

*Memorandum Circular No. MC2020-05-0001*

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# **Compliance of Designated Establishments under the Transportation Sector**

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Dir. Patrick T. Aquino, CESO III  
*Energy Utilization Management Bureau  
Department of Energy*



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.

# Designated Establishments

Refers to a private entity identified as energy intensive



**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 Killowatt-Hour Equivalent

\* Combination of Fuel and Electricity

# Total Final Energy Consumption

Greenhouse gas emission

**28%**

Total greenhouse gas (GHG) emissions from energy-related activities

Use of Oil

**49%**

Oil products

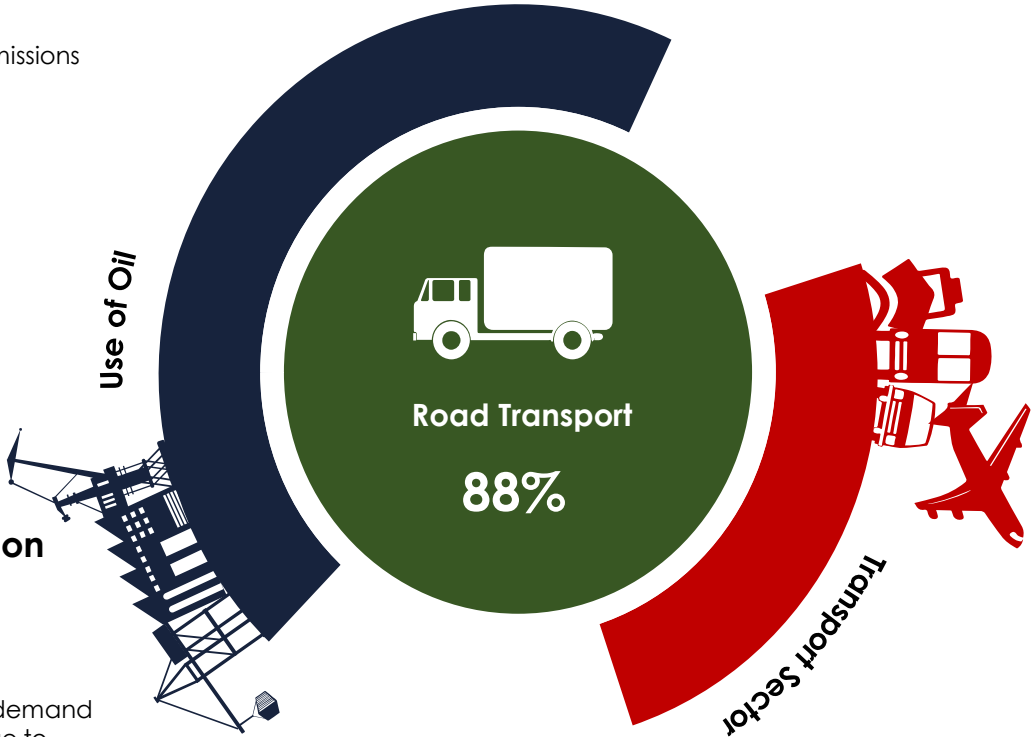
Its consumption at 16.9 MTOE in 2018.

Fuel Consumption

**36%**

Transport Sector

Its aggregate energy demand reached 12.2 MTOE due to increased utilization of gasoline and diesel.



Source: Philippine Energy Plan 2018-2040

# Vehicle Statistics

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**3,168** cargo vessels



Source: 2019 MARINA Statistical Report

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**483,594** trucks and trailers

Source: 2019 LTO Annual Report

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**66,349,887.21** kg total cargo weight of airfreight forwarders



Source: 2019 CAAP Domestic Airfreight Forwarders Overall Ranking

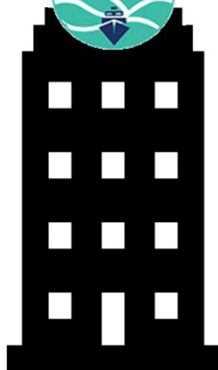




Designated Establishments

# Accounting of Transport Energy Use

Members of



Designated Establishment

All Energy Consuming Processes have to be Reported

Electricity



Fuel



Expressed in kWhE to determine DE Classification

Classification



Other DE



Type 1 DE



Type 2 DE



Designated  
Establishments

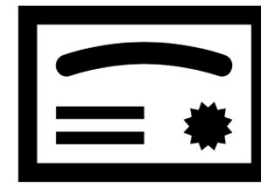
# Obligations of DEs:

## *Integration of Energy Management System*

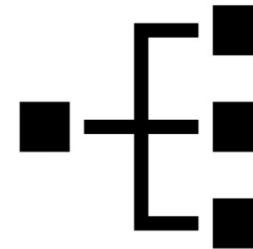
DEs are **encouraged but not mandated** to integrate an energy management system into their business operation.



*Designated  
Establishment*



*EnMS Certification*



*Integration of similar  
framework to EnMS*



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 CECE or CEM within ten (10) working days from the effectivity of these personnel action.



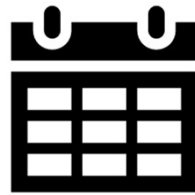


**Designated  
Establishments**

# 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 and Measures*

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*EE and RE Projects than can be implemented in the  
main/head office and on different facilities.*

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

- 1. Fuel economy improvement through applications of built-in aerodynamic shield, small radiator, rounded corners, and recessed lamps and tanks*
- 2. Fuel economy through reduction on the Tire Rolling Resistance through rigorous tire-maintenance programs*
- 3. Aggressive fleet management and maintenance, travel speed, and acceleration control, “smart” gearing, and cruise management through global positioning systems*
- 4. Optimization of power train and engine to duty cycle*
- 5. Fuel consumption measures adopted to eliminate long period of engine idling*
- 6. Removal of unnecessary weight of the vehicle for fuel conservation*

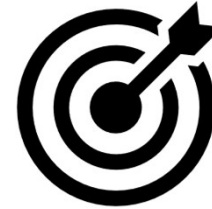


Designated  
Establishments

# Obligations of DEs:

*Submission of Reports*

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Set-up annual targets, plans, and methods of measurements and verification for the implementation of energy efficiency and conservation projects **through the submission of annual energy consumption report and annual energy conservation report.**



Designated  
Establishments

# Requirements for Submission



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) (2020 & 2021)
3. **EEC Form 4** for the Annual Energy Utilization Report (AEUR) (2016 - 2021)\*

*\*Backtracking of data only applies whenever possible*

## EEC Form 3 – Annual Energy Efficiency and Conservation Report (AEECR)

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1. On-Going Energy Conservation Measures (Part A)
2. Available Historical Energy Consumption by Fuel Type (Part B1)
3. Reporting Year Energy Consumption – Projected and Actual (Part B2)

## EEC Form 4 – Annual Energy Utilization Report (AEUR)

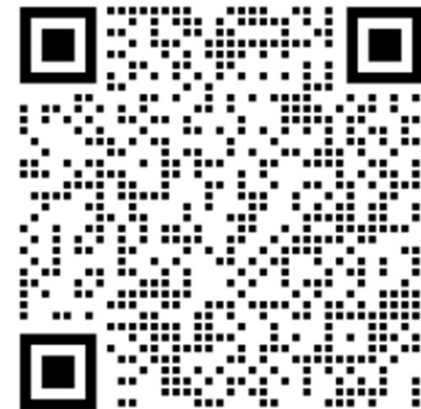
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1. Energy Consumption Per Activity (Part A)
2. Business Activity Area (Part B)

*\*Disaggregated Consumption for Enterprise Submissions*



Submission of *ECO/EM Registration, EEC Form 3 (AEECR) and EEC Form 4 (AEUR)* on or before **15 April 2021.**



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

# Energy Service Companies or ESCOs

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are partners in compliance with the EE&C Act, 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. DC2020-09-0018**  
*Guidelines, Rules, and Procedures in the Administration, Classification, and Certification of Energy Service Companies*

# List of ESCOs

(as of 01 February 2021)

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1. Azbil Philippines Corporation
2. Beyond Energy Solutions & Technology, Inc.
3. Concepcion Carrier Air Conditioning Company
4. Cushman and Wakefield Philippines, Inc.
5. Dazzling Life 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**

# 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.



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



*Electrical loads of at least **112.5 kVA** or with at least **10,000 m<sup>2</sup>** **total gross floor area***

**Department Circular No. DC2020-12-0026**  
*Adoption of the Guidelines on the Energy Conserving Design of Buildings*

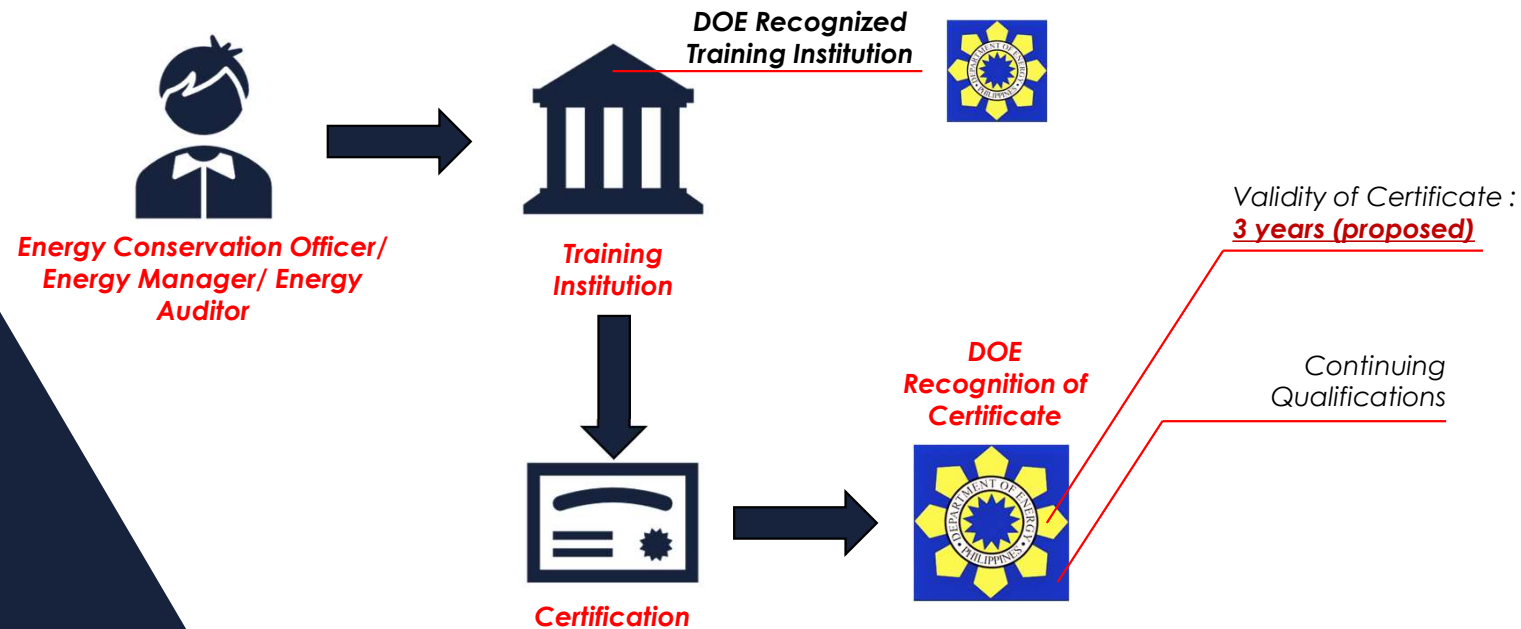


# Certification of ECO, EM, and EA

The Department Circular 2021-01-0001 shall prescribe 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)



# 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).

<b><u>Annual Energy Savings at the Project Boundary</u></b>	<b><u>ESCO or TPPD Rate of ITH</u></b>	<b><u>Self-Financed Amount of ITH</u></b>
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.



Non - Fiscal  
Incentives

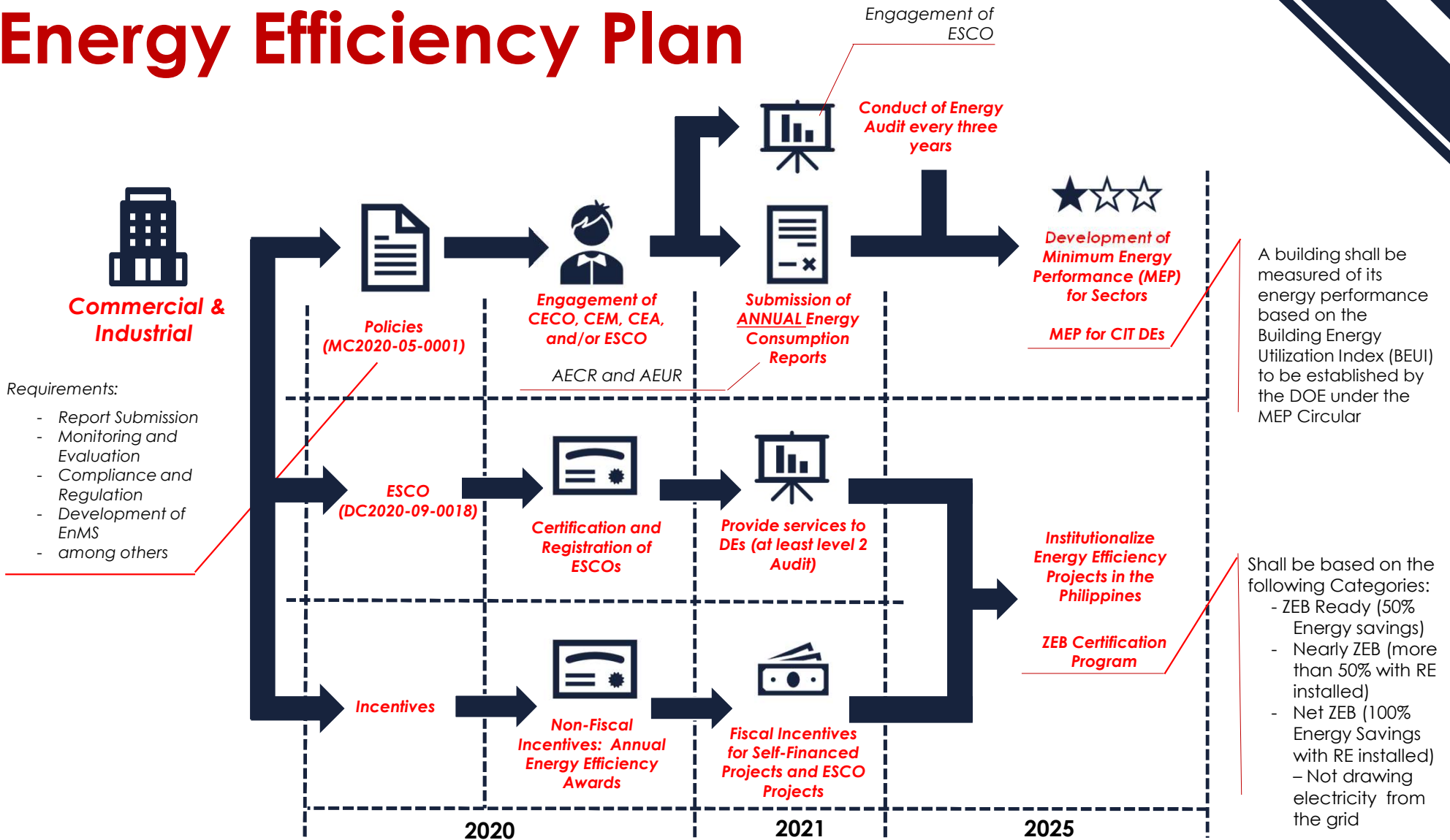
# 2020 ENERGY EFFICIENCY AWARDS

## **RA 11285: EEC ACT**

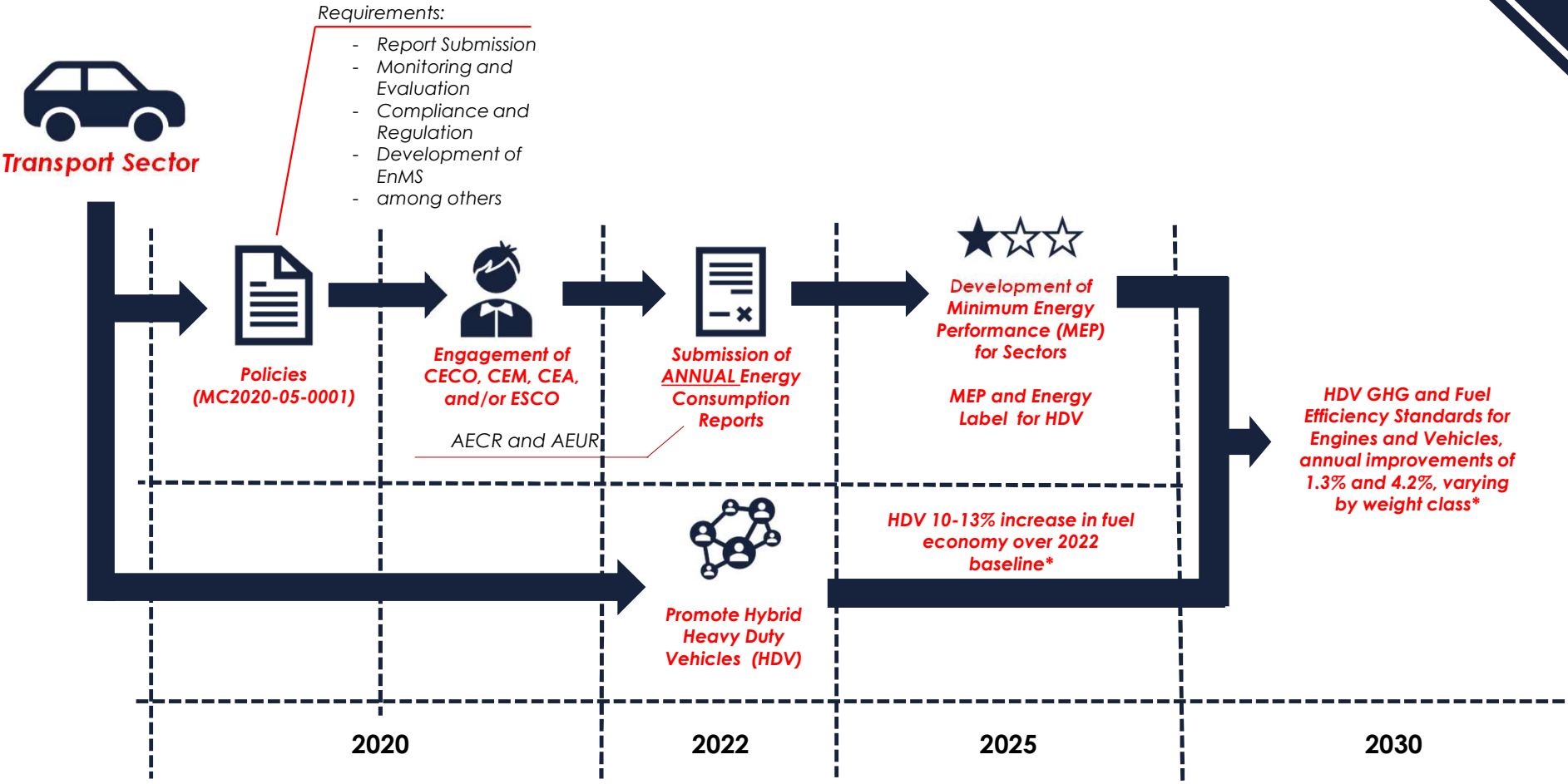
*Rule XV. Incentives. - Sec. 73. Non-fiscal Incentives*

Establishments that will implement or are implementing energy efficiency projects shall be entitled to be awarded and recognized for innovations in energy efficiency and conservation best practices, and successful energy efficiency projects and energy efficient products.

# Energy Efficiency Plan



# Energy Efficiency Plan



\*Under review

# Thank you



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facebook.com/doe-eumb-epmpd



<https://doe.gov.ph>



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