



IEEJ:August 2015

# Training Program on “Energy Policy B” Country Report Presentation

By

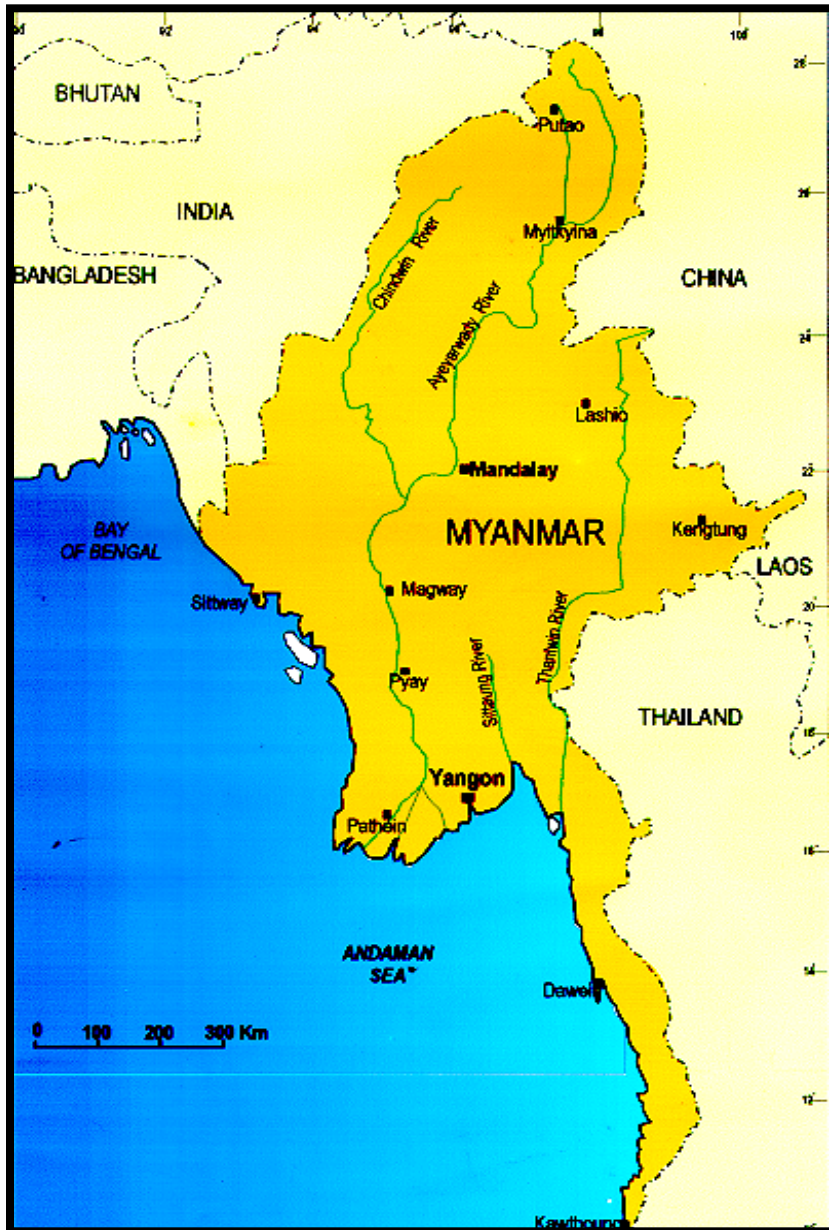
**Mr. Ko Ko Latt**  
**Deputy Director**  
**Ministry of Energy**  
**Myanmar**

June 2015

# Content

- **About Myanmar**
- **Country's Energy Sector Overview**
- **Development Activities**
- **Conclusion**

# About Myanmar



## The Republic of the Union of Myanmar

- TOTAL LAND AREA = 676,577 KM<sup>2</sup>

- SHARING BORDERS WITH ;

- BANGLADESH & INDIA** = **NORTH-WEST**
- CHINA** = **NORTH-EAST**
- LAOS** = **EAST**
- THAILAND** = **SOUTH-EAST**

- COASTAL STRIP = 2832 KM FACING TO THE BAY OF BENGAL AND ANDAMAN SEA.

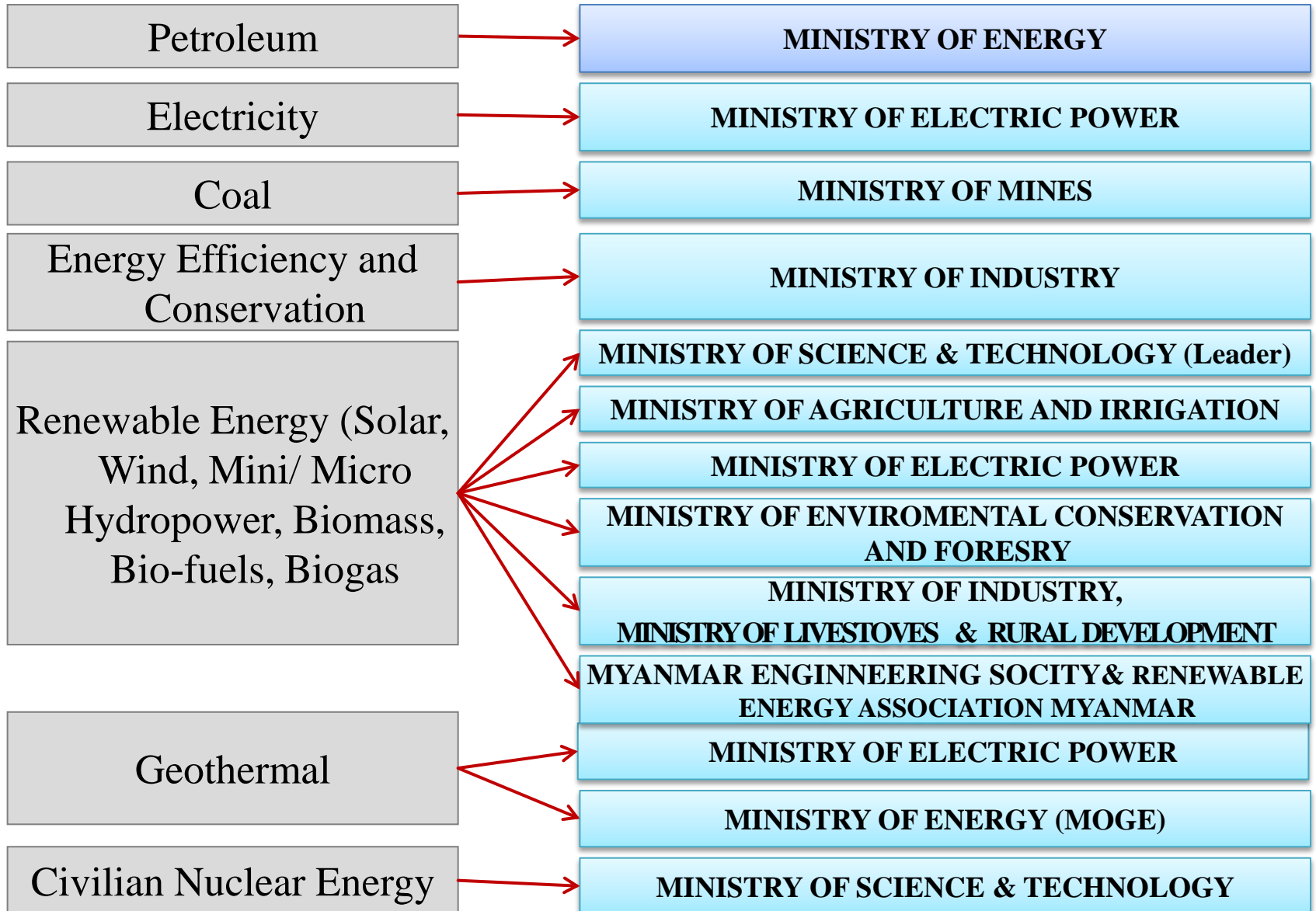
- ABOUT 51 MILLION PEOPLE WITH AN AVERAGE GROWTH RATE OF 1% PER ANNUM.

## Energy Resources Potential

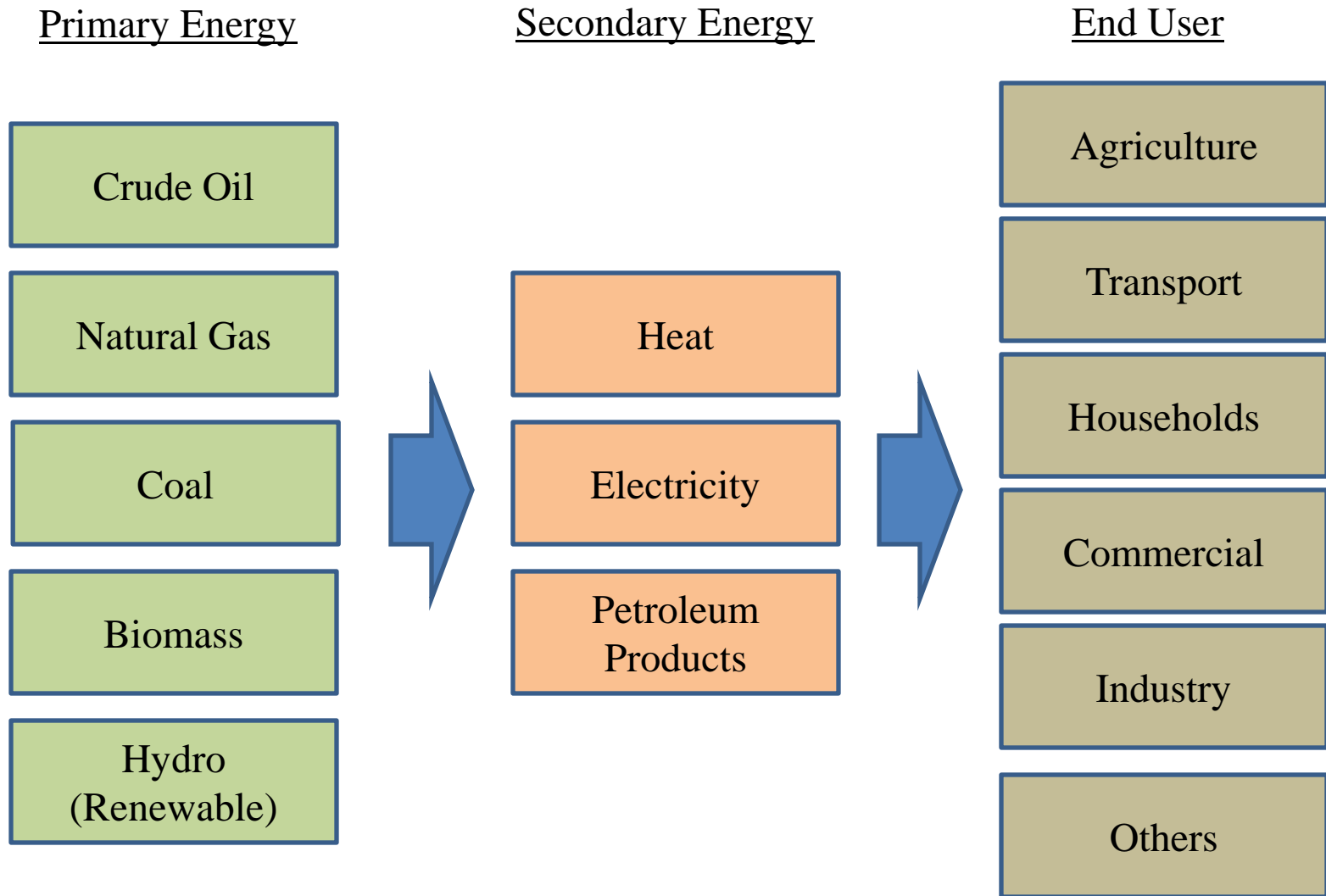
Oil	160 million barrels (Proven Reserve)
Gas	11.7 trillion cubic feet
Hydro	More than 100,000 MW (Potential) 46101 MW in 92 locations (Assessed by MOEP)
Coal	540 million tons (Estimated Reserve)
Biomass	More than 40% of total land area is covered with forest
Wind	365.1 TWh/ year (Assessed by NEDO)
Solar	51973.8 TWh/ year (Assessed by NEDO)
Geothermal	93 Location (26-65 C)
Oil Shale	720- 3300 million barrels (Gross Estimate)
Other	Tidal, Wave, etc

# Myanmar's Energy Sector Overview

# Energy Sector Institutions in Myanmar

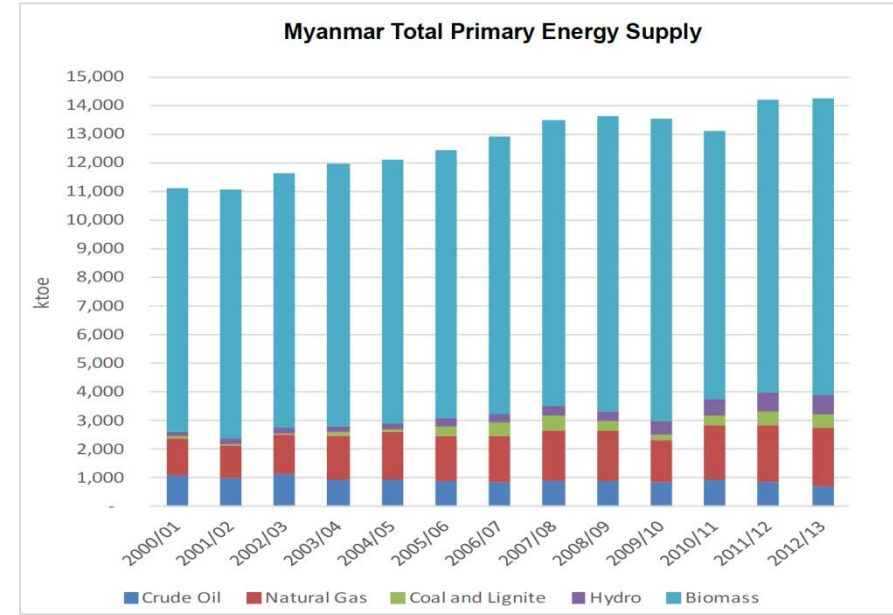
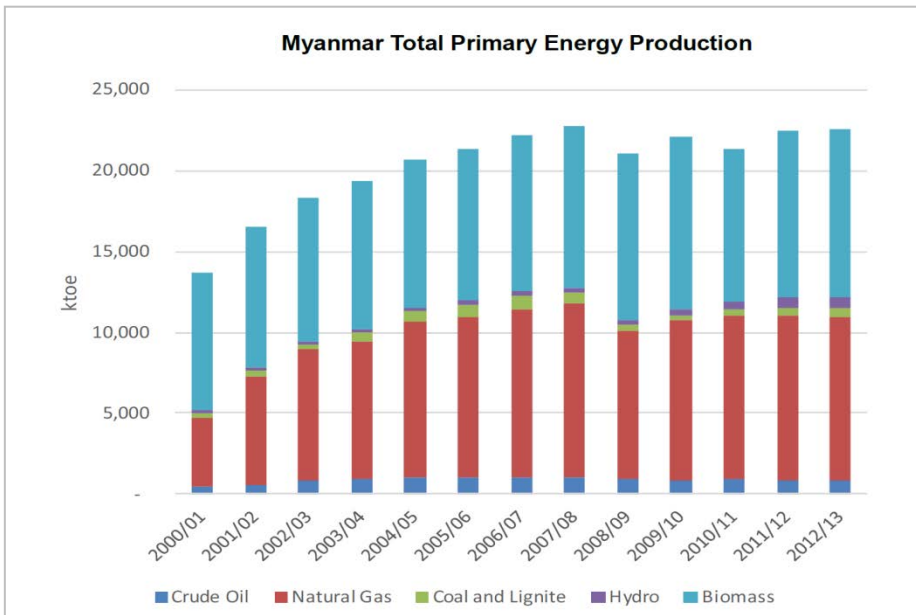


# Energy Flow Pattern of Myanmar



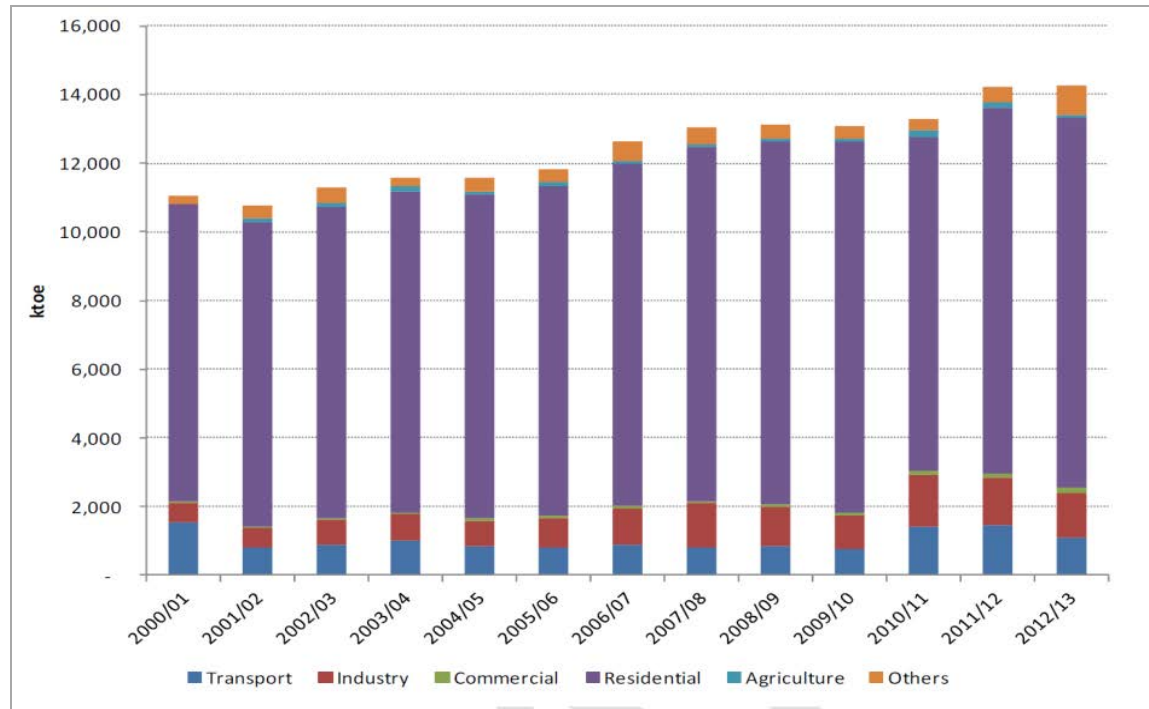


# Energy Production and Supply



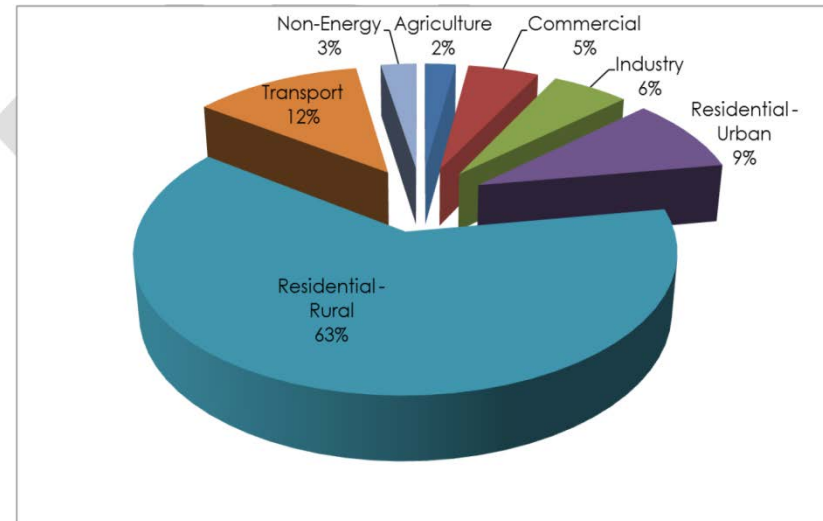
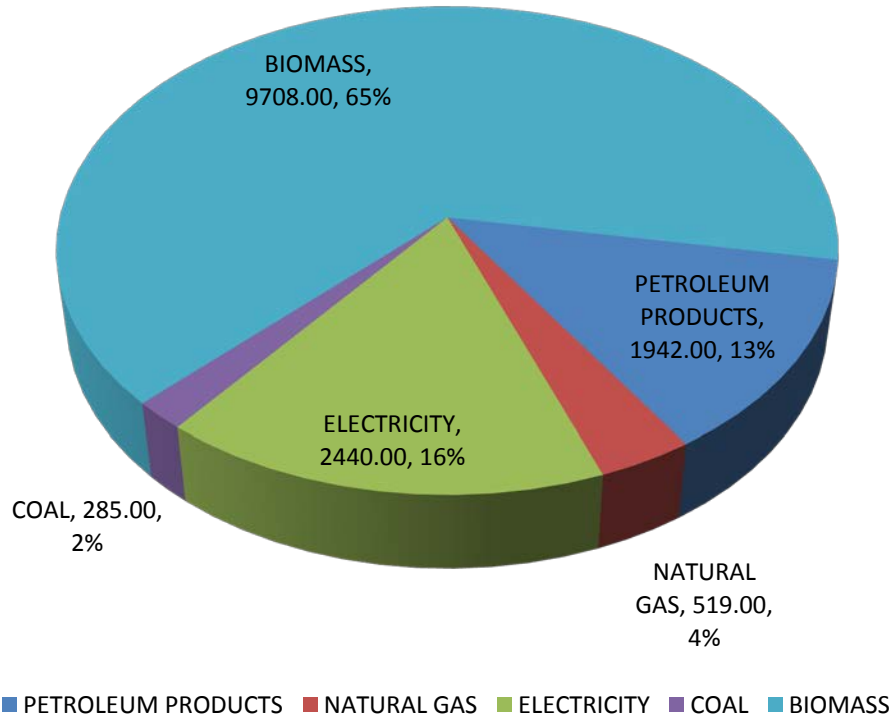
- Energy Production is increasing about 5% annually.
- Producing more than 2 billion cubic feet of natural gas per day and about 80% of the production are exported to neighboring countries.
- Biomass contributes about 73% in Total Primary Energy Supply (FY 2012-2013)

# Energy Consumption



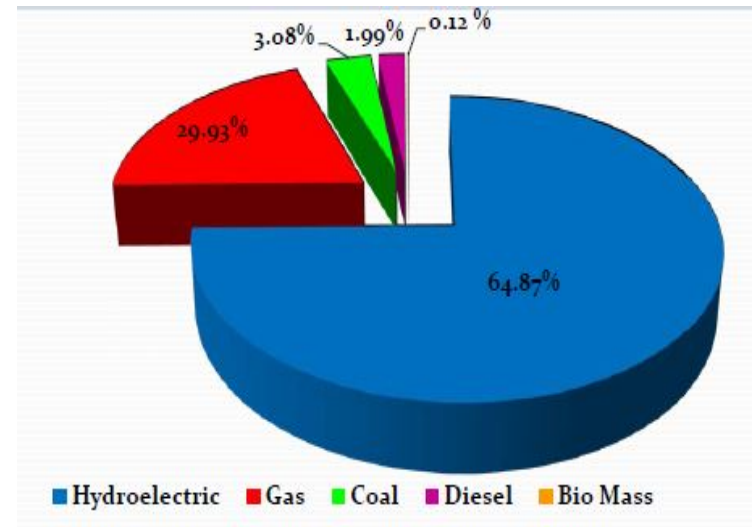
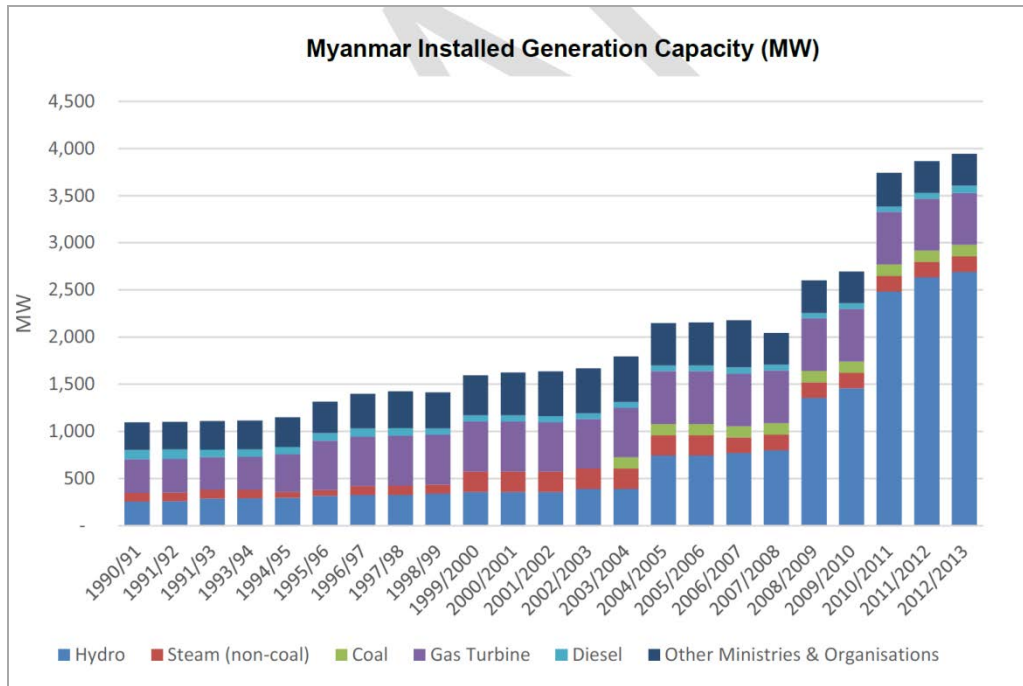
- Household sector energy consumption is too high and it makes 74% of the total final energy consumption in 2012-13
- Energy Consumption is expected to increase by 2.9% annually until 2030

# Final Energy Consumption in FY 2012-13



- Biomass is mainly supplied to the residential sector especially for cooking purpose
- About 60% of the domestic natural gas supply is used for power generation

# Electricity

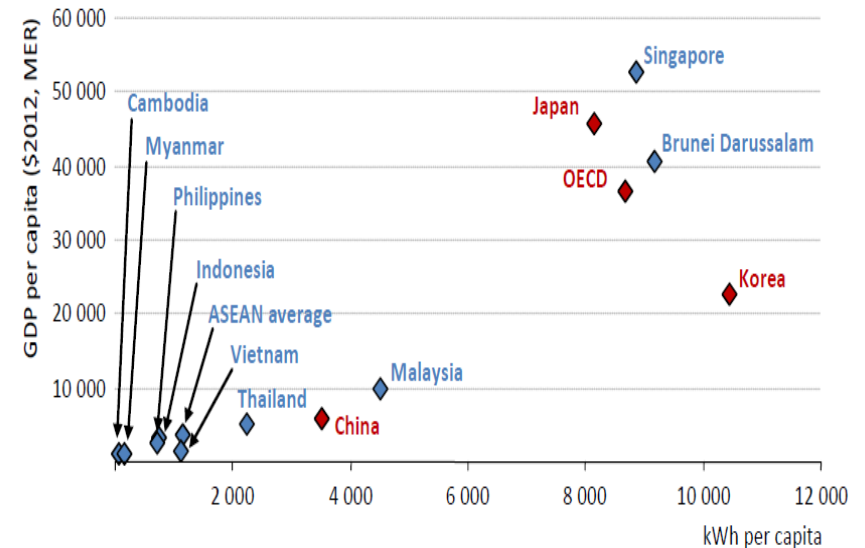
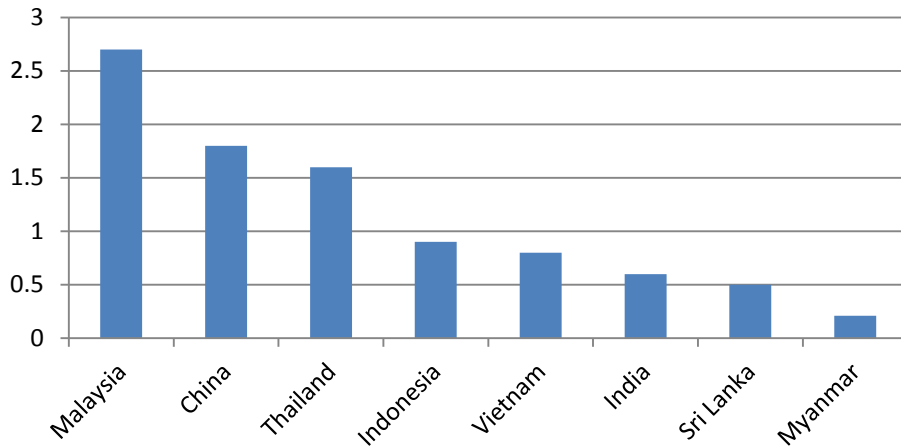


## Power Generation

- Hydro is being used as the base load for power generation
- Install capacity of hydro power is 2693 MW in 2013 and it is 65% of the total install capacity
- MOEP has identified 92 large hydropower potential projects with the total installed capacity of 46000 MW

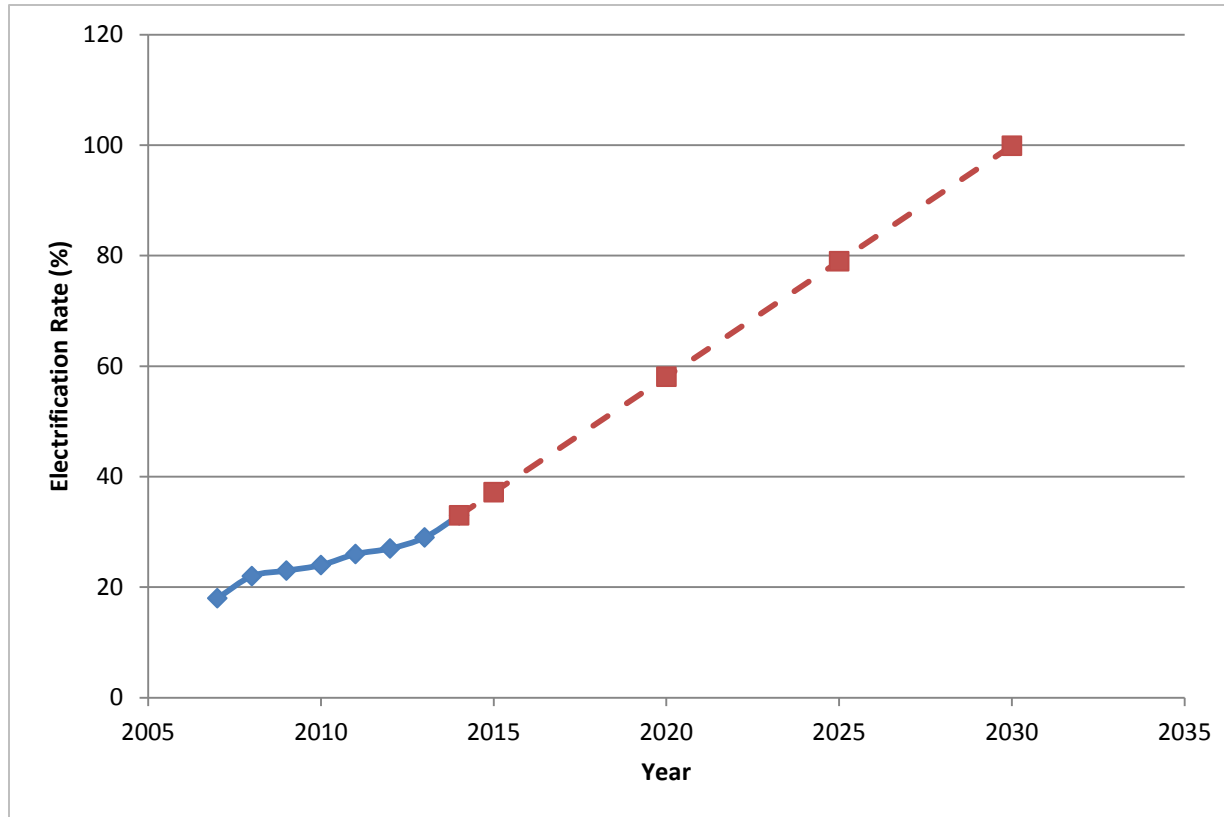
# Per Capita Energy and Electricity Consumption in year 2011

Per Capita Energy Consumption in year 2011 (TOE)



Myanmar: per capita Energy Consumption 0.21 TOE  
 per capita Electricity Consumption 180 kWh

# Electricity



- National Electrification rate is growing from 18% in 2007 to 33% in 2013
- National Electrification target is 100% in 2030

# Development Activities

# National Reform Processes

1<sup>st</sup> Stage

Political Reform



2<sup>nd</sup> Stage

Economic and Social Reform



3<sup>rd</sup> Stage

Public Administrative Reform



4<sup>th</sup> Stage

Private Sector Development Reform





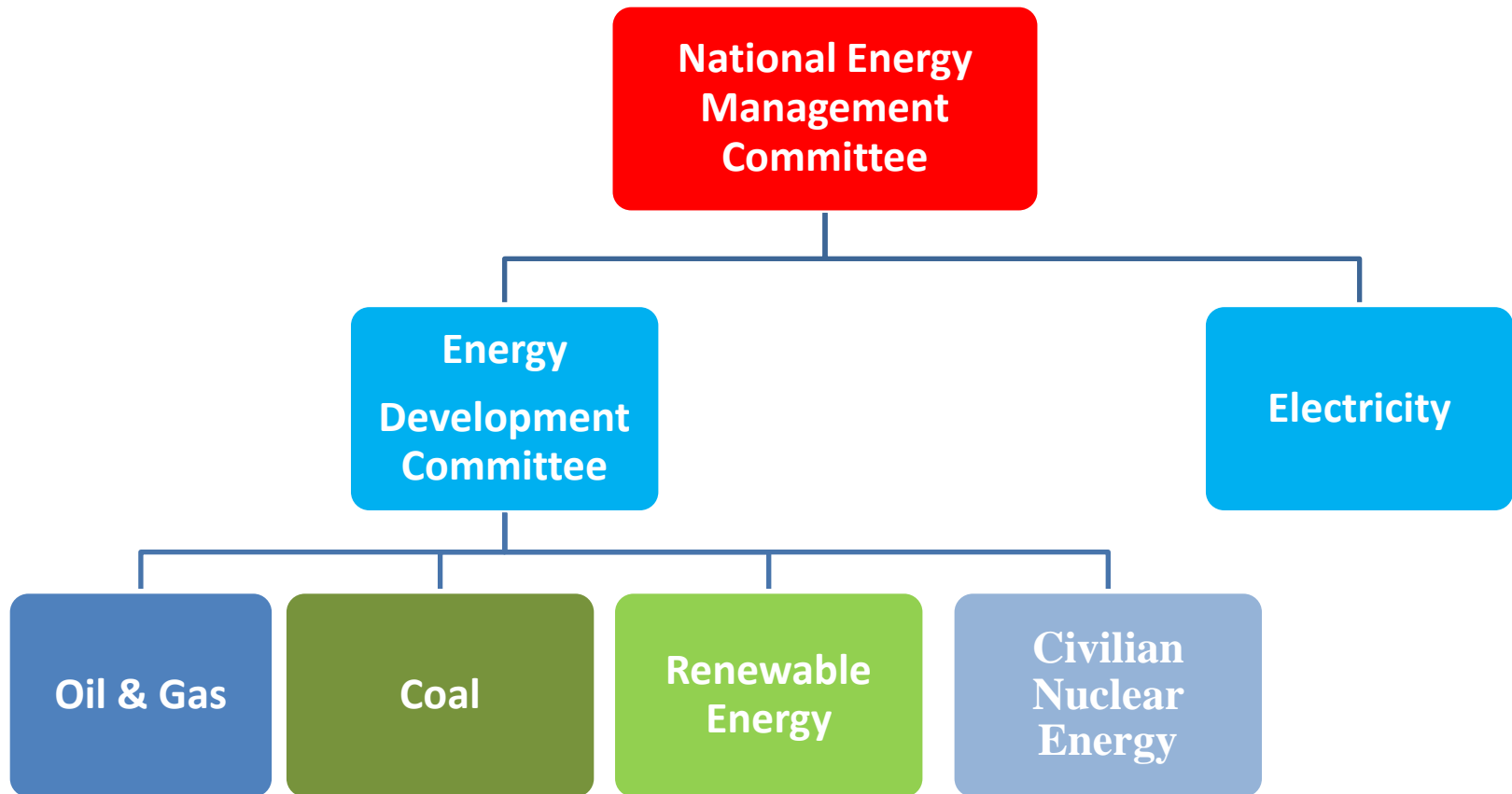
# National Energy Management Committee

- Established on 9<sup>th</sup> January 2013
- Patron - Vice President (2)
- Chairman - Union Minister for Energy
- Vice Chairman - Union Minister for Electric Power
- Members - Ministers from Agriculture, Forest, Mines, Power, National Planning, Industries and representatives from NGO's, Renewable Energy Organizations
- Secretary - Deputy Minister for Energy
- Joint Secretary - Deputy Minister for Electric Power

\*\*\* Highlighted duties and functions are as follow:-

- Formulating National Energy Policy (*already announced on 6 Jan 2015*)
- Formulating Long term Energy Master Plan (assistance by ADB)
- To encourage private sectors in Energy Development
- Plan short terms to fulfill domestic requirements
- To adapt National Energy Security Strategy

# Organization Chart of National Energy Management Committee



# Outline of National Energy Policy

- 1 To implement short term and long term comprehensive energy development plan
- 2 To formulate rules and regulation in order to promote private sector participation
- 3 To compile energy statistics and energy resources information
- 4 To implement the socio-eco development program
- 5 To promote renewable energy utilization
- 6 To promote energy efficiency and conservation
- 7 To establish R,D,D&D (Research, Development, Design and Dissemination)
- 8 To promote international collaboration
- 9 To formulate energy pricing policy

# Development Studies

ADB

NEMC

**Long Term Energy Master Plan**

JICA

MOEP

**Electricity Master Plan**

WB

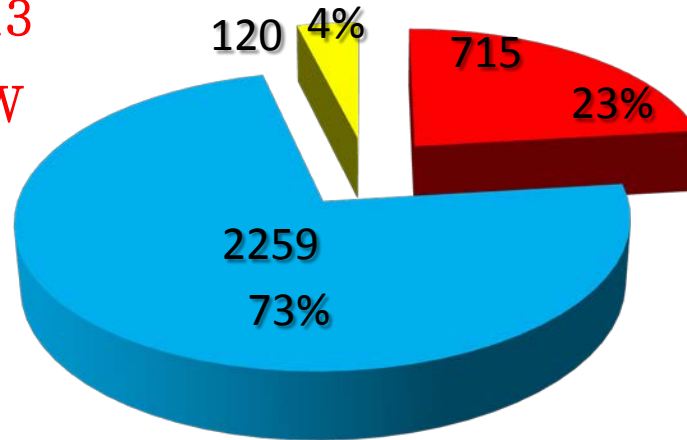
MOLFRD

**National Electrification Plan**

# Future Generation Mix

Year 2013

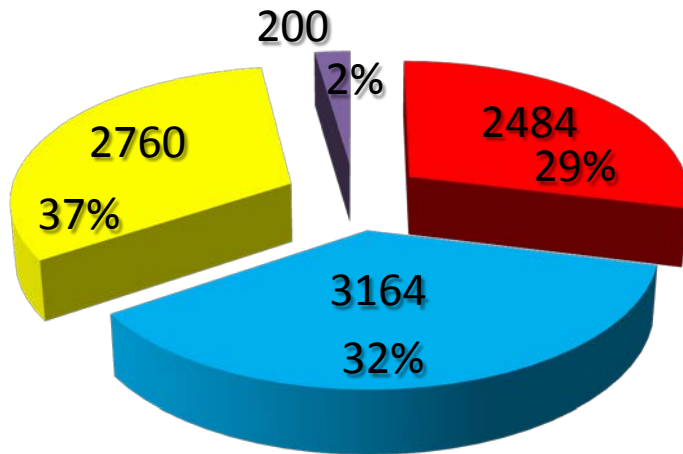
3094 MW



Year 2020

8608 MW

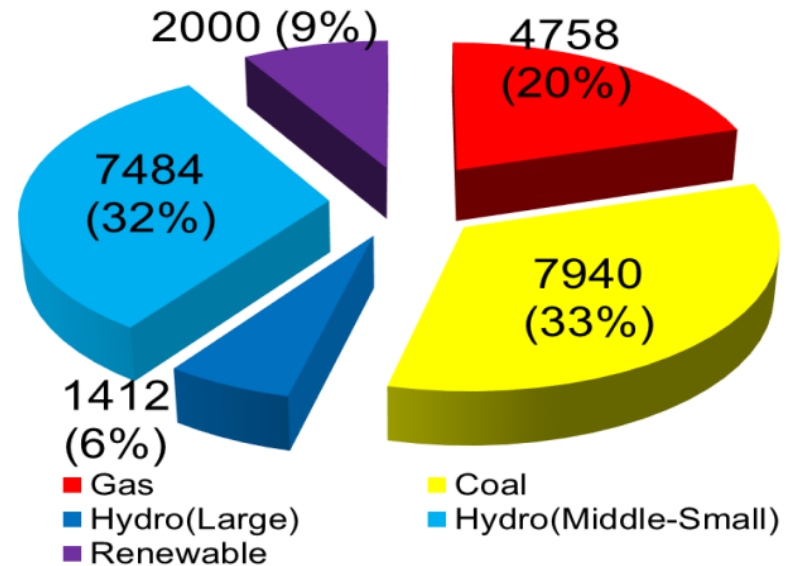
■ Gas ■ Hydro ■ Coal



■ Gas ■ Hydro ■ Coal ■ Renewable

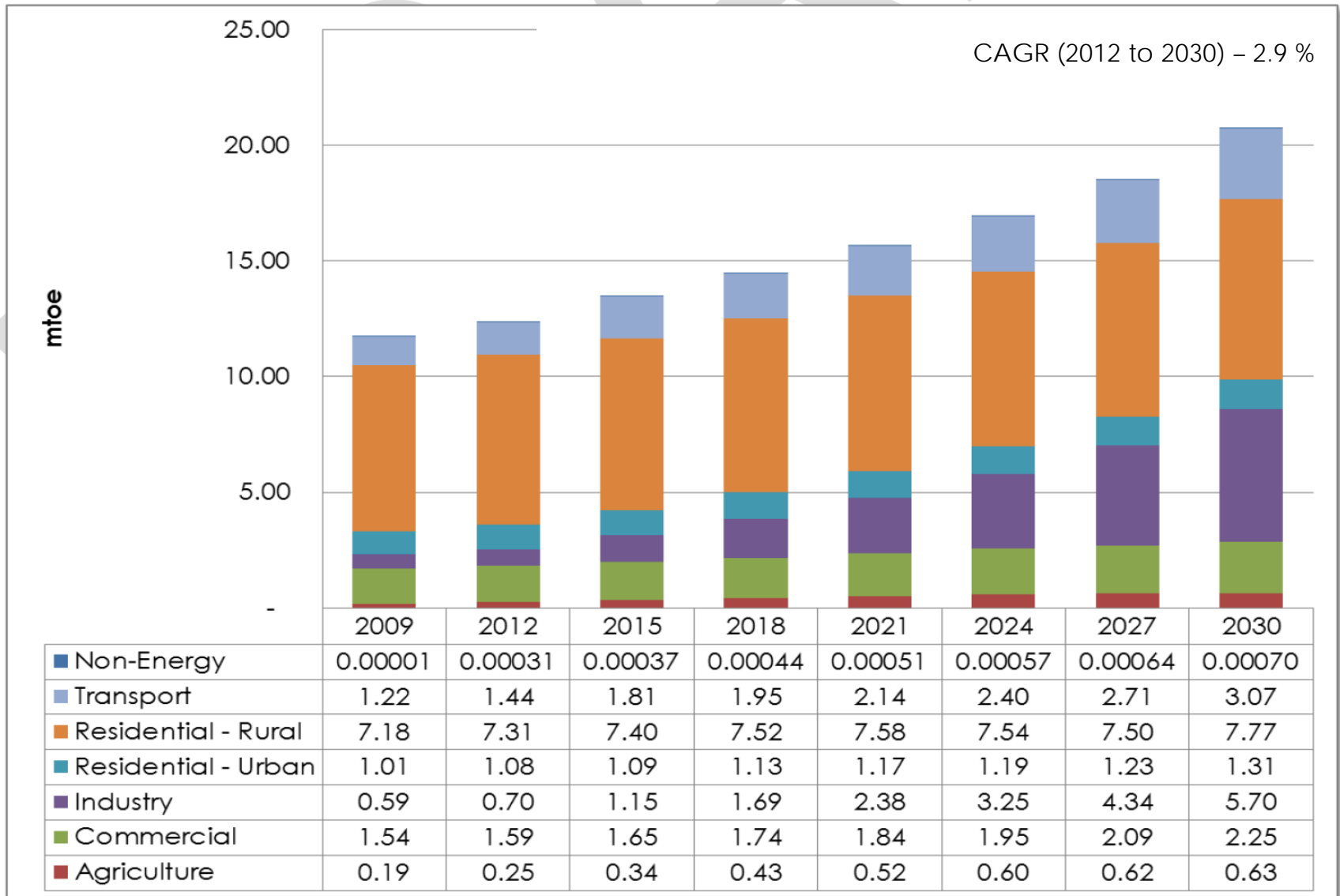
Year 2030

23594 MW

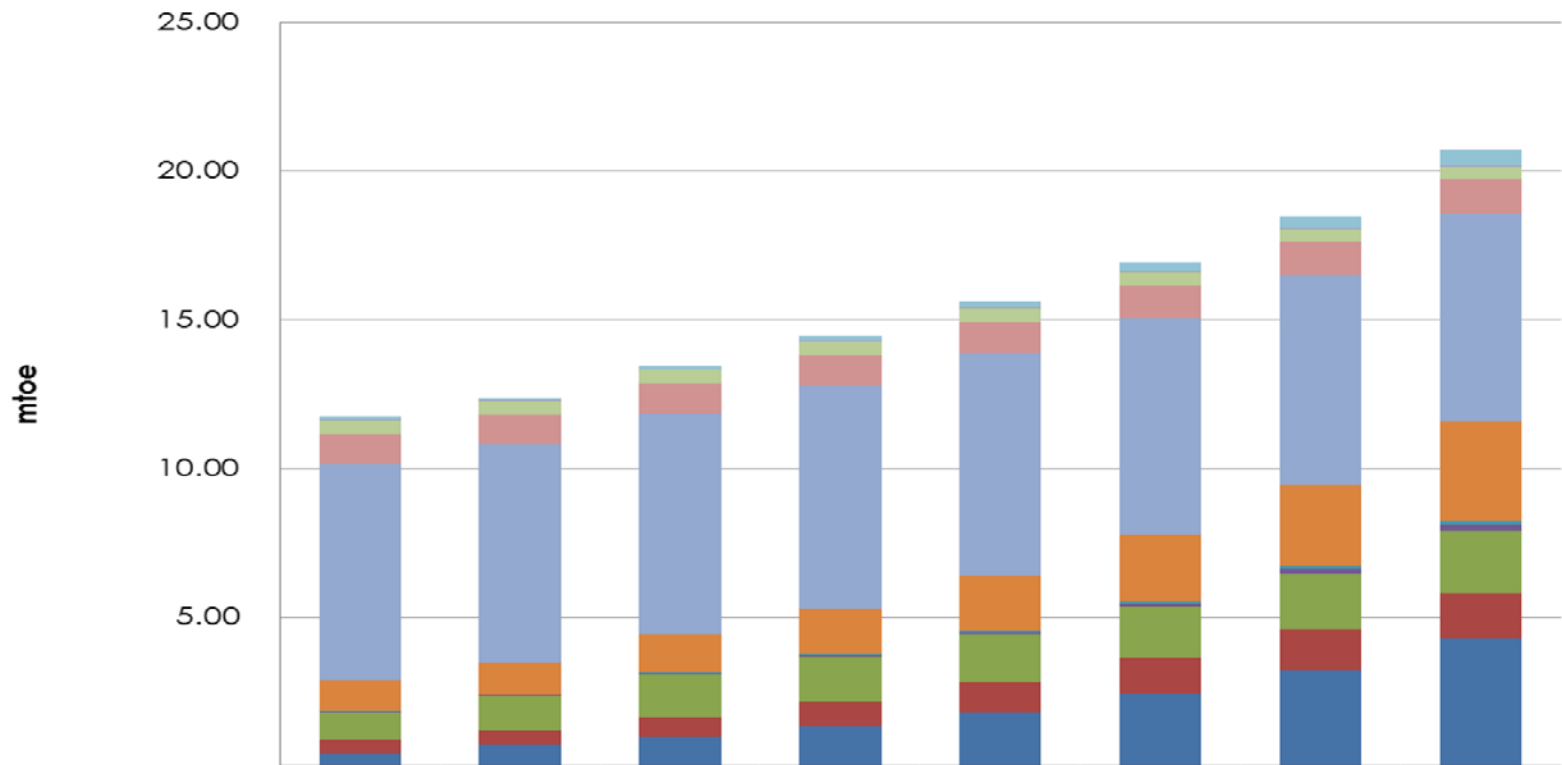


■ Coal  
■ Hydro(Middle-Small)  
■ Gas  
■ Hydro(Large)  
■ Renewable

# Preliminary Result of Energy Master Plan



# Preliminary Result of Energy Master Plan



	2009	2012	2015	2018	2021	2024	2027	2030
Coal	0.10	0.07	0.11	0.16	0.23	0.31	0.42	0.55
Paraffin	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Woody Biomass	0.47	0.47	0.47	0.47	0.47	0.46	0.45	0.44
Charcoal	0.97	0.98	1.00	1.02	1.05	1.08	1.11	1.16
Firewood	7.30	7.37	7.43	7.50	7.48	7.30	7.05	6.98
Gas	1.01	1.06	1.26	1.51	1.83	2.24	2.74	3.36
ATF	0.03	0.03	0.03	0.05	0.07	0.09	0.11	0.13
Furnace Oil	0.04	0.03	0.04	0.06	0.08	0.11	0.15	0.20
HSD	0.93	1.16	1.45	1.50	1.59	1.72	1.87	2.10
Motor Spirit	0.44	0.49	0.68	0.84	1.03	1.22	1.38	1.51
Electricity	0.43	0.70	0.96	1.33	1.80	2.41	3.21	4.29

# Participation in Extractive Industries Transparency Initiative



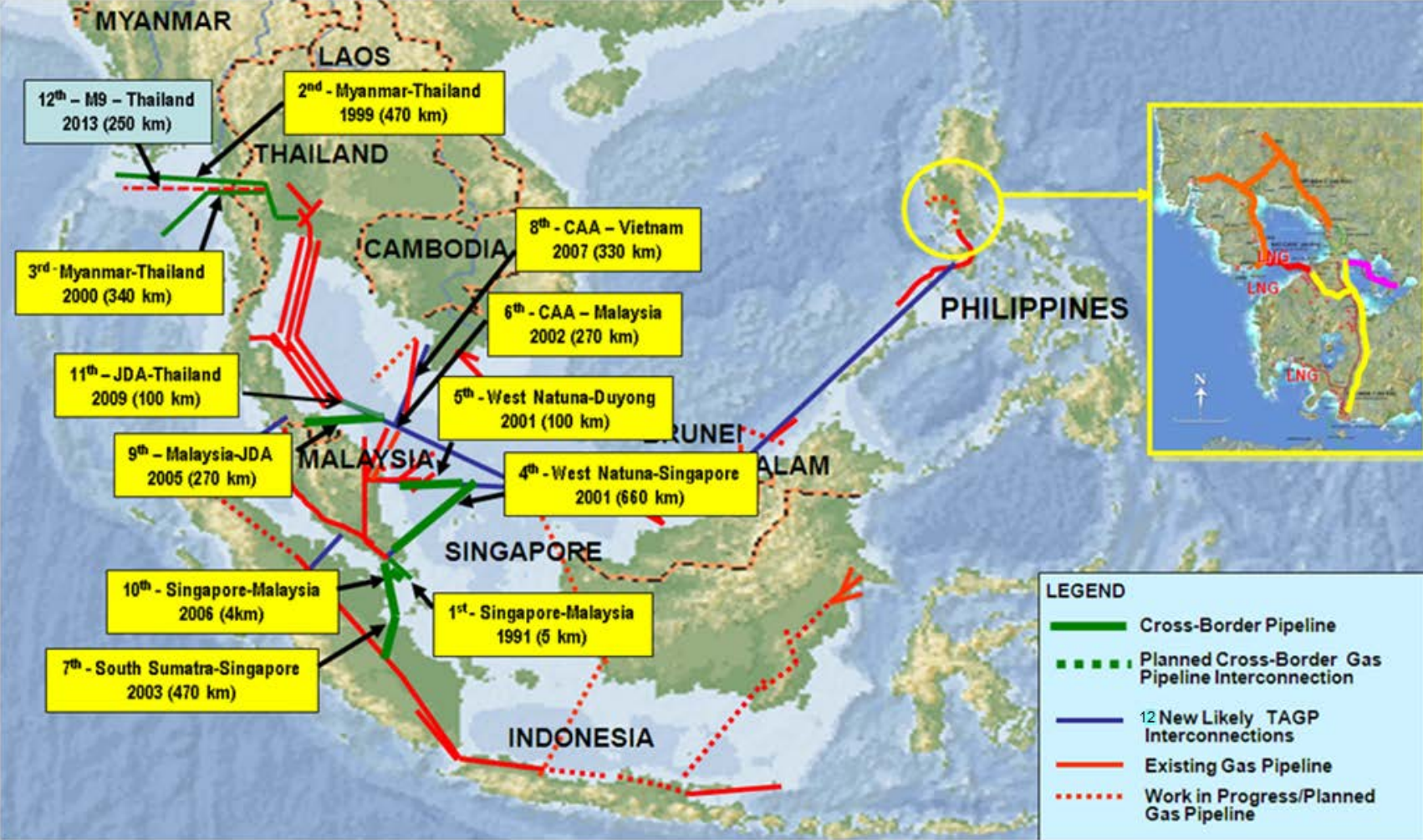
- Aim to improve openness and accountable management of revenues from natural resources
- Myanmar EITI Multi-Stakeholder Group (MEITI-MSG) was established in January 2014
- MEITI-MSG comprises 21 representatives of government, civil society and private sector. Chairman is Deputy Minister for Finance and deputy chair is deputy minister for energy
- Submitted application to the EITI Board in May 2014 to become an EITI Candidate Country
- Became an EITI candidate country in July 2014
- Need to produce first EITI Report by January 2016 latest
- MSG is now working to implement MEITI's 3 year workplan and prepare to produce first EITI report



# National and Regional Energy Security

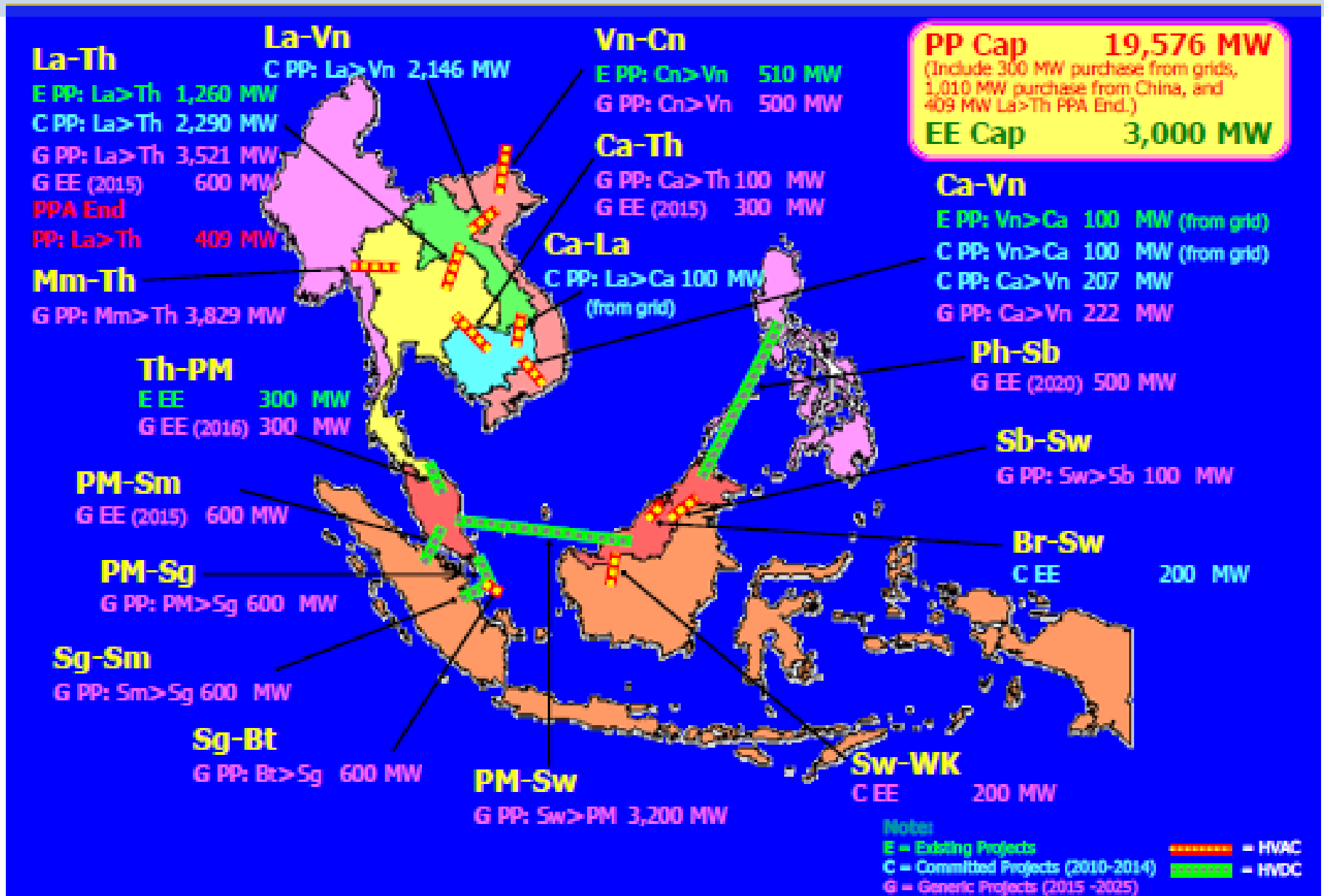
- Trans-ASEAN Gas Pipeline ( TAGP )
- ASEAN Power Grid ( APG )
- ASEAN Petroleum Security Agreement ( APSA )
- Oil Stockpiling Road Map ( OSRM )
- Energy Efficiency ( To reduce Energy Intensity by 8 % on 2005 level by 2015 )
- Renewable Energy ( To increase to 15 % share of electricity generation by 2015 )
- Regional Power Trading Agreement ( RPTA ) within GMS region

# Trans ASEAN Gas Pipeline



TRANS-ASEAN GAS PIPELINE PROJECT

# ASEAN Power Grid



# Conclusion

- Potential Energy Market to develop
- Challenges in terms of Institutional, Regulatory, Technical and Financial Matters
- Enabling the PPP Scheme
- Opportunities for Foreign Investment
- Enhancing National and Regional Energy Security

Q & A

Thank you for your attention

Contact : [report@tky.ieej.or.jp](mailto:report@tky.ieej.or.jp)