# The Government Energy Management Program (GEMP)

for Local Government Units

made easy

## GOVERNMENT ENERGY MANAGEMENT PROGRAM (GEMP)

Republic Act No. 11285 or the Energy Efficiency and Conservation Act (EEC Act) and its Implementing Rules and Regulations (Department Circular No. DC2019-11-0014) provide strategic direction in the implementation of the Government Energy Management Program (GEMP).

GEMP refers to the government-wide program of reducing the monthly consumption of electricity and petroleum products. This is achievable through efficiency and conservation in electricity use and fuel use of government vehicles, as well as the employment of renewable energy systems, among others.

In 2019, the EEC Act, through Section 43 of its Implementing Rules and Regulations (IRR), extended the scope of the GEMP to all Local Government Units (LGUs).

#### **GEMP'S OVERALL GOAL**

the government's monthly electricity and fuel consumption

AT LEAST
10%

## MANDATORY REPORTORIAL REQUIREMENTS FOR ALL LGUS

- Designation of Energy Efficiency and Conservation Officer (EEC OFFICER)
- Designation of Energy Efficiency and Conservation Focal Person (EEC FOCAL PERSON)
- Monthly Electricity Consumption Report (MECR)
- Monthly Fuel Consumption Report (MFCR)
- Annual Inventory Report of Air-Conditioning Units, Lighting Equipment, and Motor Vehicles

# STEP 1 Establish an Energy Efficiency & Conservation Office (EECO)



WHY?

The **EECO** serves as the office of the EEC Officer. This is mandated under Section 28 of the EEC-IRR and the DILG Memorandum Circular No. 2020-082.

#### HOW?

The **EECO** may be part of the planning and development office using appropriations from General Funds established under the Local Government Code. It can also stand separately.

Within three years from the EEC-IRR effectivity or until December 21, 2022, the planning and development office of an LGU shall be considered as its **EECO**.

# STEP 2 Designate an Energy Efficiency & Conservation (EEC) Officer



#### WHY?

The **EEC OFFICER** serves as the head of the EECO. This is mandated under Section 29 of the EEC-IRR and the DILG Memorandum Circular No. 2020-082.

#### **OBLIGATIONS OF AN EEC OFFICER**

- Fulfills compliance with EEC Act, EEC-IRR, and all energy efficiency and conservation issuances
- Accomplishes and submits to DOE all monthly electricity and fuel consumption reports
- Leads the preparation, implementation, and monitoring of the LGU's Local Energy Efficiency and Conservation Plan (LEECP)

#### WHO?

**The EEC OFFICER** must be a college graduate, designated from existing personnel of the LGU or hired through external recruitment.

Within three years from the EEC-IRR effectivity or until December 21, 2022, the planning and development office head shall be considered as its **EEC OFFICER**.

#### **REMUNERATION**

Remuneration of the EEC Officer's services shall be charged from the existing fund of the LGU.

#### HOW?

- Issue an Executive Order, Administrative Order, Special Order, Memorandum Circular, or Memorandum Order, among others, to designate an EEC Officer.
- The said order can also be extended to appoint a management board or a technical working group in order to facilitate the LGU's EEC programs and activities.

#### **FORMAL REPORTING**

DOE requires LGUs to submit an **EEC OFFICER FORM**. Contents of the form are clear-cut as shown.



GOVERNMENT ENERGY MANAGEMENT PROGRAM Energy Efficiency and Conservation (EEC) Officer RA No. 11285: Energy Efficiency and Conservation Act

A. GENERAL INFORMATION									
Name of LGU									
Income Class									
Head of LGU									
Position									
Address									
Region									
Province									
City/Municipality									
Office Contact No.									
Office Email Address									
B. EEC OFFICER	RINFORMATION								
Name of EEC Officer									
Position									
Department/Division									
Mobile No.									
Landline No.									
Fax No.									
Email Address									

#### **SUBMISSION**

Email form to doe.epsmd@gmail.com or fax to (02) 8840-2243

# STEP 3 Designate an Energy Efficiency & Conservation (EEC) Focal Person



#### WHY?

The **EEC FOCAL PERSON** assists the EEC Officer in implementing the GEMP.

He/she provides the EEC Officer with monthly electricity and fuel consumption reports, should the building/facility he/she represents have a separate electricity and fuel account from that of the mother department/unit.

He/she leads in implementing the LEECP in his/her respective office, building, or facility.

#### WHO?

The **EEC FOCAL PERSON** may be appointed from each department, office, building, or facility by its respective heads. The formal designation of one can be done through the issuance of an Executive Order, Administrative Order, Special Order, Memorandum Circular, or Memorandum Order, among others.

#### **FORMAL REPORTING!**

DOE requires LGUs to submit an **EEC FOCAL PERSON FORM**. For Section B (General Information of Facility), this may refer to a department, office, building, etc.



GOVERNMENT ENERGY MANAGEMENT PROGRAM Energy Efficiency and Conservation (EEC) Focal Person RA No. 11285: Energy Efficiency and Conservation Act

A. GENERAL I	
(Head	Office)
Name of LGU	
Head of LGU	
Position	
Address	
Office Contact No.	
Office Email Address	
B. GENERAL I	NFORMATION
(Fac	ility)
Name of Facility	
Head of Facility	
Position	
Contact Details	
Region	
Email Address	
Type of Facility	
☐ Facility ☐ Hospital	□ School □ Other
Address	
C. EEC FOCAL PERS	SON INFORMATION
Name of EEC Focal Person	
Position	
Department/Division	
Mobile No.	
Landline No.	
Fax No.	
Email Address	

#### **SUBMISSION**

Email form to doe.epsmd@gmail.com or fax to (02) 8840-2243

#### BENEFITS OF EECO, EEC OFFICER, AND EEC FOCAL PERSON

The EECO, EEC Officer, and EEC Focal Person contribute to the advancement of energy efficiency and conservation programs in the local setting. These serve as the local authority in directing energy management activities which advance local and national development agenda and address regional and global challenges, while creating wider impact and remaining relevant.





#### MONTHLY CONSUMPTION BASELINE

**SOURCE OF DATA:** Accounting Office

**OLD RECORDS AND ARCHIVES:** Obtain the billed kilowatt-hour (kWh) as indicated in the electricity bill from distribution utility (DU), local electric cooperative (EC), or retail electricity supplier (RES).



#### **BUILDING DESCRIPTION**

**SOURCE OF DATA:** Engineering Office, General Services Office

**BUILDING PLAN, BUILDING PERMIT, OR CERTIFICATE OF OCCUPANCY:** Describe the structure, including number of floors and its purpose. Any expansion must be indicated to understand changes in electricity consumption.





#### GROSS FLOOR AREA

SOURCE OF DATA: Engineering Office, General Services Office

BUILDING BLUEPRINT: Obtain total floor area of the building.

#### **Monthly Electricity** Consumption Report (MECR) Form

**E1** 

Monthly

Consumption

Baseline, 2015

28.000 kWh

Month

lanuary

February

March

April

May

June

July August September October

November

December

Average

The MECR shows information such as the current electricity consumption in kilowatt-hours against a reference baseline. It also reports the description of the building, coverage of gross and air-conditioned areas, and the number of occupants.

**E2 E3** 

Building

Description

2-floor LGU hall

**Gross Floor** 

Area, square

meters

1.000 m<sup>2</sup>

**E4** 

Air-Conditioned

Area, square

meters

800 m<sup>2</sup>

Number of

**Occupants** 

250

Monthly

Consumption.

kWh

25.000 kWh



#### AIR-CONDITIONED AREA

**SOURCE OF DATA:** Engineering Office, General Services Office

**BUILDING BLUEPRINT:** Obtain total floor area of all air-conditioned spaces.





#### NUMBER OF OCCUPANTS

**SOURCE OF DATA:** Human Resources Management

ATTENDANCE RECORDS: Add up daily attendance record for a month to get the occupancy. Include also the number of guests, e.g. training participants in an LGU's function room, etc.



MONTHLY CONCUMPTION



#### MONTHLY CONSUMPTION

**SOURCE OF DATA:** Accounting Office

LATEST BILLS: Record the billed kilowatt-hour (kWh) as indicated in the electricity bill from the DU, EC, or RES.

**Monthly Fuel Consumption Report** (MFCR) Form

The MFCR shows the current gasoline and diesel consumptions in liters against a reference baseline. It also reports the total distance traveled (km) and fuel economy (km per liter).

MONTHLY CONCUMPTION PACELINE

F1 F2 F3 F4

#### GASOLINE/DIESEL LITERS AND TOTAL KM TRAVELED (BASELINE)

**SOURCE OF DATA:** Accounting Office, Motorpool Section

**ARCHIVES:** Record gasoline and diesel consumption of vehicles (liters) as indicated in official receipts issued by petroleum companies. Record distance traveled (km) of all vehicles based on odometer reading.









GASOLINE/DIESEL LITERS AND TOTAL KM TRAVELED (CURRENT)

**SOURCE OF DATA:** Accounting Office, Motorpool Section

**LATEST RECEIPTS:** Record gasoline/diesel consumption of vehicles (liters) as indicated in official receipts. Record distance traveled (km) of all vehicles.

	MONTHLY CONSUMPTION BASELINE					MONTHLY CONSUMPTION						
Month	GASOLINE			DIESEL		GASOLINE			DIESEL			
	Gasoline Liters	Total km Traveled	km/liter	Diesel Liters	Total km Traveled	km/liter	Gasoline Liters	Total km Traveled	km/liter	Diesel Liters	Total km Traveled	km/liter
January	280 L	5,200 km	18.6 km/L	180 L	2,500 km	13.9 km/L	240 L	5,100 km	21.3 km/L	160 L	2,700 km	16.9 km/L
February												
March	F1	F2	FE	F3	F4	FE	F5	F6	FE	F7	F8	FE
April		12			14			. 0		1 /	10	
May												
June								III				
July				FE								
August					F	UEL ECON	ОМҮ					
September				SOUR	CE OF DA	TA: Calcul	ated Fuel	Economy				
October				s	PECIFIC C	AI CUI ATI	<b>ON:</b> Divid	e the				
November				SPECIFIC CALCULATION: Divide the corresponding distance traveled (km) by the fuel consumption data (liters).								
December					ruer con	sumption	uata (liter	S).				
Total												

#### WHO SUBMITS THE MECR AND MFCR?

The **EEC OFFICER** is tasked to submit the reports. This can also be done together with the **EEC FOCAL PERSON/S** of an office, building, or facility, provided that it has a separate electricity/fuel account from that of the mother department/unit.

### NUMBER OF MECR AND MFCR FORMS TO BE SUBMITTED

Each office, building, or facility having an independent or separate electricity/fuel account from that of the mother department/unit shall submit one (1) MECR and/or one (1) MFCR form/s.

Therefore, an LGU may be required to submit more than one (1) MECR and one (1) MFCR forms, depending on its assets.

#### ● ● WHY REPORT CONSUMPTION DATA?

Aside from complying with the GEMP and the EEC Act, the consumption data (from MECR and MFCR) allow DOE to conduct evaluation and analysis for the establishment of national energy utilization policies, proper benchmarking, calculating of electricity savings per year, sourcing of awardees for the Energy Consciousness Month every December, and other monitoring activities.

The MECR and MFCR enable an LGU to identify facilities or sites with significant energy consumption—an essential component in an energy management program.

#### FREQUENCY OF SUBMISSION

All MECR and MFCR forms must be submitted not later than 15 days of the month following the period to be reported.

Email all reports to doe.gemp@gmail.com

## SOME TIPS ON ENERGY EFFICIENCY AND CONSERVATION IN LGU BUILDINGS

Set the thermostat control of an air-conditioner (AC) Limit AC operation to 6 hours, preferably from 9 at a temperature not lower than 24°C. Prolonged use AM to 4 PM, and even less during the cooler of AC at lower temperature settings results in a months significant increase in electricity consumption. Replace old and inefficient - Close all windows appliances with more efficient ones. and doors when the such as the use of AC with high AC is on. Seal all energy efficiency ratio (EER) and gaps, place coefficient of performance (COP). weatherstrips, or install automatic Perform regular preventive maintenance on door closers in AC units, appliances, equipment, motors, etc. order to prevent This practice not only ensures efficiency of hot air from coming the units but also prolongs their service life. inside a cooled room. Replace incandescent lamps and fluorescent Provide a shade and properly ventilate all lights with LED outdoor condensing units of ACs. ones. Practice shutting down of computers and consumer electronics after use. Avoid idle power by completely switching off or unplugging appliances. Turn off lights during lunch breaks and before/after office hours. Practice the use of natural daylight whenever available.

Install renewable energy systems and technologies such as solar, wind, biogas, etc.

Use building materials with low solar radiation absorption rates and reflective surface, e.g. white or light color in walls and roofs.



Purchase/lease vehicles capable of using environmentally-friendly fuel, biodiesel products, and the like.

Observe proper maintenance of vehicles, e.g. periodic oil change and oil filter replacement, regular engine tune-up, proper inflation and alignment of tires, etc.

Adopt proper driving tips, e.g. schedule daily trips to avoid unnecessary short trips, smoothly accelerate and drive at steady pace, avoid idling of engine when the vehicle is parked, prohibit overloading, practice carpooling, etc.

# MAKING ENERGY EFFICIENCY AND CONSERVATION A NATIONAL WAY OF LIFE

#### For more information, please contact:

Energy Efficiency and Conservation Public Sector Management Division (EPSMD) Energy Utilization Management Bureau (EUMB) DEPARTMENT OF ENERGY (DOE)

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