

Refresher on the Energy Efficiency and Conservation Act for Corporate Customers



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REPUBLIC ACT 11285

ENERGY EFFICIENCY AND CONSERVATION ACT

Approved and signed by President Rodrigo Roa Duterte
on 12 April 2019 and effective on 22 May 2019

The EE&C Act institutionalizes energy efficiency and conservation, enhance the efficient use of energy, and grant incentives to energy efficiency and conservation projects.



ENERGY SERVICE COMPANY (ESCO)





Energy Service Companies or ESCOs

are partners in compliance with the EE&C Law, as they offer multi-technology services and goods towards developing and designing EE projects, delivering and guaranteeing energy savings, and ensuring cost-effective and optimal performance.

Department Circular No. 2020-09-0018

Guidelines, Rules, and Procedures in the Administration, Classification, and Certification of Energy Service Companies

Scope of Department Circular No. 2020-09-0018

The Department Circular shall establish the guidelines, rules and procedures in the administration, classification and certification for ESCOs with the goal of enhancing professionalism, credibility and quality of services.



- ◆ **Registered ESCO** – Seeks accreditation for professional services to DOE for the first time that meets the minimum of requirements on legal and technical capacity. The validity of the Certificate shall be for three (3) years.
- ◆ **Certified ESCO** - In addition to meeting the requirements of a Registered ESCO, shall also has proven performance or results-based projects savings experience and with proven customer experiences. The validity of the Certificate shall be valid for five (5) years.



ESCO

List of ESCOs

(as of 01 February 2021)

- 
1. Azbil Philippines Corporation
 2. Beyond Energy Solutions & Technology, Inc.
 3. Concepcion Carrier Air Conditioning Company
 4. Cushman and Wakefield Philippines, Inc.
 5. Dazzling Lite Enterprises
 6. Delta Dore, Inc.
 7. Design Science Inc.
 8. Design Science Incorporated-Powerboss
 9. Digital Marketing
 10. Eascorp Powerplant Services, Inc.
 11. Econoserv Solutions International, Inc.
 12. Edward Marcs Philippines, Inc
 13. Electro-Systems Industries Corporation
 14. Energy and Aviation Support Corporation
 15. Energy Integrated Systems and Support Services Inc
 16. Engie Services Philippines
 17. Filairco, Inc/Trane Philippines
 18. HI-Cool Engineering Corporation
 19. Meralco Energy, Inc.
 20. MVCP Biotechnology and Energy Resources
 21. OrionGroup International, Inc.
 22. OSP-ESCO International, Inc.
 23. Philcarbon, Inc
 24. Philippine Integrated Energy Solutions, Inc
 25. PNOC-Exploration Corporation
 26. PNOC-Renewables Corporation
 27. Q-Trade Corporation
 28. Renaissance Pacific Energy Solutions Asia (REPESA)
 29. Santos Knight Frank, Inc.
 30. Schneider Electric Philippines, Inc
 31. Sen Tek Energy Solutions, Inc.
 32. Tekno Centrix Corporation
 33. Thermal Solutions, Inc
 34. Total Renewable Energy Efficiency Solutions Corp.
 35. TREES Corporation
 36. Tri-Sky Link Sales and Services, Inc.
 37. Ultimate Energy Systems Trading and Services, Inc
 38. Upgrade Energy Philippines, Inc.
 39. Westco Electrical & Equipment Corporation
 40. Wisenergy, Inc.



ESCO



PHILIPPINE ENERGY LABELLING PROGRAM



Philippine Energy Labelling Program



intends to encourage the practice of EE&C as a way of life through the promotion of the use of energy efficient products and to transform the market by regulating energy consuming products (ECPs).

Department Circular No. DC2020-06-0015

Prescribing the Guidelines of the Philippine Energy Labeling Program (PELP) for Compliance of Importers, Manufacturers, Distributors and Dealers of Electrical Appliances and other Energy-Consuming Products (ECP)

Department Circular No. DC2020-06-0016

Prescribing the Minimum Energy Performance for Products (MEPP) covered by the Philippine Energy Labeling Program (PELP) for Compliance of Importers, Manufacturers, Distributors, Dealers and Retailers of Energy-Consuming Products)

COVERAGE

PELP

Importers, manufacturers,
distributors, and dealers of
electrical appliances and
energy-consuming products

Initially covered
appliances include air
conditioning units,
refrigeration appliances,
televisions and lighting
products.



PELP



Designated Establishments



Designated Establishments

Refers to a private entity identified as energy intensive industries



*Annual
Energy
Consumption**



Other DE

At least 100,000 kWhE but less than 500,000 kWhE



Type 1 DE

500,000 kWhE but less than 4,000,000 kWhE



Type 2 DE

4,000,000 kWhE and above

Memorandum Circular No. MC2020-05-0001

Directing All Designated Establishments under Commercial, Industrial and Transport Sectors to Submit Energy Consumption Reports

*kWhE – to read as Kilowatt-Hour Equivalent



Designated
Establishments

REQUIREMENTS

OTHER DESIGNATED ESTABLISHMENTS



At least 100,000 kWh but less than 500,000 kWh



Submission of Annual Energy Efficiency and Conservation Report (EEC Form 3) and Annual Energy Utilization Report (EEC Form 4)

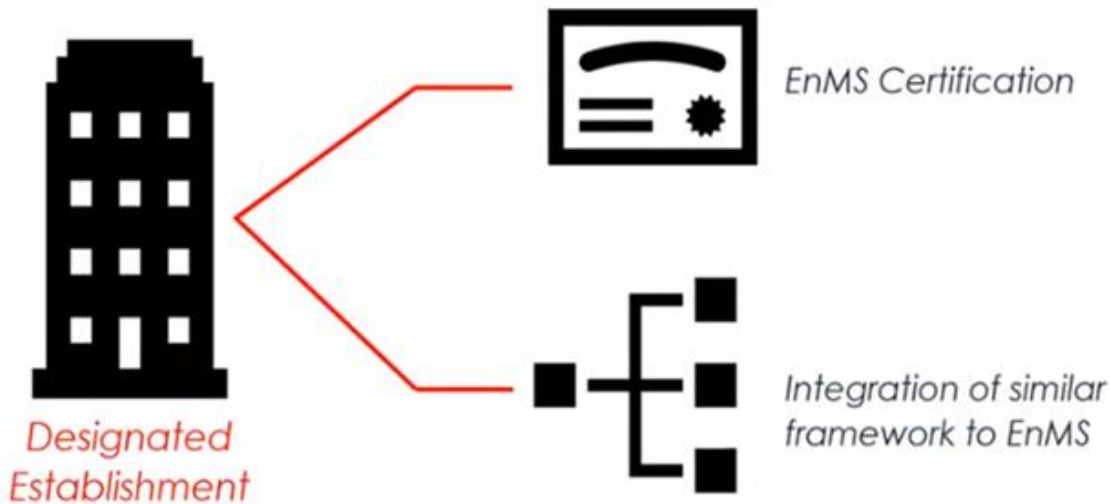


Designated
Establishments

Obligations of DEs:

Integration of Energy Management System

DEs are mandated to integrate an energy management system into their business operation but are only encouraged on certification.





Designated
Establishments

REQUIREMENTS



Employ an Energy Conservation Officer (ECO).



ECO Qualifications. At least two (2) years of continuous hands-on experience in the installation, operation, and maintenance of energy-consuming machines and equipment in facilities with energy consumption for Type I Designated Establishments.



Submission of Annual Energy Efficiency and Conservation Report (EEC Form 3) and Annual Energy Utilization Report (EEC Form 4)

TYPE 1 DESIGNATED ESTABLISHMENTS



500,000 kWh but less than 4,000,000 kWh



Designated
Establishments

REQUIREMENTS



Employ an Energy Manager (EM).



EM Qualifications. A graduate of a four (4) year course or its equivalent, preferably engineering with at least three (3) years of continuous hands-on experience in the installation, operation, and maintenance of energy-consuming machines and equipment in facilities with energy consumption for Type 2 Designated Establishments.



Submission of Annual Energy Efficiency and Conservation Report (EEC Form 3) and Annual Energy Utilization Report (EEC Form 4)

TYPE 2 DESIGNATED ESTABLISHMENTS



4,000,000 kWh and above



Designated
Establishments

Obligations of DEs:

Engagement of ECO and EM

DEs that are classified as Type 1 and Type 2 are required to engage an Energy Conservation Officer and Energy Managers, respectively.



Type 1
Designated
Establishments



Energy
Conservation
Officer



Type 2
Designated
Establishments



Energy
Manager



Registration only to the DOE. Certification will follow once training modules are available.



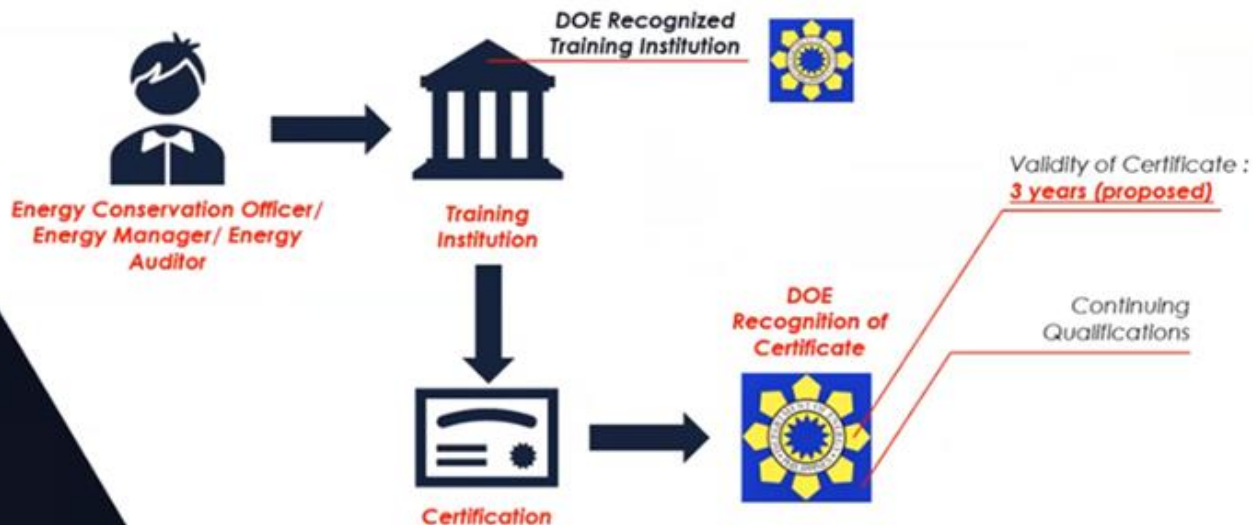
Duly notify DOE in writing on the appointment or separation from the service of their respective CECO or CEM within ten (10) working days from the effectivity of these personnel action.

Certification of ECO, EM, and EA

Prescribes the guidelines for the assessment, registration, and certification of energy conservation officer, energy managers, and energy auditors.

Department Circular No. DC2021-01-0001

Guidelines for the Qualifications, Assessment, Registration, and Certification of Energy Conservation Officers (CECO), Energy Managers (CEM) and Energy Auditors (EA)





Designated
Establishments

Obligations of DEs:

Submission of Reports

**DUE ON OR BEFORE
15 APRIL**

DEs are required to accomplish the following:

1. EEC Form 1 for the Registration of Energy Manager or EEC Form 2 for the Registration of Energy Conservation Officer
2. EEC Form 3 for the Annual Energy Efficiency and Conservation Report (AEECR) (Calendar Year 2019 - 2020)
3. EEC Form 4 for the Annual Energy Utilization Report (AEUR) (Calendar Year 2015 – 2020)*



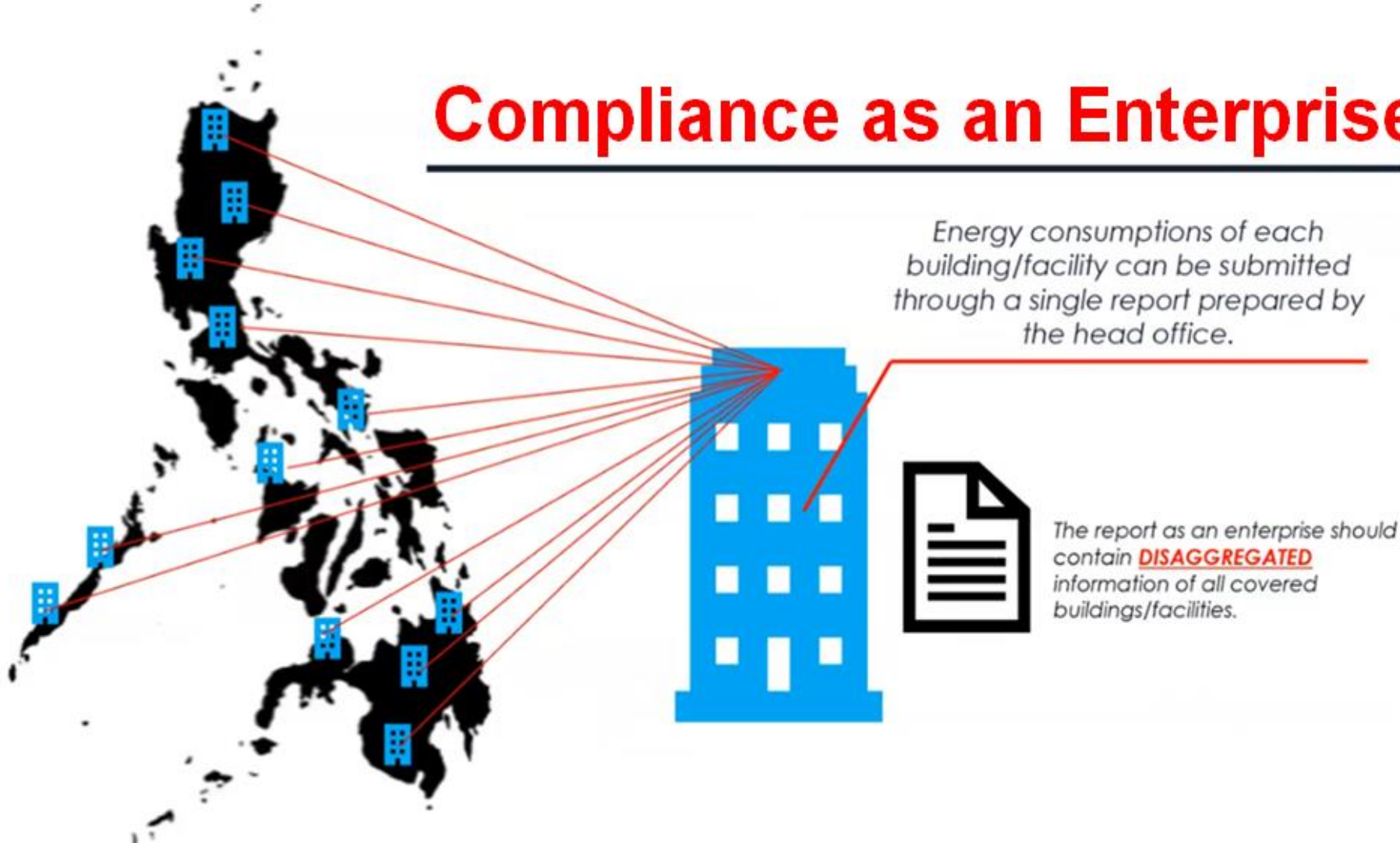
Google Form Link for the Online Registration
and Submission of DEs:

<https://bit.ly/DOE-Designated-Establishments>

Calendar Year – January to December of the reportorial
year

*Backtracking of data only applies whenever possible

Compliance as an Enterprise





Designated
Establishments

Obligations of DEs:

Energy Audit

Conduct an energy audit once every three (3) years by engaging either a certified energy auditor or an accredited ESCO and submit an energy audit report to the DOE.



When do we consider the
"3 year period" for energy audit?

Date of Audit

Valid Until

2018 → 2021

2019 → 2022

2020 → 2023

2021 → 2024

Note: Energy Audit is mandatory to Type 1 and Type 2 DEs but voluntary to Other Type DEs



Designated
Establishments

Obligations of DEs:

Implement Energy Efficiency and Renewable Energy Projects

EE and RE Projects than can be implemented in the main/head office and measures that can be cascaded to the stores or remote facilities.

1. Reduction of Building Cooling Demand though:
 - a. Controlling solar gains through glazing
 - b. Effective natural ventilation
 - c. Reducing lighting loads
 - d. Upgrading to high-efficient cooling systems
2. Retrofitting of Chiller's and other AC auxiliary system
3. Lighting System Retrofit including the installation of lighting sensors
4. Installation of Building Energy management System (BEMS)
5. Installation of sensors in all escalators
6. Motor pumps replacement with High Efficiency Motors
7. Adoption on energy efficient appliances for the operation of the building
8. Adoption of energy conservation measures and best practices such as in the operation of AC system and other electrical motors load when starting to prevent high drawing of current.
9. Adoption of the Guidelines on Energy Conserving Design for Buildings during retrofitting of the building.

Note: Example of EE Projects for EEC Form 3 – Annual Energy Efficiency and Conservation Report (AEECR)



ENERGY CONSERVING DESIGN FOR BUILDINGS



Energy Conserving Design of Buildings

To encourage and promote the energy conserving design of buildings and their services to reduce the use of energy with due regard to the cost effectiveness, building function, and comfort, health, safety, and productivity of the occupants.



Electrical loads of at least 112.5 kVA or with at least 10,000 m² total gross floor area



Energy Efficient Buildings will boost the demand for energy efficient materials and technologies that will help to meet the requirements under the guidelines.



Fiscal Incentives



Endorsement of EE Projects to BOI for Fiscal Incentives



ENERGY EFFICIENCY PROJECTS - designed to reduce energy consumption or costs by any improvement, repair, alteration, or betterment of any building or facility, or any equipment, fixture, or furnishing to be added to or used in any building, facility, or vehicle including the manufacturing and provision of services related thereto.



EVALUATION CRITERIA. EE projects should meet 15% savings threshold measured at the boundary in order to access the following rates of Income Tax Holiday (ITH).

<u>Annual Energy Savings at the Project Boundary</u>	<u>ESCO or TPPD Rate of ITH</u>	<u>Self-Financed Amount of ITH</u>
Less than 15%	0% but registration shall not be cancelled	None, but registration shall not be cancelled
15% to 20%	50%	30% of cost installed EE&C equipment
More than 20% and up to 25%	75%	40% of cost installed EE&C equipment
More than 25%	100%	50% of cost installed EE&C equipment

All registered EEC projects shall be granted with Pioneer Incentives. If the said EEC Project or Enterprise is registered as a Pioneer Project or Enterprise in accordance with E.O. 226.

BOI MC 2021-001 GENERAL
POLICIES AND SPECIFIC GUIDELINES
TO IMPLEMENT THE 2020
INVESTMENT PRIORITIES PLAN



Predicted Increase in the Power Generation of the Philippines.

The economy's total power generation will increase by 4.2% during the outlook period. This translates to an increase from the 2010 level of 67.0 Tw to 187.0 TWh by 2035.¹

15% = Predicted Maximum Potential Savings by year
17.26 TWh in 2021
28.05 TWh in 2035

Energy savings in all sector

At a rate of about at about P10/kWh, that would translate to P172.6 Billion savings in 2021 to P280.50 Billion savings by 2035.

Source: ¹APEC Energy Demand and Supply Outlook – 5th Edition
https://aperc.or.jp/publications/reports/outlook/5th/volume2/EDSO5_V2_Philippines.pdf



Fiscal Incentives



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