

Government Energy Management Program (GEMP)

by
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Energy Efficiency & Conservation Division
DOE





Governing Policies

- Implementation of A.O. Nos. 103, 110, 110-A, 126 and 183

Aimed to ADDRESS the increasing/volatile world oil prices through the adherence to the government's energy management/conservation program





What is Administrative Order No. 103

Directing the Continued Adoption of Austerity Measures in the Government.

- *Sec. 1 (b)(2) “consumption of fuel, water, office supplies, electricity and utilities. For this purpose, agencies are hereby authorized to **INSTALL and USE** energy-efficient lights and fixtures...”*



What is Administrative Order No. 110

Directing the Institutionalization of a Government Energy Management Program (GEMP) and its Amendment.

Sect 1.1 “The Government shall aim to REDUCE its monthly consumption of electricity (in kilowatt-hours) and petroleum products (in liters) by at least ten percent (10%)...”

- ***Conduct of energy survey and audits***
- ***Designate Energy Conservation Officer***
- ***Blending of petroleum products with alternative fuels (CME)***



What is Administrative Order No. 126

Strengthening Measures to address the extraordinary increase in World Oil Prices, Directing the Enhanced Implementation of the Government's Energy Conservation Program, and for other purposes.

Sec.3 "Where adequate ventilation is available, all government agencies and offices shall discontinue the use of their air-conditioning facilities, especially during cooler months from August to February"

Sec.4 "A report of compliance shall be submitted monthly, not later than the 15th day following the reporting month, to the Department of Energy which shall prepare and submit a summary report to the President within five (5) days after the last reporting day"



What is Administrative Order No. 110-A

**Amending Administrative Order No. 110 S. 2004
Directing the Institutionalization of a Government
Energy Management Program (GEMP)**

Sec. 3, Item 3.2 Use of Energy Savings

“The savings to be realized through the GEMP may be used by the government entity for the improvement of energy efficiency, subject to the guidelines to be promulgated by DOE and DBM, and also for the purchase of shuttle buses and service vehicle for their employees and officials subject to the usual government auditing and accounting rules and regulations”



What is Administrative Order No. 183

Directing the use of Energy Efficient Lighting/Lighting Systems (EELs) in Government Facilities (Palit-Ilaw Program).

Sec.1 Mandatory Use of EELs. All department bureaus, offices, agencies and instrumentalities of the Philippine Government, including National Government Agencies, State Universities and Colleges, GOCCs, GFIs and other government Entities are hereby mandated to use EELs in all buildings and facilities, as well as in all projects by the Government, such as housing and school building projects”




Justification for Creating an Energy Audit Team

IRR of GEMP


Sec 1. Aggressive promotion of energy conservation and energy efficient technology through the conduct of appropriate information, education and communication campaign, **energy audits / surveys**, and **spot checks** without prejudice to the employees/officials' productivity and performance

Sec 2. For the proper and effective implementation of the government's energy conservation program and austerity measures under AO 103, AO 110 and AO 126

2011 ENERGY AUDIT TEAM

H. M. ALCASID / L. G. AYSON
ENERGY AUDITOR / CHAIRS



OPERATIONS PLANNING CENTER



Dir. E. N. REYES
Chief Operations Officer

Operation Officers:



A/Dir. J.C.
Anunciacion



V.P. Reyes



A.G. Bacudo

Assistant Secretary
Chief Implementing Officer

Monitoring
Evaluation

Communications
Team



EVELYN N. REYES
Director



JESUS C.
ANUNCIACION
OIC- Asst. Director

Director
FIELD OFFICES




A.P. HABITAN
Team Leader
09052980870



V.P. REYES
Team Leader
09228622379

ENERGY INSPECTORS

(Lighting/AC)	(Fuels/ Documentor)
1. M. Marquez	1. D. San Miguel-IT
2. R. Manga	2. E. Manlapig-IT
3. J. Cerbolles	
4. E. Mamari	



ENERGY INSPECTORS

(Lighting/AC)	(Fuels/ Documentor)
1. R. Sotelo	1. S. Leonor
2. A. Basco	2. N. Rigor-IT
3. J. Flores	
4. A. Lausa	
5. G. Almonares	



ENERGY INSPECTORS

(Lighting/AC)	(Fuels/ Documentor)
1. A. Bacudo	1. R. Sumulong
2. M. Boado	2. R. Balmes-IT
3. S. Sebastian	3. D. Montillano-IT
4. C. Mojica	
5. E. Soyosa	



ENERGY INSPECTORS

(Lighting/AC)	(Fuels/ Documentor)
1. M. Domingo	1. T. Agagas
2. C. Santos	2. J. Verano-IT
3. A. De la Vega	3. L. G. S. Macas
4. C. Bagabaldo	
5. V. Grego	
6. R. P. Parreño	



ENERGY INSPECTORS

(Lighting/AC)	(Fuels/ Documentor)
4 STAFF	

ENERGY INSPECTORS

(Lighting/AC)	(Fuels/ Documentor)
4 STAFF	

AUDIT
TEAMS



Energy Audit Team

By Virtue of Memorandum Order No. 8 dated December 7, 2010 entitled “Amendment to 1st Paragraph of Memorandum Order No. 185 from the Office of the President, an Energy Audit Team was constituted composed of Atty. Herminio M. Alcasid of the PNOC-Development and Management Corporation (DMC), as Chairman and Undersecretary Loreta G. Ayson of the Department of Energy, as Member.



Energy Audit Team

The Energy Audit Team shall be assisted by the following units of the DOE :

- a) Energy Utilization Management Bureau;
- b) Energy Research and Testing Laboratory Services;
- c) Information Technology and Management Services; and
- d) Energy Policy and Planning Bureau.



Energy Audit Team

The Energy Audit Team has the following functions, among others :

Conduct energy surveys and audits, or provide technical assistance for the conduct of such surveys and audits

Ensure that each government entity designate a senior official as its Energy Conservation Officer

Liaise with local government units and encourage them to implement energy efficiency and conservation measures



Energy Audit Team

The Energy Audit Team has the following functions, among others :

Coordinate with the Energy Conservation Officers for the proper and effective implementation of energy measures and require them to submit a monthly report of the measures taken and the results thereof

Prepare and submit a summary report to the President, through the Executive Secretary, within five (5) days after the last reporting day

Adopt other measures not contrary to existing laws, rules and regulations for the strict implementation of the energy conservation program and austerity measures

Activities on the Implementation of GEMP



- Conduct of Spot Check by Energy Audit Team
- Require submission of relevant data/document
 - Designation of an ECO of the concerned agency
 - Fuel and electricity consumption

Monthly REPORTS
- Posting of Agency Rating as a result of Spot Check

Activities on the Implementation of GEMP



Conduct Spot Check by Energy Audit Team



**Use of electric fans
Turn off computer when not
in use**



**Replace 40w lamp tubes to
36 W or with lower wattage
or CFL**

Conduct Spot Check by Energy Audit Team



Rule III. Section 2.2.b

Ensure that each government entity designates a senior official as its ECO who will be responsible for the development and implementation of energy efficiency and conservation measures;



Republic of the Philippines
DEPARTMENT OF THE INTERIOR AND LOCAL GOVERNMENT
REGIONAL OFFICE NO. I SAN FERNANDO CITY (LA UNION)
Tel. Nos. 888-31-06; 888-33-10; 888-22-89; 888-22-94
Fax No. (072) 888-21-08

August 22, 2005

REGIONAL ORDER
NUMBER 2005-126


SUBJECT : DESIGNATION OF DILG RI ENERGY
CONSERVATION OFFICER (ECO)

Per Administrative Order No. 110 *DIRECTING THE INSTITUTIONALIZATION OF A GOVERNMENT ENERGY MANAGEMENT PROGRAM (GEMP)*, Supply Officer II Alexander A. Aberin is hereby designated as the DILG RI Energy Conservation Officer (ECO).

He shall be responsible in the monitoring of the adoption of austerity measures in the regional office and provides data/statistics in the preparation of required reports.

He shall be responsible in proposing to management, some measures and strategies to reduce fuel consumption by (ten) 10% including the cost of water, office supplies and other utilities.

This order is issued in the interest of public service.


MANUEL V. BIASON, CESO III
Regional Director



Rule II. Section 2.2.e

Require ECOs to submit monthly electricity and fuel consumption reports;

Republic of the Philippines

DEPARTMENT OF ENERGY

Energy Center, Merrit Road, Fort Bonifacio, Taguig City

GOVERNMENT ENERGY MANAGEMENT PROGRAM

Monthly Electricity Consumption Report

For the Month of July, 2007

Agency: **GOVERNMENT SERVICE INSURANCE SYSTEM**

Telephone Nos: 2144477

Address: Pagadian City

Fax Number: 2144475

A	B	C	D	E	F	G H	
Building Description	Gross Area (Square meters)	Air-Conditioned Area (square meters)	Number of Occupants	January - June 2004 Average Monthly Consumption, kWh	Monthly Consumption, kWh	Monthly Savings	
						kWh	Percent, %
4 storey office/ commercial building	1,154.31	943.05	218.77	11,650.71	9,828	1822.71	15.645

Submitted by:

Submitted by:

Noted by:

Exoperio M. Balancar

Exoperio M. Balancar

Joselito C. Roldan, Sr

DC III, SSD

DC III, SSD

Area Manager

Republic of the Philippines

DEPARTMENT OF ENERGY

Energy Center, Merrit Road, Fort Bonifacio, Taguig City

GOVERNMENT ENERGY MANAGEMENT PROGRAM

Monthly Fuel consumption Report

For the Month of August, 2007

Agency: **GOVERNMENT SERVICE INSURANCE SYSTEM**

Telephone Nos: 2144477

Address: Pagadian City

Fax Number: 2144475

January-June 2005 Average Monthly Consumption		Monthly Fuel Consumption		Monthly Savings		Percentage Savings	
Gasoline, Liters	Diesel, Liters	Gasoline, Liters	Diesel, Liters	Gasoline, Liters	Diesel, Liters	Gasoline, Liters	Diesel, Liters
560.07	10.5	413.354	3.5	146.716	7	26.20	66.67

Submitted by:

Submitted by:

Noted by:

Exoperio M. Balancar

Exoperio M. Balancar

Joselito C. Roldan, Sr

DC III, SSD

DC III, SSD

Area Manager

Activities on the Implementation of GEMR

Posting of Agency Rating





Rating Scheme

Composed of Itemized List of Programs/Activities/Requirements pertinent to the Compliance to the AOs

Spot Check Result

Grades "A" "B" "C" and "F"

GRADE	EQUIVALENT RATING	PERCENTAGE SCORE
"A"	☆☆☆☆☆	90 - 100
"B"	☆☆☆	80 - 89
"C"	☆	70 - 79
"F"	FAILED	69 and below



SPOT CHECK FORM

ENERGY CONSERVATION MEASURES IN GOVERNMENTNAME OF GOVERNMENT OFFICE : DEPARTMENT OF SOCIAL WELFARE & DEVELOPMENTLOCATION : ILOILO CITY, REGION VIDATE : JUNE 4, 2011 TIME : 1:30 P.M.**RESULT**

TOTAL % SCORE

95%

EQUIVALENT RATING

★★★★

GRADE

A

Perfect Score

Agreed Score

5X

5.0%

1. Enercan Officer

5X

5.0%

2. Office issuance an energy Conservation

ELECTRICITY

5.2X	5.2%	1. Use of CFL and dim type fluorescent lamps
5.2X	5.2%	2. Room Setting temperature not lower than 25 degree Centigrade
5.2X	5.2%	3. Operate aircon only from 9 am to 4 pm
4.2X	4.2%	4. Air leakage/infiltration
5.2X	5.2%	5. Air-con setting (at fan mode) during lunch time
2.1X	2.0%	6. Turn-off computer/equipment/appliance when not in use
-	-	7. Second floor elevator service bypassed
5.2X	5.2%	8. Lighting Power Density
5.2X	5.2%	9. Building Power Density (Conditioned Area)
2.1X	2.1%	10. Electric Utility Bill (Readily available)
5.2X	5.2%	11. Percent Energy Saving generated for the past year
45.8X	44.9%	

FUEL

5X	5.0%	1. Inventory list and assignment of government service vehicle to a particular official
5X	5.0%	2. Monthly fuel consumption report record
5X	5.0%	3. Preventive maintenance schedule of service vehicle including repair
5X	5.0%	4. Records of daily entry and dispatch of service vehicle from motor pool
5X	5.0%	5. Records of Trip Tickets for each service vehicle
5X	5.0%	6. Idling of engine while waiting and/or parking
15X	10.0%	7. Fuel Conservation Program
45X	40.0%	

Attended by: DIR. MARIC C. MARASIGAN

Activities on the Implementation of GEMP



Conduct of IEC to different government offices



Government Energy Management Program (GEMP)

ADMINISTRATIVE ORDER NO. 110 - DIRECTING THE INSTITUTIONALIZATION OF A GOVERNMENT ENERGY MANAGEMENT PROGRAM (GEMP) AS AMENDED

The Government shall aim to reduce its monthly consumption of electricity (in kilowatt-hours) and petroleum products (in liters) by at least ten percent (10%)

Administrative Orders (A.O.)

A.O. 110-A (s.2006)	Amending A.O. 110 s. 2004 – Directing the institutionalization of a Government Energy Management Program.
A.O. 183 (s.2007)	Directing the use of energy efficient lighting/lighting system (EELs) in government facilities.
A.O. 126	Strengthening measures to address the extra ordinary increase in world oil prices, directing the enhanced implementation of the governments energy conservation program .



Savings from 2017:

PhP 2.82 B

- PhP 78.63 Million on Electricity
- PhP 1.64 Million on Fuel



Section 3. Efficiency & Conservation in Electricity Use (Implementing Rules & Regulations of GEMP)

- **Section 3.2.a Airconditioning System Operation**
 - **Operate AC from 9:00 a.m. to 4:00 p.m.**
 - **Set thermostat control to 25°C**
 - **Set at fan mode from 12:00 noon to 1:00 p.m.**
 - **Observe regular maintenance servicing and cleaning of filters as necessary.**
 - **Electric fans may be used instead during 12:00 noon to 1:00 p.m.**



Section 3. Efficiency & Conservation in Electricity Use (Implementing Rules & Regulations of GEMP)

- **Section 3.2.c Mandatory replacement of:**
 - **All 40 W fluorescent tubes with 36 W fluorescent tubes**
 - **All 20 W fluorescent tubes with 18 W fluorescent tubes**
 - **All rapid start electromagnetic ballasts with preheat type electromagnetic ballasts or electronic ballasts**
 - **All incandescent bulbs with compact fluorescent lamps (CFLs).**



Section 3. Efficiency & Conservation in Electricity Use (Implementing Rules & Regulations of GEMP)

Section 3.2.d Lights shall be turned off during lunch breaks and after office hours, except in offices where continuous work or service to the public is being conducted.

Section 3.2.e Computers are strictly for official use only and shall be shut down when not in use.

Section 3.2.f Elevators shall be programmed to bypass the 2nd floor or, if possible, set to service alternate floors. A sign to this effect shall be placed conspicuously at the entrance of the elevator for the proper guidance of agency employees and visitors; provided that the physically-challenged and those with heavy loads shall not be prevented from using the elevator to reach each floor.



Section 4. Efficiency and Conservation in Fuel Use of Government Vehicles

Section 4.2.a Use/purchase or lease of vehicles capable of using Alternative Fuel

Section 4.2.b Use of biodiesel products that comply with the Philippine National Standard by blending a DOE-accredited biodiesel products with the diesel to comply with one percent (1%) Coco-Methyl Ester (CME) for use in all-diesel-fed vehicles

Section 4.2.c Adoption of the maintenance and driving tips indicated hereunder.



Recommendation

- Continue the implementation of GEMP and other energy conservation measures
- Continue monitoring agencies through Spot Check
- Continue the conduct of information, education and communication, etc.





COMMERCIAL & GOVERNMENT BUILDINGS

Action Plan 2016 - 2020



B: Building Codes Program

- ✓ Energy Efficiency Training Program for LGUs
- ✓ Coordination-body for Energy Efficiency input to Green Building Code development
- ✓ Update *“DOE Guidelines on Energy Conserving Design in Buildings and Facilities”*



C. Building Information and Ratings Program

- ✓ Annual performance information tool - benchmark for government building energy efficiency with a view to creating the market standard for all commercial buildings
- ✓ Mandatory disclosure of performance ratings on sale or lease of buildings

THANK YOU....



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