PHILIPPINES' ENERGY STATISTICS AND CURRENT ENERGY SITUATION

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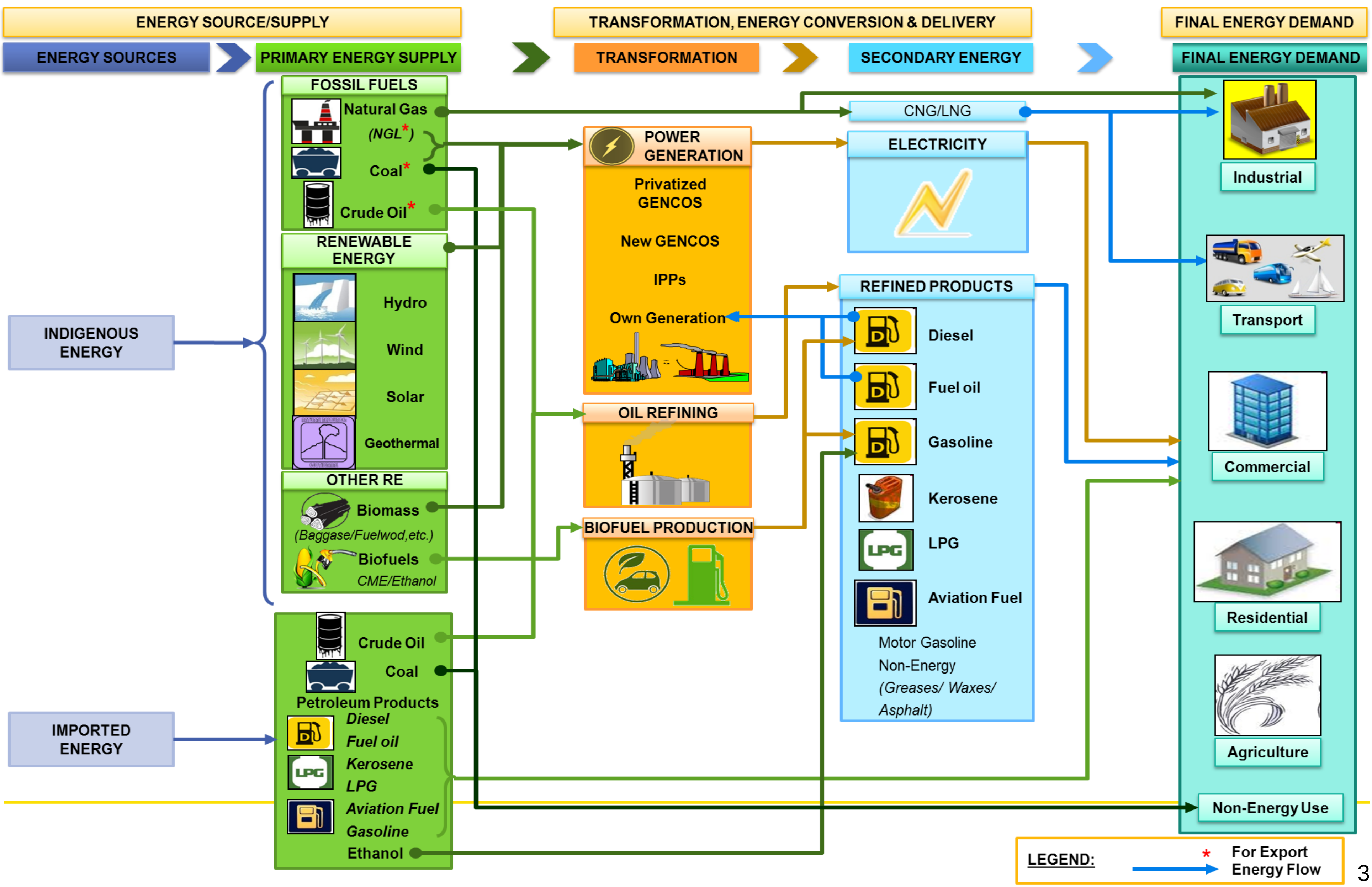
Workshop on Energy Statistics for ASEAN Countries
Kuala Lumpur, Malaysia 21-23 November 2017

Outline of Presentation

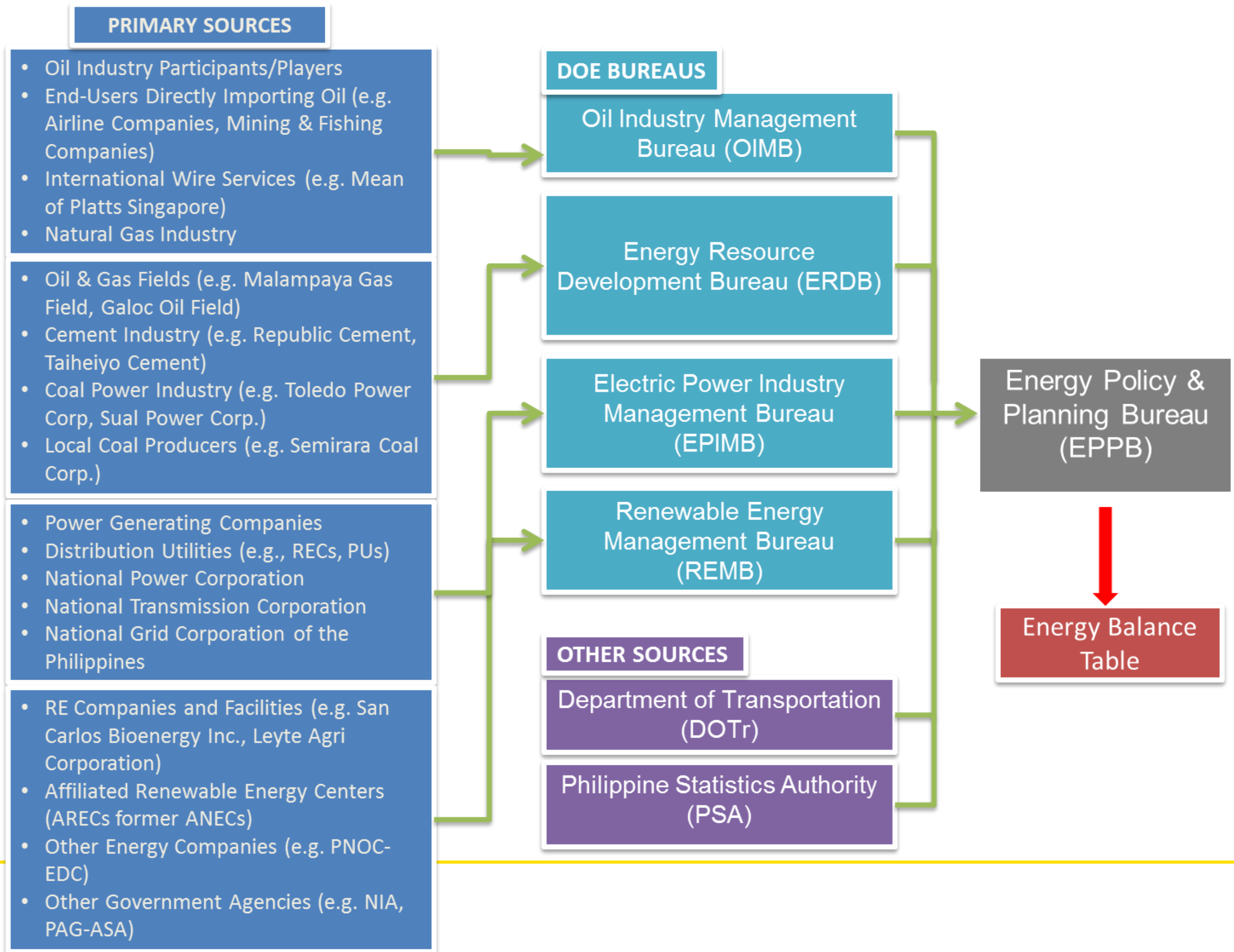
1	Energy Supply and Demand • *Reference Energy System* • *Data Collection* • *Energy Balance Table* • *Outlook Process Flow & Methodology*
2	Current Energy Situation
3	Strategic Directions

ENERGY SUPPLY AND DEMAND

Reference Energy System



Data Collection

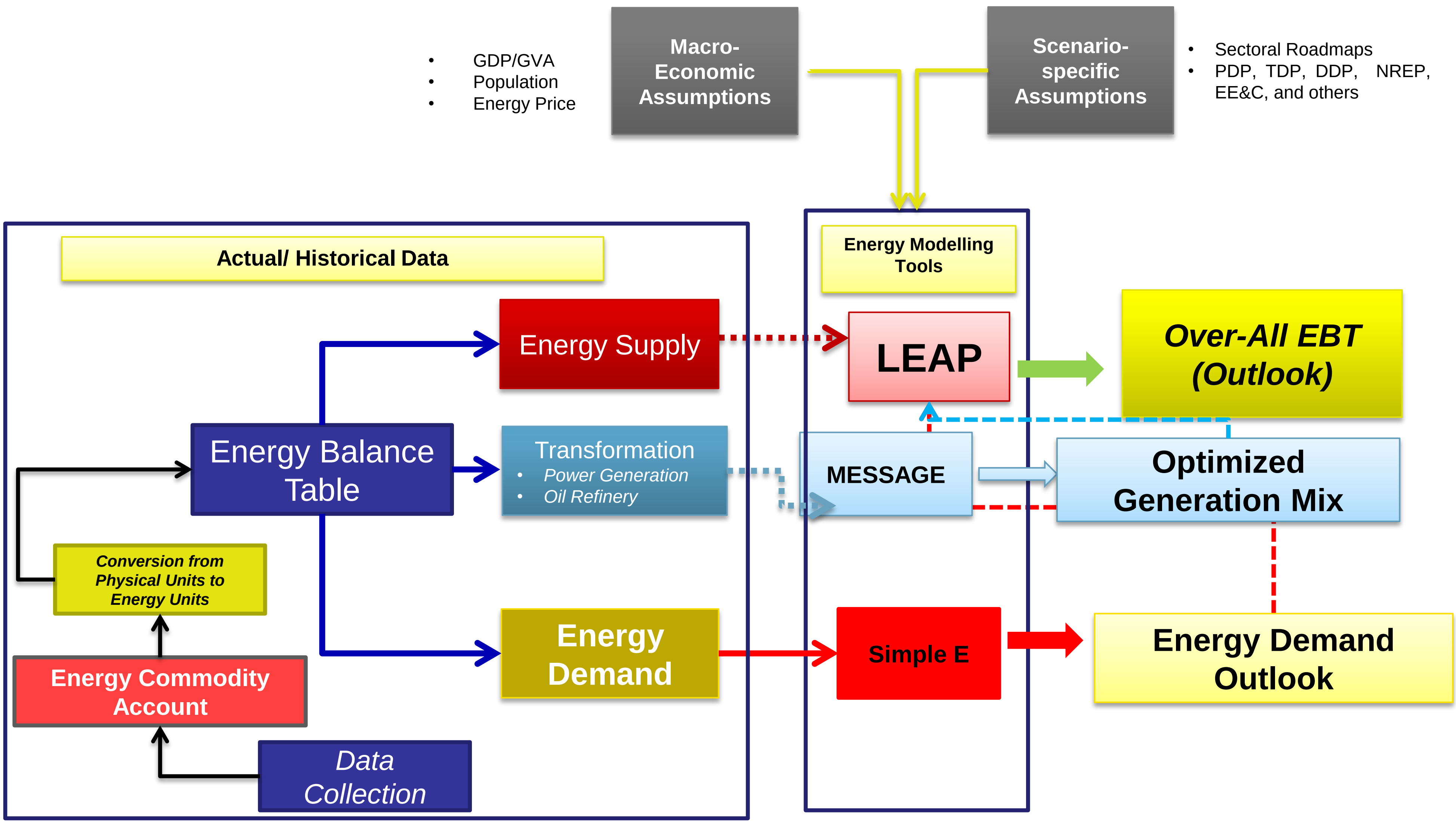


Energy Balance Table

2016 Energy Balance Table (EBT), in KTOE

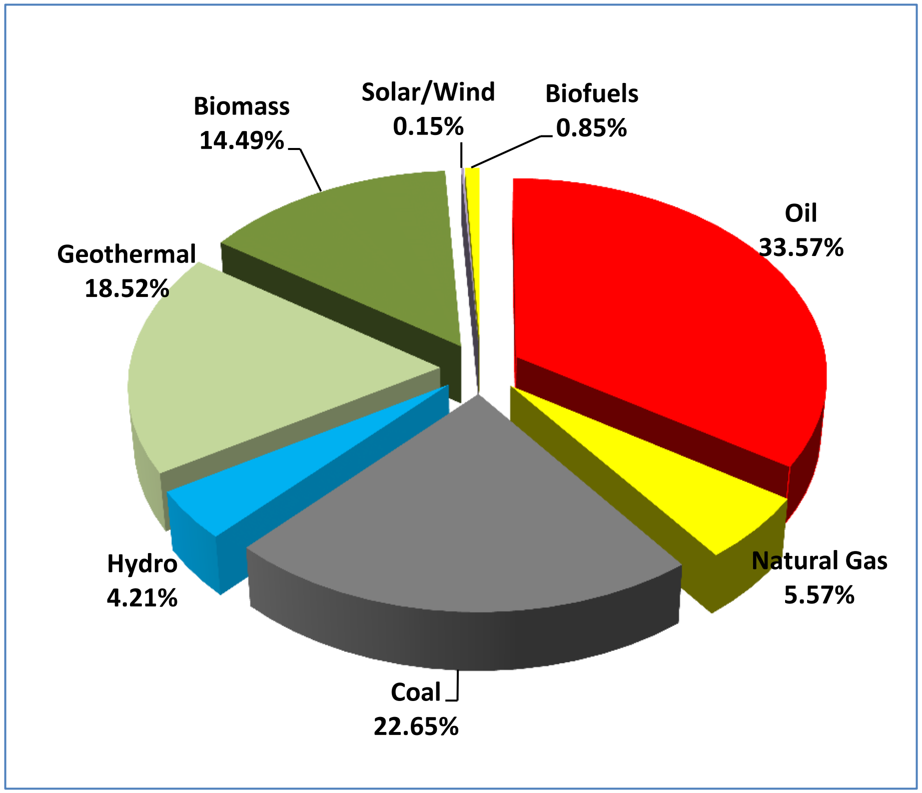
	Coal	Natural Gas	Oil & Oil Products	Hydro	Geothermal	Solar	Wind	Biomass	Biodiesel	Bioethanol	Electricity	Total
Indigenous	5,917	3,270	702	2,019	9,519	94	84	7,494	178	127	-	29,405
Imports (+)	10,572	-	21,454	-	-	-	-	-	-	145	-	32,171
Exports (-)	(3,607)	-	(1,919)	-	-	-	-	-	-	-	-	(5,526)
International Marine Bunkers (-)	-	-	(50)	-	-	-	-	-	-	-	-	(50)
International Civil Aviation (-)	-	-	(1,296)	-	-	-	-	-	-	-	-	(1,296)
Stock Change (+/-)	(1,196)	-	(345)	-	-	-	-	-	(10)	37	-	(1,514)
Total Primary Energy Supply	**11,686**	**3,270**	**18,547**	**2,019**	**9,519**	**94**	**84**	**7,494**	**168**	**309**	**-**	**53,189**
Refinery (Crude Run)	-	-	(556)	-	-	-	-	-	-	-	-	(556)
Power Generation (Fuel Input)	(10,232)	(3,082)	(1,230)	(2,019)	(9,519)	(94)	(84)	(282)	(9)	-	7,807	(18,745)
Transmission/Dist. Loss (-)	-	-	-	-	-	-	-	-	-	-	(712)	(712)
Energy Sector Use & Loss (-)	-	(123)	(121)	-	-	-	-	-	-	-	(719)	(963)
Net Domestic Supply	1,454	65	16,639	-	-	-	-	7,212	158	309	6,376	32,213
Statistical Difference												(1,320)
% Statistical Difference												(4)
Total Final Energy Consumption	**2,852**	**65**	**16,561**	**-**	**-**	**-**	**-**	**7,212**	**158**	**309**	**6,376**	**33,533**
Industry	2,675	65	1,458	-	-	-	-	1,164	13	-	2,074	7,447
Transport	-	-	11,881	-	-	-	-	-	121	309	9	12,319
Residential	-	-	1,122	-	-	-	-	5,709	-	-	2,204	9,035
Commercial	-	-	1,632	-	-	-	-	340	21	-	1,872	3,865
AFF	-	-	229	-	-	-	-	-	4	-	218	450
Others, Non-energy Use	177	-	239	-	-	-	-	-	-	-	-	417
Self-Sufficiency (%)												**55 .28**

Outlook Process Flow and Methodology



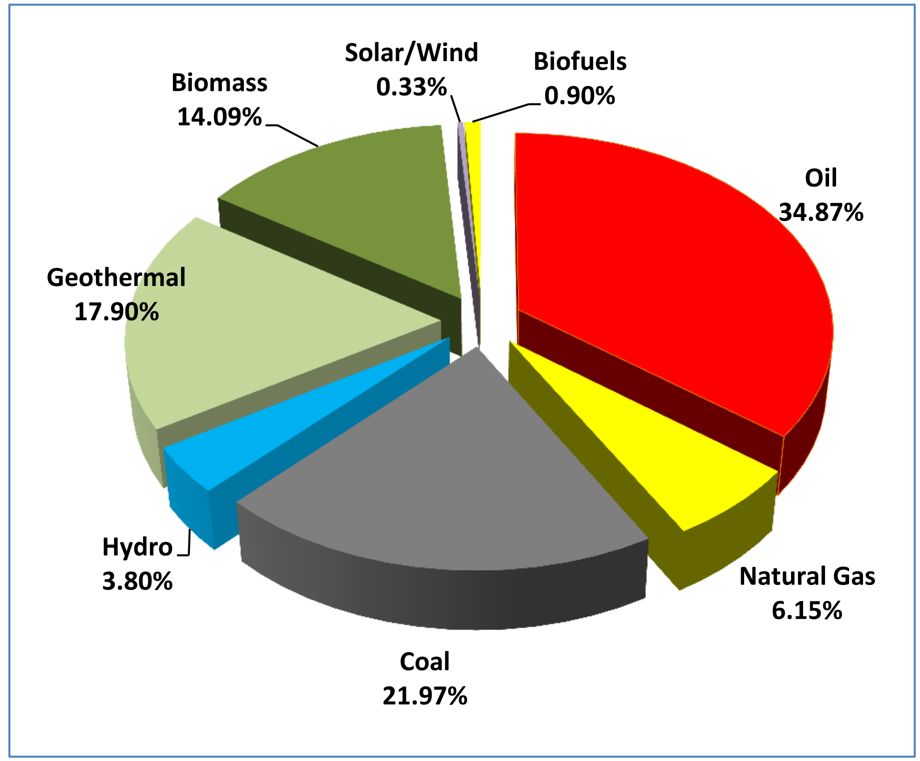
CURRENT ENERGY SITUATION

Primary Energy Mix



2015 Total Energy: 51.27 MTOE
Self Sufficiency: 52.4%

Renewable Energy (RE) =38.2%
Share of Green Energy (RE+Natgas) = 43.8%



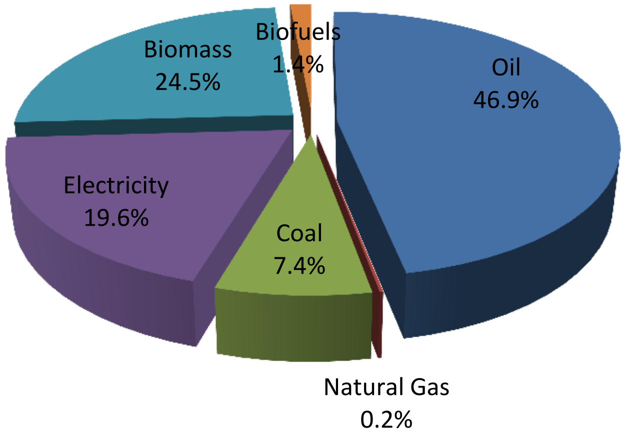
2016 Total Energy: 53.19 MTOE
Self Sufficiency: 55.3%

Renewable Energy (RE) = 37.0%
Share of Green Energy (RE+Natgas) = 43.2%

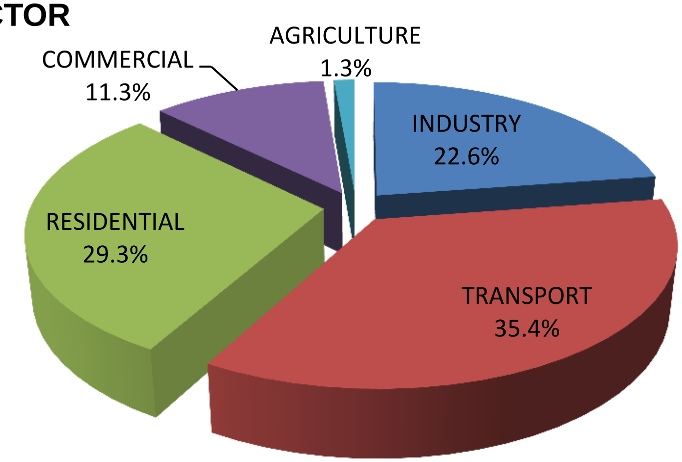
Total Final Energy Consumption

2015

BY FUEL



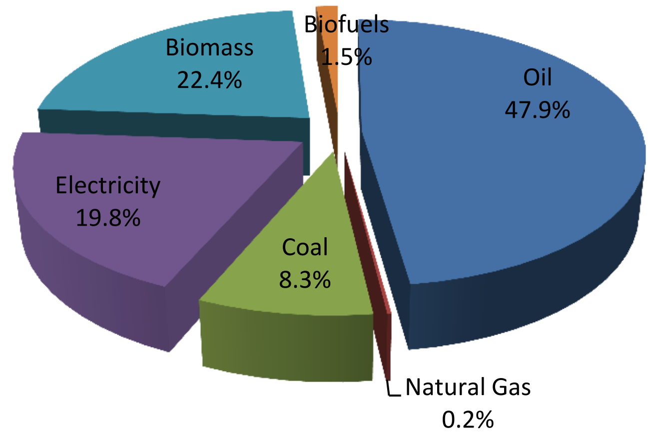
BY SECTOR



TFEC: 29.8 MTOE

2016

BY FUEL



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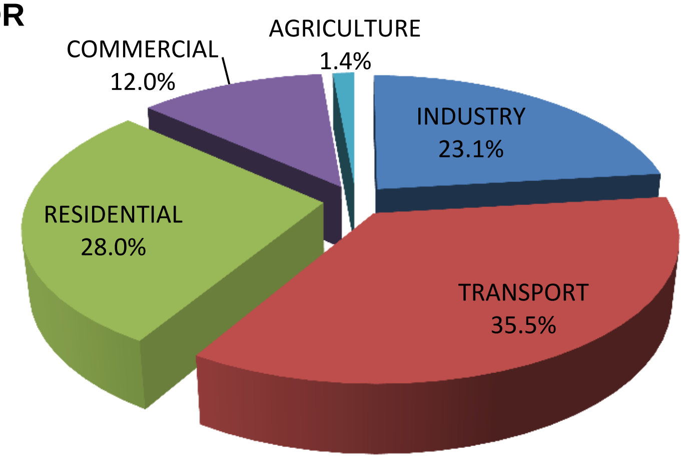
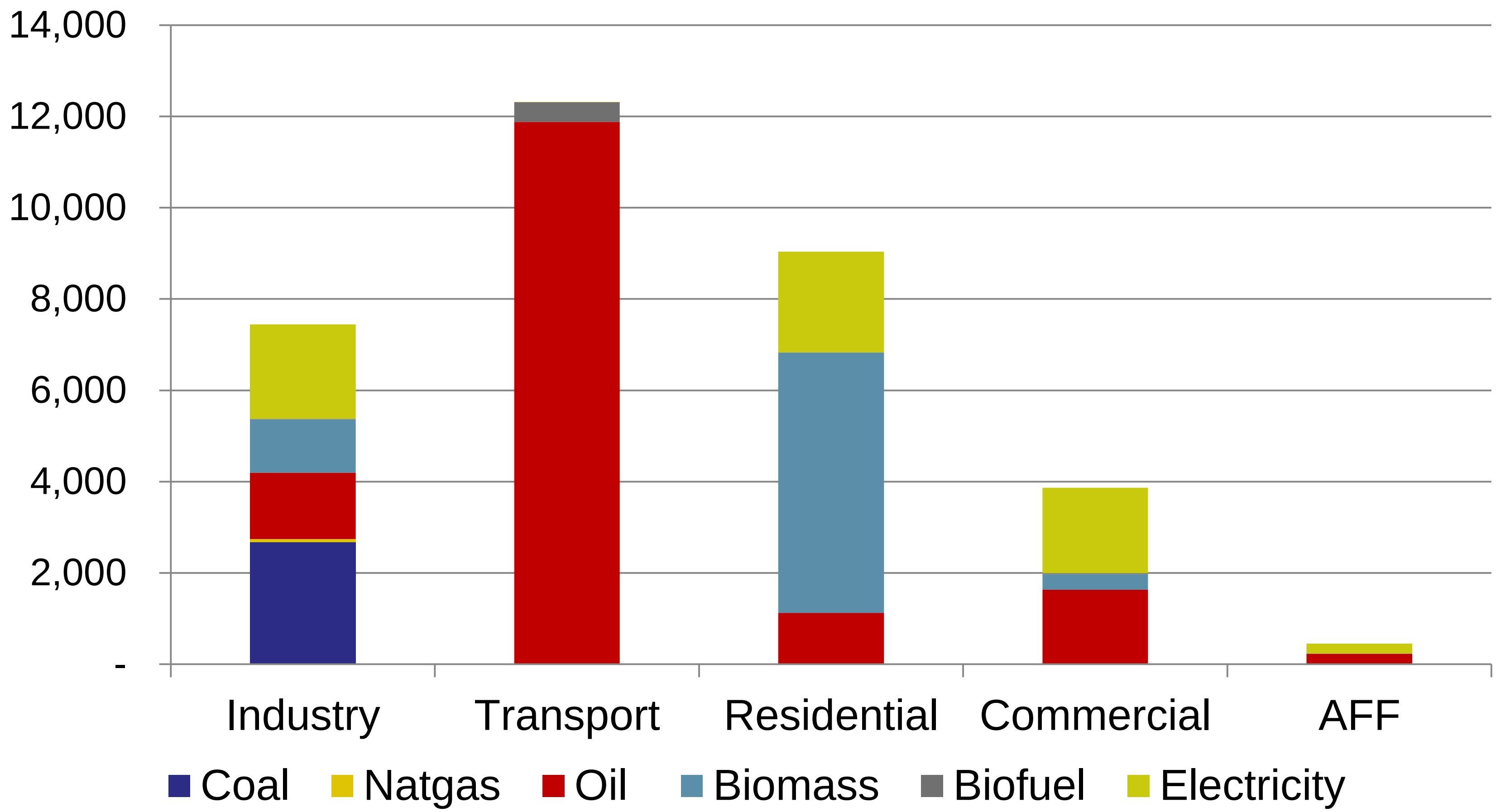
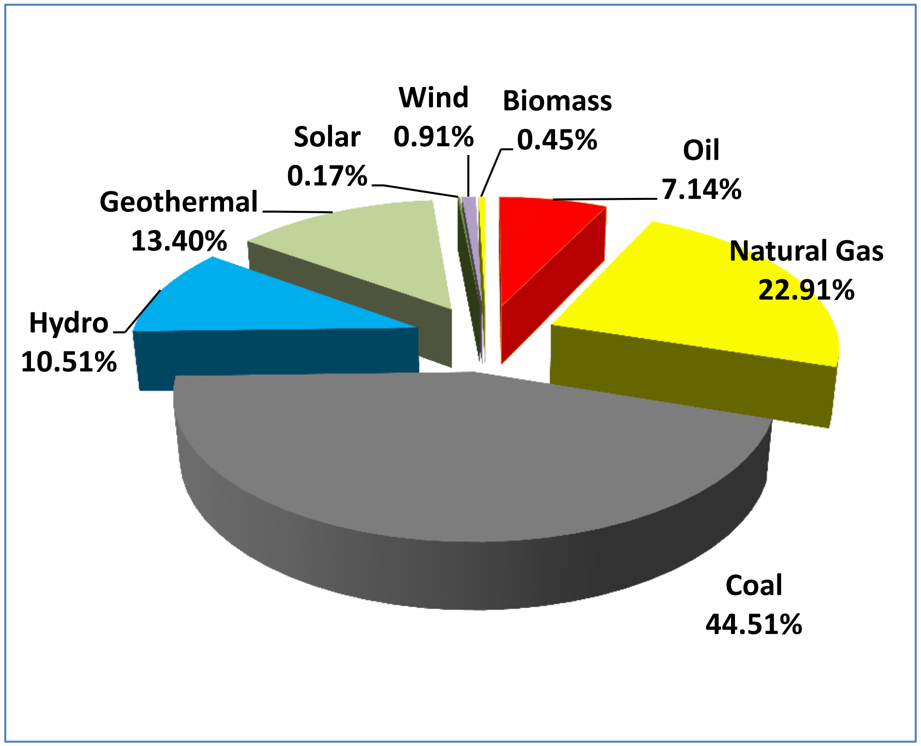


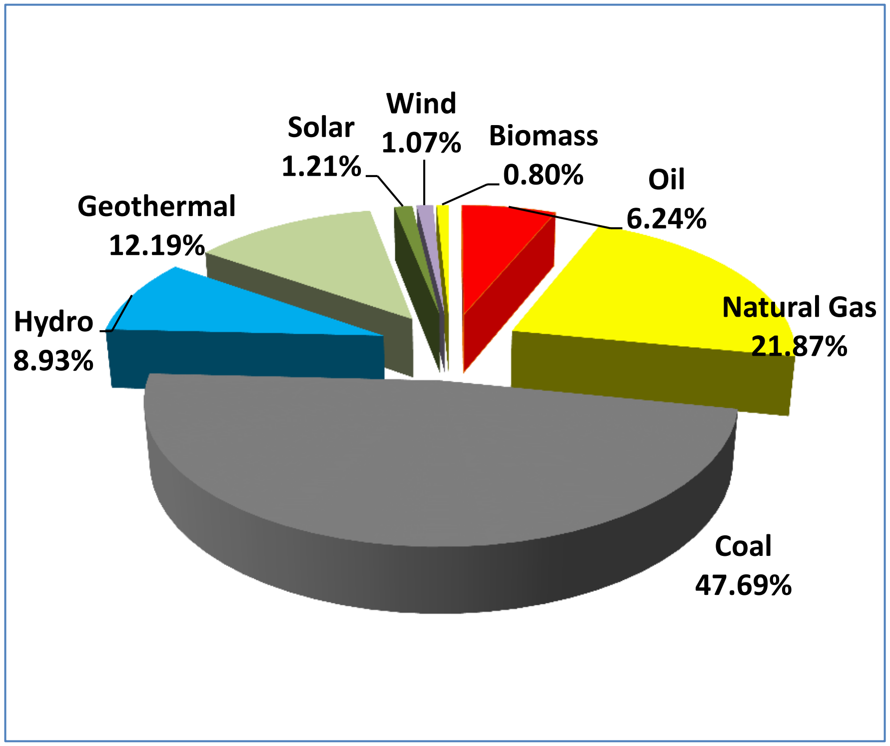
TFEC: 32.2 MTOE

2016 Final Energy Consumption



Power Generation Mix





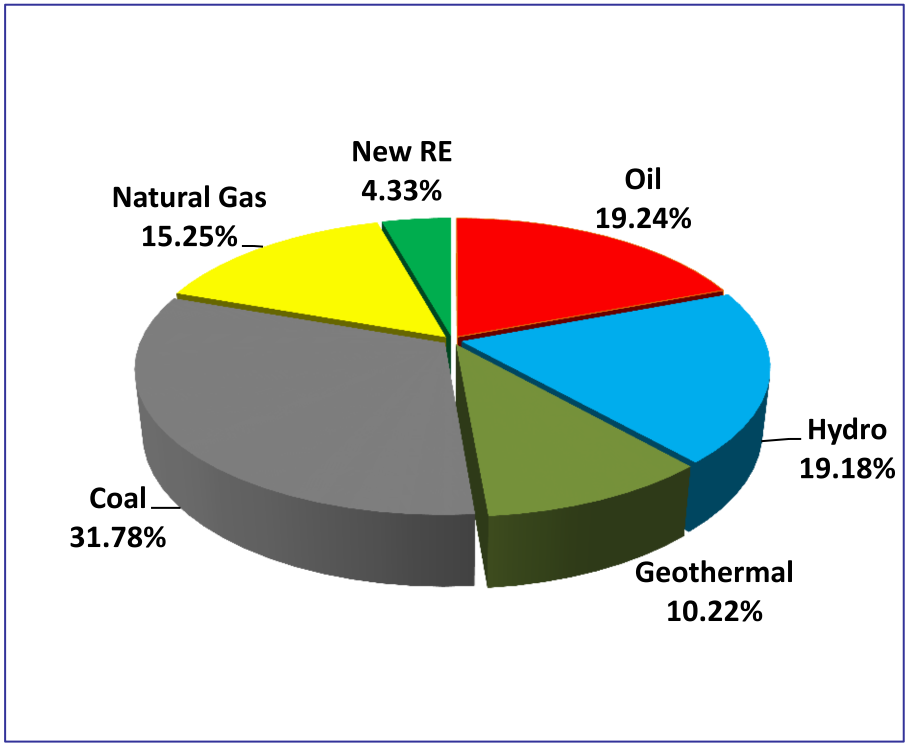
2015 Total Generation: 82.4 TWh
Self Sufficiency: 53.1%

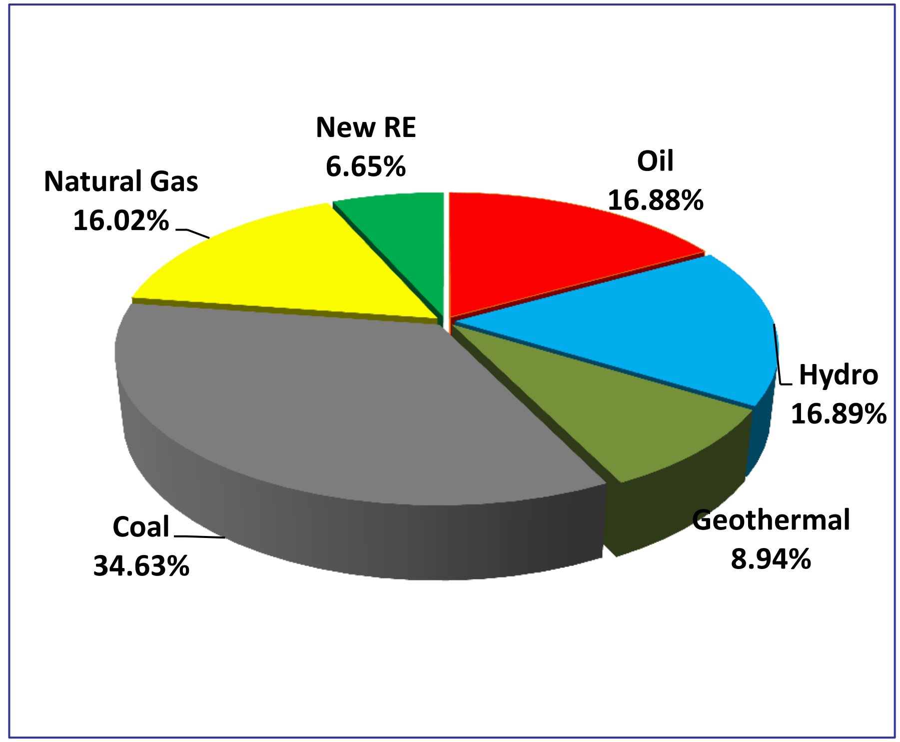
Renewable Energy (RE) =25.4%
Share of Green Energy (RE+Natgas) = 48.3%

2016 Total Generation: 90.8 TWh
Self Sufficiency: 51.0%

Renewable Energy (RE) = 24.2%
Share of Green Energy (RE+Natgas) = 46.1%

Installed Capacity Mix





2015 Total Installed Capacity: 18,765.0 MW

RE+ Natural Gas = 48.98%
RE = 33.73%

2016 Total Installed Capacity: 21,423.0 MW

RE+ Natural Gas = 48.49%
RE = 32.48%

STRATEGIC DIRECTIONS

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

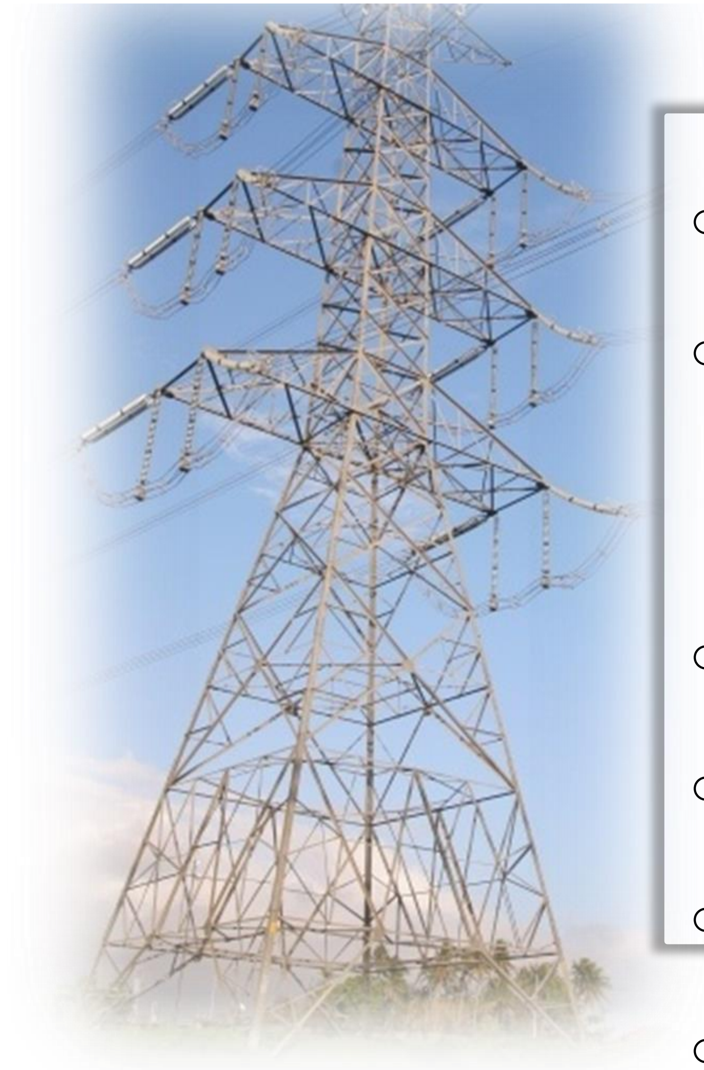
5 IMPLEMENT, MONITOR AND INTEGRATE SECTORAL AND TECHNOLOGICAL ROADMAPS AND ACTION PLANS

6 ADVOCATE THE PASSAGE OF THE DEPARTMENT'S LEGISLATIVE AGENDA

7 STRENGTHEN CONSUMER WELFARE AND PROTECTION

8 FOSTER STRONGER INTERNATIONAL RELATIONS AND PARTNERSHIPS

Strategic Directions 2017-2040



1 ENSURE ENERGY SECURITY

- Audit and assessment for power generation, transmission and distribution facilities
- Appropriate portfolio of installed and dependable power capacity mix of 70% baseload, 20% mid-merit and 10% peaking plant categories matching peak demand and reserves
- Build an LNG Terminal for a future "Clean Energy City"
- Accelerate total privatization of PSALM assets
- Improve reliability, availability and resiliency of energy infrastructure and facilities
- Conduct energy contracting rounds

Strategic Directions 2017-2040

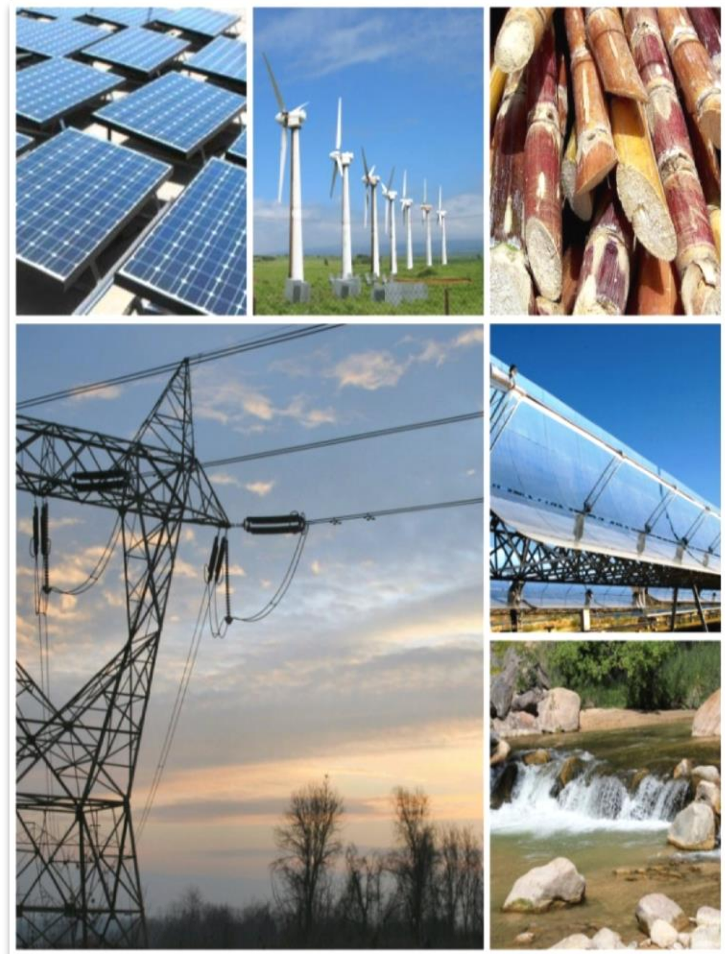
2 EXPAND ENERGY ACCESS TO ENSURE AFFORDABLE, RELIABLE, SUSTAINABLE AND MODERN ENERGY FOR ALL

- Achieve 100% electrification of targeted identified unelectrified households in all three major islands by 2022
- Connect the Mindanao grid with the interconnected Visayas and Luzon grids by 2020 to increase power supply reliability and resilience

Strategic Directions 2017-2040

3 PROMOTE A LOW CARBON FUTURE

- Increase RE Capacity by 2030 (based on 2010 level)
- Promote technology innovation through research, development, demonstration and deployment
  - Clean, efficient and smart energy technologies
  - Infrastructure for next generation vehicles

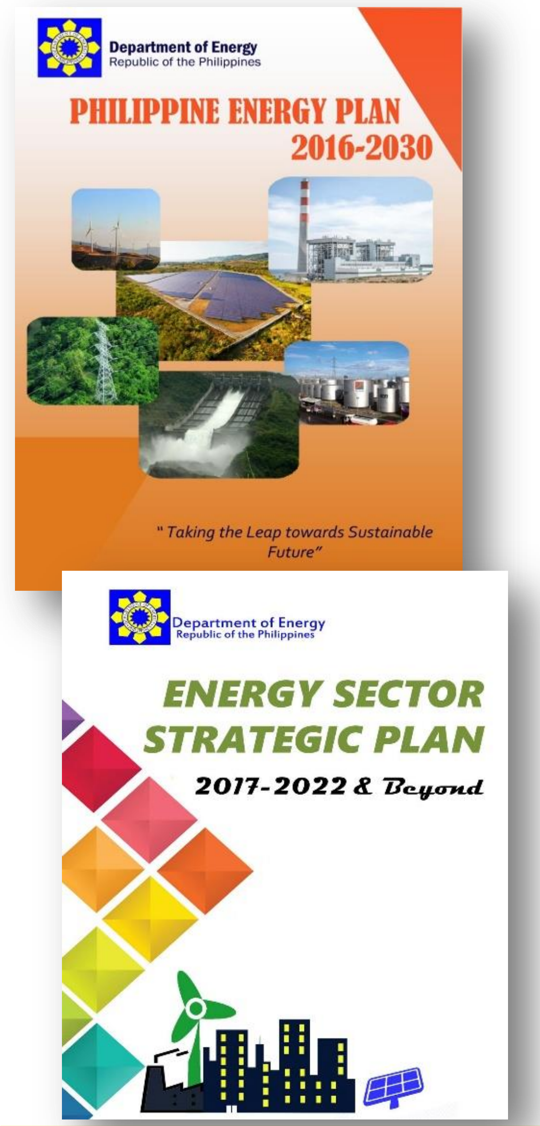


Strategic Directions 2017-2040

4 STRENGTHEN COLLABORATION BUILDING AMONG ALL GOVERNMENT AGENCIES INVOLVED IN ENERGY AND ENERGY-RELATED ISSUES

- Implement Executive Order (EO) 30 on Energy Projects of National Significance (EPNS)
- Energy Virtual One Shared System (EVOSS) platform for streamlined permitting
- Capacity and competency building of human resources of the “Energy Family” in the organizational, administrative, financial and legal areas

Strategic Directions 2017-2040



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

- Alternative fuels and energy technologies
- Energy efficiency and conservation
- Oil, gas and coal resource development
- Renewable energy
- Downstream oil, gas and coal
- Power and electrification
- ICT for energy

Strategic Directions 2017-2040

6 ADVOCATE THE PASSAGE OF THE DEPARTMENT'S LEGISLATIVE AGENDA AND ISSUANCE OF PERTINENT RULES AND REGULATION

- Energy Efficiency and Conservation (EE&C), Natural Gas, Liquefied Petroleum Gas (LPG), Petroleum Upstream Regulation
- Review of existing laws such as EPIRA, Downstream Oil Industry, Renewable Energy

Strategic Directions 2017-2040

7 STRENGTHEN CONSUMER WELFARE AND PROTECTION THROUGH MULTI-SECTORAL MULTIMEDIA IEC PROGRAMS

- Scale up the *E-Power Mo, E-Safety Mo, E-Secure Mo, E-Diskarte Mo* campaign
- Integrate energy concepts in curriculum for public school students through seminars and field visits
- Promote alternative fuel vehicles and emerging energy technologies

Strategic Directions 2017-2040

8 FOSTER STRONGER INTERNATIONAL RELATIONS AND PARTNERSHIPS

- Bilateral and multi-lateral energy cooperation
- Facilitate free trade agreements on energy trade and services
- UN's Sustainable Energy for All (SE4All)

Thank you.
Salamat po.