon approval by the ERC. Notwithstanding any provision in this Agreement to the contrary, in no case shall the Power Supplier be entitled to terminate this Agreement as a result of the change in its business taxes.

- (c) In the event that, as a result of a Change in Law and pursuant to a corresponding order of the ERC or any Governmental Instrumentality:
- (i) Meralco is no longer permitted to pass through to its customers any amounts that it is permitted to pass through as of the date of this Agreement, including but not limited to the amounts specified in Section 11.1.2; or
 - (ii) any portion of the Price that has been paid to Power Supplier is required to be refunded to Meralco or Meralco's customers in connection with the ERC Application or any petition, claim, case, proceeding or other action involving any of the Parties brought before any judicial, administrative or quasi-judicial body,

the Parties shall enter into good faith negotiations to agree on a satisfactory solution regarding the amendment of this Agreement to restore Meralco's commercial position prior to such Change in Law, including an adjustment of the Price. If the Parties fail to reach a mutually satisfactory resolution within sixty (60) Days from the commencement of negotiations, the provisions of Section 17.6.6 (b) will apply.

Article 12 Metering

Any metering required to implement this Agreement shall be in accordance with the requirements of the WESM Rules and the Grid Code.

Article 13 Covenants

13.1 ERC Application

- 13.1.1 Within five (5) Business Days after completion of the documents required for ERC Application, the Parties shall jointly file with the ERC the necessary application for the approval of this Agreement ("ERC Application") and shall exert best efforts to obtain such approval as promptly as practicable following the submission of the ERC

Application and to allow for the issuance of the ERC Final Approval and occurrence of the Acceptance Date on or before the Longstop Date.

- 13.1.2 The Parties shall fully cooperate with each other with respect to the ERC Application and shall furnish (i) all documents required for ERC Application, promptly after, and in any case, within ten (10) Business Days from, Effective Date; and (ii) those documents that the ERC may require in connection with the ERC Application and any other review or examination conducted by the ERC with respect to this Agreement, provided that Power Supplier shall submit directly to the ERC any information which it deems to be confidential and shall give written notice to Meralco of such direct filing.

13.2 ERC Approval

- 13.2.1 Subject to the non-occurrence of the Longstop Date, upon receipt of the ERC Final Approval, Meralco shall provide a copy of such ERC Final Approval to Power Supplier. Power Supplier shall have ten (10) Days from the date of receipt from Meralco of such ERC Final Approval to notify Meralco in writing that (i) it accepts such ERC Final Approval or (ii) it does not accept the ERC Final Approval, stating the grounds for non-acceptance.
- 13.2.2 In case of Power Supplier's non-acceptance, Power Supplier shall be free to file with the ERC a motion for reconsideration. Any order on a motion for reconsideration shall be treated as an ERC Final Approval for purposes of the processes under this Section 13.2.
- 13.2.3 Following (i) a written notice of acceptance from Power Supplier with respect to the ERC Final Approval (including upon reconsideration under Section 13.2.2 above), or (ii) the lapse of the period referred to in Section 13.2.1 without Power Supplier communicating its acceptance or non-acceptance in writing, the Acceptance Date shall be considered as having occurred on the date of the written notice of acceptance or on the last Day of such period, as applicable ("Acceptance Date"), provided, in each case, that Meralco has not filed any motion for reconsideration or appeal subsequent to the Power Supplier's acceptance of such ERC Final Approval and the Longstop Date has not occurred.
- 13.2.4 If the ERC's Final Approval requires an amendment of any provision herein, including provisions on amounts payable under this Agreement, or subjects such approval to any material term or condition that is not acceptable to either Party, acting reasonably ("ERC Conditional Approval"), the Parties shall cooperate in good faith to resolve the required ERC amendment(s) or to address the material term or condition. The Parties shall agree to:
- (a) Within fifteen (15) Days after the receipt by the Parties of the ERC Conditional Approval, seek a reconsideration of the ERC Conditional Approval; and/or
 - (b) Within sixty (60) Days after receipt by the Parties of the ERC Conditional Approval, revise and file an amended Agreement for approval by the ERC, or if the Parties fail to agree on the amendment of this Agreement after the sixty (60) Day period prescribed in this Section 13.2.4, terminate this Agreement;

provided that if the motion for reconsideration is denied by the ERC, or if the motion for reconsideration is not resolved by the ERC within a reasonable period of time, or if the Parties fail to agree on the amendment of this Agreement within the period prescribed in Section 13.2.4(b), or the amended Agreement is disapproved by the ERC, or approved by the ERC but still with any material term or condition that is not acceptable to either Party, acting reasonably, the Agreement can be terminated by any Party by giving a sixty (60) Day prior written notice of such termination to the other Party.

- 13.2.5 In the event that the Acceptance Date has not occurred by the Longstop Date, either Party may terminate this Agreement by serving a thirty (30) Day written notice to the other.

13.3 Coal Supply

- 13.3.1 Power Supplier shall be responsible for the preparation and implementation of a plan for the safe, adequate and reliable supply and transportation of coal to the Plant throughout the Term.

- 13.3.2 Power Supplier shall ensure that at all times there is coal inventory at the Site sufficient to operate the Plant in accordance with this Agreement and in accordance with Prudent Operating Practices, taking into account all relevant factors such as seasonal and/or climatic factors, which inventory shall be good for at least a continuous thirty (30) Day period based on continuous operation of the Plant at an average Associated Energy for the current Billing Period and the next two (2) Billing Periods based on the latest year-ahead or month-ahead nominations of Meralco.

13.4 Compliance with Laws

- 13.4.1 Power Supplier and Meralco agree that all applicable Legal Requirements shall govern their performance of this Agreement and each shall comply in all material respects with, and shall keep in full force and effect, all Governmental Authorizations required to be in its name for the performance of its obligations under this Agreement.
- 13.4.2 Without limiting the application of Section 13.4.1, Power Supplier and Meralco agree to comply and perform their respective obligations under this Agreement in accordance with the Relevant Operating Regulations.

Article 14 Insurance

14.1 Insurances Policies

- 14.1.1 Power Supplier, at its sole cost and expense, shall obtain and maintain in effect such insurance policies and coverage required by Legal Requirements and Prudent Operating Practices, as provided in Appendix D.
- 14.1.2 Nothing in this Agreement shall prevent Power Supplier, at its sole cost and expense, from procuring insurance coverage in addition to that specified in this Agreement.

14.2 Evidence of Insurances

- 14.2.1 Power Supplier shall provide Meralco with a copy of the certificate of the insurance required in item (1) of Appendix D on or before the Operations Effective Date (Unit 1), and shall submit evidence of its other insurances set out in item (2) of Appendix D on or before Commercial Operations Date. Thereafter at least thirty (30) Days prior to the date set for each annual renewal thereof, Power Supplier shall provide Meralco with copies of "Cover Notes" and insurance policies once issued, together with any other insurances maintained by Power Supplier in relation to the Plant. Power Supplier shall also provide Meralco with copies of receipts or statements from its insurers evidencing payment of the annual premium in respect of the insurance policies and endorsement or confirmation that such premia are not overdue.
- 14.2.2 Failure by Power Supplier to obtain the insurance coverage or certificates of insurance required by this Article 14 or Appendix D shall not relieve Power Supplier of the insurance requirements set out in this Agreement or in any way relieve or limit Power Supplier's obligations and liabilities under any other provision of this Agreement.
- 14.2.3 If Power Supplier fails to procure or maintain any insurance required pursuant to this Article 14 or Appendix D, then Meralco shall have the right to procure such insurance at Power Supplier's expense, provided Meralco shall have given thirty (30) Days prior written notice to Power Supplier of its intention to exercise such right, unless such intention arises from Power Supplier's non-payment of premia for existing insurance, in which case Meralco shall have given at least five (5) Days prior written notice of such intention. Power Supplier shall reimburse Meralco for such premia within seven (7) Business Days of being notified of Meralco's payment thereof.

Article 15 Indemnification and Liability

15.1 Indemnity by Power Supplier

- 15.1.1 Power Supplier shall indemnify, defend and hold harmless Meralco, from and against all Claims made against or suffered by Meralco for any loss of or damage to property or death or injury to persons, resulting from any negligent act or omission of Power Supplier or any of its contractors or their respective employees, directors, agents or shareholders ("Power Supplier Parties") that arises out of or is in any manner connected with the performance of this Agreement, except to the extent such loss, damage, injury or death is attributable to the negligence or misconduct of, or breach of this Agreement by, Meralco or any of its employees, directors, agents or shareholders ("Meralco Parties") or the failure of Meralco or any Meralco Parties to take reasonable steps in mitigation thereof.
- 15.1.2 This Section 15.1 shall not apply to any loss, damage, cost or expense to the extent that Meralco is otherwise compensated pursuant to the terms of this Agreement in respect of such loss, damage, cost or expense.

15.2 Indemnity by Meralco

- 15.2.1 Meralco shall indemnify, defend and hold harmless Power Supplier, from and against all Claims made against or suffered by Power Supplier for any loss of or damage to property or death or injury to persons, resulting from any negligent act or omission of

Meralco or any Meralco Parties that arises out of or is in any manner connected with the performance of this Agreement except to the extent such loss, damage, injury or death is attributable to the negligence or misconduct of, or breach of this Agreement by, Power Supplier or any Power Supplier Parties or the failure of Power Supplier or any Power Supplier Parties to take reasonable steps in mitigation thereof.

- 15.2.2 This Section 15.2 shall not apply to any loss, damage, cost or expense to the extent that Power Supplier is otherwise compensated pursuant to the terms of this Agreement in respect of such loss, damage, cost or expense.

15.3 Notice of Proceedings

Each Party shall promptly notify the other Party of any Claim in respect of which it is entitled to be indemnified under this Article 15. Such notice shall be given as soon as reasonably practicable after the relevant Party becomes aware of such Claim.

15.4 Conduct of Proceedings

- 15.4.1 The indemnified Party shall have the right, but not the obligation, to contest, defend and litigate (and to retain legal advisers of its choice in connection therewith) any claim, action, suit or proceeding by any third party alleged or asserted against it arising out of any matter in respect of which it is entitled to be indemnified hereunder, and the reasonable costs and expenses thereof shall be subject to the said indemnity; provided that, the indemnifying Party shall be entitled, at its option, to assume and control the defence of such claim, action, suit or proceeding at its expense and through legal advisers of its choice if it (i) gives notice of its intention to do so to the indemnified Party, (ii) acknowledges in writing its obligation to indemnify that Party to the full extent provided by this Article 15 and (iii) reimburses that Party for the reasonable costs and expenses previously incurred by it prior to the assumption of such defence by the indemnifying Party.

- 15.4.2 Neither Party shall settle or compromise any claim, action, suit or proceeding in respect of which it is entitled to be indemnified by the other Party without the prior written consent of that Party.

15.5 Consequential Losses

Without limiting any payments (or the calculations thereof) contemplated under Section 17.3 or Appendix E, no Party shall in any circumstances be liable to the other Party in its performance of or failure to perform this Agreement or any provision hereof, whether in contract, tort or breach of statutory duty or otherwise for:

- (a) loss of or anticipated loss of profit, loss of or anticipated loss of revenue, loss of use, business interruption, loss of use of any equipment, loss of any contract or other business opportunity or good will; and
- (b) indirect or consequential losses or damages.

whether or not such losses or damages are subject to the indemnities in Section 15.1 and Section 15.2.

Article 16 Force Majeure

16.1 Events of Force Majeure

An Event of Force Majeure shall mean any circumstance not within the reasonable control, directly or indirectly, of the Party affected, but only if and to the extent that:

- (a) such circumstance, despite the exercise of reasonable diligence, cannot be prevented, avoided or removed by such Party; and
- (b) such event prevents such Party from performing its obligations under this Agreement;

and in each case:

- (i) such Party has taken all reasonable precautions, due care and reasonable alternative measures in order to avoid the effect of such event on such Party's ability to perform its obligations under this Agreement and to mitigate the consequences thereof;
- (ii) such event is not the direct or indirect result of the failure of such Party to perform any of its obligations under this Agreement;
- (iii) the suspension of a Party's performance of its obligations hereunder is of no greater scope and no longer duration than is required by the Event of Force Majeure;
- (iv) no obligation of either Party, which arose before the occurrence of the event that caused the suspension of performance of obligations hereunder, shall be excused as a result of an Event of Force Majeure (for the avoidance of doubt, day-ahead nominations by Meralco pursuant to Appendix G shall not be considered a pre-existing obligation for this purpose); and
- (v) such Party has given the other Party prompt notice in accordance with Section 16.7 describing such event, the effect thereof and the actions being taken in order to comply with this Section 16.1.

16.2 Instances of Force Majeure

Subject to the provisions of Section 16.1 and Section 16.6, Events of Force Majeure shall include, but not be limited to:

- (a) acts of war or the public enemy whether war is declared or not;
- (b) public disorders, insurrection, rebellion, acts or campaigns of terrorism, piracy, embargo, sabotage, riots or violent demonstrations;
- (c) explosions, fires, earthquakes, tsunamis, flood, cyclone, volcanic eruptions, mudslide or other natural disasters, acts of God, radioactive contamination or ionizing radiation, epidemic, quarantine or plague;

- (d) any action or aggregation of actions or failure to act by any Governmental Instrumentality, including expropriation, requisition, confiscation, nationalization or other compulsory acquisition; the denial of or delay in the granting of any approval, consent, authorization or other requirement mandated by any Legal Requirement, the failure of any such approval, consent, authorization or other requirement (including the ERC Final Approval) once granted to remain in force and effect or to be renewed on substantially similar terms;
- (e) strikes, lockouts or other collective or industrial action by workers or employees other than non-manual personnel; provided that any Party that seeks to invoke such a strike, lockout or other collective or industrial action as an Event of Force of Majeure must first utilize all reasonable efforts to continue performance of its obligations hereunder;
- (f) any System Emergency or Transmission Failure that may affect the delivery by Power Supplier, or acceptance by Meralco, of power (except if due to the act or omission of the Party seeking to claim an Event of Force Majeure, unless otherwise due to an Event of Force Majeure). In case of disagreement as to the existence of a Transmission Failure, the Parties shall secure the necessary certification from the GMC, which certification shall bind both Parties; and
- (g) appropriate actions taken in response to any orders, warnings or advice given by a Governmental Instrumentality or the System Operator for safety reasons to implement emergency shut down (except if due to the act or omission of the Party seeking to claim an Event of Force Majeure, unless otherwise due to an Event of Force Majeure).

For the avoidance of doubt, (i) the breakdown or failure of equipment or machinery of the Plant or the delay or inability to procure fuel for the Plant shall not in itself be considered as an Event of Force Majeure, unless otherwise due to an Event of Force Majeure and (ii) any (x) any interruption of the Plant's generating capability resulting in an unplanned reduction or suspension of the electrical output from a Unit or the Plant and/or unavailability of capacity in whole or in part from the Plant; (y) any automatic shutdown of any part of the Plant; and (z) any other unavailability of the Plant for operation, that in case any of (x), (y) or (z) is due to an Event of Force Majeure, it shall be treated for all purposes of this Agreement as an Event of Force Majeure and not as a Scheduled Outage or a Forced Outage.

16.3 Effect of Force Majeure

- 16.3.1 Except as provided in Section 16.6, the affected Party shall be excused from performance and shall not be considered to be in default in respect of any obligation under this Agreement (including any obligation of Meralco to pay the Price) for so long as failure to perform such obligation shall be due to an Event of Force Majeure. For the avoidance of doubt and notwithstanding any other provision of this Agreement, Meralco shall not be required to make any Capacity Payment in respect of (i) any Contract Capacity that is unavailable due to an Event of Force Majeure or (ii) any Contract Capacity that Meralco does not need due to an Event of Force Majeure. Similarly, in respect of (ii) in the foregoing sentence, Power Supplier shall not be

required to supply to Meralco and may freely sell the contracted capacity or a portion thereof to interested parties, including the WESM.

16.3.2 If the Event of Force Majeure prevents (i) Power Supplier from delivering capacity and/or energy to Meralco, or (ii) Meralco from taking capacity and/or energy from Power Supplier, Meralco shall source the Replacement Energy from the WESM, at its own cost. If the Event of Force Majeure prevents Meralco from taking capacity and/or energy from Power Supplier, Power Supplier may sell its capacity and energy to third parties.

16.3.3 Any extension of the Term by reason of Event of Force Majeure occurring shall be subject to the mutual agreement of the Parties.

16.4 Effect of Uninsured Events of Force Majeure

If an Event of Force Majeure occurs that causes material damage to the Plant, and such Event of Force Majeure (i) is of a type not normally insured against by owners or operators of power plants similar to the Plant, is not required to be insured against in accordance with Prudent Operating Practices, and in fact has not been insured against by Power Supplier or (ii) could not be insured against by Power Supplier prior to the time of the occurrence of the Event of Force Majeure, then:

- (a) both Parties shall enter into good faith negotiations to agree on a satisfactory solution regarding the operation of the Plant or regarding an adjustment of the Price, and Power Supplier shall use its best efforts to obtain funding to complete or repair the Plant; and
- (b) during the existence and continuance of any Event of Force Majeure (including the effects and consequences thereof), Power Supplier shall not be required to repair the Plant, as the case may be, and such failure to repair or operate the Plant shall not constitute a Power Supplier Event of Default.

If the Parties do not reach such satisfactory solution within one hundred eighty (180) Days after the end of such Event of Force Majeure, or such other time as may be agreed upon, either Party may terminate this Agreement in accordance with Section 17.6.5.

16.5 Effect of Extended Force Majeure

If any Event of Force Majeure prevents Power Supplier from making available the Contract Capacity or Associated Energy or Meralco from accepting Contract Capacity or Associated Energy, in each case for a continuous period of more than one hundred eighty (180) Days, then either Party may upon written notice, require the other Party to meet as soon as practicable to reasonably discuss any modification, change or amendment of this Agreement under such reasonable terms, to the extent necessary to resolve the issues arising from the Event of Force Majeure and maintain, to the extent feasible, the rights and obligations of the Parties under this Agreement.

If the Parties do not reach such satisfactory solution within ninety (90) Days from the end of the one hundred eighty (180) Day period, or such other time as may be agreed upon, either Party may terminate this Agreement in accordance with Section 17.6.5.

16.6 Certain Events Not Excused

The provisions of this Article 16 shall not excuse:

- (a) the late payment of money, except when such late payment is caused by an Event of Force Majeure, and in such case, such late payment shall be excused and not subject to late payment interest; or
- (b) delays resulting from reasonably foreseeable unfavorable weather or reasonably foreseeable unsuitable ground or sea conditions or other similar reasonably foreseeable adverse conditions.

16.7 Notice of Force Majeure; Procedure

- 16.7.1 As soon as possible following the occurrence of any Event of Force Majeure (or, if known in advance of the Event of Force Majeure, promptly upon such knowledge), if either Party desires to invoke such Event of Force Majeure as a cause to excuse or delay performance of any obligation (other than the payment of money) hereunder, it shall advise the other Party in writing of the date, nature and expected duration of such Event of Force Majeure; provided that such notice must be sent (a) by Power Supplier to Meralco immediately and in any event within twenty-four (24) hours after Power Supplier becomes aware of such Event of Force Majeure and (b) by Meralco to Supplier as soon as reasonably possible and in any event within twenty-four (24) hours after Meralco becomes aware of such Event of Force Majeure.
- 16.7.2 As soon as practicable from time to time during the Event of Force Majeure, and also within five (5) Days following the termination of such Event of Force Majeure, the Party having invoked such Event of Force Majeure shall submit to the other Party reasonable proof of such Event of Force Majeure and its effect upon such Party's performance of its obligations under this Agreement.
- 16.7.3 During the existence and continuance of any Event of Force Majeure (including the effects and consequences thereof), the Parties shall:
- (a) make all reasonable efforts to prevent and reduce to a minimum and mitigate the effect of any delay or non-performance occasioned by any Event of Force Majeure including recourse to alternate acceptable sources of services, equipment and materials;
 - (b) use their best efforts to ensure resumption of normal performance of this Agreement after the termination of any Event of Force Majeure and shall perform their obligations to the maximum extent practicable and agreed between the Parties; and
 - (c) continue to provide the other Party with weekly updated reports as to the nature of the delay and its effect upon the time of performance.

Article 17 Events of Default and Termination

17.1 Power Supplier Events of Default

Each of the events described below shall constitute a Power Supplier Event of Default, provided that such events (with the exception of Sections 17.1(d) and Section 17.1(e) (i), (ii) and (iii)) results in or is accompanied by an actual failure by Power Supplier to make Available the Contract Capacity and/or deliver the Associated Energy of Meralco in accordance with the terms of this Agreement:

- (a) The appointment of a receiver or liquidator or trustee of Power Supplier or of any material property of Power Supplier and such appointment is not discharged within sixty (60) Days; the bankruptcy, insolvency or corporate rehabilitation of Power Supplier or sequestration of any substantial part of the property of Power Supplier and such decree continues undischarged and unstayed for sixty (60) Days after entry thereof; the filing of a petition to declare Power Supplier bankrupt or to reorganize Power Supplier pursuant to any of the provisions of any applicable bankruptcy or rehabilitation Law or any similar statute and such petition is not dismissed within sixty (60) Days after such filing;
- (b) The voluntary passing of a resolution or filing of a petition for the bankruptcy, insolvency, corporate rehabilitation or winding up, liquidation of, or other similar proceeding relating to Power Supplier, which resolution or petition has not been rescinded, withdrawn or revoked within sixty (60) Days; or Power Supplier consents to the filing of any bankruptcy, corporate rehabilitation or reorganization petition against it which consent has not been rescinded, withdrawn or revoked within sixty (60) Days;
- (c) Power Supplier files a petition or answer in a proceeding under any of the provisions of any applicable bankruptcy, insolvency or corporate rehabilitation Law or any other similar statute admitting the material allegations of a petition filed against it in such a proceeding, and such petition or admission is not rescinded, withdrawn or revoked within sixty (60) Days; Power Supplier makes a general assignment of its assets and rights for the benefit of its creditors, which assignment is not rescinded or revoked within one hundred twenty (120) Days; or Power Supplier admits in writing its inability to pay its debts generally as they become due, and such admission is not withdrawn or revoked within one hundred twenty (120) Days;
- (d) If due to Power Supplier's fault, it has been declared by any Governmental Instrumentality that it shall be illegal for Power Supplier to generate and supply all or a portion of Contract Capacity and Associated Energy, and such illegality shall not be removed, withdrawn or corrected within sixty (60) Days from such declaration;
- (e) Any of the following shall constitute a Power Supplier Event of Default upon written notice thereof from Meralco to Power Supplier:
 - (i) The achieved annual Full Load Equivalent Days of Availability is thirty (30) Days or more below the relevant Target Full Load Equivalent Days

of Availability for a Contract Year, calculated as at the end of any Contract Year;

- (ii) The unexcused failure by Power Supplier to operate or make available the Plant, if operable, in accordance with Meralco's day-ahead nominations and/or this Agreement, for more than seven (7) consecutive Days, or for more than thirty (30) Days in any Contract Year, in each case without the written consent of Meralco; and
 - (iii) The wilful failure to notify Meralco in accordance with Section 8.4.
- (f) Power Supplier fails to make any payment under this Agreement when due and payable and such payment is not made within sixty (60) Days after the due date; or
- (g) Power Supplier breaches any of its material representations, warranties, covenants or obligations under this Agreement (other than a breach otherwise referred to in this Section 17.1) and such breach is not remedied within thirty (30) Days after written notice from Meralco to Power Supplier stating that such a breach has occurred.

17.2 Meralco Events of Default

Each of the events described below shall constitute a Meralco Event of Default, provided that such event (with the exception of Section 17.2(d)) results to or is accompanied by an actual failure by Meralco to receive, and pay for, the Contract Capacity and Associated Energy in accordance with this Agreement:

- (a) The appointment of a receiver or liquidator or trustee of Meralco or of any material property of Meralco and such appointment is not discharged within sixty (60) Days; the bankruptcy, insolvency or corporate rehabilitation of Meralco or sequestration of any substantial part of the property of Meralco and such decree continues undischarged and unstayed for sixty (60) Days after entry thereof; the filing of a petition to declare Meralco bankrupt or to reorganize Meralco pursuant to any of the provisions of any applicable bankruptcy or rehabilitation Law or any similar statute and such petition is not dismissed within sixty (60) Days after such filing;
- (b) The voluntary passing of a resolution or filing of a petition for the bankruptcy, insolvency, corporate rehabilitation or winding up, liquidation of, or other similar proceeding relating to Meralco, which resolution has not been rescinded, withdrawn or revoked within sixty (60) Days; or Meralco consents to the filing of any bankruptcy, corporate rehabilitation or reorganization petition against it which consent has not been rescinded, withdrawn or revoked within sixty (60) Days;
- (c) Meralco files a petition or answer in a proceeding under any of the provisions of any applicable bankruptcy, insolvency or corporate rehabilitation law or any other similar statute admitting the material allegations of a petition filed against it in such a proceeding, and such petition or admission is not rescinded, withdrawn or revoked within sixty (60) Days; Meralco makes a general

assignment of its assets and rights for the benefit of its creditors, which assignment is not rescinded or revoked within one hundred twenty (120) Days; or Meralco admits in writing its inability to pay its debts generally as they become due, and such admission is not withdrawn or revoked within one hundred twenty (120) Days;

- (d) If due to Meralco's fault, it has been declared by any Governmental Instrumentality that it shall be illegal for Meralco to accept the Contract Capacity and Associated Energy due to Meralco's fault, and such illegality shall not be removed, withdrawn or corrected within sixty (60) Days from such declaration;
- (e) Meralco fails to make any payment of a Final Invoice when such invoice becomes due and payable and such payment is not made within sixty (60) Days after the due date of the relevant Final Invoice, unless the reason for such non-payment is due to an Event of Force Majeure or to the manifest error, apparent invalidity or incorrect form or substance of a Final Invoice, or the amount not paid is subject to an objection or Dispute by Meralco under Article 19 or Appendix H of this Agreement; or
- (f) Meralco breaches any of its material representations, warranties, covenants or obligations under this Agreement (other than a breach otherwise referred to in this Section 17.2) and such breach is not remedied within thirty (30) Days after written notice from Power Supplier to Meralco stating that such a breach has occurred.

For the avoidance of doubt, it is understood and agreed that, subject to Section 16.2(d) being applicable, the expiration and/or non-renewal of the Franchise shall not be considered a Meralco Event of Default.

17.3 Termination Payment

- 17.3.1 Upon the occurrence of a Power Supplier Event of Default that results in or is accompanied by an actual failure of Power Supplier to supply Meralco with Contract Capacity and Associated Energy in accordance with this Agreement and results in the early termination of this Agreement (and without prejudice to any other provisions of this Agreement prior to such termination), Meralco shall, subject to the terms of the Direct Agreement and rights of the Finance Parties, have the right, but not the obligation, by written notice to Power Supplier and in accordance with the Equity Transfer Procedures, to acquire the Equity Interests in the Power Supplier at the price of: PHP 500. Any tax and levies due on the transfer of the Equity Interest shall be paid by the Power Supplier.
- 17.3.2 Upon the occurrence of a Meralco Event of Default that affects the ability of Meralco to receive and pay for the Contract Capacity and Associated Energy in accordance with this Agreement and results in the early termination of this Agreement (and without prejudice to any other provisions of this Agreement prior to such termination), Power Supplier shall have the right, but not the obligation, by written notice to Meralco and in accordance with the Equity Transfer Procedures, to require Meralco to acquire the Equity Interests in the Power Supplier at the price of:

- (i) if the underlying Meralco Event of Default occurs on or before the second anniversary of the Commercial Operations Date: the sum of (A) the Obligations to Finance Parties (to be remitted directly to the Finance Parties) and (B) each equity contribution at a yield determined based on the ERC Final Approval computed from the date of such actual equity contribution less (C) distributions to equity if any (such calculation of (B) and (C) are illustrated in Appendix G); and
- (ii) if the underlying Meralco Event of Default occurs after the second anniversary of the Commercial Operations Date: the sum of (A) the Obligations to Finance Parties (to be remitted directly to the Finance Parties) and (B) the book value of equity/ partner's capital (including accumulated retained earnings/losses and excluding revaluation adjustments).

To be valid, a notice of the exercise by a Party of its rights under this Section 17.3 must be delivered no later than sixty (60) Days after the effective date of termination of this Agreement. Thereafter, completion of payment and transfer shall be in accordance with the Equity Transfer Procedures.

The remedies in this Section 17.3 are exclusive remedies in cases of termination of this Agreement due to an Event of Default.

17.4 Termination upon Event of Default

Following the occurrence of an Event of Default (other than any Event of Default as described in Section 17.1(e)), the following procedure shall apply:

- (a) The Party which is not the subject of such Event of Default may give a notice (a "**Termination Notice**") to the other Party, specifying in reasonable detail the Event of Default giving rise to such Termination Notice, and the date on which the Party giving such Termination Notice proposes to terminate this Agreement, which date shall not be less than sixty (60) Days after the date of such notice. If upon the date specified in the Termination Notice, the event giving rise to the Termination Notice is subsisting, then this Agreement shall terminate on such date or such later date as the Parties may agree and Section 17.7 shall apply;
- (b) During the period of sixty (60) Days (or such longer period set out in the Termination Notice or as the Parties may agree) following the giving of such Termination Notice, the Parties shall consult as to what steps shall be taken with a view to mitigating or remedying the consequences of the relevant event having regard to all the circumstances;
- (c) If the Party receiving the Termination Notice intends to raise a Dispute regarding the right to give effect to the Termination Notice (the "**Termination Notice Dispute**") and to refer such Termination Notice Dispute to resolution pursuant to Article 19, such Party shall within fifteen (15) Days of receipt of the Termination Notice so inform the Party giving the Termination Notice and shall immediately thereafter refer the Termination Notice Dispute to resolution in accordance with Article 19; and

(d) In circumstances where the Party in receipt of the Termination Notice has referred a Termination Notice Dispute for resolution in accordance with Section 17.4(c) above, if:

- (i) at any time after the expiry of the period referred to in Section 17.4(a), the event giving rise to the Termination Notice has not been remedied; and
- (ii) the Termination Notice Dispute has been determined in favor of the Party who has issued the Termination Notice.

then the Party having given the Termination Notice may terminate this Agreement by giving further written notice thereof to the other Party, whereupon this Agreement shall terminate on the date specified for termination in such notice (which date shall be not less than fifteen (15) Days after the date of such notice) or such later date as the Parties shall have agreed and Section 17.7 shall apply.

17.5 Exculpatory Provisions

17.5.1 Notwithstanding anything contained in this Agreement to the contrary, Meralco's failure to accept any amounts of nominated quantities of Contract Capacity and Associated Energy shall not be considered a Meralco Event of Default and Power Supplier's failure to make available Contract Capacity or supply Associated Energy shall not be considered a Power Supplier Event of Default if each such failure was direct result of:

- (a) Outages that occur within the Full Load Equivalent Outage Allowance Days;
- (b) any act or omission of the System Operator (other than acts or omission of the System Operator resulting from acts or omissions of a Party that is not otherwise excused under this Agreement); and
- (c) maintenance or repair of the Luzon Grid that materially affects the generation and transmission of electricity, where such maintenance or repair is conducted to ensure system stability and for safety reasons, in accordance with applicable Legal Requirements.

17.5.2 For the avoidance of doubt, Meralco shall not be obligated to make Capacity Payments and Energy Payments for interruptions in the supply of Contract Capacity and Associated Energy as a result of the occurrence of any of the events described in Section 17.5.1.

17.6 Termination other than upon Event of Default

17.6.1 Non-Fulfilment of Conditions to Effective Date

If any condition to the Effective Date set out in Section 3.1.1 has not been fulfilled on or before Effective Date, then either Party has the right to terminate this Agreement by giving written notice of such termination to the other Party, provided that the fulfilment of such condition is not within the control of the Party seeking to give such notice. Upon the giving of notice of termination, this Agreement shall terminate on the date specified

for termination in such notice, which date shall not be earlier than fifteen (15) Days from the date of such notice.

Notwithstanding the foregoing, if any conditions to the Effective Date have not been fulfilled on or before the Effective Date, the Parties may agree in writing to (i) extend the Effective Date or (ii) waive the non-fulfilment of such condition to the Effective Date (provided that the intended receiving Party in respect of the documents referenced in Section 3.1.1 shall have the unilateral right to waive such condition).

17.6.2 Termination Upon Non-Occurrence of Commercial Operations Date

If the Commercial Operations Date does not occur by the Delay Limit Date, the Parties shall meet and confer about the terms on which the Agreement might be continued. During such period of negotiations, Power Supplier shall continue to provide Replacement Energy. If agreement is not reached within sixty (60) Days from the Delay Limit Date or Power Supplier fails to provide Replacement Energy at any time during the said period, or Power Supplier fails to replenish the Performance Security pursuant to Section 4.6, this Agreement may be terminated by Meralco upon delivery of written notice of termination. In such instance, Meralco shall have the right to exercise its remedies at law or equity and to draw on the Performance Security the proceeds of which Meralco shall apply to set off of its damages. Notwithstanding the foregoing, the Parties may agree in writing to extend the Delay Limit Date.

17.6.3 Termination on Expiry

This Agreement shall terminate on the last Day of the Term unless otherwise extended by the application of Section 2.2.3 or Section 16.3.3 or upon the mutual agreement of the Parties.

17.6.4 Termination Upon Mutual Agreement

This Agreement may be terminated at any time upon the mutual agreement of both Parties.

17.6.5 Termination in the Event of Certain Events of Force Majeure

If an Event of Force Majeure occurs under the circumstances and having the consequences described in Section 16.4 or Section 16.5 and the Parties have failed to agree on a solution satisfactory to each of the Parties, then either Party may terminate this Agreement upon ninety (90) Days prior written notice to the other Party.

17.6.6 Termination in the Event of Change in Law

- (a) If a Change in Law materially and adversely affects the ability of a Party to perform its obligations under this Agreement, affects the sale or purchase of Contract Capacity and Associated Energy in accordance with this Agreement, makes the administration or operational aspects of such performance materially more burdensome (whether made at the direction of any Governmental Instrumentality or otherwise) or causes or may cause serious damage to, or materially and adversely affects the financial condition of a Party (other than a change in income taxes payable by a Party), the affected Party may give notice to the other Party, specifying the Change in Law and its effects on the notifying

Party. The Parties shall enter into good faith negotiations to agree on a satisfactory solution regarding the amendment of this Agreement to restore the notifying Party's commercial position prior to the Change in Law, including an adjustment of the Price. If the Parties fail to reach a mutually satisfactory resolution within sixty (60) Days from the commencement of negotiations, the Party that is affected by the Change in Law may terminate this Agreement upon sixty (60) Days prior written notice to the other Party.

- (b) If a Change in Law occurs under the circumstances and having the consequences described in Section 11.2(c) and the Parties have failed to agree on a solution satisfactory to each of the Parties, then either Party may terminate this Agreement upon thirty (30) Days prior written notice to the other Party.

17.7 Other Rights and Remedies

17.7.1 Upon the breach by either Party of any representations, warranties, covenants or obligations hereunder, the Party damaged by any such breach may, in its sole discretion, in addition to exercising any other remedies provided for hereunder, proceed in accordance with Article 19 to protect and enforce its rights, to recover any damages to which it may be entitled (including all costs and expenses reasonably incurred in the exercise of its remedy, but subject to the limitations in Section 15.5 and Section 17.3) or to seek specific performance by the other Party of such other Party's obligations under this Agreement.

17.7.2 Upon the occurrence of any Power Supplier Event of Default or Meralco Event of Default (as the case may be), the Party not in breach hereunder (the "**Non-Defaulting Party**") shall have the right to suspend the performance of its obligations under this Agreement until such Power Supplier Event of Default or Meralco Event of Default shall have been remedied to the satisfaction of the Non-Defaulting Party. During the period of suspension for a Power Supplier Event of Default, Meralco may purchase all of the Contract Capacity and Associated Energy from third parties, including the WESM; provided, however, that after the Power Supplier Event of Default shall have been remedied, the Power Supplier shall reimburse Meralco for the WESM Differential incurred in purchasing electricity, subject to Meralco exercising best efforts to mitigate its losses.

During the period of suspension for a Meralco Event of Default, Power Supplier may sell the Contract Capacity and Associated Energy to third parties, including the WESM; provided, however, that after the Meralco Event of Default shall have been remedied, Meralco shall reimburse Power Supplier for the difference between the (i) Price that Power Supplier would have received had it delivered the Contract Capacity and Associated Energy under this Agreement, and (ii) the WESM price, subject to Power Supplier exercising best efforts to mitigate its losses.

Article 18 Representations and Warranties

18.1 Representations and Warranties of Power Supplier

Power Supplier represents and warrants as of the date of this Agreement that:

- 18.1.1 Power Supplier is a corporation duly organized and validly existing under the Laws of the Philippines and has all requisite legal power and authority to execute this Agreement and to carry out the terms, conditions and provisions of this Agreement;
- 18.1.2 All legislative, administrative or other governmental action required to authorize the execution, delivery and performance by Power Supplier of this Agreement and the transactions contemplated hereby have been taken and are in full force and effect;
- 18.1.3 This Agreement constitutes the valid, legal and binding obligation of Power Supplier, enforceable in accordance with the terms thereof except as the enforceability may be limited by applicable bankruptcy, insolvency, reorganization, moratorium or other similar Laws affecting creditors' rights generally;
- 18.1.4 There are no actions, suits or proceedings pending or, to Power Supplier's knowledge, threatened, against or affecting Power Supplier before any court or administrative body or arbitral tribunal that might materially adversely affect (i) the validity, binding effect or enforceability of this Agreement, (ii) its ability to perform its obligations under this Agreement or (iii) the condition, financial or otherwise, business or operations of Power Supplier;
- 18.1.5 The execution, delivery and performance by Power Supplier of this Agreement have been duly authorized by all requisite corporate action, and will not contravene any provision of, or constitute a default under, any other agreement or instrument to which it is a party or by which it or its property may be bound;
- 18.1.6 Power Supplier is in compliance with all applicable Legal Requirements, except for any non-compliance that, individually or in the aggregate, could not reasonably be expected to have a material adverse effect on the business and/or financial condition of Power Supplier and/or its ability to fulfil its commitments and obligations under this Agreement;
- 18.1.7 Power Supplier has the qualifications, capacity and abilities to perform its obligations hereunder, pursuant to and in accordance with this Agreement; and
- 18.1.8 The Power Supplier covenants that, at all times, the Plant shall continue to be operated and maintained, in accordance with Prudent Operating Practices.

18.2 Representations and Warranties of Meralco

Meralco represents and warrants as of the date of this Agreement that:

- 18.2.1 Meralco has all requisite legal power and authority to execute this Agreement and to carry out the terms, conditions and provisions of this Agreement;
- 18.2.2 All legislative, administrative or other governmental action required to authorize the execution, delivery and performance by Meralco of this Agreement and the transactions contemplated hereby have been taken and are in full force and effect;
- 18.2.3 This Agreement constitutes the valid, legal and binding obligation of Meralco, enforceable in accordance with the terms thereof except as the enforceability may be limited by applicable bankruptcy, insolvency, reorganization, moratorium or other similar laws affecting creditors' rights generally;

18.2.4 Except as disclosed in the periodic reports submitted by Meralco to the relevant Governmental Instrumentality, there are no actions, suits or proceedings pending or, to Meralco's knowledge, threatened, against or affecting Meralco before any court or administrative body or arbitral tribunal that might materially adversely affect (i) the validity, binding effect or enforceability of this Agreement, (ii) its ability to perform its obligations under this Agreement or (iii) the condition, financial or otherwise, business or operations of Meralco;

18.2.5 The execution, delivery and performance by Meralco of this Agreement have been duly authorized by all requisite corporate action, and will not contravene any provision of, or constitute a default under, any other agreement or instrument to which it is a party or by which it or its property may be bound;

18.2.6 Meralco has the qualifications, capacity and abilities to perform its obligations hereunder, pursuant to and in accordance with this Agreement.

Article 19 Settlement of Disputes

19.1 Amicable Settlement

The Parties shall endeavor in the first instance to resolve any dispute, controversy, claim or difference of any kind whatsoever in connection with, or arising out of, this Agreement (including, without limitation, the breach, termination or validity of this Agreement) (a "Dispute") for a period of thirty (30) Days after the receipt by one Party of a written notice from the other Party of the existence of the Dispute, by mutual discussions between the Parties. To this end, on or before seven (7) Days after receipt of written notification that a Dispute exists, each of Power Supplier and Meralco shall designate in writing to the other a representative who shall be tasked to seek to resolve by an agreement between them any Dispute.

19.2 ERC Proceedings/Arbitration

19.2.1 Provided that the ERC has jurisdiction over the Dispute, any Dispute that is not resolved under Section 19.1, shall be referred to and shall be heard and resolved by the ERC in accordance with its rules on practice and procedure. Otherwise, the Dispute shall be finally resolved by binding arbitration under the Rules of Arbitration of the Philippine Dispute Resolution Center, Inc. (the "Rules") in force on the date of commencement of the arbitration, which Rules are deemed to be incorporated by reference into this provision (save as otherwise provided for in this Article 19) by three (3) arbitrators (the "Tribunal") appointed under the Rules. The place and seat of the arbitration shall be Pasig City, Philippines.

19.2.2 The Parties agree that the Tribunal shall not have the power to award damages inconsistent with Section 15.5 and Section 17.3.

19.2.3 Each Party shall appoint an arbitrator within thirty (30) Days of the commencement of an arbitration, and the two Party-appointed arbitrators shall, within thirty (30) Days after the date of this appointment of the second Party-appointed arbitrator, jointly appoint a third arbitrator who shall act as Chairman of the Tribunal. Any arbitrator not appointed within the time limits set forth in this provision shall be promptly appointed by the Philippine Dispute Resolution Center, Inc.

19.2.4 The arbitration shall be conducted in the English language and all documents submitted in connection with such proceeding shall be in the English language.

19.2.5 During the pendency of the ERC proceedings or arbitration under Section 19.2, Power Supplier, shall continue to perform its obligations hereunder to make available and deliver energy Contract Capacity and Associated Energy and Meralco shall continue to pay all amounts due hereunder in accordance with the provisions of this Agreement.

Article 20 Assignment and Change of Control

20.1 Assignment

20.1.1 Neither Party may sell, assign, novate or otherwise transfer its rights or obligations under or pursuant to this Agreement, provided, however, that:

(a) Power Supplier may, with prior written notice to Meralco, transfer, sell, pledge or assign this Agreement, and its rights and interests hereunder, to or for the benefit of the Finance Parties in connection with any financing for the construction of the Plant or permanent or term financing or refinancing of the Plant;

(b) Power Supplier, may transfer or assign this Agreement, and its rights and interests hereunder to (i) an Affiliate, or (ii) any Person succeeding to all or substantially all of Power Supplier's assets with credit worthiness equal to or higher than that of the Power Supplier, in either case subject to the prior written consent of Meralco, which consent shall not be unreasonably withheld; and

(c) Meralco may assign, transfer, designate, delegate or allocate (as determined by Meralco) such portion of Contract Capacity and Associate Energy in accordance with Article 9 of this Agreement.

20.1.2 Any actual, attempted or purported sale, assignment, novation or other transfer by a Party of any of its rights or obligations or interests in, under or pursuant to this Agreement that does not comply with the terms of this Article 20 shall be null, void and of no force or effect.

20.2 Change of Control

A Party shall promptly notify the other Party in writing in the event of any Change of Control of such Party (whether voluntary or by operation of Law).

Article 21 Miscellaneous

21.1 Language

All documents, notices, waivers and all other communications, written or otherwise, between the Parties in connection with this Agreement shall be in the English language.

21.2 [Not Used]

21.3 Notices

Any notice or other communication to be given hereunder, shall be in writing and shall be sufficiently given if delivered by registered mail, courier or hand-delivered against written receipt or if transmitted and clearly received by facsimile transmission addressed as follows:

21.3.1 In the case of Meralco, to:

MERALCO
Lopez Building
Ortigas Avenue
Pasig City, Metro Manila
Philippines 0300
Attention: Chief Executive Officer
Facsimile: (63-2) 631-5590
Telephone: (63-2) 16220

With copy to:

MERALCO
4/F Technical Services Building
Ortigas Avenue
Pasig City, Metro Manila
Philippines 0300
Attention: Head - Energy Management
Facsimile: (63-2) 632-8683
Telephone: (63-2) 1622

MERALCO
4/F Technical Services Building
Ortigas Avenue
Pasig City, Metro Manila
Philippines 0300
Attention: Head - Energy Sourcing
Facsimile: (63-2) 632-8643
Telephone: (63-2) 16226656

21.3.2 In the case of Power Supplier, to:

ST. RAPHAEL POWER GENERATION CORPORATION
c/o 2F DMCI Plaza, 2281 Don Chino Roces Avenue
Makati City, Philippines
Attention: President – Victor A. Consunji
Facsimile: (63-2) 888-3902
Telephone: (63-2) 888-3000

With copy to:
ST. RAPHAEL POWER GENERATION CORPORATION
c/o 2F DMCI Plaza, 2281 Don Chino Roces Avenue
Makati City, Philippines
Attention: Corporate Secretary

or sent to such other person by registered mail, courier or hand-delivery to such other address as any Party may designate for itself by notice given in accordance with this Section. Any such notice shall be deemed to have been received on the date of delivery.

21.4 Confidentiality

21.4.1 Each Party agrees that it will, and will ensure that its employees, officers and directors will, and will make reasonable efforts to ensure that its agents will, hold in confidence all information, documentation, data or know-how disclosed to it by the other Party and designated in writing as confidential (the "**Confidential Information**"), and will not disclose to any third party or use Confidential Information or any part thereof without the other Party's prior written approval, provided that Confidential Information may be disclosed to (i) a Governmental Instrumentality pursuant to Legal Requirements or a stock exchange when required by it, and (ii) financial institutions, bona fide potential purchasers, and consultants and contractors whose duties reasonably require such disclosure; provided that, except for a bona fide disclosure to independent legal advisors and to the ERC, such Party intending to make a disclosure of Confidential Information shall first have obtained an agreement in writing pursuant to which the person or entity to which Confidential Information is proposed to be disclosed agrees not to disclose the relevant Confidential Information to any other person for any purposes whatsoever.

21.4.2 The restrictions in this Section 21.4 shall not apply, or shall cease to apply, to any part of the Confidential Information that:

- (a) is in the public domain other than by reason of a breach of Section 21.4.1;
- (b) was in the rightful possession of the recipient Party or an employee, officer or director of the recipient Party at or prior to the time of the disclosure; or
- (c) was obtained by the recipient Party in good faith from a third party entitled to disclose it.

21.5 Survival

The provisions of Article 15 shall survive termination of this Agreement. The restrictions contained in Section 21.4 shall survive for a period of two (2) years after the termination or expiry of this Agreement.

21.6 Severability of Provisions

Each provision of this Agreement is severable and distinct from the others. The Parties intend that every provision of it shall be and remain valid and enforceable to the fullest extent permitted by Law. If any provision of this Agreement is or at any time becomes to any extent invalid, illegal or unenforceable for any reason, such provision shall to

that extent be deemed not to form part of this Agreement, but the validity, legality and enforceability of the remaining parts of this Agreement shall not be thereby affected or impaired.

21.7 Waiver

Neither Party shall be deemed to have waived any right under this Agreement, unless such Party shall have delivered to the other Party a written waiver signed by an authorized officer of such waiving Party. No delay or omission in the exercise of any power or remedy shall be construed to be a waiver of any default or acquiescence therein.

21.8 Amendment

This Agreement may be amended or modified only by a written instrument signed by each of the Parties.

21.9 Entire Agreement

21.9.1 This Agreement constitutes the entire agreement between Meralco and Power Supplier concerning the subject matter of this Agreement and supersedes any prior agreement, understanding, undertaking or arrangement between the Parties relating to the subject matter of this Agreement. All previous documents, undertakings and agreements, whether verbal, written or otherwise, between the Parties concerning the subject matter of this Agreement are hereby cancelled and shall not affect or modify any of the terms or obligations set out in this Agreement, except as the same may be made part of this Agreement in accordance with its terms, including the terms of any of the Appendices and/or the Schedules.

21.9.2 The Appendices and Schedules are hereby made an integral part of this Agreement and shall be fully binding upon the Parties.

21.9.3 In the event of any inconsistency between the text of the Articles of this Agreement, the Appendices and the Schedules hereto, the text of the Articles of this Agreement shall be controlling. If any such inconsistency shall become apparent, Meralco and Power Supplier shall consult to resolve the inconsistency in a manner consistent with the foregoing.

21.9.4 The Parties acknowledge and agree that by entering into this Agreement, they do not rely on any statement, representation, assurance or warranty of any Person (whether a party to this Agreement or not and whether made in writing or not) other than as expressly set out in this Agreement.

21.10 Further Acts and Assurances

Each of the Parties agrees to execute and deliver all such further instruments, and to do and perform all such further acts and things, as shall be reasonably necessary or convenient to carry out the provisions of this Agreement.

21.11 Third Party Rights

This Agreement shall not confer any right, benefit or cause of action whatsoever in favor of any Person who is not a Party to this Agreement.

21.12 Expenses

Except as otherwise provided in this Agreement, each Party shall pay its own costs and expenses (including, without limitation, the fees and expenses of its agents, representatives, advisors, counsel and accountants) necessary for the negotiation, preparation, execution, delivery, performance of and compliance with this Agreement.

21.13 Warranty Against Corruption

Each Party represents and warrants to the other that it and its representatives, affiliates or subsidiaries have complied with all Laws dealing with corrupt or illegal payments, gifts, or gratuities, including Republic Act No. 3019 (the Anti-Graft and Corrupt Practices Act). Each Party agrees not to (and to cause its representatives, affiliates or subsidiaries not to) in connection with the activities contemplated by this Agreement pay, promise to pay, seek, accept, or authorize the payment of any money or anything of value, directly or indirectly, to any person or entity (whether a governmental official or private individual) for the purpose of illegally or corruptly influencing any governmental employee or official, any political party or official thereof or any candidate for political office. Furthermore, each Party agrees that in connection with this Agreement and the activities contemplated hereby, it and its representatives, affiliates or subsidiaries will not take any action, or fail to take any action, which act or failure to act would subject the other Party or any of its representatives, affiliates or subsidiaries to liability under the laws of its country of domicile dealing with corrupt payments. Each Party agrees to indemnify the other Party from and against any loss, liability or damage (including reasonable attorney's fees) arising from or relating to such Party's breach of its representations, warranties, and obligations under this Section 21.13. Each Party represents and warrants to the other that prior to the date of this Agreement, it and its representatives, affiliates or subsidiaries have not taken any action in contravention of the foregoing in connection with the subject matter hereof.

21.14 Counterparts

This Agreement may be entered into in any number of counterparts and by the Parties to it on separate counterparts, and each of the executed counterparts, when duly exchanged or delivered, shall be deemed to be an original, but taken together, they shall constitute one and the same instrument, provided that this Agreement shall be effective only on the date of the signature of the last signing Party.

21.15 No Partnership

Nothing contained in this Agreement shall be construed to create an association, partnership or joint venture, or impose a trust or partnership duty, obligation or liability on or with regard to either Party, or to create any duty, standard of care or liability to any person or entity not a Party to this Agreement.

21.16 **Governing Law**

This Agreement shall be governed by, and construed in accordance with, the Laws of the Philippines.

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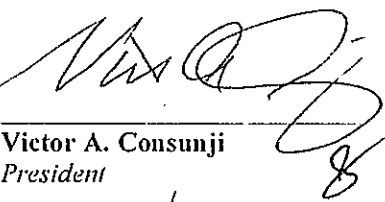
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IN WITNESS WHEREOF, each of the Parties has caused this Agreement to be executed as of the Day and year first above written.

MANILA ELECTRIC COMPANY

ST. RAPHAEL POWER GENERATION CORPORATION

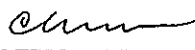
By: 
Name: **Alfredo S. Panlilio**
Title: *Senior Vice President and Head, Customer Retail Services and Corporate Communications*

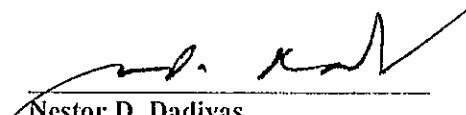
By: 
Name: **Victor A. Consunji**
Title: *President*

By: 
Name: **Ronnie L. Aperoch**
Title: *First Vice President and Head, Networks*

WITNESSED BY:

WITNESSED BY:

By: 
Name: **Ciprinilo C. Meneses**
Title: *Head, Energy Sourcing*

By: 
Name: **Nestor D. Dadivas**
Title:

ACKNOWLEDGMENT

REPUBLIC OF THE PHILIPPINES)
PASIG CITY) s.s.

BEFORE ME, a Notary Public for and in Pasig City, Philippines, this APR 28 2016, personally appeared:

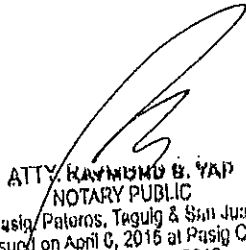
Name	Personal Identification	Date/Place Issued
Victor A. Consunji	Passport No. EB 5899814	July 10, 2017/ DFA Manila
Alfredo S. Panlilio	Passport No. EB 5654502	June 14, 2017/DFA Manila
Ronnie L. Apercho	Passport No. EB 9627487	November 19, 2018/DFA Manila

all known to me and to me known to be the same persons who executed the foregoing instrument for and in behalf of their respective corporations, and they acknowledged before me that the same is their free and voluntary act and deed, as well as that of their respective corporations, and that they are duly authorized to sign, execute and deliver the same.

This instrument consists of _____ pages, including this page on which this Acknowledgment is written, and Appendices A to H, which are attached to this Power Supply Agreement, and all pages have been signed by the parties and their instrumental witnesses on each and every page hereof and sealed with my notarial seal.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my notarial seal on the date and the place first above-written.

Doc. No: 732 ;
Page No: 69 ;
Book No: I ;
Series of 2016.


ATTY. **RAYMOND B. YAP**
NOTARY PUBLIC
Pasig, Pateros, Taguig & San Juan
Issued on April 6, 2016 at Pasig City
until December 31, 2016
Roll No. 5/889; IBP No. 1023728; 01/08/16; Capiz
PTT No. 1473414; 01/21/16; Pasig City
7th Floor, Lopez Bldg., Ortigas Ave., Pasig City

APPENDIX A
PLANT DESCRIPTION, SITE, ETC.

LOCATION:

The Plant is located along the shorelines of Balayan Bay, San Rafael, Calaca, Batangas. It is bounded on the north by the National Highway, on the west by Dacanlao River, on the east by Cawong (Bolboc) River and Balayan Bay in the south.

POWER PLANT DESCRIPTION:

The following are the prescribed specifications for the major components of the Plant:

Steam Generator	Unit 1 & 2
Type	Natural Circulation, Reheat-Regenerative, Single Drum
Fuel Burning	Coal/Oil, Oppose-firing Burners
Rated Steam Flow	1,165 t/h
SH Outlet Pres.	176.7 kg/cm ²
SH Outlet Temp.	569 C
RH Outlet Pres.	38.4 kg/cm ²
RH Outlet Temp.	569 C
FW Temp. at Eco Inlet	275 C
Coal Consumption	294.3 t/h
Boiler Efficiency	83.44 %
Draft System	Balanced Draft
<hr/>	
Steam Turbine	Unit 1 & 2
Type	Tandem Compound, Double-flow, Reheat Turbine
Rated Output	381 MW
Rated Speed	3600 rpm
Main Steam Pressure	176.7 kg/cm ²
Main Steam Temp.	569 C
Reheat Steam Temp	569 C
Exhaust Pressure	54.9 mm Hg
<hr/>	
Generator	Unit 1 & 2
Type	3-Phase, Horizontal Shaft, Direct Water-cooled Stator, Direct Hydrogen-cooled Rotor
Rated Active Power	381 MW
Rated Apparent Power	480 MVA
Rated Speed	3600 rpm
Rated Stator Voltage	19.5 KV
Hydrogen Pressure	4.2 kg/cm ²

Condenser	Unit 1 & 2
Type	Divided Water Box-Type Surface
Condenser Surface	Later
Vacuum if Exhaust Steam	696.108 mm Hg vac.
Tube Cleanliness Factor	0.90
Circulating Water	Seawater
CW Quantity	1.284 m ³ /min
CW Temp	30 C
CW Temp Rise	5.5 C
No. of Pass	One (1)
# of Condenser Tubes	Later
Tube Material	ASTM B338 Gr.2

N.B.: Technical specifications provided are subject to confirmation at Commercial Operations
Date

APPENDIX B
TECHNICAL LIMITS

1 **DEFINITIONS**

All capitalized terms used herein shall have the meaning given to them in Article 1 of this Agreement, except as otherwise defined herein.

2 **TECHNICAL LIMITS**

Technical Parameter	Technical Limit*
Design capacity (in MW)	350 x 2 units
Frequency Limits (Hertz)	57.5 & 62.5
Voltage Limits (kV)	22 kV
Reactive Power	0.85 PF Lagging
Grid System Fault Level	40 kA
Critical Fault detection and Clearing Time Limits	Overcurrent- 1 sec Earth Fault-0.5 sec
Stability Limits	4 times of inrush
Black Starts (in minutes) a. Cold Starts b. Warm Starts c. Hot Starts d. Emergency Starts(Very Hot)	 a. 415 min. approx. b. 280 min. approx. c. 105 min approx. d. 90 min. approx.

* Indicative limits to be confirmed at Commercial Operations Date

APPENDIX C
DOCUMENTS TO BE DELIVERED BY THE PARTIES

The Parties shall deliver the following documents to each other in accordance with Section 3.1 of this Agreement. All capitalized terms used herein shall have the meanings given to them in Article 1 of this Agreement.

1 Documents to be delivered by Power Supplier to Meralco

(a) to achieve Effective Date:

(i) A copy of the Articles of Incorporation and Certificate of Incorporation (or other constitutional document) of Power Supplier.

(ii) copy of the resolution of the board of directors of Power Supplier approving the terms of, and the transactions contemplated by this Agreement and resolving that it execute the Agreement and all other documents in connection therewith.

(iii) certificate from an authorized representative of Power Supplier certifying that each copy document specified in this part 1 of Appendix C relating to Power Supplier is correct, complete and in full force and effect as of the Effective Date.

(b) to achieve Commercial Operations Date:

(i) copy of Power Supplier's certificate of compliance as a generation company issued by the ERC.

(ii) copies of Power Supplier's duly executed Connection Agreement, Metering Services Agreement, and Transmission Service Agreement.

(iii) copy of Power Supplier's duly executed Market Participation Agreement.

(iv) copies of certificates or other evidence of insurance in accordance with Article 14 and in Appendix D to this Agreement are in full force and effect.

(v) copy of Power Supplier's Coal Supply Agreement, including copies of its existing and proposed coal supply and transportation contracts, if any.

2 Documents to be delivered by Meralco to Power Supplier

(a) A copy of the Articles of Incorporation and Certificate of Incorporation (or other constitutional document) of Meralco.

(b) A copy of the resolution of the board of directors of Meralco approving the terms of, and the transactions contemplated by this Agreement and resolving that it execute this Agreement and all other documents in connection therewith.

(c) A certificate from an authorized representative of Meralco certifying that each copy document specified in this part 2 of Appendix C relating to Meralco is correct, complete and in full force and effect as of the Effective Date.

(d) A copy of the Certificate of Public Convenience and Necessity.

APPENDIX D
SCHEDULE OF MINIMUM INSURANCE REQUIREMENTS

1 Operations Effective Date Insurance

On or before Operations Effective Date (Unit 1), Power Supplier shall obtain, and thereafter shall annually renew and maintain in effect for the duration of this Agreement, builders' or all risk insurance on an all risk basis in an amount not less than the full replacement or estimated maximum loss cost of the Plant to protect against loss or damage to or destruction of the Plant. The policy(ies) will include coverages for inland transit, expediting expense, demolition and increased cost of the construction, earthquake, and flood. To the extent that sublimits apply to these coverages, such sublimits will be customary for similar facilities in the Philippines. The policy will also provide delay in start up insurance for an indemnity period sufficient to cover lost revenue that results from any peril covered under the policy, and extra expense coverage with customary limits. The policies will contain the following deductibles:

Property damage	—	As acceptable to Finance Parties
Delay in start-up	—	As acceptable to Finance Parties
Earthquake & flood	—	As acceptable to Finance Parties

2 Commercial Operations Date Insurances

The following insurances are required to be effected by Power Supplier on or before Commercial Operations Date. Such insurances shall be annually renewable and maintained in effect by Power Supplier for the duration of this Agreement:

- (a) marine insurance in respect of the Plant, equipment, parts and accessories to be imported into the Republic of the Philippines, for full replacement cost of imported equipment;
- (b) general liability insurance (or equivalent Philippine insurance) to cover third party bodily injury and property damage, covering all premises and operations including products and completed operations, contractual liability, personal injury, and employers liability. Coverage shall be on an "occurrence form." Limits of liability of USD\$5 million (or PHP equivalent) per occurrence and in the aggregate;
- (c) workers compensation insurance as required by Legal Requirements.

3 Force Majeure Insurance

In addition to the insurance coverages required above, Power Supplier agrees to advise Meralco in the event additional insurances coverages are or become available during the term of this Agreement on commercially reasonable terms which insure against uninsured Event of Force Majeure. In the event Meralco and Power Supplier agree that procuring such coverage is appropriate, Power Supplier shall obtain such coverage.

APPENDIX E

CALCULATION OF PAYMENT

1 DEFINITIONS

All capitalized terms used herein shall have the meanings given to them in Article 1 of this Agreement, except as otherwise defined herein.

Full Load Equivalent Days means the equivalent duration, expressed in number of Days, of a portion of the Contract Capacity, either for the available portion or unavailable portion of Contract Capacity, computed as the ratio of such portion or Contract Capacity to the product of the Contract Capacity and twenty four (24) hours.

GNPHR_{yji} means the **Guaranteed Net Plant Heat Rate** for the relevant plant life year *y* at specific load *j* stated in Btu/kWh stipulated in Schedule 5 of this Appendix E with respect to each hour *i* of the Billing Period, provided that the rate stated therein shall be restated to reflect the actual net plant heat rate of the Plant pursuant to the Net Plant Heat Rate Test in accordance with Section 7.4 of this Agreement.

2 PAYMENT STRUCTURE

The payment to be made in each Billing Period during the Term for Contract Capacity and Associated Energy shall consist of a Capacity Payment, Energy Payment, Reimbursable Costs and applicable value-added tax. The Capacity Payment consists of Component A (MCP) and Component B (MFOM), the Energy Payment consists of Component C (FP) and Component D (MVOM), the Reimbursable Costs consists of Component E (RC), and Component F (VAT). All payments to Power Supplier under this Agreement will be made in Philippine Pesos (PHP). All computations for payments to Power Supplier shall not be rounded off, except for the final PHP amount, which shall be rounded off to the nearest centavo.

A sample calculation of the payment is set forth in Schedule 4 of this Appendix E.

3 PAYMENT FOR CAPACITY AND ENERGY

For every Billing Period, the total payment of Power Supplier for Contract Capacity and Associated Energy shall equal the sum of Components A, B, C, D, E, and F.

Meralco shall deduct and withhold from the amounts payable under a Final Invoice, the applicable creditable withholding tax and Meralco shall remit any amounts withheld for such tax to the relevant taxing authorities. Meralco shall remit the applicable value-added tax on Contract Capacity and Associated Energy to Power Supplier in accordance with the Philippine Bureau of Internal Revenue Memorandum Circular No. 61-2005 and ERC Resolution No. 20-2005.

⊛ Thus, the Monthly Power Bill ("MPB") payment for Contract Capacity and Associated Energy for each Billing Period shall be equal to:

$$MPB = MCP + MFOM + FP + MVOM + RC + VAT$$

Capacity Payment

Component A

Capacity Payments will be based on the Contract Capacity.

The Capacity Payment for each Billing Period shall be calculated based on the following formula:

$$MCP = (CP_{PHP} + CA_{PHP}) * CC * EDA_M$$

Where:

MCP = the payment for Contract Capacity in the Billing Period, in PHP

CP_{PHP} = the Capacity Payment in Philippine Pesos/kW-day , calculated as the Annual Capacity Fee (in PHP/kW-yr) agreed upon by the Power Supplier and Meralco and set forth in Schedule I to this Appendix E, prorated by the number of days in the relevant Contract Year, and divided by TEDA for the current Contract Year. By formula,

$$CP_{PHP} = (CYF * \text{Annual Capacity Fee (PHP/kW-year)}) / TEDA$$

where:

CYF = the Contract Year Factor calculated as the number of days in the Contract Year divided by the number of days in the relevant calendar year. By formula:

CYF = $CYD / 366$ (for the Contract years containing February 29)

CYF = $CYD / 365$ (for the Contract years not containing February 29)

where:

CYD = number of days in the relevant Contract Year.

TEDA = the Target Full Load Equivalent Days of Availability for the Contract Year as determined by the number of Days in the Contract Year, prorated by the number of days in the relevant Contract Year, less the Full

Load Equivalent Outage Allowance Days. By formula,

$$\text{TEDA} = \frac{(\text{CYF} * 366) - \text{OA (for the Contract years containing February 29)}}{-}$$

$$\text{TEDA} = \frac{(\text{CYF} * 365) - \text{OA (for the Contract Years not containing February 29)}}{-}$$

where:

CYF = as previously defined

OA = the Full Load Equivalent Outage Allowance Days calculated as the Base Full Load Equivalent Outage Allowance Days prorated by the number of days in the relevant Contract Year. By formula:

$$\text{OA} = \text{CYF} * \text{BOA}$$

where:

BOA = Base Full Load Equivalent Outage Allowance Days for the period set forth in Schedule I of this Appendix E

CYF = as previously defined

CA_{PHP} = the Connection Asset Payment in Philippine Pesos/kW-day , calculated as the Annual Connection Asset Fee (in PHP/kW-yr) agreed upon by the Power Supplier and Meralco and set forth in Schedule I to this Appendix E, prorated by the number of days in the relevant Contract Year, and divided by TEDA for the current Contract Year. By formula,

$$\text{CA}_{\text{PHP}} = (\text{CYF} * \text{Annual Connection Asset Fee (PHP/kW-year)}) / \text{TEDA}$$

where:

CYF = as previously defined

TEDA = as previously defined

CC = Contract Capacity

EDA_{M} = the Full Load Equivalent Days of Availability achieved in the relevant Billing Period, calculated as:

- (1) the Gross Full Load Equivalent Days of Availability ($GEDA_M$),
- (2) plus the adjustment in days of availability due to outages taken beyond the outage allowance, whenever OT_A exceeds OA ,
- (3) less the adjustment in days of availability due to unutilized outage allowances, whenever $(EDA_{A(M-1)} + GEDA_M)$ exceeds $(TEDA - FMOT_A)$

by formula,

$$EDAM = GEDAM + AADE - AADU$$

where:

$GEDA_M$ = the Gross Full Load Equivalent Days of Availability achieved in the relevant Billing Period during Days in the Billing Period, calculated as:

- (1) the number of Days in the Billing Period,
- (2) less the Full Load Equivalent Outage Days Taken during the Billing Period,
- (3) less the Full Load Equivalent Force Majeure Days Taken during the Billing Period.

By formula,

$$GEDA_M = BPD - OT_M - FMOT_M$$

where:

BPD = the number of Days in the Billing Period

OT_M = the Full Load Equivalent Outage Days Taken during the Billing Period

$FMOT_M$ = the Full Load Equivalent Force Majeure Days Taken during the Billing Period in accordance with Article 15

$AADE$ = adjustment in days of availability due to Cumulative Full Load Equivalent Outage Days Taken for the Contract Year as of the relevant Billing period beyond the Full Load Equivalent Outage Allowance Days, whenever OT_A exceeds OA , calculated as:

If $OT_A \geq OA$ and $(OT_A - OA) \geq OT_M$, then:

$$AADE = OT_M$$

If $OT_A \geq OA$ and $(OT_A - OA) < OT_M$, then:

$$AADE = OT_A - OA$$

Otherwise, $(OT_A < OA)$, $AADE = 0$

Where:

$OT_M =$ as defined previously

$OT_A =$ the Cumulative Full Load Equivalent Outage Days Taken for the Contract Year as of the relevant Billing period, calculated as the sum of all OT_M for the current Contract Year

$OA =$ as previously defined

$AADU =$ adjustment in days of availability due to unutilized outage allowances whenever $(EDA_{A(M-1)} + GEDA_M)$ exceeds $(TEDA - FMOT_A)$, calculated as:

If $(EDA_{A(M-1)} + GEDA_M) \geq (TEDA - FMOT_A)$, then:

$$AADU = (EDA_{A(M-1)} + GEDA_M) - (TEDA - FMOT_A)$$

Otherwise $(EDA_{A(M-1)} + GEDA_M) < (TEDA - FMOT_A)$,

$$AADU = 0$$

where:

$EDA_{A(M-1)} =$ the Cumulative Full Load Equivalent Days of Availability for the Contract Year at the end of the previous Billing Period, calculated as the sum of all EDA_M for the current Contract Year up to the previous Billing Period

$GEDA_M =$ as previously defined

FMOT_A = the Cumulative Full Load Equivalent Force Majeure Days Taken for the Contract Year as of the relevant Billing period, calculated as the sum of all FMOT_M for the current Contract Year

TEDA = as previously defined

For the avoidance of doubt, the computation of full load equivalent is based on the Contract Capacity.

The following example illustrates the computation of Full Load Equivalent Days (OT_M and FMOT_M) in case of outage by the Power Supplier:

Example: An Outage reduced the Plant's capacity nomination to 200 MW over the first three hours and then to 100 MW over the next three hours.

Full Load Equivalent Outage Days

$$= (((400 - 200) * 3) / (400 * 24)) + (((400 - 100) * 3) / (400 * 24))$$

$$= 0.0625 + 0.9375$$

$$= 0.15625 \text{ day}$$

Component B

Fixed O&M Payments

Component B consists of the Fixed O&M payments for the Billing Period calculated as follows:

$$MFOM = MFOM_{PHP} + MFOM_{USD}$$

Where:

$$MFOM_{PHP} = FOM_{PHP} * PCPI_i / PCPI_o * CC$$

$$MFOM_{USD} = FOM_{USD} * USCPI_i / USCPI_o * CC * FX_i$$

Where:

MFOM = the total Fixed O&M payment for the Billing Period, in PHP, calculated as the sum of MFOM_{PHP} and MFOM_{USD}

FOM_{PHP} = the Fixed O&M_{PHP} payment in PHP/kW-month for the Billing Period, equal to the Annual Fixed O&M_{PHP} Fee agreed to between the Power Supplier and Meralco and set forth in Schedule 1 to this Appendix E, divided by 12. By formula,

$$FOM_{PHP} = \text{Annual Fixed O\&M}_{PHP} \text{ Fee (PHP/kW-year)} / 12$$

PCPI_i = the Philippine Consumer Price Index for All Income Households in the Philippines – All Items (2006=100) for the calendar month immediately preceding the relevant Billing Period

PCPI_o = the Base Philippine Consumer Price Index for All Income Households in the Philippines – All Items (2006=100) as indicated in Schedule 1 hereof.

CC = as previously defined

FOM_{USD} = the Fixed O&M_{USD} payment in USD/kW-month for the Billing Period, equal to the Annual Fixed O&M_{USD} Fee agreed to between the Power Supplier and Meralco and set forth in Schedule 1 to this Appendix E, divided by 12. By formula,

$$FOM_{USD} = \text{Annual Fixed O\&M}_{USD} \text{ Fee (USD/kW-year)} / 12$$

USCPI_i = the US Consumer Price Index City Average for All Urban Consumers – All Items (1982-84=100) for the calendar month immediately preceding the relevant Billing Period

USCPI_o = the Base US Consumer Price Index City Average for All Urban Consumers – All Items (1982-84=100) as indicated in Schedule 1 hereof.

FX_i = the average of the daily Philippine Dealing System (PDS) closing rates of the Philippine Peso to US Dollar Exchange Rate for the calendar month immediately preceding the Billing Period.

CC = as previously defined

Fuel Payment

Component C

Fuel Payment (MFP) shall be based on the following formula:

$$MFP = [\sum (AE_i * GNPHR_{yji})] * TFC_m$$

Where:

- MFP = the total fuel payment for the relevant Billing Period, in PHP
- AE_i = the BCQ nominated by Meralco and declared by Power Supplier to the Market Operator during each hour of the Billing Period, in kWh
- $GNPHR_{yji}$ = as previously defined
- TFC_m = the total delivered fuel cost associated with the Contract Capacity in PHP/Btu for the Billing Period, consisting of the Fuel Coal Commodity Cost for the Billing Period (MFCC) plus the Fuel Coal Transportation Cost for the Billing Period (MFTC) as determined through the following formulas, to be calculated on a Billing Period basis.

If the fuel supply agreement requires Power Supplier to purchase fuel in whole or in part in US Dollars, then the TFC calculation shall convert the US Dollar fuel costs to PHP based on the Exchange Rate in effect one (1) Business Day prior to the date the Provisional Invoice is issued to Meralco by Power Supplier in accordance with Appendix H.

$$MFCC = FCC_o * (FI_i/FI_o) * (FX_i/FX_o)$$

Where:

FCC_o = the base fuel coal cost, in PHP/Btu, computed as:

$$FCC_o = (BFCCC / CHV) / 2,204.6226$$

BFCCC = the Base Fuel Coal Commodity Cost, in PHP/MT set forth in Schedule 1 of this Appendix E

CHV = the coal heating value, in Btu/lb, equal to the average heating value of coal deliveries for the calendar month immediately preceding the Billing Period

1 MT = 2,204.6226 lbs

FI_i = the average Newcastle Index for the last three calendar months prior to the start of the Billing Period for which the invoice is being prepared, as

posted by 'globalCOAL' on the website www.globalcoal.com or its successor or, if globalCOAL ceases to report the Newcastle Index, an agreed upon replacement source that reports the Newcastle Index, with agreement not to be unreasonably withheld by the Parties.

$FI_0 =$ the Base Newcastle Index set forth in Schedule I of this Appendix E.

$FX_i =$ as previously defined

$FX_0 =$ the Base Philippine Peso to US Dollar Exchange Rate set forth in Schedule I of this Appendix E.

$$MFTC = (FCTC / CHV) / 2.204.6226$$

Where:

$FCTC =$ the Fuel Coal Transport Cost, in PHP/MT, computed as the actual freight charges and costs of delivery associated with the transportation of coal based on the moving weighted average of actual freight and other invoices of coal deliveries for the calendar month immediately preceding the Billing Period plus incidental costs of 2.50 PHP/MT

$CHV =$ as previously defined

$1 \text{ MT} = 2,204.6226 \text{ lbs}$

Component D

Variable O&M Payments

$$VOM = VOM_B * PCPI_i / PCPI_0 * \sum AE_i$$

Where:

$VOM =$ the total payment for variable O&M for the relevant Billing Period, in PHP

$VOM_B =$ the base Variable O&M Payment in PHP/kWh agreed to between Power Supplier and Meralco set forth in Schedule I of this Appendix E

PCPI_i = as previously defined

PCPI_o = as previously defined

AE_i = as previously defined

Reimbursable Costs

Component E

Component E is the Reimbursable Cost (RC) for each Billing Period which shall be based on the following formula:

$$RC = RPTP + SP + SDC + SUC$$

Where:

RC = the total payment for Reimbursable Cost for the relevant Billing Period, in PHP

RPTP = Real Property Tax Payment, assessed and paid by Power Supplier during the relevant Billing Period for real property owned, leased, or used by or the primary benefit of which is enjoyed by Power Supplier, that Meralco shall reimburse Power Supplier (in the proportion of the Contract Capacity to the Net Dependable Capacity)

SP = Supplemental Payment that shall include the following:

- (a) Energy and Environmental Tax, if applicable;
- (b) any applicable NGCP PDS and SO Charges or ancillary service charges by NGCP for the supply of Contract Capacity and Associated Energy to Meralco;
- (c) any applicable "Compensation for Must Run Unit" pursuant to any order of the ERC should any be charged in connection with the supply of Contract Capacity and Associated Energy to Meralco;
- (d) Benefits to Host Community Charges under ER 1-94;
- (e) WESM Market Fees; and
- (f) local business taxes.

SDC = the Shut Down Cost or the expenses or cost incurred once the unit starts to use Heavy and Light Fuel Oil to facilitate ramping down until such time that the unit is completely offline, calculated as:

$$SDC = (HFO_{vol_SDC} * HFO_{price}) + (LFO_{vol_SDC} * LFO_{price})$$

Where:

HFO_{vol_SDC} = the volume of Heavy Fuel Oil consumed to facilitate ramping down until such time that the unit is completely offline, in Liters

HFO_{price} = the price in PHP/Li of Heavy Fuel Oil, based on most recent invoice prior to occurrence of Shut Down

LFO_{vol_SDC} = the volume of Light Fuel Oil consumed to facilitate ramping down until such time that the unit is completely offline, in Liters

LFO_{price} = the price in PHP/Li of Light Fuel Oil, based on most recent invoice prior to occurrence of Shut Down

SUC = the Start Up Cost or the expenses or cost incurred once the unit starts to use Heavy and Light Fuel Oil to facilitate ramping up until such time that the unit is synchronized to the grid, in PHP, calculated as

$$SUC = (HFO_{vol_SUC} * HFO_{price}) + (LFO_{vol_SUC} * LFO_{price})$$

Where:

HFO_{vol_SUC} = the volume of Heavy Fuel Oil consumed to facilitate ramping up until such time that the unit is synchronized to the grid, in Liters

HFO_{price} = as previously defined

LFO_{vol_SUC} = the volume of Light Fuel Oil consumed to facilitate ramping up until such time that the unit is synchronized to the grid, in Liters

LFO_{price} = as previously defined

Value-Added Tax

Component F

Component F consists of the applicable value-added tax which is required to be billed and paid under Philippine tax laws and regulations, including Philippine Bureau of Internal Revenue Memorandum Circular No. 61-2005 and ERC Resolution No. 20-2005.

4 NON-FIRM ENERGY PAYMENT

The Non-Firm Energy Payment shall be computed based on the following formula:

$$NFEP = (NFP * AE_{NF}) + SP$$

Where:

NFEP = the total payment for Associated Energy delivered by Power Supplier on a non-firm basis in accordance with Section 3.5 of this Agreement for the relevant Billing Period, in PHP

NFP = the Non-Firm Price in accordance with Section 3.5 of this Agreement for the relevant Billing Period, in PHP/kWh, computed as:

$$NFP = CP_h + CA_h + FOM_h + FP_h + VOM_h$$

Where:

CP_h = the hourly Capacity Fee in PHP/kWh, computed as:

$$CP_h = \text{Annual Capacity Fee (PHP/kW-year)} / 8,760 \text{ hours}$$

CA_h = the hourly Connection Asset Fee in PHP/kWh, computed as:

$$CA_h = \text{Annual Connection Asset Fee (PHP/kW-year)} / 8,760 \text{ hours}$$

FOM_h = the hourly Fixed Operations and Maintenance Fee in PHP/kWh, calculated as:

$$FOM_h = [FOM_{PHP,h} * (PCPI_i / PCPI_o)] + [FOM_{USD,h} * (USCPI_i / USCPI_o) * FX_i]$$

Where:

$FOM_{PHP,h}$ = the hourly Fixed O&M_{PHP} in PHP/kWh, computed as:

$$FOM_{PHP,h} = \text{Annual FOM}_{PHP} \text{ Fee (PHP/kW-year)} / 8,760 \text{ hours}$$

$PCPI_i$ = as previously defined

$PCPI_o$ = as previously defined

$FOM_{USD,h}$ = the hourly Fixed O&M_{USD} in USD/kWh, computed as:

$$FOM_{USD,h} = \text{Annual } FOM_{USD} \text{ Fee (USD/kW-year)} / 8,760 \text{ hours}$$

$USCPI_i$ = as previously defined

$USCPI_o$ = as previously defined

FX_i = as previously defined

FP_h = the hourly Fuel Fee in PHP/kWh, calculated as: -

$$FP_h = GNP_{HR,yji} * TFC_m$$

Where:

$GNP_{HR,yji}$ = as previously defined

TFC_m = as previously defined

$$VOM_h = VOM_B * PCPI_i / PCPI_o$$

Where:

VOM_B = as previously defined

$PCPI_i$ = as previously defined

$PCPI_o$ = as previously defined

AE_{NF} = the Associated Energy delivered by Power Supplier on a non-firm basis in accordance with Section 3.5 of this Agreement -

SP = as previously defined

5 INVOICE

Each Invoice shall show the calculation of the Capacity Payment and Associated Energy payment, including Components A, B, C, D, E and F and the calculation of the Non-Firm Energy Payment, as applicable, for the Billing Period. The invoice shall also track the calculation of the cumulative EDA (EDA_A) and TEDA for the Contract Year.



SCHEDULE 1

Annual Capacity Fee		PHP/kW-year	14,910.757
Annual Connection Asset Fee		PHP/kW-year	73.268
Annual Fixed O&M _{PHP} Fee		PHP/kW-year	967.823
Annual Fixed O&M _{USD} Fee		USD/kW-year	34.137
Variable O&M Fee	VOM _B	PHP/kWh	0.0995
Base Fuel Coal Commodity Cost	BFCCC	PHP/MTon	1,460.257
Base Philippine CPI	PCPI ₀		142.500
Base US CPI	USCPI ₀		237.111
Base Newcastle Index	FI ₀	USD/MTon	50.38
Base PHP to USD Exchange Rate	FX ₀	PHP/USD	46.07
Base Full Load Equivalent Outage Allowance Days	BOA	Days	45

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SCHEDULE 3

SAMPLE CALCULATIONS OF TEDA AND EDAM

A. Calculation of TEDA

Agreed Values		
Full Load Equivalent Outage Allowance Days	OA	45 Days
Assumed Values		
Contract Year		20YY
Number Days in the Contract Year		365Days
TEDA = Number of Days in the Contract Year – OA		
= 365 – 45		
= 320 Days		

B. Calculation of EDAM

Agreed Values		
Full Load Equivalent Outage Allowance Days	OA	45 Days
Assumed Values		
Contract Year		20YY
Number Days in the Contract Year		365 Days
Contract Effectivity		December 26, 20YY-I
Billing Period		June 26, 20YY to July 25, 20YY
Number of Days in Billing Period	BPD	30 Days

Case 1: No Outage

Other Assumed Values			
Previous Months	EDAM	OTM	FMOTM
January	31	0	0
February	31	0	0
March	28	0	0
April	31	0	0
May	30	0	0
June	31	0	0
Current Month: July		0	0

EDAM = GEDAM + AADE – AADU

1. Calculation of GEDAM

GEDAM = BPD – OTM – FMOTM
= 30 – 0 – 0
= 30 Days

2. Calculation of AADE

OTA = OTJAN + OTFEB + OTMAR + OTAPR + OTMAY + OTJUN + OTJUL
= 0 + 0 + 0 + 0 + 0 + 0 + 0
= 0 Day

$$\begin{aligned}
 \text{AADE} &= \text{Maximum} (\text{Minimum} (\text{OT}_A - \text{OA}, \text{OT}_M), 0) \\
 &= \text{Maximum} (\text{Minimum} (0 - 45, 0), 0) \\
 &= \text{Maximum} (-45, 0) \\
 &= 0 \text{ Day}
 \end{aligned}$$

3. Calculation of AADU

$$\begin{aligned}
 \text{AADU} &= \text{Maximum} ((\text{EDA}_{A(M-1)} + \text{GEDA}_M) - (\text{TEDA} - \text{FMOT}_A), 0) \\
 &= \text{Maximum} ((182 + 30) - (320 - 0), 0) \\
 &= \text{Maximum} (-93, 0) \\
 &= 0 \text{ Day}
 \end{aligned}$$

where:

$$\begin{aligned}
 \text{EDA}_{A(M-1)} &= \text{EDA}_{\text{JAN}} + \text{EDA}_{\text{FEB}} + \text{EDA}_{\text{MAR}} + \text{EDA}_{\text{APR}} + \text{EDA}_{\text{MAY}} + \text{EDA}_{\text{JUN}} \\
 &= 31 + 31 + 28 + 31 + 30 + 31 \\
 &= 182 \text{ DAYS}
 \end{aligned}$$

$$\begin{aligned}
 \text{FMOT}_A &= \text{FMOT}_{\text{JAN}} + \text{FMOT}_{\text{FEB}} + \text{FMOT}_{\text{MAR}} + \text{FMOT}_{\text{APR}} + \text{FMOT}_{\text{MAY}} + \text{FMOT}_{\text{JUN}} \\
 &\quad + \text{FMOT}_{\text{JUL}} \\
 &= 0 \text{ Day}
 \end{aligned}$$

$$\text{TEDA} = 320 \text{ Days}$$

$$\begin{aligned}
 \text{EDA}_M &= \text{GEDA}_M + \text{AADE} - \text{AADU} \\
 &= 30 + 0 - 0 \\
 &= 30 \text{ Days}
 \end{aligned}$$

Case 2: Outage Within the Allowance

Other Assumed Values

Previous Months

January
February
March
April
May
June

	EDA _M	OT _M	FMOT _M
January	31	0	0
February	31	0	0
March	28	0	0
April	21	10	0
May	30	0	0
June	31	0	0
Current Month: July		5	0

$$\text{EDA}_M = \text{GEDA}_M + \text{AADE} - \text{AADU}$$

1. Calculation of GEDA_M

$$\begin{aligned}
 \text{GEDA}_M &= \text{BPD} - \text{OT}_M - \text{FMOT}_M \\
 &= 30 - 5 - 0 \\
 &= 25 \text{ Days}
 \end{aligned}$$

2. Calculation of AADE

$$\begin{aligned}
 \text{OT}_A &= \text{OT}_{\text{JAN}} + \text{OT}_{\text{FEB}} + \text{OT}_{\text{MAR}} + \text{OT}_{\text{APR}} + \text{OT}_{\text{MAY}} + \text{OT}_{\text{JUN}} + \text{OT}_{\text{JUL}} \\
 &= 0 + 0 + 0 + 10 + 0 + 0 + 5 \\
 &= 15 \text{ Days}
 \end{aligned}$$

$$\begin{aligned}
 \text{AADE} &= \text{Maximum} (\text{Minimum} (\text{OT}_A - \text{OA}, \text{OT}_M), 0) \\
 &= \text{Maximum} (\text{Minimum} (15 - 45, 5), 0) \\
 &= \text{Maximum} (\text{Minimum} (-30, 5), 0)
 \end{aligned}$$

$$= 0 \text{ Days}$$

3. Calculation of AADU

$$\begin{aligned} \text{AADU} &= \text{Maximum} ((\text{EDA}_{A(M-1)} + \text{GEDA}_M) - (\text{TEDA} - \text{FMOT}_A), 0) \\ &= \text{Maximum} ((172 + 25) - (320 - 0), 0) \\ &= \text{Maximum} (-108, 0) \\ &= 0 \text{ Day} \end{aligned}$$

where:

$$\begin{aligned} \text{EDA}_{A(M-1)} &= \text{EDA}_{\text{JAN}} + \text{EDA}_{\text{FEB}} + \text{EDA}_{\text{MAR}} + \text{EDA}_{\text{APR}} + \text{EDA}_{\text{MAY}} + \text{EDA}_{\text{JUN}} \\ &= 31 + 31 + 28 + 21 + 30 + 31 \\ &= 172 \text{ Days} \end{aligned}$$

$$\begin{aligned} \text{FMOT}_A &= \text{FMOT}_{\text{JAN}} + \text{FMOT}_{\text{FEB}} + \text{FMOT}_{\text{MAR}} + \text{FMOT}_{\text{APR}} + \text{FMOT}_{\text{MAY}} + \text{FMOT}_{\text{JUN}} + \text{FMOT}_{\text{JUL}} \\ &= 0 \text{ DAY} \end{aligned}$$

$$\text{TEDA} = 320 \text{ Days}$$

$$\begin{aligned} \text{EDA}_M &= \text{GEDA}_M + \text{AADE} - \text{AADU} \\ &= 25 + 0 - 0 \\ &= 25 \text{ Days} \end{aligned}$$

Case 3: Outage Exceeds the Allowance

Other Assumed Values

Previous Months

January
February
March
April
May
June

EDA _M	OT _M	FMOT _M
11	20	0
16	15	0
18	10	0
31	0	0
30	0	0
31	0	0
	5	0

Current Month: July

$$\text{EDA}_M = \text{GEDA}_M + \text{AADE} - \text{AADU}$$

1. Calculation of GEDA_M

$$\begin{aligned} \text{GEDA}_M &= \text{BPD} - \text{OT}_M - \text{FMOT}_M \\ &= 30 - 5 - 0 \\ &= 25 \text{ Days} \end{aligned}$$

2. Calculation of AADE

$$\begin{aligned} \text{OT}_A &= \text{OT}_{\text{JAN}} + \text{OT}_{\text{FEB}} + \text{OT}_{\text{MAR}} + \text{OT}_{\text{APR}} + \text{OT}_{\text{MAY}} + \text{OT}_{\text{JUN}} + \text{OT}_{\text{JUL}} \\ &= 20 + 15 + 10 + 0 + 0 + 0 + 5 \\ &= 50 \text{ Days} \end{aligned}$$

$$\begin{aligned} \text{AADE} &= \text{Maximum} (\text{Minimum} (\text{OT}_A - \text{OA}, \text{OT}_M), 0) \\ &= \text{Maximum} (\text{Minimum} (50 - 45, 5), 0) \\ &= \text{Maximum} (\text{Minimum} (5, 5), 0) \\ &= \text{Maximum} (5, 0) \\ &= 5 \text{ Days} \end{aligned}$$

3. Calculation of AADU

$$\begin{aligned} \text{AADU} &= \text{Maximum} ((\text{EDA}_{A(M-1)} + \text{GEDA}_M) - (\text{TEDA} - \text{FMOT}_A), 0) \\ &= \text{Maximum} ((137 + 0) - (320 - 0), 0) \end{aligned}$$

$$= \text{Maximum} (-183, 0)$$

$$= 0 \text{ Day}$$

where:

$$EDA_{A(M-1)} = EDA_{JAN} + EDA_{FEB} + EDA_{MAR} + EDA_{APR} + EDA_{MAY} + EDA_{JUN}$$

$$= 11 + 16 + 18 + 31 + 30 + 31$$

$$= 137 \text{ DAYS}$$

$$FMOT_A = FMOT_{JAN} + FMOT_{FEB} + FMOT_{MAR} + FMOT_{APR} + FMOT_{MAY} + FMOT_{JUN} + FMOT_{JUL}$$

$$= 0 \text{ Day}$$

$$TEDA = 320 \text{ Days}$$

$$EDA_M = GEDA_M + AADE - AADU$$

$$= 25 + 5 - 0$$

$$= 30 \text{ Days}$$

Case 4: No Outage during the Billing Period; With Unutilized Outage Allowance

Other Assumed Values

Billing Period	NOV 26, 20YY to DEC 25, 20YY		
Number of Days in Billing Period	BPD	30	Days
Previous Months	EDA _M	OT _M	FMOT _M
January	11	20	0
February	16	15	0
March	28	0	0
April	31	0	0
May	30	0	0
June	31	0	0
July	30	0	0
August	31	0	0
September	31	0	0
October	30	0	0
November	31	0	0
Current Month: December		0	0

$$EDA_M = GEDA_M + AADE - AADU$$

1. Calculation of GEDA_M

$$GEDA_M = BPD - OT_M - FMOT_M$$

$$= 30 - 0 - 0$$

$$= 30 \text{ Days}$$

2. Calculation of AADE

$$OT_A = OT_{JAN} + OT_{FEB} + OT_{MAR} + OT_{APR} + \dots + OT_{DEC}$$

$$= 20 + 15 + 0 + 0 + 0 + 0 + 0 + 0 + 0 + 0 + 0 + 0$$

$$= 35 \text{ Days}$$

$$AADE = \text{Maximum} (\text{Minimum} (OT_A - OA, OT_M), 0)$$

$$= \text{Maximum} (\text{Minimum} (35 - 45, 5), 0)$$

$$= \text{Maximum} (\text{Minimum} (-10, 5), 0)$$

$$= \text{Maximum} (-10, 0)$$

$$= 0 \text{ Days}$$

3. Calculation OF AADU

$$\begin{aligned}
 \text{AADU} &= \text{Maximum} ((\text{EDA}_{\text{M(M-1)}} + \text{GEDA}_{\text{M}}) - (\text{TEDA} - \text{FMOT}_{\text{A}}), 0) \\
 &= \text{Maximum} ((300 + 30) - (320 - 0), 0) \\
 &= \text{Maximum} (10, 0) \\
 &= 10 \text{ Days}
 \end{aligned}$$

Where:

$$\begin{aligned}
 \text{EDA}_{\text{M(M-1)}} &= \text{EDA}_{\text{JAN}} + \text{EDA}_{\text{FEB}} + \text{EDA}_{\text{MAR}} + \text{EDA}_{\text{APR}} + \dots + \text{EDA}_{\text{NOV}} \\
 &= 11 + 16 + 28 + 31 + 30 + 31 + 30 + 31 + 31 + 30 + 31 \\
 &= 285 \text{ Days}
 \end{aligned}$$

$$\begin{aligned}
 \text{FMOT}_{\text{A}} &= \text{FMOT}_{\text{JAN}} + \text{FMOT}_{\text{FEB}} + \text{FMOT}_{\text{MAR}} + \text{FMOT}_{\text{APR}} + \dots + \text{FMOT}_{\text{DEC}} \\
 &= 0 \text{ Day}
 \end{aligned}$$

$$\text{TEDA} = 320 \text{ Days}$$

$$\begin{aligned}
 \text{EDA}_{\text{M}} &= \text{GEDA}_{\text{M}} + \text{AADE} - \text{AADU} \\
 &= 30 + 0 - 10 \\
 &= 20 \text{ Days}
 \end{aligned}$$

Case 5: With Outage during the Billing Period; With Unutilized Outage Allowance;

Other Assumed Values

Billing Period

Number of Days in Billing Period

NOV 26, 20YY to DEC 25, 20YY
BPD 30 Days

Previous Months	EDA _M	OT _M	FMOT _M
January	11	20	0
February	16	15	0
March	28	0	0
April	31	0	0
May	30	0	0
June	31	0	0
July	30	0	0
August	31	0	0
September	31	0	0
October	30	0	0
November	31	0	0
Current Month: December		5	0

$$\text{EDA}_{\text{M}} = \text{GEDA}_{\text{M}} + \text{AADE} - \text{AADU}$$

1. Calculation of GEDA_M

$$\begin{aligned}
 \text{GEDA}_{\text{M}} &= \text{BPD} - \text{OT}_{\text{M}} - \text{FMOT}_{\text{M}} \\
 &= 30 - 5 - 0 \\
 &= 25 \text{ Days}
 \end{aligned}$$

2. Calculation of AADE

$$\begin{aligned}
 \text{OT}_{\text{A}} &= \text{OT}_{\text{JAN}} + \text{OT}_{\text{FEB}} + \text{OT}_{\text{MAR}} + \text{OT}_{\text{APR}} + \dots + \text{OT}_{\text{DEC}} \\
 &= 20 + 15 + 0 + 0 + 0 + 0 + 0 + 0 + 0 + 0 + 0 + 5 \\
 &= 40 \text{ Days}
 \end{aligned}$$

$$\begin{aligned}
 \text{AADE} &= \text{Maximum} (\text{Minimum} (\text{OT}_{\text{A}} - \text{OA}, \text{OT}_{\text{M}}), 0) \\
 &= \text{Maximum} (\text{Minimum} (40 - 45, 5), 0) \\
 &= \text{Maximum} (\text{Minimum} (-5, 5), 0) \\
 &= \text{Maximum} (-5, 0)
 \end{aligned}$$

= 0 Days

3. Calculation OF AADU

$$\begin{aligned} \text{AADU} &= \text{Maximum} ((\text{EDA}_{\text{AIM-1}} + \text{GEDA}_M) - (\text{TEDA} - \text{FMOT}_A), 0) \\ &= \text{Maximum} ((300 + 25) - (320 - 0), 0) \\ &= \text{Maximum} (5, 0) \\ &= 5 \text{ Days} \end{aligned}$$

Where:

$$\begin{aligned} \text{EDA}_{\text{AIM-1}} &= \text{EDA}_{\text{JAN}} + \text{EDA}_{\text{FEB}} + \text{EDA}_{\text{MAR}} + \text{EDA}_{\text{APR}} + \dots + \text{EDA}_{\text{NOV}} \\ &= 11 + 16 + 28 + 31 + 30 + 31 + 30 + 31 + 31 + 30 + 31 \\ &= 300 \text{ Days} \end{aligned}$$

$$\begin{aligned} \text{FMOT}_A &= \text{FMOT}_{\text{JAN}} + \text{FMOT}_{\text{FEB}} + \text{FMOT}_{\text{MAR}} + \text{FMOT}_{\text{APR}} + \dots + \text{FMOT}_{\text{DEC}} \\ &= 0 \text{ Day} \end{aligned}$$

$$\text{TEDA} = 320 \text{ Days}$$

$$\begin{aligned} \text{EDA}_M &= \text{GEDA}_M + \text{AADE} - \text{AADU} \\ &= 25 + 0 - 5 \\ &= 20 \text{ Days} \end{aligned}$$

Case 6: Outage Due To Force Majeure

Other Assumed Values

Previous Months

January

February

March

April

May

June

Current Month: July

EDA _M	OT _M	FMOT _M
31	0	0
31	0	0
28	0	0
31	0	0
30	0	0
31	0	0
	0	5

$$\text{EDA}_M = \text{GEDA}_M + \text{AADE} - \text{AADU}$$

1. Calculation of GEDA_M

$$\begin{aligned} \text{GEDA}_M &= \text{BPD} - \text{OT}_M - \text{FMOT}_M \\ &= 30 - 0 - 5 \\ &= 25 \text{ Days} \end{aligned}$$

2. Calculation of AADE

$$\begin{aligned} \text{OT}_A &= \text{OT}_{\text{JAN}} + \text{OT}_{\text{FEB}} + \text{OT}_{\text{MAR}} + \text{OT}_{\text{APR}} + \text{OT}_{\text{MAY}} + \text{OT}_{\text{JUN}} + \text{OT}_{\text{JUL}} \\ &= 0 + 0 + 0 + 0 + 0 + 0 + 0 \\ &= 0 \text{ Day} \end{aligned}$$

$$\begin{aligned} \text{AADE} &= \text{Maximum} (\text{Minimum} (\text{OT}_A - \text{OA}, \text{OT}_M), 0) \\ &= \text{Maximum} (\text{Minimum} (0 - 45, 0), 0) \\ &= \text{Maximum} (\text{Minimum} (-45, 0), 0) \\ &= \text{Maximum} (-45, 0) \\ &= 0 \text{ Days} \end{aligned}$$

3. Calculation of AADU

$$\begin{aligned}
 \text{AADU} &= \text{Maximum} ((\text{EDA}_{A(M-1)} + \text{GEDA}_M) - (\text{TEDA} - \text{FMOT}_A), 0) \\
 &= \text{Maximum} ((182 + 25) - (320 - 5), 0) \\
 &= \text{Maximum} (-108, 0) \\
 &= 0 \text{ Day}
 \end{aligned}$$

where:

$$\begin{aligned}
 \text{EDA}_{A(M-1)} &= \text{EDA}_{\text{JAN}} + \text{EDA}_{\text{FEB}} + \text{EDA}_{\text{MAR}} + \text{EDA}_{\text{APR}} + \text{EDA}_{\text{MAY}} + \text{EDA}_{\text{JUN}} \\
 &= 31 + 31 + 28 + 31 + 30 + 31 \\
 &= 182 \text{ DAYS}
 \end{aligned}$$

$$\begin{aligned}
 \text{FMOT}_A &= \text{FMOT}_{\text{JAN}} + \text{FMOT}_{\text{FEB}} + \text{FMOT}_{\text{MAR}} + \text{FMOT}_{\text{APR}} + \text{FMOT}_{\text{MAY}} + \text{FMOT}_{\text{JUN}} + \text{FMOT}_{\text{JUL}} \\
 &= 0 + 0 + 0 + 0 + 0 + 0 + 5 \\
 &= 5 \text{ Days}
 \end{aligned}$$

$$\text{TEDA} = 320 \text{ Days}$$

$$\begin{aligned}
 \text{EDA}_M &= \text{GEDA}_M + \text{AADE} - \text{AADU} \\
 &= 25 + 0 - 0 \\
 &= 25 \text{ Days}
 \end{aligned}$$






SCHEDULE 4

SAMPLE CALCULATIONS OF PRICE (EXCLUSIVE OF VAT)

SAMPLE CALCULATION

Agreed Values

Contract Capacity (CC)	kW	400,000
Annual Capacity Fee	PHP/kW-year	14,910.757
Annual Connection Asset Fee	PHP/kW-year	73.268
Annual Fixed O&M _{PHP} Fee	PHP/kW-year	967.823
Annual Fixed O&M _{USD} Fee	USD/kW-year	34.1370
Variable O&M Fee (VOM _B)	PHP/kWh	0.0995
Outage Allowance (OA)	Days	45.00
Base Philippine CPI (PCPI ₀)	(2006=100)	142.500
Base US CPI (USCPI ₀)	(1982-84=100)	237.111
Base Forex Rate (FX ₀)	PHP/USD	46.070
Base Newcastle Index (FI ₀)	USD/MT	50.38
Base Fuel Commodity Cost (BFCCC)	PHP/MT	1,460.257

Assumed Values

Days in the Contract Year	Days	365
Billing Period Days	Days	31
Associated Energy	kWh	238,080,000
Heat Rate (HR) @ 80%LF	BTU/kWh	10,441.06
Outage Taken (OT _M)	Days	5.00
PCPI _i	(2006=100)	143.500
USCPI _i	(1982-84=100)	238.111
Newcastle Index	USD/MT	51.38
Actual Freight	PHP/MT	261.767
Coal Heating Value	BTU/lb	7,948.80
Forex rate	PHP/USD	47.070
Real Property Tax Payment (RPTP)	PHP	6,000,000.00
Supplemental Payment (SP)	PHP	4,000,000.00
Shutdown Cost (SDC)	PHP	0.00
Start-up Cost (SUC)	PHP	0.00






Component A - MONTHLY CAPACITY PAYMENTS

$$MCP_{PHP} = (CP_{PHP} + CA_{PHP}) * CC * EDA_M$$

1. Calculation of Capacity Fees for each Full Load Equivalent Day Available

$$TEDA = \text{Days in the Contract Year} - OA$$

$$= 365 - 45$$

$$= 320$$

$$CP_{PHP} = CYF * \text{Annual Capacity Fee} / TEDA$$

$$= 1 * 14,910.757 / 320$$

$$= 46.596116$$

$$CA_{PHP} = CYF * \text{Annual Connection Asset Fee} / TEDA$$

$$= 1 * 73.268 / 320$$

$$= 0.228963$$

2. Contract Capacity (kW)

$$= 400,000$$

3. Calculation of Full Load Equivalent Days Availability (EDA_M) - Refer to Appendix E

$$EDA_M$$

$$= 26$$

$$MCP_{PHP} = (CP_{PHP} + CA_{PHP}) * CC * EDA_M$$

$$= (46.596116 + 0.228963) * 400,000 * 26$$

$$= \text{PHP } 486,980,812.50$$

Component B - MONTHLY FIXED O&M PAYMENTS

$$MFOM = MFOM_{PHP} + MFOM_{USD}$$

1. Calculation of FOM payment - PH denominated portion

$$MFOM_{PHP} = FOM_{PHP} / 12$$

$$= 967.823 / 12$$

$$= 80.6519$$

$$MFOM_{PHP} = FOM_{PHP,ESC} * (PCPII/PCPIo) * CC$$

$$= 80.6519 * (143.50 / 142.50) * 400,000$$

$$= 32,487,158.01$$

2. Calculation of FOM payment - US denominated portion

$$MFOM_{USD} = FOM_{USD} / 12$$

$$= 34.1370 / 12$$

$$= 2.8448$$

$$MFOM_{USD} = DFOM_{USD} * USCPII/USCPIo * CC * FXI$$

$$\begin{aligned}
 &= 2.8448 * (238.111 / 237.111) * 400,000 * 47.070 \\
 &= 53,786,842.79 \\
 \text{MFOM} &= \text{MFOMUSD} + \text{MFOM}_{\text{PHP,ESC}} \\
 &= 32,487,158.01 + 53,786,842.79 \\
 &= \text{PHP } 86,274,000.80
 \end{aligned}$$

Component C - MONTHLY FUEL PAYMENTS

$$\text{MFP} = (\sum \text{AE}_i * \text{GNPHR}_i) * \text{TFC}_m$$

1. Calculation of Fuel Coal Commodity Cost

$$\begin{aligned}
 \text{FC}_o &= (\text{BFCC} / \text{CHV}) / 2,204.6226 \\
 &= (1,460.257 / 7,948.800) / 2,204.6226 \\
 &= 0.000083 \text{ PHP/BTU} \\
 \text{MFCC} &= \text{FCC}_o * (\text{FII} / \text{FIO}) * (\text{FXI} / \text{FXO}) \\
 &= 0.000083 * (51.380 / 50.380) * (47.070 / 46.070) \\
 &= 0.000087 \text{ PHP/BTU}
 \end{aligned}$$

2. Calculation of Fuel Coal Transportation Cost

$$\begin{aligned}
 \text{MFTC} &= (\text{FCTC} / \text{CHV}) / 2,204.6226 \\
 &= (261.767 / 7,948.800) / 2,204.6226 \\
 &= 0.000015 \text{ PHP/BTU}
 \end{aligned}$$

$$\begin{aligned}
 \text{TFC}_m &= \text{MFCC} + \text{MFTC} \\
 &= 0.000083 + 0.000015 \\
 &= 0.000102 \text{ PHP/BTU}
 \end{aligned}$$

$$\text{MFP} = (\sum \text{AE}_i * \text{GNPHR}_i) * \text{TFC}_m$$






Typical Daily Calculation

Hr	AE _i (kWh)	Load Factor (%)	GNPHR _i (MMBTU/kWh)	TFC _m USD/MMBTU	FP _h (PHP)
1	240,000	60%	10,812.36	0.000102	264,075.87
2	240,000	60%	10,812.36	0.000102	264,075.87
3	240,000	60%	10,812.36	0.000102	264,075.87
4	240,000	60%	10,812.36	0.000102	264,075.87
5	240,000	60%	10,812.36	0.000102	264,075.87
6	240,000	60%	10,812.36	0.000102	264,075.87
7	240,000	60%	10,812.36	0.000102	264,075.87
8	240,000	60%	10,812.36	0.000102	264,075.87
9	240,000	60%	10,812.36	0.000102	264,075.87
10	400,000	100%	10,074.41	0.000102	410,087.56
11	400,000	100%	10,074.41	0.000102	410,087.56
12	400,000	100%	10,074.41	0.000102	410,087.56
13	400,000	100%	10,074.41	0.000102	410,087.56
14	400,000	100%	10,074.41	0.000102	410,087.56
15	400,000	100%	10,074.41	0.000102	410,087.56
16	400,000	100%	10,074.41	0.000102	410,087.56
17	400,000	100%	10,074.41	0.000102	410,087.56
18	400,000	100%	10,074.41	0.000102	410,087.56
19	400,000	100%	10,074.41	0.000102	410,087.56
20	400,000	100%	10,074.41	0.000102	410,087.56
21	400,000	100%	10,074.41	0.000102	410,087.56
22	240,000	60%	10,812.36	0.000102	264,075.87
23	240,000	60%	10,812.36	0.000102	264,075.87
24	240,000	60%	10,812.36	0.000102	264,075.87
TOTAL	7,680,000	80.00%			8,089,961.19

$$\begin{aligned}
 &= \sum FPh \\
 &= 8,089,961.19 * 31 \\
 &= \text{PHP } 250,788,796.92
 \end{aligned}$$

Component D - MONTHLY VARIABLE O&M PAYMENTS

$$MVOM = VOM_B * PCPI_i / PCPI_o * AE$$

1. Calculation of Monthly VOM Payments

$$\begin{aligned}
 MVOM &= VOM * PCPI_i / PCPI_o * AE \\
 &= 0.0995 * (143.50 / 142.50) * 238,080,000 \\
 &= \text{PHP } 23,855,198.32
 \end{aligned}$$

Component E - MONTHLY REIMBURSIBLE COSTS

$$\text{RCP} = \text{RPTP} + \text{SP} + \text{SDC} + \text{SUC}$$

$$= 6,000,000.00 + 4,000,000.00 + 0.00 + 0.00$$

$$= \text{PHP } 10,000,000.00$$

Total Monthly Payment

$$= \text{Component A} + \text{Component B} + \text{Component C} + \text{Component D} + \text{Component E}$$

$$= 486,980,812.50 + 86,274,000.80 + 250,788,796.92 + 23,855,198.32 + 10,000,000.00$$

$$= \text{PHP } 857,898,808.54$$

SCHEDULE 5
HEAT RATE TABLE

GH

AP

B

Q

YR / %LOAD	YR 1	YR 2	YR 3	YR 4	YR 5	YR 6	YR 7	YR 8	YR 9
100%	10,074.41	10,110.17	10,146.05	10,160.91	10,175.79	10,161.30	10,197.19	10,212.05	10,226.93
99%	10,085.67	10,121.47	10,157.39	10,172.27	10,187.16	10,172.66	10,208.59	10,223.47	10,238.36
98%	10,096.93	10,132.77	10,168.73	10,183.63	10,198.54	10,184.02	10,219.98	10,234.88	10,249.79
97%	10,108.19	10,144.07	10,180.08	10,194.99	10,209.91	10,195.38	10,231.39	10,246.30	10,261.22
96%	10,119.45	10,155.37	10,191.42	10,206.35	10,221.29	10,206.74	10,242.79	10,257.72	10,272.66
95%	10,130.72	10,166.68	10,202.77	10,217.71	10,232.67	10,218.10	10,254.19	10,269.14	10,284.09
94%	10,141.99	10,177.99	10,214.12	10,229.08	10,244.05	10,229.47	10,265.60	10,280.56	10,295.53
93%	10,153.26	10,189.30	10,225.47	10,240.44	10,255.43	10,240.84	10,277.00	10,291.98	10,306.97
92%	10,164.53	10,200.61	10,236.82	10,251.81	10,266.82	10,252.21	10,288.41	10,303.41	10,318.42
91%	10,175.81	10,211.92	10,248.17	10,263.18	10,278.21	10,263.58	10,299.82	10,314.84	10,329.86
90%	10,187.08	10,223.24	10,259.53	10,274.56	10,289.60	10,274.95	10,311.24	10,326.27	10,341.31
89%	10,198.36	10,234.56	10,270.89	10,285.93	10,300.99	10,286.32	10,322.65	10,337.70	10,352.75
88%	10,209.64	10,245.88	10,282.25	10,297.31	10,312.38	10,297.70	10,334.07	10,349.13	10,364.20
87%	10,220.92	10,257.20	10,293.61	10,308.68	10,323.77	10,309.08	10,345.49	10,360.57	10,375.66
86%	10,232.20	10,268.52	10,304.97	10,320.06	10,335.17	10,320.46	10,356.91	10,372.00	10,387.11
85%	10,243.49	10,279.85	10,316.33	10,331.45	10,346.57	10,331.84	10,368.33	10,383.44	10,398.57
84%	10,254.77	10,291.17	10,327.70	10,342.83	10,357.97	10,343.23	10,379.75	10,394.88	10,410.02
83%	10,266.06	10,302.50	10,339.07	10,354.22	10,369.37	10,354.61	10,391.18	10,406.33	10,421.48
82%	10,277.35	10,313.83	10,350.44	10,365.60	10,380.78	10,366.00	10,402.61	10,417.77	10,432.94
81%	10,288.64	10,325.16	10,361.81	10,376.99	10,392.18	10,377.39	10,414.04	10,429.22	10,444.41
80%	10,299.94	10,336.50	10,373.19	10,388.38	10,403.59	10,388.78	10,425.47	10,440.66	10,455.87
79%	10,311.23	10,347.83	10,384.56	10,399.77	10,415.00	10,400.17	10,436.90	10,452.11	10,467.34
78%	10,322.53	10,359.17	10,395.94	10,411.17	10,426.41	10,411.57	10,448.34	10,463.57	10,478.81
77%	10,333.83	10,370.51	10,407.32	10,422.57	10,437.82	10,422.96	10,459.77	10,475.02	10,490.28
76%	10,345.13	10,381.85	10,418.70	10,433.96	10,449.24	10,434.36	10,471.21	10,486.48	10,501.75
75%	10,356.43	10,393.19	10,430.09	10,445.36	10,460.65	10,445.76	10,482.65	10,497.93	10,513.22
74%	10,367.73	10,404.51	10,441.46	10,456.78	10,472.11	10,457.22	10,494.11	10,509.40	10,524.70
73%	10,379.03	10,415.81	10,452.81	10,468.16	10,483.51	10,468.62	10,505.51	10,520.80	10,536.10
72%	10,390.33	10,427.11	10,464.16	10,479.54	10,494.93	10,480.04	10,516.93	10,532.22	10,547.52
71%	10,401.63	10,438.41	10,475.46	10,490.88	10,506.31	10,491.42	10,528.31	10,543.60	10,558.90
70%	10,412.93	10,449.71	10,486.81	10,502.26	10,517.71	10,502.82	10,539.71	10,555.00	10,570.30
69%	10,424.23	10,461.01	10,498.16	10,513.64	10,529.13	10,514.24	10,551.13	10,566.42	10,581.72
68%	10,435.53	10,472.31	10,509.46	10,524.96	10,540.47	10,525.58	10,562.47	10,577.76	10,593.06
67%	10,446.83	10,483.61	10,520.81	10,536.34	10,551.87	10,536.98	10,573.87	10,589.16	10,604.46
66%	10,458.13	10,494.91	10,532.16	10,547.72	10,563.29	10,548.40	10,585.29	10,600.58	10,615.88
65%	10,469.43	10,506.21	10,543.51	10,559.10	10,574.71	10,559.82	10,596.71	10,612.00	10,627.30
64%	10,480.73	10,517.51	10,554.86	10,570.48	10,586.11	10,571.22	10,608.11	10,623.40	10,638.70
63%	10,492.03	10,528.81	10,566.16	10,581.78	10,597.41	10,582.52	10,619.41	10,634.70	10,650.00
62%	10,503.33	10,540.11	10,577.46	10,593.04	10,608.67	10,593.78	10,630.67	10,646.00	10,661.30
61%	10,514.63	10,551.41	10,588.81	10,604.44	10,620.11	10,605.22	10,642.11	10,657.40	10,672.70
60%	10,525.93	10,562.71	10,600.16	10,615.78	10,631.41	10,616.52	10,653.41	10,668.70	10,684.00
59%	10,537.23	10,574.01	10,611.46	10,627.08	10,642.71	10,627.82	10,664.71	10,680.00	10,695.30
58%	10,548.53	10,585.31	10,622.81	10,638.44	10,654.11	10,639.22	10,676.11	10,691.40	10,706.70
57%	10,559.83	10,596.61	10,634.16	10,649.78	10,665.41	10,650.52	10,687.41	10,702.70	10,718.00
56%	10,571.13	10,607.91	10,645.46	10,661.08	10,676.71	10,661.82	10,698.71	10,714.00	10,729.30
55%	10,582.43	10,619.21	10,656.81	10,672.44	10,688.11	10,673.22	10,710.11	10,725.40	10,740.70
54%	10,593.73	10,630.51	10,668.16	10,683.78	10,699.41	10,684.52	10,721.41	10,736.70	10,752.00
53%	10,605.03	10,641.81	10,679.46	10,695.08	10,710.71	10,695.82	10,732.71	10,748.00	10,763.30
52%	10,616.33	10,653.11	10,690.81	10,706.44	10,722.11	10,707.22	10,744.11	10,759.40	10,774.70
51%	10,627.63	10,664.41	10,702.16	10,717.78	10,733.41	10,718.52	10,755.41	10,770.70	10,786.00
50%	10,639.03	10,675.81	10,713.51	10,729.14	10,744.81	10,729.92	10,766.81	10,782.10	10,797.40
49%	10,650.33	10,687.11	10,724.86	10,740.48	10,756.11	10,741.22	10,778.11	10,793.40	10,808.70
48%	10,661.63	10,698.41	10,736.16	10,751.78	10,767.41	10,752.52	10,789.41	10,804.70	10,820.00
47%	10,672.93	10,709.71	10,747.46	10,763.08	10,778.71	10,763.82	10,800.71	10,816.00	10,831.30
46%	10,684.23	10,721.01	10,758.81	10,774.44	10,790.11	10,775.22	10,812.11	10,827.40	10,842.70
45%	10,695.53	10,732.31	10,770.16	10,785.78	10,801.41	10,786.52	10,823.41	10,838.70	10,854.00
44%	10,706.83	10,743.61	10,781.46	10,797.08	10,812.71	10,797.82	10,834.71	10,850.00	10,865.30
43%	10,718.13	10,754.91	10,792.81	10,808.44	10,824.11	10,809.22	10,846.11	10,861.40	10,876.70
42%	10,729.43	10,766.21	10,804.16	10,819.78	10,835.41	10,820.52	10,857.41	10,872.70	10,888.00
41%	10,740.73	10,777.51	10,815.46	10,831.08	10,846.71	10,831.82	10,868.71	10,884.00	10,899.30
40%	10,752.03	10,788.81	10,826.81	10,842.44	10,858.11	10,843.22	10,880.11	10,895.40	10,910.70

YR / %LOAD	YR10	YR11	YR12	YR13	YR14	YR15	YR16	YR17	YR18
100%	10,212.44	10,248.33	10,263.19	10,278.06	10,263.58	10,299.46	10,314.33	10,329.20	10,314.72
99%	10,223.85	10,259.78	10,274.66	10,289.55	10,275.05	10,310.98	10,325.85	10,340.74	10,326.24
98%	10,235.27	10,271.24	10,286.13	10,301.04	10,286.52	10,322.49	10,337.38	10,352.29	10,337.77
97%	10,246.69	10,282.69	10,297.61	10,312.53	10,298.00	10,334.00	10,348.91	10,363.84	10,349.30
96%	10,258.11	10,294.15	10,309.08	10,324.02	10,309.47	10,345.52	10,360.45	10,375.39	10,360.84
95%	10,269.53	10,305.61	10,320.56	10,335.52	10,320.95	10,357.04	10,371.98	10,386.94	10,372.37
94%	10,280.95	10,317.08	10,332.04	10,347.01	10,332.43	10,368.56	10,383.52	10,398.49	10,383.91
93%	10,292.37	10,328.54	10,343.52	10,358.51	10,343.91	10,380.08	10,395.06	10,410.05	10,395.45
92%	10,303.80	10,340.01	10,355.00	10,370.01	10,355.40	10,391.60	10,406.60	10,421.60	10,406.99
91%	10,315.23	10,351.48	10,366.49	10,381.51	10,366.88	10,403.13	10,418.14	10,433.16	10,418.53
90%	10,326.66	10,362.95	10,377.98	10,393.02	10,378.37	10,414.66	10,429.68	10,444.72	10,430.08
89%	10,338.09	10,374.42	10,389.46	10,404.52	10,389.86	10,426.19	10,441.23	10,456.29	10,441.62
88%	10,349.52	10,385.89	10,400.95	10,416.03	10,401.35	10,437.72	10,452.78	10,467.85	10,453.17
87%	10,360.96	10,397.37	10,412.45	10,427.54	10,412.84	10,449.25	10,464.33	10,479.42	10,464.72
86%	10,372.40	10,408.85	10,423.94	10,439.05	10,424.34	10,460.78	10,475.88	10,490.99	10,476.27
85%	10,383.84	10,420.33	10,435.44	10,450.56	10,435.83	10,472.32	10,487.43	10,502.56	10,487.83
84%	10,395.28	10,431.81	10,446.94	10,462.08	10,447.33	10,483.86	10,498.99	10,514.13	10,499.38
83%	10,406.72	10,443.29	10,458.44	10,473.59	10,458.83	10,495.40	10,510.55	10,525.70	10,510.94
82%	10,418.17	10,454.78	10,469.94	10,485.11	10,470.33	10,506.94	10,522.10	10,537.28	10,522.50
81%	10,429.61	10,466.26	10,481.44	10,496.63	10,481.84	10,518.49	10,533.67	10,548.86	10,534.06
80%	10,441.06	10,477.75	10,492.95	10,508.15	10,493.34	10,530.03	10,545.23	10,560.44	10,545.63
79%	10,452.51	10,489.24	10,504.45	10,519.68	10,504.85	10,541.58	10,556.79	10,572.02	10,557.19
78%	10,463.96	10,500.73	10,515.96	10,531.20	10,516.36	10,553.13	10,568.36	10,583.60	10,568.76
77%	10,475.42	10,512.23	10,527.47	10,542.73	10,527.87	10,564.68	10,579.93	10,595.18	10,580.33
76%	10,486.87	10,523.73	10,538.99	10,554.26	10,539.39	10,576.24	10,591.50	10,606.77	10,591.90
75%	10,498.33	10,535.22	10,550.50	10,565.79	10,550.90	10,587.79	10,603.07	10,618.36	10,603.47
74%	10,528.61	10,565.60	10,580.93	10,596.26	10,581.33	10,618.32	10,633.65	10,648.98	10,634.05
73%	10,558.95	10,596.06	10,611.42	10,626.80	10,611.83	10,648.93	10,664.30	10,679.68	10,664.70
72%	10,589.38	10,626.59	10,642.00	10,657.42	10,642.40	10,679.62	10,695.03	10,710.45	10,695.43
71%	10,619.88	10,657.20	10,672.65	10,688.12	10,673.06	10,710.38	10,725.83	10,741.30	10,726.24
70%	10,650.46	10,687.88	10,703.38	10,718.90	10,703.79	10,741.21	10,756.71	10,772.23	10,757.12
69%	10,681.11	10,718.65	10,734.19	10,749.75	10,734.60	10,772.13	10,787.68	10,803.23	10,788.08
68%	10,711.84	10,749.49	10,765.08	10,780.68	10,765.48	10,803.12	10,818.71	10,834.31	10,819.12
67%	10,742.65	10,780.40	10,796.04	10,811.68	10,796.45	10,834.20	10,849.83	10,865.48	10,850.24
66%	10,773.54	10,811.40	10,827.08	10,842.77	10,827.49	10,865.35	10,881.02	10,896.72	10,881.43
65%	10,804.50	10,842.47	10,858.20	10,873.93	10,858.61	10,896.57	10,912.30	10,928.03	10,912.71
64%	10,835.55	10,873.62	10,889.39	10,905.17	10,889.80	10,927.88	10,943.65	10,959.43	10,944.06
63%	10,866.67	10,904.85	10,920.67	10,936.49	10,921.08	10,959.27	10,975.08	10,990.91	10,975.49
62%	10,897.87	10,936.16	10,952.02	10,967.89	10,952.44	10,990.73	11,006.59	11,022.46	11,007.01
61%	10,929.15	10,967.55	10,983.46	10,999.37	10,983.87	11,022.28	11,038.18	11,054.10	11,038.60
60%	10,960.50	10,999.02	11,014.97	11,030.93	11,015.39	11,053.90	11,069.85	11,085.81	11,070.27
59%	10,980.19	11,018.78	11,034.76	11,050.75	11,035.17	11,073.76	11,089.74	11,105.73	11,090.16
58%	10,999.87	11,038.52	11,054.53	11,070.55	11,054.95	11,093.60	11,109.61	11,125.63	11,110.03
57%	11,019.53	11,058.25	11,074.29	11,090.34	11,074.71	11,113.43	11,129.47	11,145.52	11,129.89
56%	11,039.18	11,077.97	11,094.04	11,110.12	11,094.46	11,133.25	11,149.32	11,165.39	11,149.74
55%	11,058.82	11,097.68	11,113.78	11,129.88	11,114.20	11,153.06	11,169.15	11,185.26	11,169.57
54%	11,078.45	11,117.38	11,133.50	11,149.63	11,133.92	11,172.85	11,188.97	11,205.11	11,189.39
53%	11,098.06	11,137.06	11,153.21	11,169.37	11,153.63	11,192.63	11,208.78	11,224.94	11,209.20
52%	11,117.66	11,156.73	11,172.91	11,189.10	11,173.33	11,212.40	11,228.58	11,244.77	11,229.00
51%	11,137.25	11,176.38	11,192.59	11,208.81	11,193.02	11,232.15	11,248.36	11,264.58	11,248.78
50%	11,156.82	11,196.03	11,212.27	11,228.51	11,212.69	11,251.89	11,268.13	11,284.38	11,268.56
49%	11,213.13	11,252.53	11,268.85	11,285.18	11,269.27	11,308.68	11,325.00	11,341.33	11,325.42
48%	11,269.62	11,309.22	11,325.62	11,342.04	11,326.05	11,365.65	11,382.06	11,398.47	11,382.48
47%	11,326.31	11,366.11	11,382.60	11,399.09	11,383.03	11,422.83	11,439.31	11,455.81	11,439.74
46%	11,383.20	11,423.20	11,439.77	11,456.35	11,440.20	11,480.20	11,496.77	11,513.35	11,497.20
45%	11,440.29	11,480.49	11,497.14	11,513.80	11,497.57	11,537.77	11,554.42	11,571.08	11,554.86
44%	11,497.57	11,537.97	11,554.70	11,571.45	11,555.14	11,595.54	11,612.28	11,629.02	11,612.71
43%	11,555.05	11,595.65	11,612.47	11,629.30	11,612.91	11,653.52	11,670.33	11,687.16	11,670.77
42%	11,612.73	11,653.54	11,670.44	11,687.35	11,670.88	11,711.69	11,728.59	11,745.50	11,729.03
41%	11,670.61	11,711.62	11,728.61	11,745.61	11,729.05	11,770.06	11,787.05	11,804.04	11,787.49
40%	11,728.70	11,769.91	11,786.98	11,804.06	11,787.43	11,828.64	11,845.71	11,862.79	11,846.16

YR / %LOAD	YR19	YR20	YR21	YR22	YR23	YR24	YR25
100%	10,350.60	10,365.46	10,380.34	10,365.85	10,401.74	10,416.60	10,431.48
99%	10,362.17	10,377.05	10,391.94	10,377.44	10,413.36	10,428.24	10,443.13
98%	10,373.74	10,388.64	10,403.54	10,389.02	10,424.99	10,439.89	10,454.79
97%	10,385.31	10,400.22	10,415.15	10,400.61	10,436.62	10,451.53	10,466.46
96%	10,396.89	10,411.81	10,426.75	10,412.20	10,448.25	10,463.18	10,478.12
95%	10,408.46	10,423.41	10,438.36	10,423.80	10,459.88	10,474.83	10,489.79
94%	10,420.04	10,435.00	10,449.97	10,435.39	10,471.52	10,486.48	10,501.45
93%	10,431.62	10,446.60	10,461.59	10,446.99	10,483.15	10,498.13	10,513.12
92%	10,443.20	10,458.19	10,473.20	10,458.59	10,494.79	10,509.79	10,524.79
91%	10,454.78	10,469.79	10,484.82	10,470.19	10,506.43	10,521.44	10,536.47
90%	10,466.37	10,481.39	10,496.43	10,481.79	10,518.07	10,533.10	10,548.14
89%	10,477.95	10,493.00	10,508.05	10,493.39	10,529.72	10,544.76	10,559.82
88%	10,489.54	10,504.60	10,519.68	10,505.00	10,541.36	10,556.43	10,571.50
87%	10,501.13	10,516.21	10,531.30	10,516.60	10,553.01	10,568.09	10,583.18
86%	10,512.72	10,527.82	10,542.92	10,528.21	10,564.66	10,579.76	10,594.86
85%	10,524.32	10,539.43	10,554.55	10,539.82	10,576.31	10,591.42	10,606.55
84%	10,535.91	10,551.04	10,566.18	10,551.44	10,587.97	10,603.09	10,618.23
83%	10,547.51	10,562.66	10,577.81	10,563.05	10,599.62	10,614.77	10,629.92
82%	10,559.11	10,574.27	10,589.45	10,574.67	10,611.28	10,626.44	10,641.61
81%	10,570.71	10,585.89	10,601.08	10,586.29	10,622.94	10,638.12	10,653.31
80%	10,582.32	10,597.51	10,612.72	10,597.91	10,634.60	10,649.79	10,665.00
79%	10,593.92	10,609.13	10,624.36	10,609.53	10,646.26	10,661.47	10,676.70
78%	10,605.53	10,620.76	10,636.00	10,621.15	10,657.93	10,673.15	10,688.39
77%	10,617.14	10,632.38	10,647.64	10,632.78	10,669.59	10,684.84	10,700.09
76%	10,628.75	10,644.01	10,659.28	10,644.41	10,681.26	10,696.52	10,711.79
75%	10,640.36	10,655.64	10,670.93	10,656.04	10,692.93	10,708.21	10,723.50
74%	10,671.04	10,686.37	10,701.70	10,686.77	10,723.76	10,739.09	10,754.42
73%	10,701.80	10,717.17	10,732.55	10,717.57	10,754.68	10,770.04	10,785.42
72%	10,732.64	10,748.05	10,763.47	10,748.45	10,785.66	10,801.08	10,816.50
71%	10,763.55	10,779.01	10,794.48	10,779.41	10,816.73	10,832.19	10,847.65
70%	10,794.55	10,810.05	10,825.56	10,810.45	10,847.88	10,863.38	10,878.89
69%	10,825.61	10,841.16	10,856.72	10,841.57	10,879.10	10,894.64	10,910.20
68%	10,856.76	10,872.35	10,887.95	10,872.76	10,910.40	10,925.99	10,941.59
67%	10,887.99	10,903.62	10,919.27	10,904.03	10,941.78	10,957.41	10,973.06
66%	10,919.29	10,934.97	10,950.66	10,935.38	10,973.24	10,988.92	11,004.61
65%	10,950.68	10,966.40	10,982.14	10,966.81	11,004.78	11,020.50	11,036.24
64%	10,982.14	10,997.91	11,013.69	10,998.32	11,036.40	11,052.16	11,067.95
63%	11,013.68	11,029.49	11,045.32	11,029.91	11,068.09	11,083.91	11,099.73
62%	11,045.30	11,061.16	11,077.03	11,061.58	11,099.87	11,115.73	11,131.60
61%	11,077.00	11,092.91	11,108.83	11,093.32	11,131.73	11,147.63	11,163.55
60%	11,108.78	11,124.73	11,140.70	11,125.15	11,163.67	11,179.62	11,195.58
59%	11,128.74	11,144.72	11,160.71	11,145.14	11,183.72	11,199.70	11,215.69
58%	11,148.68	11,164.69	11,180.71	11,165.11	11,203.76	11,219.77	11,235.79
57%	11,168.61	11,184.65	11,200.70	11,185.07	11,223.79	11,239.83	11,255.88
56%	11,188.53	11,204.59	11,220.67	11,205.01	11,243.81	11,259.87	11,275.95
55%	11,208.43	11,224.53	11,240.63	11,224.95	11,263.81	11,279.90	11,296.01
54%	11,228.32	11,244.45	11,260.58	11,244.87	11,283.80	11,299.92	11,316.05
53%	11,248.20	11,264.35	11,280.52	11,264.78	11,303.77	11,319.92	11,336.09
52%	11,268.07	11,284.25	11,300.44	11,284.67	11,323.74	11,339.92	11,356.11
51%	11,287.92	11,304.13	11,320.35	11,304.55	11,343.69	11,359.90	11,376.12
50%	11,307.76	11,324.00	11,340.25	11,324.42	11,363.63	11,379.86	11,396.11
49%	11,364.82	11,381.14	11,397.47	11,381.57	11,420.97	11,437.29	11,453.62
48%	11,422.09	11,438.49	11,454.90	11,438.92	11,478.52	11,494.92	11,511.33
47%	11,479.54	11,496.03	11,512.52	11,496.46	11,536.26	11,552.74	11,569.24
46%	11,537.20	11,553.77	11,570.35	11,554.20	11,594.20	11,610.77	11,627.35
45%	11,595.06	11,611.71	11,628.37	11,612.14	11,652.34	11,668.99	11,685.66
44%	11,653.12	11,669.85	11,686.59	11,670.29	11,710.69	11,727.42	11,744.17
43%	11,711.38	11,728.19	11,745.02	11,728.63	11,769.24	11,786.05	11,802.88
42%	11,769.84	11,786.74	11,803.65	11,787.18	11,827.99	11,844.89	11,861.80
41%	11,828.50	11,845.49	11,862.48	11,845.93	11,886.94	11,903.93	11,920.92
40%	11,887.37	11,904.44	11,921.52	11,904.89	11,946.10	11,963.17	11,980.25

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APPENDIX F MARKET TRADING NODES

A. MERALCO MARKET TRADING NODES

MERALCO market trading node as registered with the WESM as of December 2011 which may be revised from time to time:

1	1CRUZD_T1L2
2	1DUHAT_T1L1
3	1MALOL_T1L1
4	2ARANE_T1L1
5	2BALNT_T1L1
6	2DOLOR_T1L1
7	2SUCAT_T1L1
8	2ZAPOT_T1L1
9	3BINAN_T1L1
10	3BOTOCA_L01
11	3CALAU_T1L1
12	3DASMA_T1L1
13	3DASMA_T1L2
14	3DASMA_T1L3
15	3DASMA_T1L4
16	3DASMA_T1L5
17	3DASMA_T1L6
18	3DASMA_T1L7
19	3DASMA_T1L8
20	3MLAYA_T2L1
21	3STROS_T1L1
22	3TAYAB_T1L1
23	3AMADEO_T1L1
24	3BAT_MECO
25	3BATAN_T1L2
26	3KAL_E_T1L1
27	1CRUZD_MECO
28	1CRUZD_T1L1
29	3DASMA_T1L9
30	3MAKBA_T3L2
31	3MAKBA_T3L1
32	3PGBIL_SS2
33	1SNJOS_T1L2

B. POWER SUPPLIER MARKET TRADING NODES

3SRPGC_G01 and 3SRPGC_G02 or such market trading nodes as may be registered by Power Supplier with the WESM in respect of the Plant, which may be revised from time to time.

**APPENDIX G
OPERATING PROCEDURES**

1 DEFINITIONS

All capitalized terms used herein shall have the meanings given to them in Article I of this Agreement, except as otherwise defined herein.

Holiday means a Day other than a Business Day.

Provisional Invoice has the meaning given in Appendix H.

2 GENERAL

The purpose of this Appendix is to prescribe the procedures for coordinating (a) the delivery of electricity from the Plant to the Delivery Point, (b) Scheduled Outages and (c) coal procurement. Nothing in this Agreement (including in this Appendix) shall be construed, by virtue of the absence of a specific reference, as relieving either Party of the responsibility for communicating with the other Party in a manner that will allow both Parties to operate their respective facilities in a safe manner consistent with Dispatch Instructions and Prudent Operating Practices.

3 COORDINATING COMMITTEE

(a) Establishment of the Coordinating Committee

- 3.a.1 No later than fifteen (15) Days after the date of this Agreement, the Parties shall establish a Coordinating Committee as contemplated by this Agreement. During the time prior to the Operations Effective Date, the Coordinating Committee shall work towards putting into place the scheduling arrangements so that the nominations and other matters handled by the Coordinating Committee can handle seamlessly on and after the occurrence of the Effective Date.
- 3.a.2 The Coordinating Committee shall consist of six (6) members, three (3) members appointed by Meralco and three (3) members appointed by Power Supplier.
- 3.a.3 Either Party, upon written notice to the other, may from time to time remove or replace any Coordinating Committee member appointed by it. Any vacancies that occur within the membership of the Coordinating Committee shall be immediately filled by the appropriate Party.
- 3.a.4 Meralco and Power Supplier shall each pay the expenses of its respective Coordinating Committee members.
- 3.a.5 All other expenses incurred by the Coordinating Committee and approved by the Parties shall be shared equally by Power Supplier and Meralco, or as determined by the Coordinating Committee.

(b) Duties of the Coordinating Committee

The duties of the Coordinating Committee shall include the following:

- 3.b.1 oversight of all matters relating to the delivery of electricity from the Plant to the Delivery Point;
- 3.b.2 coordination of maintenance schedules;
- 3.b.3 coordination of short range and long range forecasts of load and capabilities;
- 3.b.4 reconciliation of Contract Capacity and Associated Energy deliveries prior to issuance of a Final Invoice and payment; and
- 3.b.5 consideration of such other Plant operational matters as may be referred to the Coordinating Committee by the mutual agreement of Power Supplier and Meralco.

(c) **Decisions of the Coordinating Committee**

- 3.c.1 Decisions of the Coordinating Committee must be unanimous.
- 3.c.2 If the Coordinating Committee is unable to reach a unanimous decision on any matter within seven (7) Business Days after the matter is first raised to the Coordinating Committee, such disputed matter shall, at the request of a Party, be referred to the senior management of Power Supplier and the senior management of Meralco for immediate review. If Power Supplier and Meralco do not reach a mutual agreement concerning the disputed matter within fifteen (15) Days after it has been referred to the review by senior management, the dispute shall be resolved in accordance with Article 19.

(d) **Communications**

Power Supplier shall maintain multi-communication systems between Power Supplier's Trading Room and appropriate communication systems of the Meralco's Trading Room, which shall consist of, but not be limited to, (a) telephone, (b) facsimile, (c) email or other agreed electronic communication and (d) cellular phone. Each Party shall notify the other Party in writing of its point of contact upon formation of the Coordinating Committee and prior to changing any previously established point(s) of contact. The Parties shall maintain communications in accordance with Prudent Operating Practices and, as necessary, shall (without prejudice to the other provisions of this Agreement) inform the other Party with respect to the operating conditions and requirements of their respective facilities that may affect the other Party's operating requirements.

Communication Channels

Power Supplier

Contact Person:	Andreo C. Estrellado	Jesus C. Villavicencio
Designation:	Head, Marketing / Operations	Head, Energy Trading
Address:	3 rd Floor DMCI Plaza 2281 Don Chino Roces Ave. E.C. I Makati City, Metro Manila	Brgy. San Rafael Calaca Batangas
Telephone:	(632) 888-2000 loc. 1626	(632) 922-6872
Facsimile:		
Email:	aocestrellado@dmcipower.com	jgvillavicencio@semcalaca.com

Meralco

Contact Person:	Rolando M. Cagampang	Cipriano C. Meneses
Designation:	Head, Energy Management	Head, Energy Sourcing Office
Address:	Meralco Center, Ortigas	Meralco Center, Ortigas Avenue, Pasig City
Telephone:	1622-6483	1622-6656
Facsimile:	(632) 632-8683	(632) 632-8643
Email:	rmcagampang@meralco.com.ph	ccmeneses@meralco.com.ph

4 Annual, Monthly and Weekly Energy Nomination Schedule

Meralco shall furnish Power Supplier with non-binding year-ahead energy nomination schedules, month-ahead energy nomination schedules, and week-ahead 7-Day energy nomination schedules. Such nomination schedules shall reflect Meralco's good faith estimate of its projected energy requirements for each of the hours during such periods.

(a) Year-ahead Energy Nomination Schedule

When establishing the year-ahead energy nomination schedule, the Coordinating Committee shall follow the guidelines below:

- (i) Power Supplier shall furnish Meralco the year-ahead capacity nomination schedule (in the form prescribed in Schedule 1 to this Appendix (G)) of the Plant at least one hundred twenty (120) Days prior to the start of the next Contract Year. The year-ahead capacity nomination schedule shall indicate the hourly estimate of capacity availability (in kW) of the Plant in accordance with Contract Capacity for each of hour of the Contract Year (i.e., 8,760 hours for non-leap years, 8,784 hours for leap years) and the scheduled Outages calendared for the Contract Year as approved by the System Operator. In the case of the first Contract Year, Power Supplier shall furnish Meralco the year-ahead capacity nomination schedule of the Plant within five (5) Days after the Operations Effective Date.
- (ii) Meralco shall furnish Power Supplier with the year-ahead energy nomination schedule (in the form prescribed in Schedule 2 to this Appendix (G)) at least ninety (90) Days prior to the start of the next Contract Year. When establishing the year-ahead energy nomination schedule, Meralco shall provide an hourly estimate of energy nomination to Power Supplier for each hour of the Contract

Year taking into account the Scheduled Outage of the Plant submitted by Power Supplier. The year-ahead energy nomination schedule shall be based upon Meralco's good faith estimates of its energy requirements to serve its customers' aggregate demand, as such estimates may be revised during the course of the Contract Year (as shown in the month-ahead, week-ahead and day-ahead nominations) to reflect the actual variation in customer demand. In the case of the first Contract Year, Meralco shall furnish Power Supplier with the year-ahead energy nomination schedule within five (5) Days after receipt of Power Supplier's year-ahead capacity nomination schedule of the Plant.

- (iii) Upon receipt of the year-ahead energy nomination schedule submitted by Meralco, Power Supplier shall confirm in writing receipt of such schedule within twenty-four (24) hours.

(b) Month-ahead and Week-ahead Energy Nomination Schedules

When establishing the month-ahead and week-ahead energy nomination schedules, the Coordinating Committee shall follow the guidelines below:

- (i) Power Supplier shall furnish Meralco the month-ahead capacity nomination schedule for a Billing Period (in the form prescribed in Schedule 3 to this Appendix G) of the Plant on or before 1200H of every fifteenth (15th) calendar Day of the calendar month in which such Billing Period starts, and for the week-ahead capacity nomination schedule (in the form prescribed in Schedule 4 to this Appendix G) on or before 1200H of every Thursday of the preceding week.
- (ii) The month-ahead capacity nomination schedule shall indicate the hourly estimate of capacity availability (in kW) for each of hour of the Billing Period (e.g., 720 hours for a 30-day month) and the schedule of Scheduled Outages calendared for the Billing Period as approved by the System Operator, if any, and changes thereat in the annual capacity nomination schedule submitted for the Contract Year.
- (iii) The week-ahead capacity nomination schedule shall indicate the hourly estimate of capacity availability (in kW) for each of hour of the week (e.g., 168 hours) and the schedule of Scheduled Outages calendared for the week as approved by the System Operator, if any, and changes thereat in the month-ahead capacity nomination schedule submitted for the Billing Period.
- (iv) Meralco shall furnish Power Supplier with the month-ahead energy nomination schedule (in the form prescribed in Schedule 5 to this Appendix G) on or before 1200H of the 19th calendar Day of the calendar month in which such Billing Period starts, and for the week-ahead energy nomination schedule (in the form prescribed in Schedule 6 to this Appendix G) on or before 1200H of every Friday of the preceding week.
- (v) When establishing the month-ahead and week-ahead energy nomination schedules, Meralco shall provide an hourly estimate of energy nomination for the Plant for each hour of the Billing Period or week taking into account any Scheduled Outage of the Plant submitted by Power Supplier. The month-ahead and week-ahead energy nomination schedules shall be based on Meralco's good

faith estimates of its energy requirements to serve its customers' aggregate demand, as such estimates may be revised during the course of the Billing Period, as the case may be, to reflect the actual variation in customer demand.

- (vi) Upon receipt of the month-ahead and week-ahead energy nomination schedules submitted by Meralco, Power Supplier shall send written confirmation of receipt of such schedules by facsimile or any other agreed electronic mode of communication not later than 1500H of the same Day of receipt.

5 Day-Ahead Energy Nomination Schedule

In accordance with Section 5.3.1, Meralco shall furnish Power Supplier with binding day-ahead 24-hour energy nominations subject to the Technical Limits. The following guidelines shall be followed:

- (a) Power Supplier shall furnish Meralco the Plant's day-ahead capacity nomination schedule (DACA) schedule (in the form prescribed in Schedule 7 to this Appendix G) before 1200H of the preceding Day. The DACA schedule shall indicate the binding 24-hourly capacity availability (in kW) and the schedule of Scheduled Outages scheduled for the succeeding Day, if any, and changes thereat in the week-ahead capacity nomination schedule submitted for the week. If Power Supplier does not furnish Meralco the Plant's day-ahead capacity nomination schedule, the schedule submitted for the same Day in the week-ahead capacity nomination schedule submitted shall be deemed as the nomination schedule for the Day.
- (b) Meralco shall furnish Power Supplier with the day-ahead binding 24-hour energy nomination schedule (in the form prescribed in Schedule 8 to this Appendix G) before 1400H of the preceding Day. If Meralco does not furnish Power Supplier with its day-ahead energy nomination, the nomination for the same Day in the week-ahead nomination shall be deemed the nominated quantity for the Day.
- (c) Upon submission by Meralco, Power Supplier shall send written confirmation to Meralco electronically or by fax (in a form agreed by the Coordinating Committee) of the day-ahead binding 24-hour energy nomination schedule within two (2) hours of receipt.

6 Day-After BCQ Declaration with Market Operator

- (a) Power Supplier shall be responsible for declaring BCQ with the Market Operator no later than four (4) hours before the deadline set under the WESM Rules. Power Supplier shall ensure that such BCQ declaration accurately reflects the day-ahead binding 24-hour energy nomination for the Day by Meralco except in cases of Force Majeure and outages within the Full Load Equivalent Outage Allowance Days.
- (b) Power Supplier shall be responsible for submitting its price and quantity offers and scheduling the dispatch of the Plant with the Market Operator and the System Operator in accordance with the WESM Rules and Grid Code. Energy Imbalance Fees resulting from the actual dispatch of the Plant shall be for the account of Power Supplier.

7 3-Year and Annual Scheduled Maintenance Outages

- (a) In accordance with Section 8.3 and Section 8.4 of this Agreement, Power Supplier shall furnish Meralco its proposed scheduled maintenance outages including 3-year provisional maintenance and annual maintenance programs (in the form prescribed in Schedule 9 to this Appendix G). Power Supplier shall submit to Meralco said maintenance programs at least thirty (30) Days prior to submitting such program to the System Operator in compliance with the Grid Code. Such maintenance programs shall indicate the dates and duration of each proposed scheduled outage for the relevant Contract Years. Within five (5) Days after the Effective Date, Power Supplier shall submit to Meralco its 3-year maintenance and annual maintenance program as approved by the System Operator.
- (b) Power Supplier shall furnish Meralco a copy of the 3-year and annual maintenance programs approved by the System Operator within seven (7) Days of receipt from the System Operator.

8 Implementation of Scheduled Maintenance Outage

- (a) Power Supplier shall confirm to Meralco seven (7) Days prior to the implementation of a Scheduled Outage the schedule of activities leading to the implementation of such maintenance outage from the schedule of shut-down, duration of Scheduled Outage, and schedule of completion and start-up.
- (b) From time-to-time, Power Supplier shall inform Meralco of any changes requested by Power Supplier in the Scheduled Outage including possible delays in the shut-down and completion schedules or early completion of Scheduled Outage.
- (c) Power Supplier shall continue to submit its month-ahead, week-ahead and day-ahead capacity nomination schedule indicating the capacity availability of the Plant and the Scheduled Outage to Meralco in accordance with the procedure above. In the same manner, Meralco shall continue to submit its month-ahead, week-ahead and day-ahead energy nomination schedule indicating the appropriate energy nomination during the hours of Scheduled Outage.
- (d) In case of delay in the completion of Scheduled Outage, Power Supplier shall immediately inform Meralco and advise new schedule of completion. Power Supplier shall submit a revised month-ahead, week-ahead and day-ahead capacity nomination schedules indicating the revised capacity availability of the Plant and the revised Scheduled Outage to Meralco in accordance with the procedure above. In the same manner, Meralco shall revise its month-ahead, week-ahead and day-ahead energy nomination schedules indicating the appropriate energy nomination during the hours of the revised Scheduled Outage up to the Full Load Equivalent Outage Allowance Days for the Contract Year. If the revised Scheduled Outage exceeds the Full Load Equivalent Outage Allowance Days, Power Supplier shall be responsible for providing Replacement Energy. Meralco shall submit its day-ahead energy nomination schedule indicating its required energy for each of the 24-hours.
- (e) In case of early completion, Power Supplier shall immediately inform Meralco of such event and advise Meralco of resumption of delivery of Contract Capacity and Associated Energy at a time earlier than that originally scheduled for completion of the scheduled outage. Power Supplier shall submit a revised month-ahead, week-ahead and day-ahead capacity nomination schedules indicating the revised capacity availability of

the Plant and the revised schedule completion of maintenance outage to Meralco in accordance with the procedure above. In the same manner, Meralco shall revise its month-ahead, week-ahead and day-ahead energy nomination schedules indicating its revised energy nominations during the hours of the revised completion of the scheduled maintenance outage.

9 Emergency Maintenance Outages

Power Supplier may schedule emergency maintenance outages to ensure the reliability, efficiency and safety of the Plant. Power Supplier shall endeavor to schedule such emergency maintenance outages during the off-peak period. Such emergency outage shall be implemented upon request and approval by the System Operator and in accordance with the relevant procedures in the Grid Code.

10 Forced Outages

If in the course of operation of the Plant, a Forced Outage occurs, the following procedures shall be followed:

- (a) Power Supplier shall immediately inform Meralco of such outage occurrence, nature and expected duration of the Forced Outage, informally at first (such as by telephone, cellular phone, email, or text message) and later in the form of a document (an Incident Report) signed by the plant shift manager or a person of equivalent or higher rank at Power Supplier. This report shall be in conformance with the notification requirements of the Philippine Grid Code.
- (b) As soon as possible after a Forced Outage has occurred and the duration of such outage is within the Full Load Equivalent Outage Allowance Days, Power Supplier shall submit a revised day-ahead capacity (RDAC) schedule to Meralco and shall inform the Market Operator of such revisions in accordance with the WESM Rules. The hourly energy amounts in Meralco's day-ahead nomination shall be treated as deemed delivered up to the trading period that the Market Operator recognized the revisions made by Power Supplier.
- (c) Upon receipt by Meralco of the RDAC, Meralco shall have up to six (6) hours to submit to Power Supplier a correspondingly-revised day-ahead energy nomination.
- (d) If the Forced Outage was of a short duration such that the twenty-four (24) hourly capacity nominations to Meralco for the succeeding Day can be met by the Plant, Power Supplier need not submit a revised day-ahead capacity nomination to Meralco, but Power Supplier shall still submit an Incident Report to Meralco.
- (e) If the entire duration of the Forced Outage falls within the Full Load Equivalent Outage Allowance Days for the Contract Year, Power Supplier shall be allowed to declare to the Market Operator zero BCQs in respect of this Agreement for all the trading intervals during which the Plant was subject to the Forced Outage.
- (f) If the entire duration of the Forced Outage is in excess of the Full Load Equivalent Outage Allowance Days for the Contract Year, Power Supplier shall declare to the Market Operator as BCQs in respect of this Agreement the corresponding hourly

volumes nominated by Meralco in the preceding Day's Day-Ahead Nomination for all the trading intervals during which the Plant was subject to the Forced Outage.

- (g) If a portion of the Forced Outage duration falls within, and the remaining portion of the Forced Outage duration falls outside (i.e., in excess) of the Full Load Equivalent Outage Allowance Days for the Contract Year, Power Supplier shall be allowed to declare to the Market Operator zero BCQs in respect of this Agreement for all the trading intervals within the Full Load Equivalent Outage Allowance Days, and the corresponding hourly volumes nominated by Meralco in the preceding Day's Day-Ahead Nomination for all the trading intervals outside the Full Load Equivalent Outage Allowance Days.
- (h) Any Energy Imbalance Fees imposed by the Market Operator as a result of the Forced Outage shall be for the account of Power Supplier.
- (i) Following the occurrence of a Forced Outage Power Supplier shall endeavor to immediately restore the Plant to its normal operating condition. Once the Plant is restored, Power Supplier shall immediately inform Meralco and submit a revised day-ahead capacity nomination schedule to reflect the restored available Dependable Contract Capacity of the Plant.
- (j) Power Supplier shall keep track of the cumulative Full Load Equivalent Outage Days and shall submit to Meralco such figure in a written report for Meralco's validation. If after the validation, Meralco's figure does not match that of Power Supplier, representatives from both Parties shall meet and discuss the issue at the soonest time to resolve the discrepancy in the figures.
- (k) The computation of the Full Load Equivalent Outage Allowance Days shall be computed on an hourly or per trading interval basis.

11 Reconciliation of Delivered Capacity and Associated Energy

At the end of each Billing Period, the Parties agree to reconcile through actual meeting or telephone call the amount of delivered Contract Capacity and Associated Energy and the quantities of Contract Capacity and Associated Energy nominated by Meralco as against the energy quantity confirmed and declared by Power Supplier with the Market Operator, and the usage of the Full Load Equivalent Outage Allowance Days. The following procedures shall be followed in the reconciliation process:

- (a) On or before 1600H of the twenty-ninth (29th) Day of each month during the Term, Power Supplier shall provide Meralco a summary of the hourly capacity nominated by Power Supplier for the relevant Billing Period and a summary of the hourly BCQ declared by Power Supplier to the Market Operator with respect to Meralco.
- (b) Meralco shall review and subsequently confirm the summary of the hourly capacity nominated by Power Supplier for the relevant Billing Period and the summary of the hourly BCQ declared by Power Supplier to the Market Operator with respect to Meralco.
- (c) If there are no discrepancies in the hourly capacity nominated by Power Supplier for the relevant Billing Period and the hourly BCQ declared by Power Supplier to the Market Operator with respect to Meralco, Power Supplier shall proceed with the preparation of the Preliminary Invoice.

- (d) If there are discrepancies in the hourly capacity nominated by Power Supplier for the relevant Billing Period and the hourly BCQ declared by Power Supplier to the Market Operator with respect to Meralco, parties shall meet and discuss to resolve the discrepancies before preparation of the Preliminary Invoice.
- (e) In case the BCQ declared by Power Supplier with respect to Meralco is less than what has been nominated by Meralco in its binding day-ahead nomination there being no Force Majeure or outages in excess of the Full Load Equivalent Outage Allowance Days, Power Supplier shall reimburse Meralco for the shortfall in declared BCQ based on the actual ex-ante WESM nodal prices (at the Plant) of the affected trading hours.

SCHEDULE 1
FORM OF POWER SUPPLIER'S YEAR-AHEAD CAPACITY NOMINATIONS SCHEDULE

[NAME OF POWER SUPPLIER]
Nomination of Year-Ahead Available Capacity for MERALCO (in MW)
[Month] 26, 20 to [Month] 25, 20

Hour	26-Month	27-Month	28-Month	29-Month	30-Month	31-Month	1-Month	2-Month	3-Month	4-Month	5-Month	6-Month	7-Month	8-Month	9-Month
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SCHEDULE 2 FORM OF MERALCO'S YEAR-AHEAD BCQ NOMINATIONS SCHEDULE

MANILA ELECTRIC COMPANY (MERALCO)

Nomination of Year-Ahead Energy for [Name of Power Supplier] (in MWH)

[Month] 26, 20__ to [Month] 25, 20__

Hour	26-Month	27-Month	28-Month	29-Month	30-Month	31-Month	1-Month	2-Month	3-Month	4-Month	5-Month	6-Month	7-Month	8-Month	9-Month
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MANILA ELECTRIC COMPANY (MERALCO)

Nomination of Year-Ahead Energy for [Name of Power Supplier] (in MWH)

[Month] 26, 20__ to [Month] 25, 20__

Hour	10-Month	11-Month	12-Month	13-Month	14-Month	15-Month	16-Month	17-Month	18-Month	19-Month	20-Month	21-Month	22-Month	23-Month	24-Month	25-Month
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Total for the month

IN WITNESS WHEREOF

Signature of M. Sumang

Signature

Date

IN WITNESS WHEREOF

Signature of M. Sumang

Signature

Date

SCHEDULE 4

FORM OF POWER SUPPLIER'S WEEK-AHEAD CAPACITY NOMINATIONS SCHEDULE

[NAME OF POWER SUPPLIER]

Nomination of Week-Ahead Available Capacity for MIERAL CO. (in MW)

For the week of _____, 20____

Time	[Day of Week] _____, 20____	[Day of Week] _____, 20____	[Day of Week] _____, 20____	[Day of Week] _____, 20____	[Day of Week] _____, 20____	[Day of Week] _____, 20____
0000H-0100H						
0100H-0200H						
0200H-0300H						
0300H-0400H						
0400H-0500H						
0500H-0600H						
0600H-0700H						
0700H-0800H						
0800H-0900H						
0900H-1000H						
1000H-1100H						
1100H-1200H						
1200H-1300H						
1300H-1400H						
1400H-1500H						
1500H-1600H						
1600H-1700H						
1700H-1800H						
1800H-1900H						
1900H-2000H						
2000H-2100H						
2100H-2200H						
2200H-2300H						
2300H-2400H						
Check Sum						

Remark

NOMINATED BY:

ACKNOWLEDGED BY:

H-13

Firstname M. Surname
[Title]
[Name of Power Supplier]

Firstname M. Surname
[Title]
MFRALCO

en *CP*

a

As *Dr*

H-14

SCHEDULE 5 FORM OF MERALCO'S MONTH-AHEAD BCQ NOMINATIONS SCHEDULE

MANILA ELECTRIC COMPANY (MERALCO)
 Nomination of Month-Ahead Energy for [Name of Power Supplier] (in MWh)
 [Month] 26, 20__ to [Month] 26, 20__

ATRALCO

Hour	26-Month	27-Month	28-Month	29-Month	30-Month	31-Month	1-Month	2-Month	3-Month	4-Month	5-Month	6-Month	7-Month	8-Month	9-Month
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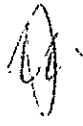
Hour	10-Month	11-Month	12-Month	13-Month	14-Month	15-Month	16-Month	17-Month	18-Month	19-Month	20-Month	21-Month	22-Month	23-Month	24-Month	25-Month
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Total	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total for the month																

Remarks:

Firstname M. Surname
 [Title]
 MERALCO

Firstname M. Surname
 [Title]
 Name of Power Supplier

en 





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SCHEDULE 6

FORM OF MERALCO'S WEEK-AHEAD BCQ NOMINATIONS SCHEDULE



MANILA ELECTRIC COMPANY (MERALCO)

Nomination of Week-Ahead Energy for [Name of Power Supplier] (in MWh)

For the week of _____, 20____

Time	[Day of Week] _____, 20____	[Day of Week] _____, 20____	[Day of Week] _____, 20____	[Day of Week] _____, 20____	[Day of Week] _____, 20____	[Day of Week] _____, 20____
0000H-0100H						
0100H-0200H						
0200H-0300H						
0300H-0400H						
0400H-0500H						
0500H-0600H						
0600H-0700H						
0700H-0800H						
0800H-0900H						
0900H-1000H						
1000H-1100H						
1100H-1200H						
1200H-1300H						
1300H-1400H						
1400H-1500H						
1500H-1600H						
1600H-1700H						
1700H-1800H						
1800H-1900H						
1900H-2000H						
2000H-2100H						
2100H-2200H						
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Total						

Remark:

NOMINATED BY:

ACKNOWLEDGED BY:

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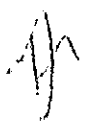
Firstname M. Surname
[Title]
MFRALCO

Firstname M. Surname
[Title]
[Name of Power Supplier]

on 

q





SCHEDULE 7
FORM OF POWER SUPPLIER'S DAY-AHEAD CAPACITY NOMINATION
SCHEDULE

[NAME OF POWER SUPPLIER]
Nomination of Day-Ahead Available Capacity for MERALCO

For _____, 20__ ([Day of Week])

Time	Available Capacity (MW)
0000H-0100H	
0100H-0200H	
0200H-0300H	
0300H-0400H	
0400H-0500H	
0500H-0600H	
0600H-0700H	
0700H-0800H	
0800H-0900H	
0900H-1000H	
1000H-1100H	
1100H-1200H	
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1800H-1900H	
1900H-2000H	
2000H-2100H	
2100H-2200H	
2200H-2300H	
2300H-2400H	
Check Sum	

Remark:

NOMINATED BY:

ACKNOWLEDGED BY:

Firstname M. Surname
[Title]
[Name of Power Supplier]

Firstname M. Surname
[Title]
MERALCO

SCHEDULE 8
FORM OF MERALCO'S DAY-AHEAD BCQ NOMINATIONS SCHEDULE



MANILA ELECTRIC COMPANY (MERALCO)
Nomination of Day-Ahead Energy for [Name of Power Supplier]

For _____, 20__ ([Day of Week])

Time	Energy (MWh)
0000H-0100H	
0100H-0200H	
0200H-0300H	
0300H-0400H	
0400H-0500H	
0500H-0600H	
0600H-0700H	
0700H-0800H	
0800H-0900H	
0900H-1000H	
1000H-1100H	
1100H-1200H	
1200H-1300H	
1300H-1400H	
1400H-1500H	
1500H-1600H	
1600H-1700H	
1700H-1800H	
1800H-1900H	
1900H-2000H	
2000H-2100H	
2100H-2200H	
2200H-2300H	
2300H-2400H	
Total	

Remark:

NOMINATED BY:

ACKNOWLEDGED BY:

Firstname M. Surname
[Title]
MERALCO

Firstname M. Surname
[Title]
[Name of Power Supplier]

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Handwritten signature and initials

APPENDIX H

INVOICING AND PAYMENT PROCEDURES

1 Definitions

All capitalized terms used herein shall have the meanings given to them in Article 1 of this Agreement, except as otherwise defined herein.

Invoice means any Invoice rendered according to Appendix E

Final Invoice means any Final Invoice rendered according to Section 2 below.

Payment Date shall have the meaning given to it in Section 3 below.

Provisional Invoice means any Provisional Invoice rendered according to Section 1.1 below.

Receipt means any Receipt issued according to Section 6 below.

1 Provisional Invoice

1.1 Any Invoice rendered by Power Supplier to Meralco pursuant to Article 10 hereof shall be rendered in the first instance in the form of a provisional invoice (the "**Provisional Invoice**"). Power Supplier shall deliver the Provisional Invoice to Meralco no later than the last Day of the calendar month of the Billing Period.

1.2 Within ten (10) Days after receipt of the Provisional Invoice, Meralco shall notify Power Supplier in writing of any questions or exceptions it may have with respect to the Provisional Invoice. Meralco and Power Supplier shall confer within three (3) Days thereafter to discuss and seek to resolve any discrepancies or disputes in the Provisional Invoice prior to the issuance of the Final Invoice.

2 Final Invoice

On the eighteenth (18th) day of the immediately succeeding month after the end of the Billing Period, Power Supplier shall provide Meralco with a Final Invoice for such Billing Period, in the same format as the Provisional Invoice (the "**Final Invoice**"); provided that the Final Invoice shall reflect any corrections or adjustments agreed to by the Parties.

3 Payment Date

Provided that Meralco receives the Final Invoice within the time set forth in Section 2 of this Appendix H, each Final Invoice shall be due and payable not later than the last Day of the immediately succeeding month after the end of the month of the Billing

Period, provided that if the last Day is not a Business Day then the payment shall be due and payable on the immediately next Business Day ("Payment Date").

4 Withholding Tax

Meralco shall deduct and withhold from the amounts payable under a Final Invoice, the applicable creditable withholding tax and Meralco shall remit any amounts withheld for such tax to the relevant taxing authorities and the corresponding documentation due to the prevailing regulation of such withholding to Power Supplier. If Power Supplier believes such withholding tax is not applicable to it, Power Supplier shall provide Meralco with such documents and evidence acceptable to Meralco to demonstrate that payments to Power Supplier are not subject to such withholding tax. Power Supplier shall indemnify Meralco for any assessment, liability, surcharge, interests, penalties and other costs or fees arising from Meralco's non-withholding or failure to withhold creditable withholding tax if Meralco does not withhold such tax upon Power Supplier's request, including any change, reversal or ruling affecting Power Supplier's status or claim of not being subject to a creditable or withholding tax.

5 Method of Payment

All payments by Meralco pursuant to this Appendix H shall be made by wire transfer of cleared funds to such account or accounts to be specified in writing by Power Supplier.

6 Receipt

Power Supplier shall issue a value-added tax-qualified official receipt to Meralco acknowledging receipt of any payment hereunder on the date of such payment.



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Republic of the Philippines
ENERGY REGULATORY COMMISSION
San Miguel Avenue, Pasig City

IN THE MATTER OF THE
APPLICATION FOR THE
APPROVAL OF THE POWER
SUPPLY AGREEMENT (PSA)
BETWEEN MANILA ELECTRIC
COMPANY (MERALCO) AND ST.
RAPHAEL POWER GENERATION
CORPORATION (SRPGC), WITH
MOTION FOR CONFIDENTIAL
TREATMENT OF INFORMATION

ERC CASE NO. 2016 – __ RC

MANILA ELECTRIC COMPANY
(MERALCO) AND ST. RAPHAEL
POWER GENERATION
CORPORATION,

Applicants.

X-----X

JUDICIAL AFFIDAVIT OF CIPRINILO C. MENESES

The following examination of witness Mr. Ciprinilo C. Meneses, of legal age, with office address at 4th Floor, Technical Services Building, MERALCO Compound, Ortigas Avenue, Pasig City, who is an employee of the Manila Electric Company ("MERALCO") as the Head of the Energy Sourcing Office, was conducted by Atty. Raymond B. Yap, counsel for the Applicant, at the 7th Floor, Lopez Building, Ortigas Avenue, Pasig City, this 26 April 2016.

The testimony of Mr. Ciprinilo C. Meneses is being offered to prove the following:

1. He is employed with MERALCO as the Head of the Energy Sourcing Office;
2. The existence and details of the Power Supply Agreement ("PSA") executed between MERALCO and St. Raphael Power Generation Corporation ("SRPGC");
3. The necessity for entering into a PSA with SRPGC, to allow MERALCO to meet customer demand requirements and to afford MERALCO's customers the full benefits thereof;

4. The reasonableness and fairness of the provisions of the PSA, including the contract price thereunder;
5. Identification of documents in the course of the hearing; and
6. All other matters pertinent to this Joint Application.

I, **CIPRINILO C. MENESES**, of legal age, Filipino, with office address at 4th Floor, Technical Services Building, MERALCO Compound, Ortigas Avenue, Pasig City, after being sworn to in accordance with law, hereby depose and state:

Q1: What are your educational and professional qualifications?

A1: I have obtained a Bachelor's degree in Electrical Engineering and in Computer Engineering from the Mapua Institute of Technology and a Master's degree in Electrical Engineering from the University of the Philippines-Diliman. Also, I am a Registered Electrical Engineer.

Q2: Where are you presently employed?

A2: At present, I am employed at the Manila Electric Company ("MERALCO") as Head of the Energy Sourcing Office.

Q3: Since when have you been employed in MERALCO?

A3: I have been employed in MERALCO since 5 May 1982. On 20 January 2011, I became the Head of the Energy Sourcing Office.

Q4: What are some of your duties and responsibilities as the Head of the Energy Sourcing Office?

A4: My duties and responsibilities include, among others, planning for the sourcing of MERALCO's capacity and energy requirements, managing the Company's energy sourcing operations, overseeing the energy accounting and power supplier bill validations, and participating in the negotiations for power supply agreements and contracts.

Q5: Are you familiar with the case entitled: *"In the Matter of the Application for the Approval of the Power Supply Agreement between Manila Electric Company (MERALCO) and St. Raphael Power Generation Corporation (SRPGC), with Motion for Confidential Treatment of Information"* jointly filed by Applicants MERALCO and SRPGC?

A5: Yes, I am.

Q6: Why are you familiar with present case?

A6: I was directly involved in the preparation of the Application and its Annexes, for submission to the Energy Regulatory Commission ("ERC") for approval. Also, as a member of the

power supply agreement working team of MERALCO, I am cognizant of the Power Supply Agreement (PSA) that was executed between MERALCO and SRPGC.

Q7: For what purpose is your Judicial Affidavit being taken?

A7: My Judicial Affidavit is being taken in support of the aforesaid Joint Application for the Approval of the PSA between MERALCO and SRPGC and the prayer for the immediate approval of the same.

Q8: What are the salient features of the PSA between MERALCO and SRPGC?

A8: The salient features of the PSA between MERALCO and SRPGC are as follows:

"2.1 Purpose

The purpose of this Agreement is to set out the rights and obligations of each Party with regard to the sale and purchase of Contract Capacity and Associated Energy of the Plant.

2.2 Term of Agreement

2.2.1 Subject to Article 3, this Agreement shall become effective on the Effective Date.

2.2.2 The term of this Agreement (the "Term") shall commence on the Operations Effective Date (Unit 1) and shall expire on the date falling twenty (20) years and four (4) months thereafter xxx

xxx xxx xxx

3.2 Commencement Date

3.2.1 The "Commencement Date" shall occur upon the satisfaction of the conditions below:

(a) The conditions set out in Section 3.1 have been fulfilled;

(b) Each Party has delivered to the other Party a certification dated no earlier than two (2) Days prior to the proposed Commencement Date to the effect that its representations and warranties contained herein shall be true and correct in all material respects on and as of the Commencement Date;

(c) On or before the Longstop Date, the ERC shall have

approved in the ERC Final Approval, this Agreement, including the pricing structure as set out herein (or as otherwise acceptable to Power Supplier); and

- (d) The Acceptance Date has occurred.

Within seven (7) Days after the satisfaction of the conditions referred to in this Section 3.2, Meralco and Power Supplier shall issue a joint certification confirming that the Commencement Date has occurred.

3.3 Operations Effective Date

- 3.3.1 The Operations Effective Date shall occur on the twenty-sixth (26th) Day of the fifty-second (52nd) month from the Commencement Date for Unit 1 (the "**Operations Effective Date (Unit 1)**") and four (4) months thereafter for Unit 2 (the "**Operations Effective Date (Unit 2)**") (or collectively, "**Operations Effective Date**").

xxx xxx xxx

3.4 Commercial Operations Date

- 3.4.1 The Plant shall achieve Commercial Operations Date upon delivery by Power Supplier of the documents enumerated below, in form and substance satisfactory to Meralco:¹

xxx xxx xxx

3.5 Early Occurrence of the Commercial Operations Date

- 3.5.1 In the event that Power Supplier achieves Commercial Operations Date prior to the occurrence of the Operations Effective Date, Power Supplier shall promptly deliver to Meralco written notice thereof on or before the Commercial Operations Date, which may contain a request for early occurrence of the Operations Effective Date and the intended

¹ With respect to Commercial Operations Date of each of Unit 1 and Unit 2:

- (a) Capacity Test Certificate;
- (b) a Net Plant Heat Rate Test Certificate;
- (c) all permits, licenses, authorizations and other approvals from all Government Instrumentalities and third parties needed for the operation of the Plant and the supply of electricity by Power Supplier to Meralco;
- (d) a Commercial Operations Date Certificate; and
- (e) Power Supplier certification that the insurances required under this Agreement relevant for at least the first Contract Year have been obtained.

Operations Effective Date.

3.5.2 Within ten (10) Days from receipt of such written notice, Meralco shall, by written notice:

- (a) Inform Power Supplier that it agrees to the early occurrence of Operations Effective Date and the revised Operations Effective Date; or
- (b) Elect to have Power Supplier deliver, on a non-firm basis until the occurrence of the Operations Effective Date, such portion of the Contract Capacity and Associated Energy required by Meralco, for which it shall pay the Non-Firm Price.

xxx xxx xxx

Article 5 Sale and Purchase of Contract Capacity and Associated Energy

5.1 Supply of Power

Subject to the terms and conditions of this Agreement:

5.1.1 From the Operations Effective Date until the expiration or earlier termination of this Agreement, Power Supplier shall:

- (a) make available to Meralco, and Meralco shall purchase from Power Supplier, at the Price determined in accordance with Appendix E, the Contract Capacity of the Plant; and
- (b) sell to Meralco, and Meralco shall purchase from Power Supplier, at the Price determined in accordance with Appendix E, the Associated Energy, to the extent of Meralco's relevant day-ahead nominations.

5.1.2 Unless otherwise expressly permitted by this Agreement, Power Supplier shall not, without Meralco's prior written consent:

- (a) sell, divert, grant, transfer, dedicate, reserve or assign all or any portion of the Contract Capacity and Associated Energy to any Person other than Meralco; or
- (b) provide Meralco with capacity and/or electrical energy from any source other than the Plant.

Article 8 Outages

8.1 Outage Allowances

- 8.1.1 Power Supplier is allowed Scheduled and Forced Outages not to exceed an aggregate of forty-five (45) Full Load Equivalent Days for each Contract Year ("Full Load Equivalent Outage Allowance Days") during the Term, during which times reduced or no supply of Contract Capacity or Associated Energy will be available to Meralco. Unutilized Full Load Equivalent Outage Allowance Days shall not be carried forward to any subsequent Contract Year.
- 8.1.2 During the conduct of the Major Maintenance of each Unit of the Plant which occurs once every five (5) years reckoned from Commercial Operations Date of each Unit, the Full Load Equivalent Outage Allowance Days shall be increased by an additional fifteen (15) Full Load Equivalent Outage Days; provided that Power Supplier may only undertake Major Maintenance for a total of three (3) times during the Term; provided further that the first Major Maintenance shall occur no earlier than the fifth (5th) year after the occurrence of the Commercial Operations Date.
- 8.1.3 In case an Event of Force Majeure coincides with a Scheduled Outage, any downtime shall be credited against the Full Load Equivalent Outage Allowance Days.

8.2 Replacement Electrical Output During Outages

- 8.2.1 During Outages within the Full Load Equivalent Outage Allowance Days, Power Supplier shall not be required to supply Meralco with Replacement Energy. In such circumstances, Meralco, at its own cost, shall source the Replacement Energy from the WESM. Power Supplier shall not invoice Meralco for such portion of Contract Capacity and Associated Energy that is not made available or supplied for the duration of Scheduled Outages within the Full Load Equivalent Outage Allowance Days. If during any Contract Year, the Outages exceed the Full Load Equivalent Outage Allowance Days, Power Supplier shall procure at Power Supplier's own cost, such Replacement Energy and electrical output from third parties (including the

WESM) to satisfy the relevant day-ahead nominations of Meralco. During such period, Meralco shall pay Power Supplier the Price. In the event Power Supplier fails to procure such quantities of electrical energy for Meralco, Power Supplier shall indemnify and hold Meralco harmless from any loss, cost, expense or penalty incurred or paid by Meralco.

xxx xxx xxx

Article 9 Assignment or Transfer of Contract Capacity

9.1 Meralco shall be entitled to assign, transfer, designate, delegate or allocate (collectively in this context, "Transfer") its rights and obligations to purchase a portion of Contract Capacity and Associated Energy that is no longer required by Meralco to any of its business segments or wholly-owned Affiliates without the prior consent of the Power Supplier.

Meralco shall also be entitled to Transfer its rights and obligations to purchase a portion of Contract Capacity and Associated Energy that is no longer required by Meralco to any other Person, subject to the consent of Power Supplier, which consent shall not be unreasonably withheld, delayed or conditioned, it being understood that withholding consent would not be considered unreasonable if the proposed Transfer would be contrary to the reasonable requirements of Finance Parties under the Finance Documents, as evidenced by a written confirmation by the relevant Finance Parties. xxx

xxx xxx xxx

Article 10 Billing and Payment

xxx

10.2 Payments

10.2.1 Meralco shall pay the entire amount indicated in the Final Invoice (subject to Appendix H) when due and payable, provided that Meralco shall not be required to make payment on any Invoice that is manifestly in error, apparently invalid or not in the form or substance contemplated by this Agreement.

Article 11 Taxes, Fees and Costs

xxx

11.2 Charges Due to Change in Law

- (a) If as a result of a Change in Law, Meralco becomes liable to pay any new charges, fees, taxes, duties, assessments or other similar amounts ("**New Charges**"), or any increase in existing charges, fees, taxes, duties, assessments or other similar amounts ("**Increased Charges**") become payable with respect to this Agreement, the New Charges or Increased Charges shall form part of the price that Meralco will charge to its customers.
- (b) If as a result of a Change in Law (other than a change in income taxes payable by Power Supplier), Power Supplier becomes liable to pay New Charges or Increased Charges with respect to this Agreement, and such liability materially and adversely affects the ability of Power Supplier to perform its obligations under this Agreement, materially and adversely affects its sale of Contract Capacity and Associated Energy in accordance with this Agreement, makes the administration or operational aspects of such performance materially more burdensome or causes or may cause serious damage to, or materially and adversely affects the financial condition of Power Supplier, Power Supplier shall send a notice of Change in Law to Meralco and the provisions of Section 17.6.6 will apply. Provided that if the Change in Law results in a change in the business taxes payable by Power Supplier, Power Supplier shall send notice of such change in business taxes to Meralco and, if the Parties agree, Meralco shall file the necessary application with the ERC for the adjustment of the Price; provided further, that the adjustment shall only be effective upon approval by the ERC. Notwithstanding any provision in this Agreement to the contrary, in no case shall the Power Supplier be entitled to terminate this Agreement as a result of the change in its business taxes.
- (c) In the event that, as a result of a Change in Law and pursuant to a corresponding order of the ERC or any Governmental Instrumentality:

- (i) Meralco is no longer permitted to pass through to its customers any amounts that it is permitted to pass through as of the date of this Agreement, including but not limited to the amounts specified in Section 11.1.2; or
- (ii) any portion of the Price that has been paid to Power Supplier is required to be refunded to Meralco or Meralco's customers in connection with the ERC Application or any petition, claim, case, proceeding or other action involving any of the Parties brought before any judicial, administrative or quasi-judicial body,

the Parties shall enter into good faith negotiations to agree on a satisfactory solution regarding the amendment of this Agreement to restore Meralco's commercial position prior to such Change in Law, including an adjustment of the Price. If the Parties fail to reach a mutually satisfactory resolution within sixty (60) Days from the commencement of negotiations, the provisions of Section 17.6.6 (b) will apply.

xxx xxx xxx

Article 13 Covenants

xxx

13.2 ERC Approval

13.2.1 Subject to the non-occurrence of the Longstop Date, upon receipt of the ERC Final Approval, Meralco shall provide a copy of such ERC Final Approval to Power Supplier. Power Supplier shall have ten (10) Days from the date of receipt from MERALCO of such ERC Final Approval to notify Meralco in writing that (i) it accepts such ERC Final Approval or (ii) it does not accept the ERC Final Approval, stating the grounds for non-acceptance.

13.2.2 In case of Power Supplier's non-acceptance, Power Supplier shall be free to file with the ERC a motion for reconsideration. Any order on a motion for reconsideration shall be treated as an ERC Final Approval for purposes of the processes under this Section 13.2.

13.2.3 Following (i) a written notice of acceptance from Power Supplier with respect to the ERC Final Approval (including upon reconsideration under

Section 13.2.2 above), or (ii) the lapse of the period referred to in Section 13.2.1 without Power Supplier communicating its acceptance or non-acceptance in writing, the Acceptance Date shall be considered as having occurred on the date of the written notice of acceptance or on the last Day of such period, as applicable ("Acceptance Date"), provided, in each case, that Meralco has not filed any motion for reconsideration or appeal subsequent to the Power Supplier's acceptance of such ERC Final Approval and the Longstop Date has not occurred. xxx

13.2.5 In the event that the Acceptance Date has not occurred by the Longstop Date, either Party may terminate this Agreement by serving a thirty (30) Day written notice to the other.

xxx xxx xxx

Article 16 Force Majeure

xxx

16.5 Effect of Extended Force Majeure

If any Event of Force Majeure prevents Power Supplier from making available the Contract Capacity or Associated Energy or Meralco from accepting Contract Capacity or Associated Energy, in each case for a continuous period of more than one hundred eighty (180) Days, then either Party may upon written notice, require the other Party to meet as soon as practicable to reasonably discuss any modification, change or amendment of this Agreement under such reasonable terms, to the extent necessary to resolve the issues arising from the Event of Force Majeure and maintain, to the extent feasible, the rights and obligations of the Parties under this Agreement.

If the Parties do not reach such satisfactory solution within ninety (90) Days from the end of the one hundred eighty (180) Day period, or such other time as may be agreed upon, either Party may terminate this Agreement in accordance with Section 17.6.5.

xxx xxx xxx

Article 17 Events of Default and Termination

17.1 Power Supplier Events of Default

Each of the events described below shall constitute a

Power Supplier Event of Default, provided that such events (with the exception of Sections 17.1(d) and Section 17.1(e) (i), (ii) and (iii)) results in or is accompanied by an actual failure by Power Supplier to make Available the Contract Capacity and/or deliver the Associated Energy of Meralco in accordance with the terms of this Agreement: xxx

xxx

17.2 Meralco Events of Default

Each of the events described below shall constitute a Meralco Event of Default, provided that such event (with the exception of Section 17.2(d)) results to or is accompanied by an actual failure by Meralco to receive, and pay for, the Contract Capacity and Associated Energy in accordance with this Agreement:

xxx

For the avoidance of doubt, it is understood and agreed that, subject to Section 16.2(d) being applicable, the expiration and/or non-renewal of the Franchise shall not be considered a Meralco Event of Default.

xxx

A copy of the PSA between MERALCO and SRPGC, including its attachments, is attached to the Joint Application as Annex "A".

Q9: What is the Contract Capacity and/or Associated Energy contracted under the PSA with SRPGC?

A9: The PSA is for the purchase of 400 MW Contract Capacity and Associated Energy.

Q10: What is the effective rate under the PSA?

A10: Given a certain set of assumptions, the annual effective rate under the PSA is PhP3.7549 per kWh.

Q11: If approved, how much will be the simulated delivered price under the PSA?

A11: Given a similar set of certain assumptions provided in getting the effective rate, the simulated delivered price under the PSA would result in the reduction of MERALCO's generation charge by about PhP0.2589 per kWh.

Q12: How did you derive the effective rate and simulated delivered rate?

A12: I prepared a Rate Impact for the SRPGC and MERALCO PSA.

Q13: Where is this Rate Impact document that you prepared?

A13: I have it with me and it is attached herein as **ANNEX "A."**

Q14: Do you affirm and confirm the truthfulness and veracity of your answers to the questions asked?

A14: Yes.

IN WITNESS WHEREOF, I have hereunto affixed my signature this 26 April 2016 at Pasig City, Philippines.



CIPRINILO C. MENESES
Affiant

ATTESTATION

I, **ATTY. RAYMOND B. YAP**, of legal age, Filipino, with office address at 7th Floor, Lopez Building, MERALCO Compound, Ortigas Avenue, Pasig City attest to the following that:

1. I am the lawyer who conducted the examination of witness, Mr. Ciprinilo C. Meneses;
2. I have faithfully recorded or caused to be recorded the questions I asked and the answers given by the witness;
3. Neither I nor any other person coached the witness regarding his answers.

IN WITNESS WHEREOF, I have hereunto affixed my signature this 26 April 2016 at Pasig City, Philippines.



ATTY. RAYMOND B. YAP
Affiant

SUBSCRIBED AND SWORN TO before me this
APR 27 2016 by Engr. Ciprinilo C. Meneses and Atty. Raymond
B. Yap, exhibiting their SSS ID with Nos. 03-6515286-8 and
3411178612, respectively, as proof of their identities.

Doc. No.: 190 ;
Page No.: 39 ;
Book No.: TV ;
Series of 2016.


ATTY. CARMEN GRACE S. RAMOS
NOTARY PUBLIC

Pasig, Pateros, Taguig & San Juan
Issued on July 13, 2015 at Pasig City
until December 31, 2016
Roll No. 55945; IBP No. 1023723; 01/08/16; RSM Chapter
PTR No. 1473409; 01/21/16; Pasig City
7th Floor, Lopez Bldg., Ortigas Ave., Pasig City

SRPGC PSA - Rate Impact
(YEAR 2021)

ANNEX " A "

BILLING COMPONENT	UNIT	BASE RATE ^[a]	CPI Adj Factor ^[h]	BILLING DETERMINANT ^[i]		AMOUNT (PHP)
A. Capacity Payment (MCP)						
Peso Portion	(Php/kW-yr) ^[b]	14,984.0250		400,000	(kW)	5,993,610,000.00
B. Fixed O&M Payment (MFOM)						
US Dollar Portion Escalating	(USD/kW-yr) ^[b]	34.1370	1.000000	400,000	(kW)	629,076,636.00
Peso Portion Escalating	(Php/kW-yr) ^[b]	967.8230	1.000000	400,000	(kW)	387,129,200.00
C. Fuel Payment (MFP)						
Peso Portion	(Php/kWh) ^[c]	0.9999		2,803,200,000	(kWh)	2,803,021,628.43
D. Variable O&M Payment (MVOM)						
Peso Portion	(Php/kWh)	0.0995	1.000000	2,803,200,000	(kWh)	278,918,400.00
E. Reimbursable Cost Payment (RCP) ^[d]						
Real Property Tax	(Php)					293,278,000
Start-up Costs	(Php)					-
Shutdown Costs	(Php)					-
Supplemental Payments	(Php)					140,713,210
TOTAL PAYMENT	(Php)					10,525,747,074.04
Effective Rate at Plant Gate	(Php/kWh)					3.7549
WESM Line Rental Rate ^[e]	(Php/kWh)					0.1082
Delivered Rate	(Php/kWh)					3.8631
Effective Cost at WESM Price ^[f]	(Php/kWh)					7.0640
Increase / (Decrease) over WESM Price	(Php/kWh)					(3.2009)
Meralco Captive Energy Demand ^[g]	(kWh)					34,658,621,088
Increase / (Decrease) in Generation Cost	(Php)					(8,972,765,032.57)
Increase / (Decrease) in Generation Cost	(Php/kWh)					(0.2589)

NOTE:

^[a] Base Rates as set forth in Schedule 1 of Appendix E of the PSA

^[b] Annual Capacity Rate and Annual Fixed O&M Rate are converted into monthly rates by applying the formulas shown in Appendix E of the PSA

^[c] Fuel Payment calculated based on Guaranteed Net Plant Heat Rate at 91.25% plant load factor, Newcastle index = USD 50.38/MT, and Forex rate at Php 46.07/USD (current prices as of Mar 2016)

^[d] Reimbursable Payments (pass through costs) based on estimated taxes

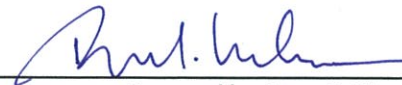
^[e] Assumed estimated SRPGC line rental rate

^[f] Cost if equivalent volume of SRPGC was sourced from the WESM based on forecast average Jan - Dec 2021 hourly prices

^[g] Meralco Captive Energy Demand based on 2021 forecast

^[h] Assumed no CPI escalation

^[i] Energy Payments based on 80.00% plant capacity factor



Prepared by: Ryan S. Morales



Reviewed by: Ciprinilo C. Meneses

ANNEX "C"



REPUBLIC OF THE PHILIPPINES
SECURITIES AND EXCHANGE COMMISSION
SEC Building, EDSA, Greenhills
City of Mandaluyong, Metro Manila

COMPANY REG. NO. CS201317110
COMPANY TIN 008-610-942

CERTIFICATE OF INCORPORATION

KNOW ALL PERSONS BY THESE PRESENTS:

This is to certify that the Articles of Incorporation and By-Laws of

ST. RAPHAEL POWER GENERATION CORPORATION

were duly approved by the Commission on this date upon the issuance of this Certificate of Incorporation in accordance with the Corporation Code of the Philippines (Batas Pambansa Blg.68), and copies of said Articles and By-Laws are hereto attached.

This Certificate grants juridical personality to the corporation but does not authorize it to undertake business activities requiring a Secondary License from this Commission such as, but not limited to acting as: broker or dealer in securities, government securities eligible dealer (GSED), investment adviser of an investment company, close-end or open-end investment company, investment house, transfer agent, commodity/financial futures exchange/broker/merchant, financing company, pre-need plan issuer, general agent in pre-need plans and time shares/club shares/membership certificates issuers or selling agents thereof. Neither does this Certificate constitute as permit to undertake activities for which other government agencies require a license or permit.

As a registered corporation, it shall submit annually to this Commission the reports indicated at the back of this certificate.

IN WITNESS WHEREOF, I have hereunto set my hand and caused the seal of this Commission to be affixed at Mandaluyong City, Metro Manila, Philippines, AM this 10th day of September, Twenty Thirteen.

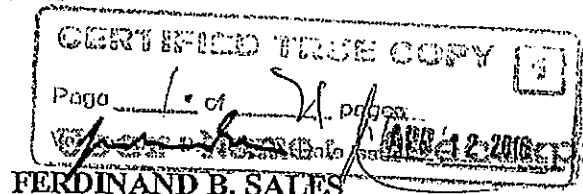
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APR 26 2016

JOHN A. SADULLO Company Registration and Monitoring Department
CORPORATE SECRETARY

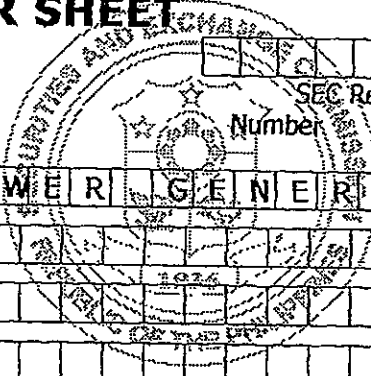
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FERDINAND B. SALES
Acting Director

Mr. Sadullo
9.7/1/53

COVER SHEET



ST RAPHAEL POWER GENERATION CORPORATION

(Company's Full Name)

BARANGAY BACLARAN MUNICIPALITY OF BALAYAN PROVINCE OF BATANGAS

(Business Address: No., Street City / Town / Province)

Atty. John R. Sadullo
Contact Person

888-3055
Company Telephone Number

1 2 3 1
Month Day
Fiscal Year Meeting

AOI/BL
FORM TYPE

Month Day
Annual

Secondary License Type, If Applicable

Dept Requiring this Doc

Amended Articles Number / Section

Total No. of Stockholders

Total Amount of Borrowings
Domestic Foreign

To be accomplished by SEC Personnel concerned

File Number
Document ID

Date: 12-4-2016 Time: 9:27:52 AM

Cashier

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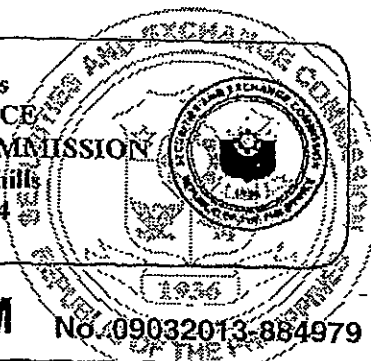
APR 26 2016

JOHN R. SADULLO
CORPORATE SECRETARY

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Page 1 of 1
Verified by: ID. ADAP Date: APR 12 2016



Republic of the Philippines
DEPARTMENT OF FINANCE
SECURITIES & EXCHANGE COMMISSION
SEC Building, EDSA, Greenhills
City of Mandaluyong, 1554



28

PAYMENT ASSESSMENT FORM

No. 09032013-884979

[illegible]

ANNEX "D"

ARTICLES OF INCORPORATION

OF
ST. RAPHAEL POWER GENERATION CORPORATION

KNOW ALL MEN BY THESE PRESENTS:

That we, all of legal age, majority of whom are residents of the Philippines, have this day voluntarily associated ourselves together for the purpose of forming a corporation under the laws of the Philippines.

AND WE HEREBY CERTIFY:

FIRST. - That the name of said corporation shall be:

ST. RAPHAEL POWER GENERATION CORPORATION

SECOND. - That the purposes for which said Corporation is formed are:

PRIMARY PURPOSE

To acquire, construct, erect, assemble, rehabilitate, expand, commission, operate, and maintain power-generating plants and related facilities for the generation of electricity, including facilities to purchase, manufacture, develop or process fuel for the generation of such electricity; to sell electricity to any person or entity through electricity markets, by trading, or by contract; to administer, conserve and manage the electricity generated by power-generating plants, owned by the Corporation or by a third party; to invest in or acquire corporations or entities engaged in any of the foregoing activities.

SECONDARY PURPOSES

1. To the extent permitted by law, to acquire by purchase, lease, contract, concession or otherwise, any and all real and personal properties of every kind and description whatsoever, which the Corporation may deem necessary or appropriate in connection with the conduct of any business in which the Corporation may lawfully engage, and to own, hold, operate, improve, rehabilitate, develop, manage, grant, lease, sell, exchange, or otherwise dispose of the whole or any part thereof;

2. To borrow or raise money from not more than nineteen (19) lenders including its stockholders for any of the purposes of the Corporation, and from time to time to draw, make, accept, endorse, transfer, assign, execute, and issue promissory notes, drafts, bills of exchange, warrants, bonds, debentures and other negotiable and transferable instruments and evidence of indebtedness, and for the purpose of securing any of its obligations or contracts, to convey, transfer, assign, deliver, mortgage and/or pledge all or any part of the property or assets at any time held or owned by the

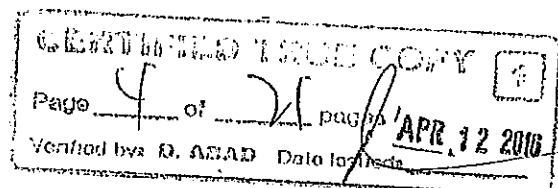
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APR 26 2016

JOHN R. SADULLO
CORPORATE SECRETARY



Corporation on such terms and conditions as the Board of Directors of the Corporation or its duly authorized officers or agents shall determine and as may be permitted by law;

3. To purchase or otherwise acquire, hold mortgage, pledge and sell or otherwise dispose of shares of stocks, bonds, securities or other evidences of indebtedness issued or created by any other corporation, partnership or company, whether domestic or foreign and while the holder of any such share of stock, to exercise all the rights and privileges of ownership, including the right to vote without, however, engaging as a stock broker or dealer in securities;

4. To invest and deal with monies and properties of the Corporation in such manner as may, from time to time, be considered wise or expedient for the advancement of its interest, and to sell or dispose of or transfer the business, goodwill, properties and undertakings of the Corporation under such terms as it shall deem to accept, in particular, shares or debentures of any other corporations;

5. To the extent permitted by law, to purchase, acquire, manage and take over all or any part of the business and property of any person, corporation, syndicate or partnership, carrying on any business which this Corporation is authorized to carry on, or possessed of property suitable for the purchase of this Corporation, and to pay for the same in property, cash, checks, bonds, debentures or other obligations of the Corporation and to undertake, assume and guarantee the liabilities of such person, corporation or partnership whose property or business may be taken over or shares of whose capital stock may be acquired and owned by the Corporation, without however, engaging in guaranty or surety business;

6. Insofar as the same may be now or hereafter be permitted by law, to amalgamate or unite with, manage, or combine into this Corporation, any other corporation or association or business, whenever formed, for objects similar, analogous, or subsidiary to any of the objects of this Corporation, carrying on any business capable of being conducted so as to directly benefit this Corporation, and to acquire, hold and deal in shares or interest therein;

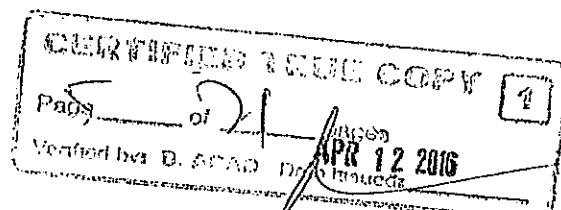
7. To purchase, hold, sell, exchange or transfer or otherwise deal in shares of its own capital stock, bonds or other obligations from time to time and to such extent and in such manner and upon such terms as its Board of Directors shall determine, provided that the Corporation shall not use any of its funds or property for the purchase of its own shares of capital stock when such use would cause the impairment of the capital of the Corporation and provided further that shares of its capital stock belonging to the Corporation shall not be voted directly or indirectly;

8. Without in any particular way limiting the powers of the Corporation, it is hereby expressly declared and provided that the Corporation shall have the power to make and perform contracts of any all kinds and descriptions with any person, firm or corporation whether public or private and particularly, but not by way of limitation, to make and perform contracts creating rights, easement and other privileges respecting any of the property owned by the Corporation, to have one or more branch offices in or out of the Philippines, to conduct its business and exercise its power in any part of the

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APR 26 2016

JOHN R. SADULLO
CORPORATE SECRETARY



Philippines or in any other country, and, in carrying on its business and in order to attain or further its purposes or powers, to do any and all other acts and things, and to exercise any and all other powers which a juridical person could do and exercise and which now or hereafter may be authorized by law;

9. To do all such other things and acts as are necessary or impliedly included, incidental or conducive to the attainment of the above objects or any of them, or which may be conveniently carried on or done in connection therewith, or which may directly or indirectly enhance the value of or render profitable any business of the Corporation, provided always that nothing shall be done in connection with any of the above objects of the Corporation which is prohibited by the laws of the Philippines now or hereafter existing.

The foregoing clauses shall be construed both as objects and powers, and it is hereby expressly provided that the foregoing enumeration of specific powers shall not be held to limit or restrict in any manner the general powers of the Corporation.

COMMON TO PRIMARY AND SECONDARY PURPOSES

1. To purchase, hold, convey, sell, lease, rent, mortgage, encumber or otherwise deal in such real and personal property in part of the Philippines or elsewhere as the purposes for which the Corporation is formed may permit and as may be reasonably and necessarily required for the transaction of the lawful business of the Corporation.

2. Without in any particular way limiting the powers of the Corporation, it is hereby expressly declared and provided that the Corporation shall have power to make and perform contracts of any and all kinds and descriptions with any persons, firm or corporation, whether public or private, without limit as to amount, and particularly, but not in any way of limitations, to make and perform contracts creating rights, easements and other privileges respecting any of the property, real or personal of any kind owned by the Corporation.

3. To invest and deal with the moneys of the Corporation not immediately required for its business as above specified in such manner and for such purposes as from time to time may be determined.

4. To do all such other things as are incidental or conducive to the attainment of the above objects or any of them, or which may be conveniently carried on and done in connection therewith, or which may be consulted directly or indirectly to enhance the value of or render profitable any business or property of the Corporation, always provide that nothing shall be done in connection with any of the above objects which is permitted by any laws of the Republic of the Philippines now or hereafter existing.

THIRD. - That the place where the principal office of the Corporation is to be established is at the Barangay Baclaran, Municipality of Balayan, Province of Batangas,

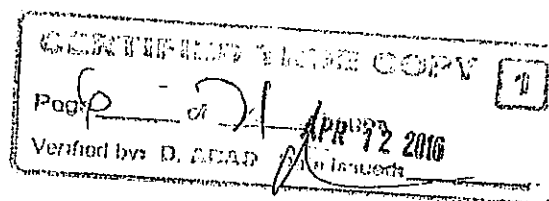
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JOHN R. SADULLO
CORPORATE SECRETARY



FOURTH. - That the term for which said Corporation is to exist is fifty (50) years from and after the date of incorporation.

FIFTH. - That the names and residences of the incorporators of said corporation are, as follows:

<u>Names</u>	<u>Nationality</u>	<u>Residences</u>
David M. Consunji	Filipino	2281 Don Chino Roces Avenue, Makati City
Isidro A. Consunji	Filipino	2281 Don Chino Roces Avenue, Makati City
Victor A. Consunji	Filipino	2281 Don Chino Roces Avenue, Makati City
Jorge A. Consunji	Filipino	2281 Don Chino Roces Avenue, Makati City
Ma. Cristina C. Gotianun	Filipino	2281 Don Chino Roces Avenue, Makati City

SIXTH. - That the number of directors of said corporation shall be five (5) and that the name, nationalities and residences of the directors of the Corporation who are to serve until their successors are elected and qualified as provided by the By-Laws are as follows:

<u>Names</u>	<u>Nationality</u>	<u>Residences</u>
David M. Consunji	Filipino	2281 Don Chino Roces Avenue, Makati City
Isidro A. Consunji	Filipino	2281 Don Chino Roces Avenue, Makati City
Victor A. Consunji	Filipino	2281 Don Chino Roces Avenue, Makati City
Jorge A. Consunji	Filipino	2281 Don Chino Roces Avenue, Makati City
Ma. Cristina C. Gotianun	Filipino	2281 Don Chino Roces Avenue, Makati City

SEVENTH. - That the authorized capital stock of the Corporation is Fifty Million Pesos (Php50,000,000.00), Philippine Currency, and the said capital stock is divided into Fifty Million (50,000,000) shares with a par value of One Peso (Php1.00) per share and shall be listed in the foreign exchanges, if necessary.

EIGHT - That the amount of said Capital Stock which has been actually subscribed is Twelve Million Five Hundred Thousand Pesos (Php12,500,000.00), Philippine Currency, and the following persons have subscribed for the number of shares and amount of capital stock indicated opposite their respective names:

<u>Name</u>	<u>Nationality</u>	<u>No. of Shares</u> <u>Subscribed</u>	<u>Amount</u> <u>Subscribed</u>
David M. Consunji	Filipino	1	1.00
Isidro A. Consunji	Filipino	1	1.00
Victor A. Consunji	Filipino	1	1.00
Jorge A. Consunji	Filipino	1	1.00
Ma. Cristina C. Gotianun	Filipino	1	1.00
Semirara Mining Corporation	Filipino	12,499,995	12,499,995.00
TIN: 000-190-324-000			

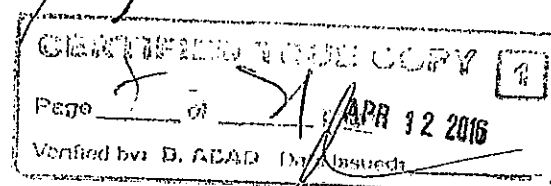
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US\$12,500,000.00 and 12,500,000.00 express

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APR 26 2016

JOHN R. SADULLO
CORPORATE SECRETARY



NINTH. - That the following persons have paid on the shares of capital stock for which they have subscribed, the amount set forth after their respective names:

<u>Names</u>	<u>Nationality</u>	<u>Amount Paid on Subscription</u>
David M. Consunji	Filipino	1.00
Isidro A. Consunji	Filipino	1.00
Victor A. Consunji	Filipino	1.00
Jorge A. Consunji	Filipino	1.00
Ma. Cristina C. Gotianun	Filipino	1.00
Semirara Mining Corporation TIN: 000-190-324-000	Filipino	3,124,995.00
		<u>3,125,000.00</u>

TENTH. - That Ma. Cristina C. Gotianun has been elected by the subscribers as Treasurer of the Corporation to act as such until his successor is duly elected and qualified in accordance with the By-laws, and that, as such, Treasurer, he has been authorized to receive for the Corporation and to issue in its name receipt for all subscriptions paid in by said subscribers.

ELEVENTH. - That no issuance or transfer of shares of stock of the Corporation which would reduce the stock ownership of Filipino citizens to less than the percentage of outstanding capital stock required by law to be owned by Filipino citizens shall be allowed or permitted to be recorded in the books of the Corporation, and this restriction shall also be indicated in all its stock certificates.

TWELVETH. - No holder of any class of shares of the Corporation shall have, as such holder, any pre-emptive right to acquire, purchase, or subscribe to any share of the capital stock of any class of the Corporation which it may issue or sell whether out of the number of shares authorized by these articles of incorporation as originally filed, or by any amendment thereof, or out of shares of the capital stock of any class of the Corporation acquired by it after the issue thereof; nor shall any holder of any class of shares of the Corporation have, as such shareholder, any pre-emptive right to acquire purchase, or subscribe to any obligation which the Corporation may issue or sell that shall be convertible into or exchangeable for any shares of the capital stock of any class of the Corporation or to which shall be attached or appertain any warrant or instrument that shall confer upon the owner of such obligation, warrant or instrument the right to subscribe to, or to acquire or purchase from the Corporation, any share of its capital stock of any class.

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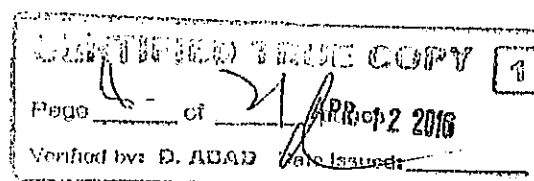
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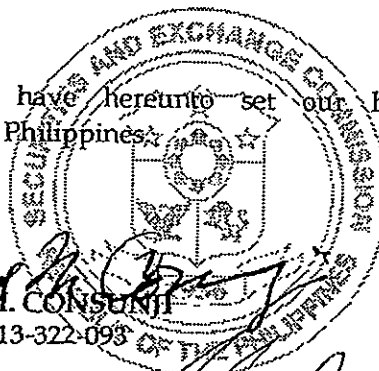
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JOHN R. SADULLO
CORPORATE SECRETARY



IN WITNESS WHEREOF, we have hereunto set our hands on this
August 25, 2013 at Makati City, Philippines.



David M. Consumji
DAVID M. CONSUMJI
TIN: 113-322-093

Isidro A. Consumji
ISIDRO A. CONSUMJI
TIN: 100-985-420

Victor A. Consumji
VICTOR A. CONSUMJI
TIN: 100-985-438

Jorge A. Consumji
JORGE A. CONSUMJI
TIN: 110-929-778

Ma. Cristina C. Gotianun
MA. CRISTINA C. GOTIANUN
TIN: 163-777-902

SIGNED IN THE PRESENCE OF:

Date: 12-4-2016 Time: 9:27:58 AM

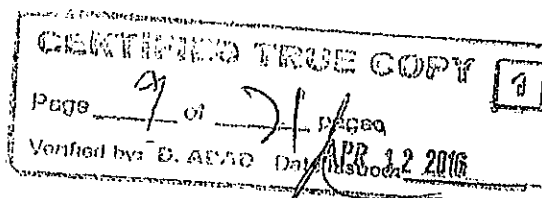
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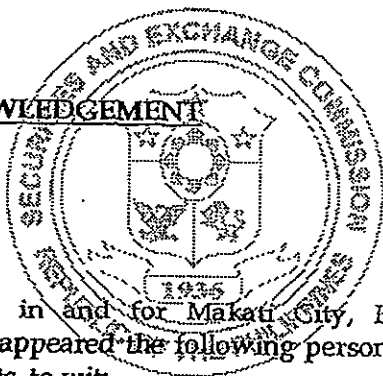
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APR 26 2016

John R. Sadullo
JOHN R. SADULLO
CORPORATE SECRETARY



ACKNOWLEDGEMENT



Republic of the Philippines)
Makati City, Metro Manila) S.S.

BEFORE ME, a Notary Public in and for Makati City, Philippines, this
AUG 28 2013, 2013, personally appeared the following persons who executed
to me their respective Philippine Passports, to wit:

<u>Name</u>	<u>Passport No.</u>	<u>Expiry Date / Place</u> <u>Issued</u>
David M. Consunji	EB0531746	July 6, 2015/Manila
Victor A. Consunji	EB5899814	July 10, 2017/Manila
Isidro A. Consunji	EB2033364	March 6, 2016/Manila
Jorge A. Consunji	EB1244862	October 25, 2015/ Manila
Ma. Cristina C. Gotianun	XX3803011	May 26, 2014/Manila

known to me and to me known to be the same persons who executed the foregoing
Articles of Incorporation and they acknowledged to me that the same is of their own free
will and voluntary act and deed.

IN TESTIMONY WHEREOF, I have hereunto set my hand and affixed my notarial seal on
the date and at the place first above-written.

Doc No. 4;
Page No. 1;
Book No. 11;
Series of 2013.

REDENCIO C. VILLARIVERA
Roll of Attorney's No. 45395
Appointment No. M-410
Notary Public for Makati City
Until December 31, 2013
4th Floor, Dacon Building, 2281

Date: 12-4-2016 9:29 AM
Pasong Tamo Extension, Makati City
IBP No. 887140/Jan. 19 2012/Makati City
PTR No. 3202168/Jan. 20, 2012/Makati City
MCLE Compliance No. III-0017731/June 29, 2010

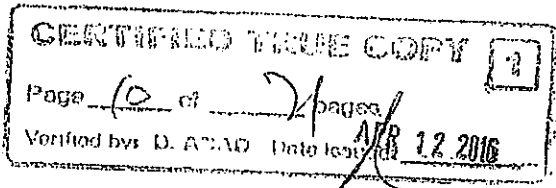
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JOHN R. SADULLO
CORPORATE SECRETARY



Republic of the Philippines}
Makati City } S.S.

TREASURER'S AFFIDAVIT

I, **MA. CRISTINA C. GOTIANUN**, Filipino, of legal, with office address at the 2nd Floor, DMCI Plaza Building, 2281 Don Chino Roces Avenue, Makati City, Metro Manila, Philippines, after having been duly sworn, depose and say that:

1. I have been elected by the subscribers of St. Raphael Power Generation Corporation, a corporation in the process of incorporation (the "Corporation"), as Treasurer, to act as such until my successor has been duly elected and qualified in accordance with the by-laws of the Corporation, and that as such Treasurer, I hereby certify under oath that the authorized capital stock of Fifty Million Pesos (Php50,000,000.00), Philippine Currency, divided into 50,000,000 shares with a par value of Php1.00 per share, Twelve Million Five Hundred Thousand (12,500,000) shares of which has been subscribed, and the amount of Three Million One Hundred Twenty Five Thousand Pesos (Php3,125,000.00), Philippine Currency, as payment for the subscription has been paid and received by me, in cash in accordance with the Corporation Code of the Philippines.

2. This is to authorize the Securities and Exchange Commission and Bangko Sentral ng Pilipinas to examine and verify the deposit in the Banco de Oro, Karrivin Plaza, 2316 Chino Roces Avenue, Makati City in my name as treasurer in trust for St. Raphael Power Generation Corporation, in the amount of Three Million One Hundred Twenty Five Thousand Pesos (Php3,125,000.00) Philippine Currency, representing the paid-up capital of said Corporation which is in the process of incorporation. This authority is valid and inspection of said deposit may be made even after the issuance of the Certificate of Incorporation to the Corporation. Should the deposit be transferred to another bank prior to, or after incorporation, this will also serve as authority to verify and examine the same. The representative of the Securities and Exchange Commission is also authorized to examine the pertinent books and records of accounts of the Corporation as well as all supporting papers to determine the utilization and disbursement of the said paid-up capital.

3. In case said paid-up capital is not deposited or withdrawn prior to the approval of the articles of incorporation I, in behalf of the above named Corporation, waive our right to a notice and hearing in the revocation of our Certificate of Incorporation.

IN WITNESS WHEREOF, I hereunto affixed my signature this 28 day of August 2013, at Makati City.


MA. CRISTINA C. GOTIANUN
Treasurer-in-Trust
TIN: 163-777-902

SUBSCRIBED AND SWORN to before me this 28 day of August 2013 at Makati City, affiant exhibiting to me her Philippine Passport # XX3803011 expiring on May 06, 2014 issued at Manila City.

Doc. No. 5;

Page No. 1;

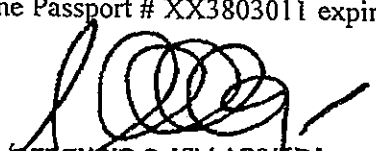
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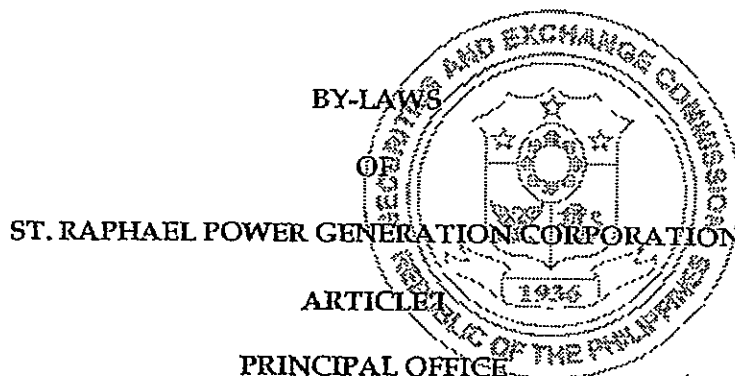
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JOHN R. SADULLO
CORPORATE SECRETARY


REDENCIO C. VILLARIVERA
Roll of Attorneys No. 45335
Appointment No. M-410
Notary Public for Makati City
Until December 31, 2013
4th Floor, Dacon Building, 2281 Don Chino Roces Avenue, Pasong Tama Extension, Makati City
IBP No. 887149/Jun. 19 2012/Makati City
PTR No. 3202166/Jun. 20 2012/Makati City
MCLE Compliance No. III/1001773/June 29, 2014
USE COPY 1



The principal office of the Corporation shall be located at the Barangay Baclaran, Municipality of Balayan, Province of Batangas, Philippines.

ARTICLE II

SHARES OF STOCK AND THEIR TRANSFER

Section 1. Certificates of Stock. Each stockholder shall be entitled to receive one or more certificates of stock showing the number of shares registered in his name upon full payment of his subscription, together with interest and expenses thereon if any is due. The certificates of stock shall be signed by the President and countersigned by the Secretary and sealed with its corporate seal. They shall be issued in consecutive order and be in such form as shall be approved by the Board of Directors.

Section 2. Transfer of Stock. No transfer of shares be valid, except as between the parties, until the transfer is recorded in the books of the Corporation by the holder thereof, or by his duly authorized attorney-in-fact or legal representative, so as to show the names of the parties to the transaction, the date of the transfer, the number of certificate and the number of shares transferred, and upon such transfer, the old certificate shall be surrendered to the Corporation by the delivery thereof properly endorsed to the person in charge of the stock and transfer books and ledgers, or to such other person as the Board of Directors may designate, by whom it shall be cancelled, and a new certificate shall thereupon be issued. The term "person" or "persons" wherever used herein shall be deemed to include any firm or firms, corporation or corporations, association or associations.

The Board of Directors may prescribe such rules and regulations as it may deem expedient to govern the issuance and transfer of certificates of stock of the Corporation.

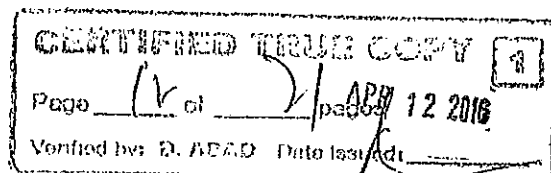
Section 3. Addresses of Stockholders. Each stockholder shall communicate to the Secretary of the Corporation an address at which notices of meetings and all other corporate notices may be served upon or mailed to him, and if any stockholder shall fail to communicate such address, corporate notices may be served by mail directed to him at his last known post office address.

Section 4. Lost, Destroyed and Mutilated Certificates. The holder of any stock of the Corporation shall immediately notify the Corporation of any loss.

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destruction or mutilation of the certificates therefore, and the Board of Directors may cause to be issued to him a new certificate or certificates of stock upon the surrender of the mutilated certificate or, in case of loss or destruction of the certificate, upon compliance with the procedure required under Section 73 of the Corporation Code.

Section 5. Closing of Transfer Books. The board of Directors may, by resolution, direct that the stock and transfer books of the Corporation be closed, for a period not exceeding thirty (30) days preceding the date of any meeting of stockholders, or the date for the payment of any dividend, or the date when the allotment of rights or capital stock shall take effect, as a record date for the determination of the stockholders entitled to notice of, and to vote at any such meeting, or entitled to payment of any such dividend, or to such allotment of rights in respect of any change, conversion or exchange of the capital stock, and in each such case only such stockholders as shall be stockholders of record on the date so fixed shall be entitled to notice of, or to vote at, such meeting, or to receive payment of such dividend, or to receive allotment of rights, or to exercise such rights, as the case may be, notwithstanding any transfer of any stock on the books of the Corporation after such record date as aforesaid.

Section 6. Subscriptions. Unpaid subscriptions to the capital stock of the Corporation shall be due and payable at any time or from time to time as they shall be declared due and payable by the Board of Directors. Unless otherwise provided in the subscription agreement, no interest shall be due on unpaid subscriptions until such subscriptions are declared delinquent.

ARTICLE III

MEETING OF STOCKHOLDERS

Section 1. Place of Meetings. All meetings of stockholders shall be held at the principal office of the Corporation.

Section 2. Annual Meetings. The annual meeting of the stockholders for the election of directors and for the transaction of such other business as may come before the meeting shall be held on the last Wednesday of August of every year as determined by the Board of Directors and at such time as the Board of Directors may determine. If the election of directors shall not be held on the day designated for the annual meeting or at any adjournment of such meeting, the Board of Directors shall cause the election to be held at a special meeting as soon thereafter as the same may conveniently be held. At such special meeting, the stockholders may elect the directors and transact other business as stated in the notice of the meeting with the same force and effect as at an annual meeting duly called and held.

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Section 3. Special Meetings. Special meetings of the stockholders may be called at any time by the President and shall be called by the President, or by the Secretary at the order of the Board of Directors or upon written request of stockholders registered as owners of at least twenty per cent (20%) of the total outstanding stock

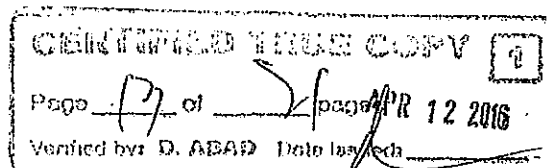
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having voting powers. Such request shall specify the time and place and state the purpose or purposes of the proposed meeting. No other business other than that specified in the notice shall be considered at any such meeting.

Section 4. Notice of Meetings. Except as otherwise provided by law, written or printed notice of all annual and special meetings of stockholders, stating the place and time of the meeting and, if necessary, the general nature of the business to be considered, shall be transmitted by personal delivery, only by sending it through the post in a prepaid letter addressed to each stockholder of record entitled to vote thereat at his address last known to the Secretary of the Corporation, at least fourteen (14) days before the date of the meeting. In the case of stockholder having a registered address outside of the Philippines, service shall be effected by prepaid air mail post. Except where expressly required by law, no publication of any notice of a meeting of stockholders shall be required. If any stockholder shall, in person or by attorney-in-fact thereunto authorized, in writing or by telegraph, cable, radio or wireless, waive notice of any meeting, whether before or after holding of such meeting, notice thereof need not be given to him. Notice of any adjourned meeting of the stockholders shall not be required to be given, except when expressly required by law.

Any notice or other document, if served or sent by post, shall be deemed to have been served or delivered at the time when the letter containing the same is put into the post, and in proving such service or sending, it shall be sufficient to prove that the letter containing the notice or document was properly addressed and put into the post office as a prepaid letter. In case of air mail post, the notice shall be deemed to have been served 3 days after the same is put into the post.

Section 5. Quorum. At each meeting of the stockholders, the holders or holders of at least a majority of the outstanding capital stock of the Corporation having voting powers, who is or are present in person or represented by proxy, shall constitute a quorum for the transaction of business, save in those cases where the Corporation code requires the presence at the meeting, in person or by proxy, of stockholders owning a greater proportion of the outstanding capital stock. In the absence of a quorum, the stockholders of the Corporation present in person or represented by proxy and entitled to vote, by majority vote, or, in the absence of all the stockholders, any officer entitled to preside or act as Secretary at such meeting, shall have the power to adjourn the meeting from time to time, until stockholders holding the requisite amount of stock shall be present or represented. Any business which might have been transacted at the originally called meeting may be transacted at any such adjourned meeting.

Section 6. Chairman of the Meeting. At every meeting of the stockholders, the Chairman of the Board of Directors, or, in his absence, the President, and in his absence, any person chosen by a majority of the stockholders present in person or by proxy and entitled to vote thereat, shall act as Chairman. The Secretary or Assistant Secretary shall act as secretary at all meetings of the stockholders. In the absence from any such meeting of the Secretary or Assistant Secretary, the Chairman may appoint any person to act as secretary of the meeting.

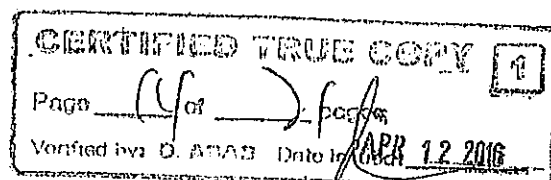
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Section 7. Voting. At every meeting of the stockholders, each stockholder shall be entitled to vote in person or by proxy and, unless otherwise provided by law, he shall have one vote for each share of stock entitled to vote and standing in his name in the books of the Corporation at the record date. At all meetings of the stockholders, all elections and all questions shall be decided by the stockholders owning a majority of the outstanding capital stock present in person or by proxy and entitled to vote thereat, a quorum being present, except in cases where a greater proportion of the outstanding capital stock is required by statute, the Articles of Incorporation or these By-laws. Unless required by law or the provisions of these By-laws, or demanded by a stockholder present in person or by proxy at any meeting, and entitled to vote thereat, the vote on any question need not be by ballot. On a vote by ballot, each ballot shall be signed by the stockholder voting or in his name by his proxy if there be such proxy, and shall state the number of shares voted by him.

Section 8. Proxies. A stockholder entitled to vote at any such stockholders meeting may be represented and vote thereat by proxy appointed in a written instrument subscribed to by the stockholder or his duly authorized attorney-in-fact. The proxy shall be delivered to the Secretary on or before the meeting or at such time as the Board of Directors may, by resolution, determine.

ARTICLE IV

BOARD OF DIRECTORS

Section 1. General Powers. Unless otherwise provided by law, the powers, business and property of the Corporation shall be exercised, conducted and controlled by the Board of Directors. There shall be a Chairman of the Board of Directors elected by the directors from among themselves who shall preside at all meetings of the Board of Directors and of the stockholders and shall exercise such powers and perform such duties as these By-laws provide and the Board of Directors may determine.

Section 2. Number, Qualifications and Term of Office. The number of directors of the Corporation shall be as set forth in the Articles of Incorporation. Such number, however, may be increased to a number not exceeding fifteen (15) at any time during the existence of the Corporation and in accordance with law. Each director shall own at least one (1) share of the capital stock of the Corporation which share shall stand in his name on the books of the Corporation. The directors shall be elected annually in the manner provided in these By-laws and each director shall hold office until his successor shall have been elected and shall have qualified, or until his death or until he shall resign or until he shall cease to be a stockholder of record of at least one share of stock in the Corporation or shall have been removed in the manner hereinafter provided.

Section 3. Election of Directors. At all elections of directors, there must be present either in person or representative authorized to act by written proxy, the owners of the majority of the outstanding capital stock entitled to vote. The election must be by

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CORPORATE SECRETARY

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Verified by	D. ACAD	Date
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ballot if requested by any voting stockholder. Every stockholder entitled to vote shall have the right to vote in person or by proxy the number of shares of stock standing in his own name on the stock books of the Corporation and said stockholder may vote such number of shares for as many persons as there are directors to be elected or he may cumulate said shares and give one candidate as many votes as the number of directors to be elected multiplied by the number of shares shall equal, or he may distribute them on the same principle among as many candidates as he should see fit; Provided, that the total number of votes cast by him shall not exceed the number of shares owned by him as shown in the books of the Corporation multiplied by the whole number of directors to be elected. The candidates receiving the highest number of votes of the stockholders owning a majority of the outstanding capital stock present in person or by proxy and entitled to vote, shall be declared as directors. In the case of any increase in the number of directors, the additional directors may be elected by the stockholders (i) at the first annual meeting held after such increase has been approved, or (ii) at a special meeting called for the purpose, or (iii) at the same meeting authorizing the increase of directors if so stated in the notice of the meeting.

Section 4. Quorum and Manner of Acting. Except as otherwise provided by statute, by the Articles of Incorporation or by these By-Laws, a majority of the entire number of directors of the Corporation shall constitute a quorum for the transaction of business at any meeting. The act of a majority of the members present at any meeting at which a quorum is present shall be the act of the Board of Directors. In the absence of a quorum, a majority of the directors present may adjourn any meeting from time to time until a quorum be had. Notice of any adjourned meeting need not be given.

Section 5. Place of Meetings. The Board of Directors may hold its meeting at the principal office of the Corporation or at such other places within or without the Republic of the Philippines as the Board may from time to time determine or as shall be specified or fixed in the respective notices or waivers of notice thereof.

Section 6. Organizational Meetings. The Board of Directors shall meet for the purpose of organization, the election of officers and the transaction of other business as soon as practicable after each annual election of directors and on the same day, at the same place at which regular meetings of the Board of Directors are held. Notice of such meeting need not be given. Such meeting may be held at any other time and place which shall be specified in a notice given as hereinafter provided for special meetings of the Board of Directors or in a consent and waiver of notice thereof signed by all directors.

Section 7. Regular Meetings. Until otherwise directed by the Board of Directors, regular meetings of the Board of Directors shall be held at least once every year on such date as the Board may determine. Written notice of such regular meetings shall be sent the Secretary to each director at least ten (10) days before the date of the meeting stating the time and place thereof. Any meeting of the Board shall be a legal meeting without any notice thereof having been given to any director, if all the directors shall be present thereat.

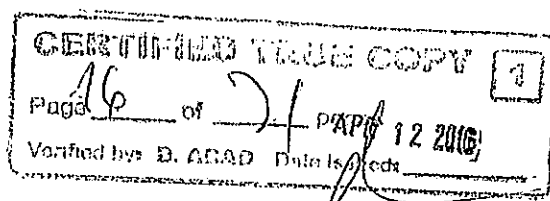
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CORPORATE SECRETARY



Section 8. **Special Meetings; Notice.** Special meetings of the Board of Directors shall be held when called by Chairman, President, or at the written request of at least two (2) directors. Notice of each such meeting shall be mailed by registered mail to each director, addressed to him at his residence or usual place of business or sent to him at such place by telegraph, cable, or telefax at least ten (10) days before the day on which the meeting is to be held. Every notice shall state the time and place of the meeting as well as the purpose or purposes of such meeting. Notice of any meeting of the Board need not be given to any director, however, if such notice is waived by him in writing by him in writing or by telephone, telegraph, cable, or telefax whether before or after such meeting is held or if he shall be present at the meeting. Any meeting of the Board shall be legal meeting without any notice thereof having been given to any director, if all the directors shall be present thereat.

Section 9. **Resignation.** Any director of the Corporation may resign at any time by giving written notice to the President or the Secretary of the Corporation. The resignation of any director shall take effect at the time specified therein and, unless otherwise specified therein, the acceptance of such resignation shall not be necessary to make it effective.

Section 10. **Removal of Directors.** Any director may be removed, either with or without cause, at any time, by the affirmative vote of the stockholders holding or representing at least two-thirds (2/3) of the outstanding capital stock entitled to vote at a regular meeting or at a special meeting of the stockholders called for the purpose and held after due notice as provided in Section 28 of the Corporation Code. The vacancy in the Board caused by any such removal may be filled by the stockholders owning a majority of the outstanding capital stock at such meeting without further notice, or at any regular or at any special meeting called for the purpose after giving notice as prescribed by the Corporation Code.

Section 11. **Vacancies.** Any vacancy in the Board of Directors caused by death, resignation, disqualification, or any other cause, except by removal or expiration of term of a director, may be filled by the vote of at least a majority of the remaining directors if still constituting a quorum, in a special meeting duly called for the purpose, and each director so elected shall hold office until his successor shall be duly elected and qualified, or until his death or until he shall resign or shall have been removed in the manner herein provided. Should the number of directors required to constitute a quorum be not reached due to vacancies, a special stockholders meeting shall be called by the President for the purpose. Such number of directors as shall be necessary to fill in all the vacancies shall be elected.

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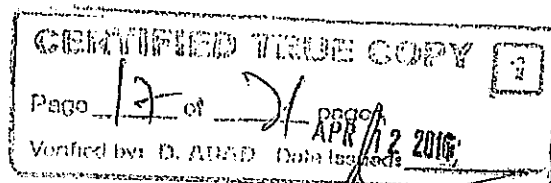
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JOHN R. SADULLO
CORPORATE SECRETARY



ARTICLE V

OFFICERS

Section 1. **Executive Officers.** The executive officers of the Corporation shall consist of the Chairman of the Board, President, Vice-President (optional), Secretary and the Treasurer and such other officers as may from time to time be designated by the Board of Directors. Two or more officers with compatible functions may be held concurrently by one person provided however, that no one shall act as President and Secretary, or President and Treasurer at the same time.

Section 2. **Election, Term of Office and Qualifications.** The Chairman of the Board, President, Vice-President (optional), Secretary and the Treasurer shall be elected annually by affirmative vote of a majority of all the members of the Board of Directors. The Board of Directors may by resolution provide the manner by which other officers may be appointed. Each officer shall hold office for a period of one year. Such other officers as may from time to time be elected or appointed by the Board of Directors shall hold office for such period, have such authority and perform such duties as are provided in these By-Laws or as the Board of Directors may determine. The President shall be chosen from among the directors. The Secretary shall be a resident and a citizen of the Philippines.

Section 3. **Removal.** Any officer may be removed, either with or without cause, by the vote of a majority of all the members of the Board of Directors.

Section 4. **Resignation.** Any officer may resign at any time by giving written notice to the Board of Directors, or the President. Any such resignation shall take effect on the date of receipt of such notice or at any later time specified therein; and unless otherwise specified therein, the acceptance of such resignation shall not be necessary to make it effective.

Section 5. **Vacancies.** A vacancy in any office because of death, resignation, removal, disqualification or any other cause may be filled for the unexpired portion of the term by a majority of the Board of Directors.

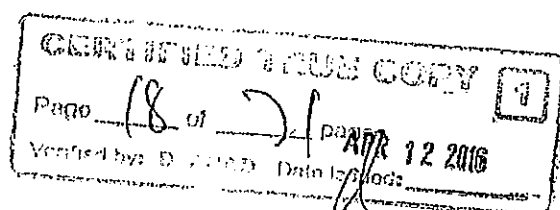
Section 6. **The Chairman of the Board.** The Chairman of the Board shall preside at all meetings of the stockholders and the Board of Directors, and shall have such other powers and duties as may be delegated to him by the Board of Directors.

Section 7. **The President.** The President shall be subject to the control of the Board of Directors and shall have the general care and supervision of the business and affairs of the Corporation. He shall preside at all meetings of the stockholders and of the Board of Directors in the absence of the Chairman of the Board. He shall sign with the Secretary any or all certificates of stock of the Corporation; provide the stockholders and the Board of Directors such report, memoranda, accounts and data which may be required of him; appoint such other subordinate officers as may be provided by resolution of the Board; and, in general, perform all duties incidental to the office of the

ST. RAPHAEL POWER GENERATION CORPORATION
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APR 26 2016

JOHN R. SADULLO
CORPORATE SECRETARY



President and such other duties as may from time to time be assigned to him by the Board of Directors or as prescribed by these By-Laws. The President is given full authority for the day-to-day management and operations of the Corporation within the limits of powers and authorities established by the Board of Directors.

Section 8. Vice-President (optional). The Vice-President shall act as the President in the event of absence or inability of the latter. He shall have such powers and duties as may be fixed by the Board of Directors.

Section 9. The Secretary. The Secretary, who must be a citizen and resident of the Philippines, shall keep or cause to be kept books provided for the purpose of the minutes of the meetings of the stockholders and of the Board of Directors; shall give, or cause to be given, notice of all meetings of stockholders and directors and all other notices required by law or by these By-Laws; and in the case of his absence or refusal or neglect to do so, any such notice may be given by any person thereunto directed by the President, or by the directors or stockholders, upon whose request the meeting is called as provided in these By-Laws; shall, unless otherwise determined by the Board of Directors, be custodian of the records and of the seal of the Corporation and see that the seal or a facsimile thereof is affixed to all documents the execution of which on behalf of the Corporation under its seal is duly authorized in accordance with the provisions of these By-Laws, and shall attest to the same; shall keep a register of the post office address of each stockholder, and make all proper changes in such register, retaining and filing his authority for all such entries; sign with the President any or all certificates of stock of the Corporation; shall, unless otherwise determined by the Board of Directors, have charge of the original stock books, transfer books and stock ledgers and act as transfer agent in respect of the stock and securities of the Corporation and, in general, shall perform all duties incident to the office of the Secretary, and such other duties as may from time to time, be assigned to him by the Board of Directors or by the President.

Section 10. The Treasurer. The Treasurer shall have charge and custody of, and be responsible for, all funds, securities, evidences of indebtedness and other valuable documents of the Corporation, and deposit all such funds in the name of the Corporation in such banks, trust companies or other depositories as shall be selected and designated by the Board of Directors from time to time; at all reasonable times exhibit his books of account and records to any of the directors of the Corporation where such books and records are kept; when required by the President or the Board of Directors render a statement on the condition of the finances of the Corporation; receive and give, or cause to be given, receipts for moneys paid to the Corporation from any source whatsoever, and authorize the disbursement of funds as the business of the Corporation may require; and in general, perform all the duties incident to the office of Treasurer and such other duties as from time to time may be assigned to him by the Board of Directors or by the President.

Section 11. Compensation. All executive officers of the Corporation shall receive such reasonable salaries or remuneration as may be determined by the Board of Directors.

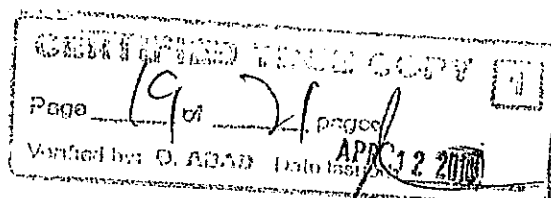
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ARTICLE VI

INDEMNIFICATION OF DIRECTORS AND OFFICERS

The Corporation shall indemnify every director or officer, his heirs, executor and administrator, against expenses reasonably incurred by him in connection with any action, suit or proceeding, civil or criminal, to which he may be made a party by reason of his being or having been a director or officer of the Corporation, or at the request of any other company of which the Corporation is a stockholder or creditor and from which the director or officer is not entitled to be indemnified, except in relation to matters as to which he shall be finally adjudged in such action, suit or proceeding to be liable for gross negligence or willful misconduct in the performance of his duty.

In the event of a settlement, indemnification shall be provided only in connection with such matters covered by the settlement as to which the Corporation is advised by counsel that the person to be indemnified acted without gross negligence and that he did not commit a breach of duty or willful misconduct in the performance of his duties. The foregoing right of indemnification shall not be exclusive of other rights to which he be entitled.

The amount payable by way of indemnity shall be determined and paid pursuant to a resolution adopted by a majority of the members of the Board of Directors.

The costs and expenses incurred in defending the aforementioned action, suit or proceeding may be paid by the Corporation in advance of the final disposition of such action, suit or proceeding as authorized in the manner provided for in the preceding paragraph upon receipt of an undertaking by or on behalf of the director or officer to repay such amount, unless it shall ultimately be determined that he is entitled to be indemnified by the Corporation as authorized in this Article.

ARTICLE VII

DIVIDENDS AND FINANCE

Section 1. Fiscal Year. The fiscal year of the Corporation shall commence on January 1st and end on December 31st of each year.

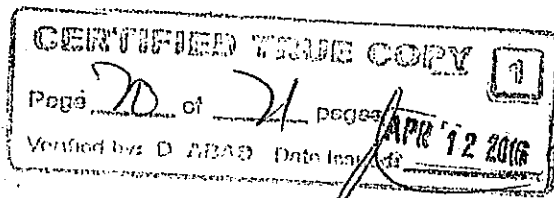
Section 2. Dividends. Dividends shall be declared only from the unrestricted retained earnings and shall be payable at such time and in such manner and in such amounts as the Board of Directors shall determine. No dividends shall be declared which would impair the capital of the Corporation. Stock dividends shall be declared in accordance with law.

Section 3. Auditors. Auditors shall be designated by the stockholders prior to the close of the business in each fiscal year, who shall audit and examine the books of account of the Corporation, and shall certify to the Board of Directors and the stockholders the annual balances of said books which shall be prepared at the close of

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APR 26 2016

JOHN R. SADULLO
CORPORATE SECRETARY



the said year under the direction of the Treasurer. No director or officer of the Corporation, and no firm or Corporation of which an officer or director is a member, shall be eligible to discharge the duties of Auditor.

ARTICLE VIII

SEAL

The corporate seal of the Corporation shall be in such form and design as may be directed by the Board of Directors.

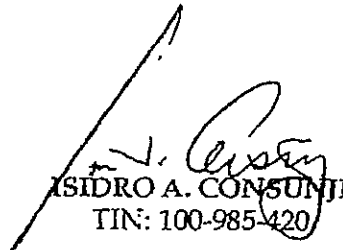
ARTICLE IX

AMENDMENT OF BY-LAWS

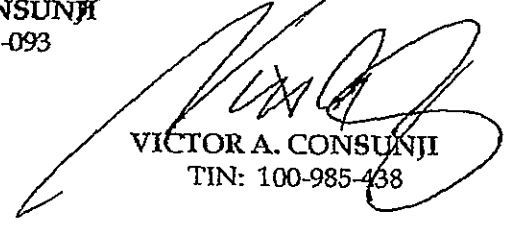
The By-Laws may be amended, repealed, or new By-Laws adopted, by the vote of the majority of the Board of Directors and the vote of the stockholders holding at least a majority of the outstanding capital stock at a regular or special meeting duly called for the purpose.

The foregoing By-Laws were adopted by the affirmative vote of all the incorporators of the Corporation on November 10, 2009.

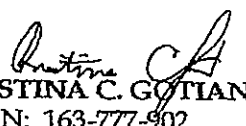
IN WITNESS WHEREOF, the incorporators present at said meeting and voting threat in favor of the adoption of these By-Laws have affixed their signatures below.


ISIDRO A. CONSUNJI
TIN: 100-985-420


DAVID M. CONSUNJI
TIN: 113-322-093


VICTOR A. CONSUNJI
TIN: 100-985-438


JORGE A. CONSUNJI
TIN: 110-929-728


MA. CRISTINA C. GOTIANUN
TIN: 163-777-902

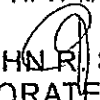
Date: 12-4-2016 Time: 9:28:6 AM
SIGNED IN THE PRESENCE OF:

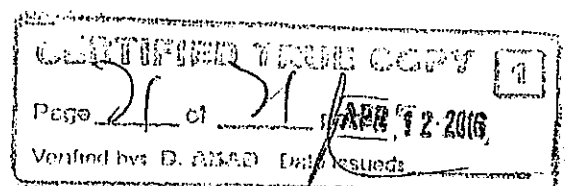
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CORPORATE SECRETARY



ANNEX "E"



SECURITIES AND EXCHANGE COMMISSION

SEC Building, EDSA, Greenhills, Mandaluyong City, Metro Manila, Philippines
Tel: (632) 726-0931 to 39 Fax: (632) 725-5293 Email: mis@sec.gov.ph

109032015000497

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Company Representative

Doc Source

Company Information

SEC Registration No. CS201317110
Company Name ST. RAPHAEL POWER GENERATION CORPORATION
Industry Classification Generation, Collection And Distribution Of Electricity
Company Type Stock Corporation

Document Information

Document ID 109032015000497
Document Type GENERAL INFORMATION SHEET
Document Code GIS
Period Covered August 26, 2015
No. of Days Late 0
Department CED/CFD/CRMD/MRD
Remarks S.O. (Robinson)

Date: 12-4-2016 Time: 9:31:42 AM

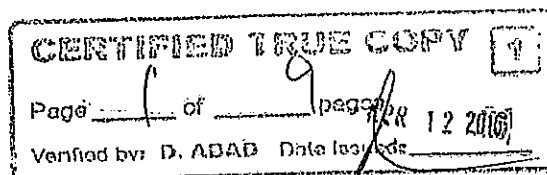
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CORPORATE SECRETARY



COVER SHEET

C S 2 0 1 3 1 7 1 1 0
SEC Registration Number

ST. RAPHAEL POWER GENERATION
CORPORATION
(Company's Full Name)

BRGY. BACLARAN, BALAYAN, BATANGAS
(Business Address: No. Street City/Town/Province)

John R. Sadullo
(Contact Person) 888-3000
(Company Telephone Number)

1 2 3 1
(Fiscal Year) G I S
(Form Type) Month Day
(Annual Meeting¹)

(Secondary License Type, If Applicable)

CRMD
Dept. Requiring this Doc. Amended Articles Number/Section
Total Amount of Borrowings
Total No. of Stockholders Domestic Foreign

To be accomplished by SEC Personnel concerned

File Number LCU
Document ID Date: 12-4-2016 Time: 9:31:43 AM
Cashier

STAMPS
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APR 26 2016
JOHN R. SADULLO
CORPORATE SECRETARY
Remarks: Please use BLACK ink for scanning purposes.
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Page 1 of 1
APR 12 2016
Verified by: D. ADAD Date Issued:

FOR THE YEAR 2015
STOCK CORPORATION

1. FOR USER CORPORATION: THIS GIS SHOULD BE SUBMITTED WITHIN THIRTY (30) CALENDAR DAYS FROM THE DATE OF THE ANNUAL STOCKHOLDERS' MEETING. DO NOT LEAVE ANY ITEM BLANK. WRITE "N/A." IF THE INFORMATION REQUIRED IS NOT APPLICABLE TO THE CORPORATION OR "NONE" IF THE INFORMATION IS NON-EXISTENT. IF THE ANNUAL STOCKHOLDERS' MEETING IS HELD ON A DATE OTHER THAN THAT STATED IN THE BY-LAWS, THE GIS SHALL BE SUBMITTED WITHIN THIRTY (30) CALENDAR DAYS FROM THE ACTUAL DATE OF THE ANNUAL STOCKHOLDERS' MEETING.
2. IF NO MEETING IS HELD, THE CORPORATION SHALL SUBMIT THE GIS NOT LATER THAN JANUARY 30 OF THE FOLLOWING YEAR. HOWEVER, SHOULD AN ANNUAL STOCKHOLDERS' MEETING BE HELD THEREAFTER, A NEW GIS SHALL BE SUBMITTED/FILED.
3. THIS GIS SHALL BE ACCOMPLISHED IN ENGLISH AND CERTIFIED AND SWORN TO BY THE CORPORATE SECRETARY OF THE CORPORATION.
4. THE SEC SHOULD BE TIMELY APPRISED OF RELEVANT CHANGES IN THE SUBMITTED INFORMATION AS THEY ARISE. FOR CHANGES RESULTING FROM ACTIONS THAT AROSE BETWEEN THE ANNUAL MEETINGS, THE CORPORATION SHALL SUBMIT ONLY THE AFFECTED PAGE OF THE GIS THAT RELATES TO THE NEW INFORMATION TOGETHER WITH A COVER LETTER SIGNED BY THE CORPORATE SECRETARY OF THE CORPORATION. THE PAGE OF THE GIS AND COVER LETTER SHALL BE SUBMITTED WITHIN SEVEN (7) DAYS AFTER SUCH CHANGE OCCURRED OR BECAME EFFECTIVE.
5. SUBMIT FOUR (4) COPIES OF THE GIS TO THE CENTRAL RECEIVING SECTION, GROUND FLOOR, SEC BLDG., EDSA, MANDALUYONG CITY. ALL COPIES SHALL UNIFORMLY BE ON A4 OR LETTER-SIZED PAPER WITH A STANDARD COVER PAGE. THE PAGES OF ALL COPIES SHALL USE ONLY ONE SIDE. CORPORATIONS SUBMITTING A COPY OF THEIR GIS ONLINE OR VIA INTERNET SHALL SUBMIT ONE (1) HARD COPY OF THE GIS, TOGETHER WITH A CERTIFICATION UNDER OATH BY ITS CORPORATE SECRETARY THAT THE COPY SUBMITTED ONLINE CONTAINS THE EXACT DATA IN THE HARD COPY.
6. ONLY THE GIS ACCOMPLISHED IN ACCORDANCE WITH THESE INSTRUCTIONS SHALL BE CONSIDERED AS HAVING BEEN FILED.
7. THIS GIS MAY BE USED AS EVIDENCE AGAINST THE CORPORATION AND ITS RESPONSIBLE DIRECTORS/OFFICERS FOR ANY VIOLATION OF EXISTING LAWS, RULES AND REGULATIONS

PLEASE PRINT LEGIBLY

CORPORATE NAME: ST. RAPHAEL POWER GENERATION CORPORATION		DATE REGISTERED: September 10, 2013
BUSINESS/TRADE NAME: N/A		FISCAL YEAR END: December 31
SEC REGISTRATION NUMBER: CS201317110		CORPORATE TAX IDENTIFICATION NUMBER (TIN): 008-610-942
DATE OF ANNUAL MEETING PER BY-LAWS: Last Wednesday of August of each year		WEBSITE/URL ADDRESS: N/A
ACTUAL DATE OF ANNUAL MEETING: August 26, 2015		E-MAIL ADDRESS: N/A
COMPLETE PRINCIPAL OFFICE ADDRESS: Brgy. Baclaran, Balayan, Batangas		FAX NUMBER: 888-3955
COMPLETE BUSINESS ADDRESS: Brgy. Baclaran, Balayan, Batangas		TELEPHONE NUMBER(S): 888-3000
NAME OF EXTERNAL AUDITOR & ITS SIGNING PARTNER: N/A	SEC ACCREDITATION NUMBER (if applicable): N/A	GEOGRAPHICAL CODE: N/A
PRIMARY PURPOSE/ACTIVITY/INDUSTRY PRESENTLY ENGAGED IN: Power Generation	INDUSTRY CLASSIFICATION: Power Generation	

INTERCOMPANY AFFILIATIONS

PARENT COMPANY	SEC REGISTRATION NO.	ADDRESS
Semirara Mining and Power Corporation	0000091447	2/F DMCI Plaza, 2281 Don Chino Roces Ave., Makati City
SUBSIDIARY/AFFILIATE	SEC REGISTRATION NO.	ADDRESS
N/A	N/A	N/A
Date: 12-4-2016 Time: 9:31:44 AM		
NOTE: USE ADDITIONAL SHEET IF NECESSARY		

NOTE: USE ADDITIONAL SHEET IF NECESSARY

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JOHN R. SADULLO
CORPORATE SECRETARY

Ряд 1

Page 1

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Page 7 of 9 pages

APR 12 2016

Verified by: D. ABAD Date: 4/12/2016

GENERAL INFORMATION SHEET

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Corporate Name: ST. RAPHAEL POWER GENERATION CORPORATION

A. Is the Corporation a covered person under the Anti Money Laundering Act (AMLA), as amended? (Rep. Acts. 9160/9164/10167/10365)

Yes ☐ No ☒

Please check the appropriate box:

1.

- ☐ a. Banks
- ☐ b. Offshore Banking Units
- ☐ c. Quasi-Banks
- ☐ d. Trust Entities
- ☐ e. Non-Stock Savings and Loan Associations
- ☐ f. Pawnshops
- ☐ g. Foreign Exchange Dealers
- ☐ h. Money Changers
- ☐ i. Remittance Agents
- ☐ j. Electronic Money Issuers
- ☐ k. Financial Institutions which Under Special Laws are subject to Bangko Sentral ng Pilipinas' (BSP) supervision and/or regulation, including their subsidiaries and affiliates.

2.

- ☐ a. Insurance Companies
- ☐ b. Insurance Agents
- ☐ c. Insurance Brokers
- ☐ d. Professional Reinsurers
- ☐ e. Reinsurance Brokers
- ☐ f. Holding Companies
- ☐ g. Holding Company Systems
- ☐ h. Pre-need Companies
- ☐ i. Mutual Benefit Association
- ☐ j. All Other Persons and entities supervised and/or regulated by the Insurance Commission (IC)

3.

- ☐ a. Securities Dealers
- ☐ b. Securities Brokers
- ☐ c. Securities Salesman
- ☐ d. Investment Houses
- ☐ e. Investment Agents and Consultants
- ☐ f. Trading Advisors
- ☐ g. Other entities managing Securities or rendering similar services
- ☐ h. Mutual Funds or Open-end Investment Companies
- ☐ i. Close-end Investment Companies
- ☐ j. Common Trust Funds or Issuers and other similar entities
- ☐ k. Transfer Companies and other similar entities
- ☐ l. Other entities administering or otherwise dealing in currency, commodities or financial derivatives based there on
- ☐ m. Entities administering or otherwise dealing in valuable objects
- ☐ n. Entities administering or otherwise dealing in cash Substitutes and other similar monetary instruments or property supervised and/or regulated by the Securities and Exchange Commission (SEC)

4. ☐ Jewelry dealers in precious metals, who, as a business, trade in precious metals

5. ☐ Jewelry dealers in precious stones, who, as a business, trade in precious stone

6. Company service providers which, as a business, provide any of the following services to third parties:

- ☐ a. acting as a formation agent of juridical persons
- ☐ b. acting as (or arranging for another person to act as) a director or corporate secretary of a company, a partner of a partnership, or a similar position in relation to other juridical persons

☐ c. providing a registered office, business address or accommodation, correspondence or administrative address for a company, a partnership or any other legal person or arrangement

☐ d. acting as (or arranging for another person to act as) a nominee shareholder for another person

7. Persons who provide any of the following services:

- ☐ a. managing of client money, securities or other assets
- ☐ b. management of bank, savings or securities accounts
- ☐ c. organization of contributions for the creation, operation or management of companies
- ☐ d. creation, operation or management of juridical persons or arrangements, and buying and selling business entities

8. ☐ None of the above

Describe nature of business: Power Generation

Date: 22 April 2016 Time: 9:31:46 AM

B. Has the Corporation complied with the requirements on Customer Due Diligence (CDD) or Know Your Customer (KYC), record-keeping, and submission of reports under the AMLA, as amended, since the last filing of its GIS?

Yes ☐ No ☒

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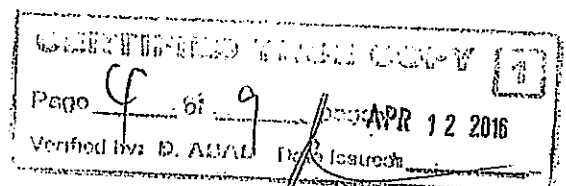
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APR 26 2016

JOHN R. SADULLO
CORPORATE SECRETARY



GENERAL INFORMATION SHEET

STOCK CORPORATION

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CORPORATE NAME: ST. RAPHAEL POWER GENERATION CORPORATION

CAPITAL STRUCTURE

AUTHORIZED CAPITAL STOCK

	TYPE OF SHARES *	NUMBER OF SHARES	PAR/STATED VALUE	AMOUNT (Php) (No. of shares X Par/Stated Value)
	Common	50,000,000	1.00	50,000,000.00
TOTAL		50,000,000	TOTAL P	50,000,000.00

SUBSCRIBED CAPITAL

FILIPINO	NO. OF STOCK-HOLDERS	TYPE OF SHARES *	NUMBER OF SHARES	NUMBER OF SHARES IN THE HANDS OF THE PUBLIC **	PAR/STATED VALUE	AMOUNT (Php)	% OF OWNERSHIP
	6	Common	12,500,000		1.00	12,500,000.00	25.00
TOTAL			12,500,000	TOTAL	TOTAL P	12,500,000.00	25.00

FOREIGN (INDICATE BY NATIONALITY)	NO. OF STOCK-HOLDERS	TYPE OF SHARES *	NUMBER OF SHARES	NUMBER OF SHARES IN THE HANDS OF THE PUBLIC **	PAR/STATED VALUE	AMOUNT (Php)	% OF OWNERSHIP
N/A							
TOTAL				TOTAL	TOTAL P		

Percentage of Foreign Equity :

TOTAL

TOTAL

TOTAL P

TOTAL SUBSCRIBED P

12,500,000.00

25.00

PAID-UP CAPITAL

FILIPINO	NO. OF STOCK-HOLDERS	TYPE OF SHARES *	NUMBER OF SHARES	PAR/STATED VALUE	AMOUNT (Php)	% OF OWNERSHIP
	6	Common	3,125,000	1.00	3,125,000.00	25.00
TOTAL			3,125,000	TOTAL P	3,125,000.00	25.00

FOREIGN (INDICATE BY NATIONALITY)	NO. OF STOCK-HOLDERS	TYPE OF SHARES *	NUMBER OF SHARES	PAR/STATED VALUE	AMOUNT (Php)	% OF OWNERSHIP
N/A						
TOTAL				TOTAL P		

0.00 %

TOTAL

TOTAL P

TOTAL PAID-UP P

3,125,000.00

25.00

NOTE: USE ADDITIONAL SHEET IF NECESSARY

* Common, Preferred or other classification.
 ** Other than Directors, Officers, Shareholders owning 10% of outstanding shares.

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 CORPORATE SECRETARY

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 Page 5 of 9 pages APR 12 2016
 Verified by: D. ADAS Date Issued: _____

GENERAL INFORMATION SHEET

STOCK CORPORATION

PLEASE PRINT LEGIBLY

CORPORATE NAME: ST. RAPHAEL POWER GENERATION CORPORATION

DIRECTORS / OFFICERS

NAME, NATIONALITY AND CURRENT RESIDENTIAL ADDRESS	INC'R	BOARD	SEX	STOCK HOLDER	OFFICER	EXEC. COMM.	TAX IDENTIFICATION NO. (TIN) FOR FILIPINOS AND FOREIGNERS
1. Isidro A. Consunji, Filipino 7 Bauhinia cor. Instia Rd., South Forbes Park, Makati City	Y	C	M	Y	SGEO		100-985-420
2. Victor A. Consunji, Filipino 4688 Pasay Rd., Dasmarinas Vill., Makati City	Y	M	M	Y	President & COO		100-985-438
3. Jorge A. Consunji, Filipino 1183 Pasay Rd., Dasmarinas Vill., Makati City	Y	M	M	Y	N/A		110-929-728
4. Maria Cristina C. Gotianun, Filipino 1296 Gladiola St., Dasmarinas Vill., Makati City	Y	M	F	Y	Treasurer		163-777-902
5. John R. Sadullo, Filipino Unit 2515 Bauhinia, Tivoli Gardens, Coronado St., Mandaluyong City	N		M	N	Corporate Secretary		912-202-759
6.							
7.							
8.							
9.							
10.							
11.							
12.							
13.							
14.							
15.							

INSTRUCTIONS:

FOR SEX COLUMN, PUT "F" FOR FEMALE, "M" FOR MALE.

FOR BOARD COLUMN, PUT "C" FOR CHAIRMAN, "M" FOR MEMBER, "I" FOR INDEPENDENT DIRECTOR.

FOR INC'R COLUMN, PUT "Y" IF AN INCORPORATOR, "N" IF NOT.

FOR STOCKHOLDER COLUMN, PUT "Y" IF A STOCKHOLDER, "N" IF NOT.

FOR OFFICER COLUMN, INDICATE PARTICULAR POSITION IF AN OFFICER, FROM VP UP INCLUDING THE POSITION OF THE TREASURER, SECRETARY, COMPLIANCE OFFICER AND/OR ASSOCIATED PERSON.

FOR EXECUTIVE COMMITTEE, INDICATE "C" IF MEMBER OF THE COMPENSATION COMMITTEE; "A" FOR AUDIT COMMITTEE; "N" FOR NOMINATION AND ELECTION COMMITTEE. ADDITIONALLY WRITE "C" AFTER SLASH IF CHAIRMAN AND "M" IF MEMBER.

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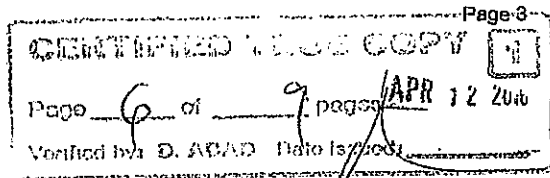
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CORPORATE SECRETARY



GENERAL INFORMATION SHEET

STOCK CORPORATION

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CORPORATE NAME: ST. RAPHAEL POWER GENERATION CORPORATION

TOTAL NUMBER OF STOCKHOLDERS: 6

NO. OF STOCKHOLDERS WITH 100 OR MORE SHARES EACH: 1

TOTAL ASSETS BASED ON LATEST AUDITED FINANCIAL STATEMENTS: PHP3,150,527 (as of December 31, 2014)

STOCKHOLDER'S INFORMATION						
NAME, NATIONALITY AND CURRENT RESIDENTIAL ADDRESS	SHARES SUBSCRIBED			% OF OWNERSHIP	AMOUNT PAID (PHP)	TAX IDENTIFICATION NO. (TIN) FOR FILIPINOS AND FOREIGNERS
	TYPE	NUMBER	AMOUNT (PHP)			
1. David M. Consunji Filipino 4688 Pasay Rd., Dasmarinas Vill., Makati City	Common	1	1.00	0.00	1.00	113-322-093
	TOTAL	1	1.00			
2. Isidro A. Consunji Filipino 7 Bauhinia cor. Instia Rd., South Forbes Park, Makati City	Common	1	1.00	0.00	1.00	100-985-420
	TOTAL	1	1.00			
3. Victor A. Consunji Filipino 4688 Pasay Rd., Dasmarinas Vill., Makati City	Common	1	1.00	0.00	1.00	100-985-438
	TOTAL	1	1.00			
4. Jorge M. Consunji Filipino 1183 Pasay Rd., Dasmarinas Vill., Makati City	Common	1	1.00	0.00	1.00	110-929-728
	TOTAL	1	1.00			
5. Maria Cristina C. Gotlanun Filipino 1296 Gladiola St., Dasmarinas Vill., Makati City	Common	1	1.00	0.00	1.00	163-777-902
	TOTAL	1	1.00			
6. Semirara Mining and Power Corp. Filipino 2/F DMCI Plaza, 2261 Don Chino Rocas Ave., Makati City	Common	12,499,995	12,499,995.00	100.00	3,124,995.00	410-000-190-324
	TOTAL	12,499,995	12,499,995.00			
7.						
	TOTAL					
TOTAL AMOUNT OF SUBSCRIBED CAPITAL			12,500,000.00	0.00		
TOTAL AMOUNT OF PAID-UP CAPITAL					3,125,000.00	

Date: 12-4-2016

Time: 9:31:49 AM

INSTRUCTION: SPECIFY THE TOP 20 STOCKHOLDERS AND INDICATE THE REST AS OTHERS

Note: For ROTC Nominee included in the list, please indicate further the beneficial owners owning more than 5% of any class of the company's voting securities. Attach separate sheet, if necessary.

GIS_STOCK (MAR 2016) GENERATION CORPORATION

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APR 26 2016

JOHN RASADULLO

CORPORATE SECRETARY

Page 4

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Page 7 of 7

APR 12 2016

Issued by: D. ABAD Date Issued:

GENERAL INFORMATION SHEET

STOCK CORPORATION

PLEASE PRINT LEGIBLY

CORPORATE NAME: ST. RAPHAEL POWER GENERATION CORPORATION			
1. INVESTMENT OF CORPORATE FUNDS IN ANOTHER CORPORATION		AMOUNT (Php)	DATE OF BOARD RESOLUTION
1.1 STOCKS		N/A	N/A
1.2 BONDS/COMMERCIAL PAPER (Issued by Private Corporations)		N/A	N/A
1.3 LOANS/ CREDITS/ ADVANCES		N/A	N/A
1.4 GOVERNMENT TREASURY BILLS		N/A	N/A
1.5 OTHERS		N/A	N/A
2. INVESTMENT OF CORPORATE FUNDS IN ACTIVITIES UNDER ITS SECONDARY PURPOSES (PLEASE SPECIFY:)		DATE OF BOARD RESOLUTION	DATE OF STOCKHOLDERS RATIFICATION
N/A		N/A	N/A
3. TREASURY SHARES		NO. OF SHARES	% AS TO THE TOTAL NO. OF SHARES ISSUED
		N/A	N/A
4. UNRESTRICTED/UNAPPROPRIATED RETAINED EARNINGS AS OF END OF LAST FISCAL YEAR			
5. DIVIDENDS DECLARED DURING THE IMMEDIATELY PRECEDING YEAR:			
TYPE OF DIVIDEND		AMOUNT (Php)	DATE DECLARED
5.1 CASH		N/A	N/A
5.2 STOCK		N/A	N/A
5.3 PROPERTY		N/A	N/A
TOTAL		P	
6. ADDITIONAL SHARES ISSUED DURING THE PERIOD:			
DATE	NO. OF SHARES	AMOUNT	
N/A	N/A	N/A	
SECONDARY LICENSE/REGISTRATION WITH SEC AND OTHER GOV'T AGENCY:			
NAME OF AGENCY:	SEC	BSP	IC
TYPE OF LICENSE/REGN.	N/A	N/A	N/A
DATE ISSUED:	N/A	N/A	N/A
DATE STARTED OPERATIONS:	September 10, 2013	N/A	N/A
TOTAL ANNUAL COMPENSATION OF DIRECTORS DURING THE PRECEDING FISCAL YEAR (in Php)		TOTAL NO. OF OFFICERS	TOTAL NO. OF RANK & FILE EMPLOYEES
N/A		4	0
		TOTAL MANPOWER COMPLEMENT	
		4	

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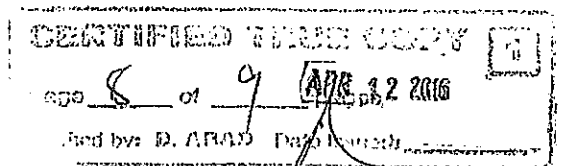
NOTE: USE ADDITIONAL SHEET IF NECESSARY

Page 5

GIS_STOCK (A-2013)
ST. RAPHAEL POWER GENERATION CORPORATION
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APR 26 2016

JOHN R. SADULLO
CORPORATE SECRETARY



I,

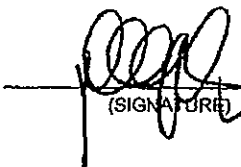
JOHN R. SADULLO,
(NAME)

CORPORATE SECRETARY, OF THE ABOVE-MENTIONED
(POSITION)

CORPORATION DECLARE UNDER THE PENALTY OF PERJURY, THAT ALL MATTERS SET FORTH IN THIS GENERAL INFORMATION SHEET WHICH CONSISTS OF (6) PAGES HAVE BEEN MADE IN GOOD FAITH, DULY VERIFIED BY ME AND TO THE BEST OF MY KNOWLEDGE AND BELIEF, ARE TRUE AND CORRECT.

I UNDERSTAND THAT THE FAILURE OF THE CORPORATION TO FILE THIS GIS FOR FIVE (5) CONSECUTIVE YEARS SHALL BE CONSTRUED AS NON-OPERATION OF THE CORPORATION AND A GROUND FOR THE REVOCATION OF THE CORPORATIONS CERTIFICATE OF INCORPORATION. IN THIS EVENTUALITY, THE CORPORATION HEREBY WAIVES ITS RIGHT TO A HEARING FOR THE SAID REVOCATION.

DONE THIS 27TH DAY OF AUGUST, 2015 IN MAKATI CITY.


(SIGNATURE)

SUBSCRIBED AND SWORN TO BEFORE ME IN **MAKATI CITY** CITY/PROVINCE, PHILIPPINES ON **AUG 28 2015**, AFFIANT PERSONALLY APPEARED BEFORE ME AND EXHIBITED TO ME HIS COMPETENT EVIDENCE OF IDENTITY THROUGH HIS DRIVER'S LICENSE NO. N01-02-005690 ISSUED AT LTO, Q.C. AND EXPIRING ON JULY 22, 2017 BEARING HIS PHOTOGRAPH AND SIGNATURE.

ATTY. REDENCIO C. VILLARIVERA
Notary Public for Makati City
For the term ending 31 December 2015
Roll No. 45533; Appointment No. M-365
4th Floor, Dason Building, No. 2281
Pasong Tamo Extension, Makati City
PTR No. 0993318/Feb. 2, 2015/Makati
IBP No. 4769099/Feb. 3, 2015/Makati
Office Address: _____
MCLE Compliance No. IV-0020719

DOC. NO: 293
PAGE NO. 77
BOOK NO. III
SERIES OF 2015

NOTARY PUBLIC FOR _____
Notarial Commission No. _____
Commission expires on December 31, _____
Roll of Attorney Number _____
PTR No. _____
IBP No. _____
Office Address: _____

Date: 12-4-2016 Time: 9:31:51 AM

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User Name: 4secexpress

GIS_STOCK (WE2012) GENERATION CORPORATION
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APR 26 2016


JOHN R. SADULLO
CORPORATE SECRETARY

Page 6

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Page <u>7</u>	pages <u>9</u>
Verified by: <u>D. ADAR</u> Date Issued: <u>APR 12 2016</u>	

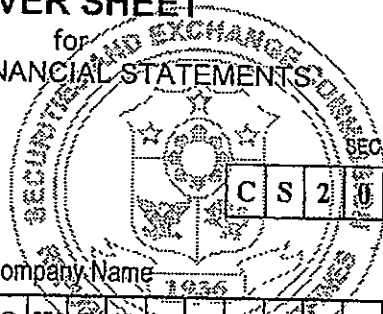
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ANNEX " F "

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COVER SHEET

for
AUDITED FINANCIAL STATEMENTS



SEC Registration Number
CS 201317110

Company Name

ST. RAPHAEL POWER GENERATION CORPORATION
(A Wholly Owned Subsidiary of Semirara Mining and Power Corporation)

Principal Office (No./Street/Barangay/City/Town/Province)

Brgy. Bacalaran, Balayan, Batangas

Form Type

A A F S

Department requiring the report

S E C

Secondary License Type, if Applicable

COMPANY INFORMATION

Company's Email Address

N/A

Company's Telephone Number/s

816-7301 to 10

Mobile Number

N/A

No. of Stockholders

6

Annual Meeting Month/Day

8/27

Fiscal Year Month/Day

12/31

CONTACT PERSON INFORMATION

The designated contact person MUST be an Officer of the Corporation

Name of Contact Person

Atty. John R. Sadullo

Email Address

jrsadullo@semirarampc.com

Telephone Number/s

888-3668

Mobile Number

N/A

Contact Person's Address

2/F DMCI Plaza, 2281 Don Chino Roces Avenue, Makati City, 1231

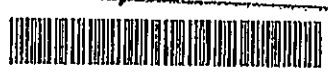
Note: In case of death, resignation or cessation of office of the officer designated as contact person, such incident shall be reported to the Commission within thirty (30) calendar days from the occurrence thereof with information and complete contact details of the new contact person designated.

ST. RAPHAEL POWER GENERATION CORPORATION
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APR 26 2016

JOHN R. SADULLO
CORPORATE SECRETARY

Page 1 of 1
Verified by: D. ABAD Date: APR 18 2016



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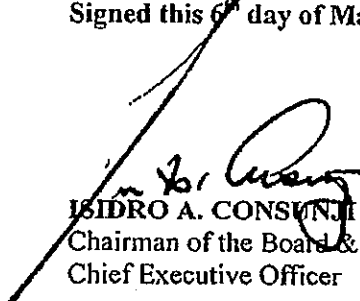
STATEMENT OF MANAGEMENT'S RESPONSIBILITY FOR FINANCIAL STATEMENTS

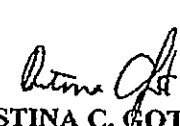
The management of **ST. RAPHAEL POWER GENERATION CORPORATION** is responsible for the preparation and fair presentation of the financial statements for the years ended December 31, 2014 and 2013, including the additional components attached therein, in accordance with Philippine Financial Reporting Standards. This responsibility includes designing and implementing internal controls relevant to the preparation and fair presentation of the financial statements that are free from material misstatement, whether due to fraud or error, selecting and applying appropriate accounting policies, and making accounting estimates that are reasonable in the circumstances.

The Board of Directors reviews and approves the financial statements and submits the same to the stockholders.

SyCip Gorres Velayo & Co., the independent auditors, appointed by the stockholders has examined the financial statements of the company in accordance with Philippine Standards on Auditing, and in its report to the stockholders, has expressed its opinion on the fairness of presentation upon completion of such examination.

Signed this 6th day of May 2015


ISIDRO A. CONSUNJI
Chairman of the Board &
Chief Executive Officer


MA. CRISTINA C. GOTIANUN
Treasurer

SUBSCRIBE AND SWORN, to before me on this MAY 11 2015 day of _____, at Makati City, Metro Manila, affiants exhibited me:

Name	Passport/CTC No.	Expiry Date/Place Issued
Isidro A. Consunji	EB2033364	March 6, 2016/DFA Manila
Ma. Cristina C. Gotianun	XX3803011	May 26, 2015/DFA Manila

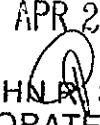
who has satisfactory proven me their identities through their valid identification cards, and that they are the same persons who personally signed before me the foregoing and acknowledged that they executed the same.

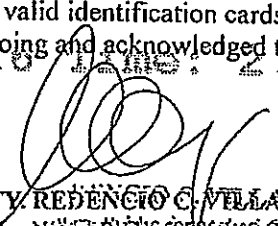
Doc. No. 92;
Page No. 19;
Book No. III;
Series of 2015.

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APR 26 2016


JOHN P. SADULLO
CORPORATE SECRETARY


ATTY. REDENCIO C. VILLARIVERA

Notary Public for Makati City
For the term ending 31 December 2015
Roll No. 45335; Appointment No. M-365

4th Floor, Dacan Building, No. 2281
Pasong Tamo Extension, Makati City
IBP No. 0995318/Feb. 2, 2015/Makati
PTR No. 4789099/Feb. 3, 2013/Makati
MCLE Compliance No. IV-0020719

Page 19 of 19 Pages
Verified by: D. ABAD Date: APR 18 2016

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SGV

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Opinion

In our opinion, the financial statements present fairly, in all material respects, the financial position of St. Raphael Power Generation Corporation as at December 31, 2014 and 2013, and its financial performance and its cash flows for the year ended December 31, 2014 and for the period September 10, 2013 to December 31, 2013 in accordance with Philippine Financial Reporting Standards.

Report on the Supplementary Information Required Under Revenue Regulations 15-2010

The supplementary information required under Revenue Regulations 15-2010 for purposes of filing with the Bureau of Internal Revenue is presented by the management of St. Raphael Power Generation Corporation in a separate schedule. Revenue Regulations 15-2010 requires the information to be presented in the notes to financial statements. Such information is not a required part of the basic financial statements. The information is also not required by Securities Regulation Code Rule 68, as Amended (2011). Our opinion on the basic financial statements is not affected by the presentation of the information in a separate schedule.

SYCIP GORRES VELAYO & CO.

Cyril Jasmin B. Valencia
Cyril Jasmin B. Valencia

Partner

CPA Certificate No. 90787

SEC Accreditation No. 1229-A (Group A),
May 31, 2012, valid until May 30, 2015

Tax Identification No. 162-410-623

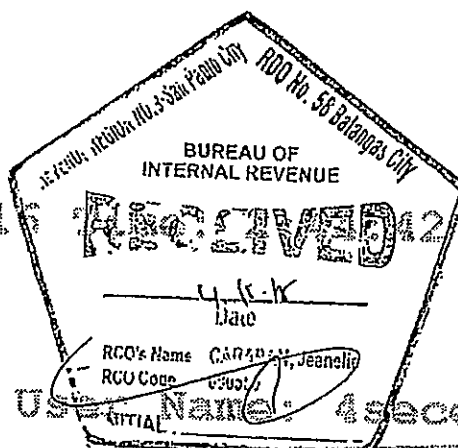
BIR Accreditation No. 08-001998-74-2015,

February 27, 2015, valid until February 26, 2018

PTR No. 4751335, January 5, 2015, Makati City

March 6, 2015

Date: 15-4-2016



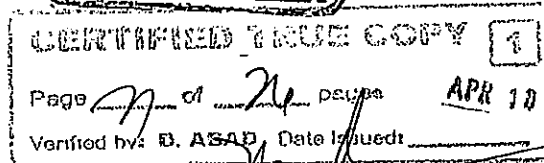
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JOHN R. SADULLO
CORPORATE SECRETARY

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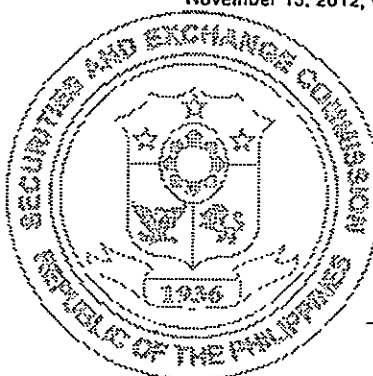
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working world

SyCip Gorres Velayo & Co.
6760 Ayala Avenue
1226 Makati City
Philippines

Tel: (632) 891 0307
Fax: (632) 819 0872
ey.com/ph

BOA/PRC Reg. No. 0001,
December 28, 2012, valid until December 31, 2015
SEC Accreditation No. 0012-FR-3 (Group A),
November 15, 2012, valid until November 16, 2015

INDEPENDENT AUDITORS' REPORT



The Stockholders and the Board of Directors
St. Raphael Power Generation Corporation
Baclaran, Balayan, Batangas

Report on the Financial Statements

We have audited the accompanying financial statements of St. Raphael Power Generation Corporation (a wholly owned subsidiary of Semirara Mining and Power Corporation) which comprise the statements of financial position as at December 31, 2014 and 2013, and the statements of comprehensive income, statements of changes in equity and statements of cash flows for the year ended December 31, 2014 and for the period September 10, 2013 to December 31, 2013, and a summary of significant accounting policies and other explanatory information.

Management's Responsibility for the Financial Statements

Management is responsible for the preparation and fair presentation of these financial statements in accordance with Philippine Financial Reporting Standards, and for such internal control as management determines is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

Auditors' Responsibility

Our responsibility is to express an opinion on these financial statements based on our audits. We conducted our audits in accordance with Philippine Standards on Auditing. Those standards require that we comply with ethical requirements and plan and perform the audit to obtain reasonable assurance about whether the financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the entity's preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of accounting estimates made by management, as well as evaluating the overall presentation of the financial statements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

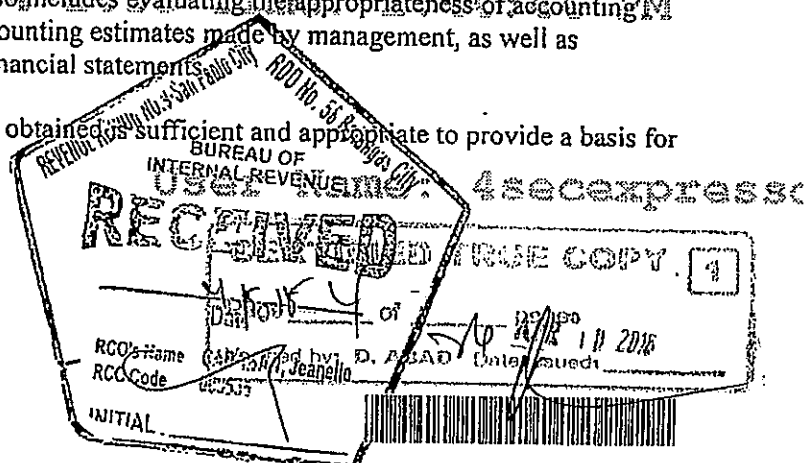
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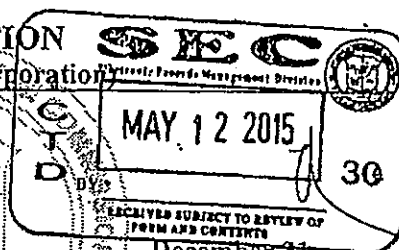
APR 26 2016

JOHN R. SADULLO
CORPORATE SECRETARY

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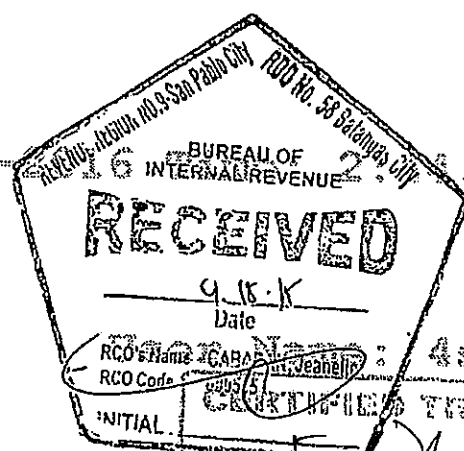
ST. RAPHAEL POWER GENERATION CORPORATION
(A Wholly Owned Subsidiary of Semirara Mining and Power Corporation)
STATEMENTS OF FINANCIAL POSITION



	December 31, 2014	2013
ASSET		
Current Asset		
Cash and cash equivalents (Notes 4 and 9)	₱3,150,527	₱3,127,124
LIABILITY AND EQUITY		
Current Liability		
Accounts payable and accrued expenses (Notes 5, 7 and 9)	₱2,060,118	₱114,891
Equity		
Capital stock (Note 6)	3,125,000	3,125,000
Deficit	(2,034,591)	(112,767)
Total Equity	1,090,409	3,012,233
	₱3,150,527	₱3,127,124

See accompanying Notes to Financial Statements.

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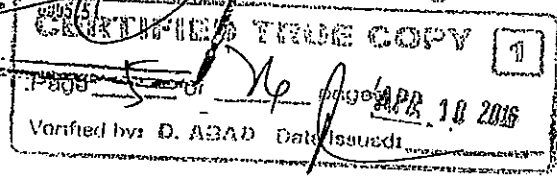


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APR 26 2016

JOHN R. SADULLO
CORPORATE SECRETARY



50641.2557

ST. RAPHAEL POWER GENERATION CORPORATION
(A Wholly Owned Subsidiary of Semirara Mining and Power Corporation)

STATEMENTS OF COMPREHENSIVE INCOME
FOR THE YEAR ENDED DECEMBER 31, 2014 AND
FOR THE FOUR MONTHS ENDED DECEMBER 31, 2013*

	2014 (One Year)	2013 (Four Months)
INTEREST INCOME (Note 4)	₱29,629	₱2,655
EXPENSES		
Professional fee	1,781,977	27,500
Pre-operating expenses	163,550	87,391
	1,945,527	114,891
LOSS BEFORE INCOME TAX	(1,915,898)	(112,236)
PROVISION FOR FINAL TAX (Note 8)	(5,926)	(531)
NET LOSS	(1,921,824)	(112,767)
OTHER COMPREHENSIVE INCOME	-	-
TOTAL COMPREHENSIVE LOSS	(₱1,921,824)	(₱112,767)

*The Company was incorporated and registered with the Securities and Exchange Commission on September 10, 2013 and has not yet started commercial operations as of December 31, 2014.

See accompanying Notes to Financial Statements.

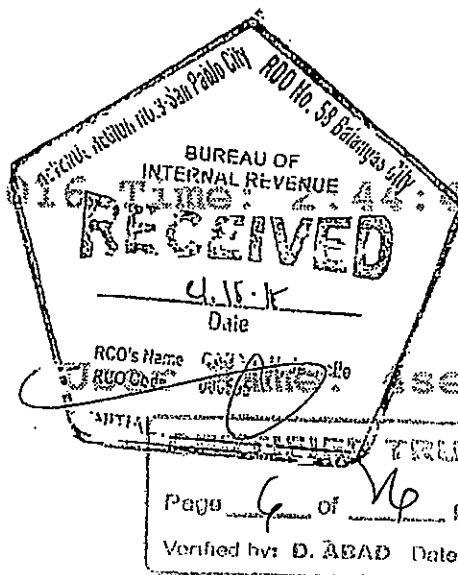
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JOHN R. SADULLO
CORPORATE SECRETARY



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ST. RAPHAEL POWER GENERATION CORPORATION
(A Wholly Owned Subsidiary of Semirara Mining and Power Corporation)

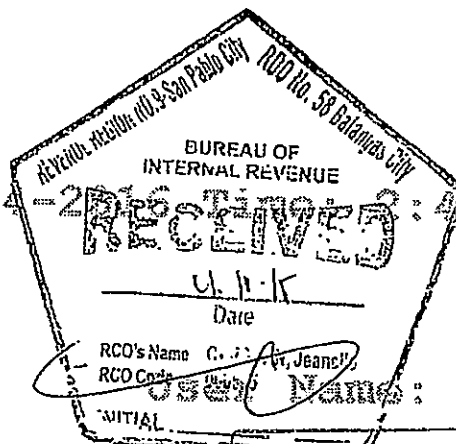
STATEMENTS OF CHANGES IN EQUITY
FOR THE YEAR ENDED DECEMBER 31, 2014 AND
FOR THE FOUR MONTHS ENDED DECEMBER 31, 2013*

	2014 (One Year)	2013 (Four Months)
CAPITAL STOCK (Note 6)		
Common Stock - ₱1.00 par value		
Authorized - 50,000,000 shares		
Issued and outstanding - 12,500,000 shares (net of subscription receivable of ₱9,375,000)	₱3,125,000	₱3,125,000
DEFICIT		
Balance at beginning of year	(112,767)	-
Net loss	(1,921,824)	(112,767)
Balance at end of year	(2,034,591)	(112,767)
	₱1,090,409	₱3,012,233

*The Company was incorporated and registered with the Securities and Exchange Commission on September 10, 2013 and has not yet started commercial operations as of December 31, 2014.

See accompanying Notes to Financial Statements.

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JOHN B. SADULLO
CORPORATE SECRETARY

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Page 7 of 10 per APR 18 2016
Verified by: D. ASAD Date issued:



ST. RAPHAEL POWER GENERATION CORPORATION
(A Wholly Owned Subsidiary of Semirara Mining and Power Corporation)

STATEMENTS OF CASH FLOWS
FOR THE YEAR ENDED DECEMBER 31, 2014 AND
FOR THE FOUR MONTHS ENDED DECEMBER 31, 2013*

	2014 (One Year)	2013 (Four Months)
CASH FLOWS FROM PRE-OPERATING ACTIVITIES		
Loss before final tax	(P1,915,898)	(P112,236)
Interest income (Note 4)	(29,629)	(2,655)
Operating loss before changes in working capital	(1,945,527)	(114,891)
Changes in operating liability:		
Increase in accounts payable and accrued expenses	1,945,227	114,891
Net cash used in pre-operations	(300)	-
Interest received	29,629	2,655
Final taxes paid	(5,926)	(531)
Net cash provided by pre-operating activities	23,403	2,124
CASH FLOW FROM FINANCING ACTIVITY		
Proceeds from issuance of capital stock (Note 6)	-	3,125,000
NET INCREASE IN CASH AND CASH EQUIVALENTS	23,403	3,127,124
CASH AND CASH EQUIVALENTS AT BEGINNING OF YEAR	3,127,124	-
CASH AND CASH EQUIVALENTS AT END OF YEAR (Note 4)	P3,150,527	P3,127,124

*The Company was incorporated and registered with the Securities and Exchange Commission on September 10, 2013 and has not yet started commercial operations as of December 31, 2014.

See accompanying Notes to Financial Statements.

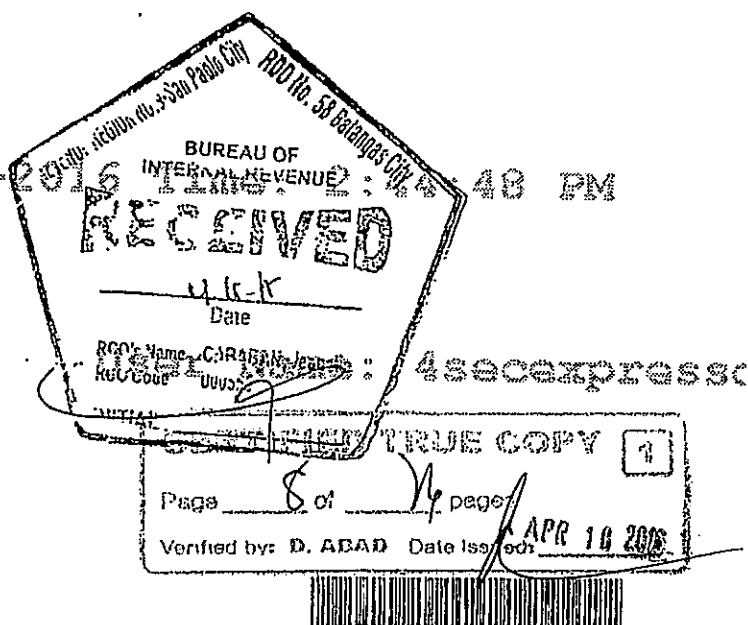
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APR 26 2016

JOHN R. SADULLO
CORPORATE SECRETARY



ST. RAPHAEL POWER GENERATION CORPORATION
(A Wholly Owned Subsidiary of Semirara Mining and Power Corporation)
NOTES TO FINANCIAL STATEMENTS

1. Corporate Information

St. Raphael Power Generation Corporation (the Company) is a domestic corporation registered with the Philippine Securities and Exchange Commission (SEC) on September 10, 2013. The Company's primary purpose is to acquire, construct, erect, assemble, rehabilitate, expand, commission, operate and maintain electric power plants in the business of Generation Company in accordance with Republic Act No. 9136, otherwise known as the Electric Power Industry Reform Act of 2001 (EPIRA); to invest in, operate and engage in missionary electrification as a qualified third party under the EPIRA and its implementing rules and regulations; and to design develop, assemble and operate other power related facilities, appliances and devices.

The Company is a wholly owned subsidiary of Semirara Mining and Power Corporation (SMPC or the Parent Company), a publicly listed entity in the Philippines. The Company's ultimate parent is DMCI Holdings, Inc. (DMCI-HI), a publicly listed entity in the Philippines.

As of December 31, 2014, the Company has not yet started commercial operations. Its registered principal address, previously in Don Chino Roces Avenue Extension, Makati City, was changed to Barangay Baclaran, Balayan, Batangas.

The accompanying financial statements of the Company were authorized for issue by the Board of Directors (BOD) on March 6, 2015.

2. Summary of Significant Accounting Policies

Basis of Preparation

The financial statements have been prepared using the historical cost basis. The financial statements are presented in Philippine Peso (P), which is the Company's functional currency. All amounts are rounded off to the nearest peso, except where otherwise indicated.

Statement of Compliance

The accompanying financial statements have been prepared in accordance with Philippine Financial Reporting Standards (PFRS). The Company did not adopt the PFRS for Small and Medium-sized Entities in preparation of its financial statements because the company availed of exemption as allowed by SEC. The Company is a subsidiary of SMPC, which is reporting under full PFRS.

Changes in Accounting Policies and Disclosures

The Company applied for the first time certain standards and amendments, which are effective for annual periods beginning on or after January 1, 2014. However, they do not impact the annual financial statements of the Company.

The nature and impact of each new standard and amendment is described below:

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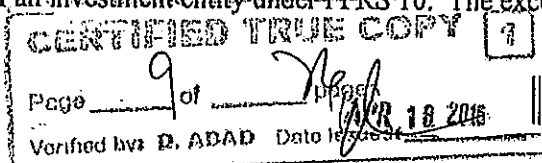
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- Investment Entities (Amendments to PFRS 10, Consolidated Financial Statements, PFRS 12, Disclosure of Interests in Other Entities, and PAS 27, Separate Financial Statements)
- These amendments provide an exception to the consolidation requirement for entities that meet the definition of an investment entity under PFRS-10. The exception to consolidation

ST. RAPHAEL POWER GENERATION CORPORATION
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JOHN R. S. DULLO
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requires investment entities to account for subsidiaries at fair value through profit or loss. The amendments must be applied retrospectively, subject to certain transition relief. These amendments have no impact to the Company.

- PAS 32, *Financial Instruments: Presentation - Offsetting Financial Assets and Financial Liabilities* (Amendments)**

These amendments clarify the meaning of "currently has a legally enforceable right to set-off" and the criteria for non-simultaneous settlement mechanisms of clearing houses to qualify for offsetting and are applied retrospectively. These amendments have no impact on the Company.
- PAS 39, *Financial Instruments: Recognition and Measurement - Novation of Derivatives and Continuation of Hedge Accounting* (Amendments)**

These amendments provide relief from discontinuing hedge accounting when novation of a derivative designated as a hedging instrument meets certain criteria and retrospective application is required. These amendments have no impact on the Company as the Company has not novated its derivatives during the current or prior periods.
- PAS 36, *Impairment of Assets - Recoverable Amount Disclosures for Non-Financial Assets* (Amendments)**

These amendments remove the unintended consequences of PFRS 13, *Fair Value Measurement*, on the disclosures required under PAS 36. In addition, these amendments require disclosure of the recoverable amounts for assets or cash-generating units (CGUs) for which impairment loss has been recognized or reversed during the period. The application of these amendments has no material impact on the disclosure in the Company's financial statements.
- Philippine Interpretation IFRIC 21, *Levies***

IFRIC 21 clarifies that an entity recognizes a liability for a levy when the activity that triggers payment, as identified by the relevant legislation, occurs. For a levy that is triggered upon reaching a minimum threshold, the interpretation clarifies that no liability should be anticipated before the specified minimum threshold is reached. Retrospective application is required for IFRIC 21. This interpretation has no impact on the Company as it has applied the recognition principles under PAS 37, *Provisions, Contingent Liabilities and Contingent Assets*, consistent with the requirements of IFRIC 21 in prior years.

Annual Improvements to PFRSs (2010-2012 cycle)

In the 2010 - 2012 annual improvements cycle, seven amendments to six standards were issued, which included an amendment to PFRS 13, *Fair Value Measurement*. The amendment to PFRS 13 is effective immediately and it clarifies that short-term receivables and payables with no stated interest rates can be measured at invoice amounts when the effect of discounting is immaterial. This amendment has no impact on the Company.

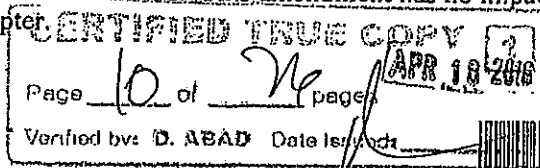
Annual Improvements to PFRSs (2011-2013 cycle)

In the 2011 - 2013 annual improvements cycle, four amendments to four standards were issued, which included an amendment to PFRS 1, *First-time Adoption of Philippine Financial Reporting Standards*. The amendment to PFRS 1 is effective immediately. It clarifies that an entity may choose to apply either a current standard or a new standard that is not yet mandatory, but permits early application, provided either standard is applied consistently throughout the periods presented in the entity's first PFRS financial statements. This amendment has no impact on the Company as

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Standards Issued But Not Yet Effective

The Company has not applied the following PFRS, PAS and Philippine Interpretations which are not yet effective as of December 31, 2014. This list consists of standards and interpretations issued, which the Company reasonably expects to be applicable at a future date. The Company intends to adopt those standards when they become effective.

- **PFRS 9, *Financial Instruments - Classification and Measurement* (2010 version)**
PFRS 9 (2010 version) reflects the first phase on the replacement of PAS 39 and applies to the classification and measurement of financial assets and liabilities as defined in PAS 39, *Financial Instruments: Recognition and Measurement*. PFRS 9 requires all financial assets to be measured at fair value at initial recognition. A debt financial asset may, if the fair value option (FVO) is not invoked, be subsequently measured at amortized cost if it is held within a business model that has the objective to hold the assets to collect the contractual cash flows and its contractual terms give rise, on specified dates, to cash flows that are solely payments of principal and interest on the principal outstanding. All other debt instruments are subsequently measured at fair value through profit or loss. All equity financial assets are measured at fair value either through other comprehensive income (OCI) or profit or loss. Equity financial assets held for trading must be measured at fair value through profit or loss. For FVO liabilities, the amount of change in the fair value of a liability that is attributable to changes in credit risk must be presented in OCI. The remainder of the change in fair value is presented in profit or loss, unless presentation of the fair value change in respect of the liability's credit risk in OCI would create or enlarge an accounting mismatch in profit or loss. All other PAS 39 classification and measurement requirements for financial liabilities have been carried forward into PFRS 9, including the embedded derivative separation rules and the criteria for using the FVO. The adoption of the first phase of PFRS 9 will have an effect on the classification and measurement of the Company's financial assets, but will potentially have no impact on the classification and measurement of financial liabilities.

PFRS 9 (2010 version) is effective for annual periods beginning on or after January 1, 2015. This mandatory adoption date was moved to January 1, 2018 when the final version of PFRS 9 was adopted by the Philippine Financial Reporting Standards Council (FRSC). Such adoption, however, is still for approval by the Board of Accountancy (BOA).

In compliance with SEC Memorandum Circular No.3, series of 2012, the Company has conducted a study on the impact of an early adoption of PFRS 9. After a careful consideration of the results on the impact evaluation, the Company has decided not to early adopt PFRS 9 for its 2014 annual financial reporting. Therefore, these financial statements do not reflect the impact of the said standard.

- **Philippine Interpretation IFRIC 15, *Agreements for the Construction of Real Estate***
This interpretation covers accounting for revenue and associated expenses by entities that undertake the construction of real estate directly or through subcontractors. The SEC and the FRSC have deferred the effectivity of this interpretation until the final Revenue standard is issued by the IASB and an evaluation of the requirements of the final Revenue standard against the practices of the Philippine real estate industry is completed. Adoption of the interpretation when it becomes effective will not have any impact on the financial statements of the Company.

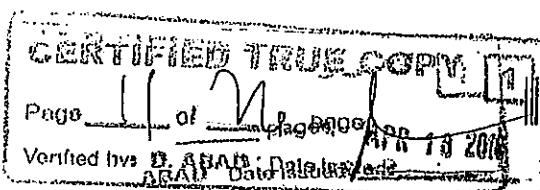
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The following new standards and amendments issued by the IASB were already adopted by the FRSC but are still for approval by BOA.

Effective January 1, 2015

- **PAS 19, Employee Benefits - Defined Benefit Plans - Employee Contributions (Amendments)**
PAS 19 requires an entity to consider contributions from employees or third parties when accounting for defined benefit plans. Where the contributions are linked to service, they should be attributed to periods of service as a negative benefit. These amendments clarify that, if the amount of the contributions is independent of the number of years of service, an entity is permitted to recognize such contributions as a reduction in the service cost in the period in which the service is rendered, instead of allocating the contributions to the periods of service. This amendment is effective for annual periods beginning on or after January 1, 2015. It is not expected that this amendment would be relevant to the Company, since the Company has no defined benefit plans with contributions from employees or third parties.

Annual Improvements to PFRSs (2010-2012 cycle)

The Annual Improvements to PFRSs (2010-2012 cycle) are effective for annual periods beginning on or after January 1, 2015 and are not expected to have a material impact on the Company. They include:

- **PFRS 2, Share-based Payment - Definition of Vesting Condition**
This improvement is applied prospectively and clarifies various issues relating to the definitions of performance and service conditions which are vesting conditions, including:
a) A performance condition must contain a service condition
b) A performance target must be met while the counterparty is rendering service
c) A performance target may relate to the operations or activities of an entity, or to those of another entity in the same group
d) A performance condition may be a market or non-market condition
e) If the counterparty, regardless of the reason, ceases to provide service during the vesting period, the service condition is not satisfied.
- **PFRS 3, Business Combinations - Accounting for Contingent Consideration in a Business Combination**
The amendment is applied prospectively for business combinations for which the acquisition date is on or after July 1, 2014. It clarifies that a contingent consideration that is not classified as equity is subsequently measured at fair value through profit or loss whether or not it falls within the scope of PAS 39, *Financial Instruments: Recognition and Measurement*. The Company shall consider this amendment for future business combinations.
- **PFRS 8, Operating Segments - Aggregation of Operating Segments and Reconciliation of the Total of the Reportable Segments' Assets to the Entity's Assets**
The amendments are applied retrospectively and clarify that:
a) An entity must disclose the judgments made by management in applying the aggregation criteria in the standard, including a brief description of operating segments that have been aggregated and the economic characteristics (e.g., sales and gross margins) used to assess whether the segments are 'similar'.

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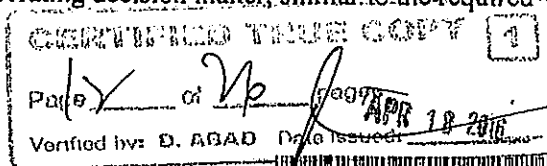
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- **PAS 16, Property, Plant and Equipment, and PAS 38, Intangible Assets - Revaluation Method - Proportionate Restatement of Accumulated Depreciation and Amortization**
The amendment is applied retrospectively and clarifies in PAS 16 and PAS 38 that the asset may be revalued by reference to the observable data on either the gross or the net carrying amount. In addition, the accumulated depreciation or amortization is the difference between the gross and carrying amounts of the asset.
- **PAS 24, Related Party Disclosures - Key Management Personnel**
The amendment is applied retrospectively and clarifies that a management entity, which is an entity that provides key management personnel services, is a related party subject to the related party disclosures. In addition, an entity that uses a management entity is required to disclose the expenses incurred for management services.

Annual Improvements to PFRSs (2011-2013 cycle)

The Annual Improvements to PFRSs (2011-2013 cycle) are effective for annual periods beginning on or after January 1, 2015 and are not expected to have a material impact on the Company. They include:

- **PFRS 3, Business Combinations - Scope Exceptions for Joint Arrangements**
The amendment is applied prospectively and clarifies the following regarding the scope exceptions within PFRS 3:
a) Joint arrangements, not just joint ventures, are outside the scope of PFRS 3.
b) This scope exception applies only to the accounting in the financial statements of the joint arrangement itself.
- **PFRS 13, Fair Value Measurement - Portfolio Exception**
The amendment is applied prospectively and clarifies that the portfolio exception in PFRS 13 can be applied not only to financial assets and financial liabilities, but also to other contracts within the scope of PAS 39.
- **PAS 40, Investment Property**
The amendment is applied prospectively and clarifies that PFRS 3, and not the description of ancillary services in PAS 40, is used to determine if the transaction is the purchase of an asset or business combination. The description of ancillary services in PAS 40 only differentiates between investment property and owner-occupied property (i.e., property, plant and equipment).

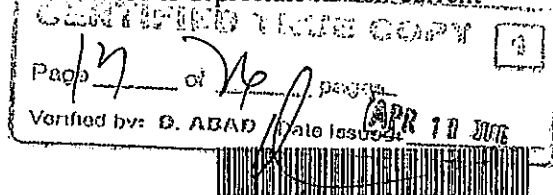
Effective January 1, 2016

- **PAS 16, Property, Plant and Equipment, and PAS 38, Intangible Assets - Clarification of Acceptable Methods of Depreciation and Amortization (Amendments)**
The amendments clarify the principle in PAS 16 and PAS 38 that revenue reflects a pattern of economic benefits that are generated from operating a business (of which the asset is part) rather than the economic benefits that are consumed through use of the asset. As a result, a revenue-based method cannot be used to depreciate property, plant and equipment and may only be used in very limited circumstances to amortize intangible assets. The amendments are effective prospectively for annual periods beginning on or after January 1, 2016, with early adoption permitted. These amendments are not expected to have any impact on the Company given that the Company has not used a revenue-based method to depreciate its non-current

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• PAS 16, *Property, Plant and Equipment*, and PAS 41, *Agriculture - Bearer Plants* (Amendments)

The amendments change the accounting requirements for biological assets that meet the definition of bearer plants. Under the amendments, biological assets that meet the definition of bearer plants will no longer be within the scope of PAS 41. Instead, PAS 16 will apply. After initial recognition, bearer plants will be measured under PAS 16 at accumulated cost (before maturity) and using either the cost model or revaluation model (after maturity). The amendments also require that produce that grows on bearer plants will remain in the scope of PAS 41 measured at fair value less costs to sell. For government grants related to bearer plants, PAS 20, *Accounting for Government Grants and Disclosure of Government Assistance*, will apply. The amendments are retrospectively effective for annual periods beginning on or after January 1, 2016, with early adoption permitted. These amendments are not expected to have any impact to the Company as the Company does not have any bearer plants.

• PAS 27, *Separate Financial Statements - Equity Method in Separate Financial Statements* (Amendments)

The amendments will allow entities to use the equity method to account for investments in subsidiaries, joint ventures and associates in their separate financial statements. Entities already applying PFRS and electing to change to the equity method in its separate financial statements will have to apply that change retrospectively. For first-time adopters of PFRS electing to use the equity method in its separate financial statements, they will be required to apply this method from the date of transition to PFRS. The amendments are effective for annual periods beginning on or after January 1, 2016, with early adoption permitted. These amendments will not have any impact on the Company's financial statements.

• PFRS 10, *Consolidated Financial Statements* and PAS 28, *Investments in Associates and Joint Ventures - Sale or Contribution of Assets between an Investor and its Associate or Joint Venture*

These amendments address an acknowledged inconsistency between the requirements in PFRS 10 and those in PAS 28 (2011) in dealing with the sale or contribution of assets between an investor and its associate or joint venture. The amendments require that a full gain or loss is recognized when a transaction involves a business (whether it is housed in a subsidiary or not). A partial gain or loss is recognized when a transaction involves assets that do not constitute a business, even if these assets are housed in a subsidiary. These amendments are effective from annual periods beginning on or after January 1, 2016.

• PFRS 11, *Joint Arrangements - Accounting for Acquisitions of Interests in Joint Operations* (Amendments)

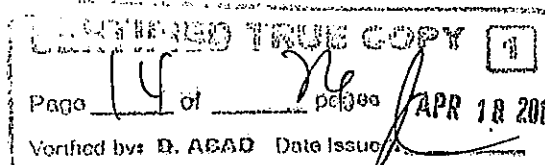
The amendments to PFRS 11 require that a joint operator accounting for the acquisition of an interest in a joint operation, in which the activity of the joint operation constitutes a business must apply the relevant PFRS 3 principles for business combinations accounting. The amendments also clarify that a previously held interest in a joint operation is not remeasured on the acquisition of an additional interest in the same joint operation while joint control is retained. In addition, a scope exclusion has been added to PFRS 11 to specify that the amendments do not apply when the parties sharing joint control, including the reporting entity, are under common control of the same ultimate controlling party.

The amendments apply to both the acquisition of the initial interest in a joint operation and the acquisition of any additional interests in the same joint operation and are prospectively effective for annual periods beginning on or after January 1, 2016, with early adoption permitted. These amendments are not expected to have any impact to the Company.

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- **PFRS 14, *Regulatory Deferral Accounts***
PFRS 14 is an optional standard that allows an entity, whose activities are subject to rate-regulation, to continue applying most of its existing accounting policies for regulatory deferral account balances upon its first-time adoption of PFRS. Entities that adopt PFRS 14 must present the regulatory deferral accounts as separate line items on the statement of financial position and present movements in these account balances as separate line items in the statement of profit or loss and other comprehensive income. The standard requires disclosures on the nature of, and risks associated with, the entity's rate-regulation and the effects of that rate-regulation on its financial statements. PFRS 14 is effective for annual periods beginning on or after January 1, 2016. Since the Company is an existing PFRS preparer, this standard would not apply.

Annual Improvements to PFRSs (2012-2014 cycle)

The Annual Improvements to PFRSs (2012-2014 cycle) are effective for annual periods beginning on or after January 1, 2016 and are not expected to have a material impact on the Company. They include:

- **PFRS 5, *Non-current Assets Held for Sale and Discontinued Operations - Changes in Methods of Disposal***
The amendment is applied prospectively and clarifies that changing from a disposal through sale to a disposal through distribution to owners and vice-versa should not be considered to be a new plan of disposal, rather it is a continuation of the original plan. There is, therefore, no interruption of the application of the requirements in PFRS 5. The amendment also clarifies that changing the disposal method does not change the date of classification.
- **PFRS 7, *Financial Instruments: Disclosures - Servicing Contracts***
PFRS 7 requires an entity to provide disclosures for any continuing involvement in a transferred asset that is derecognized in its entirety. The amendment clarifies that a servicing contract that includes a fee can constitute continuing involvement in a financial asset. An entity must assess the nature of the fee and arrangement against the guidance in PFRS 7 in order to assess whether the disclosures are required. The amendment is to be applied such that the assessment of which servicing contracts constitute continuing involvement will need to be done retrospectively. However, comparative disclosures are not required to be provided for any period beginning before the annual period in which the entity first applies the amendments.
- **PFRS 7 - *Applicability of the Amendments to PFRS 7 to Condensed Interim Financial Statements***
This amendment is applied retrospectively and clarifies that the disclosures on offsetting of financial assets and financial liabilities are not required in the condensed interim financial report unless they provide a significant update to the information reported in the most recent annual report.
- **PAS 19, *Employee Benefits - regional market issue regarding discount rate***
This amendment is applied prospectively and clarifies that market depth of high quality corporate bonds is assessed based on the currency in which the obligation is denominated, rather than the country where the obligation is located. When there is no deep market for high quality corporate bonds in that currency, government bond rates must be used.

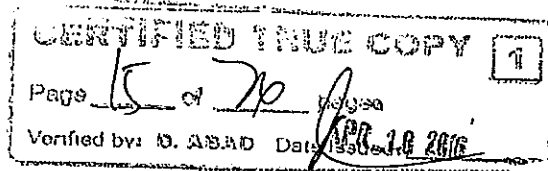
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- PAS 34, *Interim Financial Reporting - disclosure of information elsewhere in the interim financial report*

The amendment is applied retrospectively and clarifies that the required interim disclosures must either be in the interim financial statements or incorporated by cross-reference between the interim financial statements and wherever they are included within the greater interim financial report (e.g., in the management commentary or risk report).

Effective January 1, 2018

- PFRS 9, *Financial Instruments - Hedge Accounting* and amendments to PFRS 9, PFRS 7 and PAS 39 (2013 version)

PFRS 9 (2013 version) already includes the third phase of the project to replace PAS 39 which pertains to hedge accounting. This version of PFRS 9 replaces the rules-based hedge accounting model of PAS 39 with a more principles-based approach. Changes include replacing the rules-based hedge effectiveness test with an objectives-based test that focuses on the economic relationship between the hedged item and the hedging instrument, and the effect of credit risk on that economic relationship; allowing risk components to be designated as the hedged item, not only for financial items but also for non-financial items, provided that the risk component is separately identifiable and reliably measurable; and allowing the time value of an option, the forward element of a forward contract and any foreign currency basis spread to be excluded from the designation of a derivative instrument as the hedging instrument and accounted for as costs of hedging. PFRS 9 also requires more extensive disclosures for hedge accounting.

PFRS 9 (2013 version) has no mandatory effective date. The mandatory effective date of January 1, 2018 was eventually set when the final version of PFRS 9 was adopted by the FRSC. The adoption of the final version of PFRS 9, however, is still for approval by BOA.

The adoption of PFRS 9 is not expected to have any significant impact on the Company's financial statements.

- PFRS 9, *Financial Instruments* (2014 or final version)

In July 2014, the final version of PFRS 9, *Financial Instruments*, was issued. PFRS 9 reflects all phases of the financial instruments project and replaces PAS 39, *Financial Instruments: Recognition and Measurement*, and all previous versions of PFRS 9. The standard introduces new requirements for classification and measurement, impairment, and hedge accounting. PFRS 9 is effective for annual periods beginning on or after January 1, 2018, with early application permitted. Retrospective application is required, but comparative information is not compulsory. Early application of previous versions of PFRS 9 is permitted if the date of initial application is before February 1, 2015.

The adoption of PFRS 9 is not expected to have any significant impact on the Company's financial statements.

The following new standard issued by the IASB has not yet been adopted by the FRSC

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International Financial Reporting Standards (IFRS) 15, *Revenue from Contracts with Customers*

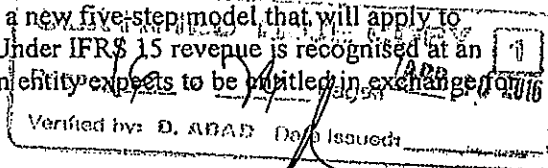
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IFRS 15 was issued in May 2014 and establishes a new five-step model that will apply to revenue from contracts with customers. Under IFRS 15 revenue is recognised at an amount that reflects the consideration to which an entity expects to be entitled in exchange for the goods or services transferred.

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transferring goods or services to a customer. The principles in IFRS 15 provide a more structured approach to measuring and recognising revenue. The new revenue standard is applicable to all entities and will supersede all current revenue recognition requirements under IFRS. Either a full or modified retrospective application is required for annual periods beginning on or after January 1, 2017 with early adoption permitted. The Company is currently assessing the impact of IFRS 15 and plans to adopt the new standard on the required effective date once adopted locally.

Cash and Cash Equivalents

Cash in bank represents cash deposits in a local bank. Cash equivalents are short-term, highly liquid investments that are readily convertible to known amounts of cash with original maturities of three months or less from dates of placements and that are subject to insignificant risk of changes in value.

Financial Assets and Financial Liabilities

Date of recognition

The Company recognizes a financial asset or a financial liability in the statement of financial position when it becomes a party to the contractual provisions of the instrument. Purchases or sales of financial assets that require delivery of assets within the time frame established by regulation or convention in the marketplace are recognized on the settlement date.

Initial recognition

Financial assets and financial liabilities are recognized initially at fair value. Transaction costs are included in the initial measurement of all financial assets and financial liabilities, except for financial instruments measured at fair value through profit or loss (FVPL). Financial assets are classified as either financial assets at FVPL, loans and receivables, held-to-maturity (HTM) financial assets, or available-for-sale (AFS) financial assets, as appropriate. Financial liabilities are classified as either financial liabilities at FVPL or other financial liabilities.

Financial instruments are classified as liability or equity in accordance with the substance of the contractual arrangement. Interest, dividends, gains and losses relating to a financial instrument or a component that is a financial liability are reported as expense or income. Distributions to holders of financial instruments classified as equity are charged directly to equity, net of any related income tax benefits.

As of December 31, 2014, the Company's financial assets and financial liabilities are of the nature of loans and receivables and other financial liabilities, respectively.

Determination of fair value

Fair value is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. The fair value measurement is based on the presumption that the transaction to sell the asset or transfer the liability takes place either:

- In the principal market for the asset or liability, or
- In the absence of a principal market, in the most advantageous market for the asset or liability

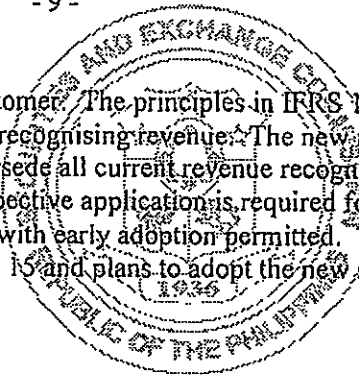
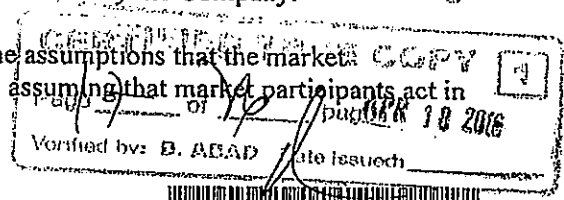
The principal or most advantageous market must be accessible to by the Company.

The fair value of an asset or liability is measured using the assumptions that the market participants would use when pricing the asset or liability, assuming that market participants act in their economic best interest.

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Loans and receivables

Loans and receivables are non-derivative financial assets with fixed or determinable payments that are not quoted in an active market. These are not entered into with the intention of immediate or short-term resale and are not classified as financial assets at FVPL, HTM financial assets or AFS financial assets. Such assets are carried at amortized cost using the effective interest rate method (EIR).

After initial measurement, loans and receivables are subsequently measured at amortized cost using the EIR method, less allowance for impairment losses. Amortized cost is calculated by taking into account any discount or premium on acquisition and fees that are an integral part of the EIR. The amortization, if any, is included in "Interest income" in the statement of comprehensive income. The losses arising from impairment of loans and receivables are recognized in the company statement of comprehensive income. Included in this category are the Company's cash in bank.

Other financial liabilities

Other financial liabilities pertain to issued financial instruments that are not classified nor designated as financial liabilities at FVPL and contain contractual obligations to deliver cash or other financial assets to the holder or to settle the obligation other than the exchange of a fixed amount of cash or another financial asset for a fixed number of own equity shares.

Other financial liabilities include accounts payable and accrued expenses.

Impairment of Financial Assets

The Company assesses at each reporting date whether there is objective evidence that a financial asset or group of financial assets is impaired. A financial asset or a group of financial assets is deemed to be impaired if, and only if, there is objective evidence of impairment as a result of one or more events that has occurred after the initial recognition of the asset (an incurred 'loss event') and that loss event (or events) has an impact on the estimated future cash flows of the financial asset or the group of financial assets that can be reliably estimated.

Evidence of impairment may include indications that the borrower or a group of borrowers is experiencing significant financial difficulty, default or delinquency in interest or principal payments, the probability that they will enter bankruptcy or other financial reorganization and where observable data indicate that there is measurable decrease in the estimated future cash flows, such as changes in arrears or economic conditions that correlate with defaults.

Loans and receivables

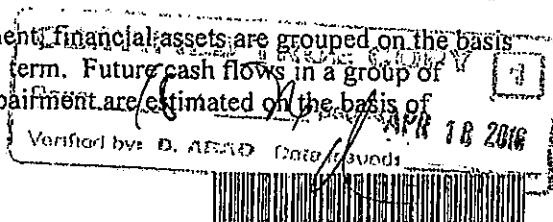
For loans and receivables carried at amortized cost, the Company first assesses whether objective evidence of impairment exists individually for financial assets that are individually significant, or collectively for financial assets that are not individually significant. If the Company determines that no objective evidence of impairment exists for individually assessed financial asset, whether significant or not, it includes the asset in a group of financial assets with similar credit risk characteristics and collectively assessed for impairment. Those characteristics are relevant to the estimation of future cash flows for groups of such assets by being indicative of the debtors' ability to pay all amounts due according to the contractual terms of the assets being evaluated. Assets that are individually assessed for impairment and for which an impairment loss is, or continues to be, recognized are not included in a collective assessment for impairment.

For the purpose of a collective evaluation of impairment, financial assets are grouped on the basis of their characteristics, past-due status and term. Future cash flows in a group of financial assets that are collectively evaluated for impairment are estimated on the basis of the expected cash flows.

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historical loss experience for assets with credit risk characteristics similar to those in the group. Historical loss experience is adjusted on the basis of current observable data to reflect the effects of current conditions that did not affect the period on which the historical loss experience is based and to remove the effects of conditions in the historical period that do not exist currently. The methodology and assumptions used for estimating future cash flows are reviewed regularly by the Company to reduce any differences between loss estimates and actual loss experience.

If there is objective evidence that an impairment loss has been incurred, the amount of the loss is measured as the difference between the asset's carrying amount and the present value of the estimated future cash flows (excluding future credit losses that have not been incurred) discounted at the financial assets' original EIR (i.e., the EIR computed at initial recognition). If a loan has a variable interest rate, the discount rate for measuring any impairment loss is the current EIR.

The carrying amount of the asset is reduced through use of an allowance account and the amount of loss is charged to the statement of comprehensive income during the period in which it arises. Interest income continues to be recognized based on the original EIR of the asset. Receivables, together with the associated allowance accounts, are written off when there is no realistic prospect of future recovery has been realized and all collateral has been realized or has been transferred to the Company.

If, in a subsequent year, the amount of the estimated impairment loss decreases because of an event occurring after the impairment was recognized, the previously recognized impairment loss is reversed. Any subsequent reversal of an impairment loss is recognized in statement of comprehensive income, to the extent that the carrying value of the asset does not exceed its amortized cost at the reversal date.

Derecognition of Financial Assets and Liabilities

Financial asset

A financial asset (or, where applicable a part of a financial asset or part of a group of financial assets) is derecognized when:

- the right to receive cash flows from the asset has expired;
- the Company retains the right to receive cash flows from the asset, but has assumed as obligation to pay them in full without material delay to a third party under a "pass-through" arrangement; or
- the Company has transferred its rights to receive cash flows from the asset and either (a) has transferred substantially all the risks and rewards of the asset, or (b) has neither transferred nor retained the risks and rewards of the asset but has transferred the control of the asset.

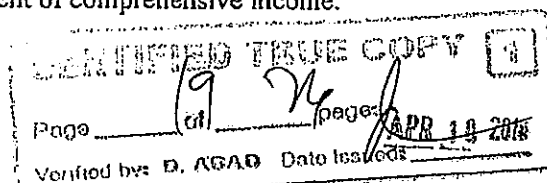
Where the Company has transferred its rights to receive cash flows from an asset or has entered into a pass-through arrangement, and has neither transferred nor retained substantially all the risks and rewards of the asset nor transferred control of the asset, the asset is recognized to the extent of the Company's continuing involvement in the asset. Continuing involvement that takes the form of a guarantee over the transferred asset is measured at the lower of original carrying amount of the asset and the maximum amount of consideration that the Company could be required to repay.

Financial liability

A financial liability is derecognized when the obligation under the liability is discharged, cancelled, or has expired. When an existing financial liability is replaced by another from the same lender on substantially different terms, or the terms of an existing liability are substantially modified, such an exchange or modification is treated as a derecognition of the original liability and the recognition of a new liability, and the difference in the respective carrying amounts is recognized in statement of comprehensive income.

APR 26 2016

JOHN R. SADULLO
CORPORATE SECRETARY



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- 12 -

Offsetting of Financial Instruments

Financial assets and financial liabilities are offset and the net amount reported in the statement of financial position if, and only if, there is a currently enforceable legal right to offset the recognized amounts and there is an intention to settle on a net basis, or to realize the asset and settle the liability simultaneously.

Equity

The Company records common stocks at par value and amount of contribution in excess of par value is accounted for as an additional paid-in capital. Incremental costs incurred directly attributable to the issuance of new shares are deducted from proceeds.

Subscription receivable

Subscription receivable pertains to the uncollected portion of the subscribed shares.

Deficit represents accumulated losses of the Company.

Revenue Recognition

Revenue is recognized to the extent that it is probable that the economic benefits will flow to the Company and the revenue can be reliably measured regardless of when the payment is being made. Revenue is measured at the fair value of the consideration received or receivable.

Interest income

Interest income is recognized as interest accrues (using the EIR method that is the rate that exactly discounts estimated future cash receipts through the expected life of the financial instrument to the net carrying amount of the financial asset).

Expenses

Expenses arise in the course of the ordinary operations of the Company. These usually take the form of an outflow or decrease of assets or incurrence of liabilities that result in decrease in equity, other than those relating to distribution to equity participants. Expenses recognized in the statement of comprehensive income include operating expenses such as registration fees, legal expenses, professional fees and others.

Income Tax

Current tax

Current tax assets and liabilities for the current period are measured at the amount expected to be recovered from or paid to the taxation authorities. The tax rates and tax laws used to compute the amount are those that are enacted or substantially enacted at the reporting date.

Deferred tax

Deferred tax is provided using the balance sheet liability method on all temporary differences, with certain exceptions, at the reporting date between the tax bases of assets and liabilities and their carrying amounts for financial reporting purposes.

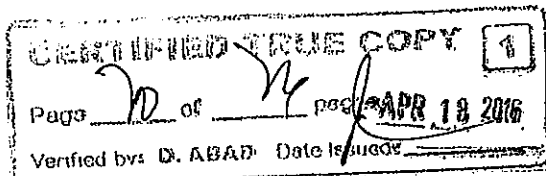
Deferred tax liabilities are recognized for all taxable temporary differences with certain exception. Deferred tax assets are recognized for all deductible temporary differences to the extent that it is probable that taxable income will be available against which the deductible temporary differences, net operating loss carryover (NOLCO) and carryforward benefits or unused tax credits from express:

NOLCO can be utilized. Deferred income tax, however, is not recognized when it arises from the initial recognition of an asset or liability in a transaction that is not a business combination and, at transaction, affects neither the accounting income nor taxable income.

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JOHN R. SADULLO
CORPORATE SECRETARY



The carrying amount of deferred tax assets is reviewed at each reporting date and reduced to the extent that it is no longer probable that sufficient taxable income will be available to allow all or part of the deferred tax assets to be utilized.

Deferred tax assets and liabilities are measured at the tax rate that is expected to apply to the period when the asset is realized or the liability is settled, based on tax rate and tax laws that have been enacted or substantially enacted at the reporting date.

Provisions and Contingencies

Provisions are recognized when the Company has a present obligation (legal or constructive) as a result of a past event, it is probable that an outflow of resources embodying economic benefits will be required to settle the obligation and a reliable estimate can be made of the amount of the obligation. Where the Company expects a provision to be reimbursed, the reimbursement is recognized as a separate asset but only when the reimbursement is virtually certain. If the effect of the time value of money is material, provisions are determined by discounting the expected future cash flows at a pre-tax rate that reflects current market assessments of the time value of money and, where appropriate, the risks specific to the liability. Where discounting is used, the increase in the provision due to the passage of time is recognized as interest expense. Provisions are reviewed at each reporting date and adjusted to reflect the current best estimate.

Contingent liabilities are not recognized in the financial statements. These are disclosed unless the possibility of an outflow of resources embodying economic benefits is remote. Contingent assets are not recognized in the financial statements but disclosed when an inflow of economic benefits is probable.

Events after the Reporting Date

Post year-end events up to the date of the auditors' report that provide additional information about the Company's position at the reporting date (adjusting events) are reflected in the financial statements. Any post year-end event that is not an adjusting event is disclosed in the financial statements.

3. Significant Accounting Judgments and Estimates

The preparation of the accompanying financial statements in conformity with PFRS requires the Company's management to make estimates and assumptions that affect the amounts reported in the financial statements and related notes. The estimates and assumptions used in the financial statements are based upon management's evaluation of relevant facts and circumstances as of the date of the financial statements. Actual results could differ from such estimates.

Judgment

Going Concern Date: 15-4-2016 Time: 2:44:59 PM

The management of the Company has made an assessment of its ability to be on a going concern and is satisfied that it has the resources to do business for the foreseeable future. Furthermore, the Company is not aware of any material uncertainties that may cast significant doubts upon the Company's ability as going concern. Therefore, the financial statements are prepared on a going concern basis.

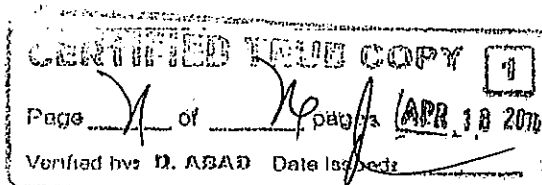
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JOHN R. SARDULLO
CORPORATE SECRETARY



Estimates

The key assumptions concerning the future and other key sources of estimation and uncertainty at the reporting date, that have a significant risk of causing a material adjustment to the carrying amounts of assets and liabilities within the next financial year are discussed below.

Deferred tax assets

The Company reviews the carrying amounts of deferred taxes at each reporting date and reduces deferred tax assets to the extent that it is no longer probable that sufficient taxable profit will be available to allow all or part of the deferred tax assets to be utilized. The Company looks at its projected performance in assessing the sufficiency of future taxable income

As of December 31, 2014 and 2013, the Company's unrecognized deferred tax asset on NOLCO amounted to ₱618,125 and ₱34,467, respectively (see Note 8).

Fair value of financial instruments

Where the fair values of financial assets and financial liabilities recorded in the statements of financial position cannot be derived from active markets, they are determined using internal valuation techniques using generally accepted market valuation models. The inputs to these models are taken from observable markets where possible, but where this is not feasible, estimates are used in establishing fair values. These estimates may include considerations of liquidity, volatility, and correlation (see Note 9).

4. Cash and Cash Equivalents

	2014	2013
Cash in banks	₱10,002	₱3,127,124
Cash equivalents	3,140,525	-
	₱3,150,527	₱3,127,124

Cash in bank earns interest at the respective bank deposit rates. Cash equivalents include short-term placements of the Company made for varying periods of up to three months depending on the immediate cash requirements of the Company and earn interest at the respective prevailing short-term placements rates.

Interest income earned from bank deposits and short-term placements amounted to ₱29,629 and ₱2,655 in 2014 and 2013, respectively.

5. Accounts Payable and Accrued Expenses

This account consists of: **Date: 15-4-2016 Time: 2:45:0 PM**

	2014	2013
Accounts payable - related party (Note 7)	₱2,029,318	₱87,391
Accrued expenses	30,800	27,500

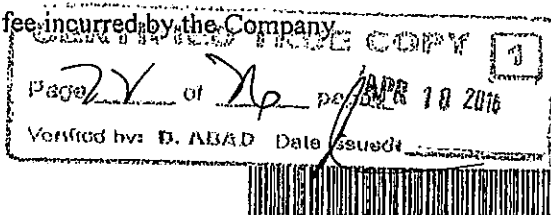
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CORPORATE SECRETARY



6. Equity

Capital stock

The authorized capital stock of the Company consisted of 50.00 million common shares with a par value of ₱1.00 per share. As of December 31, 2014 and 2013, ₱12.50 million of the authorized capital stock has been subscribed and ₱3.13 million of the issued and outstanding shares are paid for.

Capital Management

The primary objective of the Company's capital management is to ensure that it maintains a strong and healthy statement of financial position to support its current business operations and drive its expansion and growth in the future.

7. Related Party Transactions

Parties are considered to be related if one party has the ability, directly or indirectly, to control the other party in making financial and operating decisions or the parties are subject to common control or common significant influence. Related parties may be individuals or corporate entities.

Except as indicated otherwise, the outstanding accounts with related parties shall be settled in cash. The transactions are made at terms and prices agreed upon by the parties.

The Company has payable to its Parent Company, for the pre-operating expenses incurred during the Company's incorporation. The amount arising from the foregoing significant related party transaction follows:

2014				
	Amount/ Volume	Due from/ (Due to)	Terms	Conditions
Parent Company				
Pre-operating expenses	₱1,941,927	(₱2,029,318)	Non-interest bearing, payable on demand	Unsecured
2013				
	Amount/ Volume	Due from/ (Due to)	Terms	Conditions
Parent Company				
Pre-operating expenses	₱87,391	(₱87,391)	Non-interest bearing, payable on demand	Unsecured

8. Income Taxes

Date: 15-4-2016 Time: 2:45:1 PM

The reconciliation of the provision for income tax at the statutory income tax rate to the effective income tax shown in the profit or loss follows:

	2014	2013
Income tax computed at statutory income tax rate	(₱574,769)	(₱33,671)
Tax effect on income subject to final tax	(2,963)	(265)
Change in unrecognized deferred tax assets	583,658	34,467
	₱5,926	₱31

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Verified by: D. ADAB

The details of the Company's NOLCO as of December 31, 2014 follow:

Year Incurred	Amount	Expired	Balance	Expiry Date
2014	₱1,945,527		₱1,945,527	2017
2013	114,891		114,891	2016

As of December 31, 2014 and 2013, deferred tax assets have not been recognized with respect to the temporary differences arising from NOLCO, which are available for offset against future taxable income and tax payable.

9. Financial Instruments

Fair Value Information

As of December 31, 2014 and 2013, the carrying values of the Company's financial assets and financial liabilities consist of cash and cash equivalents and accounts payable and accrued expenses which approximate their estimated fair values due to their short-term nature.

Financial Risk Management, Objectives and Policy

The Company's principal financial instruments comprise cash equivalents, interest receivables and accrued expenses. The main objectives of the Company's financial risk management are as follows:

- to identify and monitor such risks on an ongoing basis;
- to minimize and mitigate such risks; and
- to provide a degree of certainty about costs.

The main risk arising from the Company's financial statements is identified to be credit risk and liquidity risk. The BOD reviews and approves policies for managing each of these risks.

Credit risk

Credit risk is the risk that counterparty will not meet its obligations under a financial instrument or customer contract, leading to a financial loss. Credit risk management involves entering into financial instruments only with counterparties with acceptable credit standing. The Company regularly monitors its exposure to credit risks and continually assesses the credit worthiness of counterparties.

As of December 31, 2014 and 2013, the Company's maximum exposure to credit risk is limited to the carrying value of its financial assets as of financial reporting date since it does not hold any collateral or other credit enhancements that will mitigate credit risk exposure. The financial assets of the Company as of the reporting date pertain to cash and cash equivalents amounting to ₱3.15 million and ₱3.13 million, respectively.

As of the December 31, 2014 and 2013, these financial assets are viewed by the management as high grade.

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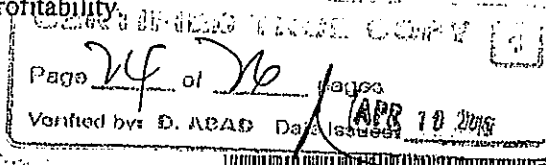
High grade cash equivalents are short-term placements placed in a local banks belonging to top ten banks in the Philippines in terms of resources and profitability.

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High grade accounts are considered to be of high value. The counterparties have a very remote likelihood of default.

Liquidity risk

Liquidity risk is the risk that an entity will encounter difficulty in meeting obligations associated with financial liabilities. The Company monitors its cash flow position, debt maturity profile and overall liquidity position in assessing its exposure to liquidity risk. The Company maintains a level of cash deemed sufficient to finance operations and to mitigate the effects of fluctuation in cash flows.

As of December 31, 2014 and 2013, the Company's financial assets and liabilities have a maturity of less than one year.

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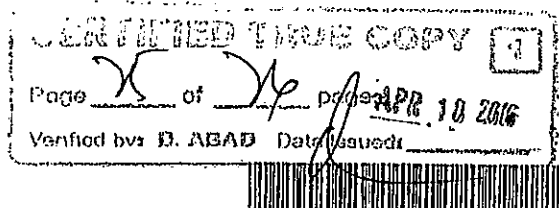
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APR 26 2016

JOHN R. SADULLO
CORPORATE SECRETARY



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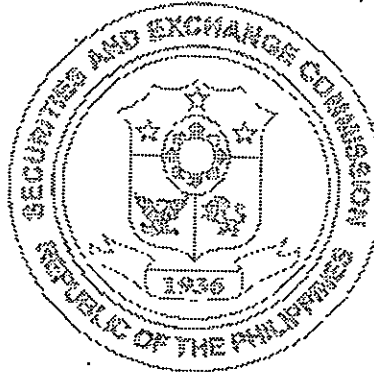
SGV

Building a better
working world

SyCip Gorres Velayo & Co.
6760 Ayala Avenue
1226 Makati City
Philippines

Tel: (632) 891 0307
Fax: (632) 819 0872
ey.com/ph

BOA/PRC Reg. No. 0001,
December 28, 2012, valid until December 31, 2015
SEC Accreditation No. 0012-FR-3 (Group A),
November 15, 2012, valid until November 16, 2015



INDEPENDENT AUDITORS' REPORT

The Stockholders and the Board of Directors
St. Raphael Power Generation Corporation
Baclaran, Balayan, Batangas

We have audited the financial statements of St. Raphael Power Generation Corporation (the Company) for the year ended December 31, 2014, on which we have rendered the attached report dated March 6, 2015.

In compliance with Securities Regulation Code Rule 68, as Amended (2011), we are stating that the Company is a wholly owned subsidiary of Semirara Mining and Power Corporation and therefore, has one (1) stockholder owning one hundred (100) or more shares.

SYCIP GORRES VELAYO & CO.

Cyril Jasmin B. Valencia
Cyril Jasmin B. Valencia

Partner

CPA Certificate No. 90787

SEC Accreditation No. 1229-A (Group A),

May 31, 2012, valid until May 30, 2015

Tax Identification No. 162-410-623

BIR Accreditation No. 08-001998-74-2015,

February 27, 2015, valid until February 26, 2018

PTR No. 4751335, January 5, 2015, Makati City

March 6, 2015

Date: 15-4-2016 Time: 2:45:4 PM

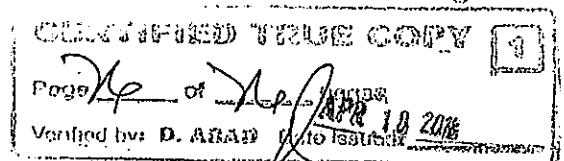
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APR 26 2016

JOHN R. SADULLO
CORPORATE SECRETARY



REPUBLIC OF THE PHILIPPINES)
MAKATI CITY) S.S.

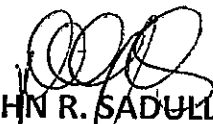
SWORN STATEMENT

I, **JOHN R. SADULLO**, Filipino, of legal age, and with office address at 2/F DMCI Plaza, 2281 Don Chino Roces Avenue, Makati City, after having been sworn in accordance with law, depose and state:

1. I am the Corporate Secretary/authorized representative and duly appointed attorney-in-fact of St. Raphael Power Generation Corporation ("SRPGC"), the Co-Applicant in this case.

2. Based on my own knowledge and belief and based on authentic documents made available to me in the ordinary course of business of SRPGC, SRPGC has not applied for registration with the Board of Investments.

IN WITNESS WHEREOF, I have hereunto set my hand on APR 28 2016 in Makati City, Philippines


JOHN R. SADULLO
Affiant

SUBSCRIBED AND SWORN to before me on APR 28 2016 2016 in Makati City, affiant exhibiting to me his Driver's License No. N01-02-005690 valid until 22 July 2017.

Doc No. 339;
Page No. 69;
Book No. 1;
Series of 2016.




PEARL CHARISSE D. BAUTISTA
NOTARY PUBLIC FOR MAKATI CITY
Appointment No. M-510 (2015-2016)
Commission Expires on December 31, 2016
Roll No. 64404
IBP LRN 013683 / 04-07-2015/Makati City
PTR No. 5323319/01-04-2016/Makati City
10F 8 Rockwell, Hidalgo corner Plaza Drive
Rockwell Center, Makati City



Republic of the Philippines
Department of Environment and Natural Resources
ENVIRONMENTAL MANAGEMENT BUREAU
DENR Compound, Vicayas Avenue, Diliman, Quezon City 1116
Telephone Nos. 927-1547, 920-2096
Email: emb@denr.gov.ph
Visit us at http://www.emb.gov.ph

ANNEX "H"

17 SEP 2015

ECC-CO-1503-0012

Mr. Victor A. Consunji
President and COO
St. Raphael Power Generation Corporation (SRPGC)
Brgy. Baclaran, Balayan, Batangas

SUBJECT: ENVIRONMENTAL COMPLIANCE CERTIFICATE

Dear Sir:

This refers to the Environmental Compliance Certificate (ECC) application for the proposed SRPGC Power Plant Project to be located at Barangays San Rafael and Dacanlao, Municipality of Calaca and Barangay Baclaran, Municipality of Balayan, Batangas Province.

After satisfying the requirements of PD No. 1586 and its implementing rules and regulations, the Environmental Management Bureau (EMB) of this Department, has decided to grant an ECC for the above-mentioned project.

With the issuance of this ECC, you are expected to fully implement the measures presented in the Environmental Impact Statement (EIS) and the Environmental Management and Monitoring Plan (EMMoP), intended to protect and mitigate the project's adverse impacts on community health, welfare and the environment. Environmental considerations shall be incorporated in all phases and aspects of the project. You may proceed with the project implementation after securing all the necessary permits from other pertinent Government agencies. This Office shall be strictly monitoring the project periodically to ensure your compliance with stipulations cited in the attached ECC.

Please be guided accordingly.

Very truly yours,

By the Authority of the Secretary:


ATTY. JUAN MIGUEL T. CUNA
DENR Assistant Secretary and
concurrent Director



REPUBLIC OF THE PHILIPPINES
DEPARTMENT OF ENVIRONMENT
AND NATURAL RESOURCES



SENR040871

cc EMB - Region IV-A
LGU - Province of Batangas
LGU - Municipality of Calaca
LGU - Municipality of Balayan
LGU - Brgy. San Rafael, Calaca
LGU - Brgy. Dacanlao, Calaca
LGU - Brgy. Baclaran, Balayan
DOE
DOLE
DOH
PSALM

Environmental Compliance Certificate
SRPGC Power Plant Project
St. Raphael Power Generation Corporation *Protect the environment. Protect life.*

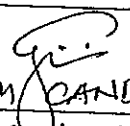


Republic of the Philippines
Department of Environment and Natural Resources
ENVIRONMENTAL MANAGEMENT BUREAU

Environmental Impact Assessment
and Management Division

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APR 14 2016


GERWIN CANDELARIO
EMB STAFF



Republic of the Philippines
Department of Environment and Natural Resources
ENVIRONMENTAL MANAGEMENT BUREAU
DENR Compound, Visayas Avenue, Diliman, Quezon City 1106
Telephone Nos. 927 15 17, 929 20-96
Email: emb@denr.gov.ph
Visit us at <http://www.emb.gov.ph>

ENVIRONMENTAL COMPLIANCE CERTIFICATE
(Issued under Presidential Decree No. 1586)
ECC-CO-1503-0012

THIS IS TO CERTIFY THAT THE PROPONENT, **St. Raphael Power Generation Corporation**, as represented by President and COO, Mr. Victor A. Consunji, is granted this Environmental Compliance Certificate (ECC) for the proposed **SRPGC Power Plant Project** to be located at Barangays San Rafael and Dacanlao, Municipality of Calaca and Barangay Baclaran, Municipality of Balayan, Batangas Province by the Department of Environment and Natural Resources (DENR) through the Environmental Management Bureau (EMB).

SUBJECT ONLY to the conditions and restrictions set in this ECC and in the attached documents labeled as Annexes A and B.

This Certificate is issued with the following details:

PROJECT DESCRIPTION

The proposed **Power Plant Project** with a total rated capacity of one thousand fifty megawatts (1050 MW) shall use Pulverized Coal Technology with the following facilities:

Major Components

- Boiler System
 - 3 units of boilers each with maximum steam capacity of 1230 tons per hour
 - 3 sets of low NOx burners
 - 3 units electrostatic precipitator
 - 3 units seawater flue gas desulfurization
 - 3 units 120 meter smokestack with CEMS
- 3 units steam turbine each with condensate and feedwater system and cooling water system
- 3 units Generator each with rated capacity of 350 MW
- Transformers, electrical and Instrumentation and Control systems
- Seawater intake and outfall structures
- Jetty with concrete platform (est. 500m long capable of accommodating *Panamax* vessels)
- Coal handling facility including unloading facility, stacker and reclaimer, covered shed storage area, crusher, pulverizer, conveyor, and silos
- Ash collection and storage system for each boiler (est. 24 hrs. storage capacity each for fly and bottom ash)
- Ash ponds for residual fly and bottom ash (est. 6,000 square meters or equivalent to 27,000 cubic meters capacity for each unit)

Support Facilities

- Compressed air system, water treatment plant, Waste water treatment system, Sludge disposal, Fire protection system, Weir and pumping station and Noise pollution prevention system

Environmental Compliance Certificate
SRPGC Power Plant Project
St. Raphael Power Generation Corporation, *the environment* *Protect It.*



Republic of the Philippines
Department of Environment and Natural Resources
ENVIRONMENTAL MANAGEMENT BUREAU

Environmental Impact Assessment
and Management Division

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APR 14 2016

GEMINI CANDELARIO
EIA/MD STAFF

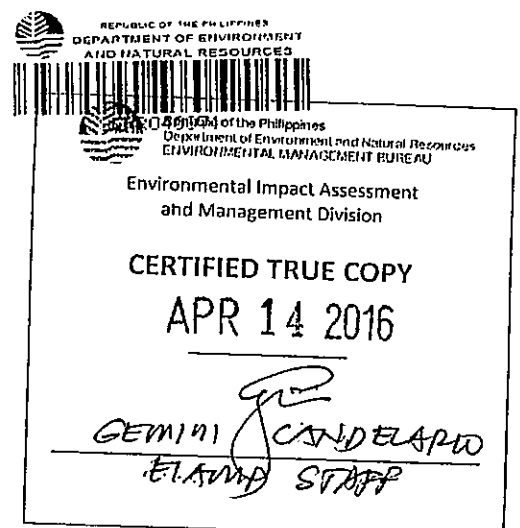
I. CONDITIONS

ENVIRONMENTAL MANAGEMENT

All commitments, mitigating measures and monitoring requirements, contained in the Environmental Impact Statement (EIS) for the proposed SRPGC Power Plant Project, particularly in the Environmental Management and Monitoring Plan (EMMoP), including the modifications and additional information as approved by the EMB, shall be instituted to minimize any adverse impact of the project to the environment throughout its implementation, including the following:

1. Conduct an effective Information, Education and Communication (IEC) Program to inform and educate all stakeholders, especially its contractors, workers, and local residents about the mitigating measures embodied in its EIS, the conditions stipulated in this Certificate and the environmental and human safety features of the project for greater awareness, understanding and sustained acceptance of the project;
2. Implement a comprehensive Social Development Program (SDP) and submit a separate report together with the Compliance Monitoring Report (CMR) to the EMB Central Office and copy furnished EMB Region IV-A on a semi-annual basis;
3. Establish appropriate measures and provide a minimum of four (4) meters buffer zones along the periphery of the project site with appropriate species/dense vegetation cover to enhance the condition of the ecosystems and to serve as noise, vibration and dust buffers as reflected in the final EIS;
4. Conduct air dispersion model validation one month after commercial operation and every two years thereof until the model and observed value difference are acceptable. Validation report shall be submitted to EMB Central Office two (2) months from the conduct of said validation. The following are the required activities for the model validation:
 - a. Use onsite meteorological data in the validation of dispersion modeling.
 - b. Install a CEMS for SO₂, NO₂, PM₁₀, CO and CO₂ as required by the CAA. For pollutants included in the validation but are not covered by the CAA, a robust source sampling design for model validation shall be formulated and implemented. Real time reporting thereof shall be automatically transmitted to EMB.
 - c. Formulate an ambient air quality sampling design solely for model validation.
 - d. Use the Air Dispersion Modelling Guidelines of EMB as the main reference.
5. Conduct a thermal plume model validation one month after commercial operation and every two years thereof until the model and observed value difference are acceptable. Validation report shall be submitted to EMB Central Office two (2) months from the conduct of said validation. The

Environmental Compliance Certificate
SRPGC Power Plant Project
St. Raphael Power Generation Corporation



This Certificate is issued in compliance with the requirements of Presidential Decree No. 1586, in accordance with DENR Administrative Order (D.A.O.) No. 2003-30. Non-compliance with any of the provisions of this Certificate shall be a sufficient cause for the cancellation of this Certificate and/or imposition of a fine in an amount not to exceed Fifty Thousand Pesos (P50,000.00) for every violation thereof without prejudice to imposition of fines and penalties under other environmental laws. The EMB, however, is not precluded from reevaluating, and correcting any deficiencies or errors that may be found after issuance of this Certificate.

Issued at DENR, Quezon City, Philippines, this SEP 17 2015.

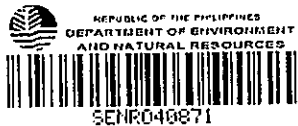
Recommending Approval:

Recommending approval:

ATTY. MICHAEL DRAKE P. MATIAS
OIC Chief, EIA Management Division

Approved by the Authority of the Secretary:

ATTY. JUAN MIGUEL T. CUNA
DENR Assistant Secretary and
concurrent Director



STATEMENT OF ACCOUNTABILITY

I, Mr. Victor A. Consunji, President and COO, representing St. Raphael Power Generation Corp. with office address located at Brgy. Baclaran, Balayan, Batangas, take full responsibility in complying with all conditions in this Environmental Compliance Certificate (ECC).

VICTOR A. CONSUNJI

Signature

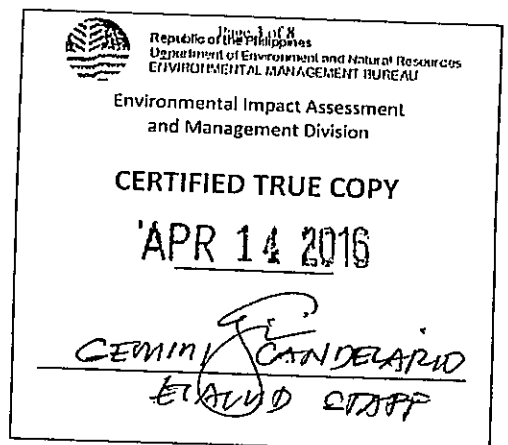
TIN 100-985-438

Subscribed and sworn to before me this SEP 24 2015, 2015, the above-named affiant taking oath presenting Passport No. EB5899814 issued on July 11, 2012 at Manila.

Notary Public

Doc. No. 255;
Page No. 85;
Book No. III;
Series of 2015

Environmental Compliance Certificate
SRPGC Power Plant Project
St. Raphael Power Generation Corporation



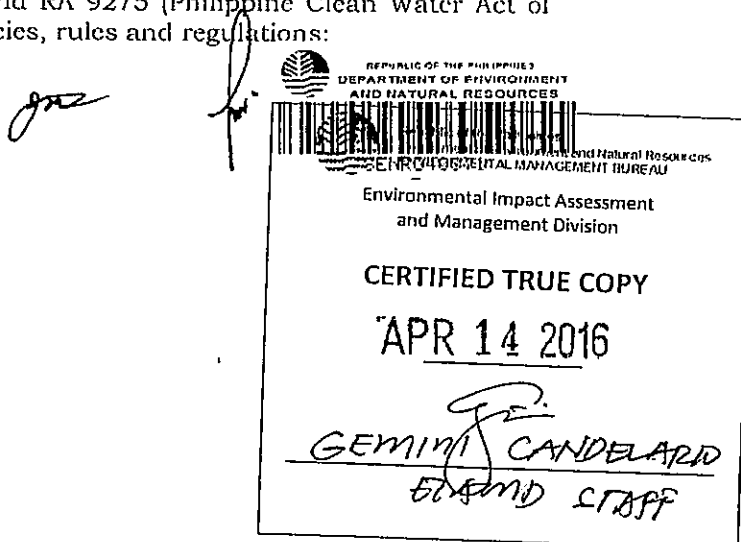
following are the required activities, but not limited to, for the model validation:

- a. Installation of an automatic temperature sensor at the point where the cooling water discharge meets the sea. The sensors should be able to measure temperatures over a series of depths.
 - b. Formulation of an ambient temperature measurement design solely for the model validation. The measurements should be able to capture both seasons.
 - c. Monitor flow rate of the cooling water discharge
6. Conduct a quantitative risk assessment (QRA) and hazard operability (HAZOP) prior to commissioning to ensure that hazards and risks are kept at the minimum. A report shall be submitted to EMB Central Office and EMB Region IV-A prior to commissioning. At the minimum, the QRA and HAZOP shall be updated every five (5) years, to ensure that hazards and risks are kept at a minimum;
 7. Formulate and submit for approval a reforestation and carbon sink program using endemic/indigenous species to offset greenhouse gas (GHG) emissions of the project in line with the DENR's thrust for GHG emissions reduction program and the National Greening Program in coordination with PENRO and the CENRO and submit the program to EMB (Central and Region IV-A) six (6) months prior to its operation. Implementation of the said program shall be reported to EMB (Central Office and Region IV-A) on a semi-annual basis;
 8. Submit a coastal resource management program (CRMP) to EMB Central Office copy furnished the EMB Region IV-A within sixty (60) days from start of its construction;
 9. Conduct a detailed site investigation which include detailed geotechnical study and seismic risk analysis of power plant and jetty areas and submit copy of the studies to EMB Central Office and EMB Region IV-A within sixty (60) days prior to construction;
 10. Conduct a bottom ash analysis after one (1) month of commercial operation of the plant and submit the report to EMB Central Office and EMB Region IV-A within sixty (60) days prior to its disposal;
 11. Conduct additional soil sampling for Cadmium confirmation and Environmental Health Impact Assessment of bottom ash, specifically on metals, in the project site and submit copy of the studies to EMB Central Office and EMB Region IV-A within sixty (60) days prior to construction;
 12. Submit a copy of the Grid Impact Study (GIS)/System Impact Study (SIS) for the 3rd 350 MW unit to EMB Central Office and EMB Region IV-A within sixty (60) days prior to its construction;

GENERAL CONDITIONS

13. The plant operations shall conform with the provisions of RA 6969 (Toxic Substances and Hazardous and Nuclear Wastes Control Act of 1990), RA 8749 (Philippine Clean Air Act of 1999), RA 9003 (Ecological Solid Waste Management Act of 2000), and RA 9275 (Philippine Clean Water Act of 2004) and other relevant policies, rules and regulations:

Environmental Compliance Certificate
SRPGC Power Plant Project
St. Raphael Power Generation Corporation



14. The proponent shall set-up the following:

- 14.1 A readily available and replenishable Environmental Guarantee Fund (EGF) to cover the following expenses: for further environmental assessments; compensations/indemnification for whatever damages to life and property that may be caused by the project; rehabilitation and /or restoration of areas affected by the project's implementation; and abandonment/decommissioning of the project facilities related to the prevention of possible negative impacts and as a source of funds for contingency and clean-up activities;
- 14.2 Consistent with the Procedural Manual for DAO 2003-30, a clustered or integrated MMT may be considered for this project. The existing MMT of Southwest Luzon Power Generation Corporation (SLPGC) composed of representative from the proponent, DOE, EMB Region IV-A, local environmental Non-Government Organization (NGO) and the LGUs concerned may serve as the MMT for this project which shall monitor the compliance of the SRPGC with the Environmental Management Plan/ Environmental Monitoring Plan as well as the conditions of its ECC;
- 14.3 A replenishable Environmental Monitoring Fund (EMF) to cover all costs attendant to the operation of the MMT such as training, sampling and analysis, the hiring of technical experts, accommodations and transportation.

The amount and mechanics of the EGF, EMF and the establishment of the MMT shall be determined by the EMB Central Office and the proponent in consultation with EMB Region IV-A through a Memorandum of Agreement (MOA) which shall be submitted within sixty (60) days upon receipt of this Certificate;

15. Creation of an Environmental Unit (EU) within sixty (60) days from receipt of this Certificate that shall competently handle the environment-related aspects of the project. In addition to the monitoring requirements as specified in the Environmental Management and Monitoring Plan (EMMoP), the EU shall have the following responsibilities:

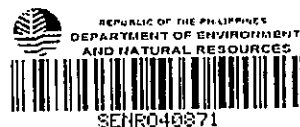
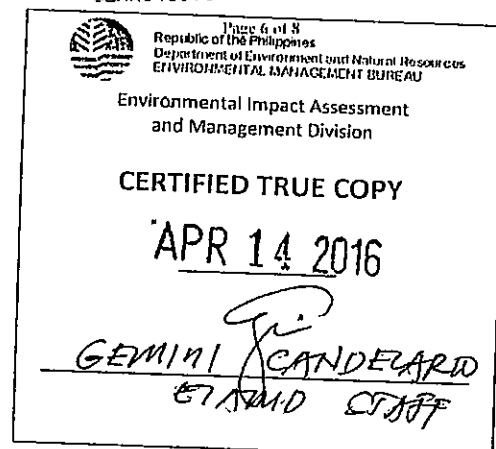
- a. Monitor actual project impacts vis-à-vis the predicted impacts and management measures in the EIS;
- b. Recommend revisions to the EMMoP, whenever necessary subject to the approval of EMB Central Office. Revisions shall also consider the result of the validation of air dispersion and thermal plume modeling;
- c. Ensure that data gathered during monitoring activities are properly documented, assessed, evaluated and reported in accordance with the standard formats; and
- d. Ensure that monitoring and submissions of reports to EMB (Central Office and Region IV-A) are carried out as required;

16. The proponent shall ensure that its contractors and sub-contractors properly comply with the relevant conditions of this Certificate;

Environmental Compliance Certificate
SRPGC Power Plant Project
St. Raphael Power Generation Corporation

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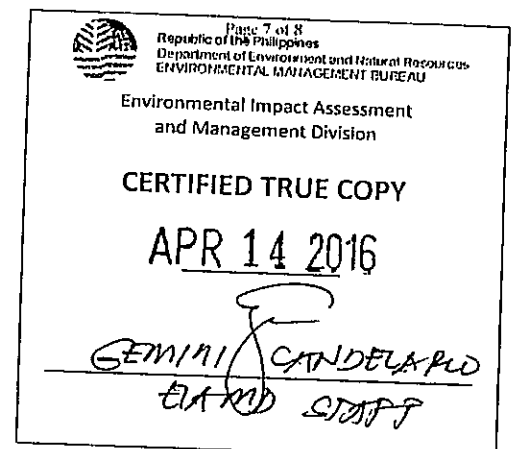
17. The proponent shall endeavor that their operation shall be carbon neutral by 2020;

II. RESTRICTIONS

18. Any activity involving the proposed project shall commence only upon confirmation or approval by the Power Sector Assets Liabilities and Management Corporation (PSALM) of Sem Calaca Power Corporation's agreement to sub-lease the project area to SRPGC;
19. There shall be no extraction of groundwater at any stage during the life of the project;
20. There shall be no coral reef affected during construction and operation of intake pipe, discharge canal, and/or jetty;
21. Activities shall be limited to what were stipulated in the final EIS. Any expansion of the project beyond the project description or any change in the activity or transfer of location shall be subject to a new Environmental Impact Assessment; and
22. In case of transfer of ownership of this project, these same conditions and restrictions shall apply and the transferee shall be required to notify the EMB Central Office within fifteen (15) days from the transfer of ownership.

O.R. No : 6693412
Date : March 5, 2015
Processing Fee: PhP 6,060.00

Environmental Compliance Certificate
SRPGC Power Plant Project
St. Raphael Power Generation Corporation

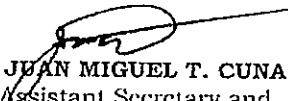


PROJECT ASSESSMENT PLANNING TOOL

For the assistance of the Proponent and the Government Agencies concerned in the management of the Project and for better coordination in mitigation of the impacts of the Project on the surrounding areas, the following are recommended to the parties and authorities concerned for appropriate action.

OTHER REGULATORY REQUIREMENTS/CONDITIONS	CONCERNED GOVERNMENT AGENCIES/ENTITIES
1. Compliance with the Sanitation Code of the Philippines;	DOH and LGU concerned
2. Compliance with the Labor Code of the Philippines;	DOLE
3. Compliance with the Building Code of the Philippines	LGU concerned
4. Ensure compliance with the Ecological Solid Waste Management Act;	LGU concerned
5. Secure a Foreshore Lease Agreement (FLA);	DENR
6. Secure a tree cutting permit;	DENR-FMB
ENVIRONMENTAL PLANNING RECOMMENDATIONS FOR THE PROPONENT	
7. Priority of employment shall be given to qualified local residents. Adequate public information for jobs available to local residents in the affected areas shall be provided; and	
8. An independent third party shall be commissioned to undertake an environmental audit, including a continuing study of the effects of the Project on the health of the workers and affected residents, including vulnerable groups. The result of the third party environmental audit, including the auditing of risks and hazards of the Project, shall be submitted to EMB Central Office, while the result of the continuing health study shall be submitted to the Department of Health (DOH), for evaluation every two (2) years commencing from receipt hereof.	

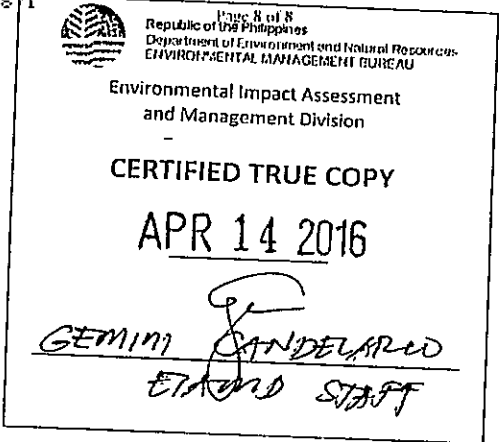

ATTY. MICHAEL DRAKE P. MATIAS
OIC, Chief EIAM Division


ATTY. JUAN MIGUEL T. CUNA
DENR Assistant Secretary and
concurrent Director

Environmental Compliance Certificate
SRPGC Power Plant Project
St. Raphael Power Generation Corporation



SENRO40871



EXECUTIVE SUMMARY/SALIENT FEATURES OF THE PSA

“2.1 Purpose

The purpose of this Agreement is to set out the rights and obligations of each Party with regard to the sale and purchase of Contract Capacity and Associated Energy of the Plant.

2.2 Term of Agreement

2.2.1 Subject to Article 3, this Agreement shall become effective on the Effective Date.

2.2.2 The term of this Agreement (the “**Term**”) shall commence on the Operations Effective Date (Unit 1) and shall expire on the date falling twenty (20) years and four (4) months thereafter xxx xxx

xxx xxx xxx

3.2 Commencement Date

3.2.1 The “Commencement Date” shall occur upon the satisfaction of the conditions below:

- (a) The conditions set out in Section 3.1 have been fulfilled;
- (b) Each Party has delivered to the other Party a certification dated no earlier than two (2) Days prior to the proposed Commencement Date to the effect that its representations and warranties contained herein shall be true and correct in all material respects on and as of the Commencement Date;
- (c) On or before the Longstop Date, the ERC shall have approved in the ERC Final Approval, this Agreement, including the pricing structure as set out herein (or as otherwise acceptable to Power Supplier); and
- (d) The Acceptance Date has occurred.

Within seven (7) Days after the satisfaction of the conditions referred to in this Section 3.2, Meralco and Power Supplier shall issue a joint certification confirming that the Commencement Date has occurred.

3.3 Operations Effective Date

- i. 3.3.1 The Operations Effective Date shall occur on the twenty-sixth (26th) Day of the fifty-second (52nd) month from the Commencement Date for Unit 1 (the "**Operations Effective Date (Unit 1)**") and four (4) months thereafter for Unit 2 (the "**Operations Effective Date (Unit 2)**") (or collectively, "**Operations Effective Date**").

xxx xxx xxx

3.4 Commercial Operations Date

3.4.1 The Plant shall achieve Commercial Operations Date upon delivery by Power Supplier of the documents enumerated below, in form and substance satisfactory to Meralco:¹

xxx xxx xxx

3.5 Early Occurrence of the Commercial Operations Date

3.5.1 In the event that Power Supplier achieves Commercial Operations Date prior to the occurrence of the Operations Effective Date, Power Supplier shall promptly deliver to Meralco written notice thereof on or before the Commercial Operations Date, which may contain a request for early occurrence of the Operations Effective Date and the intended Operations Effective Date.

3.5.2 Within ten (10) Days from receipt of such written notice, Meralco shall, by written notice:

- (a) Inform Power Supplier that it agrees to the early occurrence of Operations Effective Date and the revised Operations Effective Date; or
- (b) Elect to have Power Supplier deliver, on a non-firm basis until the occurrence of the Operations Effective Date, such portion of the Contract Capacity and Associated Energy required by Meralco, for which it shall pay the Non-Firm Price.

¹ With respect to Commercial Operations Date of each of Unit 1 and Unit 2:

- (a) Capacity Test Certificate;
- (b) a Net Plant Heat Rate Test Certificate;
- (c) all permits, licenses, authorizations and other approvals from all Government Instrumentalities and third parties needed for the operation of the Plant and the supply of electricity by Power Supplier to Meralco;
- (d) a Commercial Operations Date Certificate; and
- (e) Power Supplier certification that the insurances required under this Agreement relevant for at least the first Contract Year have been obtained.

xxx xxx xxx

Article 5 Sale and Purchase of Contract Capacity and Associated Energy

5.1 Supply of Power

Subject to the terms and conditions of this Agreement:

5.1.1 From the Operations Effective Date until the expiration or earlier termination of this Agreement, Power Supplier shall:

- (a) make available to Meralco, and Meralco shall purchase from Power Supplier, at the Price determined in accordance with Appendix E, the Contract Capacity of the Plant; and
- (b) sell to Meralco, and Meralco shall purchase from Power Supplier, at the Price determined in accordance with Appendix E, the Associated Energy, to the extent of Meralco's relevant day-ahead nominations.

5.1.2 Unless otherwise expressly permitted by this Agreement, Power Supplier shall not, without Meralco's prior written consent:

- (a) sell, divert, grant, transfer, dedicate, reserve or assign all or any portion of the Contract Capacity and Associated Energy to any Person other than Meralco; or
- (b) provide Meralco with capacity and/or electrical energy from any source other than the Plant.

xxx xxx xxx

Article 8 Outages

8.1 Outage Allowances

8.1.1 Power Supplier is allowed Scheduled and Forced Outages not to exceed an aggregate of forty-five (45) Full Load Equivalent Days for each Contract Year ("Full Load Equivalent Outage Allowance Days") during the Term, during which times reduced or no supply of Contract Capacity or Associated Energy will be available to Meralco. Unutilized Full Load Equivalent Outage Allowance Days shall not be carried forward to any subsequent Contract Year.

8.1.2 During the conduct of the Major Maintenance of each Unit of the Plant which occurs once every five (5) years reckoned from Commercial Operations Date of each Unit, the Full Load Equivalent Outage Allowance Days shall be increased by an additional fifteen (15) Full Load Equivalent Outage Days; provided that Power Supplier may only undertake Major Maintenance for a total of three (3) times during the Term; provided further that the first Major Maintenance shall occur no earlier than the fifth (5th) year after the occurrence of the Commercial Operations Date.

8.1.3 In case an Event of Force Majeure coincides with a Scheduled Outage, any downtime shall be credited against the Full Load Equivalent Outage Allowance Days.

8.2 Replacement Electrical Output During Outages

8.2.1 During Outages within the Full Load Equivalent Outage Allowance Days, Power Supplier shall not be required to supply Meralco with Replacement Energy. In such circumstances, Meralco, at its own cost, shall source the Replacement Energy from the WESM. Power Supplier shall not invoice Meralco for such portion of Contract Capacity and Associated Energy that is not made available or supplied for the duration of Scheduled Outages within the Full Load Equivalent Outage Allowance Days. If during any Contract Year, the Outages exceed the Full Load Equivalent Outage Allowance Days, Power Supplier shall procure at Power Supplier's own cost, such Replacement Energy and electrical output from third parties (including the WESM) to satisfy the relevant day-ahead nominations of Meralco. During such period, Meralco shall pay Power Supplier the Price. In the event Power Supplier fails to procure such quantities of electrical energy for Meralco, Power Supplier shall indemnify and hold Meralco harmless from any loss, cost, expense or penalty incurred or paid by Meralco.

xxx xxx xxx

Article 9 Assignment or Transfer of Contract Capacity

9.1 Meralco shall be entitled to assign, transfer, designate, delegate or allocate (collectively in this context, "Transfer") its rights and obligations to purchase a portion of Contract Capacity and Associated Energy that is no longer required by Meralco to any of its business segments or wholly-owned Affiliates without the prior consent of the Power Supplier.

Meralco shall also be entitled to Transfer its rights and obligations to purchase a portion of Contract Capacity and Associated Energy that is no longer required by Meralco to any other Person, subject to the consent of Power Supplier,

which consent shall not be unreasonably withheld, delayed or conditioned, it being understood that withholding consent would not be considered unreasonable if the proposed Transfer would be contrary to the reasonable requirements of Finance Parties under the Finance Documents, as evidenced by a written confirmation by the relevant Finance Parties. xxx

xxx xxx xxx

Article 10 Billing and Payment

xxx

10.2 Payments

- 10.2.1 Meralco shall pay the entire amount indicated in the Final Invoice (subject to Appendix H) when due and payable, provided that Meralco shall not be required to make payment on any Invoice that is manifestly in error, apparently invalid or not in the form or substance contemplated by this Agreement.

xxx xxx xxx

Article 11 Taxes, Fees and Costs

xxx

11.2 Charges Due to Change in Law

- (a) If as a result of a Change in Law, Meralco becomes liable to pay any new charges, fees, taxes, duties, assessments or other similar amounts ("**New Charges**"), or any increase in existing charges, fees, taxes, duties, assessments or other similar amounts ("**Increased Charges**") become payable with respect to this Agreement, the New Charges or Increased Charges shall form part of the price that Meralco will charge to its customers.
- (b) If as a result of a Change in Law (other than a change in income taxes payable by Power Supplier), Power Supplier becomes liable to pay New Charges or Increased Charges with respect to this Agreement, and such liability materially and adversely affects the ability of Power Supplier to perform its obligations under this Agreement, materially and adversely affects its sale of Contract Capacity and Associated Energy in accordance with this Agreement, makes the administration or operational aspects of such performance materially more burdensome or causes or may cause serious damage to, or

materially and adversely affects the financial condition of Power Supplier, Power Supplier shall send a notice of Change in Law to Meralco and the provisions of Section 17.6.6 will apply. Provided that if the Change in Law results in a change in the business taxes payable by Power Supplier, Power Supplier shall send notice of such change in business taxes to Meralco and, if the Parties agree, Meralco shall file the necessary application with the ERC for the adjustment of the Price; provided further, that the adjustment shall only be effective upon approval by the ERC. Notwithstanding any provision in this Agreement to the contrary, in no case shall the Power Supplier be entitled to terminate this Agreement as a result of the change in its business taxes.

- (c) In the event that, as a result of a Change in Law and pursuant to a corresponding order of the ERC or any Governmental Instrumentality:
 - (i) Meralco is no longer permitted to pass through to its customers any amounts that it is permitted to pass through as of the date of this Agreement, including but not limited to the amounts specified in Section 11.1.2; or
 - (ii) any portion of the Price that has been paid to Power Supplier is required to be refunded to Meralco or Meralco's customers in connection with the ERC Application or any petition, claim, case, proceeding or other action involving any of the Parties brought before any judicial, administrative or quasi-judicial body,

the Parties shall enter into good faith negotiations to agree on a satisfactory solution regarding the amendment of this Agreement to restore Meralco's commercial position prior to such Change in Law, including an adjustment of the Price. If the Parties fail to reach a mutually satisfactory resolution within sixty (60) Days from the commencement of negotiations, the provisions of Section 17.6.6 (b) will apply.

xxx xxx xxx

Article 13 Covenants

xxx

13.2 ERC Approval

- 13.2.1 Subject to the non-occurrence of the Longstop Date, upon receipt of the ERC Final Approval, Meralco shall provide a copy of such ERC Final Approval to Power Supplier. Power Supplier shall have ten (10) Days from the date of receipt

from MERALCO of such ERC Final Approval to notify Meralco in writing that (i) it accepts such ERC Final Approval or (ii) it does not accept the ERC Final Approval, stating the grounds for non-acceptance.

13.2.2 In case of Power Supplier's non-acceptance, Power Supplier shall be free to file with the ERC a motion for reconsideration. Any order on a motion for reconsideration shall be treated as an ERC Final Approval for purposes of the processes under this Section 13.2.

13.2.3 Following (i) a written notice of acceptance from Power Supplier with respect to the ERC Final Approval (including upon reconsideration under Section 13.2.2 above), or (ii) the lapse of the period referred to in Section 13.2.1 without Power Supplier communicating its acceptance or non-acceptance in writing, the Acceptance Date shall be considered as having occurred on the date of the written notice of acceptance or on the last Day of such period, as applicable ("Acceptance Date"), provided, in each case, that Meralco has not filed any motion for reconsideration or appeal subsequent to the Power Supplier's acceptance of such ERC Final Approval and the Longstop Date has not occurred. xxx

13.2.5 In the event that the Acceptance Date has not occurred by the Longstop Date, either Party may terminate this Agreement by serving a thirty (30) Day written notice to the other.

xxx xxx xxx

Article 16 Force Majeure

xxx

16.5 Effect of Extended Force Majeure

If any Event of Force Majeure prevents Power Supplier from making available the Contract Capacity or Associated Energy or Meralco from accepting Contract Capacity or Associated Energy, in each case for a continuous period of more than one hundred eighty (180) Days, then either Party may upon written notice, require the other Party to meet as soon as practicable to reasonably discuss any modification, change or amendment of this Agreement under such reasonable terms, to the extent necessary to resolve the issues arising from the Event of Force Majeure and maintain, to the extent feasible, the rights and obligations of the Parties under this Agreement.

If the Parties do not reach such satisfactory solution within ninety (90) Days from the end of the one hundred eighty (180) Day period, or such other time as may be agreed upon, either Party may terminate this Agreement in accordance with Section 17.6.5.

xxx xxx xxx

Article 17 Events of Default and Termination

17.1 Power Supplier Events of Default

Each of the events described below shall constitute a Power Supplier Event of Default, provided that such events (with the exception of Sections 17.1(d) and Section 17.1(e) (i), (ii) and (iii)) results in or is accompanied by an actual failure by Power Supplier to make Available the Contract Capacity and/or deliver the Associated Energy of Meralco in accordance with the terms of this Agreement: xxx

xxx

17.2 Meralco Events of Default

Each of the events described below shall constitute a Meralco Event of Default, provided that such event (with the exception of Section 17.2(d)) results to or is accompanied by an actual failure by Meralco to receive, and pay for, the Contract Capacity and Associated Energy in accordance with this Agreement:

xxx

For the avoidance of doubt, it is understood and agreed that, subject to Section 16.2(d) being applicable, the expiration and/or non-renewal of the Franchise shall not be considered a Meralco Event of Default."

Payment Structure, as provided in *Appendix E* of the PSA:

"2 PAYMENT STRUCTURE

The payment to be made in each Billing Period during the Term for Contract Capacity and Associated Energy shall consist of a Capacity Payment, Energy Payment, Additional Reimbursable Costs and applicable value-added tax. The Capacity Payment consists of Component A (MCP) and Component B (MFOM), the Energy Payment consists of Component C (FP) and Component D (MVOM), the Reimbursable Costs consists of Component E (RC), and Component F (VAT). Thus, the Monthly Power Bill ("MPB") payment for Contract Capacity and Associated Energy for each Billing Period shall be equal to:

$$\text{MPB} = \text{MCP} + \text{MFOM} + \text{FP} + \text{MVOM} + \text{RC} + \text{VAT}$$

All payments to Power Supplier under this Agreement will be made in Philippine Pesos (PHP). All computations for payments to Power Supplier shall not be rounded off, except for the final PHP amount, which shall be rounded off to the nearest centavo.

xxx xxx xxx"

ANNEXES "J"-N"

See Confidential Documents

**PROCUREMENT PROCESS
LEADING TO THE EXECUTION OF THE POWER SUPPLY AGREEMENT (PSA)
BETWEEN MANILA ELECTRIC COMPANY (MERALCO)
AND ST. RAPHAEL POWER GENERATION CORPORATION (SRPGC)**

In the latter part of 2014, SRPGC discussed with Manila Electric Company (MERALCO) for an execution of a Power Supply Agreement. In a letter dated March 17, 2015, SRPGC presented its proposed terms of reference to MERALCO for the execution of a PSA.

Thereafter, a series of meetings transpired between the Parties as they negotiated the terms and conditions of the PSA, including the Price.

Following extensive negotiations, on April 26, 2016, the Parties executed the PSA for the purchase of Contract Capacity and Associated Energy from the 2 x 350 MW (rated) coal-fired power plant which SRPGC intends to construct, own, operate, manage and maintain in Calaca, Batangas



NGCP

Stronger transmission
for a stronger nation.

ANNEX "P"

NetAccess/GAP-RRA-2016-04-167
APR 14 2016

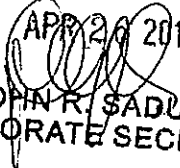
CERTIFICATION

This is to certify that the National Grid Corporation of the Philippines is currently conducting the System Impact Study for the **St. Raphael Power Generation Corporation (SRPGC)** relative to its 2X350MW Coal-Fired Power Plant Project located in Calaca, Batangas.

This Certification is being issued to SRPGC for whatever legal purpose it may serve.


MA. CYNTHIA Y. MANRIQUE
Head, Revenue and Regulatory Affairs

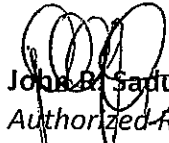
ST. RAPHAEL POWER GENERATION CORPORATION
CERTIFIED TRUE COPY


APR 20 2016
JOHN R. SADULLO
CORPORATE SECRETARY

Certification on Proposed Capacity Relative to DOE's PDP

On 14 April 2016, Applicant St. Raphael Power Generation Corporation ("SRPGC") requested for a certification from the Department of Energy's ("DOE") stating that the proposed generation capacity is in accord with the DOE's Philippine Development Plan ("PDP") as required for the application/petition for approval of Bilateral Power Supply Contracts ("BPSC") of Distribution Utilities to be submitted to the Energy Regulatory Commission ("ERC"). Attached hereto is the *Letter Request dated 11 April 2016* sent by Applicant SRPGC to the DOE.

As of the filing of the Application, the request is still pending with the DOE.



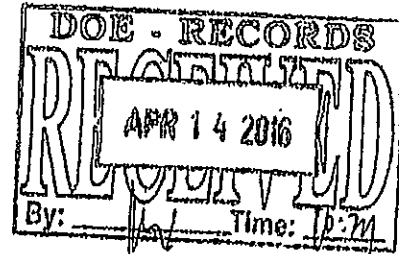
John R. Sapullo
*Authorized Representative/
Attorney-in-fact*
St. Raphael Power Generation Corporation

Date : April 27, 2016

ST. RAPHAEL POWER GENERATION CORPORATION

April 11, 2016

HON. MYLENE C. CAPONGCOL
OIC - Undersecretary
Department of Energy
Energy Center, Bonifacio Global City
Taguig City



Attention: **MS. IRMA C. EXCONDE**
OIC - Director, Electric Power Industry Management Bureau

Subject: Certification on Proposed Capacity Relative to DOE's PDP

Dear **OIC-UNDERSECRETARY CAPONGCOL**:

With reference to our letter to OIC-Undersecretary Capongcol dated April 08, 2016, we are pleased to inform you that St. Raphael Power Generation Corporation (SRPGC), a wholly-owned subsidiary of Semirara Mining and Power Corporation will undertake Phase II 2 x 350MW Pulverized Coal (PC) Power Plant project in Calaca, Batangas. The Project is expected to commence its construction within 2017.

In this regard, we respectfully request from your good office for a Certification stating the proposed generation capacity is in accord with the DOE's Philippine Development Plan (PDP) as required for the application/petition for approval of Bilateral Power Supply Contracts (BPSCs) of Distribution Utilities (DUs) to be submitted to the Energy Regulatory Commission (ERC).

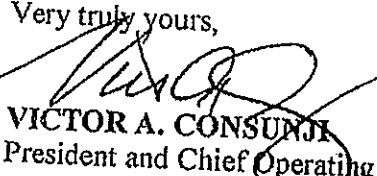
We have attached herewith the following documents for your evaluation:

1. Company Profile
2. Project Background/Description

For any clarification or question about this application, you may get in touch with Mr. Henry V. Alcalde at 888-3000 local 6155 or hvalcalde@dmcipower.com and/or Mr. Ferdinand G. Fernandez at 888-3000 local 6161 or fgfernandez@dmcipower.com.

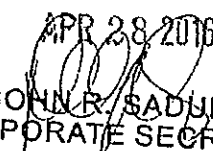
We look forward to your favorable response to this request. Thank you for your continued support.

Very truly yours,


VICTOR A. CONSUNJI
President and Chief Operating Officer

cf: OIC-Director Irma C. Exconde
Electric Power Industry Management Bureau

ST. RAPHAEL POWER GENERATION CORPORATION
CERTIFIED TRUE COPY

APR 28 2016

JOHN R. SADULLO
CORPORATE SECRETARY

PLANT DESCRIPTION

Location

SRPGC's 2 x 350MW Pulverized Coal-fired Power Plant is located along the shorelines of Balayan Bay, San Rafael, Calaca, Batangas. It is bounded on the north by the National Highway, on the west by Dacanlao River, on the east by Cawong (Bolboc) River and Balayan Bay in the south.

Major Components of the Plant

Steam Generator [Unit 1 & 2]	Natural Circulation, Reheat-Regenerative, Single Drum
Steam Turbine [Unit 1 & 2]	Tandem Compound, Double-flow, Reheat Turbine
Generator [Unit 1 & 2]	3-Phase, Horizontal Shaft, Direct Water-cooled Stator, Direct Hydrogen-cooled Rotor
Condenser [Unit 1 & 2]	Divided Water Box-Type Surface Condenser

Point of Interconnection

It is intended to be connected to the Luzon Grid through the proposed 500kV (energized at 230kV) Calaca-Dasmariñas Transmission Line and Calaca Substation to be developed by the National Grid Corporation of the Philippines, which projects are targeted to be completed by 2019.

ANNEX "S"

REPUBLIC OF THE PHILIPPINES)
MAKATI CITY) S.S.

UNDERTAKING

I, **JOHN R. SADULLO**, Filipino, of legal age, and with office address at 2F DMCI Plaza, 2281 Don Chino Roces Avenue, Makati City, after having been sworn in accordance with law depose and state:

1. I am the Corporate Secretary and duly appointed attorney-in-fact of St. Raphael Power Generation Corporation ("SRPGC"), Applicant in the Joint Application for the approval of the Power Supply Agreement dated 26 April 2016 between SRPGC and Manila Electric Company (the "Application").
2. In my capacity as such attorney-in-fact and on behalf of SRPGC, I hereby undertake to submit the Certificate of Compliance and such other relevant governmental authorizations and permits of the SRPGC's 2x350MW Pulverized Coal-fired Power Plant as may be required by the Energy Regulatory Commission in connection with the Application upon the issuance thereof by the relevant governmental authorities.

IN WITNESS WHEREOF, I have hereunto set my hand on
APR 26 2016 in Makati City, Philippines.

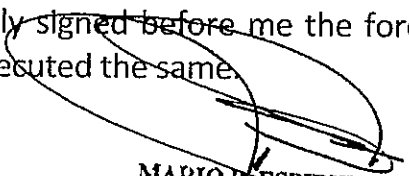

JOHN R. SADULLO
Affiant

APR 26 2016

SUBSCRIBED AND SWORN to before me on _____ in Makati City, affiant exhibiting to me his Driver's License with No. N01-02-005690 valid until July 22, 2017 bearing his photograph and signature, and that he is the same person who personally signed before me the foregoing Undertaking and acknowledged that he executed the same.

Doc No. 04 ;
Page No. 17 ;
Book No. X1 ;
Series of 2016.




MARIO B. ESPIRITU, JR.
Commission No. M-51
Notary Public for City of Makati
Until December 31, 2017
4th Floor MMP Bldg,
2283 Pasong Tama Ext. Makati City
PTR No. 00416-01-06-16 Kawit, Cavite
JBP No. 1019423 01-04-16 Cavite Chapter
MCLE No. V-0010283 09-11-15
Roll No. 32509

1. Name of Utility in Full	MANILA ELECTRIC COMPANY, MERALCO
2. ERC/NEA Authority/License No./R.A.#	Various Resolutions
3. Brief Description of Franchise Area: (Province/s and Municipality/ies covered; Area in Sq. Km.)	Covers the whole of Metro Manila; the whole province of Bulacan, Cavite, and Rizal; and portions of the provinces of Laguna, Batangas, Quezon, and Pampanga.
Province/s and Municipality/ies Covered	Laguna: Alaminos, Bay, Biñan, Cabuyao, Calamba, Calauan, Liliw, Los Baños, Luisiana, Magdalena, Majayjay, Nagcarlan, Pila, Rizal, San Pablo City, San Pedro, Sta. Cruz, Sta. Rosa, Victoria Batangas: Batangas City, San Pascual, Sto. Tomas Quezon: Candelaria, Dolores, Lucban, Lucena City, Mauban, Pagbilao, Sampaloc, San Antonio, Sariaya, Tayabas, Tiaong Pampanga: barangays of Apalit, Candaba, San Simon
Area in Sq. Km	9,337.5 sq. km.
Franchise Population	27,339,156
4. Grid	MERALCO Connection Points: Amadeo, Araneta, Balintawak, Batangas, Biñan, Botocan, Calauan, Caliraya, CND, Dasmariñas, Dolores, Duhat, Makban, Malaya, Malolos, Paco, Pagbilao, San Jose, Sta. Rosa, Sucat, Tayabas, Zapote
5a. Brief description of methodology used in load forecasting and supply expansion plan:	1. Load Forecasting Model using Econometric method. 2. Supply Expansion Plan: Supply Capacity = Forecast Peak Load - DSM impact + 15% Capacity Margin
5b. Brief description and sources of assumptions:	Population: National Statistics Office CPI, GDP growth: Economist Intelligence Unit (EIU) Appendix I

Forecast/Planning Results		2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
6. Number of Barangays in Franchise		4,319	4,319	4,319	4,319	4,319	4,319	4,319	4,319	4,319	4,319	4,319	4,319	4,319	4,319	4,319
6.a Number of Energized Barangays (On-Grid)		4,279	4,283	4,283	4,283	4,283	4,283	4,283	4,283	4,283	4,283	4,283	4,283	4,283	4,283	4,283
6.b Number of Energized Barangays (Off-Grid)		13	36	36	36	36	36	36	36	36	36	36	36	36	36	36
6.c Number of Waived Barangays																
(Served by Alternative Service Provider)																
7. Number of Households in Franchise		5,572,519	5,978,789	6,071,260	6,165,257	6,260,818	6,357,958	6,442,862	6,529,016	6,616,441	6,705,155	6,795,180	6,872,904	6,951,647	7,031,423	7,111,982
7.a Number of Energized Households (On-Grid)		5,173,273	5,635,909	5,840,874	5,968,067	6,088,995	6,206,811	6,309,565	6,411,312	6,512,659	6,614,017	6,715,681	6,804,377	6,893,399	6,982,881	7,072,866
7.b Number of Energized Households (Off-Grid)																
8. Number of Customer Connections		4,411,289	4,579,014	4,734,036	4,900,250	5,096,275	5,272,229	5,443,471	5,616,077	5,790,030	5,965,313	6,141,911	6,319,804	6,498,973	6,679,399	6,861,059
Residential		4,411,289	4,579,014	4,734,036	4,900,250	5,096,275	5,272,229	5,443,471	5,616,077	5,790,030	5,965,313	6,141,911	6,319,804	6,498,973	6,679,399	6,861,059
On-grid		4,411,289	4,579,014	4,734,036	4,900,250	5,096,275	5,272,229	5,443,471	5,616,077	5,790,030	5,965,313	6,141,911	6,319,804	6,498,973	6,679,399	6,861,059
Off-grid																
Commercial		437,340	449,697	457,817	451,636	462,502	479,521	495,503	511,196	527,444	543,926	560,764	577,955	595,537	613,534	631,986
On-grid		437,340	449,697	457,817	451,636	462,502	479,521	495,503	511,196	527,444	543,926	560,764	577,955	595,537	613,534	631,986
Off-grid																
Industrial		9,790	9,669	9,682	9,592	9,699	9,788	9,858	9,915	10,009	10,121	10,140	10,184	10,254	10,353	10,480
On-grid		9,790	9,669	9,682	9,592	9,699	9,788	9,858	9,915	10,009	10,121	10,140	10,184	10,254	10,353	10,480
Off-grid																
Others		4,202	4,378	4,391	4,423	4,442	4,494	4,546	4,599	4,653	4,707	4,761	4,816	4,872	4,928	4,985
Public Bldgs		4,202	4,378	4,391	4,423	4,442	4,494	4,546	4,599	4,653	4,707	4,761	4,816	4,872	4,928	4,985
On-grid		4,202	4,378	4,391	4,423	4,442	4,494	4,546	4,599	4,653	4,707	4,761	4,816	4,872	4,928	4,985
Off-grid																
Street Lights		4,202	4,378	4,391	4,423	4,442	4,494	4,546	4,599	4,653	4,707	4,761	4,816	4,872	4,928	4,985
On-grid		4,202	4,378	4,391	4,423	4,442	4,494	4,546	4,599	4,653	4,707	4,761	4,816	4,872	4,928	4,985
Off-grid																
Others (i.e., irrigation, etc.)																
On-grid																
Off-grid																
TOTAL Number of Customer Connections		4,862,621	5,047,716	5,205,926	5,365,901	5,572,912	5,766,031	5,953,379	6,141,787	6,332,195	6,524,061	6,719,576	6,910,759	7,109,636	7,308,214	7,508,510
8a. Number of Large Load Customers					428	717										
1 MW and above*					253	262										
750 kW up to 999 kW																
9a. Number of Barangays in the Franchise Area		4,319	4,319	4,319	4,319	4,319	4,319	4,319	4,319	4,319	4,319	4,319	4,319	4,319	4,319	4,319
9b. Number of Households in the Franchise Area		5,572,519	5,978,789	6,071,260	6,165,257	6,260,818	6,357,958	6,442,862	6,529,016	6,616,441	6,705,155	6,795,180	6,872,904	6,951,647	7,031,423	7,111,982
9c. Number of Sitios in the Franchise Area																

*This also includes the following:

- (1) Contestable Customers who have already switched to their respective Retail Electricity Supplier (RES)
 - (2) Eligible Contestable Customers with forecasted monthly peak of 3MW average and above
 - (3) Eligible Contestable Customers with historical monthly peak demand of at least 1MW for 3 consecutive months
- Item 2 and 3 are pursuant to Section 2 (2.3) (b) & (c) of the ERC Resolution No. 02, Series of 2008 (Rules for Contestability).

Forecast/Planning Results		Units	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
10. ENERGY REQUIREMENT																	
10a. Electricity Consumption (On-grid)																	
Direct Sales To Customers		(1a)															
Residential	MWh		9,535,342	9,340,088	9,774,589	10,231,421	10,360,482	10,637,717	10,896,053	11,172,197	11,440,582	11,714,937	12,043,013	12,360,319	12,687,928	13,026,167	13,375,400
Commercial	MWh		11,682,531	11,886,362	12,601,798	13,147,743	13,645,610	14,253,670	14,900,218	15,485,357	16,138,719	16,821,259	17,566,373	18,347,600	19,175,598	20,053,283	20,984,186
Industrial	MWh		8,616,118	8,947,369	9,964,361	10,196,554	10,513,134	10,916,182	11,316,163	11,717,305	12,152,956	12,612,958	13,133,853	13,673,034	14,250,995	14,869,851	15,531,435
Others	MWh		142,173	140,111	130,363	128,312	130,211	131,228	132,759	134,249	135,948	137,848	140,097	142,492	145,094	147,908	150,943
Public Bldgs	MWh																
Street Lights	MWh		142,173	140,111	130,363	128,312	130,211	131,228	132,759	134,249	135,948	137,848	140,097	142,492	145,094	147,908	150,943
Company Use: Company/Office/ Housing	MWh																
Company Use: Utility's Station use	MWh																
Others (Direct sale or Large Load)	MWh																
On-Grid: Direct Sales to Customers	MWh		29,976,164	30,313,930	32,471,112	33,704,030	34,649,437	35,938,797	37,245,194	38,509,108	39,868,205	41,287,002	42,883,337	44,523,445	46,259,614	48,097,210	50,041,964
10b. Electricity Consumption (Off-Grid)																	
Direct Sales To Customers		(1b)															
Residential	MWh																
Commercial	MWh																
Industrial	MWh																
Others	MWh																
Public Bldgs	MWh																
Street Lights	MWh																
Company Use: Company/Office/ Housing	MWh																
Company Use: Utility's Station use	MWh																
Others (Direct sale or Large Load)	MWh																
Off-grid: Direct Sales to Customers	MWh																
10c. Electricity Consumption (Franchise)																	
Direct Sales To Customers		1: (1a+1b)															
Residential	MWh		9,535,342	9,340,088	9,774,589	10,231,421	10,360,482	10,637,717	10,896,053	11,172,197	11,440,582	11,714,937	12,043,013	12,360,319	12,687,928	13,026,167	13,375,400
Commercial	MWh		11,682,531	11,886,362	12,601,798	13,147,743	13,645,610	14,253,670	14,900,218	15,485,357	16,138,719	16,821,259	17,566,373	18,347,600	19,175,598	20,053,283	20,984,186
Industrial	MWh		8,616,118	8,947,369	9,964,361	10,196,554	10,513,134	10,916,182	11,316,163	11,717,305	12,152,956	12,612,958	13,133,853	13,673,034	14,250,995	14,869,851	15,531,435
Others	MWh		142,173	140,111	130,363	128,312	130,211	131,228	132,759	134,249	135,948	137,848	140,097	142,492	145,094	147,908	150,943
Public Bldgs	MWh																
Street Lights	MWh		142,173	140,111	130,363	128,312	130,211	131,228	132,759	134,249	135,948	137,848	140,097	142,492	145,094	147,908	150,943
Company Use: Company/Office/ Housing	MWh																
Company Use: Utility's Station use	MWh																
Others (Direct sale or Large Load)	MWh																
Total: Direct Sales to Customers	MWh		29,976,164	30,313,930	32,471,112	33,704,030	34,649,437	35,938,797	37,245,194	38,509,108	39,868,205	41,287,002	42,883,337	44,523,445	46,259,614	48,097,210	50,041,964
10d. Utility's Energy Consumption																	
Company/Office/Housing		(2)															
On-grid	MWh																
Off-grid	MWh																
Pumped Storage Requirement	MWh																
On-grid	MWh																
Off-grid	MWh																
Utility's Station use: Distribution	MWh																
On-grid	MWh		74,517	66,078	57,532	57,661	56,696	62,258	64,522	66,711	69,066	71,523	74,289	77,130	80,138	83,321	86,690
Off-grid	MWh																
Utility's System Losses	MWh																
On-grid	MWh		2,575,955	2,410,042	2,463,681	2,508,944	2,407,812	2,502,747	2,593,724	2,681,741	2,776,388	2,875,192	2,986,359	3,100,575	3,221,480	3,349,449	3,484,880
Off-grid	MWh																
Subtotal: Utility's Energy Consumption	MWh		2,650,472	2,476,120	2,521,213	2,566,605	2,464,508	2,555,489	2,647,246	2,738,452	2,831,354	2,926,711	3,023,938	3,122,714	3,223,594	3,326,770	3,431,570

Forecast/Planning Results		Units	Historical					Forecast									
			2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
10e. Total Electricity Purchased or Generated		(3)															
Supplied by Utility Owned Generator		MWh															
On-grid		MWh															
Off-grid		MWh															
Electricity Purchased		MWh	32,626,635	32,790,050	34,992,326	36,270,635	37,113,945	38,503,803	39,903,439	41,257,561	42,713,658	44,233,717	45,943,985	47,701,149	49,561,232	51,529,979	53,613,534
On-grid		MWh	32,626,635	32,790,050	34,992,326	36,270,635	37,113,945	38,503,803	39,903,439	41,257,561	42,713,658	44,233,717	45,943,985	47,701,149	49,561,232	51,529,979	53,613,534
Off-grid		MWh															
Local Private Supply		MWh															
On-grid		MWh															
Off-grid		MWh															
TOTAL Electricity Purchased or Generated		MWh	32,626,635	32,790,050	34,992,326	36,270,635	37,113,945	38,503,803	39,903,439	41,257,561	42,713,658	44,233,717	45,943,985	47,701,149	49,561,232	51,529,979	53,613,534
Note: (1) plus (2) must equal to (3)			0.00%	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total		MWh															
10f. Percent System Loss		%	7.90%	7.35%	7.04%	6.92%	6.49%	6.50%	6.50%	6.50%	6.50%	6.50%	6.50%	6.50%	6.50%	6.50%	6.50%

11. PEAK DEMAND REQUIREMENT

11a. Peak Demand (On-grid)		(1a)														
Customers Demand Requirement		kW														
Residential		kW														
Commercial		kW														
Industrial		kW														
Others		kW														
Public Bldgs		kW														
Street Lights		kW														
Company Use: Company/Office/ Housing		kW														
Company Use: Utility's Station use		kW														
Others (Direct sale or Large Load)		kW														
On-Grid: Demand Requirement		kW														

11b. Peak Demand (Off-Grid)		(1b)														
Customers Demand Requirement		kW														
Residential		kW														
Industrial		kW														
Commercial		kW														
Others		kW														
Public Bldgs		kW														
Street Lights		kW														
Company Use: Company/Office/ Housing		kW														
Company Use: Utility's Station use		kW														
Others (Direct sale or Large Load)		kW														
Off-grid: Demand Requirement		kW														

11c. Peak Demand (Franchise)		1: (1a+1b)														
Customers Demand Requirement		kW														
Residential		kW														
Commercial		kW														
Industrial		kW														

13. MONTHLY LOAD DATA

13a. Actual Monthly Load Data		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Year:	2014												
Utility's Actual Monthly Coincident Peak Demand	kW	5,032,400	5,326,900	5,405,400	5,834,400	6,121,300	6,070,500	5,809,300	5,841,100	5,669,300	5,663,500	5,636,600	5,618,000
Utility's Monthly Contracted Demand	kW	4,274,890	4,324,890	4,324,890	4,388,890	4,578,890	4,578,890	4,578,890	4,552,890	4,532,890	4,532,890	4,503,890	4,439,890
from Power Suppliers:	kW												
Quezon Power Philippines Ltd.	kW	460,000	460,000	460,000	460,000	460,000	460,000	460,000	460,000	460,000	460,000	460,000	460,000
First Gas Power, Sta. Rita	kW	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000
First Gas Power, San Lorenzo	kW	500,000	500,000	500,000	500,000	500,000	500,000	500,000	500,000	500,000	500,000	500,000	500,000
SEM-CALACA Power Corporation	kW	270,000	270,000	270,000	270,000	270,000	270,000	270,000	270,000	250,000	250,000	250,000	250,000
AES Corp. (Masinloc Power Partners Co., Ltd.)	kW	270,000	270,000	270,000	270,000	270,000	270,000	270,000	244,000	244,000	244,000	230,000	230,000
Therma Luzon Inc.-Pagbilao Plant	kW	250,000	250,000	250,000	250,000	250,000	250,000	250,000	250,000	250,000	250,000	250,000	250,000
San Miguel Energy Corp.-Sual Plant	kW	330,000	330,000	330,000	330,000	330,000	330,000	330,000	330,000	330,000	330,000	330,000	330,000
South Premiere Power Corp.-Ilijan Plant	kW	1,080,000	1,080,000	1,080,000	1,080,000	1,080,000	1,080,000	1,080,000	1,080,000	1,080,000	1,080,000	1,065,000	1,065,000
Therma Mobile Inc.	kW	100,000	150,000	150,000	200,000	200,000	200,000	200,000	200,000	200,000	200,000	200,000	200,000
Global Business Power Corp. - Panay Plant*	kW				27,000	27,000	27,000	27,000	27,000	27,000	27,000	27,000	27,000
Global Business Power Corp. - Toledo Plant*	kW				37,000	37,000	37,000	37,000	37,000	37,000	37,000	37,000	37,000
1590 Energy Corp. -Bauang Plant*	kW					140,000	140,000	140,000	140,000	140,000	140,000	140,000	140,000
Embedded Generation**	kW	14,890	14,890	14,890	14,890	14,890	14,890	14,890	14,890	14,890	14,890	14,890	14,890
Utility's Actual Monthly Withdrawn	kW	4,274,890	4,324,890	4,324,890	4,438,890	4,578,890	4,578,890	4,578,890	4,552,890	4,532,890	4,532,890	4,503,890	4,439,890
Capacity from Power Suppliers:	kW												
Quezon Power Philippines Ltd.	kW	460,000	460,000	460,000	460,000	460,000	460,000	460,000	460,000	460,000	460,000	460,000	460,000
First Gas Power, Sta. Rita	kW	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000
First Gas Power, San Lorenzo	kW	500,000	500,000	500,000	500,000	500,000	500,000	500,000	500,000	500,000	500,000	500,000	500,000
SEM-CALACA Power Corporation	kW	270,000	270,000	270,000	270,000	270,000	270,000	270,000	270,000	250,000	250,000	250,000	250,000
AES Corp. (Masinloc Power Partners Co., Ltd.)	kW	270,000	270,000	270,000	270,000	270,000	270,000	270,000	244,000	244,000	244,000	230,000	230,000
Therma Luzon Inc.-Pagbilao Plant	kW	250,000	250,000	250,000	250,000	250,000	250,000	250,000	250,000	250,000	250,000	250,000	250,000
San Miguel Energy Corp.-Sual Plant	kW	330,000	330,000	330,000	330,000	330,000	330,000	330,000	330,000	330,000	330,000	330,000	330,000
South Premiere Power Corp.-Ilijan Plant	kW	1,080,000	1,080,000	1,080,000	1,080,000	1,080,000	1,080,000	1,080,000	1,080,000	1,080,000	1,080,000	1,065,000	1,065,000
Therma Mobile Inc.	kW	100,000	150,000	150,000	200,000	200,000	200,000	200,000	200,000	200,000	200,000	200,000	200,000
Global Business Power Corp. - Panay Plant*	kW				27,000	27,000	27,000	27,000	27,000	27,000	27,000	27,000	27,000
Global Business Power Corp. - Toledo Plant*	kW				37,000	37,000	37,000	37,000	37,000	37,000	37,000	37,000	37,000
1590 Energy Corp. -Bauang Plant*	kW					140,000	140,000	140,000	140,000	140,000	140,000	140,000	140,000
Embedded Generation**	kW	14,890	14,890	14,890	14,890	14,890	14,890	14,890	14,890	14,890	14,890	14,890	14,890
Variance (Excess/Deficit)	kW	0	0	0	0	0	0	0	0	0	0	0	0

		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Utility's Actual Monthly Energy Consumption	MWh	2,707,693	2,898,287	2,761,773	3,180,837	3,371,501	3,444,100.634	3,007,888	3,200,783	3,205,510	3,145,424	3,206,092	2,993,928
Utility's Monthly Contracted Energy from Power Suppliers:	MWh	2,154,988	2,278,820	2,176,367	2,560,039	2,703,078	2,762,802	2,397,062	2,526,838	2,519,054	2,488,636	2,515,553	2,340,700
Quezon Power Philippines Ltd.	MWh	194,059	139,074	273,203	297,624	291,167	280,826.3	248,677	282,015	281,715	280,493	262,996	219,873
First Gas Power, Sta. Rita	MWh	533,336	533,888	417,430	450,480	503,136	539,290	445,618	606,510	562,485	570,671	565,479	569,311
First Gas Power, San Lorenzo	MWh	278,097	297,917	294,858	282,982	315,304	324,092	272,010	291,546	304,901	305,782	250,724	264,994
SEM-CALACA Power Corporation	MWh	94,677	83,792	59,845	142,226	193,874	200,880	166,884	194,919	184,383	179,845	185,642	176,005
AES Corp. (Masinloc Power Partners Co., Ltd.)	MWh	120,109	183,968	171,680	200,371	194,400	200,766	194,400	176,267	177,359	175,425	167,481	152,993
Therma Luzon Inc.-Pagbilao Plant	MWh	158,787	161,845	161,343	180,092	151,812	84,546.809	11,033	163,878	174,720	173,837	176,063	155,397
San Miguel Energy Corp.-Sual Plant	MWh	194,966	190,812	210,668	223,214	214,836	188,877	211,748	176,767	203,548	7,522	184,023	168,994
South Premiere Power Corp.-Ilijan Plant	MWh	548,551	582,139	482,761	618,352	659,119	660,123.21	577,934	596,174	575,625	643,876	621,834	555,214
Therma Mobile Inc.	MWh	3,943	1,921	25,897	57,610	51,732	56,401.861	70,465	14,147	21,191	15,868	7,387	3,349
Global Business Power Corp. - Panay Plant*	MWh				3,159	7,695	6966	5,751	0	0	0	0	0
Global Business Power Corp. - Toledo Plant*	MWh				4,699	10,770	8076	6,359	0	0	0	0	0
1590 Energy Corp. -Bauang Plant*	MWh					13,625	31,031.994	34,110	2,623	8,445	9,208	1,400	0
Embedded Generation**	MWh	3,028	2,604	2,322	2,709	2,561	3,179.832	2,236	2,224	2,041	1,792	1,891	1,843
Wholesale Electricity Spot Market	MWh	25,436	100,860	76,360	96,522	93,046	177,745.281	149,837	19,768	22,642	124,318	90,633	72,728
Utility's Actual Monthly Energy Withdrawn from Power Suppliers:	MWh	2,154,988	2,278,820	2,176,367	2,560,039	2,703,078	2,762,802	2,397,062	2,526,838	2,519,054	2,488,636	2,515,553	2,340,700
Quezon Power Philippines Ltd.	MWh	194,059	139,074	273,203	297,624	291,167	280,826.3	248,677	282,015	281,715	280,493	262,996	219,873
First Gas Power, Sta. Rita	MWh	533,336	533,888	417,430	450,480	503,136	539,290	445,618	606,510	562,485	570,671	565,479	569,311
First Gas Power, San Lorenzo	MWh	278,097	297,917	294,858	282,982	315,304	324,092	272,010	291,546	304,901	305,782	250,724	264,994
SEM-CALACA Power Corporation	MWh	94,677	83,792	59,845	142,226	193,874	200,880	166,884	194,919	184,383	179,845	185,642	176,005
AES Corp. (Masinloc Power Partners Co., Ltd.)	MWh	120,109	183,968	171,680	200,371	194,400	200,766	194,400	176,267	177,359	175,425	167,481	152,993
Therma Luzon Inc.-Pagbilao Plant	MWh	158,787	161,845	161,343	180,092	151,812	84,546.809	11,033	163,878	174,720	173,837	176,063	155,397
San Miguel Energy Corp.-Sual Plant	MWh	194,966	190,812	210,668	223,214	214,836	188,877	211,748	176,767	203,548	7,522	184,023	168,994
South Premiere Power Corp.-Ilijan Plant	MWh	548,551	582,139	482,761	618,352	659,119	660,123.21	577,934	596,174	575,625	643,876	621,834	555,214
Therma Mobile Inc.	MWh	3,943	1,921	25,897	57,610	51,732	56,401.861	70,465	14,147	21,191	15,868	7,387	3,349
Global Business Power Corp. - Panay Plant*	MWh				3,159	7,695	6966	5,751	0	0	0	0	0
Global Business Power Corp. - Toledo Plant*	MWh				4,699	10,770	8076	6,359	0	0	0	0	0
1590 Energy Corp. -Bauang Plant*	MWh					13,625	31,031.994	34,110	2,623	8,445	9,208	1,400	0
Embedded Generation**	MWh	3,028	2,604	2,322	2,709	2,561	3,179.832	2,236	2,224	2,041	1,792	1,891	1,843
Wholesale Electricity Spot Market	MWh	25,436	100,860	76,360	96,522	93,046	177,745.281	149,837	19,768	22,642	124,318	90,633	72,728
Variance (Excess/Deficit)	MWh	0	0	0	0	0	0	0	0	0	0	0	0
Utility Load Factor	%	72.92%	73.13%	68.67%	73.28%	73.10%	76.26%	69.59%	73.63%	76.00%	74.63%	76.45%	71.63%

13b. Projected Monthly Load Data

Year :	2015												
Utility's Projected Monthly Coincident Peak Demand	kW	5,248,800	5,297,400	5,356,747	6,216,293	6,337,442	6,264,733.915	6,172,728	6,077,101	6,120,812	6,068,671	6,026,269	5,917,669
Utility's Monthly Contracted Demand	kW	4,431,562	4,431,562	4,431,562	4,431,562	4,431,562	4,431,562	4,431,562	4,291,562	4,291,562	4,291,562	4,291,562	4,291,562
from Power Suppliers:	kW	460,000	460,000	460,000	460,000	460,000	460,000	460,000	460,000	460,000	460,000	460,000	460,000
Quezon Power Philippines Ltd.	kW	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000
First Gas Power, Sta. Rita	kW	500,000	500,000	500,000	500,000	500,000	500,000	500,000	500,000	500,000	500,000	500,000	500,000
First Gas Power, San Lorenzo	kW	250,000	250,000	250,000	250,000	250,000	250,000	250,000	250,000	250,000	250,000	250,000	250,000
SEM-CALACA Power Corporation	kW	230,000	230,000	230,000	230,000	230,000	230,000	230,000	230,000	230,000	230,000	230,000	230,000
AES Corp. (Masinloc Power Partners Co., Ltd.)	kW	250,000	250,000	250,000	250,000	250,000	250,000	250,000	250,000	250,000	250,000	250,000	250,000
Therma Luzon Inc.-Pagbilao Plant	kW	330,000	330,000	330,000	330,000	330,000	330,000	330,000	330,000	330,000	330,000	330,000	330,000
San Miguel Energy Corp.-Sual Plant	kW	1,065,000	1,065,000	1,065,000	1,065,000	1,065,000	1,065,000	1,065,000	1,065,000	1,065,000	1,065,000	1,065,000	1,065,000
South Premiere Power Corp.-Ilijan Plant	kW	200,000	200,000	200,000	200,000	200,000	200,000	200,000	200,000	200,000	200,000	200,000	200,000
Therma Mobile Inc.	kW	140,000	140,000	140,000	140,000	140,000	140,000	140,000	140,000	140,000	140,000	140,000	140,000
1590 Energy Corp. -Bauang Plant*	kW	14,890	6,562	6,562	6,562	6,562	6,562	6,562	6,562	6,562	6,562	6,562	6,562
Embedded Generation**	kW	2,715,852	3,001,937	2,849,564	3,271,986	3,391,732	3,432,832	3,328,043	3,364,399	3,339,556	3,284,927	3,202,651	3,053,407
Utility's Projected Monthly Energy Consumption	MWh	2,715,852	3,001,937	2,849,564	3,271,986	3,391,732	3,432,832	3,328,043	3,364,399	3,339,556	3,284,927	3,202,651	3,053,407
Utility's Monthly Contracted Energy from	MWh	2,105,198	2,262,854	2,170,343	2,537,992	2,665,985	2,666,640.18	2,566,512	2,572,634	2,556,128	2,495,144	2,375,232	2,245,434
Power Suppliers:	MWh	161,632	0	231,231	264,307	266,635	289,059.6232	264,654	263,551	259,989	270,352	252,076	229,409
Quezon Power Philippines Ltd.	MWh	543,235	633,867	518,941	644,162	603,818	628,679.7531	561,270	588,159	617,280	577,418	599,449	558,577
First Gas Power, Sta. Rita	MWh	289,295	298,067	262,184	328,709	317,352	311,994.7953	311,721	293,327	319,896	267,240	316,983	289,978
First Gas Power, San Lorenzo	MWh	136,477	184,764	154,909	161,495	158,933	165,127.5	160,138	152,901	82,493	133,496	132,949	101,249
SEM-CALACA Power Corporation	MWh	129,987	163,188	143,055	157,637	161,631	166,725.5564	160,231	160,849	164,751	160,842	150,866	145,847
AES Corp. (Masinloc Power Partners Co., Ltd.)	MWh	147,472	144,645	152,582	169,186	170,478	231,38.88475	151,142	165,960	170,805	168,613	153,618	147,008
Therma Luzon Inc.-Pagbilao Plant	MWh	172,494	203,675	185,321	214,941	215,632	234,731.2942	213,735	210,297	205,391	118,036	89,616	179,552
San Miguel Energy Corp.-Sual Plant	MWh	423,862	533,667	417,159	374,669	608,597	663,519.7363	609,144	608,831	611,016	618,198	595,056	540,980
South Premiere Power Corp.-Ilijan Plant	MWh	13,704	23,841	21,000	30,124	38,585	41,887.87676	13,528	25,068	29,198	29,520	25,170	512
Therma Mobile Inc.	MWh	3,772	18,012	19,940	35,613	28,704	35,226.31627	28,014					
1590 Energy Corp. -Bauang Plant*	MWh	1,971											
Embedded Generation**	MWh	81,298	59,128	64,023	157,149	95,619	106,548.8439	92,936	103,691	75,309	151,428	59,449	52,322
Wholesale Electricity Spot Market	MWh	69,556	76,179	71,506	70,756	71,933	73,656	72,479	74,419	73,333	72,755	71,433	69,355
Utility Load Factor	%	69.55%	76.17%	71.50%	70.75%	71.93%	73.65%	72.47%	74.41%	73.33%	72.75%	71.43%	69.35%

* Interim Power Supply Agreement

** Embedded Generation consists of supply from Montalban Methane, Bacavalley, Pangea and Philpodeco. (Montalban Methane terminated on Jan 26, 2015)

Note: NSI used for System Loss computation includes energy purchased by customers directly from suppliers.

Supply Expansion Plan:		Contracted Supply											
14a. Utility Owned Power generating Facilities		2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Name													
Status													
Fuel Requirement (liters, tons, etc.)													
Installed Capacity	KW												
Net Dependable Capacity	KW												
Net Production	MWh												
Sub Total (Utility-Owned RE-based Generating Facility only)													
Installed Capacity	KW												
Net Dependable Capacity	KW												
Net Production	MWh												
Total (Utility Owned Power Generating Facilities)													
Installed Capacity	KW												
Net Dependable Capacity	KW												
Net Production	MWh												
14b. Supply from NPC:													
Name of Plant	NPC-CCP												
Contracted Demand	KW	299,893	282,000	404,391									
Load Factor	%	75%	83%	61%									
Contracted Energy	MWh	1,963,038	2,040,000	2,172,771									
Name of Plant	NPC-Ecozone												
Contracted Demand	KW	391,919	555,000	648,471									
Load Factor	%	72%	71%	65%									
Contracted Energy	MWh	2,455,320	3,461,987	3,719,530									
Name of Plant	NPC-Sunpower												
Contracted Demand	KW	31,427	33,621	34,009	26,932	28,224	34,000	34,000	34,000	34,000	34,000	34,000	34,000
Load Factor	%	77%	93%	77%	87%	91%	100%	100%	100%	100%	100%	100%	100%
Contracted Energy	MWh	213,121	274,128	230,233	204,955	225,507	297,840	298,656	297,840	297,840	297,840	297,840	297,840
Name of Plant	NPC-CCP (RE-based)												
Contracted Demand	KW	11,107											
Load Factor	%	75%											
Contracted Energy	MWh	72,705											
Name of Plant	NPC-Ecozone (RE-based)												
Contracted Demand	KW	25,081											
Load Factor	%	72%											
Contracted Energy	MWh	157,131											
Total (NPC):													
Contracted Demand	KW	469,427	870,621	1,086,871	26,932	28,224	34,000	34,000	34,000	34,000	34,000	34,000	34,000
Load Factor	%	75%	83%	61%	87%	91%	100%	100%	100%	100%	100%	100%	100%
Contracted Energy	MWh	2,455,320	3,461,987	3,719,530	204,955	225,507	297,840	298,656	297,840	297,840	297,840	297,840	297,840

		Contracted Supply											
		2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Supply Expansion Plan:													
14c. Supply from NPC's Transition Supply Contract													
Name of Plant	NPC - TSC	KW	2,421,677	2,252,308	1,851,063	257,400							
Contracted Demand		%	37%	41%	63%	84%							
Load Factor		MWH	7,818,390	8,159,753	10,304,664	887,059							
Contracted Energy													
NPC - TSC (RE-based)		KW	178,323	247,792	13,935								
Contracted Demand		%	37%	41%	63%								
Load Factor		MWH	575,710	897,749	77,573								
Contracted Energy													
Total (NPC's TSC):		KW	2,600,000	2,500,000	1,865,000	257,400							
Contracted Demand		%	37%	41%	63%	84%							
Load Factor		MWH	7,818,390	8,159,753	10,304,664	887,059							
Contracted Energy													
14d. Utility Firm Contract Supply from others:													
Name of Supplier	Quezon Power Philippines Ltd	KW	460,000	460,000	460,000	460,000	460,000	460,000	460,000	460,000	460,000	460,000	460,000
Installed Capacity		KW	460,000	460,000	460,000	460,000	460,000	460,000	460,000	460,000	460,000	460,000	460,000
Contracted Demand		MWH	1,388,022	3,265,006	2,951,117	2,821,472	3,051,721.60	2,752,896	3,079,693	3,146,821	2,665,067	2,192,479	2,654,203
Contracted Energy													
Name of Supplier	First Gas Power Corp. (Sta Rita)	KW	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000
Installed Capacity		KW	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000
Contracted Demand		MWH	7,535,528	8,116,528	7,215,523	7,532,287	6,297,634.00	7,074,856	6,683,264	6,792,568	5,926,642	5,643,714	6,534,025
Contracted Energy													
Name of Supplier	FGP Corp. (San Lorenzo)	KW	500,000	500,000	500,000	500,000	500,000	500,000	500,000	500,000	500,000	500,000	500,000
Installed Capacity		KW	500,000	500,000	500,000	500,000	500,000	500,000	500,000	500,000	500,000	500,000	500,000
Contracted Demand		MWH	3,824,362	4,113,962	3,821,180	2,746,209	3,483,207.00	3,606,747	3,161,634	3,244,275	2,857,595	2,803,736	3,063,782
Contracted Energy													
Name of Supplier	SEM Calaca Power Corp	KW		600,000	600,000	600,000	600,000	600,000	600,000	600,000			
Installed Capacity		KW		210,000	420,000	270,000.00	250,000	250,000	250,000	170,000			
Contracted Demand		MWH		1,586,081	2,521,718	1,862,972.01	1,724,931	2,124,302	2,137,468	1,330,216			
Contracted Energy													
Name of Supplier	Masinloc Power Partners Co. Ltd	KW		630,000	630,000	630,000	630,000	630,000	630,000	630,000			
Installed Capacity		KW		400,000	270,000.00	230,000	260,000	260,000	180,000	180,000			
Contracted Demand		MWH		2,606,054	2,115,219.00	1,865,609	2,017,479	2,068,303	1,197,639	1,037,547			
Contracted Energy													
Name of Supplier	Therma Luzon Inc.	KW		735,000	735,000	735,000	735,000	735,000	735,000	735,000			
Installed Capacity		KW		350,000	250,000.00	250,000	250,000	250,000	225,000	225,000			
Contracted Demand		MWH		2,092,529	1,753,354.25	1,764,648	1,874,210	1,919,683	1,526,071	1,398,375			
Contracted Energy													
Name of Supplier	San Miguel Energy Corp	KW		1,218,000	1,218,000	1,218,000	1,218,000	1,218,000	1,218,000	1,218,000			
Installed Capacity		KW		500,000	330,000.00	330,000	330,000	330,000	305,000	305,000			
Contracted Demand		MWH		2,751,634	2,175,975.19	2,243,421	2,316,580	2,373,818	1,833,441	1,543,431			
Contracted Energy													

Supply Expansion Plan:			2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Name of Supplier			South Premiere Power Corp.														
Installed Capacity			KW				1,278,000	1,278,000.00	1,278,000	1,278,000	1,278,000	1,278,000	1,278,000	1,278,000			
Contracted Demand			KW				1,180,000	1,080,000.00	1,065,000	1,065,000	1,065,000	930,000	930,000				
Contracted Energy			MWH				6,889,749	7,121,701.58	6,604,700	5,763,932	6,035,576	4,199,249	3,602,604				
Name of Supplier			Therma Mobile Inc.														
Installed Capacity			KW				234,000	242,000.00	242,000	242,000	242,000						
Contracted Demand			KW				100,000	200,000.00	200,000	200,000	200,000						
Contracted Energy			MWH				54,351	329,911.03	292,137	245,076	176,296						
Name of Supplier			Global Business Power Corp. (Pangay)														
Installed Capacity			KW					72,000.00									
Contracted Demand			KW					27,000.00									
Contracted Energy			MWH					23,571.00									
Name of Supplier			Global Business Power Corp. (Toledo)														
Installed Capacity			KW					40,000.00									
Contracted Demand			KW					37,000.00									
Contracted Energy			MWH					29,904.00									
Name of Supplier			1590 Energy Corp.														
Installed Capacity			KW					235,200.00	235,200								
Contracted Demand			KW					140,000.00	140,000								
Contracted Energy			MWH					100,442.49	169,281								
Name of Supplier			San Buenaventura Power Ltd.														
Installed Capacity			KW									455,000	455,000	455,000	455,000	455,000	455,000
Contracted Demand			KW									455,000	455,000	455,000	455,000	455,000	455,000
Contracted Energy			MWH									3,680,054	3,379,261	3,786,742	3,840,321	3,848,969	3,832,382
Total (RE-based generating facility)			KW														
Contracted Demand			KW														
Contracted Energy			MWH														
Total (Utility Firm Contract Supply)			KW				1,960,000	1,960,000	2,425,600	2,665,000	2,970,100	2,663,000	2,663,000	2,676,000	2,415,000	2,415,000	2,415,000
Contracted Demand			KW				1,960,000	1,960,000	2,425,600	2,491,000	2,456,000	2,425,000	2,425,000	2,405,000	2,241,500	2,241,500	2,241,500
Contracted Energy			MWH				14,747,912	15,495,496	18,573,901	20,016,033	22,345,613	22,099,225	27,266,171	27,897,814	23,215,974	21,601,147	21,603,753
															16,483,880	16,803,356	17,041,957
																	17,405,441
			* PSA Capacity starting June 26, 2013 (start of initial OARC) net of assigned capacity to Meralco Local RES														
14c. Local Private Supply (Embedded Generation)																	
Name of Supplier			Philpedeco														
Installed Capacity			KW				1,150	1,150	1,150	1,150.00	1,150	1,150	1,150	1,150			
Firm Contract Capacity			KW														
Energy Supply			MWh				3,139	3,651	3,087	2,367.00	1,908	1,908	1,908	1,908			
Name of Supplier			Montalban Methane														
Installed Capacity			KW				8,190	8,325	8,325	8,325	8,325.00						
Firm Contract Capacity			KW														
Energy Supply			MWh				13,119	31,844	20,568	14,642	19,348.06						
Name of Supplier			Bacavalley														
Installed Capacity			KW				4,212	4,212	4,212	4,212.00	4,212	4,212					
Firm Contract Capacity			KW														
Energy Supply			MWh				8,354	6,284	4,589	2,082.28	6,983	6,983					
Name of Supplier			Pangaea														
Installed Capacity			KW					1,200	1,200.00	1,200							
Firm Contract Capacity			KW														
Energy Supply			MWh					4,032	4,641.72	1,991							

		2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Supply Expansion Plant:																
Sub Total (Embedded RE-based generating facility)	KW	8,190	13,687	13,687	14,887	14,887	6,562	5,362	1,150	1,150	1,150	1,150	1,150	1,150	1,150	1,150
Installed Capacity	KW	8,190	13,687	13,687	14,887	14,887	6,562	5,362	1,150	1,150	1,150	1,150	1,150	1,150	1,150	1,150
Firm Contracted Capacity	MWH	873,310	43,357	30,503	26,350	28,431	10,886	8,896	1,908	1,908	1,908	1,908	1,908	1,908	1,908	1,908
Energy Supply																
Total (All Embedded)	KW	8,190	13,687	13,687	14,887	14,887	6,562	5,362	1,150	1,150	1,150	1,150	1,150	1,150	1,150	1,150
Installed Capacity	KW	8,190	13,687	13,687	14,887	14,887	6,562	5,362	1,150	1,150	1,150	1,150	1,150	1,150	1,150	1,150
Firm Contracted Capacity	MWH	873,310	43,357	30,503	26,350	28,431	10,886	8,896	1,908	1,908	1,908	1,908	1,908	1,908	1,908	1,908
Energy Supply																
14c. TOTAL SUPPLY																
Total Supply from RE-Based Generation Facilities only	KW	214,511	247,792	113,955	113,955	113,955	113,955	113,955	113,955	113,955	113,955	113,955	113,955	113,955	113,955	113,955
Capacity	MWH	18,864	10,106	10,076	10,350	10,439	10,886	8,896	1,908	1,908	1,908	1,908	1,908	1,908	1,908	1,908
Energy																
Total Supply from All Generation Facilities	KW	511,977	540,621	288,871	288,871	288,871	288,871	288,871	288,871	288,871	288,871	288,871	288,871	288,871	288,871	288,871
Capacity	MWH	10,106	5,747	5,210	5,352	5,400	5,552	4,000	923	923	923	923	923	923	923	923
Energy																
14d. Supply-Demand Surplus/(Deficit)	KW	(5,947)	(47,211)	(31,028)	(733,391)	(1,529,036)	(1,818,871)	(2,157,076)	(2,717,859)	(2,705,269)	(3,123,100)	(3,075,960)	(3,362,457)	(3,665,735)	(3,986,711)	(4,326,445)
Capacity	%	(11.2)	(8.7)	(10.7)	(25.4)	(52.9)	(61.4)	(74.4)	(94.3)	(93.9)	(108.7)	(107.7)	(118.7)	(127.1)	(140.7)	(152.2)
Capacity Margin	MWH	(610,289)	(2,417,579)	(2,883,151)	(5,136,238)	(6,514,393)	(10,095,851)	(12,629,716)	(18,059,999)	(17,977,936)	(22,332,822)	(21,905,232)	(24,121,269)	(27,757,695)	(30,488,022)	(33,208,093)
Energy																

14h. Owned Production Facilities (See Item 14a.)	Operator	Plant Type	Year Installed	Fuel Type	Contract Effectivity	Contract Expiration
Plant Name						
1.						
2.						
3.						
14i. Supply from other sources (See Item 14d. and 14e.)	Operator	Plant Type	Year Installed	Fuel Type	Contract Effectivity	Contract Expiration
Plant Name						
1. Quezon Power Philippines Ltd				Coal	May 2000	May 2025
2. First Gas Power, Sta. Rita				Natural Gas	October 2002	October 2025
3. First Gas Power, San Lorenzo				Natural Gas	August 2000	August 2027
4. SEM-CALACA Power Corporation				Coal	December 2011	December 2018
5. AES Corp. (Masindao Power Partners Co., Ltd.)				Coal	December 2012	December 2019
6. Thermo Luzon Inc.-Pagbilao Plant				Coal	December 2012	December 2019
7. San Miguel Energy Corp.-Sual Plant				Coal	December 2012	December 2019
8. South Premiere Power Corp.-Iligan Plant				Natural Gas	December 2012	December 2019
9. Thermo Mobile Inc.				Diesel	November 2013	June 25, 2017
10. Global Business Power Corp. - Panay Plant				Bunker Oil	November 14, 2014	July 25, 2015
11. Global Business Power Corp. - Toledo Plant				Bunker Oil	November 14, 2014	July 25, 2015
12. 1590 Energy Corp. -Bauang Plant				Diesel	May 12, 2014	July 25, 2015
13. Philpodeto				Hydro	May 16, 2014	May 16, 2019
14. Montalban Methane*				Biomass	June 2009	September 2016*
15. Bacavalley				Biomass	March 16, 2013	March 16, 2016
16. Pangca				Biomass	March 15, 2013	February 29, 2016

14j. Do you wheel power for other users/producers? (YES/NO)

14k. If yes in Item (above question), please answer the following, else go to Item (next).

Name of Customer

Complete Address of Customer

Capacity to be wheeled

Energy to be wheeled

Contract Terms in years

*Note: Contract terminated on January 26, 2015

Supply Expansion Plan

Supply Forecast

13a. Utility Owned Power generating Facilities

Name:

Status:

Fuel Requirement (liters, tons, etc)

Installed Capacity

KW

Net Dependable Capacity

KW

Net Production

MWH

Sub Total (Utility-Owned RE-based Generating Facility only)

Installed Capacity

KW

Net Dependable Capacity

KW

Net Production

MWH

Total (Utility Owned Power Generating Facilities)

Installed Capacity

KW

Net Dependable Capacity

KW

Net Production

MWH

13b. Supply from NPC:

Name of Plant

Contracted Demand

KW

Load Factor

%

Contracted Energy

MWH

Total (NPC):

Contracted Demand

KW

Load Factor

%

Contracted Energy

MWH

13c. Supply from NPC's Transition Supply Contract

Name of Plant

Contracted Demand

KW

Load Factor

%

Contracted Energy

MWH

Total (NPC's TSC):

Contracted Demand

KW

Load Factor

%

Contracted Energy

MWH

Total (All Embedded)	KV
Installed Capacity	KV
Firm Contracted Capacity	MV
Energy Supply	

[illegible]

Supply Expansion Plan			Supply Forecast								
		2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
13f. TOTAL SUPPLY											
Total Supply from RE-Based Generation Facilities only											
Capacity	KW	-	-	-	-	-	-	-	-	-	-
Energy	MWH	-	-	-	-	-	-	-	-	-	-
Total Supply from All Generation Facilities											
Capacity	KW	-	450,000	550,000	550,000	720,000	2,430,000	2,730,000	2,880,000	3,180,000	3,430,000
Energy	MWH	-	654,899	818,624	2,203,548	4,895,314	12,686,329	13,021,634	13,631,531	14,317,236	14,947,762
13g. Supply-Demand Surplus/(Deficit)											
Capacity	KW	(6,277,871)	(6,056,076)	(6,176,859)	(6,414,269)	(6,492,108)	(5,060,960)	(5,047,457)	(5,200,735)	(5,221,731)	(5,311,445)
Capacity Margin	%	-100%	-93%	-92%	-92%	-90%	-68%	-65%	-64%	-62%	-61%
Energy	MWH	(38,503,803)	(39,248,540)	(40,438,937)	(40,510,110)	(39,338,403)	(33,257,656)	(34,679,515)	(35,929,700)	(37,212,743)	(38,665,772)

13h. Owned Production Facilities (See Item 13a.)

Plant Name	Operator	Plant Type	Year Installed	Fuel Type
1.				
2.				
3.				

13i. Supply from other sources (See Item 13d. and 13e)

Plant Name	Operator	Plant Type	Year Installed	Fuel Type
1.				
2.				
3.				

13j. Do you wheel power for other users/producers? (YES/NO)

13k. If yes in Item (above question), please answer the following, else go to Item (next).

Name of Customer	
Complete Address of Customer	
Capacity to be wheeled	KW
Energy to be wheeled	MWH
Contract Terms in years	

Forecast/Planning Results	Units	Historical					Forecast									
		2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Subtransmission Facilities: (Acquisition and Expansion)		(CUMULATIVE TOTAL)					(ANNUAL)									
15a. Subtransmission lines																
Voltage, 230kV	ckt-km	2,700	2,700													
Voltage, 138kV and less than 230kV	ckt-km															
Voltage, 115kV and less than 138kV	ckt-km	717.887	728.955	786.310	791.251	793.040	34.700	60.508	42.600	18.700	47.000	49.400	16.000	21.400	50.900	48.500
Voltage, 69kV and less than 115kV	ckt-km	92.299	92.299	50.846	105.294	106.169	25.200	9.500	2.000	0.300	2.000	0.000	0.000	5.000	0.000	0.000
		813	824	837	897	899	60	70	45	19	49	49	16	26	51	49
Subtransmission Facilities: (Replacement and Rehabilitation)		(CUMULATIVE TOTAL)					(ANNUAL)									
15b. Subtransmission lines																
Voltage, 230kV	ckt-km															
Voltage, 138kV and less than 230kV	ckt-km															
Voltage, 115kV and less than 138kV	ckt-km	717.900	723.900	725.300	735.600	755.000	21.810	19.000	14.500	46.600	8.700	34.900	16.300	26.400	28.800	13.000
Voltage, 69kV and less than 115kV	ckt-km	92.300	92.800	92.900	94.500	96.300	1.800	1.000	1.100	1.400	4.800	2.000	2.100	2.300	2.500	2.500
		810	817	818	830	851	24	20	16	48	14	37	18	29	31	16
Distribution Facilities: (Acquisition and Expansion)		(CUMULATIVE TOTAL)					(ANNUAL)									
15c. Distribution lines																
Voltage, 34.5kV and less than 69kV	ckt-km	11,144.40	11,576.68	12,079.99	12,255.66	12,507.72	222.40	161.05	203.77	260.50	248.84	252.24	283.48	116.70	92.40	46.30
Voltage, 13.8kV and less than 34.5kV	ckt-km	3,535.01	3,615.27	3,593.47	3,583.65	3,601.79	-20.15	-19.30	-62.00	-101.90	-86.50	-105.60	-168.10	-32.10	8.10	0.00
Voltage, 6.2kV and less than 13.8kV (3 Phase)	ckt-km	544.36	504.72	490.40	438.58	400.43	-45.85	-50.77	-46.99	-52.06	-86.40	-50.24	-29.28	-28.90	0.00	-6.10
(V Phase)	ckt-km															
(1 Phase)	ckt-km	15,224	15,697	16,164	16,278	16,510	156	91	95	107	76	96	86	56	101	40
Distribution Facilities: (Replacement and Rehabilitation)		(CUMULATIVE TOTAL)					(ANNUAL)									
15d. Distribution lines																
Voltage, 34.5kV and less than 69kV	ckt-km	2,293.00	2,438.22	2,606.24	2,847.95	3,116.17	270.86	607.18	760.73	927.88	1,000.23	713.38	801.88	840.82	856.84	842.63
Voltage, 13.8kV and less than 34.5kV	ckt-km	903.00	926.29	960.50	1,014.43	1,065.52	77.27	173.83	217.53	265.17	285.86	203.93	229.26	240.35	244.91	240.86
Voltage, 6.2kV and less than 13.8kV (3 Phase)	ckt-km	217.00	220.36	234.12	243.40	252.19										
(V Phase)	ckt-km															
(1 Phase)	ckt-km	3,413	3,585	3,801	4,105	4,434	348	781	978	1,193	1,286	917	1,031	1,081	1,102	1,083

Forecast/Planning Results		Units	Historical					Forecast									
			2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
16a. Substation Capacity, MVA (Additional)			(CUMULATIVE TOTAL)					(ANNUAL)									
Transformer Capacity, 100 and up	MVA		196.97	200.00	212.12	215.94	215.94		300.00	300.00		300.00	250.00		150.00	300.00	300.00
No. of Units			22	21	22	23	23		3	3		2	3		2	4	2
Transformer Capacity, 50 and less than 100	MVA		82.68	82.40	82.16	82.20	82.49	83.00	83.00	83.00	83.00	83.00	83.00	83.00	83.00	83.00	83.00
No. of Units			103	108	114	118	120	8	4	4	4	4	7	6	5	5	6
Transformer Capacity, 25 and less than 50	MVA		33.33	33.26	33.26	33.19	33.26		33.00	33.00	33.00	33.00			33.00	33.00	
No. of Units			18	18	18	19	19		1	1	1	2			1	1	
Transformer Capacity, 10 and less than 25	MVA		15.38	15.35	15.35	15.47	15.56										
No. of Units			61	56	56	50	51										
Transformer Capacity, less than 10	MVA		5.29	5.29	4.99	3.99	3.99										
No. of Units			17	17	14	10	10										
Total Capacity	MVA		14,478	14,647	15,561	16,110	16,331	664	1,265	1,265	365	998	1,331	498	748	1,648	1,050
16b. Substation Capacity, MVA (Upgrading)			(CUMULATIVE TOTAL)					(ANNUAL)									
Transformer Capacity, 100 and up	MVA																
No. of Units																	
Transformer Capacity, 50 and less than 100	MVA		66.67	83.33	83.33	83.33	50.00					83.00					
No. of Units			2	1	1	1	1					1					
Transformer Capacity, 25 and less than 50	MVA				32.00				33.00							33.00	
No. of Units					1				1							1	
Transformer Capacity, 10 and less than 25	MVA					20.00											
No. of Units						1											
Transformer Capacity, less than 10	MVA																
No. of Units																	
Total Upgrading	MVA		133	83	115	103	50	0	33	0	0	83	0	0	0	33	0
16c. Substation Capacity, MVA (Retirement/Stanby)			(CUMULATIVE TOTAL)					(ANNUAL)									
Transformer Capacity, 100 and up	MVA			133.33	133.33	150.00											
No. of Units				1	1	1											
Transformer Capacity, 50 and less than 100	MVA			83.33	83.33	83.33											
No. of Units				2	3	1											
Transformer Capacity, 25 and less than 50	MVA		32.00	33.33	33.33		32.00					33.00	33.00				
No. of Units			1	1	1		1					1	1				
Transformer Capacity, 10 and less than 25	MVA		12.50	15.80		14.31		15.63	12.50	16.50	12.50	12.50	16.17	15.80	16.25		
No. of Units			2	5		6		8	1	6	2	2	9	5	8		
Transformer Capacity, less than 10	MVA		0.83		6.67	6.46	0.83		4.00				5.00	7.00			
No. of Units			3		3	4	1		1				1	2			
Total Retirement	MVA		59	12	37	25	33	125	17	59	25	53	33	93	130	9	0

Forecast/Planning Results	Units	Historical					Forecast									
		2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
		(CUMULATIVE TOTAL)					(ANNUAL)									
17. Reactive Power Compensation Plan																
17a. Reactive Power Compensation Plan: Substation																
Reactive Capacity	MVAR	64.80	86.40	115.20	158.40	172.80	115.20	64.80	54.00	39.60	57.60	79.20	64.80	61.20	57.60	50.40
Rated Voltage	kV	34.5	34.5	34.5	34.5	34.5	34.5	13.8/34.5	13.8/34.5	13.8/34.5	13.8/34.5	34.5	34.5	13.8/34.5	13.8/34.5	34.5
Type of Equipment																
Shunt Inductor																
Shunt Capacitor		2 - 14.4	1 - 14.4		2 - 14.4	1 - 14.4	6 - 14.4	3 - 14.4	3 - 14.4	1 - 14.4	2 - 14.4	4 - 14.4	3 - 14.4	3 - 14.4	2 - 14.4	1 - 14.4
		5 - 7.2	1 - 7.2	4 - 7.2	2 - 7.2		4 - 7.2	2 - 7.2	1 - 7.2	3 - 7.2	3 - 7.2	3 - 7.2	3 - 7.2	2 - 7.2	3 - 7.2	5 - 7.2
								2 - 3.6	1 - 3.6	1 - 3.6	2 - 3.6			1 - 3.6	2 - 3.6	
Operation Control																
Fixed																
Variable																
Automatic		√	√	√	√	√	√	√	√	√	√	√	√	√	√	√
Manual																
17b. Reactive Power Compensation Plan: Distribution Line																
Reactive Capacity	MVAR	13.20	19.20	23.40	79.80	81.00	129.00	170.40	135.00	130.20	107.40	106.80	100.80	115.20	111.60	108.60
Rated Voltage	kV	20/34.5	20/34.5	20/34.5	20/34.5	20/34.5	20/34.5	20/34.5	20/34.5	20/34.5	20/34.5	20/34.5	20/34.5	20/34.5	20/34.5	20/34.5
Type of Equipment																
Shunt Inductor																
Shunt Capacitor		7 - 1.8	3 - 1.8	2 - 1.8	31 - 1.8		71 - 1.8	94 - 1.8	74 - 1.8	72 - 1.8	59 - 1.8	59 - 1.8	55 - 1.8	64 - 1.8	61 - 1.8	60 - 1.8
						1 - 1.2	1 - 1.2	1 - 1.2	1 - 1.2		1 - 1.2				1 - 0.6	1 - 0.6
		1 - 0.6	1 - 0.6	1 - 0.6	1 - 0.6				1 - 0.6	1 - 0.6		1 - 0.6	1 - 0.6			
Operation Control																
Fixed							√	√	√	√	√	√	√	√	√	√
Variable		√	√	√	√	√	√	√	√	√	√	√	√	√	√	√
Automatic																
Manual																

Forecast/Planning Results		Units	Historical					Forecast									
			2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
18. Capital Expenditures:			(CUMULATIVE TOTAL)					(ANNUAL)									
18a. Network Projects																	
Subtransmission (Acquisition/Expansion)								692.61	1,670.23	700.94	795.30	1,495.91	617.67	624.67	515.22	515.22	1,042.55
Local (in Million)	Peso							692.61	1,670.23	700.94	795.30	1,495.91	617.67	624.67	515.22	515.22	1,042.55
Foreign (in Million)	Peso																
Subtransmission (Rehabilitation/Upgrading)								74.67	234.01	102.87	508.29	37.43	487.73	85.42	313.60	341.37	79.62
Local (in Million)	Peso							74.67	234.01	102.87	508.29	37.43	487.73	85.42	313.60	341.37	79.62
Foreign (in Million)	Peso																
Distribution (Expansion)								4,239.27	4,898.10	4,723.65	4,372.28	4,391.20	4,097.77	4,158.61	3,999.71	3,838.21	3,828.04
Local (in Million)	Peso							4,239.27	4,898.10	4,723.65	4,372.28	4,391.20	4,097.77	4,158.61	3,999.71	3,838.21	3,828.04
Foreign (in Million)	Peso																
Distribution (Rehabilitation/Upgrading)								2,794.99	6,449.22	4,849.07	5,230.87	5,537.49	4,313.31	4,673.14	4,838.61	4,850.98	4,811.30
Local (in Million)	Peso							2,794.99	6,449.22	4,849.07	5,230.87	5,537.49	4,313.31	4,673.14	4,838.61	4,850.98	4,811.30
Foreign (in Million)	Peso																
Substation (Additional)								3,222.88	2,909.54	2,889.07	1,480.52	2,221.81	4,297.37	2,082.58	2,224.39	4,575.67	2,410.53
Local (in Million)	Peso							3,222.88	2,909.54	2,889.07	1,480.52	2,221.81	4,297.37	2,082.58	2,224.39	4,575.67	2,410.53
Foreign (in Million)	Peso																
Substation (Upgrading)									191.52		77.41	248.99				64.23	
Local (in Million)	Peso								191.52		77.41	248.99				64.23	
Foreign (in Million)	Peso																
Substation (Retirement/Stanby)									46.44				46.44				
Local (in Million)	Peso								46.44				46.44				
Foreign (in Million)	Peso																
Electrification																	
Local (in Million)	Peso																
Foreign (in Million)	Peso																
Other Network Assets								1,566.45	2,839.31	2,650.40	1,748.81	2,211.43	1,799.00	1,634.57	1,476.91	1,572.28	1,769.78
Local (in Million)	Peso							1,566.45	2,839.31	2,650.40	1,748.81	2,211.43	1,799.00	1,634.57	1,476.91	1,572.28	1,769.78
Foreign (in Million)	Peso																
18b. Non-network Projects																	
Property/Equipment/Others								2,360.72	4,249.37	3,561.97	3,312.11	4,075.28	4,119.85	3,770.26	4,102.37	4,353.77	3,513.35
Local (in Million)	Peso							2,360.72	4,249.37	3,561.97	3,312.11	4,075.28	4,119.85	3,770.26	4,102.37	4,353.77	3,513.35
Foreign (in Million)	Peso																
Grand Total: (18a+18b)			9,263.66	8,078.27	8,852.17	8,316.58	6,791.47	14,951.60	23,487.74	19,477.97	17,525.59	20,219.53	19,779.14	17,029.25	17,470.82	20,111.74	17,455.16
Local (in Million)	Peso		9,263.66	8,078.27	8,852.17	8,316.58	6,791.47	14,951.60	23,487.74	19,477.97	17,525.59	20,219.53	19,779.14	17,029.25	17,470.82	20,111.74	17,455.16
Foreign (in Million)	Peso																

Note: Breakdown of 2014 CAPEX per RDWR Asset Category can be found in Appendix 2.

19. Information on Distribution Impact Study Made

Therma Mobile, Inc. (TMO) - 242 MW Diesel Power Plant - Jan 2012 - Navotas Fish Port Complex, North Harbor, Navotas, Metro Manila
Maibarara Geothermal, Inc. (MGI) - 40 MW Steam Turbine - Sep 2012 - Brgy. San Rafael, Sto. Tomas, Batangas
Alternergy Wind One Corporation (AWOC) - 67.5 MW Wind Turbine - Aug 2011 - Sitio Bugarin, Brgy. Halayhayin, Pililla, Rizal
Calamba Aero Power Corporation (CAPC) - 172 MW Diesel Power Plant - July 2011 - Carmelray Industrial Park II (CIP II), Brgy. Punta, Calamba, Laguna
United Pulp and Paper Co., Inc. (UPPC) - 30 MW Combined Heat & Power PP - April 2011 - km 48 Iba Este, Calumpit, Bulacan
JG Summit Petrochemical Corporation (JGSPC) - 81.75 MW Diesel Power Plant - May 2013 - Brgy. Simlong, Batangas City, Batangas
Nestlé Cabuyao - 15.34 MW - April 2013 - Brgy. Niugan, Cabuyao, Calamba, Laguna
San Miguel Yamamura Asia Corp. - 8.2 MW - Oct 2012 - km 27 Aguinaldo Highway, Anabu II, Imus, Cavite
Air Liquide Pipeline Utilities Services, Inc. - 13 MW - May 2012 - Calamba Premiere Industrial Park (CPIP), Calamba, Laguna
Pag-Asa Steel Works, Inc. - 22 MW - March 2012 - Sandoval Ave., Nagpayong, Brgy. Pinagbuhatan, Pasig City
Trusty Steel Plant - 55 MW - Feb 2012 - Mountview Industrial Complex, Carmona, Cavite
Midland Steel Corporation - 20.3 MW - Dec 2012 - St. Anthony Subdivision, Brgy. San Juan, Cainta, Rizal
Metrodragon Steel Corporation - 40 MW - Dec 2011 - MGM Industrial Compound, Caloocan City
Solid Cement - 15.9 MW - Jun 2013 - Teresa, Rizal
Eagle Cement (Part 1) - 6.1 MW - Jul 2013 - Brgy. Akle, San Ildefonso, Bulacan
Eagle Cement (Part 2) - 60 MW - Nov 2013 - Brgy. Akle, San Ildefonso, Bulacan
Pilipinas Shell Petroleum Corporation - 44.3 MW Diesel Power Plant - Dec 2013 - Ambulong, Tabangao, Batangas City, Batangas
LNG Batangas Early Power - 120 MW - Feb 2014 - Bgy. Tabangao, Batangas City, Batangas
Alternergy Sembrano Wind Corporation - 72 MW - May 2014 - Bgy. Niogan, Pililla, Rizal
Metrodragon Steel Corporation (MSC) and ANK Steel Corporation - 60 MW - May 2014 - Sitio Gitna, Kaybiga, Caloocan City
LNG Batangas Early Power (Addendum) - 72 MW - Sep 2014 - Bgy. Tabangao, Batangas City, Batangas
Calamba Aero Power Corporation (CAPC) (Re-study) - 144 MW Diesel Power Plant - Oct 2014 - Carmelray Industrial Park II (CIP II), Brgy. Punta, Calamba, Laguna
Millenium Energy, Inc. - 310 MW Diesel Power Plant - Nov 2014 - Navotas Fishport Complex
Solar Philippines Commercial Rooftop Projects, Inc. - 21 MW Solar Power Plant - Nov 2014 - Asia Brewery, Cabuyao, Laguna
Asia Brewery, Inc. - 24 MW Diesel Power Plant - Dec 2014 - Asia Brewery, Cabuyao, Laguna
Daekyung Enertech, Inc. - 125 MW Combined Heat Power Plant - Feb 2015 - San Pascual, Batangas
Montalban Methane Power Corporation - Montalban Methane Recovery and Electricity Generation CDM Project - May 21, 2007 - Rodriguez, Rizal
FR Cement Corporation - Synchronization of Priority Loads
CIP II Power Corporation - 21 MW Diesel Power Plant - June 23, 2009
Bacavalley Energy Inc. - 4 MW San Pedro Landfill Methane Recovery and Electricity Generation Project - April 7, 2010 - Brgy. San Antonio, San Pedro, Laguna
Transnational Renewable Energy Corporation - 200 kW NYK - TDG Maritime Academy Solar Power Plant - October 25, 2011 - Canlubang, Calamba City, Laguna
First Philec Solar Solutions - 2 MW PV Power Plant (PV Depot) - August 1, 2011 - Brgy. Maguyam, Silang, Cavite
Pangea Green Energy - 1 MW Waste-to-Energy Power Plant - January 24, 2012 - Brgy. Payatas, Quezon City
First Philec Solar Solutions - 3 MW PV System in First Philec Solar Corp. - August 1, 2012
Solid Cement Corporation - 34.5 kV Interconnection Parallel Operation of a 6MW Waste Heat Recovery System - January 29, 2014 - Sitio, Tagbak, Brgy. San Jose, Antipolo City Rizal
ATN Philippines Solar Energy Group Inc. (ATN) - 34.5 kV Interconnection 30 MW Solar PV Project - December 26, 2013 - Barangay Macabud, Rodriguez, Rizal
Solar Philippines Commercial Rooftop Projects, Inc. - 700.47 kW Central Mall Biñan (Load Displacement) Solar Generator Project - July 1, 2014 - Malvar St., Corner National Highway, Biñan City, Laguna
Solar Philippines Commercial Rooftop Projects, Inc. - 1.22 MW SM North EDSA Solar Project - July 14, 2014 - SM City North EDSA, Quezon City
Royal Cargo Combined Logistics, Inc. - 205 kW Solar PV Project (Load Displacement) - October 2014 - Star Avenue, Laguna International Industrial Park, Mamlasan, Biñan City, Laguna
Solar Philippines Commercial Rooftop Projects, Inc. - 800 kW SM Dasmariñas Solar Generator Project - December 3, 2014 - SM Dasmariñas, Cavite

Solar Philippines Commercial Rooftop Projects, Inc. - 9,720 kW Asia Brewery Inc. Solar Project - February 5, 2015 - Km 43 National Highway, Brgy. Sala, Cabuyao, Laguna
Solar Philippines Commercial Rooftop Projects, Inc. - 6,080 kW Yazaki-Torres Manufacturing Inc. Solar Project - March 4, 2015 - Brgy. Makiling, Calamba, Laguna
Solar Philippines Commercial Rooftop Projects, Inc. - 2,215 kW SM Mall of Asia Solar Project - March 4, 2015 - March 4, 2015 - SM Mall of Asia, Pasay City
Majayjay Hydropower Company, Inc. - 2,760 kW Majayjay Hydropower Project - March 16, 2015 - Brgy. Ilayang Banga, Majayjay, Laguna

20. Supply Demand Highlights

Total energy sales for 2014 reached 33,649 GWh, 2.8% higher than 2013 levels. The main growth driver was the commercial segment. Consumption growth was hampered by lower average temperature in the first quarter of the year, and the weather disturbances that affected the franchise area, specially typhoon Glenda in July. The said typhoon destroyed distribution and transmission facilities that led to extended period of load dropping. The number of Meralco customers increased by 3.9% in 2014. With regards to forecasted sales, average growth rate from 2015 to 2024 is projected at 3.7%, while customers count is forecasted to increase at an average of 3.0%. The supply outlook for MERALCO during the long-term 2015-2024 is the result of its franchise demand growth rate, load contestability implementation by ERC and expiration of its existing PSAs and PPAs power supply contracts. Reduction in MERALCO's contracted capacities starts at around 2017 when its PSA with TMO expires, followed by the termination of its PSA with SEM-Calaca by end of 2018. The remaining PSAs with AES-Masinloc, SMEC-Sual, SPPC-Ilijan and TLI-Pagbilao will all expire by end of 2019, while its PPAs with FGPC-Sta Rita and QPPL will terminate on 2025 and that with FGP-San Lorenzo on 2027. Note that the said PSAs may be extended up to additional term of 3 years upon mutual agreement by parties, otherwise, the supply requirement of MERALCO is expected to increase starting 2017.

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ANNEX 1: CAPEX PROJECTS

MERALCO

YEAR 2015 - 2024

YEAR 2015 - 2024							TIMELINE									
PROJECT TYPE	PROJECT CATEGORY	PROJECT			TOTAL PROJECT COST											
		NAME	DESCRIPTION	START DATE		COMPLETION DATE	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Capacity	Substation (Additional)	Expansion of Tutuban 115 kV - 34.5 kV GIS Substation (3rd Bank)	Installation of 1-83 MVA power transformer with associated SCADA and protective equipment as well as appurtenant distribution lines.		2015	267,132,674	267,132,674									
Capacity	Substation (Additional)	Development of Oila 115 kV - 34.5 kV Substation	Installation of 1-83 MVA power transformer with associated SCADA, communication and protective equipment as well as appurtenant subtransmission and distribution lines.		2015	316,910,064	316,910,064									
Capacity	Substation (Additional)	Development of PAGCOR-1 115 kV-34.5 kV GIS Substation (1st and 2nd bank)	Installation of 2-83 MVA power transformer with associated SCADA, communication and protective equipment as well as appurtenant subtransmission and distribution lines.		2015	1,155,933,717	1,155,933,717									
Capacity	Substation (Additional)	Expansion of FBGC-4 115 kV- 34.5kV GIS Substation (2nd Bank)	Installation of 1-83 MVA power transformer with associated SCADA and protective equipment as well as appurtenant distribution lines.		2015	253,529,269	253,529,269									
Capacity	Substation (Additional)	Development of Banawe 115 kV - 34.5 kV GIS Substation	Installation of 1-83 MVA power transformer with associated SCADA, protective and communication equipment as well as appurtenant subtransmission and distribution lines.		2015	577,155,420	577,155,420									
Capacity	Substation (Additional)	Installation of 34.5kV Metalclad Switchgear at Dasmarinas 83MVA Transformer owned by Meralco	Installation of 34.5 kV metalclad switchgear, 7.2 MVAR capacitor bank with associated SCADA and protective equipment as well as construction of two (2) additional feeders.		2015	68,161,085	68,161,085									
Capacity	Substation (Additional)	Installation of 34.5kV Metalclad Switchgear at LUP 3rd 83MVA Power Transformer	Installation of 34.5 kV metalclad switchgear, 7.2 MVAR capacitor bank with associated SCADA and protective equipment as well as construction of two (2) additional feeders.		2015	48,085,691	48,085,691									
Capacity	Substation (Additional)	Expansion of Madaya 115 kV- 34.5 kV Substation (2nd Bank)	Installation of 1-83 MVA power transformer with associated SCADA and protective equipment as well as appurtenant distribution lines.		2015	214,620,971	214,620,971									
Capacity	Substation (Additional)	Expansion of Bagbaguin 115 kV - 34.5 kV Substation (2nd Bank)	Installation of 1-83 MVA power transformer with associated SCADA and protective equipment as well as appurtenant distribution lines.		2015	162,580,219	162,580,219									
Capacity	Substation (Additional)	Development of Silo Ginas 115 kV Switching Station	Installation of 115 kV subtransmission lines with associated SCADA and protective equipment.		2015	154,091,344	154,091,344									
Capacity	Substation (Additional)	Development of Malacahang 115 kV-34.5 kV GIS Substation	Installation of 1-83 MVA power transformer with associated SCADA, protective and communication equipment as well as appurtenant subtransmission and distribution lines.		2016	435,788,536	435,788,536									
Capacity	Substation (Additional)	Installation of 34.5kV Metalclad Switchgear at NGCP-San Jose 83MVA Power Transformer	Installation of 34.5 kV metalclad switchgear, 7.2 MVAR capacitor bank with associated SCADA and protective equipment as well as construction of two (2) additional feeders.		2016	63,122,506	63,122,506									
Capacity	Substation (Additional)	Expansion of Tabang 69 kV- 13.8 kV Substation (2nd Bank)	Installation of 1-33 MVA power transformer with associated SCADA and protective equipment as well as appurtenant distribution lines.		2016	162,062,948	162,062,948									
Capacity	Substation (Additional)	Development of Lucena 115 kV 34.5 kV Substation	Installation of 1-83 MVA power transformer with associated SCADA, communication and protective equipment as well as appurtenant subtransmission and distribution lines.		2016	478,911,544	478,911,544									
Capacity	Substation (Upgrading)	Upgrading of San Miguel 20 MVA Power Transformer Bank no. 1 to 33 MVA Power Transformer	Installation of 1-33 MVA power transformer with associated SCADA and protective equipment.		2016	58,348,803	58,348,803									

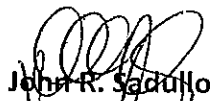
ANNEX “V”

See Confidential Documents

Additional Information Re: Net Heat Rate, Potential Cost, and MEOT

Applicant St. Raphael Power Generation Corporation's ("SRPGC") 2x350MW Pulverized Coal-fired Power Plant is targeted to attain commercial operations by 2021. Prior to the construction and commissioning of the Power Plant, Applicant SPRGC is unable to provide a certification on the net heat rate, and the Potential Cost (absolute amounts and PhP/kWh) of Ancillary Services.

Further, there is no the Minimum Energy Off-take ("MEOT") under the Power Supply Agreement dated 26 April 2016 subject of the present Application.



John R. Sadullo
*Authorized Representative/
Attorney-in-fact*

St. Raphael Power Generation Corporation

Date : April 27, 2016

**PROCUREMENT PROCESS
LEADING TO THE EXECUTION OF THE POWER SUPPLY AGREEMENT (PSA)
BETWEEN MANILA ELECTRIC COMPANY (MERALCO)
AND ST. RAPHAEL POWER GENERATION CORPORATION (SRPGC)**

In the latter part of 2014, SRPGC discussed with Manila Electric Company (MERALCO) for an execution of a Power Supply Agreement. In a letter dated March 17, 2015, SRPGC presented its proposed terms of reference to MERALCO for the execution of a PSA.

Thereafter, a series of meetings transpired between the Parties as they negotiated the terms and conditions of the PSA, including the Price.

Following extensive negotiations, on April 26, 2016, the Parties executed the PSA for the purchase of Contract Capacity and Associated Energy from the 2 x 350 MW (rated) coal-fired power plant which SRPGC intends to construct, own, operate, manage and maintain in Calaca, Batangas

ANNEX " Y "

Demand-Side Management Plan

submitted to

Energy Regulatory Board

Philippines

by

MERALCO

PASIG CITY, MANILA

with assistance from

Resource Management International

and

SRC International Pty Ltd

December 1997

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EXECUTIVE SUMMARY

5 (i) 3

Introduction

In December 1996, the Energy Regulatory Board (ERB) approved the Framework for Demand Side Management (DSM) in the Philippines, in compliance with Section III of the Department of Energy (DOE) Circular No: 95-08-007 as amended per ERB Case No: 96-25. Under the framework, each distribution utility was required to submit a DSM Plan within one year from the effective date. This DSM Plan by Manila Electric Company (MERALCO) is in compliance with the requirements of the DSM framework.

MERALCO was one of the four utilities selected, under the USAID funded Philippines Demand Side Management Project, for case study DSM Plans with external assistance. This DSM Plan was prepared by MERALCO with assistance from the consultants appointed for the task, SRC International (SRCI) from Melbourne, Australia as sub-consultants to Resource Management International (RMI).

Utility Overview

MERALCO is the largest electricity distribution company in the Philippines. Its sales account for approximately 60% of national electricity consumption. It has a franchise area covering 9 328 km², including 14 cities and 97 municipalities in Metro Manila, Bulacan, Rizal, and Cavite, parts of Laguna, Quezon, and Batangas, and 14 barangays in Pampanga. This franchise area is responsible for 50% of the national Gross Domestic Product (GDP), 30% coming solely from Metro Manila. It has approximately 8 000 employees spread throughout its 35 branches and operating centers.

At present, MERALCO has just over 3 million customers, growing at a compounded annual rate of 6%. The residential sector is by far the largest accounting for 90.5% in 1996. The remaining 10% consists of commercial, industrial and street lighting customers. Of MERALCO's total energy sales, industrial customers, even though small in number, account for one-third of total sales. The remaining two thirds are shared almost equally by commercial and residential customers. Electrification level in the franchise area is 92 percent.

In February, 1995, the Energy Regulatory Board (ERB) authorized the National Power Corporation (NPC) to implement a new power rate schedule in the Luzon grid. This Order also directed all NPC utility customers to restructure their rates based on NPC's approved rate schedule. MERALCO's application for rate restructuring was granted a provisional approval in March, 1997. The subsequent effect on its customers' billings were made starting April 1, 1997. The new rate structure now provides an incentive for more efficient electricity

utilization not only on the bulk sale or generation level but as well as on the retail level.

The new rate structure provides incentives for customers to improve load factor. Only those with demand meters, namely, the Industrial and Non-Industrial customers which accounted for more than 60% of total sales felt the impact of the restructuring. A customer with a load factor higher than 36.6% will experience a decline in the average rate while a customer with a load factor lower than 36.6% will be adversely affected with an increase in its rate. Demand-Side Management programs directed to this group of customers will also help cushion the impact of the restructuring.

DSM Objectives

The proposed Omnibus Electric Industry Bill will create fundamental changes in regulation of electric utilities as well as the industry structure itself. Initially, there will be competition in the wholesale market and will eventually move towards retail competition.

In order to face the challenges and new market conditions, MERALCO will focus on the needs of its customers. Our mission is to serve our customers by providing efficient, adequate and reliable electric service at reasonable cost. Improving customer service is considered to be MERALCO's primary objective of Demand Side Management (DSM).

It has established the "account management" approach and taken more aggressive DSM activities with its customers. It is within this environment that DSM can be offered to customers as a package of services aimed at providing solutions to customers' needs.

MERALCO has undertaken a program of continuous system upgrading to improve the quality and reliability of the electricity delivered to the customers. It believes that through efficiencies and productivity gains, lower price of electricity can also be achieved.

Programs and Activities Selected

A total of eight programs and supporting activities were selected for implementation over the first two years of the Plan. Most programs will be undertaken initially on a pilot scale and cover all the customer sectors. The following programs have been selected:

1. Compact Fluorescent Lighting Program — promotion of CFLs through trade allies and offering incentives for repayment in instalments through electricity bills;
2. Green Buildings Program — pilot energy efficiency program in a shopping mall and an office building using an EAP;
3. Industrial Efficiency Program — customer service and advisory services through an ESCO to discourage self-financing.

4. Industrial Demonstration Program — demonstration of high efficiency motors, variable speed drives and efficient lighting;
5. Power Factor Correction Program — installation of capacitor banks to improve power factor;
6. Load Factor Improvement Program — promotion of cost-effective opportunities for load management and energy efficiency improvement, regardless of the end use; and
7. Streetlight Conversion Program — replacement of Mercury Vapor (MV) lamps with High Pressure Sodium (HPS) vapour lamps.

In addition, the following supporting activity was selected:

8. Load Research — to develop an end-use load shape database for estimating end-use demand and designing and evaluating DSM programs.

Several programs have already been commenced by MERALCO, namely the Green Buildings, Industrial Efficiency and Street Lighting Programs.

Cost Effectiveness

Proposal for Cost Recovery

Implementation

Considering the available resources, of the eight programs that have initially been identified, MERALCO proposes to undertake seven DSM programs in the first year (1998) and the remaining program will commence in the second year (1999). The second year (1999) would also include continuation of some of the programs undertaken in 1998.

The following programs have been scheduled to be implemented in 1998:-

- Compact Fluorescent Lighting Program
- Green Buildings Program
- Industrial Efficiency Program
- Industrial Demonstration Program
- Power Factor Correction Program
- Load Factor Improvement Program
- Streetlight Conversion Program

The Green Buildings and Industrial Efficiency Programs will be

ESCO has been included in the schedule. The programs will be subject to an evaluation at the end of the year and based on the outcomes, a decision to cease, modify or continue the programs will be made.

In addition to programs from 1998 that continue, the following activities are scheduled to be implemented in 1999 :-

- Load Research
- Major Program Review

The major program review would include all nine programs and the outcomes will be included in the revised plan to be filed for 2000 onwards.

Monitoring and Evaluation

All programs will be monitored throughout and evaluated upon completion, except in the case of the CFL Program which would be also evaluated midway when any revisions to program delivery would be made. As required by the DSM Framework the programs will also be subject to an annual evaluation.

The outcome of the major program review will be included in the revised plan for 2000 onwards.

1. UTILITY SITUATION / BACKGROUND

1.1 Overview of the Company

History

The Manila Electric Railroad and Light Company, forming the acronym "MERALCO", was established in 1903. That year, the Municipal Board of Manila granted to Charles M. Swift of Detroit a franchise "to operate an electric street railway service and to furnish electric current for light, heat and power in the city and its suburbs for a period of fifty years." The MERALCO tranvia or electric streetcar was inaugurated in 1905.

Although better known in earlier years for its transportation service, MERALCO also established its electric service. It bought the La Electricista in 1904. In 1919, the Manila Electric Railroad and Light Company and its affiliate, the Manila Electric Suburban Railways Company, merged to form the Manila Electric Company. Although the acronym MECO was more accurate, MERALCO was what the Company was called and continues to be called to this day.

When MERALCO became part of the US-based giant Associated Gas and Electric System in 1925, the Company expanded services to municipalities in Rizal and other parts of Luzon mainly by purchasing the franchises and plants of the small provincial electric companies.

The Botocan hydrostation in Majayjay, Laguna was built by MERALCO and added to the generating system in 1930 to meet the growing demand. It was the country's first hydroelectric plant and was probably the largest construction project in the country of its time. The 55-mile long 115 000-volt transmission line linked the new plant with the equally new substation in Sta. Mesa.

MERALCO's electric service area eventually covered, aside from Manila, 94 municipalities in 13 provinces in Luzon: Rizal, Bulacan, Laguna, Cavite, Tayabas, Pangasinan, Tarlac, Nueva Ecija, La Union, Batangas, Camarines Sur, Albay and Sorsogon. Except for the towns in the first five provinces which were linked to the integrated "Manila system" fed by Blasdel and Botocan stations, the provincial areas were served by separate relatively small diesel plants.

In October 1945, just after the war, the 10 000 kW unit at the Caliraya hydroelectric station was in operation and connected to the Manila system. On November 1, 1945, MERALCO resumed operations after the US Army returned all its property. Over the next few years, the

the provincial areas served by isolated diesel generating plants and concentrating on the integrated Manila system. This system over the next few years included 40 cities and municipalities from as far north as Malolos to as far south as Lucena in Quezon province.

In May 1943, the Company sold its 122 buses to Fortunato Halili. This brought to a close four decades of MERALCO's transportation service.

MERALCO's efforts at rebuilding and expanding its electric system made the country's postwar and post-independence industrialization efforts possible. In 1959, MERALCO was supplying all its customers with more than four times as much electric energy as 1949. Residential and commercial customers were consuming about three times as much, but the industrial sector was consuming about 13 times as much.

During the Martial Law regime, Presidential Decree No. 40 declared it an ultimate objective of the state that the government-owned NPC should own and operate a single integrated system of all generating facilities supplying power to the entire area embraced by any grid set up by NPC. Eventually by 1979, MERALCO sold all its generating plants to NAPOCOR, with the exception of Rockwell Station. From then on, MERALCO became mainly a distributor of electricity purchased in bulk from NAPOCOR. A newly established MERALCO Foundation eventually became the sole owner of MERALCO common stock in 1977.

A revival of the MERALCO tranvia took place in 1984 when Manila's elevated Light Rail Transit (LRT) began plying its first route from Caloocan City to Baclaran.

After the Edsa Revolution, control of the company was regained by the Lopezes. Mr. Manuel Lopez, son of Don Eugenio was appointed president of the company and remains in that position up to the present.

MERALCO Today

Today, MERALCO is the largest electricity distribution company in the Philippines. Its sales account for about 60% of national electricity consumption. It has a franchise area covering 9 328 km², including 14 cities and 97 municipalities in Metro Manila, Bulacan, Rizal, and Cavite, parts of Laguna, Quezon, and Batangas, and 14 barangays in Pampanga. This franchise area is responsible for 50% of the national Gross Domestic Product (GDP), 30% coming solely from Metro Manila.

At present, MERALCO has 3 million customers growing at a compounded rate of 6% annually. About 90% of these customers belongs to the residential sector. The remaining 10% consists of commercial and business establishments, industries and street-vending customers. Of MERALCO's total energy sales, industrial customers, even though small in number, account for approximately 10% of the total.

remaining two thirds are shared almost equally by commercial and residential customers. Electrification level in the franchise is 92 percent.

In 1996, MERALCO ranked as the second biggest company in the country, next only to the National Power Corporation, in terms of gross revenues. During this year, it was also awarded as the Best Managed Company in the Philippines by the Asiamoney Magazine.

Through strategic alliances and subsidiaries, the Company has diversified into power generation, business reengineering and information technology consultancy, and real estate development. Its core business, however, remains to be electric distribution. It has approximately 8 000 employees spread throughout its 35 branches and operating centers.

1.2 Overview of Operational Issues

Rate Restructuring

In an order dated February 27, 1995, the Energy Regulatory Board authorized the National Power Corporation to implement a new power rate schedule in the Luzon grid. This Order also directed all NPC utility customers to restructure their rates based on NPC's approved rate schedule.

MERALCO's application for rate restructuring followed NPC's restructuring and was granted a provisional approval in March 26, 1997. The subsequent effect on its customers' billings were made starting April 1, 1997.

Prior to the implementation of the new rate structure, NPC's billing to MERALCO was on a straight energy basis which did not provide any signal on the expensive nature of generation capacity nor any incentive for higher capacity utilization. Consequently, MERALCO's Generation Charge, that component of the bill which recovers purchased power cost, was also purely energy charge. Thus, MERALCO's previous generation charge hardly provided any incentive towards economic efficiency through the promotion of high load factor.

With the rate restructuring, MERALCO's bill also shifted to a simpler format consisting of the following components: Basic Charge, Currency Exchange Rate Adjustment and the Purchased Power Adjustment (PPA). The Basic Charge incorporates the Generation and Distribution Charges, the portion of the bill which recovers MERALCO's cost of operating and maintaining its distribution system. The PPA will capture any change in the purchased power cost incorporated in the basic charge.

The impact of MERALCO's rate restructuring differed depending on the customer's load factor. However, customers with no demand meters were not affected by the restructuring. Only those with demand meters, namely, the Industrial and Non-Industrial customers which accounted for more than 60% of total sales felt the impact of the restructuring. A customer with a load factor higher than 36.6% will experience a decline in his average rate while a customer with a load factor lower than 36.6% will be adversely affected with an increase in its rate.

Taking note of the implication of the restructuring on low load factor customers, the restructuring was undertaken in three steps over a period of 18 months, with the full impact to be felt on April 1, 1998. Demand-Side Management programs directed to these group of customers will also help cushion the impact of the restructuring.

The new rate structure now provides an incentive for more efficient capacity utilization not only on the bulk sale or generation level but as well as on the retail level.

1.3 Customer Mix

In 1996, MERALCO had a total of 2 869 532 consumers. The consumers are categorised into six customer segments, namely, Residential, Commercial, Industrial, Government Hospitals & Metered Streetlighting and Flat Streetlighting Service. The Residential segment is by far the largest segment and account for 90.5% of the total consumers. The Commercial category is the second largest accounting for 8.9% of the total consumers, followed by Industrial consumers (0.5%) and Other (0.1%). Shown below in Table 1 is the actual number of connections per customer classification and its corresponding kWh consumption for 1996.

Customer Classification	No. of Connections	% of Total	MWh Consumption	% of Total
Residential Customer	2 596 687	90.5%	5 975 800	33.6%
Commercial Customer	255 640	8.9%	5 805 100	32.6%
Industrial Customer	13 073	0.5%	5 909 200	33.2%
Others	4 132	0.1%	120 400	0.7%
TOTAL	2 869 532		17 810 400	

Table 1 Customer Numbers and Consumption by Customer Class

1.4 Trends

1.4.1 Customers

The number of MERALCO customers has increased steadily over the past ten years at an averaging rate of 6% per year. This reflects aggressive franchise acquisitions as well as customer growth in the older franchise areas. Residential customers remained the fastest growing customer class followed by the commercial segment. In 1996, the number of

from commercial to industrial service was made, thus the 137.3% increase in industrial customers in that year. Figure 1 below shows the trend in customer numbers since 1987.

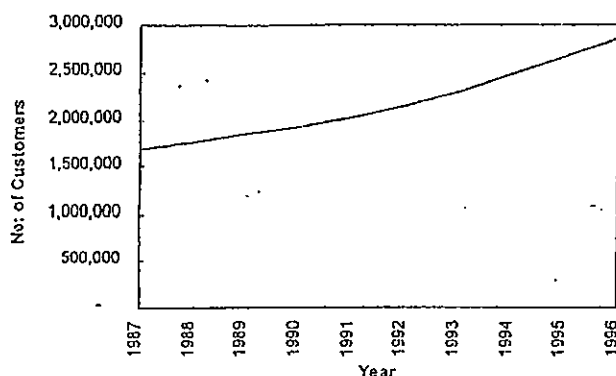


Figure 1 Historical Growth in Customer Numbers

1.4.2 Energy Sales

Energy sales have grown consistently at an average rate of 8.1% per year for the past ten years. However, growth in earlier years was only minimal, and exceptional growth had been registered only during the past three years. In 1994, total sales exhibited a high growth rate of 18.8%, due to recovery from the 1993 power crisis. The trends in historical sales is shown in Figure 2.

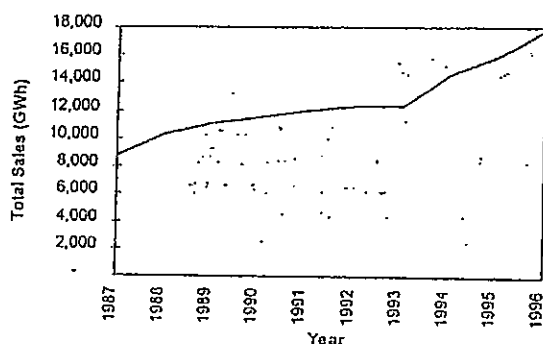


Figure 2 Historical Energy Sales

1.4.3 Peak Load

Peak load grew at an average of 6% every year. However, an exceptional increase of 12.4% was noted in 1994, again, because of the recovery from the power crisis. In 1996, another big increase, this time 10% was noted, reflecting the bullish economy experienced in 1996.

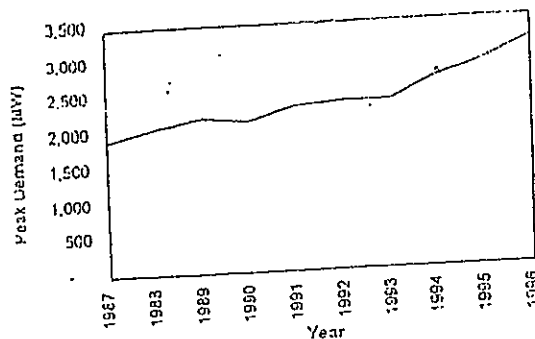


Figure 3 Historical Peak Load

6 d (i)-(iii)

2. LOAD FORECAST

Number of customers is forecast to increase by 8.3% in 1997, but after this, the customer count will slow down significantly to average about 1.7% per year growth rate. The slump is attributed to the end of the DAEP/REP² program of the company, which was actually the main source of significant growth rates in customer count in the past years. Consequently, the residential customer class will only grow by around 1.6% after 1997. Commercial customers are projected to show a tapered growth rate averaging 2.6% per year, while industrial customers are expected to increase by 3.9% per year as a result of the intensive campaign to industrial customers. The sales and demand forecasts are based on these customer growth projections.

5 (i) 1 b

2.1 Energy Sales and Demand

Energy sales is forecast to grow at an average of 8.5% every year for the next 15 years. As a consequence of the restructured rates, the industrial customer class is expected to grow faster compared to previous years. Commercial sales is also expected to grow faster at an average of 8.7% per year. In contrast, residential sales will only achieve minimal growth due to the poor incentives accorded by the restructured rates. As a result of these major developments, the share of residential sales to total sales is expected to decline to slightly below 30%, the excess being picked up mostly by industrial sales whose share is expected to increase to close to 40%.

Details of forecast energy sales in each customer class are given in the Appendixes (Section 5.1) and shown in Figure 4 below

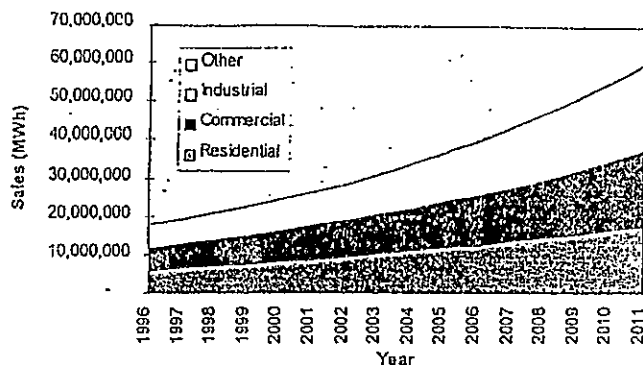


Figure 4 Electricity Sales Forecast (S/JW2)

Peak demand is projected to grow by an average of 8.2% per year. Hopefully, with load management efforts, the 10% growth rate in 1997 will slowly taper off to about 8% growth per year. In the year 2011, peak demand is projected to reach 10 554 MW.

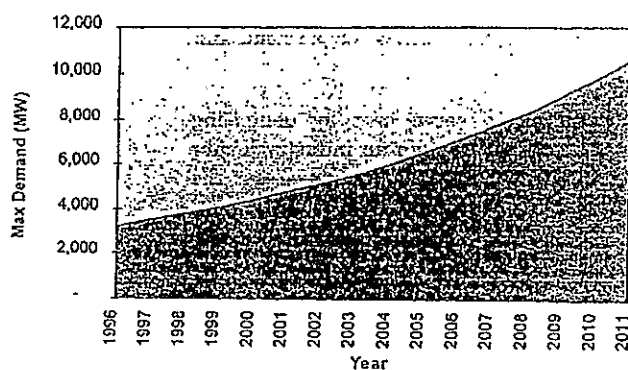


Figure 5 Electricity Demand Forecast

2.2 Overview of Alternative Forecasts_(S/JW3)

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This document proposes a set of pilot DSM programs before full-scale implementation, which is consistent with the DSM framework. Future loads which differ from the load forecast will have no effect on the pilot stage of the DSM programs. The main effect of future loads being different from those forecast is in the total magnitude of energy and demand savings available. Provided a DSM program can achieve a high enough level of participation to cover its fixed costs, variation of future loads from those forecast is not likely to be a significant problem. Alternative forecasts have therefore not been considered in this document.

3. OBJECTIVES

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3.1 Corporate Objectives

Company Philosophy

Service With Integrity

Company Vision

MERALCO aims to be a world class electric utility firm by year 2000 and to be among the best, if not the best, in the Asian region.

MERALCO is undergoing a self-initiated complete transformation of business processes, organization, corporate culture, information technology, telecommunications and facilities to be more customer-focused.

For its investors and shareholders, MERALCO will remain a blue-chip company of viable, long term investment. For employees, it will continue to be the best employer where opportunities for personal and professional growth thrive.

For customers, MERALCO is changing to serve best by delighting consumers. For the country, MERALCO will remain an industry leader and a responsible corporate citizen that fuels progress as the Philippines emerges as Asia's newest tiger economy.

Changes in Utility Regulation

The proposed Omnibus Electric Industry Bill pending in both Houses of Congress will create fundamental changes in regulation of electric utilities as well as the industry structure itself. Initially, there will be competition in the wholesale market, meaning competition among various sources of generation. This means distributors will have a choice of where to source their power requirements. The market will eventually move towards retail competition, which basically means that customers will have a choice of which provider they wish to source their power.

The basic directions of tariff regulations will be toward cost-reflective rates which will eliminate cross-subsidies. Charges will be unbundled. Meanwhile, wire charges and other charges for captive customers will continue to be regulated.

Being aware of the challenges and new conditions unfolding in the country's environment, MERALCO is seeking to be competitive in the market by focusing on what it considers the most important areas of business and the environment.

The focus is evident in the strategies the Company has been taking in all these years. First, is the continuous system upgrading to improve the quality and reliability of the electricity delivered to the customers. It is believed that through efficiencies and productivity gains, lower price of electricity can also be achieved.

The Company has been taking not only a very proactive stance but also a most innovative approach to this emerging market conditions. Aside from the system upgrading, it has established the "account management" approach and taken more aggressive demand-side management activities with its customers. It is within this environment that Demand-Side Management programs can be offered to customers as a package of services aimed at providing solutions to customers' needs. Through these value-added services, MERALCO is moving towards its vision of becoming a electric utility of the future: focused on service rather than the commodity or kWh, solutions-focused and dynamic in the development of new products and services.

Company Mission

Our mission is to serve our customers by providing efficient, adequate and reliable electric service at reasonable cost

Company Objectives

In fulfilment of this mission and guided by the Company philosophy, we shall pursue the following objectives:

1. We shall provide a quality of service within standards acceptable internationally.
2. We shall strive to bring the benefits of electrification to the greatest possible number of people and businesses within our franchise area.
3. We shall strive to seek and adopt a reasonable rate structure that would truly reflect the cost of providing the desired level of electric service.
4. We shall maintain adequate return to ensure our financial viability and standing in the business community.
5. We shall remain steadfast in our commitment to enhance the productivity of our resources.
6. We shall provide our employees with opportunities for professional growth and advancement on the basis of performance, integrity and loyalty to the Company

7. We shall provide our employees with just and reasonable compensation and benefits and attend to their personal well-being.
8. We shall uphold and maintain at all times high standards of business ethics. In our endeavors, we shall be guided primarily by the basic principle that the Company's interests and those of the public are complementary and inseparable.
9. We shall fulfil with dedication and commitment our social responsibilities.
10. We shall undertake, by ourselves and through subsidiaries, activities which support and complement our operations, enhance the use of our resources and contribute to the economic and social development of our country.

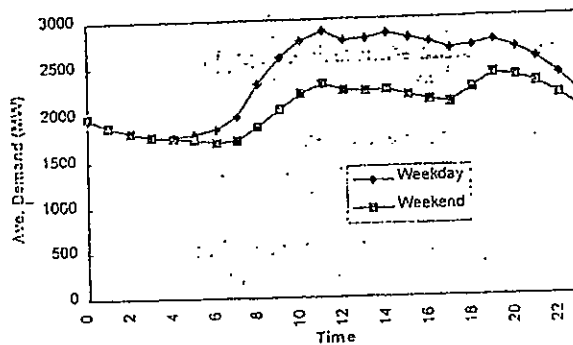
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3.2 DSM Objectives

3.2.1 Load-Shape Related Objectives

Typical system daily load profiles for the year 1996 is shown in Figure 6 below. The profile indicates a base load of around 1 600 MW and a peak period starting around 10 am and extending to around 9 pm.

Figure 6 Typical Daily Load Profiles in 1996



There are several DSM options that address specific load shape objectives. These include:

- peak clipping — the reduction of utility load primarily during periods of peak demand;
- valley-filling — the improvement of system load factor by building load in off peak periods;
- load shifting — the reduction of utility peak demand, while at the same time increasing the load during off peak periods.

periods. Load shifting typically does not substantially alter total electricity sales;

- conservation — the reduction of utility loads, more or less equally, during all or most hours of the day;
- load building — the increase of utility loads, more or less equally, during all or most hours of the day; and
- provision of a more flexible utility load shape — programs that set up utility options to alter customer energy consumption on an as-needed basis, as in interruptible / curtailable arrangements.

The DSM load shape objectives that are most appropriate for MERALCO in the short term are peak clipping and strategic conservation. Valley filling, load shifting, and flexible utility load shape may also be applicable to MERALCO as DSM load shape objectives in the medium term.

3.2.2 Non-Load-Shape Related Objectives [SNW4]

MERALCO's non-load-shape related objectives for DSM are consistent with the general corporate objectives. They include improving customer satisfaction by improving the quality of service to customers and improving the value for money that customers receive from their electricity service. In addition, DSM will help meet the objective of reducing the impact that electricity services have on the environment.

MERALCO's DSM strategies focus on the enhancement of customer service to manifest the Company's concern by providing service beyond the customers' electricity meter. Activities include visits to customers' sites to educate them on basic energy management and energy efficiency. The customer contact is also used to reach out to meet customers' needs and solve their problems. Eventually, DSM can be transformed into the provision of energy services tailored to customers' needs. MERALCO will be able to use Demand-Side Management programs to develop customer loyalty and thereby help the Company retain valuable customers as competition is introduced to the power industry. By showing genuine customer care, the Company is able to foster better relationships and consequently customer loyalty.

As an alternative to supply-side resources, DSM measures promoting energy efficiency have great potential for the reduction of greenhouse gas emissions. By helping customers to be more efficient in their energy use, less power generation is needed, leading to decreased or avoided emissions of carbon dioxide and other environmental externalities. In this way, MERALCO is able to contribute its share to preserving the natural environment and promoting sustainable development.

4. RECOMMENDED DSM OPTIONS, PROGRAMS & PLAN

4.1 Options / Technologies

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5 (i) 2 f & h
6 c

The system load profile indicates three peaks - two during daytime (11am and 2pm) caused by industrial / commercial sector activity and an evening peak with the residential sector being the main contributor. The daytime peak could be attributed primarily to the air conditioning load while the evening peak primarily due to lighting.

4.2 Rationale for selection of customer groups targeted

In order to achieve the DSM objectives, programs in all customer segments have to be targeted as their contribution to the system peak are at different periods. At present, there is only about 5% difference between the two peaks with the daytime peak being the greater in the weekdays and the evening peak being greater in the weekends. The large industrial customers appear to be the major contributors to the system base load considering their relatively flat load profile and 24 hour operation. Programs in this sector, primarily in efficient end use technologies, would also make a major contribution towards achieving the DSM objectives.

6 i

4.3 Programs

4.3.1 Overview

The following programs and activities have been selected and included in the Plan:

1. Compact Fluorescent Lighting Program
2. Green Buildings Program
3. Industrial Efficiency Program
4. Industrial Demonstration Program
5. Power Factor Correction Program
6. Load Factor Improvement Program
7. Streetlight Conversion Program
8. Load Research

Overview of Load Shape Objectives

The load shape objective/s of each of the proposed programs are outlined in Table 2. The detailed program descriptions in subsequent sections

Program	Load Shape Objective/s	Comments
Compact Fluorescent Lighting Program	Peak Clipping	The residential lighting end use load shape is highly coincident with the utility system peak, so improving the efficiency of this particular end use tends to reduce the system peak
Green Buildings Program	Peak Clipping & Strategic Conservation	Most commercial end uses are highly coincident with the daytime peak, so improving the efficiency of primarily air conditioning and lighting tends to reduce the system peak
Industrial Efficiency Program	Peak Clipping, Load Shifting & Strategic Conservation	Most Industrial customers operate 2 or 3 shifts and are major contributors to the system base load. Improving the efficiency of end uses primarily motors and drives, and load management will assist in reducing system peak.
Industrial Demonstration Program	Peak Clipping & Strategic Conservation	The end uses demonstrated are motors and lighting which contribute to the system peak
Power Factor Correction Program	Peak Clipping (kVA)	This program reduces apparent power (kVA) therefore reducing transformer capacity requirements and hence network capital costs for the same real power (kW) and therefore level of energy service.
Load Factor Improvement Program	Peak Clipping and Load Shifting	The introduction of more cost-reflective pricing will provide customers with low load factors to improve them. This program will help provide those customers with ways to respond to the price signal by decreasing their peak demand or increasing loads at other times or both.
Streetlight Conversion Program	Strategic Conservation	The street lighting end use load shape is highly coincident with the utility system peak, so improving the efficiency of this particular end use tends to reduce the system peak

Table 2 Customer Segments Targeted by the Programs

Overview of End Use Technologies

The end use technologies promoted by the programs are outlined in Table 3.

Program	End Use	"Base" Technology	"Desir" Technology	Table 3 Customer Segments Targeted by the Programs
Compact Fluorescent Lighting Program	Lighting	incandescent lamp	compact fluorescent lamp	
Green Buildings Program	All considered — site specific	Standard technologies and practices	Energy efficient technologies and improved practices	
Industrial Efficiency Program	All considered — site specific	Standard technologies and practices	Energy efficient technologies and improved practices	
Industrial Demonstration Program	Motors and lighting	Standard motors and Mercury Vapor lamps	High efficiency motors, variable speed drives and HP Sodium lamps	
Power Factor Correction Program	All	Financial penalties for low power factor	Capacitor banks to improve power factor	
Load Factor Improvement Program	All considered — site specific	Standard operation practices	Improved operation practices	
Streetlight Conversion Program	Lighting	High Pressure Mercury lamps	High Pressure Sodium lamps	

Overview of Customer Segments

The programs apply to the customer segments as indicated in Table 4.

Program	Residential	Commercial	Industrial	Other	Table 4 Customer Segments Targeted by the Programs
Compact Fluorescent Lighting Program	✓				
Green Buildings Program		✓			
Industrial Efficiency Program			✓		
Industrial Demonstration Program			✓		
Power Factor Correction Program		✓	✓		
Load Factor Improvement Program		✓	✓		
Streetlight Conversion Program				✓	
Load Research	✓	✓	✓		

4.3.2 Compact Fluorescent Lighting Program

Customer Segment Targeted

This program will be offered to residential and commercial customers

End Use and Technology

This program targets the lighting end use, which is a significant contributor to the MERALCO system peak during the evening. Compact Fluorescent lamps (CFLs) are able to provide the same light output as an incandescent lamp with considerably less energy input.

Key Barrier/s

In the medium term the energy savings from using a CFL in place of an incandescent lamp are greater than the higher cost of the incandescent lamp. However, not all residential customers who could use CFLs in place of incandescent lamps do so. Perhaps the main barrier to the use of CFLs is their high cost compared with the cost of a standard incandescent lamp. Other barriers may include:

- lack of customer awareness of the energy- and money-saving potential of CFLs;
- mistrust of the energy-saving and extended life information on the lamp packaging; and
- not "getting around to" purchasing a lamp.

Program Objective

This program aims to encourage customers to install compact fluorescent lamps (CFLs) to replace existing incandescent lamps, by providing customers with the lamp(s) and the opportunity to pay in instalments. One of the main barriers to the installation of CFLs is their high cost, compared with the cost of a standard incandescent lamp. Allowing customers to pay for the lamp in instalments, will help to overcome this barrier.

Program Description

A CFL uses approximately one-quarter the energy of a standard incandescent lamp, while providing equivalent lighting output. In addition, the life expectancy of a CFL is about eight times as that of a standard incandescent lamp. CFLs come in two types of ballasts - electro-magnetic and electronic. The electro-magnetic lamps are heavier but more robust and can withstand voltage fluctuations than the electronic lamps. This is an important consideration in the Philippines where power quality is an issue in most utilities.

There are several brands of electro-magnetic CFLs available in the Philippines, the most common being the Philips SL2000 series (13 W, 15 W, 21 W and 25 W) which are manufactured locally. In fact, the 21 W lamp is designed for a wide voltage tolerance (180 V to 260 V).

This program has been modelled on the basis that the customer purchases the CFLs from approved retailers and pay for the lamp in

a period of 18 months. MERALCO will reimburse the retailers at regular intervals.

The main features of the program are as follows:

- Lamp manufacturers will be requested to provide details of their range of CFLs - technical specifications, program price and warranty periods.
- MERALCO will prepare a list of CFLs that they wish to promote - based on power factor, suitability under supply conditions, cost and warranty provided. The warranty period need to be at least the duration of the repayment period.
- MERALCO will call for registration of interest from retailers wishing to participate in the program and select the retailers. Advice from the lamp manufacturers will be sought during this process.
- Agreement is reached with the retailers on the selling price of the selected CFLs - the aim will be to have the same selling price for all the CFLs under the program. The selling price would include MERALCO's administration and finance costs.
- The participating retailers will be briefed on the program elements - responsibilities, program duration, reimbursement procedures etc.
- Program details will be publicised in the media and formally launched. Co-financing of advertising by the lamp manufacturers will be considered.
- Customers will purchase CFLs from the approved retailers and sign an agreement to pay in instalments. Customers will be required to produce a copy of their electricity bill at the time of purchase for verification and inclusion of account details in the agreement. There will be a limit of 3 lamps per customer.
- The retailers will send the details of sales and copies of the customer agreements to MERALCO at regular intervals (once a month) for processing.
- MERALCO will send a letter of confirmation to the customer of the purchase and the date of inclusion of the first instalment in the customer's electricity bill.
- MERALCO will reimburse the retailers on the conditions specified under the MERALCO-Retailer Agreement.

- The program will initially run for a period of 3 months and evaluated. The program will then continue for another 3 months following any revisions to the original approach.

The costs associated with this program include:

- Set-Up Costs - Financing costs, Billing system modifications, retail staff training.
- Advertising - posters, media advertising
- Administration - coordination with lamp manufacturers and retailers, processing payments, monitoring, evaluation

4.3.3 Green Buildings Program

Customer Segment Targeted

This program targets large commercial buildings, including office buildings, retail shopping malls, hotels, hospitals and university campuses.

End Use and Technology

The program is aimed at all cost-effective opportunities for energy efficiency improvement, regardless of the end use.

Key Barrier/s

Opportunities for energy efficiency improvement exist because:

- customers are not aware of the opportunities;
- customers are too busy with the day-to-day business to make changes;
- customers do not have available capital for non-core business investments;
- customers do not have the resources to project manage energy efficiency improvement projects through the long process from the identification of opportunities through obtaining finance to installing the equipment and measuring the results; and
- customers are not prepared to take the risk of savings not eventuating.

ESCO services are designed to overcome all of these barriers to energy efficiency improvements by providing a full service from identification of opportunities to arranging off-balance sheet financing, managing the installation of equipment and bearing the risk by a performance guarantee on the savings.

Program Objective

The objective of this program is to implement energy efficiency

called Green Malls, will involve a shopping mall and is aimed at demonstrating high efficiency, mainly lighting and air conditioning, technologies in the shopping malls of Metro Manila

Program Description

In 1996, the commercial sector accounted for 33% of the total sales and offer significant potential for cost effective energy conservation. Shopping Malls because of its sheer size are one of the most energy intensive segments in the commercial sector. Since 1985 the power demand of the shopping malls sub-sector in Metro Manila alone has increased by 15% per year and accounted for 7.5% of the entire commercial sector's consumption in 1996. It was on this basis that a shopping mall was selected for the first pilot project.

The pilot project (Green Malls) will be implemented in association with the International Institute for Energy Conservation (IIEC). Preparatory work on this project commenced in April 1997 and the following milestones have been achieved to date:

- Completion of preliminary energy surveys in three shopping malls
- A five day Green Malls Seminar conducted for shopping mall management/ owners.
- Selection of the site for the pilot project and a letter of intent for participation obtained from the owners.

The next step would be the selection of an ESCO to undertake the implementation of the project and finalising the financing and implementation agreements. Upon finalization of this project it is proposed to implement a similar project in an office building for evaluation. The MERALCO Headquarters building has been earmarked for this project.

Following the completion of the two pilot projects and upon establishment of a credible ESCO(s), the program will be promoted on a large scale (Green Buildings Program) to the relevant segments in the commercial sector.

4.3.4 Industrial Efficiency Program

Customer Segment Targeted

This program targets large industrial customers of more than 1 MW peak demand.

End Use and Technology

The program is aimed at all cost-effective technologies for energy conservation in industrial sector.

Key Barrier/s

In the industrial sector it is normal to focus efficiency gains on process related improvements rather than energy. In most cases, the cost of energy is only a minor component of the overall costs. As a result there is a tendency to divert scarce capital resources towards process improvements rather than on energy.

In addition, most industries have limited technical resources who are normally preoccupied in plant operation and maintenance that they have little time spend on improvements outside the core business.

Program Objective

The objective of this program is to provide value added services to large industrial and commercial customers to ensure that they are operating at maximum cost-effective efficiency levels. The main objective is to minimize electricity costs. However, opportunities to improve quality and reliability of supply will also be considered. The value added services would include load management, energy audits, power quality / reliability audits and assistance with implementation through ESCOs.

Program Description

This program aims to increase the level of services to MERALCO's customers. A recent survey amongst the large industrial and commercial customers has identified several key areas where the service could be improved. The three main areas were :

- . electricity costs;
- . reliability.

MERALCO proposes to take a customized approach with its customers in addressing these issues because the priorities and requirements vary from one customer to another.

MERALCO proposes to conduct load management studies and energy audits in order to minimize the customer's energy costs through the implementation of energy efficiency measures. In addition, it is proposed to conduct interviews with selected customers to determine their level of satisfaction with MERALCO's service and identify areas where they think the service could be improved. This would be followed up with an in depth technical evaluation to determine the causes, the solutions and costs to rectify any service problems such as power quality and reliability.

It is proposed that the improvements be made under an ESCO arrangement which would address the key barriers - lack of man, and internal staff resources to undertake projects outside of company's core business.

4.3.5 Industrial Demonstration Program

Customer Segment Targeted

This program is focused on four customers in the Industrial sector

End Use and Technology

The end uses are motor drives and lighting. The technologies to be demonstrated are High Efficiency Motors (HEM), Variable Speed Drives (VSD) and High Pressure Sodium (HPS) lamps.

Key Barrier/s

The hardware is funded by the Philippines DSM Project and it is the responsibility of the Companies to meet the installation costs. The only barrier appears to be the agreement by the recipients to meet the installation costs.

Program Objective

Under the Philippine Demand Side Management Project, several demonstration projects have been identified for implementation in 1998. The objective of this program is to monitor the performance of the technologies following implementation. The results of this program will be used in the promotion of HEMs and VSDs in 1999 / 2000.

Program Description

The following projects have been identified in MERALCO's service territory:

1. Vitarich Corporation : Installation of Variable Speed Drives in the hammer mill and the pellet mill to regulate the speed of a 125 hp and 220 hp motors respectively. In addition, the installation of a central air plant with station control to operate 3 base load units, 1 swing load and 1 stand-by unit during periods of high load.
2. AZKON Group of Companies : Replacement of an existing rewound motor with an high efficiency motor; installation of pressure control device in the air compressor plant to provide effective load control and discharge pressure; an retrofit of the hot face of an electric oven with ceramic fiber blanket to reduce heat-up time.
3. Filtex Manufacturing Corporation : Installation of a Variable Speed Drive for a circulation pump and also replace the 40 hp motor with a high efficiency motor of a water supply system. and installation of an Ogden pump for efficient conveyance of

4. Continental Steel Corporation : Replacement of existing Mercury Vapour (MV) lamps with High Pressure Sodium (HPS) lamps.

MERALCO is intending to install equipment for pre installation monitoring. The monitoring will be continued for at least six months after installation prior to evaluating the results.

The costs associated with this program are as follows:

- . Equipment - monitoring equipment
- . Administration - co-ordination, monitoring and evaluation

4.3.6 Power Factor Correction Program

Customer Segment Targeted

This program is focused on MERALCO's large industrial and commercial customers

End Use and Technology

Power factor is improved through the installation of capacitor banks at customer's load sides.

Key Barrier

Although MERALCO is initially intending to meet the up front costs of 20 pilot projects which would be repaid by the customer by twelve monthly instalments, there is still likely to be customer doubt if savings can be realized. The other barriers include:

- . Lack of technical information
- . Lack of customer resources to undertake or manage installation.

Program Objective

The program objectives are:

- to improve the average power factor of Industrial Service (IS) and Non-Industrial Service (NIS) accounts to 96%;
- provide for a rapid implementation of the capacitor installation program to reduce MERALCO's capital requirement in the upgrading of its distribution facilities; and
- to improve customer service and customer relations through better utility-facility owners co-operation.

Program Description

The program is directed at power factor metered customers whose billing demand is in excess of 100 kW. In August 1997, 1363 customers registered power factors of less than 85%. MERALCO's tariff structure levies a surcharge on accounts with registered average monthly power factors of less than 85% while discounts are given to those accounts with registered demands of more than 85%.

The regional Sales offices of MERALCO are already advising customers of the merits of improving their power factors to more than 85%. In 1996, out of a total of 924 accounts that were advised only 16% of the accounts were convinced to install capacitors on their load sides. The installation was carried out by contractors on a performance contract for improvement of power factor to 96%.

The program will be implemented in two phases. Phase 1 will be a pilot program which would include two seminars for representatives of 200 accounts. The participants for the seminars will be selected on the basis of the lowest power factor but with high registered demands. Twenty participating companies will be selected for a pilot capacitor installation program. The supply and installation will be carried out by performance contractors who will be compensated on the basis of the measured results. The customers will pay for the installations in twelve monthly instalments through their electricity bills.

Phase 2 will be a full scale program based on the results of the pilot program and will cover the rest of the targeted customers.

4.3.7 Load Factor Improvement Program

Customer Segment Targeted

Industrial and commercial customer segments — particularly those with load factors less than 37% who will experience a bill increase under the restructured rates explained below if they do not improve their load factor — are targeted in this program.

End Use and Technology

The program is aimed at all cost-effective opportunities for load management and energy efficiency improvement, regardless of the end use.

Key Barrier/s

The main barrier appears to be the capital costs associated with any recommended energy efficiency improvements. In the industrial sector it is normal to focus efficiency gains on process-related issues rather than energy. In most cases the cost of energy is a small component of the overall cost of production.

scarce capital resources towards process improvements rather than on energy.

In addition, most industries have limited technical resources who are normally preoccupied in plant operation and maintenance that they have little time spend on improvements outside the core business.

Load Management most often involve changes to plant operation procedures that have been used for a long period and convincing the employees requires a lot of effort.

Program Objective

The program is aimed at assisting customers with low load factors to better manage electrical loads to benefit from the rate restructure incentives.

Program Description

Last March 26, 1997, the Energy Regulatory Board (ERB) provisionally approved MERALCO's petition to restructure its rates. MERALCO is restructuring its rates to take into account changes in the National Power Corporation's (NPC) Luzon Grid rate structure. Before April 1995, NPC billings to MERALCO were computed using a straight energy charge of ₱ 1.8435 /kWh. Starting April 1995, the NPC billed MERALCO on a demand and energy rate system, charging ₱ 290.14 /kW of maximum demand and ₱ 1.2829 /kWh of energy consumption. Consequently, the ERB ordered "all NPC utility customers (in Luzon) to cause the restructuring of their rates based on NPC's approved (Luzon Grid) rate structure".

Complying with the ERB order, MERALCO proposed to restructure its Generation Charge, from a straight energy rate of ₱ 2.33 /kWh to a demand and energy rate of ₱ 195.00 /kW and ₱ 1.60 /kWh, respectively.

With ERB's approval, there will be an increase in the demand charge of non-residential customers with monthly demand greater than 5 kW, from the previous ₱ 25.00 /kW in the Distribution Charge to ₱ 220.00 /kW (₱ 25.00 + ₱ 195.00) in the Basic Charge. In turn, there will be a corresponding reduction in the energy charge of these customers. This new rate structure is intended to give customers a better appreciation of the costs associated with providing electrical power for the end-user by providing: (1) a price signal at least partly reflecting the cost of generating capacity, and (2) an incentive to improve their electricity utilization rates, as measured through their load factors.

The rate restructuring will have its impact specifically on MERALCO's Non-Industrial Service (NIS) and Industrial Service (IS) customers. The rate restructuring is designed to be revenue-neutral for MERALCO.

customers. However, depending on their load factors, these customers may be adversely affected by or benefit from the rate restructuring. Load factor refers to the ratio of the average demand within a specific period to the highest demand registered within the same period. Since connection capacity is usually based on the peak demand of a facility, it describes the efficiency of capacity use. If the customers load factor is below 37%, then under the rate restructuring they will experience an increase in average electricity rates (P/kWh). Conversely, if their load factor is above 37%, they will experience a decline in electricity rates.

Because MERALCO recognizes the potentially adverse effect of the rate restructuring on its low load factor NIS and IS customers, MERALCO will phase-in the new rate structure to these customers over a period of twelve months. The first phase began last April 1997, the second on October 1997, and the final phase on April 1998, with the demand charge increasing to 90 P/kW, 155 P/kW, and 220 P/kW, respectively.

Among MERALCO's customers, manufactures of food, beverages, textiles, paper, plastics, cement, glass and electronics; private hospitals and hotels will benefit from the restructuring because of their typically high load factors. On the other hand, low load factor customers will have to manage their electrical consumption to avail themselves of the new incentives [SJW3] that are provided in the restructured rates. For its part, MERALCO will direct Demand Side Management (DSM) programs to these customers to help cushion the impact of the restructuring. With DSM, all customers have the potential to improve their energy efficiencies and bring up their load factors. [SJW6]

The program will initially include a pilot program covering about 40 customers in various industrial and commercial segments with load factors below 37% and would include workshops, seminars, replacement of existing kWh meters with digital meters, walk-through audits and assistance with implementation. A full scale program will be designed based on the lessons learnt from the pilot project.

4.3.8 Streetlight Conversion Program

Customer Segment Targeted

The customer group targeted is local government units.

End Use and Technology

The program would replace existing MERALCO-owned high pressure mercury vapour street lights with high pressure sodium street lights. It will develop a standard design for street lighting in the franchise area applicable to all existing and new installation.

Key Barrier/s

The street lights are owned by MERALCO. The lighting is paid for by local governments on a flat fee basis. This is known as a "chaufage" arrangement; the customer is buying an energy service from the utility — which provides both the energy and the equipment — rather than buying units of energy. Under this program MERALCO will provide the same (or better) energy service with high capital cost, low energy consumption lamps rather than low capital cost, high energy consumption lamps.

Program Objective

The program aims to:

- optimise the energy efficiency of street lighting,
- to contribute to a reduction of the evening peak;
- to minimise the cost of street lighting inventory and installation costs (via use of a standard design); and
- to provide a standard level of lighting service (via use of a standard design).

Program Description

There are currently around 178 000 high pressure mercury (HPM) street light installations in MERALCO's franchise area. The program proposes to replace these lamps with energy efficient high pressure sodium (HPS) lamps over a 10 year period. For the first seven years of the program priority will be given to streetlights within Metro Manila covering 97 142 installations.

The cost of installation per streetlight varies depending on the road classification, type of construction and lamp wattage. The maintenance costs of the HPS lamps are higher than the existing HPM lamps primarily due to higher costs of some parts of the HPS fixture. The effectiveness of the program will be monitored and evaluated during the program period.

In addition to the demand and energy savings the program offers other non quantifiable benefits to society, primarily in reduction of night time road accidents and crime.

A pilot program was implemented from 1993 to 1995 covering a total of 3 925 70 W HPS fixtures.

MERALCO also intends to standardise the design for street lighting for both existing and new installations.

The costs associated with this program are as follows:

- monitoring and evaluation

4.3.9 Load Research

Customer Segment Targeted

All customer segments will be targeted

End Use and Technology

Most end uses especially lighting, air conditioning and motor drives.

Key Barrier/s

This is not a DSM program as such, it is a research activity to support DSM programs.

Research Objective

To develop an end-use load shape database for estimating end-use demand and designing and evaluating DSM programs.

Research Description

Load research is the measurement and evaluation of the utility's electric load characteristics. Data used to characterize loads can be gathered by metering, conducting energy-use surveys and reviewing billing information. Load research parameters that are determined usually include system peak and average loads, customer's coincident and non-coincident demand and the simultaneous demand of a customer group. Factors that characterize loads can then be derived for a system or specified subsystem.

The main objective of a load research project is to produce cost-effective, statistically sound, detailed databases necessary for resource planning, DSM program design and evaluation, cost allocation and tariff design, and load forecasting. Specifically, from the load research results, load profiles will be created and broken down into identifiable end-uses. This is essential for determining the patterns of energy usage and maximum demand of individual customer groups. Load research data also aid in the development of a daily, weekly or monthly pattern of consumption which will be able to pinpoint how specific end-uses contribute to this pattern. Thus, the vital information collected from load research becomes a valuable input not only in the planning, designing and evaluation of DSM programs but in the forecasting of customer's load as well.

Load research can be a complex and expensive undertaking because of the costly equipment, large sample sizes, extensive data processing, and intense analysis effort it requires. The scope of work may include the following tasks, namely:

- assessment of data requirements

- preparation of sampling and metering plan;
- field installation and data collection;
- database development and analysis of researched data;
- development of end-use forecasting model/s and
- preparation of demand projections; and documentation.

The methodology may employ a combination of statistical and engineering techniques using customer billing data and the more expensive metered end-use data. Another option is to consider a combination of whole building metering and simple end-use techniques using end-use loggers. This can provide levels of confidence and precision without complicated and intrusive comprehensive end-use metering methods.

Initial activities of MERALCO will be mostly in support of load research efforts of organizations such as the APEC Inter-Utility DSM Liaison Working Group and the National Load Research Association of the Philippines which is being organized under the leadership of National Power Corporation. In the medium-to-long term, MERALCO may consider adopting a phased approach and to hire a competent consulting firm to ensure effective project planning and implementation. Under this approach, load research will be first conducted on a specific customer group. Preliminary results shall serve as reference in proceeding with a class-wide (industrial, commercial, residential classes of customers) to a franchise-wide load research. In essence, experience gained from the initial phase will be leveraged for the succeeding load research activities on the rest of the customers.

4.4 Avoidable Costs and Externalities

Energy and Demand Avoidable Costs

NPC is MERALCO's marginal supplier.[SJW7] This means that if MERALCO's customers reduce energy consumption, then MERALCO reduces its purchases from NPC.

The analysis in this submission uses the NPC contract charges to MERALCO as a proxy for the true total resource or societal avoidable costs of energy and generation capacity. The true values would be the energy and generation costs that would be avoided by NPC due to marginal reductions in energy and demand at the MERALCO bulk supply points. These numbers were not available to MERALCO within the time and resource constraints of this submission.

The "avoidable costs" used in this DSM analysis represent the value of those costs that would be avoided by MERALCO due to energy and demand savings from the equipment and behavior changes promoted by the proposed DSM programs. Energy and demand savings are the

MERALCO makes to the National Power Corporation (NPC) under its energy supply contract, provided that those savings do not take MERALCO's total purchases below the take-or-pay "contract demand" threshold for energy and/or demand. The current MERALCO contract with NPC is structured to:[SJWS]

- avoid paying for unused supply via a margin for demand and energy being below what is projected; and to
- avoid penalty maximum demand payments via a margin for maximum demand going above what is projected; as well as to
- provide some flexibility by allowing two alterations to the "contracted demand" level in each calendar year.

The analysis in this document assumes that DSM impacts will not take MERALCO below the take-or-pay contracted threshold. In other words, it is assumed that adjustments to the contract demand could always be made in time to avoid this so the end use savings would always provide bulk supply savings to MERALCO on their monthly NPC bill.

Type	Avoidable Cost	Units
Energy	1.2829	P.kWh ⁻¹
Demand	12 * 290.12 = 3481.68	P.kW ⁻¹ .y ⁻¹

Table 5 MERALCO's
 NPC Contract Charges
 used as Avoidable
 Costs in the
 Analysis[SJW9]

Table 3 shows the marginal energy charge from NPC. Note that it is a conservative value, as it does not include the "Fuel and Purchased Power Adjustment" (FPCA) nor does it include the "Foreign Exchange Adjustment" (ForEx).[SJW10]

Network Avoidable Costs

The analysis does not assign any avoidable cost values to the sub-transmission and distribution network. This would require very detailed, time-consuming and costly work treating each small local area separately and is not appropriate for first-time pilot DSM programs as proposed here. Moreover, experience elsewhere suggests that the avoidable costs available in the local network are usually small compared with the avoidable costs of energy and generation capacity.

Avoidable Environmental Externality Costs

This analysis does not use avoidable externality costs. A collaborative process is underway to determine a set of avoidable externality costs for DSM planning in the Philippines, but it has not yet produced a set of numbers for use. The addition of avoidable externality cost data to the analysis would only make the proposed DSM programs more cost-effective under the societal test than they are as presented below

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 6 e (ii) & (iii)

4.5 Technology Cost-Effectiveness

For a DSM program to be cost-effective against the societal test, as required in the Philippines DSM framework, the proposed DSM technology must be cost-effective at the unit technology level. That is, the costs saved by the DSM technology must be greater than the cost of the DSM technology. This comparison is essentially the application of the total resource cost test or (if reduced externality costs are used in the comparison) the societal test at the individual technology or individual market unit level without including program costs.

4.5.1 Compact Fluorescent Lighting Program [SJW11]

Table 6 shows the step-by-step calculation approach to the technology-level cost-effectiveness analysis. For both energy and demand, the process involves subtracting the DSM technology data from the base technology data; allowing for marginal system losses and multiplying by the avoidable costs (from the power purchase contracts). This provides the benefits, which can then be compared with the incremental technology costs to determine the overall cost-effectiveness.

Table 6 shows that the substitution of two 21 W compact fluorescent lamps for two (average) 50 W incandescent lamps that are used for three hours each evening every night of the year will deliver benefits of ₱ xxx[SJW12] to MERALCO and its customers as a whole at an incremental technology cost of ₱ yyy[SJW13] for a net benefit of ₱ zzz[SJW14] at a benefit / cost ratio of BCR[SJW15].

With such a high benefit / cost ratio, the net benefit from the program as a whole should easily be large enough to cover the costs of running the program and still have a pool of benefits significantly larger than the costs.

Table 6 Technology
Cost-Effectiveness of
Compact Fluorescent
Lighting Program

Technology	
Base Technology	2 x 50W Incandescent Lamp
DSM Technology	2 x 21W Compact Fluorescent Lamp
Service Life	6 years
Energy	
Base Annual Energy ¹	kWh
DSM Annual Energy ¹	kWh
Delta Annual Energy	kWh
Marginal System Losses ³	kWh
System Annual Energy Impact	P/kWh ⁴
Present Value Avoidable Energy Costs ⁴	P
Present Value Reduced Energy Supply Costs	
Demand	
Base Peak-Coincident Demand ⁵	kW
DSM Peak-Coincident Demand	kW
Delta Peak-Coincident Demand	kW
System Losses	kW
System Peak-Coincident Demand Impact	P/kWh ⁴
Present Value Avoidable Demand Costs ⁴	P
Present Value Reduced Demand Supply Costs	
Equipment Cost	
DSM Equipment Cost ⁷	P
Base Equipment Cost ³	P
Net Participant Costs	
Total	P
Present Value Reduced Supply Costs	P
Present Value Net Participant Costs	P
Present Value Net Benefit	
Benefit / Cost Ratio	

Notes:

1. Assuming 2 lamps * 0.05 kW * 3 hours * 365 days. [SJW16]
2. Assuming 2 lamps * 0.021 kW * 3 hours * 365 days. [SJW17]
3. The average system energy losses as a percent of consumption are x% [SJW18]. The marginal losses are equal to twice the average losses, and are therefore 2x% [SJW19]
4. The MERLCO avoidable energy cost is 1.2529 P/kWh. Avoiding 1 kWh for six years (the life of the CFL) delivers MERLCO a stream of savings with a present value P [SJW20] when discounted at the real resource cost discount rate of 4%.
5. ⁴⁰ The peak-coincident demand figures are calculated as the wattage for two lamps with a 90% coincidence factor (meaning that 90% of the lamps are on during the peak). [SJW21]

6. The MERALCO avoidable demand cost is 290.14 P/kW.month or 3 431.68 P.kW.yr. Reducing the system peak by 1 kW throughout the year for six years (the life of the CFL) saves MERALCO P. [SJW22]
7. Based on [SJW23]
8. This assumes the purchase of 6 incandescent lamps at P 15 over a period of 6 years, discounted at 10%pa.[SJW24]

4.5.2 Green Buildings Program

As described above, this program is about ESCO implementation of energy saving measures in commercial buildings. An ESCO will only implement a package of measures that are cost-effective to the building operator. In other words, the value of savings from installing an energy efficiency measure must be sufficiently greater than the cost of the measure to justify the investment.

Now, allowing that the avoidable costs of energy and demand are slightly less than the tariff levels and assuming that the fixed / capacity / energy structure of the avoidable costs is not greatly different from the fixed / demand / energy structure of the tariff; any measure that passes the financial test applied by the ESCO will also pass the societal economic test as required by the Philippine DSM Framework.

4.5.3 Industrial Efficiency Program

This program will be implemented by an ESCO mechanism, so the same logic as to the cost-effectiveness applies as in the case of the Green Buildings Program.

4.5.4 Industrial Demonstration Program

The cost-effectiveness analysis for these demonstration projects has been conducted under the USAID Philippine Demand-Side Management project. The analyses are attached as appendices to this document.[SJW25]

4.5.5 Power Factor Correction Program

Technology cost-effectiveness analysis will be conducted on a site-by-site basis. Power factor correction equipment will only be installed in customers facilities where it avoids greater transformer costs in the MERALCO network. [SJW26]

4.5.6 Load Factor Improvement Program

As noted in the general program description above, in compliance with an order from ERB, MERALCO has restructured its Generation Charge from a straight energy rate of P 2.33 /kWh to a demand and energy rate of P 1.05 /kW month and P 1.00 /kWh month.

There are an average of 730 hours per month.² Under the old rate structure, a customer who operated a 1 kW load constantly for 730 hours throughout a month so that it consumed 730 kWh would pay the same as a customer who operated a 730 kW load for one hour.

Using this example of 730 kWh of consumption, equivalent to a 1 kW load operated constantly for a month or a 730 kW load operated for one hour, Figure 7 shows that the load factor break-even point above which customers will experience a reduced bill under the new system and below which they will experience an increased bill is 37%.

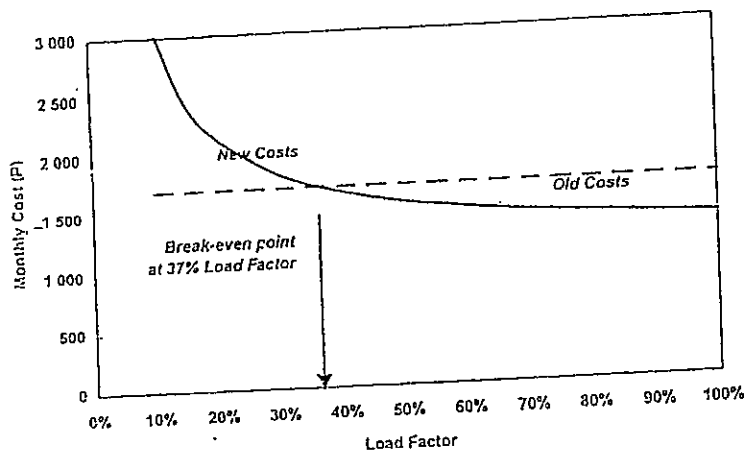


Figure 7 Comparison of New with Old Costs for as a Function of Load Factor

The pilot program will look for opportunities in each specific site to shift or peak clip loads where the cost of doing so is less than the value of the stream of bill savings that it provides. The results of the pilot activities will be used to develop the full program design.

4.5.7 Streetlight Conversion Program [SJW27]

² 730 hours per month is based on 30 days per month multiplied by 24 hours per day.

Technology	
Base Technology	
DSM Technology	
Service Life	years
Energy	
Base Annual Energy ¹	kWh
DSM Annual Energy ²	kWh
Delta Annual Energy	kWh
Marginal System Losses ³	
System Annual Energy Impact	kWh
Present Value Avoidable Energy Costs ⁴	P/kWh ¹
Present Value Reduced Energy Supply Costs	P
Demand	
Base Peak-Coincident Demand ⁵	kW
DSM Peak-Coincident Demand	kW
Delta Peak-Coincident Demand	kW
System Losses	
System Peak-Coincident Demand Impact	kW
Present Value Avoidable Demand Costs	P/kWh ¹
Present Value Reduced Demand Supply Costs	P
Equipment Cost	
DSM Equipment Cost ⁶	P
Base Equipment Cost ⁷	P
Net Participant Costs	P
Total	
Present Value Reduced Supply Costs	P
Present Value Net Participant Costs	P
Present Value Net Benefit	P
Benefit / Cost Ratio	

Table 7 Technology
 Cost-Effectiveness of
 Street Lighting
 Program

Notes:

1. Assuming kW * hours * 365 days.[SJW28]
2. Assuming kW * hours * 365 days.[SJW29]
3. The average system energy losses as a percent of consumption are x%[SJW30]. The marginal losses are equal to twice the average losses, and are therefore 2x%.[SJW31]
4. The MERALCO avoidable energy cost is 1.2329 P/kWh. Avoiding 1 kWh for x[SJW32] years (the life of the CFL) delivers MERALCO a stream of savings with a present value P [SJW33] when discounted at the total resource cost discount rate of 4%.
5. Street lamps are not coincident with the MERALCO peak, therefore this value is zero.
6. Based on [SJW34]
7. Based on [SJW35]

4.5.8 Load Research

Technology cost-effectiveness analysis does not apply to this particular research activity.

4.6 Market Size and Participation Projections

4.6.1 Compact Fluorescent Lighting Program

[S:W36]

4.6.2 Green Buildings Program

ESCO projects have relatively high transaction costs and therefore require fairly large sites to be viable. As a rough guide, customers spending more than about P 12.5 million per year may be candidates for ESCO projects. There are around 150 MERALCO commercial accounts of this magnitude. They consume in total about 1 500 GWh per year, which is just over one quarter of all commercial consumption.

The pilot program will first demonstrate large building energy efficiency retrofits in the MERALCO head office and will pilot an actual ESCO project in a major shopping mall.

A more detailed market potential assessment study will be conducted prior to the establishment of full-scale commitment to ESCO projects and submitted to ERB at that time.

4.6.3 Industrial Efficiency Program

[S:W37] This program is for the group of industrial customers with greater than 1 MW demand. There are ___ of these customers. The pilot phase of this program aims to implement ___ projects in these large industrial facilities.

4.6.4 Industrial Demonstration Program

Four companies have already been selected for this program. They are:

- . Vitarich Corporation;
- . AZKON Group of Companies;
- . Filtex Manufacturing Corporation;
- . Continental Steel Corporation.

4.6.5 Power Factor Correction Program

The pilot phase of this program will target twenty customers. The full market potential will be assessed during this period.

4.6.6 Load Factor Improvement Program

The program will initially include a pilot program covering about 40 customers in various industrial and commercial segments with load factors below 37%. Full scale market potential estimates will be based on the lessons learnt from the pilot project in conjunction with customer data. [SJW:18]

4.6.7 Streetlight Conversion Program

[SJW:39]

4.6.8 Load Research

This is a research activity, rather than a program, so there is no market potential as such. Results from the load research will be used to identify areas of further market potential for DSM.

4.7 Energy and Demand Effects

5 (i) 1 i & j
6 e (iii)

4.7.1 Compact Fluorescent Lighting Program

Table 8 shows the projected annual energy and demand savings for this program under the following assumptions:

- the program acceptance numbers are as indicated above; and
- the end use energy and demand savings and the utility losses are as described in Table 6.

[SJW:10]

Year	End Use	Peak-Coincident
	Energy Saving	Demand Saving
	kWh	kW
	Pilot	Pilot
1998		
1999		
2000		
2001		
2002		
2003		
2004		
2005		
2006		
2007		
2008		
2009		

Table 8 Projected Energy and Demand Savings

4.7.2 Green Buildings Program

The energy and demand results for the full program implementation will be calculated using the monitored results from the pilot stage of the program. (S0041)

4.7.3 Industrial Efficiency Program

(S1W42)The ___ industrial customers over 1 MW collectively consume ___ MWh annually. ESCO efficiency improvements can typically achieve 10% to 20% energy savings. If we assume that 15% savings are actually achievable, then the total potential for energy savings is as shown in Table 9.

Year	Projected Energy Consumption	Estimated Potential Energy Savings (15%)	Target ESCO Energy Savings
	MWh	MWh	MWh
1998		Pilot	Pilot
1999			
2000			
2001			
2002			
2003			
2004			
2005			
2006			
2007			
2008			
2009			

Table 9 Projected Industrial Efficiency Energy and Demand Savings

4.7.4 Industrial Demonstration Program

The projected energy and demand effects for these demonstration projects has been conducted under the USAID Philippine Demand-Side Management project. The analyses are attached as appendices to this document.[SJW43]

4.7.5 Power Factor Correction Program

This program will not save any energy, nor will it reduce demand measured in kW. This program is designed to reduce apparent power[SJW44] (measured kVA), therefore reducing transformer capacity requirements and hence network capital costs for the same amount of power (kW) and therefore the same level of energy service.

4.7.6 Load Factor Improvement Program

This program is a load shifting and peak clipping program. It is primarily designed to reduce the peak load of customers so that they save on their newly increased demand charges. Customer demand savings that are coincident with the MERALCO peak will save on MERALCO's peak demand. If customers reduce their peak demand by making end-uses that are in operation during their peak more efficient, then some energy savings will result.

The monitored results from the approximately 40 customers that participate in the pilot stage of the program will be used to develop estimates of the energy and demand savings from the full program if implemented.

4.7.7 Streetlight Conversion Program

[SJW 15]

4.7.8 Load Research

This is a research activity, rather than a program, so there will be no energy and demand effects as a direct result of the load research. Results from the load research will be used to identify areas where DSM can make energy and demand savings.

5 (i) 1 i & j
6 e (iii)

4.8 Externalities

This submission does not place monetary values on reduced external costs, for the reasons discussed under *Avoidable Environmental Externality Costs* on page 28. Nevertheless, Table 10 briefly summarises the externality effects of the proposed programs. Programs that reduce total energy consumption will also reduce those marginal external costs associated with each units of energy generated. The residential compact fluorescent lighting program is indicated as producing "some reduction" in peak demand because the end use is only partly coincident with the MERALCO peak.

Program	Peak Demand	Total Energy	Environmental Costs
Compact Fluorescent Lighting	Some kW Reduction	Reduced	Reduced
Green Buildings	kW Reduced	Reduced	Reduced
Industrial Efficiency	kW Reduced	Reduced	Reduced
Industrial Demonstration	kW Reduced	Reduced	Reduced
Power Factor Correction	kVA Reduced	No change	No change
Load Factor Improvement	kW Reduced	No change	No change
Streetlight Conversion	No change	Reduced	Reduced
Load Research	No change	No change	No change

Table 10 Externality Effects of Proposed Programs

4.9 Expected Costs

The costs outlined in this Section are the estimated costs associated with the implementation of the eight programs over a two year period (1993 and 1999). However, it does not include costs associated with programs that are implemented in 1998, which after initial evaluation, is continued in 1999. These costs will be incorporated in the revised Plan that will be submitted at the end of 1999.

5 (i) 1 g & j
6 e (ii) & (iii)

4.9.1 Program Costs

Table 11 summarises the estimates of program costs for each of the programs. A detailed breakdown of the cost estimates is given in Section 8.2.5.

Program / Cost Type	Staff Time	@ Unit Cost	= Staff Costs	+ Direct Costs	= Total P
CE Program					
Set up costs	2 345 h	116	272 925	40 720	313 645
Advertise / promote	1 000 h	100	100 000	500 000	600 000
Implementation	33 577 h	24	796 406	396 590	1 192 996
Monitoring	1 050 h	70	74 000	114 659	188 659
Total					2 295 300
Green Buildings Program					
Seminars	1 600 h	38	60 800	200 000	260 800
Promotion	1 743 h	100	174 300	2 645 000	2 819 300
Project Management	2 976 h	100	297 600	622 760	920 360
Total					4 000 460
Industrial Efficiency Program					
Workshops / Seminars				256 625	256 625
Implement	3 200 h	145	464 000	1 020 824	1 484 824
Contingency				87 072	87 072
Total					1 828 521
Industrial Demonstration Program					
Implement	256 h	145	37 120	36 073	73 193
Monitor & Evaluate	96 h	102	9 744	31 398	41 142
Reporting	144 h	121	17 400		17 400
Miscellaneous				5 000	5 000
Contingency				13 673	13 673
Total					150 408
Power Factor Correction Program					
<i>Pilot :</i>					
Implement	1 776 h	97	171 636	7 680	179 316
Monitor & Evaluate	528 h	142	75 000		75 000
Contingency				29 152	29 152
<i>Full Scale :</i>					
Workshops				225 000	225 000
Implement	22 464 h	103	2 315 438	138 240	2 453 679
Monitor & Evaluate	2 376 h	379	900 000		900 000
Contingency				357 363	357 363
Total					4 257 214

Table 11 Estimated Program Costs

4.9.1 Program Costs

Table 11 summarises the estimates of program costs for each of the programs. A detailed breakdown of the cost estimates is given in Section 8.2.5.

Program / Cost Type	Staff Time	@ Unit Cost	= Staff Costs	+ Direct Costs	= Total R
dB Program					
Set up costs	2 345 h	116	272 925	40 720	313 645
Advertise / promote	1 000 h	100	100 000	500 000	600 000
Implementation	33 577 h	24	796 406	396 590	1 192 996
Monitoring	1 050 h	70	74 000	114 659	188 659
Total					2 295 300
Green Buildings Program					
Seminars	1 600 h	38	60 800	200 000	260 800
Promotion	1 743 h	100	174 300	2 645 000	2 819 300
Project Management	2 976 h	100	297 600	622 760	920 360
Total					4 000 460
Industrial Efficiency Program					
Workshops / Seminars				256 625	256 625
Implement	3 200 h	145	464 000	1 020 824	1 484 824
Contingency				87 072	87 072
Total					1 828 521
Industrial Demonstration Program					
Monitor & Evaluate	96 h	102	9 744	31 398	41 142
Reporting	144 h	121	17 400		17 400
Miscellaneous				5 000	5 000
Contingency				13 673	13 673
Total					150 408
Power Factor Correction Program					
<i>Pilot :</i>					
Workshops				37 200	37 200
Implement	1 776 h	97	171 636	7 680	179 316
Monitor & Evaluate	528 h	142	75 000		75 000
Contingency				29 152	29 152
<i>Full Scale :</i>					
Workshops				225 000	225 000
Implement	22 464 h	103	2 315 438	138 240	2 453 679
Monitor & Evaluate	2 376 h	379	900 000		900 000
Contingency				357 663	357 663
Total					4 257 214

Table 11 Estimated Program Costs

Factor Factor Improvement Program						
Pilot Program:	7 392	h	109	805 000	953 637	1 758 737
Full Scale						
Key Accounts						
Workshops				259 500		259 500
Implement	11 616	h	95	1 104 000	733 829	1 837 829
Monitor & Evaluate	16	m	25 000	400 000		400 000
Consultant					374 599	374 599
Contingency					249 733	249 733
Other GP						
Brochures	500	h	100	50 000	1 360 000	1 410 000
Workshops					1 357 000	1 357 000
Implement	13 200	h	106	1 395 000	885 724	2 280 724
Monitor & Evaluate	2 640	h	142	375 000		375 000
Consultant		h	142		271 136	271 136
Contingency					271 136	271 136
Total						10 845 295

4.9.2 Other Costs

Aside from the costs directly associated with programs, there are a number of other costs associated with

Program / Cost Type	Staff Time	Units	Staff Costs P	Direct Costs P	Total P
1997					
dsm Plan Preparation					
Administration					
End Use Surveys					
Total					
1998					
End Use Surveys					
Analysis					
dsm Training Workshops					
Total					
1999					
Program Evaluation					
Revise dsm Plan					
dsm Training Workshops					
Total					

Table 12 Other (Non-Program-Specific) Costs

4.10 Cost-Effectiveness Test Results

- 5 (i) 1 h
5.1 2.
4 "

4.11 Bills/Rates

5 (i) 1 k & j
6 e (iii)

Implementation of the compact fluorescent lighting program for five years, with the energy and demand savings described, at the current level of NPC charges to MERALCO, and using a discount rate of 7% would save the utility ₱ xx,[SJW46] but would incur program costs and reduced revenue totaling ₱ yy,[SJW47] resulting in a net loss to MERALCO of ₱ zz,[SJW48]. Using a utility discount rate of d%,[SJW49] a once-off residential tariff adjustment of $cdj \text{ ₱/kWh} [SJW50]$ would recover these losses over the life of the projected program effects. This is indicated in Table 13. The effect on the average annual residential bill of $imp \text{ kWh} [SJW51]$ would be just under ₱ $imp [SJW52]$ per year.

Year	Projected – Calculated = Projected Consumption Savings		Recovered Revenue
	Consumption MWh	With Program MWh	₱
Once-off Tariff Adjustment (₱/kWh ⁻¹)			
Recovered Revenue Loss 1998 present value discounted at d% [SJW53]			
1998			
1999			
2000			
2001			
2002			
2003			
2004			
2005			
2006			
2007			
2008			

Table 13 Revenue and Tariff Effects

[SJW34]

Green Buildings Program

Industrial Efficiency Program

Industrial Demonstration Program

Power Factor Correction Program

Load Factor Improvement Program

Streetlight Conversion Program

4.12 Sensitivity Analysis Results

5 (i) 1 m

6 j

The programs proposed will be implemented at a pilot level in 1998. Some are still in the feasibility stage. So detailed sensitivity calculations were not considered appropriate for this submission. Nevertheless, the following observations on the sensitivity of the results to several variables can be made.

4.12.1 Avoidable Costs

As discussed in the section on avoidable costs, the avoidable cost analysis is based on NPC charges to MERALCO. These charges represent the costs in the generation system to the extent that MERALCO's load shape represents the NPC load shape and to the extent that the energy and demand charges represent the NPC avoidable costs of energy and demand. MERALCO loads represent a large portion of all loads in Luzon, so the MERALCO load shape is, in fact, quite coincident with the NPC load shape for the Luzon grid.

The most likely future change in the NPC charges is that the demand charges will increase and the energy charges will decrease. The more closely the NPC charges represent the true NPC avoidable costs the more closely will the results resemble those that would come from an analysis using the actual NPC avoidable costs of energy and demand.

4.12.2 Discount Rates

Adjustment of the discount rates in the program analysis spreadsheet and in SRC/COMPASS® show that the results are not particularly sensitive to changes in the discount rates. The spreadsheet and SRC/COMPASS® data files are available for examination by ERB upon request.

4.12.3 Participation Rates

On the key cost-effectiveness test -- the societal test -- the programs are not particularly sensitive to changes in participation levels. This is because the fixed program costs are small relative to the aggregate cost of the DSM equipment, so the results scale quite readily over large ranges in participation level. [SAR33]

5. FINANCIAL PLAN

5.1 Proposal for DSM Financial Incentives

This chapter presents the financial analysis of the proposed DSM programs.

for lamps from retailers and pay them off on their MERLCO electricity bill from the energy savings delivered by the lamps.

The proposed program delivery mechanism for both the green buildings and industrial efficiency programs is an ESCO. ESCOs provide a financial incentive to customers in the form of performance-guaranteed shared-savings.

The industrial demonstration program has third-party incentives from USAID in the form of funding of high efficiency demonstration equipment.

The power factor improvement program will provide financial incentives to customers in the form of a loan to be repaid in instalments on the customers' monthly MERLCO bill.

Financial incentives for the load factor improvement program will be considered is the pilot program indicates that they are required by customers to improve their load factor.

The streetlight conversion program is an internal MERLCO program, so financial incentives are not required. The load research is not a program with customers, so financial incentives are not relevant.

5.2 Proposal for Cost and Revenue Recovery

MERLCO proposes to recover program costs and net revenue losses through small adjustments to the tariff of the customer group to whom the programs are offered. The advantages of this approach are that:

- customers who participate in the program experience significant bill savings offset by an insignificant increase due to the tariff increase; and
- customers who don't participate in the program experience insignificant increases in their bills; and
- if this bothers them, they are free to participate in the program and achieve the savings.

MERLCO proposes a provisional residential automatic tariff adjustment of $\frac{xx}{kWh} (\$1.75)$ to recover net losses over the life of the projected residential CFL program effects with a present value of $P \$25,000$ when discounted at $d\% (\$1.75)$. This could be reviewed when the program goes into full implementation.

It is proposed that pilot results be used to:

- adjust cost recovery for the pilot and
- adjust the tariff adjustment.

for lamps from retailers and pay them off on their MERALCO electricity bill from the energy savings delivered by the lamps.

The proposed program delivery mechanism for both the green buildings and industrial efficiency programs is an ESCO. ESCOs provide a financial incentive to customers in the form of performance-guaranteed shared-savings.

The industrial demonstration program has third-party incentives from USAID in the form of funding of high efficiency demonstration equipment.

The power factor improvement program will provide financial incentives to customers in the form of a loan to be repaid in instalments on the customers' monthly MERALCO bill.

Financial incentives for the load factor improvement program will be considered is the pilot program indicates that they are required by customers to improve their load factor.

The streetlight conversion program is an internal MERALCO program, so financial incentives are not required. The load research is not a program with customers, so financial incentives are not relevant.

5.2 Proposal for Cost and Revenue Recovery

NERALCO proposes to recover program costs and net revenue losses through small adjustments to the tariff of the customer group to whom the programs are offered. The advantages of this approach are that:

- customers who participate in the program experience significant bill savings offset by an insignificant increase due to the tariff increase; and
- customers who don't participate in the program experience insignificant increases in their bills; and
- if this bothers them, they are free to participate in the program and achieve the savings.

NERALCO proposes a provisional residential automatic tariff adjustment of $\text{xx P/kWh} \{ \$JW36 \}$ to recover net losses over the life of the projected residential CFL program effects with a present value of $\text{P } 22,527,000 \}$ when discounted at $d\% \{ \$JW38 \}$. This could be reviewed when the program goes into full implementation.

It is proposed that pilot results be used to:

- adjust cost recovery for the pilot area
- ...

It is suggested that adjustment of the cost recovery rate be made no more frequently than every six months and no less frequently than every year. More frequent adjustments would be an inefficient use of MERCALCO and ERB resources. Less frequent adjustments could cause actual and recovered costs to diverge.

6. IMPLEMENTATION PLAN

6.1 Proposed Implementation Process

Considering the available resources, of the eight programs that have initially been identified, it is proposed to undertake seven DSM programs in the first year (1998) and the remaining program will commence in the second year (1999). The second year (1999) would also include continuation of some of the programs undertaken in 1998. During these two years it is intended to develop a comprehensive customer database which would be used as a resource in designing other programs for future years.

6.1.1 Programs for 1998

The following programs have been scheduled to be implemented in 1998:-

- . Compact Fluorescent Lighting Program
- . Green Buildings Program
- . Industrial Efficiency Program
- . Industrial Demonstration Program
- . Power Factor Correction Program
- . Load Factor Improvement Program
- . Streetlight Conversion Program

The Green Buildings and Industrial Efficiency Programs will be implemented through an ESCO. The steps involved in setting up an ESCO has been included in the schedule. The programs will be subject to an evaluation at the end of the year and based on the outcomes, a decision to cease, modify or continue the programs will be made.

6.1.2 Programs for 1999

In addition to programs from 1998 that continue, the following programs and activities are scheduled to be implemented in 1999:-

- . Load Research
- . Meter Program Review

The meter program review would include all meter programs and the load research would include all load research programs.

6.1.3 Programs for 2000 to 2002

The programs to be undertaken during this period would be dependent on the load shape and corporate objectives achieved during 1998 and 1999. It is likely to include the continuation of all or some of the initial programs. In addition, the following programs will be considered :

- Promotion of efficient air conditioners and other appliances
- Promotion of high efficiency fluorescent lamps
- Promotion of high efficiency motors and variable speed drives.

6.2 Timeline Chart of Activities and Milestones

The Gantt Charts covering tasks and milestones for each of the five programs for 1998 and 1999 are detailed in the following sheets. The schedules are based on obtaining Energy Regulatory Board approval by the end of February 1998.

7. MEASURING DSM PROGRAM RESULTS

5 (i) 1 e & j
5 b

7.1 Monitoring

5 (i) 2 c

The following monitoring procedures will be adopted for each of the programs:

7.1.1 Compact Fluorescent Lighting Program

The procedure to be adopted for this program involves the setting up of a database of relevant information from each of the participating customers. The database would include the following information:

- Customer name, address and electricity account number
- Date and number of CFLs purchased
- Date of first and last payments
- Customer estimate of hours of usage/day per CFL
- Calculation of energy and demand savings
- Details of CFLs returned and reasons

In addition, the database would assist in tracking customer participation, the maximum number of lamps

7.1.2 Green Buildings Program

This program is implemented through ESCOs on performance based contracts. The saving forecasts made in the detailed energy audits for each site will be compared with the actual savings that are achieved after implementation.

7.1.3 Industrial Efficiency Program

The impacts of the program will be measured directly from the billing information of the specific industrial sites where energy saving measures have been implemented. In addition, the load profiles of the sites will be monitored continuously before and after implementation of the measures.

7.1.4 Industrial Demonstration Program

The effectiveness of the energy saving measures undertaken at the three sites will be measured using the monitoring equipment already installed at the sites and the subsequent billing information.

7.1.5 Power Factor Correction Program

This program is implemented through contractors on performance based contracts and will be compensated based on measured results.. The saving forecasts made in the assessments for each site will be compared with the actual savings that are achieved after installation of capacitor banks.

7.1.6 Load Factor Improvement Program

The status of the adopted load factor improvement measures will be monitored through regular telephone interviews and site visits of program participants. In addition, monitoring of monthly energy and demand data from meter and billing records will be undertaken. Participants will be requested to submit reports on adopted measures.

7.1.7 Streetlight Conversion Program

This program has already commenced and the number of retrofits undertaken each month will be recorded.

7.1.8 Load Research

In addition to the above, the above mentioned programs will be monitored and reported on a regular basis.

7.2 Evaluation

All proposed programs will be evaluated upon completion, except in the case of the CFL Program which would be also evaluated midway when any revisions to program delivery would be made. As required by the DSM Framework the programs will be subject to an annual evaluation based on the methodology outlined in Section 4.

8. APPENDICES

8.1 Forecast

5 (i) 1 c
5 (i) 2 a & b

8.1.1 Historical and Projected Data

Year	Residential	Commercial	Industrial	Streetlight	Total
1987	1 528 695	159 407	3 972	3 174	1 695 248
1988	1 584 028	169 320	4 003	3 265	1 760 616
1989	1 651 183	180 538	4 390	3 448	1 839 559
1990	1 728 820	185 245	10 439	3 395	1 927 899
1991	1 818 553	192 525	11 144	3 097	2 025 319
1992	1 935 736	201 384	11 099	3 362	2 151 581
1993	2 072 642	209 159	11 719	3 562	2 297 082
1994	2 234 052	226 889	12 246	3 789	2 476 976
1995	2 406 959	237 576	12 936	4 044	2 661 515
1996 (base)	2 596 637	255 640	13 073	4 132	2 869 532
1997	2 822 007	268 849	13 367	4 303	3 106 526
1998	2 877 716	276 228	13 769	4 396	3 172 109
1999	2 932 596	282 201	14 214	4 487	3 233 498
2000	2 987 251	289 150	14 702	4 578	3 295 681
2001	3 040 966	296 253	15 217	4 667	3 357 103
2002	3 093 737	304 191	15 765	4 755	3 418 448
2003	3 145 542	312 310	16 342	4 841	3 479 035
2004	3 196 308	320 675	16 956	4 925	3 538 864
2005	3 246 054	329 313	17 610	5 008	3 597 985
2006	3 294 458	338 225	18 311	5 083	3 656 082
2007	3 342 013	347 476	19 059	5 167	3 713 715
2008	3 388 163	357 055	19 859	5 244	3 770 321
2009	3 432 953	366 998	20 713	5 313	3 825 932
2010	3 476 271	377 332	21 629	5 380	3 880 622
2011	3 518 420	387 899	22 604	5 447	3 934 422
Assumptions	1.5%	1.5%	2.5%	0.5%	1.7%
Source: Meralco					

Table 14 Historical and Projected Customer Counts

Year	Residential	Commercial	Industrial	Streetlight	Total
1987	3 044.9	2 931.8	2 768.6	82.6	8 827.8
1988	3 326.5	3 356.7	3 553.4	85.9	10 322.5
1989	3 415.0	3 658.7	3 890.4	88.0	11 052.1
1990	3 593.1	3 813.3	4 069.0	90.0	11 565.4
1991	3 753.6	3 750.8	4 335.1	91.9	11 931.4
1992	3 940.8	3 815.8	4 430.4	92.4	12 279.4
1993	4 029.1	3 781.8	4 333.0	106.8	12 250.7
1994	4 652.4	4 747.0	5 048.2	107.4	14 555.1
1995	5 293.6	5 140.3	5 327.2	115.3	15 876.4
1996 (base)	5 975.8	5 805.1	5 909.2	120.4	17 810.4
1997	6 484.9	6 335.1	6 179.6	122.8	19 122.4
1998	6 956.7	6 835.4	6 798.2	125.0	20 715.3
1999	7 537.4	7 408.9	7 392.3	127.2	22 465.8
2000	8 188.7	8 058.4	8 026.8	129.4	24 403.3
2001	8 885.7	8 738.4	8 731.7	131.6	26 487.4
2002	9 636.2	9 468.4	9 513.3	133.7	28 751.6
2003	10 330.1	10 240.7	10 521.1	135.7	31 227.6
2004	11 051.2	11 100.5	11 620.9	137.8	33 910.4
2005	11 808.5	12 059.1	12 824.7	139.8	36 832.1
2006	12 611.5	13 113.8	14 146.4	141.7	40 013.4
2007	13 465.1	14 276.8	15 593.0	143.6	43 478.5
2008	14 370.4	15 559.0	17 176.1	145.4	47 250.9
2009	15 330.4	16 972.1	18 908.5	147.2	51 358.2
2010	16 364.0	18 507.7	20 808.9	149.0	55 829.6
2011	17 449.1	20 201.3	22 887.7	150.5	60 688.6

Table 15 Historical and Projected Energy Sales (GWh)

Year	Peak Load (MW)	Growth rate
1987	1 923	
1988	2 072	7.7%
1989	2 225	7.4%
1990	2 159	-3.0%
1991	2 350	8.8%
1992	2 386	1.5%
1993	2 398	0.5%
1994	2 695	12.4%
1995	2 901	7.6%
1996 (base)	3 222	11.1%
1997	3 546	10.1%
1998	3 924	10.7%
1999	4 182	6.6%
2000	4 428	5.9%
2001	4 735	7.0%
2002	5 073	7.1%
2003	5 444	7.3%

Table 16 Historical and Projected Peak Load

2004	6 053	8.3%
2005	6 556	8.3%
2006	7 100	8.3%
2007	7 688	8.3%
2008	8 324	8.3%
2009	9 011	8.3%
2010	9 753	8.3%
2011	10 554	8.2%

Table 17 - Forecast Sales and Demand Growth Rate

Year	Sales Growth Rate by Customer Class (%/yr)				Total Sales	Max Demand (MW)
	Residential	Commercial	Industrial	Other		
1996						
1997	8.5%	9.2%	4.6%	2.0%	7.4%	10.1%
1998	7.3%	7.9%	10.0%	1.8%	8.3%	7.8%
1999	8.3%	8.4%	8.7%	1.8%	8.5%	7.8%
2000	8.6%	8.8%	8.6%	1.7%	8.6%	7.9%
2001	8.5%	8.4%	8.8%	1.7%	8.5%	7.8%
2002	8.4%	8.4%	9.0%	1.6%	8.5%	7.9%
2003	7.2%	8.2%	10.6%	1.5%	8.6%	8.0%
2004	7.0%	8.4%	10.5%	1.5%	8.6%	8.3%
2005	6.9%	8.6%	10.4%	1.5%	8.6%	8.3%
2006	6.8%	8.7%	10.3%	1.4%	8.6%	8.3%
2007	6.8%	8.9%	10.2%	1.3%	8.7%	8.3%
2008	6.7%	9.0%	10.2%	1.3%	8.7%	8.3%
2009	6.7%	9.1%	10.1%	1.2%	8.7%	8.3%
2010	6.7%	9.0%	10.1%	1.2%	8.7%	8.3%
2011	6.6%	9.2%	10.0%	1.0%	8.7%	8.3%

Table 18 - Forecast Customer Growth Rate by Customer Class

Year	Growth Rate (%)				Total
	Residential	Commercial	Industrial	Other	
1996					
1997	8.7%	4.4%	2.2%	4.1%	8.3%
1998	2.0%	3.5%	3.0%	2.2%	2.1%
1999	1.9%	2.2%	3.2%	2.1%	1.9%
2000	1.9%	2.5%	3.4%	2.0%	1.9%
2001	1.8%	2.5%	3.5%	1.9%	1.9%
2002	1.7%	2.7%	3.6%	1.9%	1.8%
2003	1.7%	2.7%	3.7%	1.8%	1.8%
2004	1.6%	2.7%	3.8%	1.7%	1.7%
2005	1.6%	2.7%	3.9%	1.7%	1.7%
2006	1.5%	2.7%	4.0%	1.6%	1.6%
2007	1.4%	2.7%	4.1%	1.6%	1.6%
2008	1.4%	2.8%	4.2%	1.5%	1.5%
2009	1.3%	2.8%	4.3%	1.4%	1.5%
2010	1.3%	2.8%	4.1%	1.3%	1.4%
2011	1.1%	2.8%	4.3%	1.2%	1.3%

8.1.2 Forecast Models

8.1.3 Forecast Methodologies

8.1.4 Forecast Assumptions

8.1.5 Alternative Forecasts

6 d (ii)-(v)

8.2 DSM Options

(SJW39)

8.2.1 Data and Assumptions used in Option Analysis

5 (i) 2 e
6 e (i)-(iii)
6 f

8.2.2 Options rejected

5 (i) 2 d

8.2.3 Model Used in Analysis

5 (i) 2 g
6 g

8.2.4 Optimisation by the Cost Effectiveness Test Perspectives

6 (i)

8.2.5 Breakdown of Program Costs

Page:	2
[SJW1]	Perhaps we could use a positive expression here, such as "encourage customer loyalty" rather than the negative expression "discourage self generation".
Page:	7
[SJW2]	Include 10 year historical data on the graph to give context. Will energy sales really grow exponentially for ever? I assume that this is the official MERALCO forecast, so use it, but be prepared to defend it under questioning from ERB!
Page:	7
[SJW3]	We have used this generic paragraph in all of the four case study submissions. Are you happy with it?
Page:	11
[SJW4]	I wrote an introductory paragraph, and edited the text to tighten it up a little bit. Please check over it!
Page:	24
[SJW5]	This is perhaps a bit disingenuous! You can think of the new rate structure as providing everyone with "incentives" for a low load factor, but in reality the customers that we are talking about here -- whose bills WILL GO UP if they do nothing -- will first be trying to avoid a penalty rather than to avail themselves of an incentive!
Page:	24
[SJW6]	You have listed the customer groups who do not need the program. It would be a good idea to list those that DO need the program. Put them in priority order starting with the lowest load factor groups.
Page:	27
[SJW7]	Do you want to mention the IPP?
Page:	28
[SJW8]	Make sure that this is correct!
Page:	28
[SJW9]	Check that these NPC avoidable costs are correct.
Page:	28
[SJW10]	Make sure that this note is right.
Page:	29
[SJW11]	JOSEPH: summarise the results of the SRC/COMPASS* technology analysis here. I have included the numbers from one of the other case study utilities. CHANGE these numebrs to the ones that you are using and CHECK that the result matches the SRC/COMPASS* technology analysis!!!
Page:	29
[SJW12]	Insert the correct result here.

Page:			29
	[SJW13]	Insert the correct result here.	
Page:			29
	[SJW14]	Insert the correct result here.	
Page:			29
	[SJW15]	Insert the correct result here.	
Page:			30
	[SJW16]	CHECK that these numbers match yours. CHANGE if necessary.	
Page:			30
	[SJW17]	CHECK that these numbers match yours. CHANGE if necessary.	
Page:			30
	[SJW18]	Insert the value here for (MERALCO purchases minus MERALCO consumption) divided by MERALCO consumption.	
Page:			30
	[SJW19]	Insert the value here.	
Page:			30
	[SJW20]	Insert the calculated value here.	
Page:			30
	[SJW21]	CHANGE this if you used a different assumption.	
Page:			31
	[SJW22]	... and here.	
Page:			31
	[SJW23]	Say what the price is based on.	
Page:			31
	[SJW24]	Need to make the discount rates consistent.	
Page:			31
	[SJW25]	Make sure you attach them!	
Page:			31
	[SJW26]	If you have any sort of technology-level cost-effectiveness analysis, include it here. or example, if you have the full installed cost of capacity banks per kW of load, and the savings associated with an increment of improvement in power factor, you may be able to indicate the range of power factors where capacitor banks would be cost-effective.	
Page:			32
	[SJW27]	JOSEPH, ANNIE, can you drop the cost-effectiveness analysis for this program in this form here? Include a summary write-up at the front.	
Page:			32
	[SJW28]	Put the values in here.	

Page:		33
	[SJW29] Put the values in here.	
Page:		33
	[SJW30] Insert the value here for (MERALCO purchases minus MERALCO consumption) divided by MERALCO consumption.	
Page:		33
	[SJW31] Insert the value here.	
Page:		33
	[SJW32] Insert the number of years life of the lamps here.	
Page:		33
	[SJW33] Insert the calculated value here.	
Page:		33
	[SJW34] Say what the price is based on.	
Page:		33
	[SJW35] Say what the price is based on.	
Page:		34
	[SJW36] JOSEPH to find eligible market using residential survey results as discussed.	
Page:		34
	[SJW37] I have made a start. Can you finish a paragraph about the number of customers in the target group (>1MW) and how many are projected to participate in the pilot (and in the full program if possible).	
Page:		35
	[SJW38] RON: paste in the table from your document DSM_277:\load_f\loadprog.doc. I don't think that we have an electronic copy of this. Our print out is labelled 11/26/97.	
Page:		35
	[SJW39] ANNIE I think we have the numbers for this, but I don't think we have them electronically. Could you paste the numbers for total number of street lights to be converted in here please?	
Page:		35
	[SJW40] JOSEPH, fill in this table with the SRC/COMPASS [®] results.	
Page:		36
	[SJW41] EARL: is this OK? Or have you developed detailed estimates of participation and energy and demand savings?	
Page:		36
	[SJW42] EARL: complete the numbers in this paragraph and in the table.	

Page: 37
[SJW43] RON: Perhaps summarize the results here. Is this data included in the RMI / USAID documents? Make sure you attach them!

Page: 37
[SJW44] Help out a poor mechanical engineer: Is "apparent power" the correct term for the vector sum of active and reactive power, i.e. the hypotenuse of the power triangle?

Page: 38
[SJW45] ANNIE I think we have the numbers for this, but I don't think we have them electronically. Could you paste the numbers for total energy savings in here please?

Page: 41
[SJW46] The reduced supply costs value goes here -- it is equal to the present value of the energy and demand savings with the allowance for losses multiplied by the avoidable cost.

Page: 41
[SJW47] The present value of the gross revenue loss plus the program costs goes here.

Page: 41
[SJW48] xx minus yy goes here.

Page: 41
[SJW49] Put the discount rate you are using here.

Page: 41
[SJW50] Put the SRC/COMPASS* tariff impact here.

Page: 41
[SJW51] Put the average MERALCO bill in kWh here.

Page: 41
[SJW52] Multiply the average residential MERALCO bill by the tariff impact and put it here.

Page: 41
[SJW53] Put the utility discount rate here.

Page: 41
[SJW54] I think we should say here that these programs are either:
 • pilot programs (green buildings, industrial efficiency, industrial demonstration and power factor correction programs) which will have a negligible impact on rates and that the full program impact on rates will be assessed and submitted to ERB using the pilot program results; or
 • have a positive effect on bills and rates -- I think that this is this correct for the load factor improvement program because a customer who reduces a MERALCO peak coincident kW saves P 195 but MERALCO saves P 290 on their NPC bill.

Page:		42
	[SJW33] Joseph, my back-of-the envelope analysis shows this, but we should perhaps check this in SRC/COMPASS*.	
Page:		43
	[SJW36] Put the tariff impact value in here.	
Page:		43
	[SJW57] put the net revenue loss value in here.	
Page:		43
	[SJW53] Put the correct discount rate in here.	
Page:		50
	[SJW59] Put the long list, the screening process and the results here.	



Republic of the Philippines
SANGGUNIANG PANLUNGSOD
City Government of Pasig

ACKNOWLEDGMENT

This is to acknowledge the receipt of a copy of Manila Electric Company (MERALCO) and St. Raphael Power Generation Corporation's (SRPGC) verified Joint Application entitled "IN THE MATTER OF THE APPLICATION FOR THE APPROVAL OF THE POWER SUPPLY AGREEMENT (PSA) BETWEEN MANILA ELECTRIC COMPANY (MERALCO) AND ST. RAPHAEL POWER GENERATION CORPORATION (SRPGC), WITH MOTION FOR CONFIDENTIAL TREATMENT OF INFORMATION," *with attached Annexes*, served by MERALCO, prior to its filing with the Energy Regulatory Commission (ERC).

This acknowledgment is being issued upon the request of MERALCO for whatever legal intents and purposes it may served.

Issued this 29th day of April 2016 at Pasig City.


LOIDA U. VILLANUEVA
Acting City Council Secretary

BusinessMirror

A broader look at today's business

REPUBLIC OF THE PHILIPPINES)
MAKATI) S.S.

AFFIDAVIT OF PUBLICATION

I, **JENNY J. NAMANG** legal age, Filipino and residing at c/o **BUSINESSMIRROR PUBLISHING., INC.** 2/F Dominga Bldg. III Annex, 2113 Chino Roces corner Dela Rosa Streets, Makati City Philippines. after having been duly sworn to in accordance with the law, hereby declare and testify.

That I am the **Credit & Collection** of **BUSINESS MIRROR**, a newspaper which is published in English, edited and printed in Metro Manila, and circulated nationwide from Monday to Sunday with editorial and business address at 3/F Dominga Bldg., 2113 Chino Roces Sts. cor. Dela Rosa Street Makati City.

That the
PLACE AD

APPLICANT/PETITIONER

MANILA ELECTRIC COMPANY (MERALCO) AND ST. RAPHAEL POWER GENERATION CORPORATION (SRPGC)

(Joint Application With Motion for Confidential
Treatment of Information)

text of which could be read/deed as follows:

AS PER ATTACHED
has been published in **Business Mirror** in April 29, 2016.

AFFIANT FURTHER SAYETH NAUGHT
Manila, Philippines

JENNY J. NAMANG
Affiant

SUBSCRIBED and SWORN to before me this
____ day of _____, 2016 at Makati
Philippines

Affiant exhibited to me her TIN ID No. 297-257-600-000
issued 08-17-10 & SSS ID No. 09-3027971-0 with picture.

Doc.No. 97
Page No. 29
Book No. 138
Series of 2016.

RUBEN T.M. RAMIREZ
NOTARY PUBLIC
UNTIL DEC. 31, 2017
APPT. NO. M-23 (2015-2016)
IBP No. 1009530 / CY-2016
ROLL NO. 28947/MCLE-4 NO. 0006324/6-10-2012
PTR NO. MKT 5323578/1-4-16 MAKATI CITY

QUOTATIONS IN THE NEWS



"If you collude in business, or if you collude in the stock market, they put you in jail. But in politics, because it's a rigged system, because it's a corrupt enterprise, in politics you're allowed to collude." —DONALD TRUMP, after Ted Cruz and John Kasich (in photo) agreed to coordinate primary strategies in three of the 15 remaining primary states.



"[THE cell-phone destruction raised the stakes] from air in a football to compromising the integrity of a proceeding that the commissioner had convened." —BARRINGTON D. PARKER, judge for the 2nd US Circuit Court of Appeals in Manhattan, after the court overturned a lower judge and sided with the National Football League, restoring a four-game "Deflategate" suspension against New England Patriots quarterback Tom Brady (in photo), who destroyed a phone that contained thousands of messages the day before he was to meet with league investigators.



"THE resolution is nothing to celebrate because a 12-year-old child needlessly lost his life." —SUBODH CHANDRA, attorney for the family of Tamir Rice, who received a \$6-million wrongful death settlement from the city of Cleveland, alleging police acted recklessly when they confronted the boy who was playing with a pellet gun outside a recreation center on November 22, 2014. AP



BusinessMirror

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INSIDE

*2016 ISUZU TRUCK FEST: WHEN BIG BOYS ROAR

ICC-CABCOM SAYS SHIFTING TO STANDARD-GAUGE TRACKS NOT NECESSARY

DOTC-proposed ₱100-B hike in NSRP cost nixed

By CAI ORDINARIO @caiordinario

THE Department of Transportation and Communications (DOTC) has proposed to increase the cost of the North-South Railway Project

₱170.69B



The cost of the North-South Railway Project

However, the interagency Investment Coordination Committee Cabinet

Caesar or nothing



Teddy Locsin Jr.

FREE FIRE

HOW bad is the peace and order problem? It is bad; worse than bad, it is anarchy. In Silang, Cavite, the police are protecting the killers of an American retiree, killed by Caviteños who broke into the house of an American, roughed up his wife, stole everything that was in the house.

IN THE MATTER OF THE
APPLICATION FOR THE
APPROVAL OF THE POWER
SUPPLY AGREEMENT (PSA)
BETWEEN MANILA ELECTRIC
COMPANY (MERALCO) AND
ST. RAPHAEL POWER
GENERATION CORPORATION
(SRPGC), WITH MOTION FOR
CONFIDENTIAL TREATMENT
OF INFORMATION,

ERC CASE NO. 2016 - __ RC

MANILA ELECTRIC COMPANY
(MERALCO) AND ST. RAPHAEL
POWER GENERATION
CORPORATION (SRPGC),
Applicants.

-----X-----

**JOINT APPLICATION
with
MOTION FOR CONFIDENTIAL TREATMENT OF
INFORMATION**

Applicants MANILA ELECTRIC COMPANY ("MERALCO") and
ST. RAPHAEL POWER GENERATION CORPORATION
("SRPGC"), through their respective undersigned counsel,
respectfully state:

1. Applicant MERALCO is a private corporation existing
under the laws of the Republic of the Philippines, with principal office
located at Ortigas Avenue, Barangay Ugong, Pasig City. It may be
served with notices and other processes of this Honorable
Commission through its counsel at the address indicated herein.
2. MERALCO has a legislative franchise to operate and
maintain a distribution system in the cities/municipalities of Metro
Manila, Bulacan, Cavite and Rizal and certain cities, municipalities
and barangays in Batangas, Laguna, Quezon and Pampanga,
pursuant to Republic Act No. 9209, and is authorized to charge all its
customers for their electric consumption at the rates approved by this
Honorable Commission.
3. Applicant SRPGC is a corporation duly organized and
existing under the laws of the Republic of the Philippines, with its
principal office address at Brgy. Bacalaran, Balayan, Batangas. It may
be served with notices and other processes of this Honorable
Commission through its counsel at the address indicated herein.
4. SRPGC shall construct, own, operate, manage and
maintain a 2 x 350 MW (rated) coal-fired power generating facility in
Calaca, Batangas (the "Plant"), on the island of Luzon in the
Philippines.
5. Based on MERALCO's Distribution Development Plan,
"from 2015 to 2024, energy sales is forecasted to grow by a
compounded average growth rate of 3.7%."

6. In order to ensure continuous and reliable electricity for
MERALCO's customers with the expected continuous increase in
demand and load growth, and mitigate exposure to the Wholesale
Electricity Spot Market ("WESM"), there is a need for MERALCO to
source additional capacity through bilateral power supply contracts.

7. Under Section 45(b) of Republic Act No. 9136 ("EPIRA"),
it is provided that "Distribution utilities may enter into bilateral power
supply contracts subject to review by the ERC xxx".

8. Accordingly, following extensive negotiations, on 26 April
2016, MERALCO executed a Power Supply Agreement ("PSA") with
SRPGC, for the purchase of up to 400 MW Contract Capacity¹ and
Associated Energy from the Plant that SRPGC shall construct, own,
operate, manage and maintain.

9. The PSA, a copy of which is attached as **ANNEX "A"**
and made an integral part hereof, contains the following salient
features:

2.1 Purpose

The purpose of this Agreement is to set out the rights and obligations
of each Party with regard to the sale and purchase of Contract
Capacity and Associated Energy of the Plant.

2.2 Term of Agreement

- 2.2.1 Subject to Article 3, this Agreement shall become effective
on the Effective Date.
- 2.2.2 The term of this Agreement (the "Term") shall commence on
the Operations Effective Date (Unit 1) and shall expire on
the date falling twenty (20) years and four (4) months
thereafter xxx.

XXX XXX XXX

3.2 Commencement Date

- 3.2.1 The "Commencement Date" shall occur upon the
satisfaction of the conditions below:
 - (a) The conditions set out in Section 3.1 have been fulfilled;
 - (b) Each Party has delivered to the other Party a certification
dated no earlier than two (2) Days prior to the proposed
Commencement Date to the effect that its representations

8.1.2 During the conduct of the Major Maintenance of each Unit of
the Plant which occurs once every five (5) years reckoned
from Commercial Operations Date of each Unit, the Full Load
Equivalent Outage Allowance Days shall be increased by an
additional fifteen (15) Full Load Equivalent Outage Days;
provided that Power Supplier may only undertake Major
Maintenance for a total of three (3) times during the Term;
provided further that the first Major Maintenance shall occur
no earlier than the fifth (5th) year after the occurrence of the
Commercial Operations Date.

8.1.3 In case an Event of Force Majeure coincides with a Scheduled
Outage, any downtime shall be credited against the Full Load
Equivalent Outage Allowance Days.

8.2 Replacement Electrical Output During Outages

8.2.1 During Outages within the Full Load Equivalent Outage
Allowance Days, Power Supplier shall not be required to
supply Meralco with Replacement Energy. In such
circumstances, Meralco, at its own cost, shall source the
Replacement Energy from the WESM. Power Supplier shall
not invoice Meralco for such portion of Contract Capacity and
Associated Energy that is not made available or supplied for
the duration of Scheduled Outages within the Full Load
Equivalent Outage Allowance Days. If during any Contract
Year, the Outages exceed the Full Load Equivalent Outage
Allowance Days, Power Supplier shall procure at Power
Supplier's own cost, such Replacement Energy and electrical
output from third parties (including the WESM) to satisfy the
relevant day-ahead nominations of Meralco. During such
period, Meralco shall pay Power Supplier the Price. In the
event Power Supplier fails to procure such quantities of
electrical energy for Meralco, Power Supplier shall indemnify
and hold Meralco harmless from any loss, cost, expense or
penalty incurred or paid by Meralco.

XXX XXX XXX

Article 9 Assignment or Transfer of Contract Capacity

9.1 Meralco shall be entitled to assign, transfer, designate,
delegate or allocate (collectively in this context, "Transfer") its
rights and obligations to purchase a portion of Contract
Capacity and Associated Energy that is no longer required by
Meralco to any of its business segments or wholly-owned
Affiliates without the prior consent of the Power Supplier.

Meralco shall also be entitled to Transfer its rights and
obligations to purchase a portion of Contract Capacity and
Associated Energy that is no longer required by Meralco to
any other Person, subject to the consent of Power Supplier,
which consent shall not be unreasonably withheld, delayed or
conditioned, it being understood that withholding consent
would not be considered unreasonable if the proposed
Transfer would be contrary to the reasonable requirements of
Finance Parties under the Finance Documents, as evidenced
by a written confirmation by the relevant Finance Parties. xxx

XXX XXX XXX

Article 10 Billing and Payment

XXX

10.2 Payments

10.2.1 Meralco shall pay the entire amount indicated in the Final
Invoice (subject to Appendix H) when due and payable,
provided that Meralco shall not be required to make
payment on any Invoice that is manifestly in error,
apparently invalid or not in the form or substance
contemplated by this Agreement.

XXX XXX XXX

Article 11 Taxes, Fees and Costs

XXX

11.2 Charges Due to Change in Law

(a) If as a result of a Change in Law, Meralco becomes liable to
pay any new charges, fees, taxes, duties, assessments or
other similar amounts ("New Charges"), or any increase in
existing charges, fees, taxes, duties, assessments or other
similar amounts ("Increased Charges") become payable with
respect to this Agreement, the New Charges or Increased
Charges shall form part of the price that Meralco will charge
to its customers.

(b) If as a result of a Change in Law (other than a change in
income taxes payable by Power Supplier), Power Supplier
becomes liable to pay New Charges or Increased Charges
with respect to this Agreement, and such liability materially
and adversely affects the ability of Power Supplier to perform
its obligations under this Agreement, materially and adversely

Article 16 Force Majeure

XXX

16.5 Effect of Extended Force Majeure

If any Event of Force Majeure prevents Power Supplier from making
available the Contract Capacity or Associated Energy or Meralco
from accepting Contract Capacity or Associated Energy, in each
case for a continuous period of more than one hundred eighty (180)
Days, then either Party may upon written notice, require the other
Party to meet as soon as practicable to reasonably discuss any
modification, change or amendment of this Agreement under such
reasonable terms, to the extent necessary to resolve the issues
arising from the Event of Force Majeure and maintain, to the extent
feasible, the rights and obligations of the Parties under this
Agreement.

If the Parties do not reach such satisfactory solution within ninety
(90) Days from the end of the one hundred eighty (180) Day period,
or such other time as may be agreed upon, either Party may
terminate this Agreement in accordance with Section 17.6.5.

XXX XXX XXX

Article 17 Events of Default and Termination

17.1 Power Supplier Events of Default

Each of the events described below shall constitute a Power
Supplier Event of Default, provided that such events (with the
exception of Sections 17.1(d) and Section 17.1(e) (i), (ii) and
(iii)) results in or is accompanied by an actual failure by Power
Supplier to make Available the Contract Capacity and/or
deliver the Associated Energy of Meralco in accordance with
the terms of this Agreement:

XXX

17.2 Meralco Events of Default

Each of the events described below shall constitute a Meralco
Event of Default, provided that such event (with the exception
of Section 17.2(d)) results in or is accompanied by an actual
failure by Meralco to receive, and pay for, the Contract
Capacity and Associated Energy in accordance with this
Agreement:

XXX

For the avoidance of doubt, it is understood and agreed that,
subject to Section 16.2(d) being applicable, the expiration
and/or non-renewal of the Franchise shall not be considered
a Meralco Event of Default.

10. The Payment Structure, as provided in Appendix E of the
PSA shall be as follows:

2. PAYMENT STRUCTURE

The payment to be made in each Billing Period during the Term for
Contract Capacity and Associated Energy shall consist of a Capacity
Payment, Energy Payment, Additional Reimbursable Costs and
applicable value-added tax. The Capacity Payment consists of
Component A (MCP) and Component B (MFOM), the Energy
Payment consists of Component C (FP) and Component D (MVOM),
the Reimbursable Costs consists of Component E (RC), and
Component F (VAT). Thus, the Monthly Power Bill ("MPB") payment
for Contract Capacity and Associated Energy for each Billing Period
shall be equal to:

$$MPB = MCP + MFOM + FP + MVOM + RC + VAT$$

All payments to Power Supplier under this Agreement will be made
in Philippine Pesos (PHP). All computations for payments to Power
Supplier shall not be rounded off, except for the final PHP amount,
which shall be rounded off to the nearest centavo.

XXX XXX XXX

11. Given the foregoing, a sample calculation of the base
contract price under the PSA, given a certain set of assumptions,
results in an annual effective rate of PhP3,7549 per kWh (at plant
gate), as shown in the sample calculation below:

SRPGC PSA - Sample Calculation					
LINE ITEM	UNIT	BASE RATE	CR/Adj Factor	BASED ON CONTRACT	AMOUNT (PHP)
A. Capacity Payment (MCP)					
Price Per MW	(PhP/MW-hr)	24,584.000	400,000	(1hr)	9,833,600.00
B. Fixed O&M Payment (MFOM)					
US Dollar Per MW Per Hour	(USD/MW-hr)	34.120	1,000,000	(1hr)	126,768.00
Price Per MW Per Hour	(PhP/MW-hr)	940.820	1,000,000	(1hr)	367,128.00
C. Fuel Payment (FP)					
Price Per MWh	(PhP/MWh)	0.000	2,000,000,000	(1MWh)	2,000,000.00
D. Variable O&M Payment (MVOM)					
Price Per MWh	(PhP/MWh)	0.000	2,000,000,000	(1MWh)	2,000,000.00
E. Reimbursable Cost Payment (RC) (1)					
Real Property Tax	(PhP)				12,178.00
Transfer Tax	(PhP)				-
Insurance Cost	(PhP)				-
Supplemental Payments	(PhP)				14,713.00
TOTAL PAYMENT					
Effective Rate at Plant Gate	(PhP/kWh)				3,754.9
Value Added Tax (VAT) (2)	(PhP/kWh)				0.00
Delivered Rate	(PhP/kWh)				3,754.9
Increase / (Decrease) over WESM Price					
Monthly Capacity Energy Demand (3)	(MWh)				2,000,000.00
Increase / (Decrease) in Generation Cost	(PhP)				(4,972,776.426)
Increase / (Decrease) in Generation Cost	(PhP/kWh)				(0.250)

NOTE:
1. Base Rates as set forth in Schedule 1 of the PSA.
2. Assumed Capacity Rate and assumed Fixed O&M Rate as reported by the Commission for the purpose of the PSA.
3. Fuel payment calculated based on assumed coal price of PhP1,000 per ton, assumed coal heat rate of 10,000 Btu per kWh, and assumed rate of PhP1.00 per ton.
4. Assumed variable O&M payment of PhP0.00 per MWh.
5. Assumed real property tax of PhP12,178.00 per year.
6. Assumed transfer tax of PhP0.00 per year.
7. Assumed insurance cost of PhP14,713.00 per year.
8. Assumed supplemental payments of PhP14,713.00 per year.
9. Delivered rate based on assumed capacity rate of PhP3,754.9 per kWh.
10. Energy Payment based on assumed capacity rate of PhP3,754.9 per kWh.

12. As seen in the rate impact above, given the above
assumptions, the simulated delivered price under the PSA would
result in the reduction of MPRALCO's generation charge by about

treated as confidential. SRPGC respectfully submits that the
foregoing documents contain certain non-public information, data and
calculations involving business operations and financial trade secrets
reflecting SRPGC's investment and business calculations.

21. SRPGC hereby submits one (1) copy of each of the
foregoing Confidential Documents in a sealed envelope, with the
envelope and each page of the document stamped with the word
"Confidential."

PRAYER

WHEREFORE, premises considered, it is respectfully prayed
that the Honorable Commission:

a) ISSUE an Order: (i) treating the Confidential Documents
and the information contained therein as confidential, (ii) directing
their non-disclosure pursuant to Rule 4 of the ERC Rules, and (iii)
prescribing the guidelines for the protection thereof; and

b) after hearing on the merits, a Decision be rendered
APPROVING the PSA between Applicants MERALCO and SRPGC.

Other reliefs just and equitable under the circumstances are
likewise prayed for.

Pasig City, 28 April 2016.

MANILA ELECTRIC COMPANY
Applicant
MERALCO Compound, Lopez Building,
Ortigas Avenue, Pasig City

By:

FRANCIS DINO S. ANTONIO
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PTR No. 1473407; 01/21/16; Pasig City
IBP No. 1023724; 01/08/16; RSM
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IBP No. 1023728; 01/08/16; Capiz
MCLE Compliance No. V-001784; 26 March 2014

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Tel no. 1622-2260; Fax No: 1622-3550
Makati City for Pasig City, 26 April 2016.

ST. RAPHAEL POWER GENERATION CORPORATION
Applicant

PUYAT JACINTO & SANTOS
Counsel for Applicant
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By:

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MCLE Compliance No. IV-0018419/4-24-13³

ZANN PAOLO L. PACIFICADOR
Roll No. 60605

IBP LRN. 010801/Amique/14 Mar. 2012
PTR No. 5323327/01-04-2016/Makati City
MCLE Compliance No. V-0010059/8-26-15



ORTIGAS AVENUE, RASIG CITY
0300 PHILIPPINES

SECRETARY'S CERTIFICATE

I, WILLIAM S. PAMINTUAN, a duly elected, qualified and incumbent Assistant Corporate Secretary of the Manila Electric Company (MERALCO), a corporation duly organized and existing under and by virtue of the laws of the Philippines, do hereby certify that:

At the regular meeting of the Board of Directors of the Company duly convened and held on April 26, 2016, at which meeting a quorum was present, acted throughout and voted, the following resolutions were approved and said resolutions are in full force and effect on the date hereof:

"RESOLVED, that the Board of Directors of the Manila Electric Company Electric Company (MERALCO) hereby authorizes MERALCO to enter into a Power Supply Agreement with St. Raphael Power Generation Corporation (SRPGC);

"RESOLVED, FURTHER, that the following officers, namely Messrs. MANUEL V. PANGILINAN, Chairman of the Board, OSCAR S. REYES, President & Chief Executive Officer, ALFREDO S. PANLILIO, Senior Vice President, Head, Customer Retail Services and Corporate Communication and RONNIE L. APEROCHO, First Vice President & Head, Networks, are hereby directed and empowered, for and in behalf of the Company, to sign, execute and deliver any contract, agreement, instrument, and other documents which may be deemed necessary or appropriate for the purpose, and to perform or execute all other acts and deeds as may be necessary or appropriate to carry out or accomplish the said purpose;

"RESOLVED, FURTHERMORE, that the Board of Directors authorize, as it hereby authorizes, MERALCO, through Ms. IVANNA G. DELA PEÑA, First Vice President & Head, Regulatory Management Office and Atty. JOSE RONALD V. VALLES, Vice President and Head, Regulatory Affairs, or any lawyer or employee of MERALCO that any of them may designate, name or appoint:

- (1) To file the appropriate application with the Energy Regulatory Commission (ERC) for the approval of the Power Supply Agreement between MERALCO and St. Raphael Power Generation Corporation (SRPGC), for the supply and delivery of electric power to MERALCO;
- (2) to sign, execute, and deliver in connection therewith the necessary pleadings, motions, verification, affidavit of merit, certificate of non-forum shopping, powers of attorney, and other instruments as may be necessary or proper; and
- (3) To designate, name, and appoint, a representative or an attorney-in-fact in behalf of the Company during the preliminary conference, pre-trial, trial, execution and all other stages of or incidents related to the case, proceeding or action; to negotiate, enter into, and agree to an amicable settlement, make admissions or stipulations of fact and/or documents; and to perform

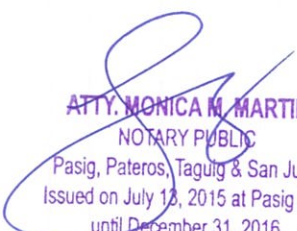
and execute any and all actions and such other matters as may aid in the prompt disposition of such case, proceeding or action."

WITNESS THE SIGNATURE of the undersigned as such officer of the Company and its corporate seal hereunto affixed on this 27 day of April 2016.


WILLIAM S. PAMINTUAN
 Assistant Corporate Secretary

SUBSCRIBED AND SWORN to before me this 27 day of April 2016, affiant exhibited to me his Taxpayer Identification Number (TIN) 146-473-562, issued by the Bureau of Internal Revenue (BIR) as his competent evidence of identity.

Doc. No. 734;
 Page No. 48;
 Book No. II;
 Series of 2016.


ATTY. MONICA M. MARTIN
 NOTARY PUBLIC
 Pasig, Pateros, Taguig & San Juan
 Issued on July 13, 2015 at Pasig City
 until December 31, 2016
 Roll No. 55693; IBP No. 1023726; 01/08/16; RSM Chapter
 PTR No. 1473411; 01/21/16; Pasig City
 7th Floor, Lopez Bldg., Ortigas Ave., Pasig City

SECRETARY'S CERTIFICATE

I, **JOHN R. SADULLO**, of legal age, Filipino, and with office address located at 2nd Floor, DMCI Plaza, 2281 Don Chino Roces Avenue, Makati City, do hereby certify that at the Special Meeting of the Board of Directors of **ST. RAPHAEL POWER GENERATION CORPORATION** (the "Corporation") held on April 25, 2016, the following resolutions were unanimously approved and adopted:

Directors' Resolution

"RESOLVED, as it is hereby resolved, that the Board of Directors of **St. Raphael Power Generation Corporation** (the "Corporation") authorize, as it is hereby, authorizes the Corporation to negotiate, sign and execute a Power Supply Agreement (PSA) with the **MANILA ELECTRIC COMPANY (MERALCO)** to supply 400MW from its 2x350 MW Power Plant Project in Calaca, Batangas under such terms and conditions mutually agreed by the parties.

RESOLVED, FURTHER, that the Corporation's President and Chief Operating Officer, **Victor A. Consunji**, be, as he is hereby authorized and with full power and authority to sign, execute and deliver for and in behalf of the Corporation any and all contracts, documents, agreements, pleadings, and other papers as may be necessary, required or proper to implement the aforementioned authority under such terms and conditions as are deem conducive to the best interest of the Corporation.

RESOLVED, FURTHERMORE, that the Board of Directors of the Corporation authorize, as it is hereby, authorizes the Corporation to file with the **ENERGY REGULATORY COMMISSION ("ERC")** an application or petition for approval of the Power Supply Agreement and/or its amendments, if any, between MERALCO and the Corporation ("Application").

RESOLVED, FINALLY, that the Board of Directors of the Corporation authorize, as it is hereby, authorizes the Corporation's President and Chief Operating Officer, **Victor A. Consunji** and/or its authorized representatives, **Andreo O. Estrellado** and/or **John R. Sadullo** with authority to be the Corporation's true and lawful attorney-in-fact, to:

1. represent the Corporation in filing the Application with the ERC;
2. execute, sign and obtain any document, including the verification and certificate of non-forum shopping, that may be required in the filing of any action or pleading relevant to the preceding paragraph;
3. act as agent of and appear on behalf of the Corporation in the proceedings relating to the said Application, with full power to make commitments and take positions and to consider (i) the possibility of an amicable settlement or a submission to arbitration, mediation or other modes of alternative dispute resolution; (ii) the simplification of the issues; (iii) the necessity or desirability of amendments to the pleadings; (iv) the possibility of obtaining stipulations or admissions

of facts and of documents totally or partially to avoid unnecessary proof; (v) the limitation of the number of witnesses or time allocated to particular witnesses and issues; (vi) the advisability of a preliminary reference of issues to a commissioner; (vii) the necessity or desirability of having an expository hearing or consumer forum; (viii) procedures at the hearing and hearing schedule; (ix) the submission of written testimony and exhibits to be offered and the marking thereof; (x) agreements regarding service of documents; and (xi) such other matters as may aid in the prompt disposition of the proceedings;

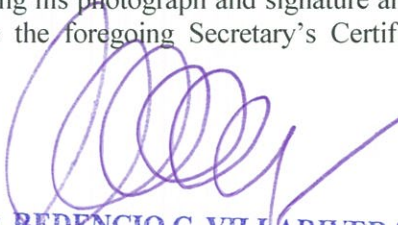
4. negotiate, conclude, enter into and execute a compromise or amicable settlement, if appropriate, or to submit to alternative modes of dispute resolution, under such terms and conditions as he may deem just and reasonable;
5. file any appeal, or any other remedy which the Corporation can avail relative to the Application; and
6. do and perform on behalf of the Corporation any act and deed relating to the Application which the Corporation could legally do and perform."

IN WITNESS WHEREOF, I have hereunto set my hand on this 25th day of April 2016 at Makati City, Metro Manila.


JOHN R. SADULLO
Corporate Secretary

SUBSCRIBED AND SWORN, to before me on this 25th day of April 2016, at Makati City, by John R. Sadullo who has satisfactory proven to me his identity through his Driver's License with No. N01-02-005690 valid until July 22, 2017 bearing his photograph and signature and that he is the same person who personally signed before me the foregoing Secretary's Certificate and acknowledged that he executed the same.

Doc. No. 137 ;
Page No. 18 ;
Book No. 1 ;
Series of 2016.


Atty. REDENCIO C. VILLARIVERA
Notary Public for Makati City
For the term ending December 31 2017
Roll No. 45335; Appointment No. M-296
4th Floor Dacon Building No. 2281
Pasong Tamo Extension Makati City
IBP No. 10-2970/Jan. 7, 2016/Makati City
PTR No. 5330653/ Jan. 7, 2016/Makati City
MCLE No. IV-0020719, June 17, 2012