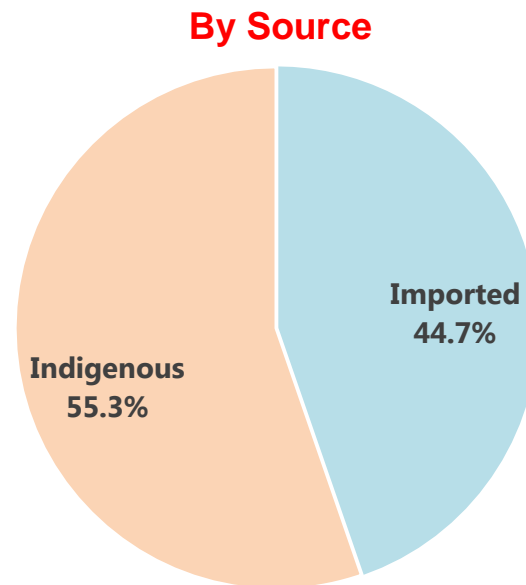
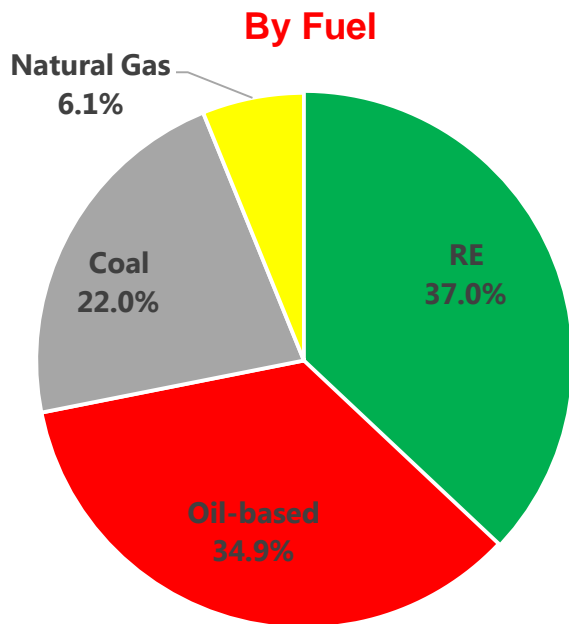


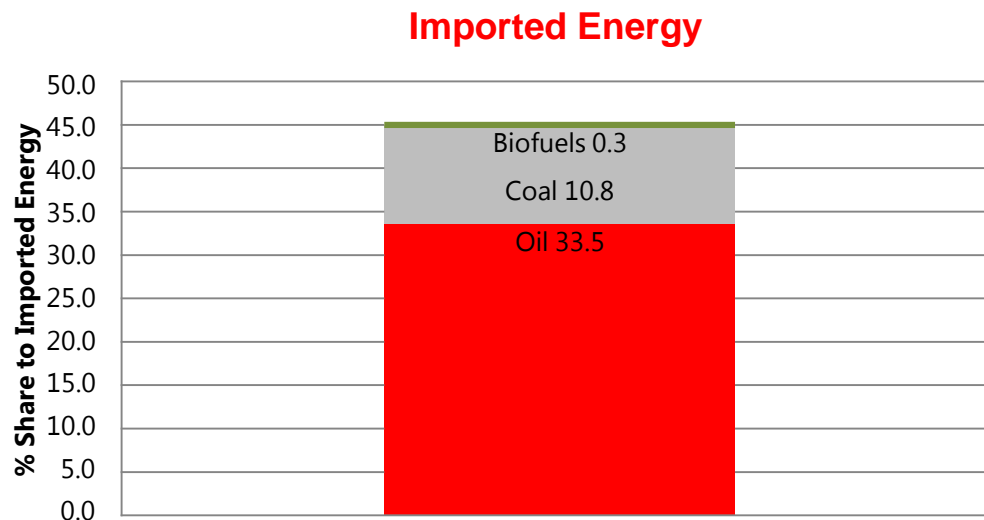
# ENERGY SITUATION PHILIPPINE



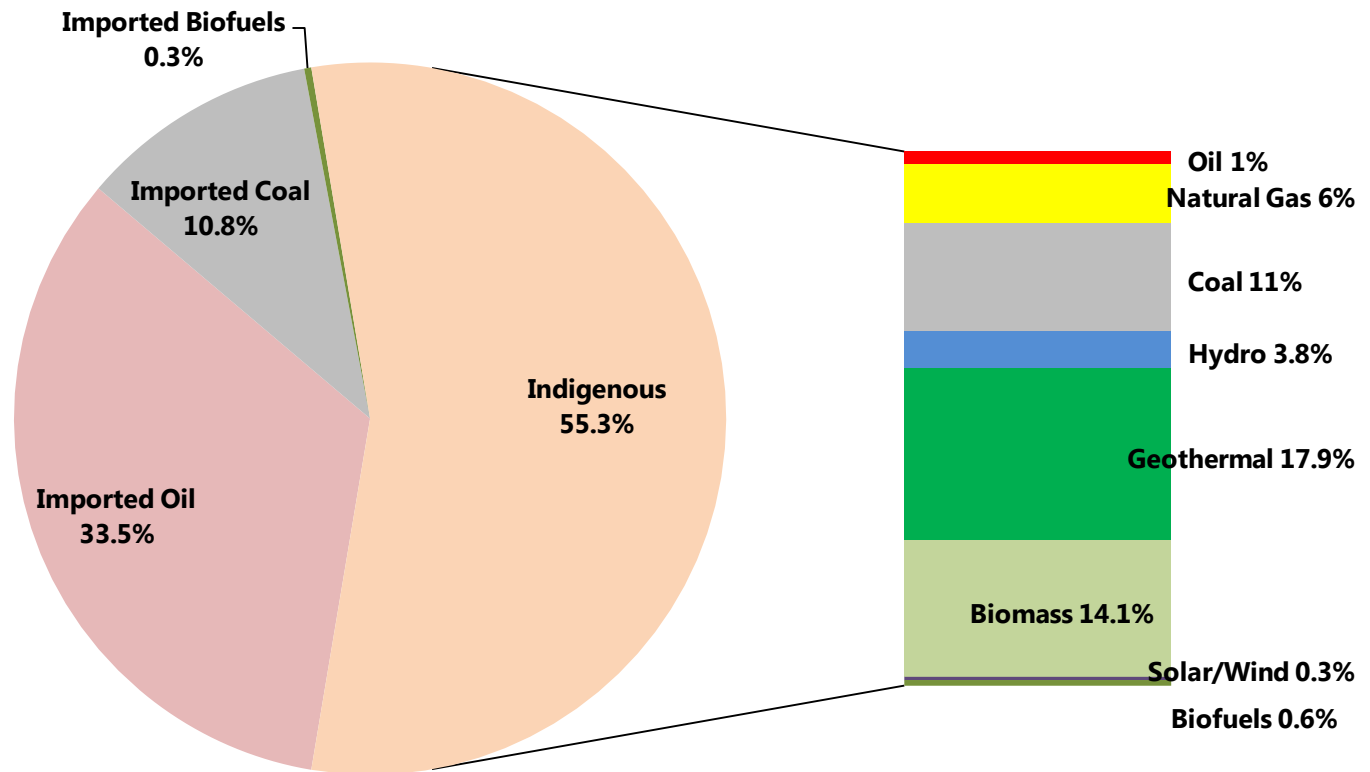
# Where we are now: 2016 Energy Supply



|                             |            |
|-----------------------------|------------|
| Total Energy                | 53.19 MTOE |
| Self-Sufficiency            | 55.3%      |
| Renewable Energy (RE)       | 37.0%      |
| Clean Energy (RE + Nat Gas) | 43.1%      |



# Where we are now: 2016 Energy Supply

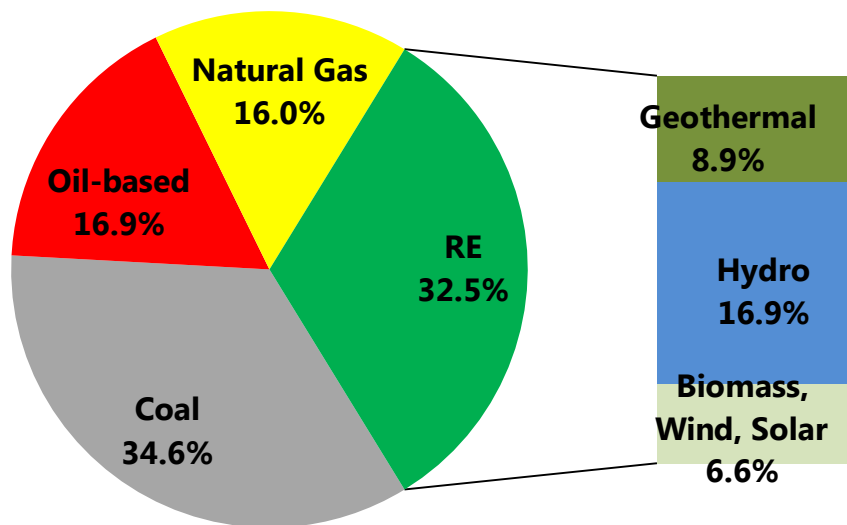


|                          |                   |
|--------------------------|-------------------|
| <b>Total Energy:</b>     | <b>53.19 MTOE</b> |
| <b>Self-sufficiency:</b> | <b>55.3%</b>      |
| <b>Renewable Energy:</b> | <b>37.0%</b>      |
| <b>RE + Nat Gas:</b>     | <b>43.1%</b>      |



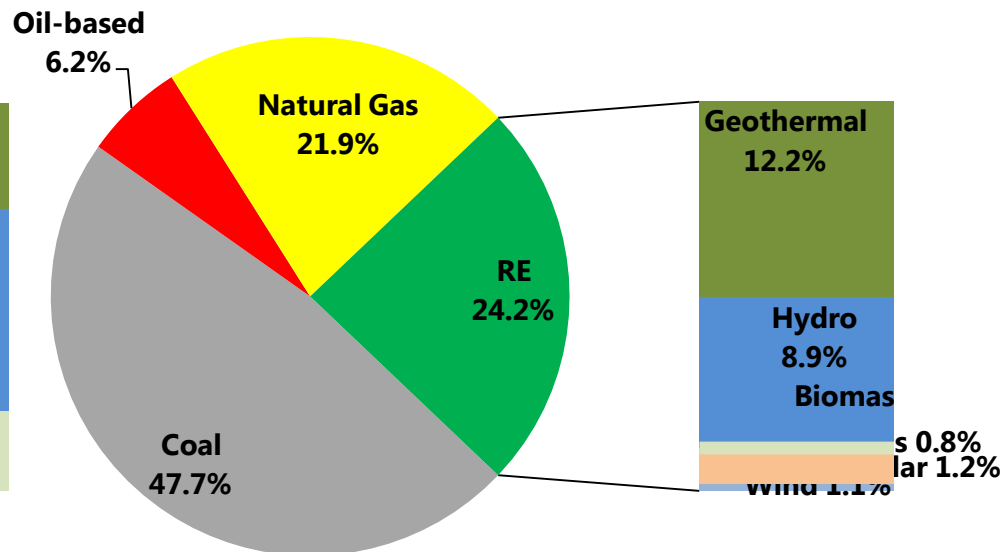
# Where we are now: 2016 Power Capacity and Gross Generation

## Installed Capacity



|                                  |                  |
|----------------------------------|------------------|
| <b>Total Installed Capacity:</b> | <b>21,424 MW</b> |
| <b>Renewable Energy Share:</b>   | <b>32.5%</b>     |

## Gross Generation



|                          |                   |
|--------------------------|-------------------|
| <b>Total Generation:</b> | <b>90,797 GWh</b> |
| <b>Renewable Energy:</b> | <b>24.2%</b>      |
| <b>RE + Nat Gas:</b>     | <b>46.1%</b>      |



# Strategic Directions 2017 – 2040

**1**  
ENSURE  
ENERGY  
SECURITY

**2**  
EXPAND  
ENERGY  
ACCESS

**3**  
PROMOTE A  
LOW CARBON  
FUTURE

**4**  
STRENGTHEN  
COLLABORATION  
AMONG ALL  
GOVERNMENT  
AGENCIES INVOLVED  
IN ENERGY

**5**  
IMPLEMENT,  
MONITOR AND  
INTEGRATE SECTORAL  
AND TECHNOLOGICAL  
ROADMAPS AND  
ACTION PLANS

**6**  
ADVOCATE THE  
PASSAGE OF THE  
DEPARTMENT'S  
LEGISLATIVE  
AGENDA

**7**  
STRENGTHEN  
CONSUMER  
WELFARE AND  
PROTECTION

**8**  
FOSTER  
STRONGER  
INTERNATIONAL  
RELATIONS AND  
PARTNERSHIPS



# Nine-Point Energy Agenda

## DOE's Nine-Point Energy Agenda



**FACILITATING THE COMPLETION OF TRANSMISSION PROJECTS BY 2020**



**PRO-CONSUMER DISTRIBUTION FRAMEWORK FOR AFFORDABILITY, CHOICE AND TRANSPARENCY**



**STREAMLINING DOMESTIC POLICY TO CUT RED TAPE**



**DOE TO DELIVER ON PSALM PRIVATIZATION**



**PROMOTING EFFICIENT USE OF POWER AMONG CONSUMERS THROUGH AN IEC**



**ACCESS TO BASIC ELECTRICITY FOR ALL FILIPINOS BY 2020**



**ADOPTING A TECHNOLOGY NEUTRAL APPROACH FOR AN OPTIMAL ENERGY MIX**



**IMPROVING THE SUPPLY OF POWER THAT IS RELIABLE, TO MEET DEMAND NEEDS BY 2040**

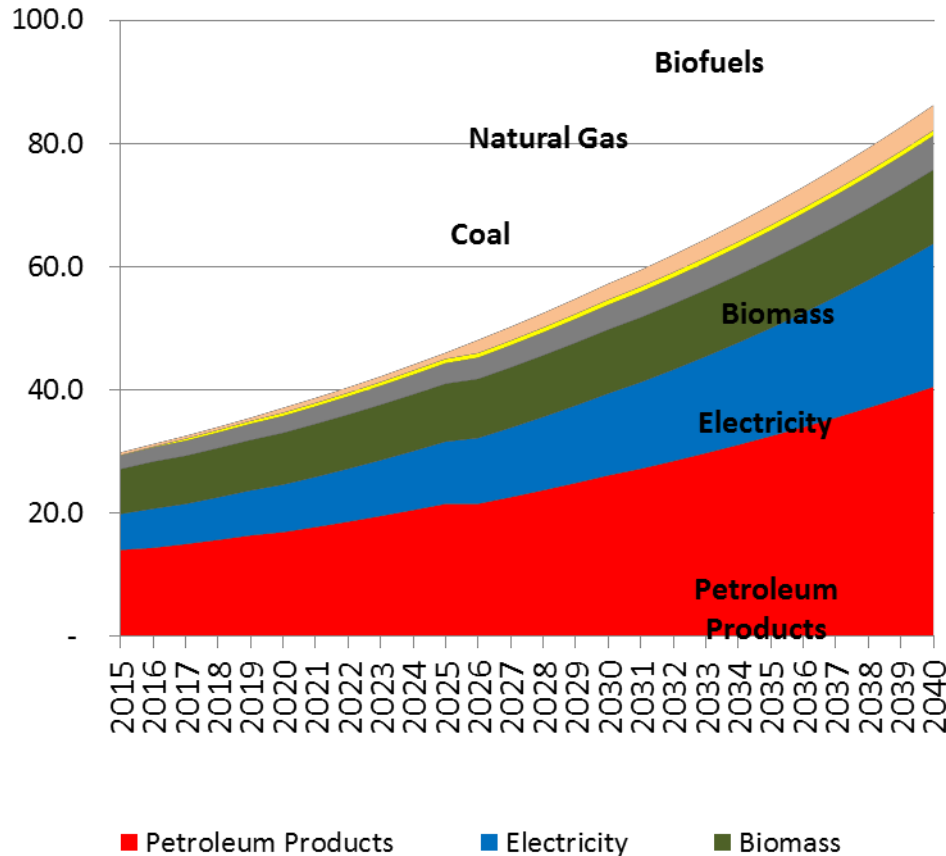


**DEVELOPING LNG NEEDS FOR THE FUTURE IN ANTICIPATION OF THE MALAMPAYA DEPLETION**

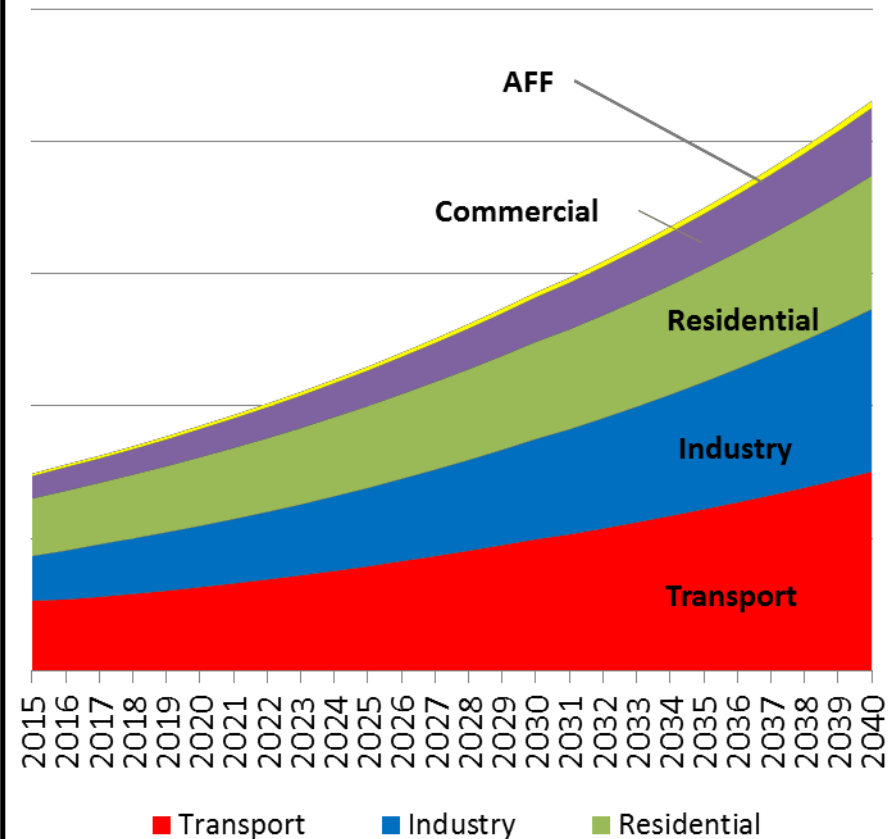


# Where we are headed: Energy Demand Outlook 2016-2040

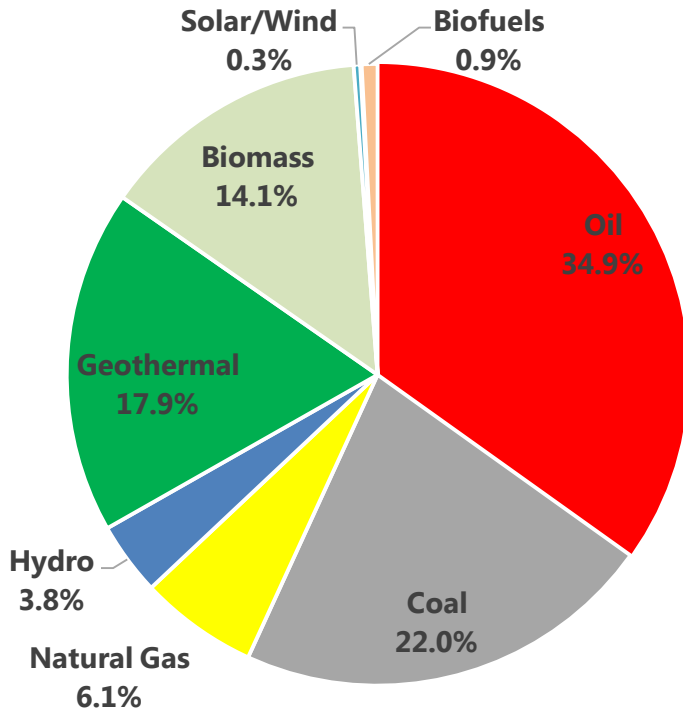
## By Fuel Type



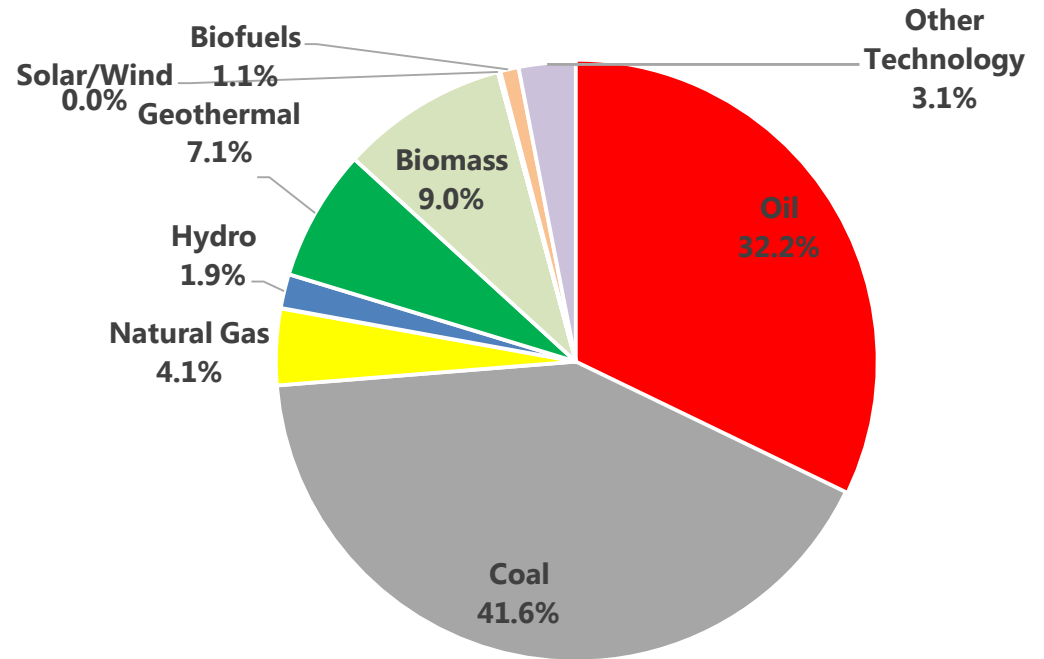
## By Sector



# Where we are headed: Primary Energy Mix 2016 and 2040



**2016 Actual**  
Total Energy: 53.2 MTOE

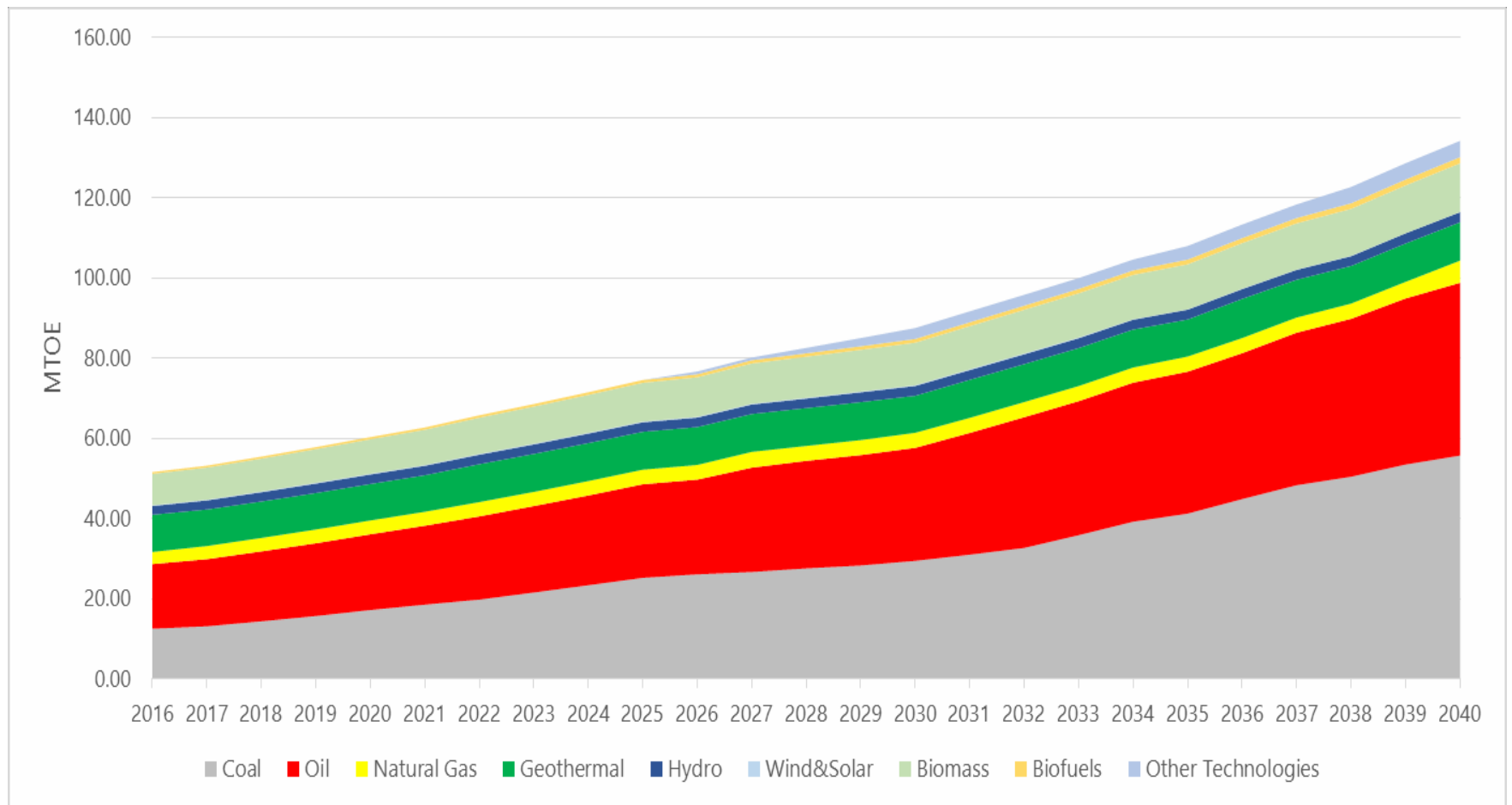


**2040 Outlook (Clean Energy Scenario)**  
Total Energy: 134.2 MTOE





# Where we are headed: Energy Supply Outlook 2016-2040

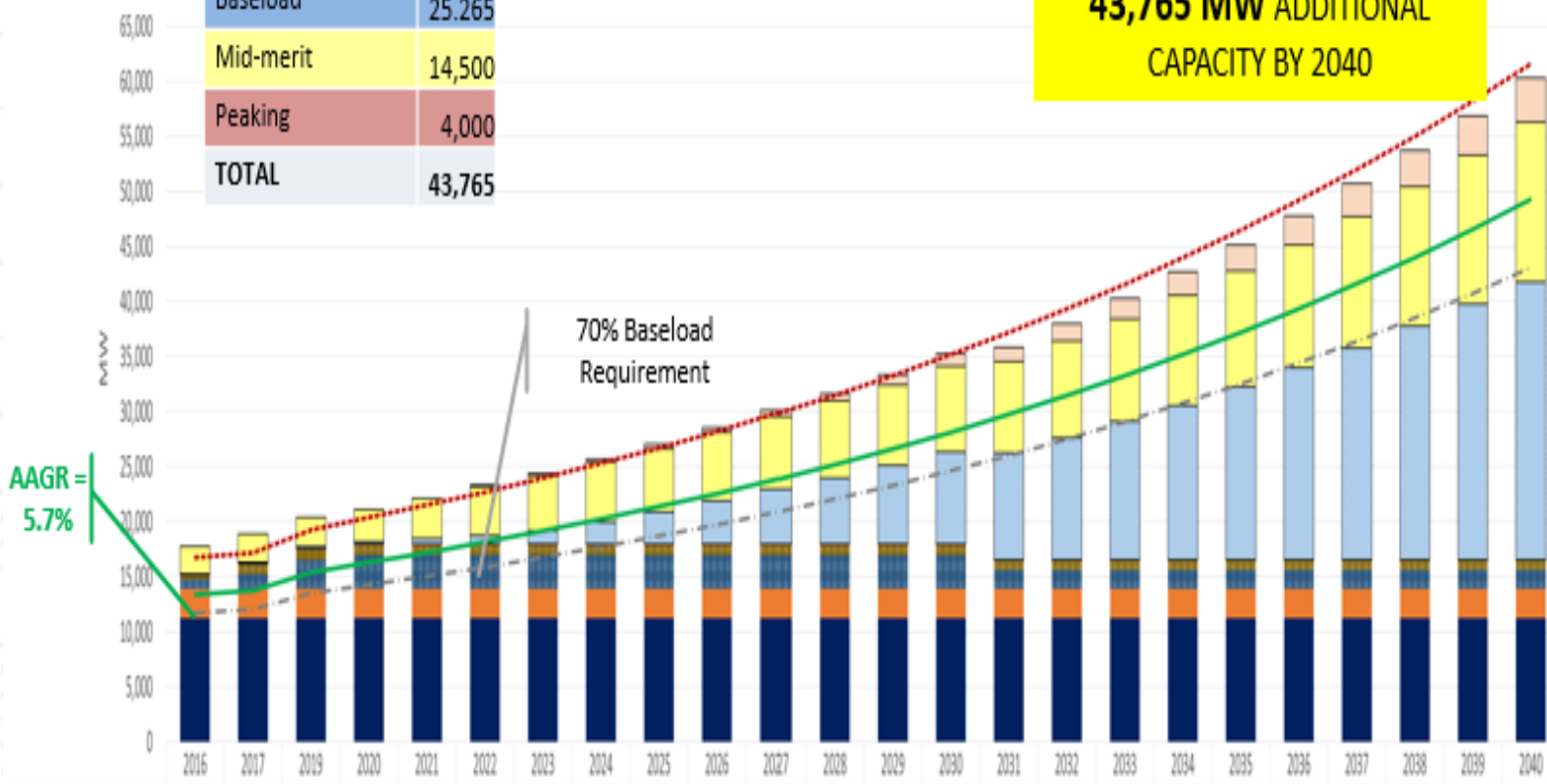


# Where we are headed: Additional Power Capacities 2017-2040

- Capacity Addition - Peaking
- Capacity Addition - Midmerit
- Capacity Addition - Baseload
- Committed Peaking
- Committed Midmerit
- Committed Baseload
- Existing Peaking
- Existing Midmerit
- Existing Baseload
- - - Reserve Requirement
- System Peak Demand
- - - 70% baseload Req

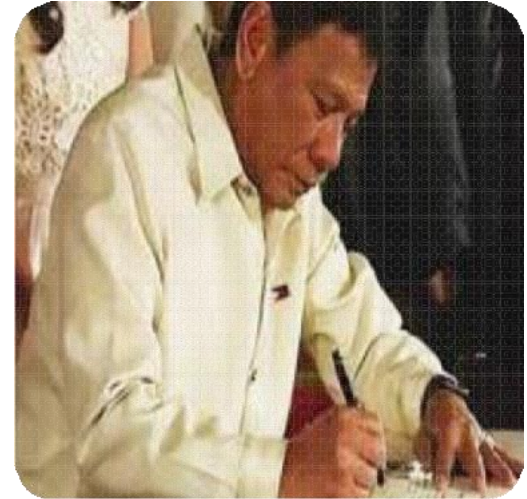
| Capacity Addition | MW            |
|-------------------|---------------|
| Baseload          | 25,265        |
| Mid-merit         | 14,500        |
| Peaking           | 4,000         |
| <b>TOTAL</b>      | <b>43,765</b> |

**THE PHILIPPINES WILL NEED  
43,765 MW ADDITIONAL  
CAPACITY BY 2040**



# New Policy Initiatives

- Executive Order No. 30 (EO 30)
  - Creating the Energy Investment Coordinating Council (EICC) in Order to Streamline the Regulatory Procedures Affecting Energy Projects
  - Classification of Energy Projects of National Significance (EPNS)
    - Capital Investment of at least PhP 3.5 Billion
    - Contribution to the country's economic development
    - Consequential economic impact
    - Potential contribution to the country's balance of payments
    - Impact on the environment
    - Complex technical processes and engineering designs
    - Infrastructure requirements



# New Policy Initiatives

- Energy Resiliency Policy
  - “Adoption of Resiliency Planning and Program in the Energy Industry to Mitigate Adverse Effects Brought About by Disasters”
  - Promotes planning and investment to ensure nation’s energy infrastructure continues to deliver while anticipating and reducing vulnerabilities



# Challenges

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- Ensuring energy security, reliability and reasonably-priced energy
- Passage of energy-related bills (e.g. energy efficiency and conservation, etc.)
- Harmonization of laws/policies
- Social acceptability of energy resources or technologies
- Energy resource development hindered by transnational / geographical boundaries



# Challenges

- To strengthen energy security, expand energy access and promote technology neutrality
  - Integrated LNG
  - Nuclear



Korea's Singori Nuclear Plant  
(Source: <http://www.koreaitimes.com/images/singori.jpg>)



LNG Tanker  
(Source: <https://energy.gov/fe/science-innovation/oil-gas/liquefied-natural-gas>)



# Thank You!

