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

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IN THE MATTER OF THE
APPLICATION FOR
APPROVAL OF THE
EMERGENCY REPLACEMENT
OF ONE (1) 83-MVA POWER
TRANSFORMER AT MAKATI
SUBSTATION,

ERC Case No. 2022- 059 RC

**MANILA ELECTRIC COMPANY
(MERALCO),**

August 31, 2022

Applicant.

X-----X

APPLICATION

Applicant **MANILA ELECTRIC COMPANY (MERALCO)**,
through the undersigned counsel, most respectfully states that:

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

2. Applicant has a legislative franchise to construct, operate and maintain an electric power distribution system for the conveyance of electric power to the end-users in the cities and municipalities of Metro Manila, Bulacan, Cavite and Rizal, and certain cities/municipalities/barangays in Batangas, Laguna, Quezon and Pampanga, pursuant to Republic Act No. 9209.

3. Applicant seeks the Honorable Commission's approval of its emergency installation of one (1) 83 MVA, 115 kV-34.5 kV, three (3)-phase power transformer with On-Load Tap Changer (OLTC) at its Makati Substation to replace the defective Power Transformer Bank No. 1.

4. The Application is filed pursuant to Section 10 of Republic Act No. 11659, otherwise known as "An Act Amending Commonwealth

Act No. 146 Otherwise Known as the Public Service Act, as Amended”, which provides:

“Section 10. Section 20 of Commonwealth Act No. 146, as amended, is hereby further amended to read as follows:

x x x

(b) To establish, construct, maintain, or otherwise operate new units or extend existing facilities or make any other addition to or general extension of the service: Provided, That only assets that are useful and necessary for the provision of the public service shall form part of the rate base as determined and approved by the Administrative Agency: Provided, further, That construction of such asset and implementation of such project may be allowed for emergency and other extraordinary cases: Provided, finally, That the public service provider files for approval of such extension or construction of facilities within sixty (60) days from implementation of the project, and without prejudice to the final determination by the Administrative Agency if the said asset is useful and necessary for inclusion in the rate base.”

5. Moreover, the instant Application is consistent with the Honorable Commission’s Resolution No. 26, Series of 2009, entitled: *“Resolution Amending the Rules for Approval of Regulated Entities’ Capital Expenditure Projects”*. Emergency Capital Expenditure projects are those that require immediate implementation during an event that is not a force majeure or fortuitous event in order to maintain safe, reliable, secure and efficient operation of the power system.

6. However, for purposes of recovering the capital cost of the said emergency project through Applicant’s rates, the same will go through the process of evaluation by the Honorable Commission during the regulatory reset process, unless there is basis for a rate-reopening in the current regulatory period, in accordance with the Rules for the Setting of Distribution Wheeling Rates (RDWR) for Distribution Utilities (DUs).

BACKGROUND

7. The Makati Substation is located at Pablo Ocampo Extension, Sta. Cruz, Makati City, Metro Manila, where it serves the

power requirements of customers in Makati City. The Makati Substation has one (1) 115kV-34.5kV power transformer bank.

8. On 30 May 2022, the Makati Power Transformer Bank No. 1 was tripped out by transformer differential relay with the actuation of Buchholz and pressure relief devices due to internal fault. Based on the retrieved relay data, it showed that the fault occurred in the transformer Phase B primary winding with a fault magnitude of 1.24kA. Furthermore, the operation of Transformer Bank No. 1's Pressure Relief Device, Buchholz Relays of Main Tank, and Turrets validated the occurrence of an internal fault. Power Transformer Bank No.1, a Siemens 83MVA 115-34.5kV, was first energized last 08 December 2019. Upon tripping, MERALCO was constrained to temporarily transfer all its loads to the adjacent banks, namely: the Kamagong Bank Nos. 1 and 2 and the New Rockwell Bank Nos. 3 and 4.

9. From 30 to 31 May 2022, the transformer was subjected to a series of tests to determine its condition after the incident. The test results on the power transformer showed that it was no longer safe to be re-energized and was declared for replacement due to the following significant findings: "Gas accumulated at the Buchholz relay showed high level of combustible gases including Hydrogen, Acetylene, Ethylene, and Methane". The same gases were also evident in the extracted oil from the transformer main tank and transformer turret which were indicative of a high energy fault sustained by the transformer.

10. Furthermore, transformer electrical tests showed that the ratio for all taps on all phases was no longer within the expected tolerance based on IEEE Standards which is also being used by MERALCO as reference. The winding resistance for all taps on all phases obtained was also relatively low compared to the initial commissioning values. High excitation current was also observed on all phases causing the Insulation Power Factor test equipment to trip at relatively low voltage of less than 1 kV which indicates the possibility of turn-to-turn short. Given these circumstances, Applicant was constrained not to re-energize the defective Makati Power Transformer Bank No. 1.

11. As a result of accommodating the loads of the defective transformer, the Kamagong Bank Nos. 1 and 2 were both operating at 70% loading levels, while the New Rockwell Bank Nos. 3 and 4 are at 74% and 61% loading levels, respectively.

12. The critical loading of the Kamagong Bank Nos. 1 and 2 and the New Rockwell Bank No. 3 may result to an outage which will cause prolonged and massive interruption in the said areas thereby affecting the supply of electricity of customers in Makati City, such as,

but not limited to, the Makati City Hall, Century City Mall Makati, Century Diamond Tower, Centuria Medical Development, SM Jazz Mall, St. Clare’s Medical Center, Cash & Carry Mall, e-PLDT Vitro Makati, Angelus Medical Clinic Inc., and Avida Towers Astén.

13. Considering the imminent risks posed by the prolonged critical loading of the adjacent power transformers, namely: the Kamagong Bank Nos. 1 and 2 and the New Rockwell Bank No. 3, MERALCO was constrained to replace the defective Makati Power Transformer Bank No. 1 with an available 83 MVA, 115 kV-34.5 kV Power Transformer initially intended to be used for the development of the Aseana Smart Substation project, and the same was energized on 05 July 2022.

14. The projected loadings of the affected power transformers with and without the replacement of the Makati Power Transformer Bank No. 1 are as follows:

Parameter Under Consideration	Parameters	
	Without Project	With Project
Loading of existing New Rockwell 83-MVA Bank No. 3	74.37%	50.20%
Loading of existing Kamagong 83-MVA Bank No. 1	70.29%	51.45%
Loading of existing Kamagong 83-MVA Bank No. 2	70.75%	51.18%
Loading of existing New Rockwell 83-MVA Bank No. 4	60.84%	56.40%
Loading of Makati 83-MVA Bank No. 1	-	66.24%
System Loss	7,054,851 kWh	6,105,728 kWh

15. In the event of another outage of the adjacent power transformers, coupled with the non-replacement of the Makati Power Transformer Bank No. 1, there will be massive power interruptions to the detriment of customers in the affected area. Thus, it was crucial that the new power transformer be immediately installed at the Makati Substation.

16. The total cost of the emergency replacement of the power transformer with OLTC at the Makati Substation is **Fifty Million Eight**

Hundred Sixty Thousand Seven Hundred Eighty-One Pesos (PhP50,860,781.00).

17. In further support of the Application, attached hereto are the following documents:

- **Annex "A"** – Emergency CAPEX Project Information Summary with supporting documents: (i) Technical and Economic Analysis, (ii) Cost Estimates; (c) Expenditure Summary; (iii) Cost Benefit Analysis Calculation; and (iv) Gantt Chart;
- **Annex "B"** – Documents showing the results of tests conducted on Power Transformer Bank No. 1; and
- **Annex "C"** – Judicial Affidavit of Engr. Bienvenido H. De Guzman Jr., Manager and Head of Applicant's Substation Services Asset Management Office.

PRAYER

WHEREFORE, it is respectfully prayed to this Honorable Commission that the Applicant's emergency replacement of the power transformer at the Makati Substation be **APPROVED**.

Other relief just and equitable under the premises are likewise prayed for.

Pasig City, 1 August 2022.

By:



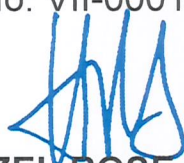
FRANCIS DINO S. ANTONIO

Roll of Attorneys No. 48145

PTR No. 8131470; 01/06/2022; Pasig City

IBP No. 179335; 01/21/2022; RSM

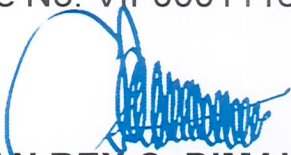
MCLE Compliance No. VII-0001788; 02 December 2019



HAZEL ROSE B. SEE

Roll of Attorneys No. 48265

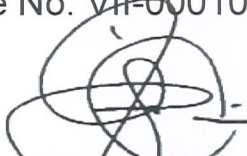
PTR No. 8131472; 01/06/2022; Pasig City
IBP No. 06460(LIFETIME); 01/16/07; QC
MCLE Compliance No. VII-0001116; 17 October 2019



ADRIAN REX C. DIMALANTA

Roll of Attorneys No. 61149

PTR No. 8131474; 01/06/2022; Pasig City
IBP No. 179338; 01/21/2022; PPLM
MCLE Compliance No. VII-0001098; 17 October 2019



ISAGANI C. CORUÑA II

Roll of Attorneys No. 63123

PTR No. 8131478; 01/06/2022; Pasig City
IBP No. 179340; 01/21/2022; RSM
MCLE Compliance No. VII-0003269; Valid until 14 April 2025



EDGAR MICHAEL C. ROBLES

Roll of Attorneys No. 62413

PTR No. 8131475; 01/06/2022; Pasig City
IBP Lifetime No. 011798
MCLE Compliance No. VII-0001112; 17 October 2019

7th Floor, Lopez Building
Ortigas Avenue, Barangay Ugong, Pasig City
Tel no. 1622-2260; Fax No: 1622-3550
Email: regaffairs@meralco.com.ph

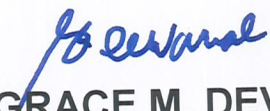
VERIFIED DECLARATION

I, **MARY GRACE M. DEVARAS**, of legal age, Filipino, with office address at 7th floor, Lopez Building, Ortigas Avenue, Pasig City, after having duly sworn in accordance with law, hereby depose and state:

1. I am one of the Dedicated Liaison Officers of Manila Electric Company (MERALCO) as stated under the Certificate of Registration ER No. 2021-0294-1 issued by the Energy Regulatory Commission (ERC). As such, I am one of the duly authorized representatives of undertake the pre-filing process with respect to the application to be pre-filed by MERALCO for the approval of the emergency replacement of one (1) 83-MVA power transformer at Makati substation.

2. I hereby declare that, in compliance with ERC resolution No. 9, series of 2020, the documents submitted by MERALCO electronically as part of the virtual pre-filing process are complete and true copies of the original documents.

IN WITNESS WHEREOF, I hereby affix my signature this SEP 02 2022 day of September 2022.


MARY GRACE M. DEVARAS

SUBSCRIBES AND SWORN TO before me this SEP 02 2022 day of 2022, at PASIG CITY City, Philippines, affiant exhibiting to me the following competent evidence of her identity: TIN ID with no. 240-883-707-000, bearing her signature and photograph.

Doc No. 367;
Page No. 75;
Book No. IV;
Series of 2022.


MA. ELSHA S. ELORAGA
NOTARY PUBLIC
Appointment No. 121 (2020-2021)
(valid until Dec 31, 2022, as granted by Bar Matter No. 3795)
Pasig, San Juan and Pateros
Issued on 24 February 2020 at Pasig City
Roll of Attorneys No. 73497
IDP No. 179542, 01/21/2022; Quezon City
PTR No. 8131477; 01/06/2022; Pasig City
7th Floor, Lopez Bldg., Ortigas Ave., Pasig City

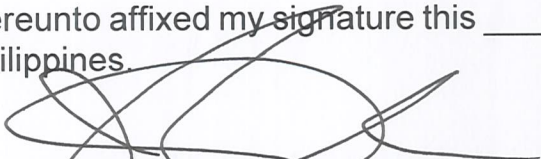
Republic of the Philippines)
Pasig City) S.S.

VERIFICATION and CERTIFICATION OF NON-FORUM SHOPPING

I, **JOSE RONALD V. VALLES**, of legal age, married, and with office address at Manila Electric Company (MERALCO), 12th Floor, Lopez Building, MERALCO Center, Ortigas Avenue, Barangay Ugong, Pasig City, hereby state under oath that:

1. I am the First Vice-President and Head of the Regulatory Management Office of MERALCO, and is authorized to represent it in this Application as per the attached Secretary's Certificate (**Annex "D"**);
2. I have caused the preparation of the instant Application and read the contents thereof, and I attest that the allegations herein contained are true and correct based on my personal knowledge and on authentic records made available to me;
3. The Application is not filed to harass, cause unnecessary delay, or needlessly increase the cost of litigation;
4. The factual allegations therein have evidentiary support or, if specifically so identified, will likewise have evidentiary support after a reasonable opportunity for discovery;
5. MERALCO has not commenced any other action or proceeding involving the same issues in the Supreme Court, the Court of Appeals or any court, tribunal, or quasi-judicial agency and, to the best of my knowledge, no such other action or claim is pending therein; and
6. Should I hereinafter learn that the same or a similar action or claim has been filed or is pending in the Supreme Court, the Court of Appeals or any court, tribunal, or quasi-judicial agency, I shall report said fact within five (5) days from discovery thereof to this Honorable Commission.

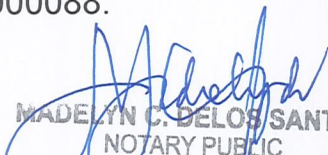
IN WITNESS WHEREOF, I have hereunto affixed my signature this _____ day of AUG 01 2022 2022 at Pasig City, Philippines.


JOSE RONALD V. VALLES
Affiant

AUG 01 2022

SUBSCRIBED and SWORN to before me this _____ day of _____ 2022, at Pasig City, Philippines, affiant having exhibited to me his Social Security System ID bearing the number 33-10900088.

Doc. No. 243
Page No. 57
Book No. VI
Series of 2022.


MADELYN C. DELOS SANTOS
NOTARY PUBLIC
Appointment No. 102 (2019-2020)
(valid until Dec. 31, 2022, as granted by Bar Matter No. 3795)
Pasig, San Juan and Pateros
Issued on 18 February 2019 at Pasig City
Roll of Attorneys No. 64977
IBP No. 179341; 01/21/2022; RSM
PTR No. 8131479; 01/06/2022; Pasig City
7th Floor, Lopez Bldg., Ortigas Ave., Pasig City

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

ANNEX "D"

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 Organizational meeting of the Board of Directors of the Company duly convened and held on May 25, 2021, at which meeting a quorum was present, acted throughout and voted, the following resolution amending the resolution of the Board on September 28, 2020 on the same subject, was approved and that said amendatory resolution is in full force and effect on the date hereof:

"RESOLVED, that the Board of Directors of the Manila Electric Company (MERALCO) authorize, as it hereby authorizes, Messrs. MANUEL V. PANGILINAN, Chairman, RAY C. ESPINOSA, President and Chief Executive Officer, SIMEON KEN R. FERRER, Corporate Secretary, ROBERTO R. ALMAZORA, Senior Vice President, RONNIE L. APEROCHO, Senior Vice President & Head, Networks, WILLIAM S. PAMINTUAN, Senior Vice President, Assistant Corporate Secretary, Compliance Officer and Head, Legal and Corporate Governance, FERDINAND O. GELUZ, First Vice President and Chief Commercial Officer, EDGARDO V. CARASIG, First Vice President & Head, Human Resources & Corporate Services, MARIA LUISA V. ALVENDIA, First Vice President and Supply Chain Management Advisor, JOSE RONALD V. VALLES, First Vice President and Head, Regulatory Management Office, BENJAMIN U. CUSI, Vice President & Head, Facilities, Security and General Services, MARIA ZARAH R. VILLANUEVA-CASTRO, Vice President & Head, Corporate Legal Services, MICHELLE O. DELOS SANTOS-BONA, Assistant Vice President & Head, Legal Operations Support, CRISTOPHER B. ARPON Head, Litigation Services, CORNELIO MANUEL III C. DICCION, Head, Litigation Team 2, SHEILA MARIE C. GRANADOS, Head, Litigation Team 1, and any lawyer or employee of MERALCO and/or other external counsels and law firms that any of them may designate, name or appoint:

- (1) to represent the Company, in the institution, prosecution, and defense of any claim, complaint, action, proceeding, petition, application, protest, suit, or case, for or against the Company, before any court, prosecutor's office, regulatory, quasi-judicial, or administrative body, agency, or office of the national or any local government;
- (2) to sign, execute, and deliver in connection therewith the necessary or appropriate complaint, petition, application, position paper, memorandum, all types of pleadings and motions, verifications, affidavit-complaint, counter-affidavit, affidavit of merit, affidavit of desistance, affidavit of witness, and all other affidavits of whatever nature, certificate of non-forum shopping, powers of attorney, certifications, and all other instruments as may be necessary or proper;

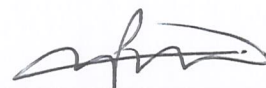
- (3) to represent the Company or to designate, name, and appoint a representative or an attorney-in-fact in behalf of the company during the investigation, inquest, preliminary investigation, preliminary conference, pre-trial, mediation, conciliation, arbitration, trial, execution, and all other stages of or incidents related to the case, proceeding or action; to negotiate, enter into, and agree to an amicable settlement, compromise agreement, plea bargaining, admissions or stipulations of fact or documents, simplification of issues, limitation on the number of witnesses, alternative modes of dispute resolution, withdrawal, dismissal or waiver of claim or action; and to perform and execute any and all actions or deeds as may aid in the prompt disposition of such cases, proceedings, or actions filed in behalf of or against the Company;

"RESOLVED, FURTHER, that any previous resolution of the Board of Directors on the same subject matter that is inconsistent herewith shall be deemed terminated, superseded and revoked."

Pursuant to the above resolutions, it is hereby certified that MERALCO is authorized to file the Application, entitled "IN THE MATTER OF THE APPLICATION FOR APPROVAL OF THE EMERGENCY REPLACEMENT OF ONE (1) 83-MVA POWER TRANSFORMER AT MAKATI SUBSTATION," and that Jose Ronald V. Valles, First Vice President and Head of Regulatory Management Office, is an authorized representative and signatory of the Company with respect to the aforesaid Application.

WITNESS THE SIGNATURE of the undersigned as such officer of the Company and its corporate seal hereunto affixed on this _____ day of July 2022.

JUL 28 2022



WILLIAM S. PAMINTUAN
Assistant Corporate Secretary

JUL 28 2022

SUBSCRIBED AND SWORN to before me this _____ day of July 2022, 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. 277;
Page No. 17;
Book No. IV;
Series of 2022.



MA. ELISHA S. ELORIAGA
NOTARY PUBLIC
Appointment No. 121 (2020-2021)
(valid until Dec. 31, 2021, as granted
by Bar Matter No. 3795)
Pasig, San Juan and Pateros
Issued on 24 February 2020 at Pasig City
Roll of Attorneys No. 73497
IBP No. 179342; 01/21/2022; Quezon City
PTR No. 8131477; 01/06/2022; Pasig City
7th Floor, Lopez Bldg., Ortigas Ave., Pasig City