
Energy Efficiency in the Government

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Energy Utilization Management Bureau

Department of Energy



Government Energy Management Program



A.O. Nos. 103 & MC 35

Government agencies and instrumentalities to reduce monthly consumption of electricity and transport petroleum products by at least ten percent

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 extraordinary increase in world oil prices, directing the enhanced implementation of the governments energy conservation program .



Government Energy Management Program



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%)

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- Organize the Energy Audit Team
 - Conduct spot checks and energy audits
 - Monitor compliance of NGAs
 - Post Agency Ratings
-

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

Tasks of DOE



Implementation Schemes of GEMP

- Information, Education and Communication Campaign
- Energy Audit/Survey
- Spot Checks



- Formulate Annual Energy Efficiency and Conservation Programs
 - Reduce electricity use by 10%
 - Reduce fuel use by 10%
 - Submit Monthly Report of Consumption and Savings to DOE
 - Designate Energy Conservation Officer
 - Ready documents for the energy audit
-



Tasks of NGAs

**DEPARTMENT OF ENERGY
GOVERNMENT ENERGY MANAGEMENT PROGRAM
ENERGY AUDIT SCORING FORM**

Name of Government Office _____

Address: _____

Date & Time of Spot-check: _____

Office Policy

- | | | | |
|--|---|--|--|
| | 1.) Designation of Enercon Officer | | |
| | 2.) Office issuances on energy conservation | | |

Best Practices for Electricity Conservation

- | | | | |
|--|---|--|--|
| | 1.) Use of efficient lighting lamps such as LED, CFL, Slim type Fluorescent and others | | |
| | 2.) Use of efficient equipment such as appliances with Inverter Technology, LED displays and others | | |
| | 3.) Utilizing daylight whenever possible | | |
| | 4.) Room temperature not lower than 25 °C | | |
| | 5.) Aircon operation are scheduled from 9:00 AM to 4:00 PM | | |
| | 6.) Keeping the air conditioned room sealed from air infiltration | | |
| | 7.) Setting the ACU at "Fan Mode" during lunch break between 12:00 NN to 1:00 PM | | |
| | 8.) Turning off lights, computers, appliances, and other equipment when not in use | | |
| | 9.) Using stairs instead of elevator when going up or down one (1) floor | | |
| | <i>Document Records for Electricity Conservation</i> | | |
| | 10.) Inventory list of Lightings, ACUs and other office equipment | | |
| | 11.) Monthly Electricity Consumption Report of 2010 up to the present year with the latest copy of electricity bill | | |



Best Practices for Fuel Conservation

	1.)	Implementation of Fuel Conservation Program			
	2.)	Performing Preventive Maintenance Schedule (PMS) of official service vehicles			
	3.)	Avoiding idling of engines while waiting and/or parking			
		<i>Document Records for Fuel Conservation</i>			
	4.)	Inventory list and assignment of government service vehicles to a particular official			
	5.)	Monthly Fuel Monitoring Report in 201 up to the present year			
	6.)	Records of daily entry and dispatch of service vehicles from motorpool			
	7.)	Records of Trip Tickets for each service vehicle			



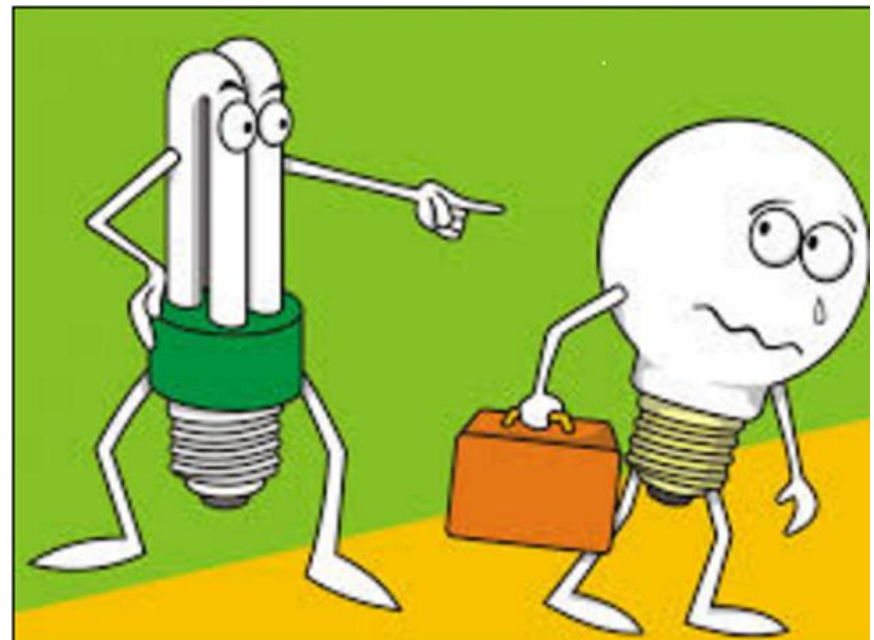
Required document check list

	1.)	Copy of Special Order / Memorandum designating an Energy Conservation Officer			
	2.)	Copy of Office Issuance / Memorandum circulars regarding Energy Conservation measures			
	3.)	Copy of latest Electrical Bill			
	4.)	Copy of latest Monthly Electricity and Fuel Consumption Report			
	5.)	Copy of Monthly Electricity and Fuel Consumption Report of 2010 up to the present year			
	6.)	Lighting equipment inventory list (with specifications, please see attached form)			
	7.)	Office Equipment inventory list (with specifications, please see attached form)			
	8.)	Air Conditioning Unit and Generator Inventory list (with specifications, please see attached for			
	9.)	Vehicle Inventory list (Including the date of purchase)			
	10.)	Copy of Vehicle's preventive maintenance schedule (work order or official receipt as proof)			
	11.)	Copy of a sample vehicle trip ticket			
	12.)	Copy of approved Motor pool Log Book - Monitoring of vehicle dispatch.			
	13.)	Gross floor area of all buildings			
	14.)	Airconditioned floor area of all buildings			



- Set aircon at 25C
- Shift to more efficient aircon technologies & inverter type
- Turn off office equipment when not in use
- Shift to CFL/LED
- Maximize natural lighting
- Shift to more efficient laptops
- Eliminate air infiltration

Common EE&C Measures Implemented



Electricity Savings of Selected Agencies

YEAR	Electricity Savings		CO2 Avoidance (Tons)
	GWH	Php (Million)	
2005-2016	309	2,512	158,215



National Irrigation Administration



TOP PERFORMERS IN 2015

No.	Establishment
1.	National Electrification Administration
2.	National Power Corporation-Head Office
3.	Office of the President
4.	National Transmission Corporation
5.	Bangko Sentral Ing Pilipinas
6.	National Irrigation Administration
7.	Metropolitan Manila Development Authority
8.	Presidential Management Staff
9.	National Economic Development Authority
10.	Bureau of Internal Revenue



TOP PERFORMERS IN 2016

No.	Establishment
1.	Center for International Trade Expositions and Missions
2.	Bangko Sentral ng Pilipinas
3.	Metropolitan Waterworks and Sewerage System
4.	Department of Agrarian Reform
5.	National Irrigation Administration-UPRIIS-DRD
6.	Forest Management Bureau
7.	Mariano Marcos State University
8.	Philippine National Oil Company
9.	Department of Environment and Natural Resources
10.	National Housing Authority



TOP PERFORMERS IN 2017

No.	NGA/SUC/GOCC	Energy Savings, kWh
1.	Bangko Sentral Ng Pilipinas	8,759,946
2.	Center for International Trade Expositions & Missions	222,472
3.	Department of Agrarian Reform	813,960
4.	DENR	488,485
5.	Forest Management Bureau	186,500
6.	Mariano Marcos State University	412,243
7.	Metropolitan Waterworks & Sewerage System	499,778
8.	National Housing Authority	293,304
9.	National Irrigation Administration-UPRIIS	164,164
10.	Philippine National Oil Company	218,450



TOP PERFORMERS IN 2017



EE&C Programs to save on Fuel

Government Energy Management Program (GEMP)

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Administrative Orders (A.O.)

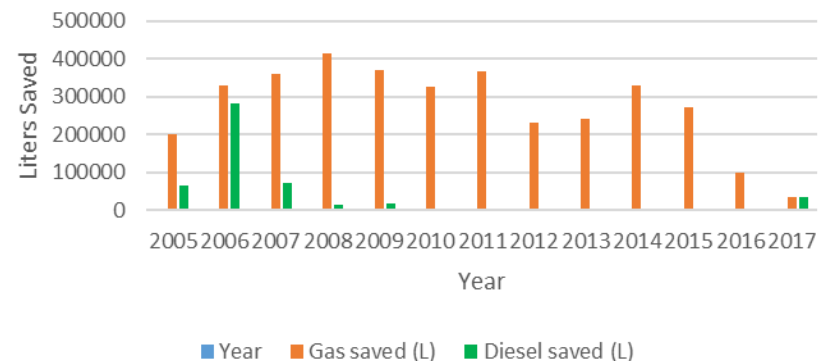
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Fuel Savings from Sept 2005 to June 2017:

Gasoline saved: 4.0 Million Liters
Diesel saved: 4.4 Million Liters

About Php 322.7 Million saved equivalent to 21,314 Tons of Avoided CO₂

Fuel Savings 2005-2017



Achievements of GEMP

- From September 2005 to December 2015, the government was able to save the ff:
 - Php 2.56 Billion in Electricity
 - Php 321 Million in Transport Fuel
- DOE conducted Spot Checks to 814 government agencies.
- Certificates of Energy/Monetary Savings has been issued to 294 Government Agencies with a total monetary savings of PhP 567,339,189.00



Way Forward Of GEMP

- Continue the implementation of GEMP and other energy conservation measures in government Buildings
- Continue monitoring of agencies through energy Audit Spot Check
- Continue the conduct of information, education and communication to all government employees
- Develop and implement web-based online reporting facility for GEMP



Thank You!



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