Republic of the Philippines

DEPARTMENT OF ENERGY

DEPARTMENT ORDER NO. DO2022-04-0006

GUIDELINES ON THE ENDORSEMENT OF GOVERNMENT ENERGY EFFICIENCY PROJECTS TO THE INTER-AGENCY ENERGY EFFICIENCY AND CONSERVATION COMMITTEE PURSUANT TO THE GOVERNMENT ENERGY MANAGEMENT PROGRAM GUIDELINES

WHEREAS, Republic Act No. (RA) 11285 or the Energy Efficiency and Conservation (EEC) Act, institutionalizes energy efficiency and conservation as a national way of life, enhances the efficient use of energy, and grants incentives to energy efficiency and conservation programs and projects;

WHEREAS, Department of Energy (DOE) Department Circular No. DC2019-11-0014, or the Implementing Rules and Regulations of RA 11285 (EEC-IRR), provides for the full implementation of the EEC Act and for the expansion of the Government Energy Management Program (GEMP) coverage to include all government entities, including all departments, bureaus, offices, agencies, branches, and instrumentalities or political division, government-owned-or-controlled corporations (GOCCs), including their subsidiaries or other self-governing boards or commissions of the Government, local government units (LGUs), state universities and colleges (SUCs);

WHEREAS, Section 5 of the EEC Act states that the DOE shall take the lead in the implementation of the law, and shall be responsible for the planning, formulation, development, implementation, enforcement, and monitoring of energy management policies and other related energy efficiency and conservation plans and programs;

WHEREAS, DOE Department Order (DO) No. DO2020-01-0001 organizes the Inter-Agency Energy Efficiency and Conservation Committee (IAEECC) and lays down its powers and functions to primarily evaluate and approve government energy efficiency projects (GEEPs), and to provide strategic direction in the implementation of the GEMP;

WHEREAS, IAEECC Resolution No. 1, s. 2020 directs all government agencies to comply with the GEMP, orders the DOE to conduct energy audits, spot checks, technical analysis, and other research activities relative to energy efficiency projects of all government entities for the improvements of GEMP;

WHEREAS, IAEECC Resolution No. 5, s. 2022 adopts the GEMP Guidelines to govern the processes and procedures for the implementation of the GEMP, provide additional guidelines of the GEMP, and the evaluation, approval, procurement, implementation, and financing of GEEPs including their use of GEEP cost reductions (GCRs) realized through the implementation of GEEPs;

WHEREAS, Section 2 of the GEMP Guidelines states that the DOE shall issue implementing guidelines for the evaluation and approval of GEEPs pursuant to Rule IX of the EEC-IRR;

WHEREAS, Section 7 of the GEMP Guidelines provides that the DOE must endorse GEEPs for consideration of the IAEECC; and

NOW, THEREFORE, for and in consideration of the foregoing premises and pursuant to its mandate under the EEC Act and IAEECC Resolution No. 5, series of 2022, the DOE hereby orders the following:

Section 1. Title. This DO shall be known as the "Guidelines on the Endorsement of GEEPs to the IAEECC Pursuant to the GEMP Guidelines."

Section 2. Scope. These guidelines cover the evaluation and approval of Government Energy Efficiency Projects (GEEPs), pursuant to Section 2.3 of the GEMP Guidelines, submitted to the DOE for its endorsement to the IAEECC.

Section 3. Definition of Terms. This DO adopts the definition of terms provided under Section 3 of the GEMP Guidelines.

Section 4. GEEP Formulation. Pursuant to Section 4 of the GEMP Guidelines, all GEs shall formulate an Energy Efficiency and Conservation Program (EECP) highlighting energy conservation measures, target energy efficiency cost reduction, motor vehicle inventories, and other strategies. To implement the EECP, the GE shall develop GEEPs pursuant to Section 5.1 of the GEMP Guidelines either through improvement, repair, or alteration of government facilities, or through retrofitting of any equipment, fixture, or furnishing to be added to or used in any government vehicle among others. GEEPs must apply proven energy efficiency technologies that meet DOE's Minimum Energy Performance of Products (MEPP) for energy-consuming products. In cases where the GEEPs are submitted ahead of the EECP, the same shall be processed accordingly.

GEs may pursue GEEP initiatives using Energy Service Company (ESCO)-based or Public Sector-Led mechanisms pursuant to Section 6 of the GEMP Guidelines, GEs must ensure that Energy Savings Performance Contracts (ESPCs) or agreements for the ESCO-based and Public Sector-led GEEPs are aligned with Annex C of the GEMP Guidelines.

Section 5. Implementation Schemes. Publicly funded proposals, whether solicited or unsolicited, shall be subject to pertinent government rules and regulations as provided in the Government Procurement Reform Act or RA 9184.

For no-cost GEEP proposals, ESCOs shall assume all GEEP performance and funding risks, which includes working capital to develop a project that can be paid based on the agreed level of GCRs. This means that financing 100 percent of the ESCO's Capital Expenditure (CAPEX) will be covered by the GCRs under an ESPC. Excess GCRs due to the improved GEEP's performance can be claimed as Energy Efficiency Cost Reductions (EECRs). Further, the ESPC may be charged from existing Maintenance and Other Operating Expenses (MOOE) such as electricity, fuel, oil, and lubricants.

Preferential evaluation and implementation shall also be provided to priority GEEPs to ensure the unhampered delivery of public services. Priority GEEPS can either be publicly funded or ESCO-funded with payments coming from the GCRs.

a. GEs serving areas that are off-grid and/or disaster-prone;
b. GE facilities or fleets providing critical services for health, national security, transportation, and education.
c. Initiatives promoting the development and utilization of efficient renewable energy technologies and systems;
d. Pilot and demonstration initiatives for energy security;
e. Activities, studies, assessments, and similar activities to identify and develop new GEEPs; and;
f. Other GEs and or initiatives deemed as priorities by the IAEECC.

Section 6. Criteria for GEEP Evaluation. GEEPs shall be reviewed by the Energy Utilization Management Bureau (EUMB) based on the criteria below:

Parameters	Weight
1. GE and Proposed GEEPs' compliance to IAEECC directives and GEMP Guidelines;	50%
2. GEEP Measures are energy efficient based on the standards for facilities and fleets (Annex A);	30%
3. Payment terms are cost-effective as defined by the GEMP Guidelines	20%
TOTAL	100%

The criteria for the GEEPs and their exemptions shall be based on Annex B. Scores shall be generated by the EUMB.

Section 7. Receipt and Evaluation of GEEPs. The EUMB shall observe the process below to evaluate GEEPs for the approval of the IAEECC.

7.1. The GEEP proponent shall submit the following documentary requirements:

i. Endorsement letter signed by the head of entity/EEC officer with the required appendix (Annex C);
ii. EECP or GEEP Proposal (Annex D)
iii. Supporting documents for ESCO-based Proposals (as needed):
   a. Endorsement letter signed by the head of the authorized representative/head of the organization (Annex E)
   b. Certificate/ Proof of registration that the selected Energy Service Company (ESCO), or Third-Party Project Developer (TPPD) from the Department of Energy (DOE);
   c. List of ongoing and completed projects similar in nature to the proposed initiatives that are not technology pilots (Annex F); and
   d. Proposed contract (if applicable).

The documents above can be electronically submitted through the official email addresses or online platform published on the DOE website. If hardcopies will be submitted, this must be made through the DOE Records Management Division.

7.2. The EUMB shall accept and evaluate EECPs or proposals for the approval of GEEPs based on the criteria in Section 6 and the directives of the IAEECC. Prescribed deadlines shall be based on the GEMP guidelines except for Priority GEEPs.

7.3. If the evaluated GEEP has a rating of at least 70% and above, it shall be endorsed to the IAEECC for approval to be funded by budgets from the General Appropriations Act or GCRs.

7.4. If GEEPs have ratings below 70%, it shall be endorsed by the EUMB to the IAEECC for conditional approval subject to the submission and evaluation of the complete EECP and proposals of the requesting GE.

7.5. During the evaluation of GEEPs, the EUMB may conduct spot checks, audits, or assessments (e.g. remote/ virtual audits, desk/ table-top reviews and etc.). The EUMB may authorize DOE field offices or commission service providers to conduct the abovementioned activities. GEs must respond to the findings of the EUMB within seven (7) working days. Otherwise, the proposal will be denied.

7.6. After the GEEP evaluation, the EUMB shall submit the evaluation form (Annex G) through the Director of the EUMB for signature and endorsement to the IAEECC.

Section 8. Approval of GEEPs

8.1. The EUMB shall endorse the GEEPs evaluation forms to the IAEECC for approval and issuance of a resolution.

8.2. The EUMB shall inform the concerned GEs of the approval of the IAEECC concerning the submitted GEEPs.

8.3. GEEPs, which will be wholly funded by the government entity through its appropriations or the approved GAA, must be reported to the IAEECC. Before GEEP implementation, funding must be approved by the relevant approving authority of the GE including but not limited to: the head of the GE, Board, Sanggunian, Development Council and etc. This also applies to no-cost GEEPs.

The GEs shall provide annual updates to the IAEECC on the GEEPs through the EUMB. This must be forwarded to the official email address, gemp@doe.gov.ph or uploaded on the GEMP online system with the link, gemp.doe.gov.ph.

Section 9. Conduct of Capacity Building Activities. Consistent with Section 17 of the GEMP Guidelines, the DOE and concerned EEC Officers/Focal persons may appropriate funds to training activities to enhance their competence on GEEP implementation.

Section 10. Implementation of Support Programs. In view of Section 86 of Rule XIX under the EEC-IRR, the EUMB may appropriate funds for support programs to accelerate the deployment of GEEPs for the approval of the Secretary.

Support programs include capacity building initiatives, facility retrofitting/ construction, refleeting projects, deemed priority GEEPs, and other initiatives as directed by the IAEECC. To expedite the implementation of GEEPs, project management teams can be commissioned. Service providers can also be hired for project evaluation and/or impact assessment. The EUMB shall initiate fund releases and facilitate contracts in line with these initiatives.

Moreover, initiatives shall also be funded to update energy efficiency standards as indicated in Annex A.2

Section 11. Repealing Clause. The provisions of other Department Circulars, orders, issuances, rules, and regulations, which are inconsistent with the provisions of this DO are hereby repealed, amended, modified, or superseded accordingly.

Section 12. Separability Clause. If for any reason, any section or provision of this DO is declared unconstitutional or invalid, such parts not affected shall remain in full force and effect.

Section 13. Effectivity. This Department Order shall take effect immediately. A copy of this Department Order shall be filed with the University of the Philippines Law Center - Office of the National Administrative Register.

Issued at Energy Center, Bonifacio Global City, Taguig City.

ALFONSO G. CUSI
Secretary

Republic of the Philippines
DEPARTMENT OF ENERGY
IN REPLYING PLS. CITE:
DOE-AGC-22002009

APR 07 2022

Annex A
Recommended EE&C Measures and Standards

Vehicle Recommendations

- Purchase or lease will be prioritized since they are fuel-efficient and have a low maintenance cost.
- For old high official function cars/sedan, passenger vans/wagons, and other service vehicles with more than 7 years of usage and has already traveled of at least 175,000 km., may be subject to vehicle replacement per Section 9.1.1 of National Budget Circular no. 446 series of 1995.
- For utility vehicles with at least five (5) years and has traveled at least 150,000 km., may be subject to vehicle replacement per Section 9.1.2 of National Budget Circular no. 446 series of 1995.
- Engine displacement must not be higher than 2.5 liters for passenger vehicles.

Recommended Vehicle Efficiency Range (Diesel and Gasoline Type)*

No.	Vehicle Category	Engine Displacement Range	Distance per Liter Consumption (Efficiency Category)
1	Asian Utility Vehicle (AUV)	1.4 L - 2.0 L	22.03 - 20.59
		2.2 L - 2.8 L	19.20 - 25.25
2	Pick Up Vehicle	2.4 L - 2.5 L	21.59 - 17.85
		3.0 L	38.46
3	Sedan / Passenger Car	1.0 L - 1.3 L	23.39 - 24.78
		1.4 L -1.6 L	17.41 - 29.41
4	Sports Utility Vehicle (SUV)	1.6 L - 1.8 L	23.28 - 24.82
		2.0 L - 2.4 L	21.18 - 18.91
		2.8 L - 3.0 L	14.81 - 23.53
5	Mini Van	1.2 L	14.54
6	Van	2.5 L	15.41

*based on the results of the DOE fuel economy run

Recommended Electric Vehicle Efficiency Range

Vehicle Category	No. of Passengers	Fuel Type	Transmission	Distance per Liter Consumption (Efficiency Range)	Fuel Consumed *Based on Number of km travelled	No. of Km travelled
HEV / PHEV (Sedan/Passenger Car)	5	Gasoline and Electricity	Automatic	24 km/L (Gasoline)	2.25 L	45.00
EV (Sedan/Passenger Car)	5	Electricity	Automatic	10 km/kWh	4.5 kWh	45.00

*based on the results of the DOE fuel economy run

Facility Recommendations

I. Air-conditioning (A/C) System

- Room air-conditioning units (A/C unit) must be properly sized according to Room size (Gross Floor Area to be cooled).
- Implement regular cleaning maintenance activities of all A/C units within the building to improve the energy performance of each A/C unit.
- Replace/or retrofit A/C conventional units with efficient inverter type units.
- Develop effective and appropriate operational procedures and schedules for the A/C units.
- Regulate the A/C unit operation to six (6) hours and may be extended to eight (8) hours during summer months (March to May) upon the discretion of the Head of the Agency per Section 12.1.b of GEMP Guidelines
- Setting of A/C unit Temperature Control not lower than 24°C to attain comfortable room temperature setting per Section 12.1.b of GEMP Guidelines
- Installation of window blinds and curtains to prevent heat penetration inside the building
- Meeting/Conference/Function Rooms should be appropriately cooled. A/C unit should not be operated too early before the meeting and switched off right after the meeting.
- Develop and maintain an Energy Performance Monitoring and Reporting Scheme

Recommended Air-Conditioning Unit (ACU) Cooling Capacity Rating Per Room Size			
Room Size (m^2)	**Manufacturer's Equivalent Cooling Capacity Rating (kJ/hr.)**	**Manufacturer's Equivalent Cooling Capacity Rating (Btu/hr.)**	**Approx. Rating (HP)**
14 to 16	7,385 - 8,440	7,000 – 8,000	3/4
19 to 21	9,495 - 10,550	9,000 – 10,000	1.0
25 to 26	12,660 - 13,290	12,000 - 12600	1.5
38 to 40	18,990 - 20,045	18,000 – 19,000	2

NOTE:
For air-conditioned areas beyond 40 square-meter (m^2), additional ACUs can be installed to meet the cooling requirements

II. Lighting System

- Implement De-lamping and Re-lamping process
- Installation of High-Efficiency Lamp Fixtures
- Improvement of Surface Reflectance
- Re-wiring of Light Switches for Alternate Operations and to Serve a Light to Switch Ratio of 4:1
- Application of Task Lighting for Areas where General Lighting is Insufficient
- Cleaning of Lamp Fixtures
- Optimum Utilization of Daylight

RECOMMENDED DESIGN ILLUMINANCE LEVELS *Based from Illuminating Engineering Society of North America (IESNA) Lighting Handbook*		
TASK	MINIMUM & MAXIMUM (Lux)	APPLICATIONS
Lighting for infrequently used areas	50-100	Stairways, Corridors and Parking Interiors
	50-200	Storage Room - General
	100-300	Loading Docks, Locker, Rooms, Lounge/Break Rooms and Restrooms/Toilets
	200-300	Bedroom-Dormitory, Cafeteria-Eating, Gymnasium for Exercise/Workouts and Office/General Lobby
	200-500	Library-Stacks, Mechanical/Electrical Rooms and Retail Sales
Lighting for working and activity interiors	300-500	Classrooms-General, Conference Rooms, Exhibit Space, Gymnasium-Sports/Games, Library Reading/Studying, Office-Open, and Office-Private/Closed
	300-750	Kitchens-Food Preparations and Workshops
Localized lighting for exacting tasks	500-750	Laboratory-Classrooms
	750-1200	Laboratory Professional

SOURCE: Guidelines on Energy Conserving Design of Buildings (2020 Edition)

STANDARDS:

- **Building Energy Efficiency Index (BEEI) = 160 kilo-Watt hour/square meter/year (kWh/m²/yr)**
  - *Based on ASEAN Harmonized Standard*

- **Lighting Power Density (LPD)**
  - *Based on Guidelines on Energy Conserving Design of Buildings 2020 Edition*

Lighting Power Density for Building Exteriors	
Building Area Type	**Lighting Power Density (W/m²)**
Façade lighting and Special Features Areas, Walkways and Plazas	1.1
Landscape	0.4
Entry Doors	46
Stairs and Ramps	7.5
Parking Lots and Drives	0.5
All Other Areas not Listed Above	2.2

Lighting Power Density for Building Interiors	
Building Area Type	**Lighting Power Density (W/m²)**
Manufacturing Facility	8.8
Motion Picture Theatre	4.7
Multifamily	4.8
Museum	5.9
Office	6.9
Parking Garage	1.9
Penitentiary	7.4
Performing Arts Theater	9.0
Police Station	7.1
Post Office	7.0
Religious Facility	7.2
Retail	9.0
School/University	7.7
Sports Arena	8.2
Town Hall	7.4
Transportation	5.4
Warehouse	4.8
Workshop	9.8

III. Other Facility Considerations

- Observe provisions as recommended in the latest Guidelines of Energy Conserving Design for Buildings:
  - Building Envelope;
  - Mechanical Systems; and;
  - Electrical Systems.

Annex B

Criteria Scoring for GEEPs

Parameters	Score	Bases
1. GE and Proposed GEEPs' compliance to IAEECC directives and GEMP Guidelines;	50%	GE and Proposed GEEPs fully compliant with the IAEECC directives and GEMP Guidelines
	25%	Either GE is partially/fully compliant or Proposed GEEPs are partially/fully with the IAEECC directives and GEMP Guidelines
	0%	GE and Proposed GEEPs are not compliant with the IAEECC directives and GEMP Guidelines
2. Measures are energy efficient based on the standards for facilities and fleets (Annex A) and other DOE issuances;	30%	Proposed measures observe or exceed set energy efficiency standards/ recommendations
	15 %	Proposed measures partially observe or exceed set energy efficiency standards/ recommendations
	0%	Proposed measures do not meet set energy efficiency standards/ recommendations
3. Payment terms/ Investments are cost-effective as defined by the GEMP Guidelines	20%	The payback period is within 6 years
	10%	The payback period is above 6 years but equal to or lower than 10 years
	0%	The payback period is above 10 years

Exemptions:

- Priority GEEPs, no-cost proposals, and technology pilots shall only be subject to the 1st parameter and be exempt from scoring based on the 2nd and 3rd parameters in the general criteria. This means that garnering a complete score of 50% in the 1st parameter will equate to a GEEP rating of 100%.

- In cases there are no established energy efficiency standards for the proposed GEEP measures, equivalent/relevant national or international standard/s must be submitted to secure a full 30% upon evaluation; otherwise, the score will be 0%.

Annex C

Endorsement Letter

Letterhead
(With contact details)

Date

DOE EUMB Director
Department of Energy

Dear ***Sir/Madame***:

This is to endorse the Government Energy Efficiency Project for **<government entity>** in line with the Government Energy Management Program (GEMP) Guidelines.

Attached herewith are the documentary requirements. Further, the briefer of the requested GEEPs covering the timeline and concerned offices are in the Appendix.

We certify that all the information provided is true and correct to the best of our knowledge.

Best Regards,

Name and Signature
Authorized Representative

ANNEX C

Appendix for the Endorsement Letter

Briefer on GEEPs

Proposed Activities (A)	Concerned Office	Period of Implementation (B)	Priority GEEP or no cost GEEP* (C)	Selected TPPD/ESCO** (D)	Source of Budget (E)	Projected Payback Period (F)	Energy Efficiency and Conservation Standard for Adoption (G)	Specifications of Proposed Measures/ Technology (H)	Quantity/ Size (I)	Capital Outlay Expenses (J)	Maintenance and Other Operating Expenses/MOOE (K)	Total Expenses (L)
1. Upgrading of air conditioning system	Regional Office III	January 2020-December 2020	N/A	N/A	Additional funding required	6	IAEECC Resolution No. 3 and MEPP of the DOE Department Circular No. DC2020-06-0016	Inverter Airconditioning Units (AC) with cooling seasonal performance factor of 3.08	50 AC units			
2. Provision and maintenance of lighting system in off-grid offices	Regional Office IV-A	January 2020-December 2020	Priority GEEP	N/A	Existing funds/ GCR	4	IAEECC Resolution No. 2 MEPP of the DOE Department Circular No. DC2020-06-0016	Energy-efficient LED lamps with a minimum of 80 lumens per watt (lm/W) for non-directional and 90 lm/W for linear type	500 units of LED lamps			

A-As indicated in the submitted EECP/Proposal of the GE
B-As indicated in the submitted EECP/Proposal of the GE
C- indicate N/A if not a Priority GEEP or no cost GEEP;
D- indicate TPPD/ ESCO if GE has been selected for ESCO based Proposal, N/A if the GEEP is not an ESCO-Based Proposal
E- indicate if this will be funded by GE using existing funds/ GCR. Input additional funding will be budget will be requested through the GAA
F- Indicate computed payback period in years. The payback is computed by dividing the sum of savings and GCR by the total life cycle cost or total cost (inclusive of all costs such as investment and maintenance/operating cost) of the measure.
G- indicate the DOE/IAEECC issuance observed. If there are no applicable standards, an equivalent national/international standard must be cited.
H- indicate specifications of the measure (eg. Energy/Fuel efficiency parameters, efficiency factors, capacity, and etc.)
I-Indicate description on the scale of the project concerning quantity or size. The unit of measurement must be indicated
J- These include pertinent expenditure items such as training and scholarship expenses, supplies, materials expenses, communication expenses, professional services, general services, repairs and maintenance, other MOOE (rent/lease and subscription expenses).
K-These includes expenditures such as office equipment, furniture, fixtures, machinery, and equipment.

Directory on Proposed GEEPs

Concerned Office	Address	Energy Efficiency and Conservation Contact Person	Contact Information	Email Address
Regional office III				
Regional office IV-A				

Prepared by:

(Signature over Printed Name of the
EEC Officer/EEC Focal Person)

Position: _____
Email Address: _____
Date Submitted: _____

Approved by:

Signature over Printed Name of the
Chief Executive

Position: _____
Email Address: _____
Date: _____

Annex D

Sample GEEP Proposal Template

1. **Executive Summary**

   a. Background and Rationale

   b. Recommended Energy Efficiency and Conservation Measures (EECM)

      A summary listing of EECM under the GEEPs with their description. This highlights the specific components of the GEEPs (eg. lighting retrofit, installation of renewable systems and etc.)

   c. Summary of EECM Savings

EECM	Estimated Implementation Price (PhP)	Conceptual Annual Cost Savings (PhP/yr) *			Simple Payback (in years)
		Total Energy Cost Reductions (A)	O&M Cost Savings (B)	Total Cost Savings (A+B)	
Refleeting of 3 government vehicles	3,000,000.00				
Retrofitting LED lights	1,500,000.00				

d. Cost-Benefit Analysis

Cost-Benefit Analysis should highlight the recommended benefits and costs of the whole GEEP every year.

Performance Period Year	GEEP Implementation				
	(a) Investment & O&M Cost	(b) Estimated Annual Cost Savings (O&M and others)	(c) Proposed Guaranteed Annual Energy Cost Reductions		(e) Benefit (b+c-a=e)
1	4,500,000.00				
2					
3...					
Total					

CBAs for each measure must be included as an attachment using the format below:

AIR-CONDITIONING UNITS REPLACEMENT

PARTICULAR	AIRCON
A. Estimated Consumption of 223 Non-Inverter AC, kWh/year	1,159,555.20
B. Estimated Consumption of 223 Inverter AC, kWh/year	753,710.88
C. Savings, kWh/year	405,844.32
D. Peso Savings, Php/year =Savings, kWh/year x Electricity Rate (12.00)	4,870,131.84
E. Investment Cost, Php for Inverter Type	
5 TR: 50 units x P 199,100.00/unit	9,955,000
3 TR: 35 unit x P 124,300.00/unit	4,350,500
2.5 HP: 8 unit x P 78,100.00/unit	624,800
2.0 HP: 81 unit x P 64,900.00/unit	5,256,900
1.5 HP: 33 unit x P 47,300.00/unit	1,560,900
1.0 HP: 1 unit x P 42,900.00/unit	686,400
Total Investment Cost, Php for Inverter Type	22,434,500
F. Simple Payback Period =Total Investment Cost/ Peso Savings/year	4.61

A. Consumption Non Inverter ACUs

Particular	Unit Cost, Installation Cost and other	Qty	kW	Hour	Days	Total KWh
5 TR Air-Conditioning Unit	199,100.00	50	4.92	8	21.5	42,312.00
3 TR Air-Conditioning Unit	124,300.00	35	2.88	8	21.5	17,337.60
2.5 HP Air-Conditioning Unit	78,100.00	8	2.1	8	21.5	2,889.60
2.0 HP Air-Conditioning Unit	64,900.00	81	1.8	8	21.5	25,077.60
1.5 HP Air-Conditioning Unit	47,300.00	33	1.2	8	21.5	6,811.20
1.0 HP Air-Conditioning Unit	42,900.00	16	0.8	8	21.5	2,201.60
		223	Total kWh/month			96,629.60
					Total kWh/year	1,159,555.20

LIGHTING UNITS REPLACEMENT

PARTICULAR	LIGHTING
A. Estimated Consumption of (FL T8 36W- 117, FL T5 28W- 1807, CFL 18W-179, FL T5 14W-79) Fluorescent Lamps	154,700.93
B. Estimated Consumption of 2181 (16W, 9W and 8W) LED Linear Lamps	85,189.02
C. Savings, kWh/year	69,511.91
D. Peso Savings, Php/year =Savings, kWh/year x Electricity Rate (12.00)	834,142.90
E. Investment Cost 16W LED Linear: 1924 units x P 1,200.00/unit 9W LED Bulb: 179 units x P 170.00/unit 8W LED Linear: 78 units x P 199.00/unit Total Investment Cost, Php for LED	 2,308,800 30,430 15,522 2,354,752
F. Simple Payback Period =Total Investment Cost/ Peso Savings/year	2.82

2. **Schedule of Activities**

The specific activities and timelines for the GEEP are discussed here.

3. **EECM Descriptions**

Enumerate and discuss existing conditions of the facility or fleet and the proposed government entity for each target energy conservation measure.

4. **Project Management and Organization**

Description of the organizational structure, business enterprise, governance, management and personnel functions, utilization of project income, and ownership of project inputs.

5. **Training**

Capacity-building activities to be provided to the government entity for the implementation of the GEEP

6. **Project Sustainability**

This refers to the post-implementation activities (e.g. after-sales support, maintenance and etc.) to ensure the continuity of the initiative and benefits realization.

7. **Recommended M&V Plan**

Each EEC measure/initiative will be listed here with the corresponding M&V plan to ensure that the benefits of the project are measured.

Technology/EECM	M&V Methodology
Refleeting 3 government vehicles	Energy consumption will be monitored weekly through meters.

Retrofitting Led Lights	Energy consumption will be monitored weekly through meters.

8. **Proposed Cash Flow with Energy Cost Reductions for the GEEP** including proposed counterpart from a government entity; payment terms or amortization of investment costs through energy cost reductions based on the provisions of the GEMP Guidelines

Items	Year 1	Year 2	Year 3...	Total
Energy Efficiency Cost Reductions				
Expenses				
Investment Cost/ Repayment (amortization if under payment scheme)				
O&M Costs (breakdown)				
Equipment/Vehicle/Services (investment cost)				
Total				

9. **Supporting documents**: technical and financial assumptions for GEEP cost reductions and CAPEX costs; baseline assumptions on the current energy consumption and costs for each fuel, utility type, and costs, and the government fleets/facilities operating conditions;

Annex E

Endorsement Letter

Letterhead
(With contact details)

Date

DOE EEC Officer/ Head of Agency

Dear ***Sir/Madame***:

This is to endorse the proposed Government Energy Efficiency Project for the **<name of government entity>** in line with the Government Energy Management Program (GEMP) Guidelines.

Attached herewith are the documentary requirements including our proposal for **<name of government entity>**'s fleet/facility.

We certify that all the information provided is true and correct to the best of our knowledge.

Best Regards,

Name and Signature
Authorized Representative

Annex F

Sample Template for List of Ongoing and Completed Projects

Project (A)	Concerned Office (B)	Contact Person (C)	Period of Implementation (D)	Specifications of Proposed Measures/ Technology (E)	Quantity/ Size (F)	Total Cost (in pesos) (G)	Payback Period (H)	Annual Savings and GCR (I)	Status
Upgrading of air conditioning system	GE Regional Office III	Name Designation Email Number	January 2020-December 2020	Inverter Airconditioning Units (AC) with cooling seasonal performance factor of 3.08	50 AC units	5,000,000.00	6		Completed
Provision and maintenance of lighting system in off-grid offices	Corporation A		January 2020-December 2020	Energy-efficient LED lamps with a minimum of 80 lumens per watt (lm/W) for non-directional and 90 lm/W for linear type	500 units of LED lamps	10,000,000.00	4		On-going

A-Indicate specific project or initiative
B-Indicate organization involved/ beneficiary of the project
C- Indicate the contact person of the end-user/ beneficiary of the project for verification
D- indicate the implementation period of the initiative
E- indicate specifications of the measure (eg. Energy/Fuel efficiency parameters, efficiency factors, capacity, and etc.)
F- Indicate description on the scale of the project concerning quantity or size. The unit of measurement must be indicated
G- Indicate life cycle cost/ total cost (inclusive of investment and operating/maintenance costs)
H- Indicate computed payback period in years. The payback is computed by dividing the sum of savings and GCR by the total cost of the measure. Indicate actual or projected data depending on the status
I- Indicate total savings including energy efficiency cost reductions. Indicate actual or projected data depending on the status

*provide photo documentation as needed

Annex G

Republic of the Philippines
DEPARTMENT OF ENERGY

GOVERNMENT ENERGY EFFICIENCY PROJECT/S
EVALUATION FORM

This is regarding the submitted government energy efficiency projects (GEEPs) of **<Name of Government Entity> with a total budget** amounting to **PhP 000,000.**

List of GEEPs (A)	Concerned Office	Period of Implementation (B)	Priority GEEP or no cost GEEP* (C)	Selected TPPD/ESCO** (D)	Source of Budget (E)	Investment Cost	Projected Payback Period (F)	Energy Efficiency and Conservation Standard for Adoption (G)	Specifications of Proposed Measures/ Technology (H)	Quantity/ Size (I)	Score and Eligibility (J)
Upgrading of air conditioning system	Regional Office III	January 2020-December 2020	N/A	N/A	Existing funds/ GCR	10,000,000	6	IAEECC Resolution No. 3 and MEPP of the DOE Department Circular No. DC2020-06-0016	Inverter Airconditioning Units (AC) with cooling seasonal performance factor of 3.08	50 AC units	59- Not eligible
Provision and maintenance of lighting system in off-grid offices	Regional Office IV-A	January 2020-December 2020	Priority GEEP	N/A	For funding through the GAA	20,000,000	4	IAEECC Resolution No. 2 MEPP of the DOE Department Circular No. DC2020-06-0016	Energy-efficient LED lamps with a minimum of 80 lumens per watt (lm/W) for non-directional and 90 lm/W for linear type	500 units of LED lamps	70- Eligible

Notes:
A-As indicated in the submitted EECP/Proposal of the GE

B-As indicated in the submitted EECP/Proposal of the GE
C- indicate N/A if neither a Priority GEEP nor a no-cost GEEP
D- indicate TPPD/ ESCO if GE has been selected for ESCO based Proposal, N/A if the GEEP is not an ESCO-Based Proposal
E- indicate of this will be funded by GE using existing funds/ GCR. Input for approval if funding will be requested through the GAA
F- Indicate computed payback period in years. The payback is computed by dividing the sum of savings and GCR by the total investment and maintenance cost of the measure.
G- indicate the DOE/IAEECC issuance observed. If there are no applicable standards, an equivalent national/international standard must be cited.
H- indicate specifications of the measure (eg. Energy/Fuel efficiency parameters, efficiency factors, capacity, and etc.)
I-Indicate description on the scale of the project concerning quantity or size. The unit of measurement must be indicated
J-indicate the score based on the criteria and if the project is not eligible/ eligible

Recommended by:

DIRECTOR
EUMB