



# PHILIPPINE ENERGY PLAN 2017-2040

DOE E-Power Mo: “Empowering Filipinos through Informed Energy Plans and Policies”

9 October 2018

Grand Xing Imperial Hotel, Iloilo City

**ASST. DIR. CARMENCITA A. BARISO, CESO IV**

*Energy Policy and Planning Bureau*



# Legal Basis

## Republic Act No. 7638 (DOE Act of 1992)

### **Section 5.b:**

*“Develop and update the existing Philippine energy program which shall provide for an integrated and comprehensive exploration, development, utilization, distribution and conservation of energy resources, with preferential bias for environment-friendly, indigenous, and low-cost sources of energy....”*



# Policy Framework



**AMBISYON NATIN 2040:**  
*"A strongly-rooted, comfortable and secure life for all Filipinos"*



**DUTERTENOMICS:** *"Build Build Build"*



## ENERGY PLANS AND POLICIES

### ENERGY SECTOR STRATEGIC DIRECTIONS

**1** ENSURE ENERGY SECURITY



**2** EXPAND ENERGY ACCESS



**3** PROMOTE A LOW CARBON FUTURE



**4** STRENGTHEN COLLABORATION AMONG ALL GOV'T. AGENCIES INVOLVED IN ENERGY



**5** IMPLEMENT, MONITOR AND INTEGRATE 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



5  
4th Q

**POLICY AND PLAN IMPLEMENTATION REVIEW**

- PEP monitoring, evaluation & assessment
- Sectoral performance Appraisal
  - Review of Sectoral Roadmaps
  - Assessment of Sectoral Challenges

1  
1st Q

**CONCEPTUALIZATION**

- Pre-Consultation with DOE Bureaus and Services, Attached Agencies and oversight Government Agencies
- Integration of national development plans to the PEP
- New Directives /Agenda/ Goals setting
- Framing energy strategies
- Identification of assumptions and target indicators
- Updating of Sectoral Roadmaps / Catch-up Plans

2  
2nd Q

**FORMULATION**

- Preparation of energy demand projections
- Assessment of energy resources and technologies
- Supply-Demand balancing
- Drafting of sectoral write-ups to consider energy-related development Plans
- Consultation with Attached Agencies and Industry Stakeholders

4  
3rd Q

**Policy and Plan Adoption**

- Adoption of PEP with national and local development plans.
- Alignment of PEP to international frameworks such as UN Sustainable Development Goals, APEC and ASEAN energy cooperation plans of action.

3  
3rd Q

**FINALIZATION and Dissemination of Plan**

- Revision of draft PEP
- Secretary's Approval
- Publication of the PEP
- PEP IEC (includes survey of stakeholders' satisfaction)
- Transmittal to OP and Congress
- Circulation to energy stakeholders

# PHILIPPINE ENERGY PLANNING PROCESS

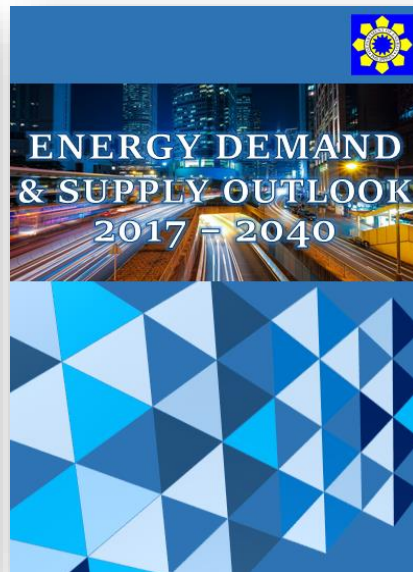
# Contents



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## PERFORMANCE

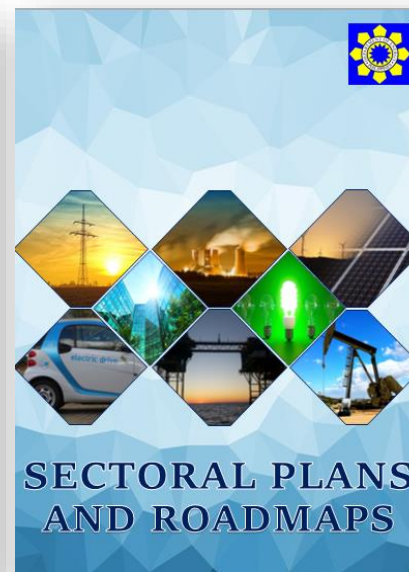
Energy Annual Report 2017



2

## OUTLOOK

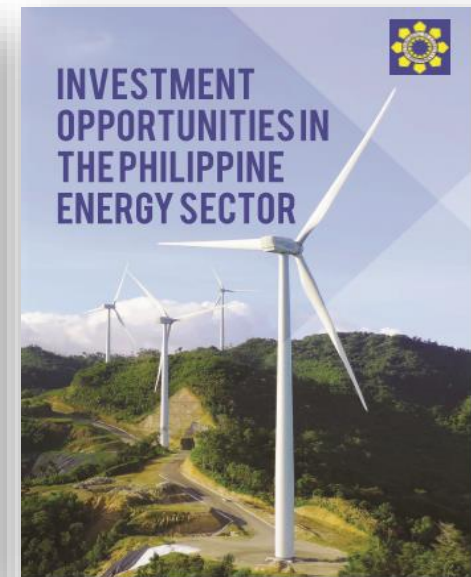
Energy Demand and Supply Outlook 2017-2040



3

## PLANS & ROADMAPS

Sectoral Plans and Roadmaps



4

## OPPORTUNITIES

Investment Opportunities in the Philippine Energy Sector



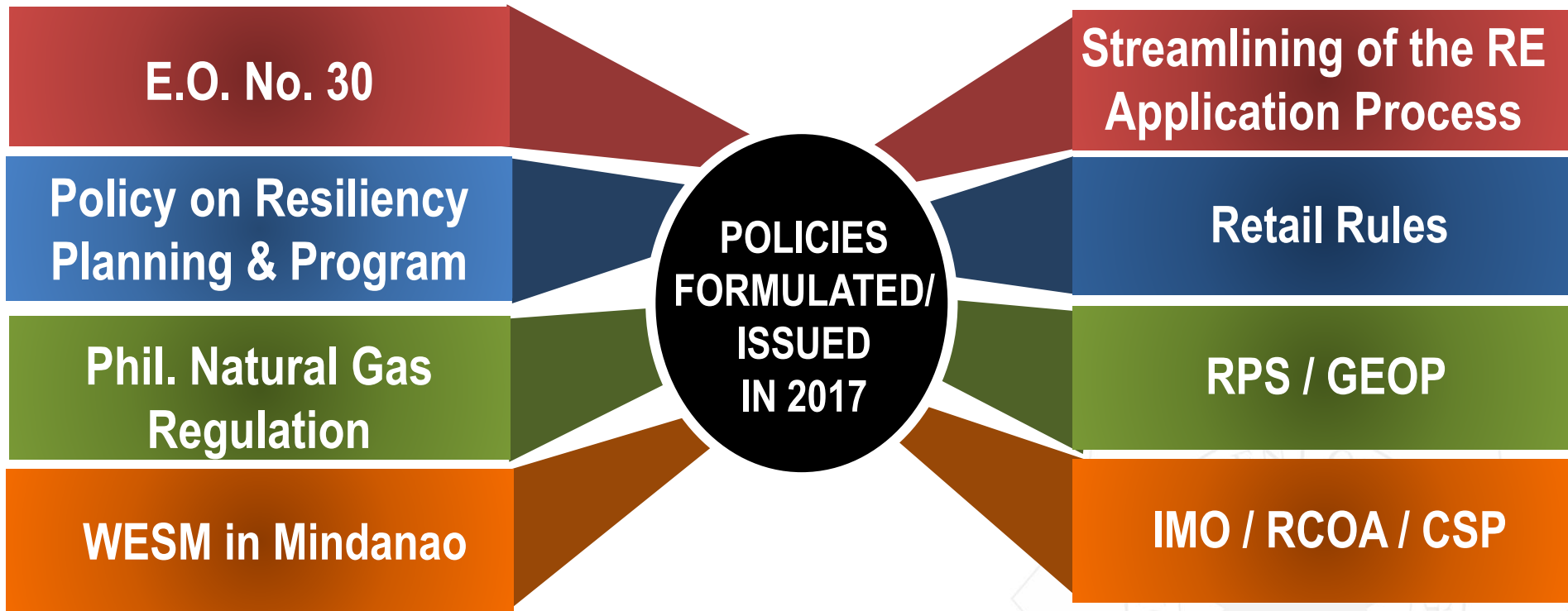




- Outlines the major accomplishments of the DOE and its attached agencies for 2017 in its mission to steer the country closer towards sustainable prosperity and security
- Published in January 2018



# Energy Annual Report 2017





# ENERGY DEMAND & SUPPLY OUTLOOK 2017 – 2040

- Projects the energy supply and demand for the country until 2040
- Considers the targets and assumptions of the energy sector to promote the use of environment-friendly and benign energy sources, efficient technologies while accounting for new and existing policy programs and measures within the energy sector as well as the impacts of each end-use economic targets and roadmaps





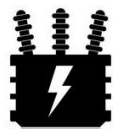
# 2017 Total Final Energy Consumption

## By Fuel

## By Sector

Total Final Energy Consumption

34.03 MTOE



Electricity – 19.7%



Agriculture, Fishery and Forestry – 1.5%



Coal – 8.8%



Industry – 23.3%



Oil – 48.8%



Transport – 35.5%



Natural Gas – 0.2%



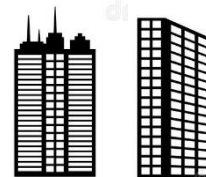
Residential – 26.7%



Biofuels – 1.5%



Biomass – 21.0%



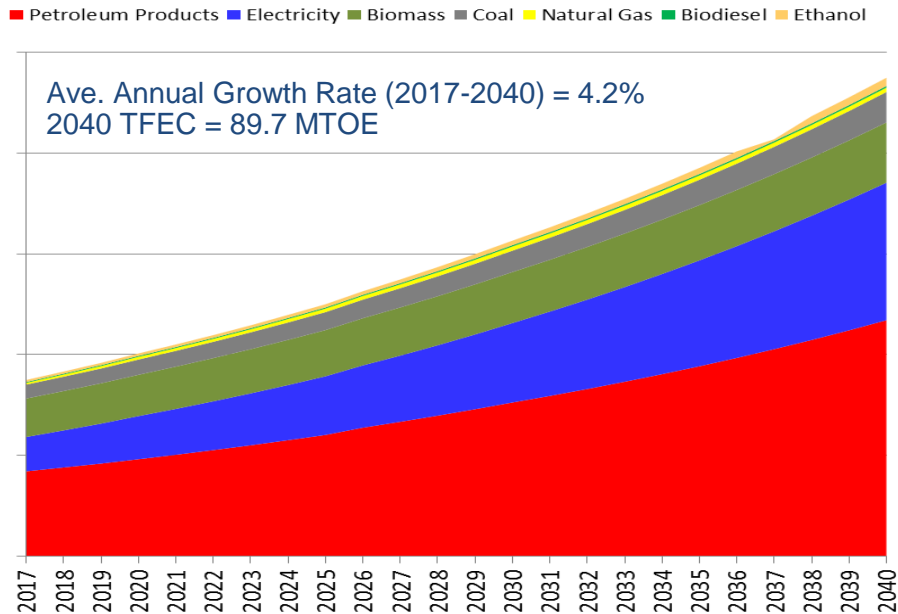
Commercial – 13.0%

\* Preliminary as of 24 April 2018  
\*\* Excludes non-energy used

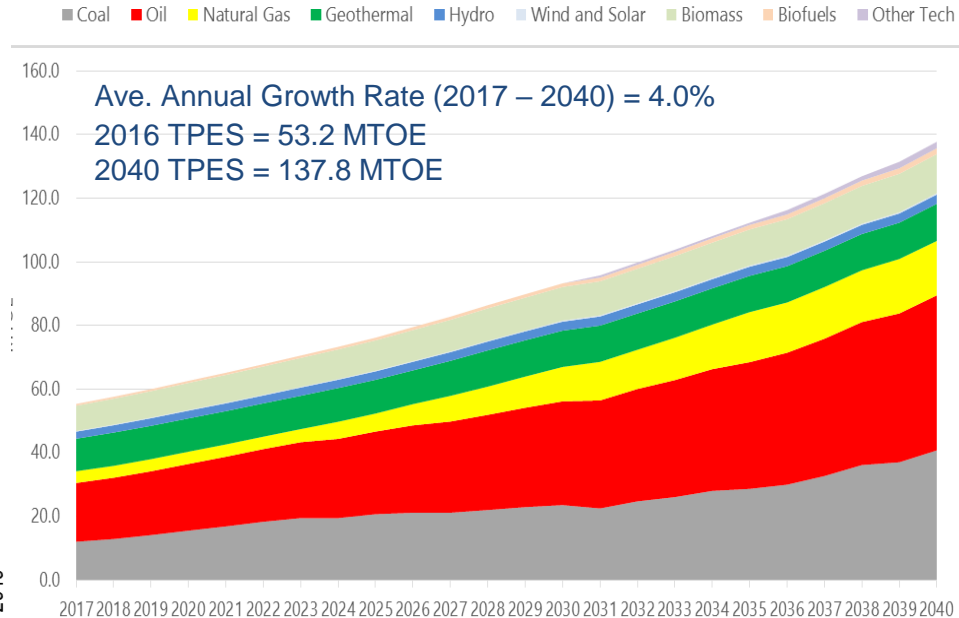


# Energy Demand and Supply Outlook 2017 - 2040 (in MTOE)

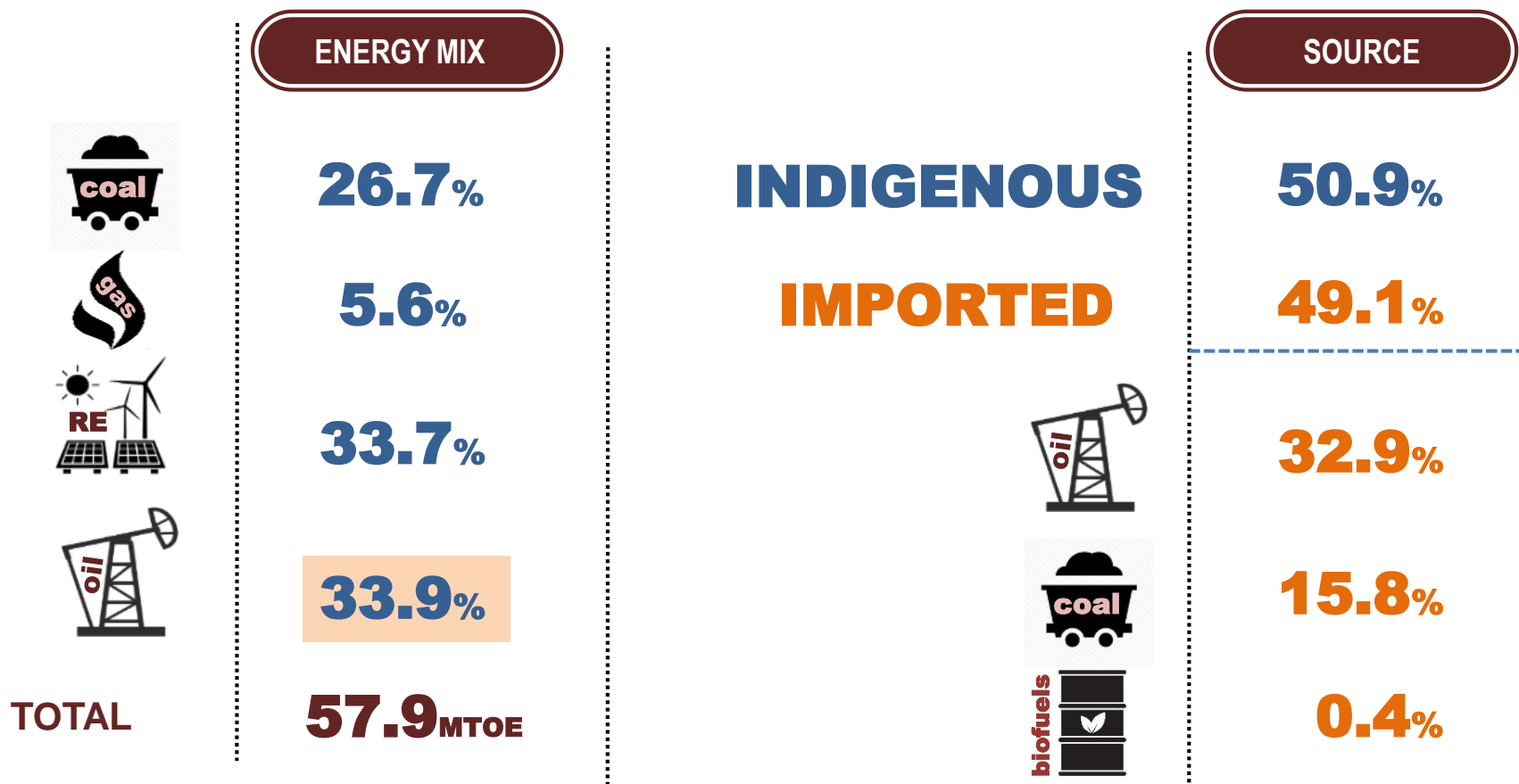
## DEMAND OUTLOOK



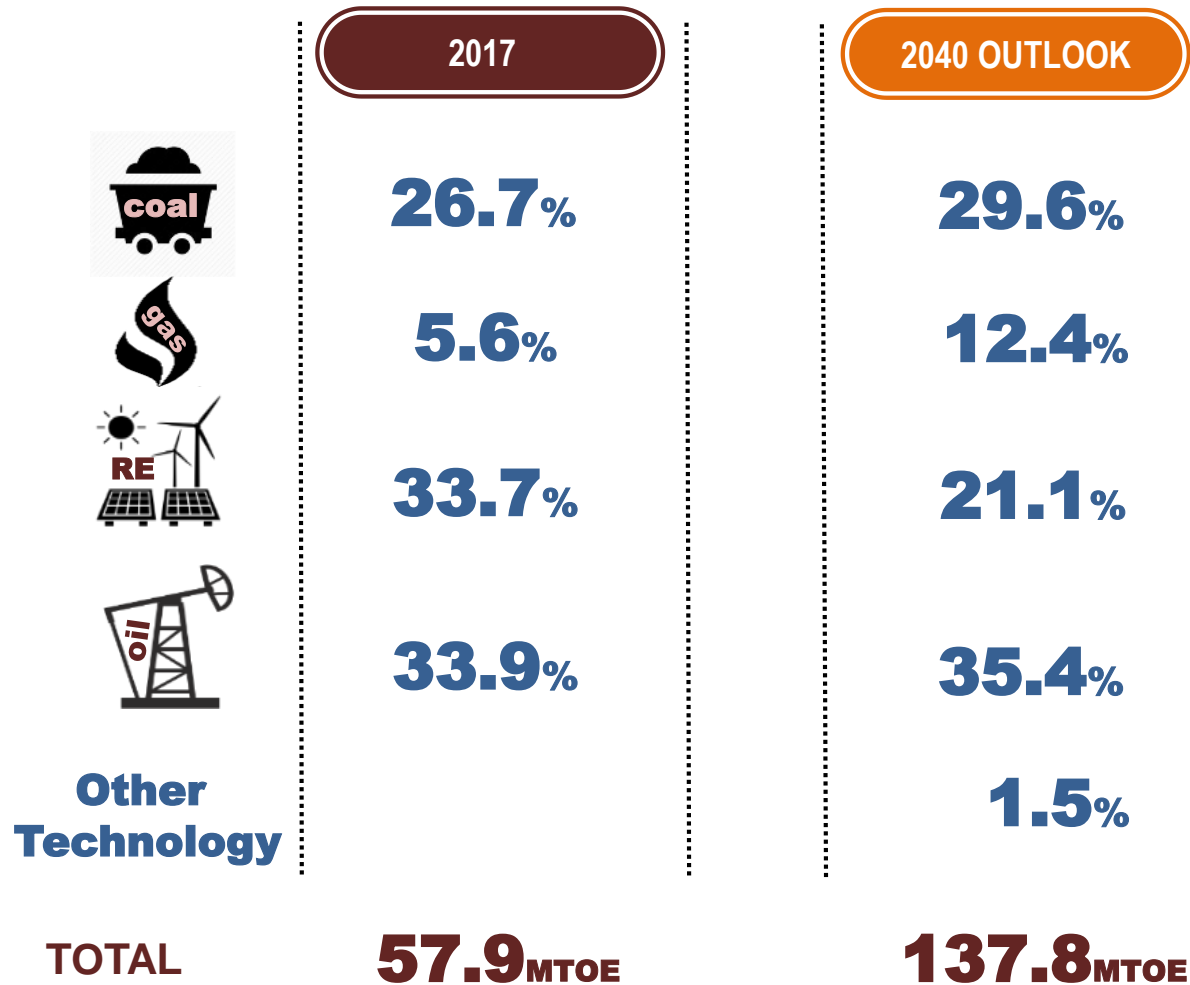
## SUPPLY OUTLOOK



# 2017 Total Primary Energy Supply



# Total Primary Energy Supply, 2017 and 2040





## SECTORAL PLANS AND ROADMAPS

- Provides a brief overview of the energy sector and its targets for the short, medium and long term to achieve the overall sectoral goals in 2040 as well as the DOE's plans and programs for its successful implementation





# Chapters

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- Executive Summary
- Renewable Energy for a Clean Energy Future
- Harnessing Conventional Fuels
- Advocating Infrastructure Development in the Downstream Sector
- Promoting Emerging Energy Technologies
- Empowering the Filipino
- Total Electrification by 2020
- Making Energy Efficiency a Way of Life
- Addressing the Environmental Impacts of Climate Change
- Gearing Towards Energy Resilient Communities
- Fostering Stronger International Relations and Partnerships
- Enabling the Energy Sector's Legislative Agenda



# OVERALL SECTORAL OBJECTIVES BY 2040



Increase RE installed capacity to at least 20,000 MW



Increase indigenous petroleum reserves to 57.12 MMB oil, 5.87 TCF gas and 56.81 MMB condensate;  
Produce 115.37 MMB oil, 4.04 TCF gas and 45.93 MMB condensate



Increase indigenous coal reserves to 766 MMT and 282 MMT production



Improved policy governing the downstream oil industry to ensure continuous supply of high quality and right quantity of petroleum products in the market



Establish a world-class, investment driven and efficient natural gas industry that makes natural gas the preferred fuel by all end-use sectors



Ensure quality, reliable, affordable and secure supply;  
Expand access to electricity;  
Ensure a transparent and fair playing field in the power industry



Ensure secured and stable supply of energy through technology responsive energy sector



Measurable reduction in energy intensity and consumption per year versus business as usual



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Ensure secured and stable supply of energy through technology responsive energy sector



Increase in number of connections or households with access to electricity through the Total Electrification Program (TEP)

- Micro-grid
- Distributed generation

# Climate Change Mitigation



## Integration

- Integration of mitigation measures to energy policies, plans and strategies including laws and regulations



## Accounting and Reporting

- Development of guidelines on accounting and reporting of emissions and emission reduction including capacity-building in the establishment of reporting forms and database.



## Implementation

- Implementation of emission reduction programs and projects



## Knowledge Management

- Sharing and dissemination of knowledge, research and best practices on mitigation



## Sustainable Financing

- Development and adoption of sustainable financing mechanisms



# Climate Change Adaptation



## Vulnerability Resource Assessment

- Conduct of impact and vulnerability assessment of the energy systems and infrastructure.



## Energy Resiliency Policy

- Institutionalization of an energy resiliency policy that will undertake measures including integration of structural adaptations into the design of energy infrastructure and structural design strengthening implementation of infrastructure reinforcement measures.



## Knowledge Management

- Sharing and dissemination of knowledge, research and best practices on adaptation





# Legislative Agenda



## EO 30

Creation of the Energy Investment Coordinating Council

- ✓ Declared Mindanao-Visayas Interconnection Project as Energy Project of National Significance



## DC 2018-01-0001

Energy Resiliency in the Planning and Programming of the Energy Sector

- ✓ Signed a MOA with PHIVOLCS on the Rapid Earthquake Damage Assessment System or REDAS



## DC 2018-05-0014

Task Force to Ensure Adequate and Reliable Energy Supply Before, During and After Elections

- ✓ Direct the full cooperation of power suppliers and service providers (DUs, PIOUs, ECs, LGU and power generation companies)

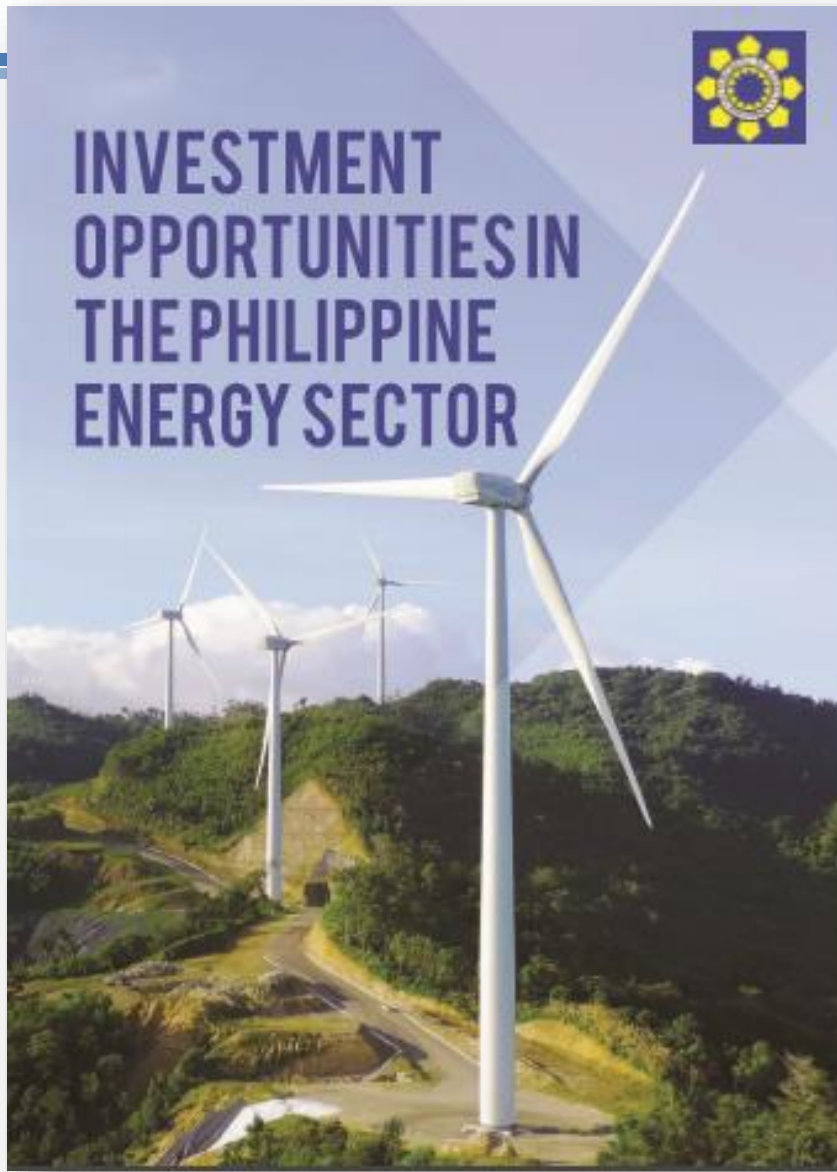


## National Position on Nuclear Energy

Declaration that the Philippines is open to nuclear power and ready to embark on a Nuclear Power Program

- ✓ Certify legislation for Comprehensive Nuclear Law or any equivalent law
- ✓ Issue an Executive Order to expand the composition of the NEPIO to include other relevant government agencies, academe and representatives from private sector





- Supportive of President Duterte’s socio-economic policy of “Build, Build ” moving towards the speedy development and implementation of infrastructure to increase the country’s global competitiveness.





Source: <https://www.pv-tech.org/news/president-duterte-inaugurates-expanded-800mw-philippines-solar-module-factory>

- Investment Opportunities in Micro-grid and standalone solar household systems for total electrification of existing unserved and underserved households and communities nationwide by 2020.



# Thank You!



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