

A new era for energy efficiency in the Philippines

What you should know about the new Energy Efficiency & Conservation Act

[REPUBLIC ACT NO. 11285]

AN ACT INSTITUTIONALIZING ENERGY EFFICIENCY
AND CONSERVATION, ENHANCING THE EFFICIENT
USE OF ENERGY, AND GRANTING INCENTIVES TO
ENERGY EFFICIENCY AND CONSERVATION
PROJECTS

Alexander Ablaza

June 2019

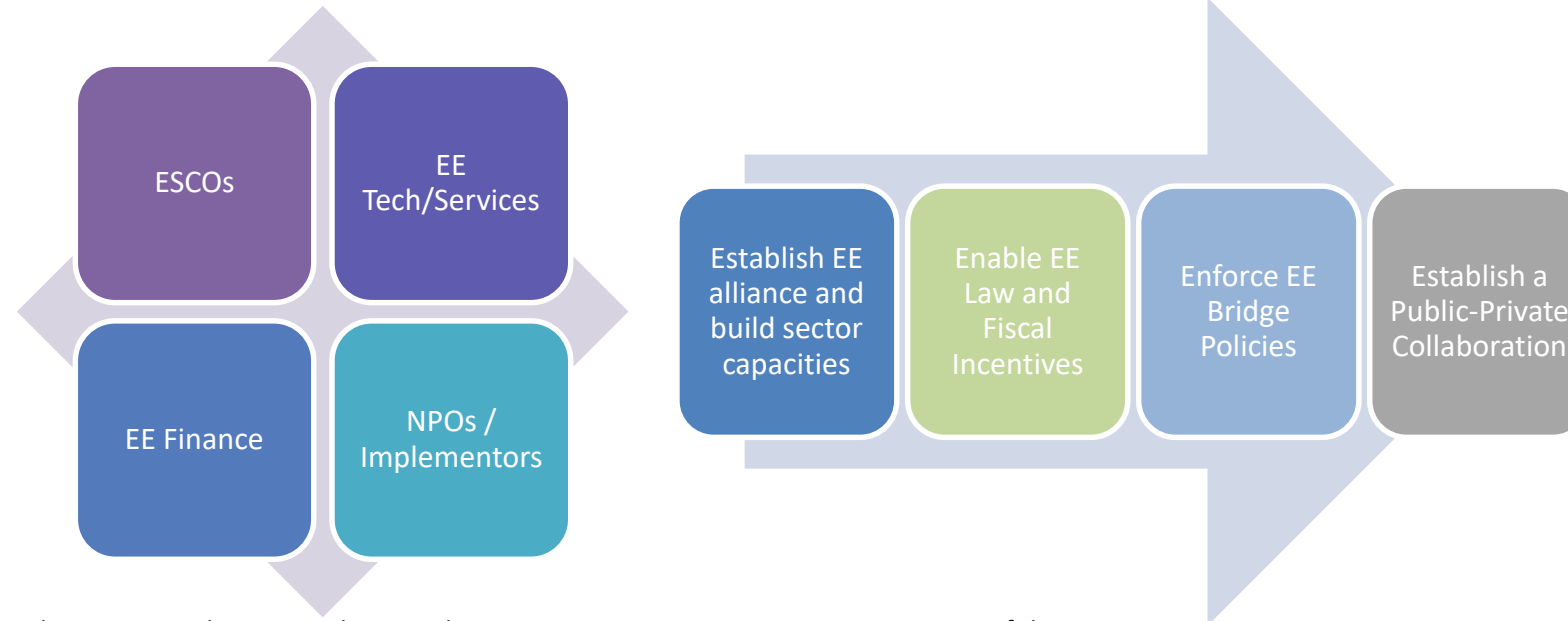


APEIA

Asia-Pacific ESCO Industry Alliance

PE2's 4-point approach toward a long-term transformation of the EE market

www.pe2.org



PE2 has a 14-year history, with its predecessor Energy Service Company Association of the Philippines (ESCOPhil) established in May 2005 with the guidance and oversight of the Department of Energy.

PE2 was officially reorganized in April 2016 as a non-market, non-state, non-profit organization to embrace the needs of various EE market stakeholders through the following membership categories:

- **Regular A** – Accredited energy service companies (ESCOs)
- **Regular B** – EE technology/solutions/service providers, professional/legal services, contractors, EPCs, utilities
- **Regular C** – Financial institutions, equity providers, leasing cos, guarantee cos, fund managers
- **Associate D** – Non-profit, non-market, non-state civil society organizations, industry associations/chambers, foreign-assisted projects, academe and research institutes
- **Associate E** – Large organizations or enterprises which have mainstreamed EE in their core activities

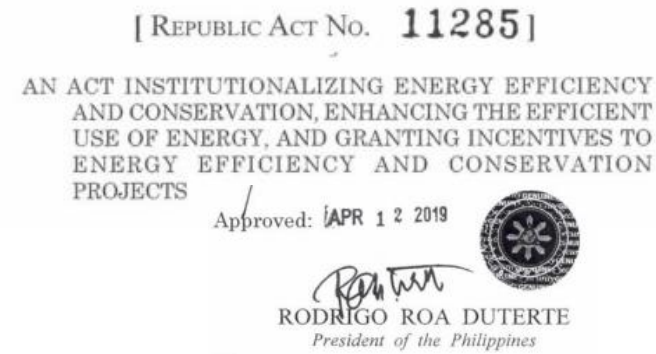
EE Policy Reform Agenda

- Combined push for the swift passage of the EE Bill and fiscal incentives
- Combined push for immediate enforcement of bridge policies
- Combined push for enabled Government procurement, budgeting and multi-year contracting of ESCO services and PPP transactions for EE projects in the public sector
- Co-establish a public-private-civil society collaborative platform that would sustain the long-term EE market transformation efforts

Strengthening the ESCO Industry

- Training of trainors and PE2 personnel related to performance contracting, IGAs, M&V and preparing investment-grade projects – certification of CEMs, CMVPs
- Preparation of Investment-Grade Projects
- Drafting and Adoption of Industry-Standard Performance Contracting Templates
- Preparation of a Business Plan for the Establishment, Seed Funding, Operation and Replenishment of an ESCO Guarantee Fund or Insurance Facility

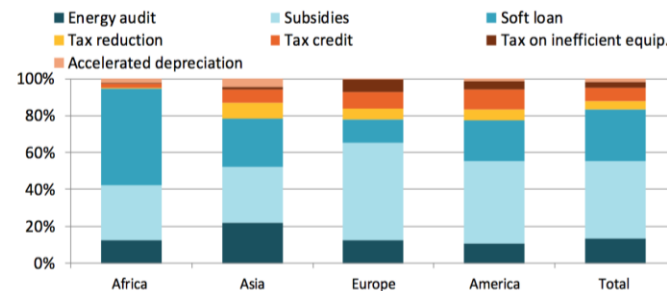
With the recent passage of RA 11285, the Philippines finally rejoins the many jurisdictions around the world with an Energy Efficiency law and incentive framework in place



Source: Enerdata

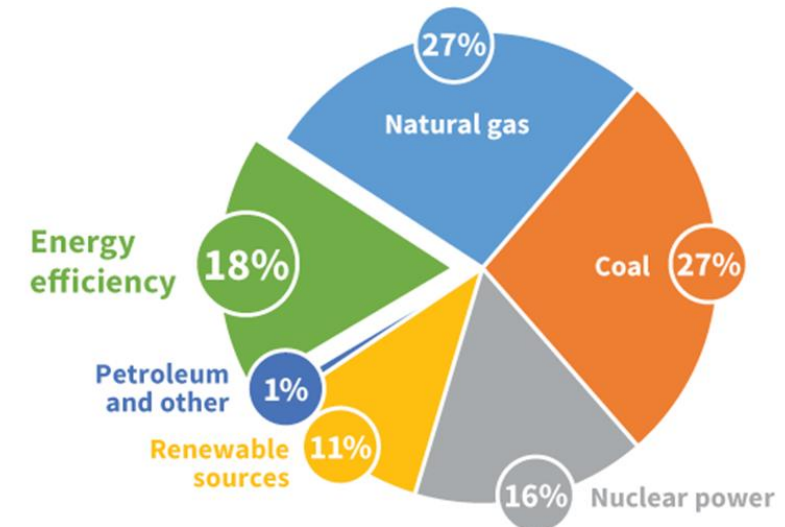
Several EE policy measures incorporate fiscal, tax-based incentives

- Asian countries tend to employ more tax reductions than tax credits
- Reduction on VAT and on import tax on EE equipment is widely used in developing countries



Dispatching energy efficiency (EE) as the “first fuel” Energy markets need to gradually move toward integral resource planning

Share of US electricity generation by resource in 2015



Source: EIA for all except energy efficiency, which is based on ACEEE estimates. EIA data source is May 2016 Monthly Energy Review, Table 7.2a Electricity Net Generation: Total (All Sectors).



Source: ACEEE, 2016

No-brainer multitude of EE co-benefits



BENEFITS OF ENERGY EFFICIENCY

Stimulating the Economy

Every **\$1 million** invested in energy efficiency generates **\$3-4 million** of economic growth.¹



13 jobs are created for every **\$1 million** invested in energy efficiency.²



Money in your Pocket

Living in an energy efficient building can **lower your heating bills** by **more than 50%**.³



Energy efficient buildings and homes experience **higher resale value** and **last longer**.⁴



Comfortable Buildings

Canadians spend 90% of their time indoors. An energy efficient building keeps you **warmer in winter** and **cooler in summer**.⁵



Energy efficient buildings stay more comfortable and safe during a **blackout or disaster**.⁶



Source: Pembina Institute

A Healthier You

Energy efficiency has direct and indirect benefits to health⁷



Energy efficiency benefits



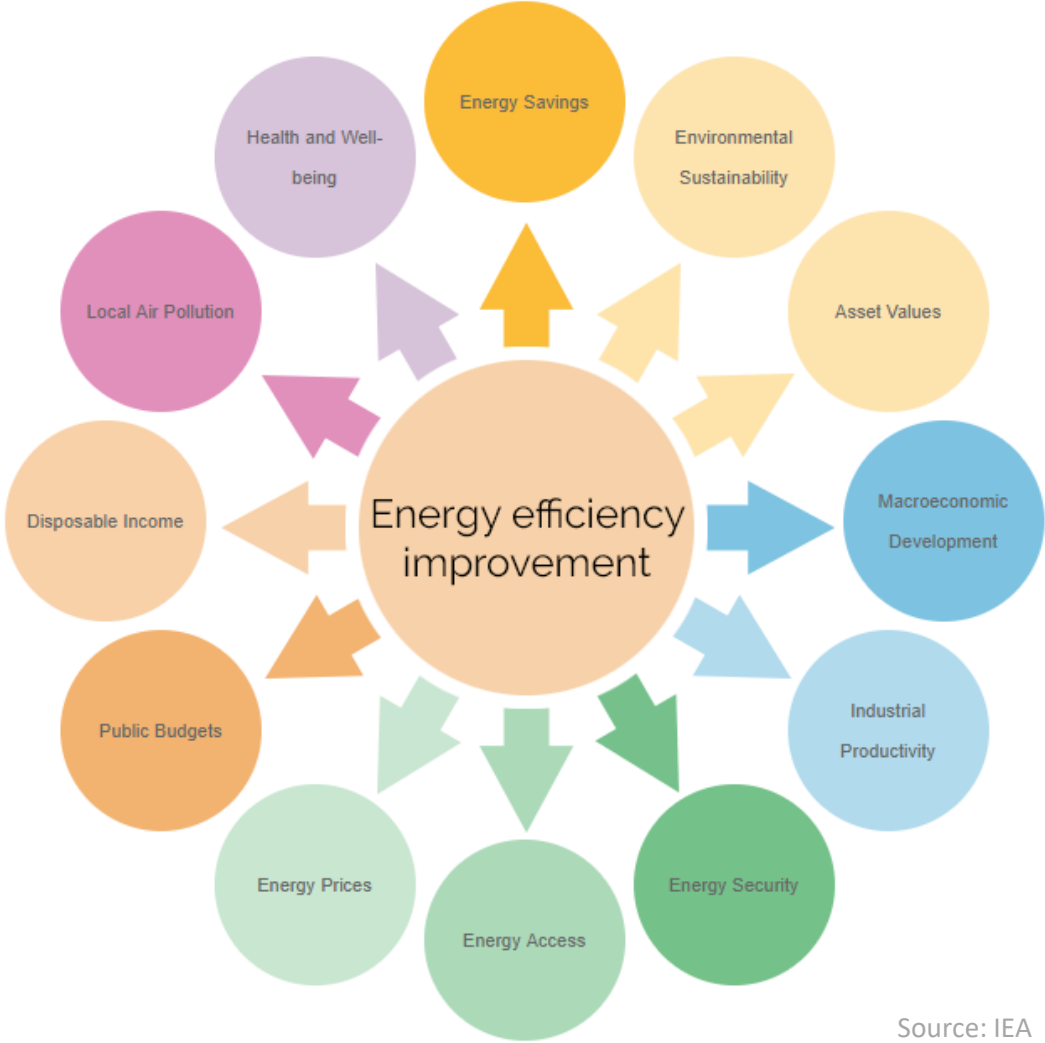
Health impacts



Outcomes

Lower heating bills	 <p>Better mental health</p>	Improved wellbeing
Higher air quality	 <p>Decreased respiratory disease</p>	Reduced mortality
Reduced mould	 <p>Decreased cardiovascular disease</p>	Reduced chronic pain
Less drafty	 <p>Reduced chronic disease</p>	Increased productivity
Warmer and drier	 <p>Less temperature related illnesses and deaths</p>	Reduced hospitalization

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Source: IEA

On the road to the Philippines' EE&C Roadmap Targets

What the Economy Can Achieve



182 Mtoe savings

For the country to achieve 10,000 Ktoe annual energy savings by 2040, the entire economy will need to reduce final energy demand by an aggregate 182 Mtoe between 2017 and 2040



USD 726B savings

An estimated USD 726 billion in energy savings can be achieved by 182 Mtoe reductions through 2040



45,900 MW deferred

45,900 MW of energy infrastructure capacity upgrades deferred by 182 Mtoe reductions through 2040



1.7 GtCO₂e avoided

1.7 GtCO₂e GHG emissions avoided by 182 Mtoe savings through 2040



Slower Rise in Energy Prices



Increased GDP



Increased Green Jobs



Reduced Fossil Fuel Imports

What the Economy Needs to Put In



USD 243B investments

Over USD 243 billion in investments will be required to reduce final energy demand by 182 Mtoe through 2040



Unlock 66% potential with incentives

- Only 34% of EE&C Roadmap targets can be realized through business-as-usual self-financed and debt-financed mechanisms
- Tax-based fiscal incentives are needed to mobilize third party capital (especially off-balance sheet investments) to unlock 66% market potential

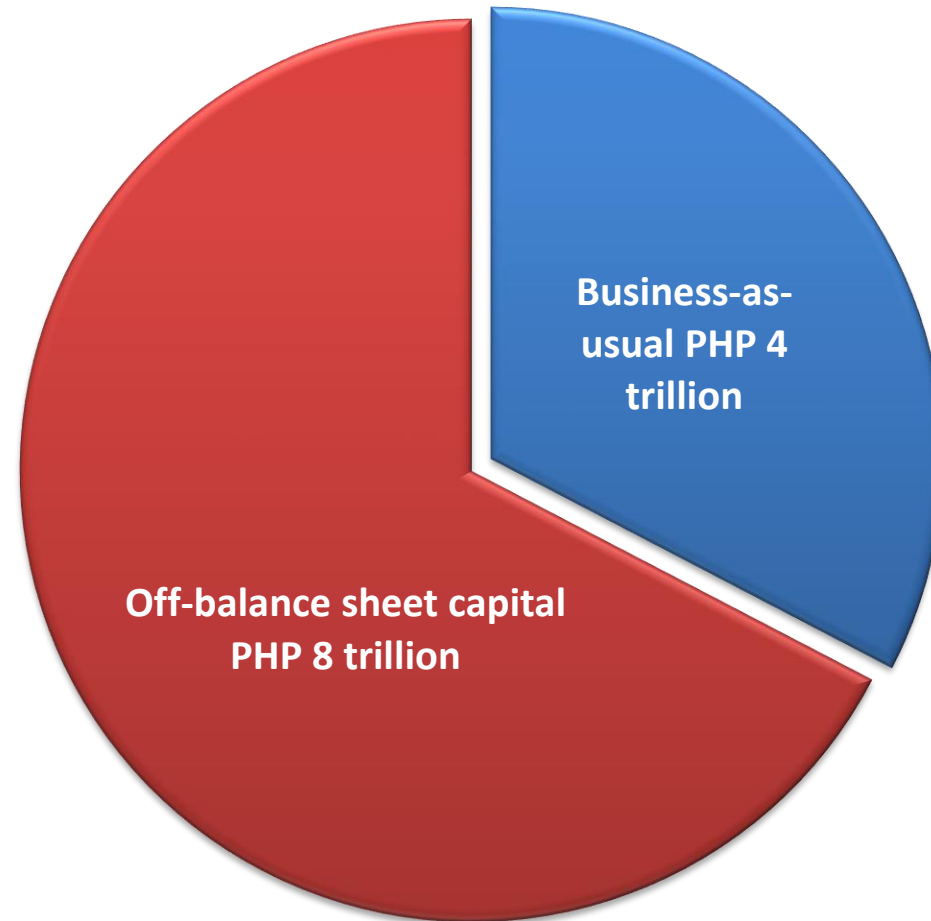


Incentives: >200% recoverable

Tax-based fiscal incentives are over 200% recoverable as additional tax revenues of Government



Philippines' EE capital requirements, 2017-2040



Off-balance sheet* EE capital flows through:

- ESCO performance contracts
- PPP transactions
- Government, large-scale retrofit programs
- Other off-balance-sheet* modalities

Business-as-usual EE capital to be mobilized through:

- Self-financed
- Debt-financed
- Lease-financed
- Other on-balance-sheet* modalities

* Balance sheet of host or end-user of EE project

Source: A. Ablaza, PE2, 2019

A 4-decade journey of the EE&C Act



1980:
BP73 EnerCon
Act effective
for 5 years

1990:
HB29056,
HB32655 &
HB32781 filed
in 8th Congress

The EE&C policy evolved in the last 4 decades:

- *EE emerged as a stronger intervention than EC*
- *EE&C is mainstreamed as a “way of life.”*
- *ESCO and third-party investors are incentivized.*

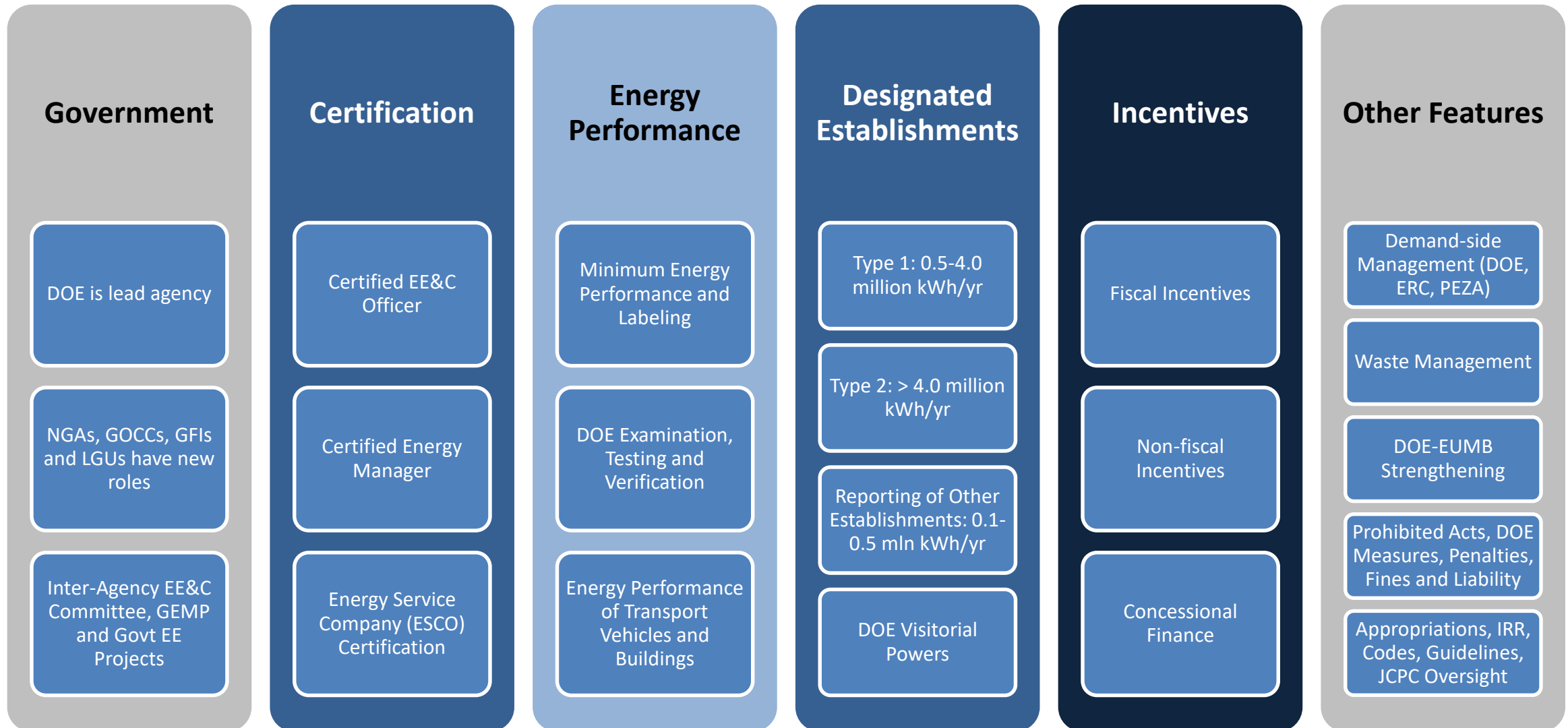
1985:
BP872
extends
EnerCon Act
by 5 years

2019:
RA11285 is passed
from SB1531 &
HB8629 of 17th
Congress

29 years of voluntary energy efficiency market through constant refiling and push for an EE&C bill. In most cases, EE&C bill was neither an administration measure nor certified urgent.

Republic Act No. 11285

Energy Efficiency and Conservation Act



Roles of Government

Source: A. Ablaza, 2019

- DOE is the lead agency
- BOI, CCC, COA, CHED, DBM, DepEd, DOF, DENR, DILG, DPWH, DOST, DTI, DOTr, GCG, GFIs, IC, NEDA, NCC, PSA and TESDA have respective roles
- Local Government Units (LGUs)
- Inter-Agency EE&C Committee
- Government Energy Management Program (GEMP)
- Government Energy Efficiency Projects – expanded procurement



Certification for Professional Competency and Accreditation for Professional Services

- Certified Energy Conservation Officers – CECO certification led by TESDA in coordination with DOE
- Certified Energy Managers – CEM certification led by CHED in coordination with DOE
- Certification of Energy Service Companies (ESCO) by DOE

Energy Performance Standards and Labeling Requirements

- Minimum Energy Performance (MEP) for the commercial, industrial, and transport sectors
- Energy Labeling for Products and Equipment
- Energy Product, Device, and Equipment Examination, Testing, and Verification
- Fuel Economy Performance for Transport Vehicles
- Energy Performance for Buildings



Designated Establishments

- Type 1: 0.5-4.0 million kWh/yr consumption
- Type 2: > 4.0 million kWh/yr consumption
- Obligations include:
 - Energy management system
 - EE&C programs
 - Annual EE&C targets and plans
 - Energy records
 - Improve average SEC
 - Annual ECCR submission to DOE
 - Mandatory energy audit every 3 years
 - Employ CECO (Type 1) or CEM (Type 2)
- Energy consumption reporting of other establishments – 0.1-0.5 million kWh/yr
- DOE Visitorial Rights

Incentives

- Fiscal Incentives
 - EE to be included in BOI's investment priorities plan for a minimum of 10 years (extendable). E.O. 226 grants income tax holiday and duty-free importation
 - EE projects are exempt from Article 32(1) of E.O. 226. (EE projects can avail of incentives regardless of ownership structure by nationality.)
- Non-fiscal Incentives
 - Awards and recognition
 - Technical assistance for development of EE technologies
- Concessional financial packages

Other Features

- Demand-side Management (DOE, ERC, PEZA)
- Waste Management Collection, Recycling and Disposal
- DOE-EUMB Strengthening
 - Alternative Fuels and Energy Technology Division
 - Energy Efficiency and Conservation Program Management and Technology Promotion Division
 - Energy Efficiency and Conservation Public Sector Management Division
 - Energy Efficiency and Conservation Performance Regulation and Enforcement Division
- Prohibited Acts, Explanation, Recommendation, Disclosure and Order
- Penalties and Fines
 - P 10,000 to P 1 million
- Criminal Liability of Responsible Officers and Employees
 - 1-5 year imprisonment, or fines ranging from P 100,000 to P 100 million or twice the avoided cost of non-compliance, whichever is higher
- Appropriations, IRR, Codes, Guidelines, JCPC Oversight

Next Steps – Types 1/2 Designated Establishments

- **Set up Energy Management System**
- **Appoint a CECO / CEM**
- **Gather historical and baseline energy data, including SEC**
- **Select an energy service company (ESCO) or energy auditor to perform an energy audit**
- **Build up an EE&C program and set SEC reduction targets**
- **Participate in DOE-led IRR consultations for commercial, industrial and transport sectors**



Next Steps – Civil Society

- **DOE will need to consult market stakeholders in crafting and finalizing the Implementing Rules and Regulations (IRR).**
- **The intent to mobilize off-balance sheet investments through a suitable package of fiscal incentives should be preserved through the Government’s comprehensive tax reform program and through the first 10-15 years of the EE&C Act effectivity.**
- **Government, civil society and the business sectors will need to step up collaborations to sustain the EE market reforms. The EE&C Act is just the initial step.**

Download the full text of the EE&C Act from pe2.org



Downloadable, searchable text

<https://www.pe2.org/republic-act-11285-energy-efficiency-and-conservation-act>

Signed PDF version

<https://www.pe2.org/sites/default/files/ra-11285-enercon-act.pdf>

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Approved,

GLORIA MACAPAGAL-ARROYO
*Speaker of the House
of Representatives*

VICENTE C. SOTTO III
President of the Senate

This Act which is a consolidation of Senate Bill No. 1531 and House Bill No. 8629 was passed by the Senate of the Philippines and the House of Representatives on January 30, 2019.

DANTE ROBERTO P. MALING
*Acting Secretary General
House of Representatives*

MYRA MARIE D. VILLARICA
Secretary of the Senate

Approved: APR 12 2019



RODRIGO ROA DUTERTE
President of the Philippines



Thank You

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