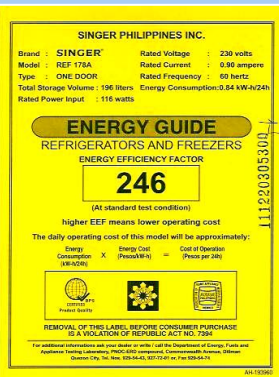


# ENERGY EFFICIENCY & CONSERVATION

## 2011 Accomplishments



# Presentation Outline

1

2011 Major Accomplishments

2

Measurable Targets

3

Plans and Programs

# Promoted Energy Efficiency as a Way of Life

## *National Energy Efficiency and Conservation Program*

- Launched the *Bright Now!* Campaign to educate and empower Filipinos to be smart energy users
- Savings of P 220 Billion for 2011-1H 2012



### National EE&C Programs

### Actual Savings (in MMBFOE)

	2011	1H 2012
Information, Education and Communication (IEC) Campaign	4.56	2.68
Voluntary Agreements	3.24	1.90
Energy Standards and Labeling	15.3	9.05
Government Energy Management Program (GEMP)	0.28	0.16
Energy Management Program	3.80	2.27
Phil. Energy Efficiency Project	0.29	0.16
<b>TOTAL</b>	<b>27.48</b>	<b>16.22</b>

# Promoted Energy Efficiency as a Way of Life

## *National Energy Efficiency and Conservation Program*

- Launched the Boni Tunnel Project (*First Grid-Tied Solar Powered LED Lighting*) on 15 May 2012 (Estimated annual savings of 23,056 kWh or P230,056.00)
  - Installed solar-powered *light emitting diodes* (LED)
  - Promoted the use of *energy efficient lighting systems* (EELS) for increased energy security and to mitigate environmental impacts
  - Showcased a public-private partnership model among partner contributors – DOE, PNOC-RC, DPWH, ADB, MMDA, Philips, Schneider and Mandaluyong City Government





# Promoted Energy Efficiency as a Way of Life

## *Philippine Energy Efficiency Project (PEEP)*

- Completed retrofitting of 314 parklights in Burnham Park in Baguio City. Potential savings of 269 MWh/year (*PhP 2.7 million* annual cost savings)
- Completed retrofitting of 2008 streetlights in CDO. Potential savings of 782 MWh/year (*PhP 6.2 million* annual cost savings)
- Retrofitted of 159 traffic light intersections with LEDs. Potential savings of 5,043 MWh/year (*PhP 50.43 million* annual cost savings)
- Awarded installation of the LED SHS in 223 off-grid HH in Palawan, Antique, Davao del Norte and Aklan



# Promoted Energy Efficiency as a Way of Life

## *Philippine Energy Efficiency Project (PEEP)*

### ■ CFL Distribution

- ✓ Distributed 4,896,238 (*under Lot 1*)
- ✓ Awarded 3.6M CFLs (*under Lot 2*) for distribution through Congressional Districts/Party List (2.33M) and DSWD (1.27M)

### ■ Retrofitting of government buildings

- ✓ Completed retrofitting of 35 buildings. Potential savings of 1,373 MWh/year (*Php 13.7 million annual cost savings*)
- ✓ Financial evaluation of additional 100 buildings



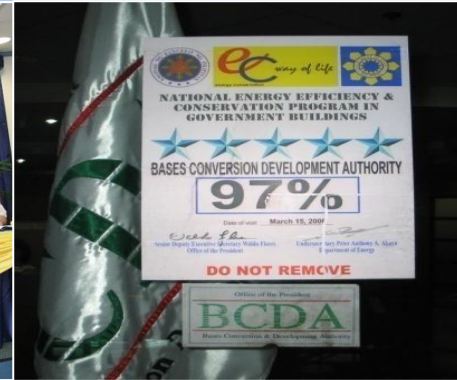
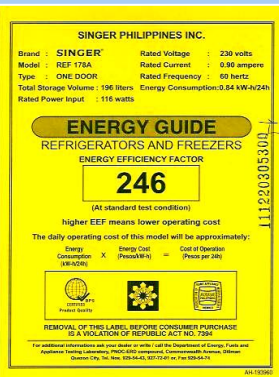
# Promote Energy Efficiency as a Way of Life

## *On-going Projects*

- Replacement of 88 traffic intersections with LED
  - Technical evaluation completed
  - Potential Savings of 2,927 MWh/year (*Php 29.3 million* annual cost savings)
- Retrofitting of street lights 2-4 km radius from NAIA
  - On-going bidding process
- Enhancement of Energy Efficiency Testing Facilities
  - Equipment for Refrigerators, TV and Washing machines Standards development (*TV and WM*) and accreditation for Refrigerators and RACs
- Establishment of Lamp Waste Management Facility
  - Completed financial evaluation

# ENERGY EFFICIENCY & CONSERVATION

## *Plans and Programs*





# Measurable Targets

## *Energy Efficiency as a Way of Life*

**Sectoral Target : 10% energy savings on the total annual energy demand of all economic sectors**

### Cumulative Target Energy Savings by Sector (KTOE)

Sector	2012	2015	2020	2025	2030
Agriculture	16	17	20	25	30
Industrial	157	197	283	408	583
Commercial	127	164	241	345	482
Residential	140	179	265	401	588
Transport	408	516	689	894	1,169
<b>TOTAL</b>	<b>848</b>	<b>1,073</b>	<b>1,499</b>	<b>2,072</b>	<b>2,850</b>
<b>MW Deferred Capacity</b>	<b>384</b>	<b>486</b>	<b>679</b>	<b>938</b>	<b>1,291</b>
<b>CO<sub>2</sub> Equivalent, tons CO<sub>2</sub></b>	<b>1,413,303</b>	<b>1,786,955</b>	<b>2,496,928</b>	<b>3,451,188</b>	<b>4,747,802</b>



# Plans and Programs

## *Energy Efficiency as a Way of Life*

- Expand existing policies on energy efficiency and conservation
- Promote private *Energy Service Companies* (ESCO) as a new business market industry model
- Continue implementation of Foreign-Assisted Projects
  - *JICA Technical Assistance Project on the Developmental Study of Energy Efficiency and Conservation for the Philippine.*
  - *UNIDO-GEF Technical Assistance Project on the Philippine Industrial Energy Efficiency Project*
- Continue implementation of the *National Energy Efficiency and Conservation Program* (NEECP):
  - *Information Education and Communication (IEC) Campaign*
  - *Government Energy Management Program (GEMP)*
  - *Demand Side Management Program (DSM)*
  - *The Philippine Energy Efficiency Project (PEEP)*

# Plans and Programs

## *Energy Efficiency as a Way of Life*

- Expand coverage of Energy Standard and Labeling Program to include new models of passenger cars and light-duty vehicles
- Implement other initiatives
  - Certification Program for Energy Managers and Energy Auditors
  - Development of Energy Efficiency and Conservation Guidelines for residential buildings
  - Development of energy benchmark for commercial and government buildings and industrial manufacturing facilities
  - Energy Management for efficiency performance monitoring of power generators and distribution utilities

# Thank You

