



DEPARTMENT  
OF ENERGY

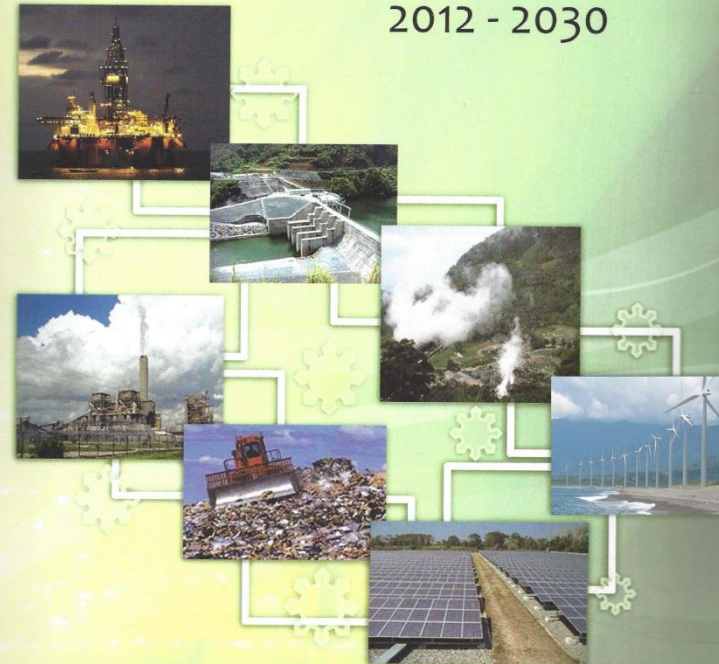


# PHILIPPINE ENERGY PLAN 2012-2030

Secretary Carlos Jericho L. Petilla



Philippine Energy Plan  
2012 - 2030



# Presentation Outline

1

Where Are We Now

2

Energy Reform Agenda

3

Policy Thrusts

4

Where Are We Headed





# WHERE ARE WE NOW

- Primary Energy Supply
- Fuel Input Mix for Power Generation
- Power Generation Mix
- Final Energy Consumption

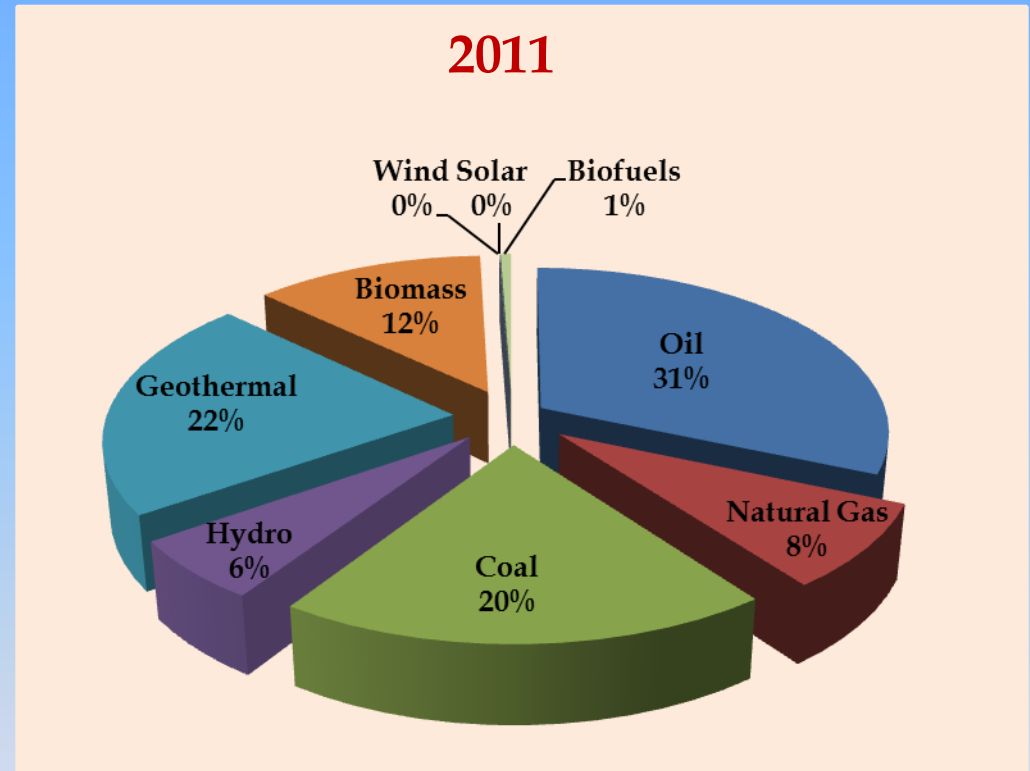


# Where Are We Now

## *Primary Energy Supply*

	2011
Total Energy (MTOE)	39.4
Self-sufficiency (%)	60.0
Shares (%)	
<a href="#">Renewable Energy (RE)</a>	40.7
Green Energy (RE + Natural Gas)	48.7

Note:  
MTOE - Million Tons of Oil Equivalent

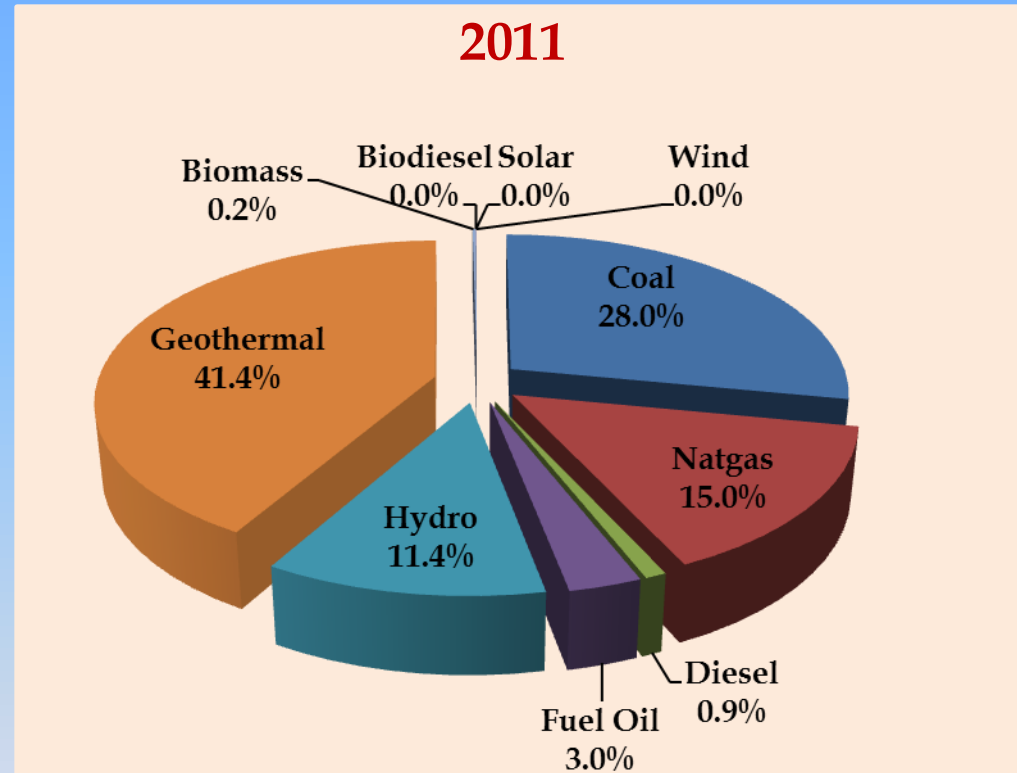


# Where Are We Now

## *Fuel Input Mix for Power Generation*

	2011
Total Energy (MTOE)	20.6
Share to TPES (%)	52.4
Self-sufficiency (%)	68.1
Shares (%)	
Renewable Energy (RE)	53.0
Green Energy (RE + Natural Gas)	68.1

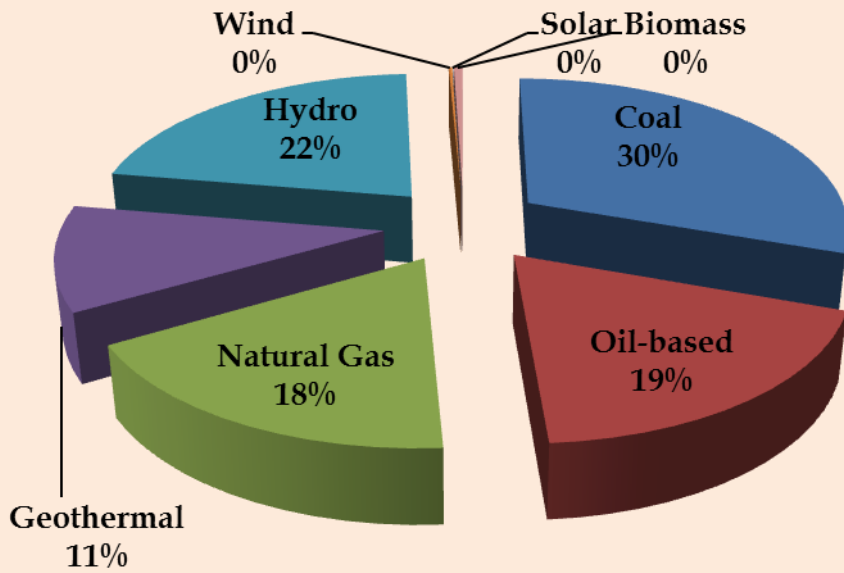
Note:  
MTOE - Million Tons of Oil Equivalent  
TPES - Total Primary Energy Supply



# Where Are We Now

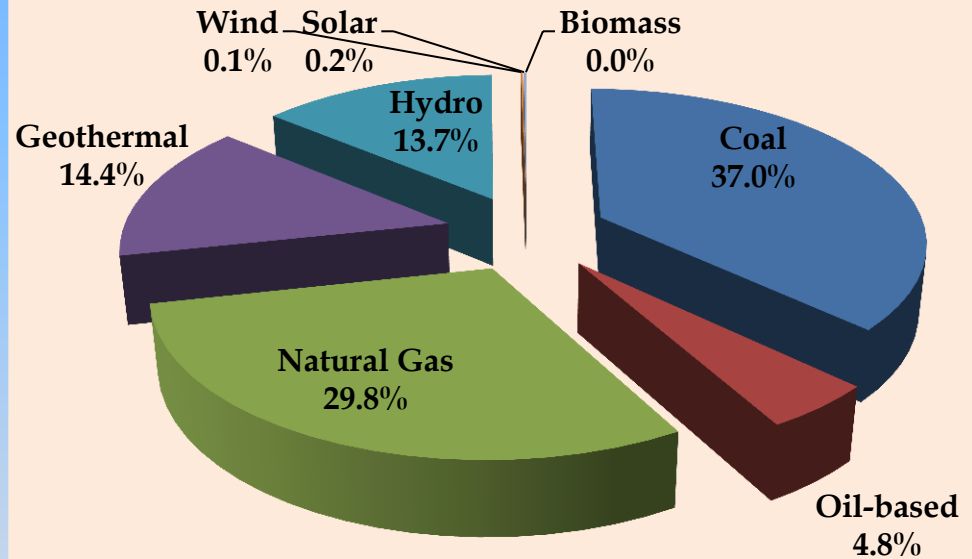
## Power Generation Mix

2011



Installed Capacity (MW) - 16,162

2011



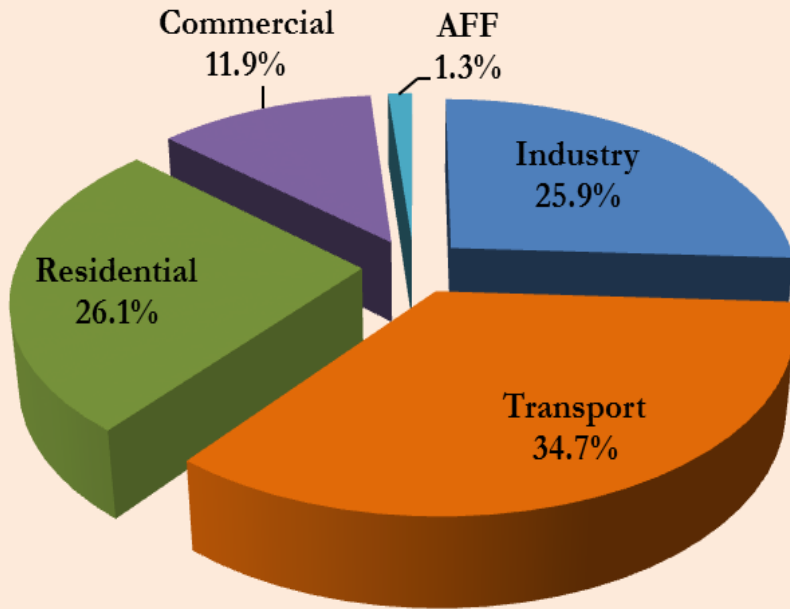
Total Generation (GWh) - 69,050



# Where Are We Now

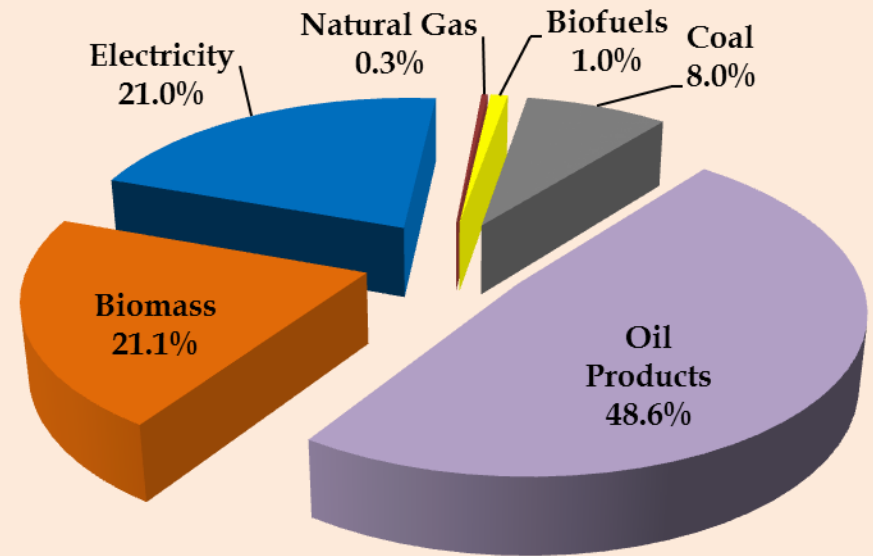
## *Final Energy Consumption*

2011



By Sector

2011



By Fuel

Total Energy Consumption (MTOE) - 23.0



# Energy Reform Agenda (ERA)

## *“Energy Access for More”*

*A key priority of government to mainstream access of the greater majority to reliable energy services and fuel, most importantly, local productivity and countryside development*

**Good Governance thru stakeholder participation, transparency, multi-sectoral partnership and use of ICT**

**Ensure  
Energy Security**

**Achieve Optimal  
Energy Pricing**

**Develop a  
Sustainable  
Energy System**

**Transparency  
Initiatives, Implementation and Information**





# Policy Thrusts

*PEP 2012-2030*

- Ensure Energy Security
- Expand Energy Access
- Promote Low-Carbon Future
- Climate Proof the Energy Sector
- Promote investment in the energy sector
- Develop Regional Energy Plans



# Ensure Energy Security

*Triple the RE capacity by 2030*

Sector	Short Term (2011-2015)	Medium Term (2016-2020)	Long Term (2021-2030)	Total (in MW)
<b>Geothermal</b>	220.0	1,100.0	175.0	<b>1,495.0</b>
<b>Hydropower</b>	341.3	3,161.0	1,891.8	<b>5,394.1</b>
<b>Biomass</b>	276.7			<b>276.7</b>
<b>Biofuels</b>	<ul style="list-style-type: none"> <li>▪ DC on E10 in 2011</li> <li>▪ Mandatory E10 to all Gasoline by 2012</li> <li>▪ PNS for B5 by 2014</li> <li>▪ DC on B5 by 2015</li> <li>▪ Mandatory B5 to all Diesel by 2015</li> </ul>	<ul style="list-style-type: none"> <li>▪ PNS for B20 and E85 by 2020</li> <li>▪ DC on B10 and E20 by 2020</li> </ul>	<ul style="list-style-type: none"> <li>▪ DC on B20 and E85 by 2025</li> </ul>	
<b>Wind</b>	200.0	700.0	1,445.0	<b>2,345.0</b>
<b>Solar</b>	50.0	100.0	200.0	<b>350.0</b>
<b>Ocean Power</b>	0	35.5	35.0	<b>70.5</b>
<b>TOTAL (in MW)</b>	<b>1,088.0</b>	<b>5,096.5</b>	<b>3,746.8</b>	<b>9,931.3</b>

Source: NREP 2011-2030



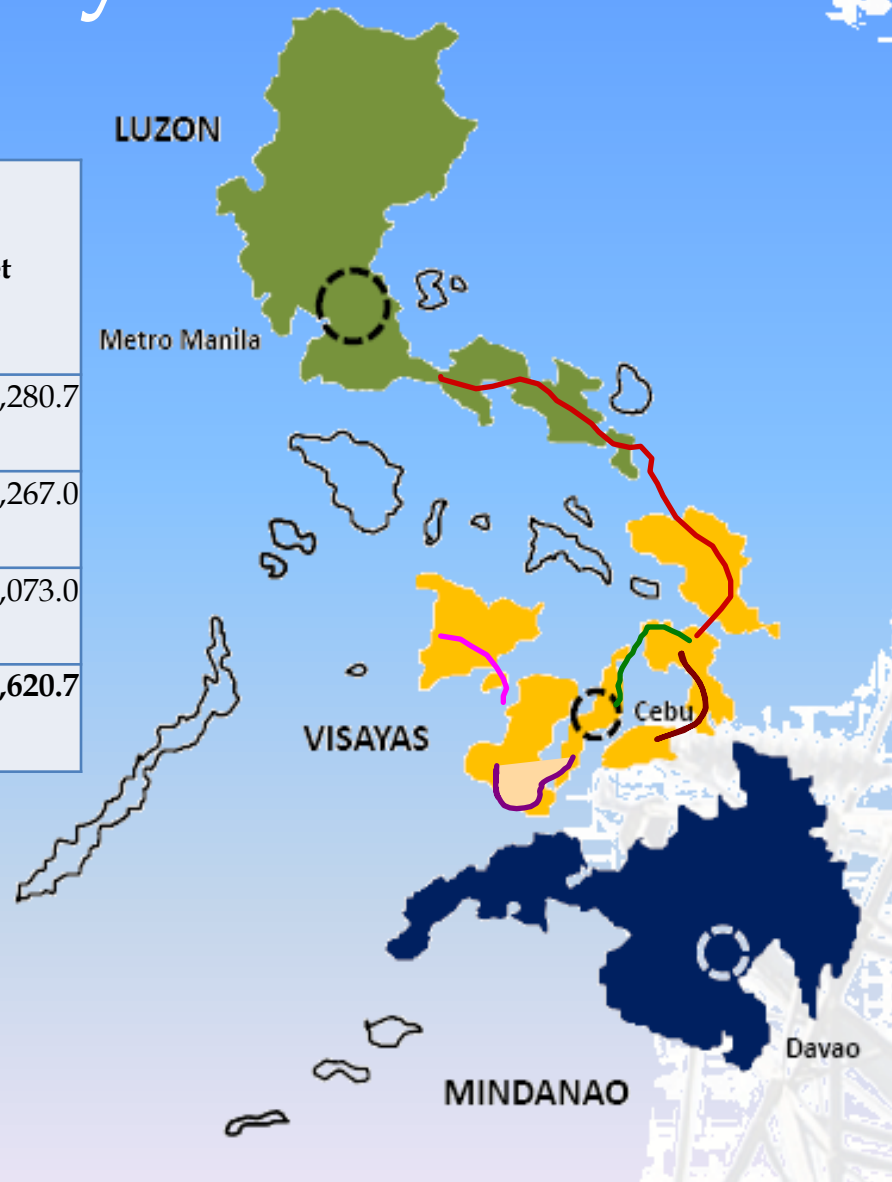


# Ensure Energy Security

*Reliable and efficient power sector*



Grid	Required by 2030	Installed (end 2011)	Committed	Indicative	Net
Luzon	20,707.7	11,739.0	868.7	6,819.3	1,280.7
Visayas	4,412.0	2,402.0	310.0	433.0	1,267.0
Mindanao	4,210.0	2,022.0	588.0	527.0	1,073.0
<b>TOTAL</b>	<b>29,329.7</b>	<b>16,163.0</b>	<b>1,766.7</b>	<b>7,779.3</b>	<b>3,620.7</b>



- A. Increase installed capacity
- B. Upgrade and expand transmission and distribution network
- C. Interconnect the island grids
- D. Expand energy market from Luzon-Visayas to Mindanao and include RE.



# Expand Energy Access

*Ensure system reliability and integrity*



- Upgrade and expand the transmission lines
- Interconnect Mindanao with the Visayas
- Batangas-Mindoro Interconnection



NGCP's Grid Development Map



# Expand Energy Access

*Achieve 90% Household Electrification by 2017*

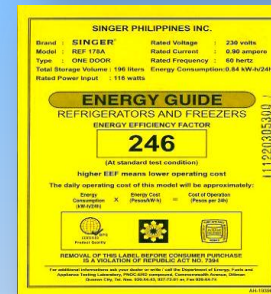
*Achieve 100% Sitio Electrification by 2015*



# Promote Low-Carbon Future

*Achieve 10 percent energy savings by 2030*

- The *Bright Now!* Campaign aims to educate and empower Filipinos to be smart energy users
- Expand coverage of energy labeling program and move towards standardization
- Government to lead 10 percent savings on fuel and electricity
- Consistent with the ASEAN and APEC Targets



# Promote Low-Carbon Future

*30% of public utility vehicles on alternative fuels by 2030*

- Promote use of clean and alternative fuels
  - 20% biofuels blending by 2030
  - Expand number of compressed natural gas (CNG) and auto-LPG vehicles
  - Massively deploy electric vehicles (EV)
- Support expansion of mass transport system

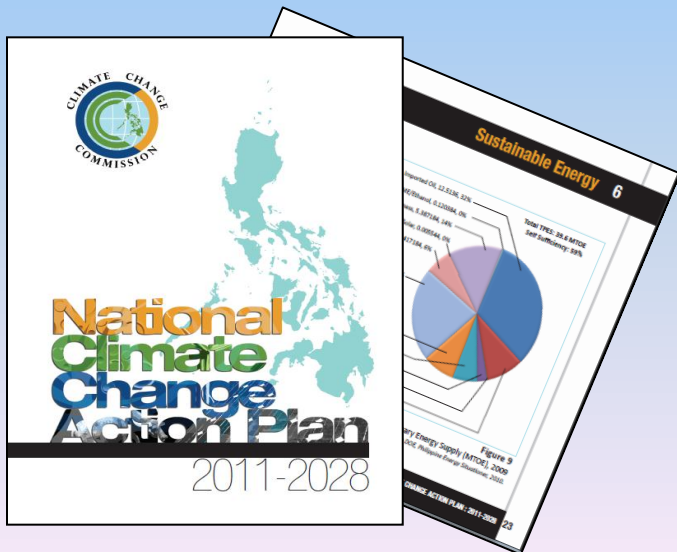




# Climate Proof the Energy Sector

*Promote a climate change resilient energy sector*

- Implement the National Climate Change Action Plan (NCCAP) in the energy sector
  - *Mitigation action mainly through energy efficiency, renewable energy and alternative fuels and technology programs*
  - *Conduct vulnerability assessment of the energy sector*
- Identify and pursue adaptation programs
  - *Upgrade standards for energy systems and facilities*



# Promote Investment in the Energy Sector

- Harmonize energy laws with IPRA, NIPAS and other related laws
- Operationalize a one-stop shop
- Conduct investment forums, road shows, etc.
- Advocate continued inclusion of energy projects in the Investment Priorities Plan (IPP)
- Establish partnerships and regular dialogue with LGUs and industry players
- Direct attached agencies to undertake critical infrastructures i.e. PNOC for the gas pipeline and NPC for the rehabilitation of Agus and Pulangi hydropower system.



# Indicative Investment Cost for Energy Projects (2012-2030)

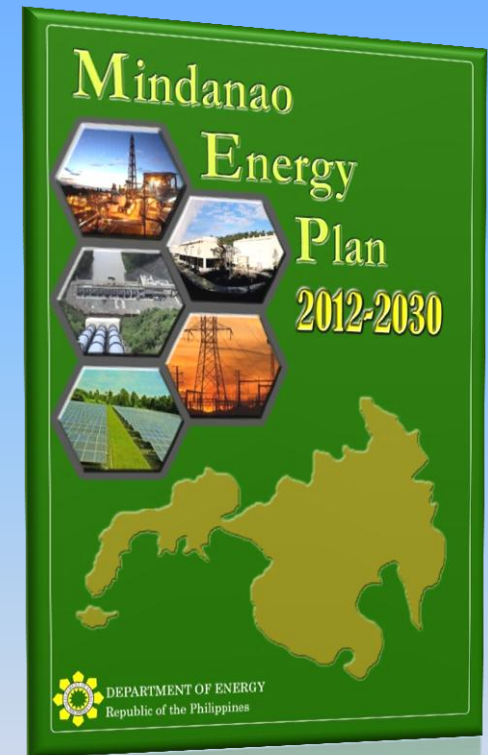
Resource	Billion PhP
Renewables	556.7
Upstream Resource Development	48.0
Alternative Fuels	959.7
Downstream Natural Gas	1,212.7
Power	397.1
<b>Sub-Total</b>	<b>3,174.2</b>



# Develop Regional Energy Plans (REP)

## *More Responsive Geographic Plans*

- Assist LGUs in mainstreaming energy planning in their development plan
  - *Optimize identification, development and use of energy resources in respective regions*
- Completion of the Mindanao Energy Plan (MEP)
  - *Public consultations to be conducted by February 2013 in the islands six (6) regions*
- Advocate for the inclusion of energy in land use classification and declaration of energy projects as projects of national significance





# WHERE ARE WE HEADED

- More secured energy sector
- Less energy intensive
- More efficient
- Reduce dependence on imported oil
- More sustainable



# Where Are We Headed

*More secured energy sector*



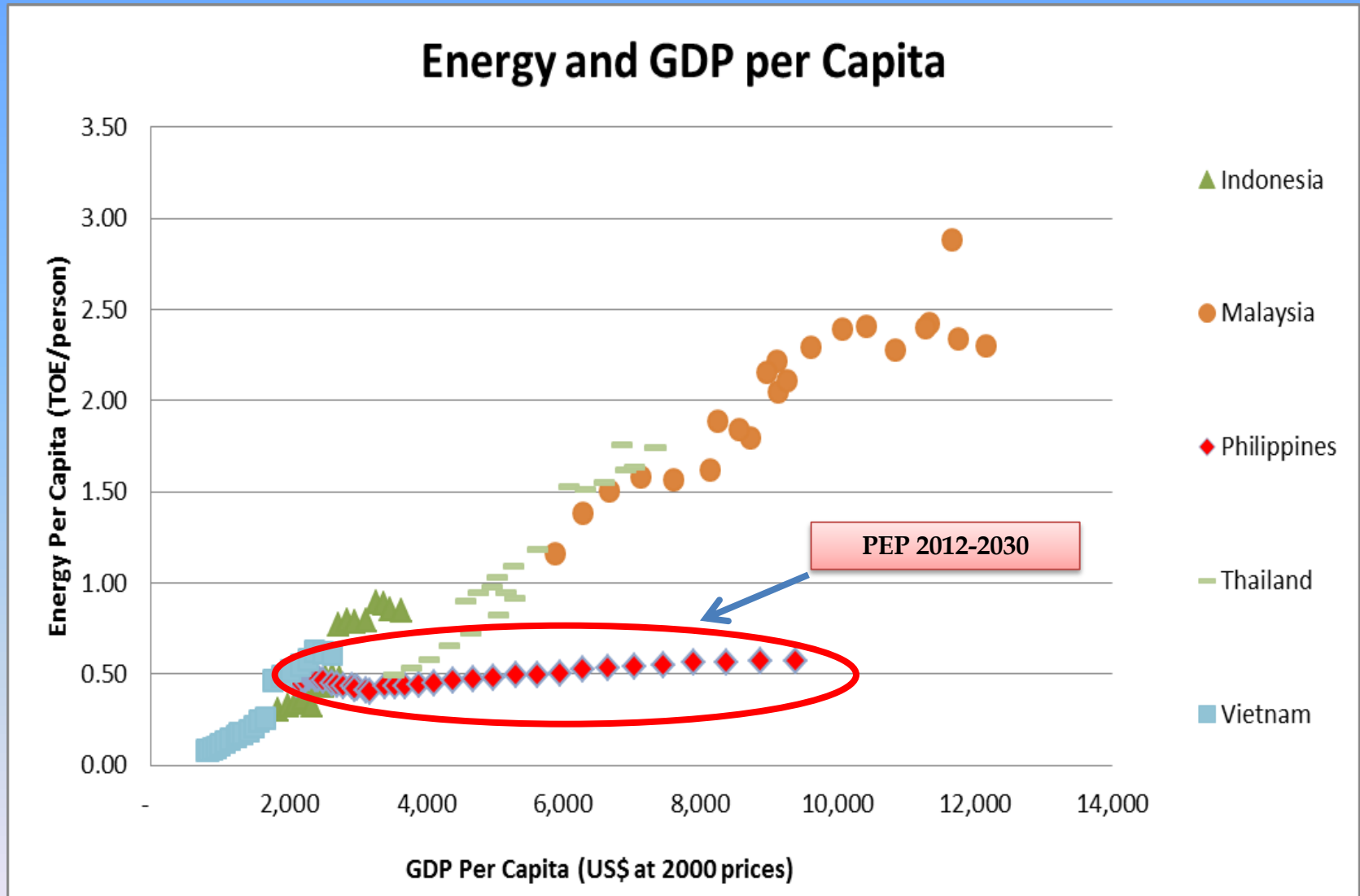
GRID	Installed Capacity (end 2011)	Additional Capacity (2012-2030)*
LUZON	11,739	8,100
VISAYAS	2,402	1,700
MINDANAO	2,022	1,600
<b>TOTAL (in MW)</b>	<b>16,162</b>	<b>11,400</b>



NGCP's Grid Development Map

# Where Are We Headed

*Less Energy Intensive*

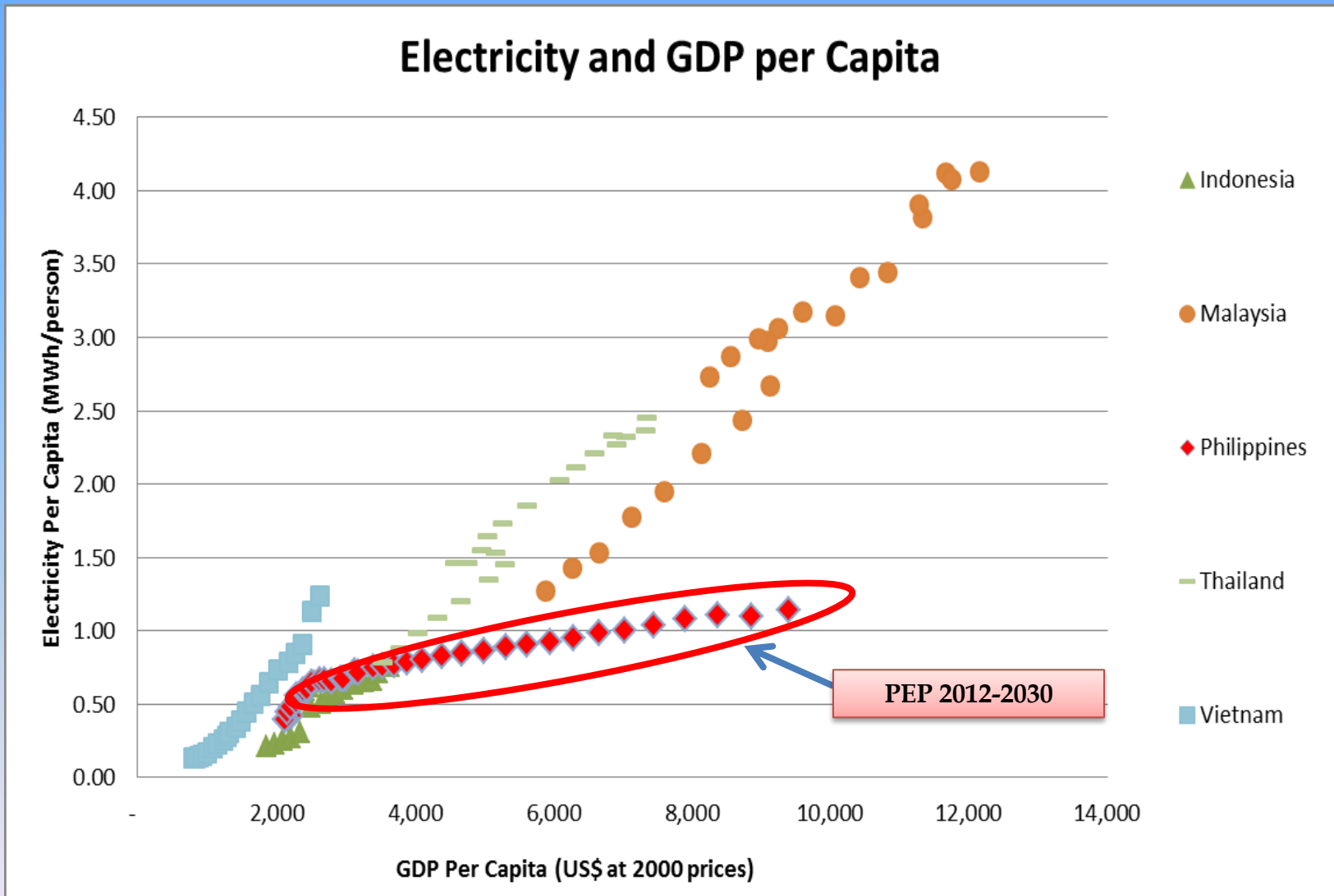


\* Other ASEAN only for 1990-2011



# Where Are We Headed

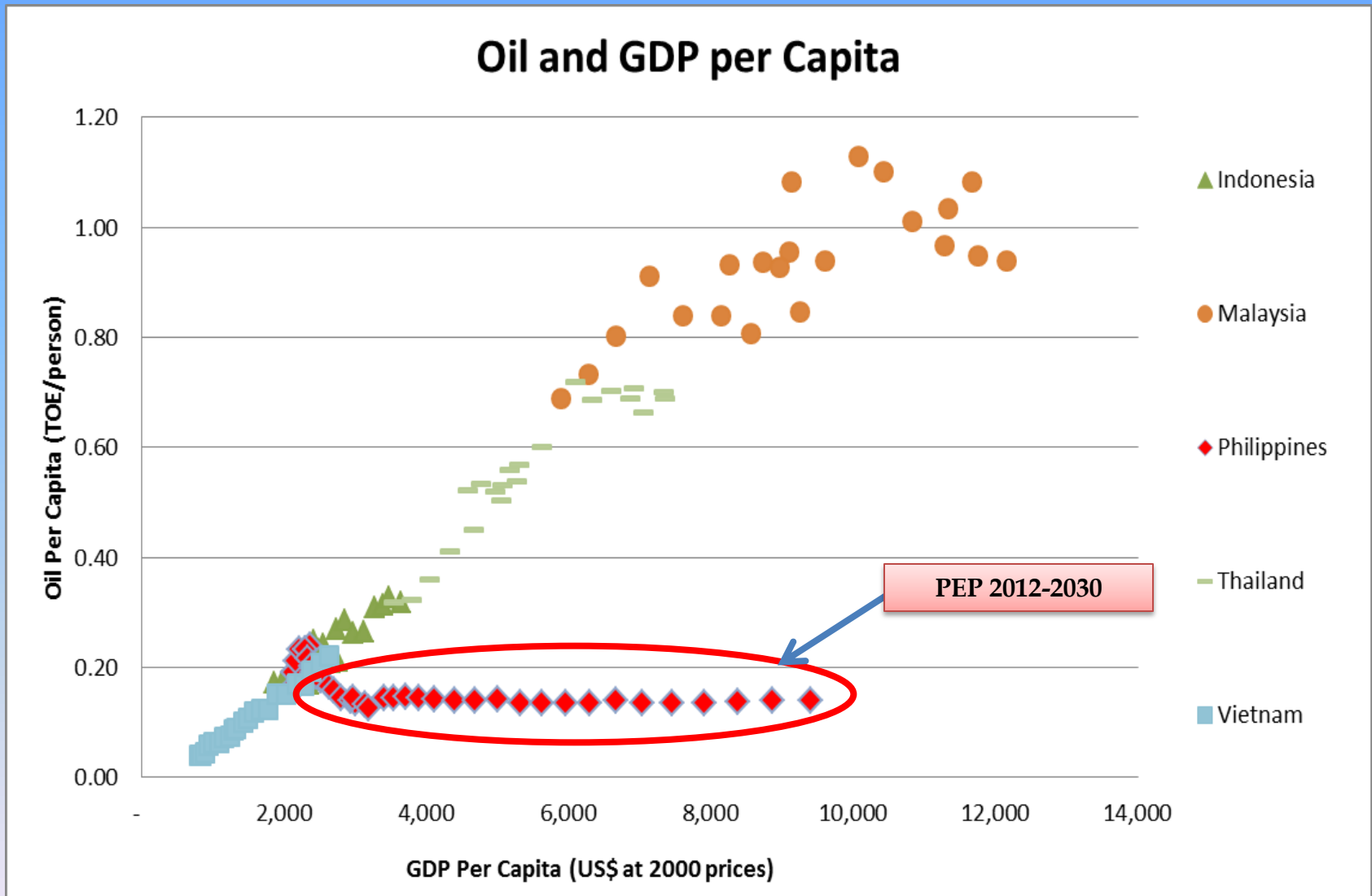
*More Efficient*





# Where Are We Headed

*Reduce dependence on imported oil*

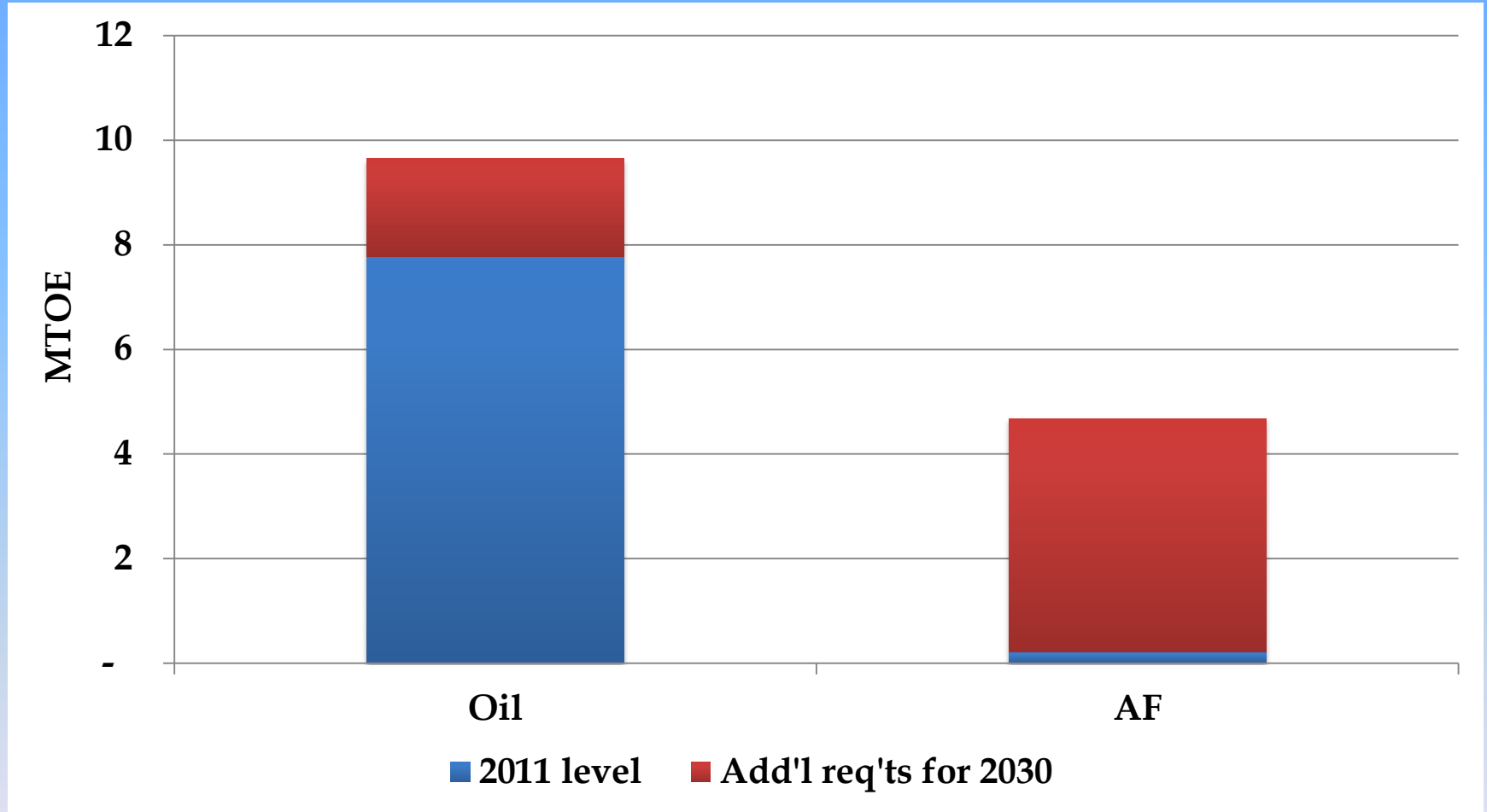


\* Other ASEAN only for 1990-2011



# Transport Energy Demand by 2030

*30 percent of transport fuels for alternative fuels*





DEPARTMENT  
OF ENERGY



# PHILIPPINE ENERGY PLAN 2012-2030

Secretary Carlos Jericho L. Petilla



Philippine Energy Plan  
2012 - 2030

