

The Republic of the Union of Myanmar

Ministry of Electricity and Energy



Current Status of Myanmar's Electricity Sector

Presented by

U Han Zaw

Deputy Director General

Outlines

- **National Energy Policy**
- **Organization Structure**
- **Existing Power Supply**
- **Energy Mix & Demand in Future**
- **Ongoing Power Supply Infrastructure**
- **Cooperation with Regional Countries**
- **Forward Mission**

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The Republic of the Union of Myanmar



INDIA

CHINA

BANGLADESH

MYANMAR

LAOS

BAY OF
BENGAL

THAILAND

CAMBODIA

VIETNAM

.Area

676581 square km

.Population

51.42 millions (as 2014 National census)

.Electricity Consumption

17036.6 mil kWh (2017-18)

.Per capita Consumption

333 kWh (2017-18)

.Electrification Status

43 %(2018 Oct)

National Energy Policy

- ❖ **To invite the local and foreign investments for the extraction and utilization of natural resources**
- ❖ **To adopt prioritized plans on Energy Efficiency and Conservation**
- ❖ **To define the energy pricing by observing the ASEAN and international energy pricing policy**
- ❖ **To formulate the energy standards and specifications**
- ❖ **To promote private sector participation or privatization**
- ❖ **To lay down the short term and long term**
- ❖ **To establish the regional cooperation for energy**
- ❖ **To establish Energy Database System**
- ❖ **To plan energy stockpiling for energy security**

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Organization Structure

Union Minister Office

Electricity

DEPP

Dept. of Electric Power Planning
(Policy and Planning)

DPTSC

Dept. of Electric Power Transmission
& System Control (Transmission &
System Control)

DHPI

Dept. of Hydropower Implementation (Hydro
Power)

ESE

Electricity Supply Enterprise
(Distribution)

EPGE

Electric Power Generation Enterprise
(Generation)

YESC

Yangon Electricity Supply Corporation

MESC

Mandalay Electricity Supply Corporation

Energy

OGPD

Oil and Gas Planning Department
(Policy and Planning)

MOGE

Myanmar Oil and Gas Enterprise
(E&P, Drilling, Production, Onshore
Pipeline Construction & CNG)

MPE

Myanmar Petrochemical Enterprise
(Refineries, Fertilizers & LPG)

MPPE

Myanmar Petroleum Products
Enterprise (Marketing)

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Existing Power Supply



Resource - Hydro
57.7%



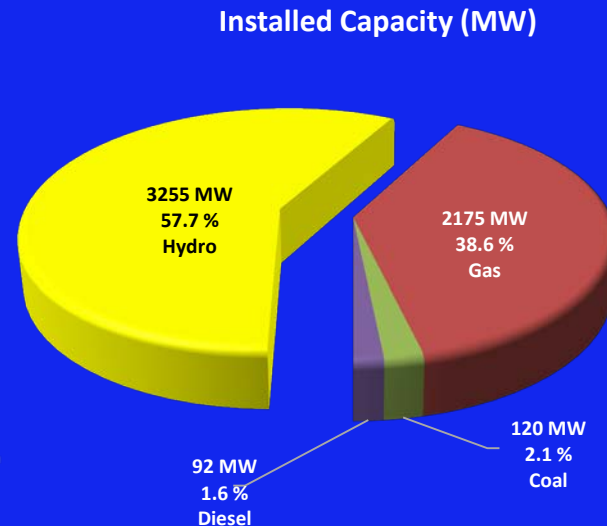
Resource - Coal
2.1%



Resource - Diesel
1.6%



38.6%
Resource - Gas

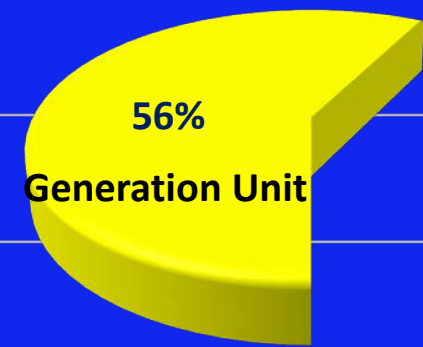


Total Installed Capacity = 5642 MW

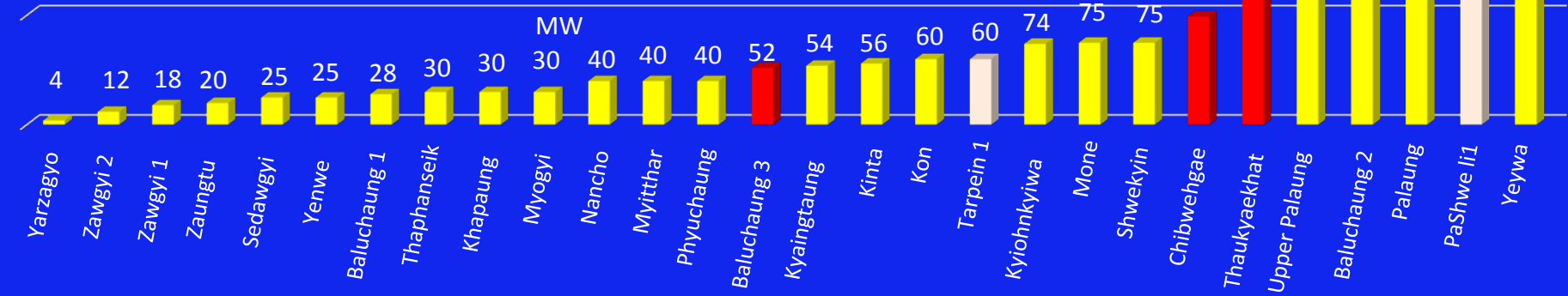
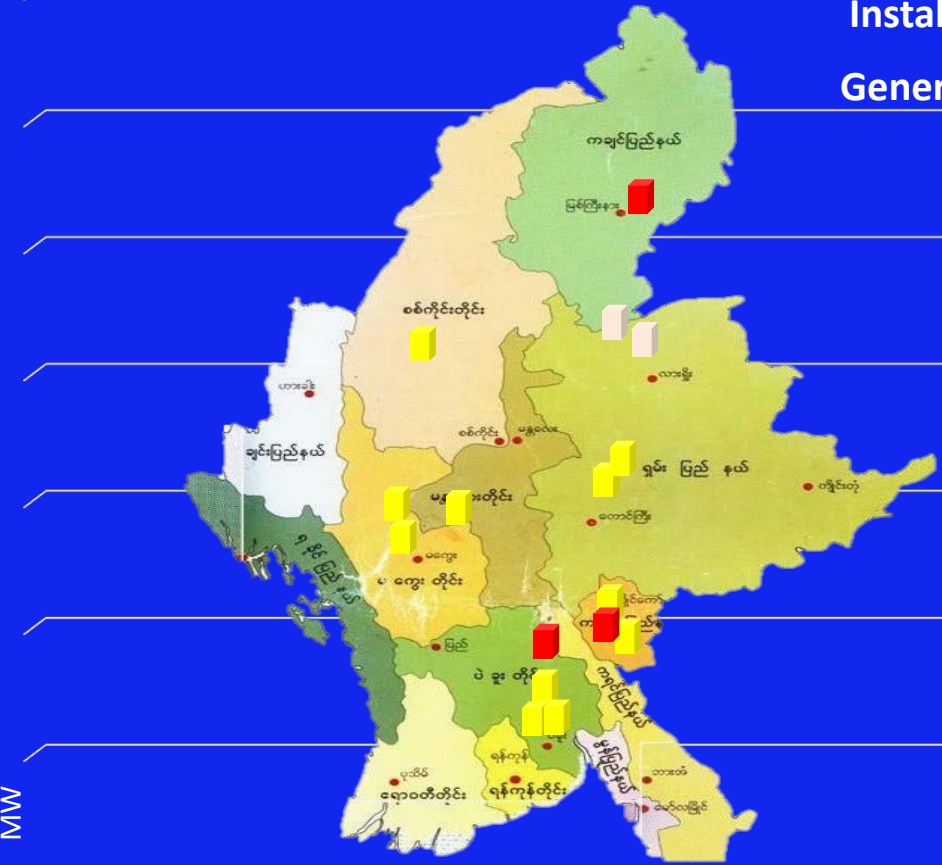
Existing Power Supply

Hydropower Generation

Installed Capacity 3255 (MW)
 Generation Unit (FY2017-18) 11190 (GWh)



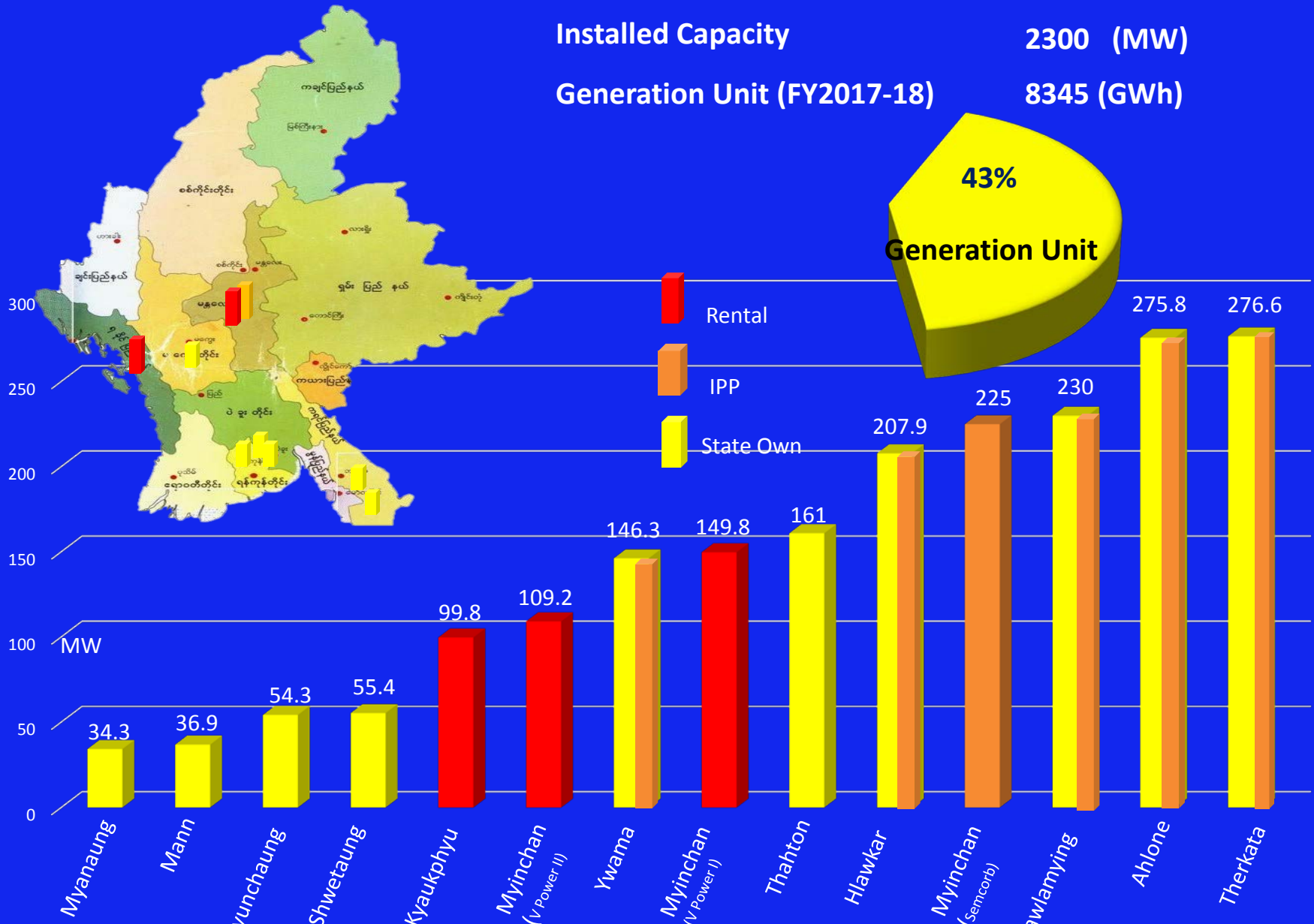
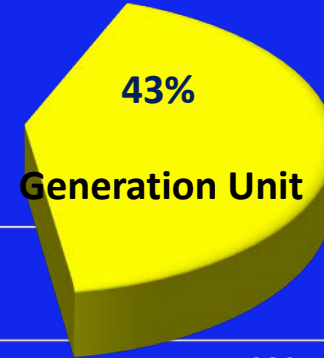
- State Own (22)
- JV/BOT (3)
- BOT (2)



Existing Power Supply

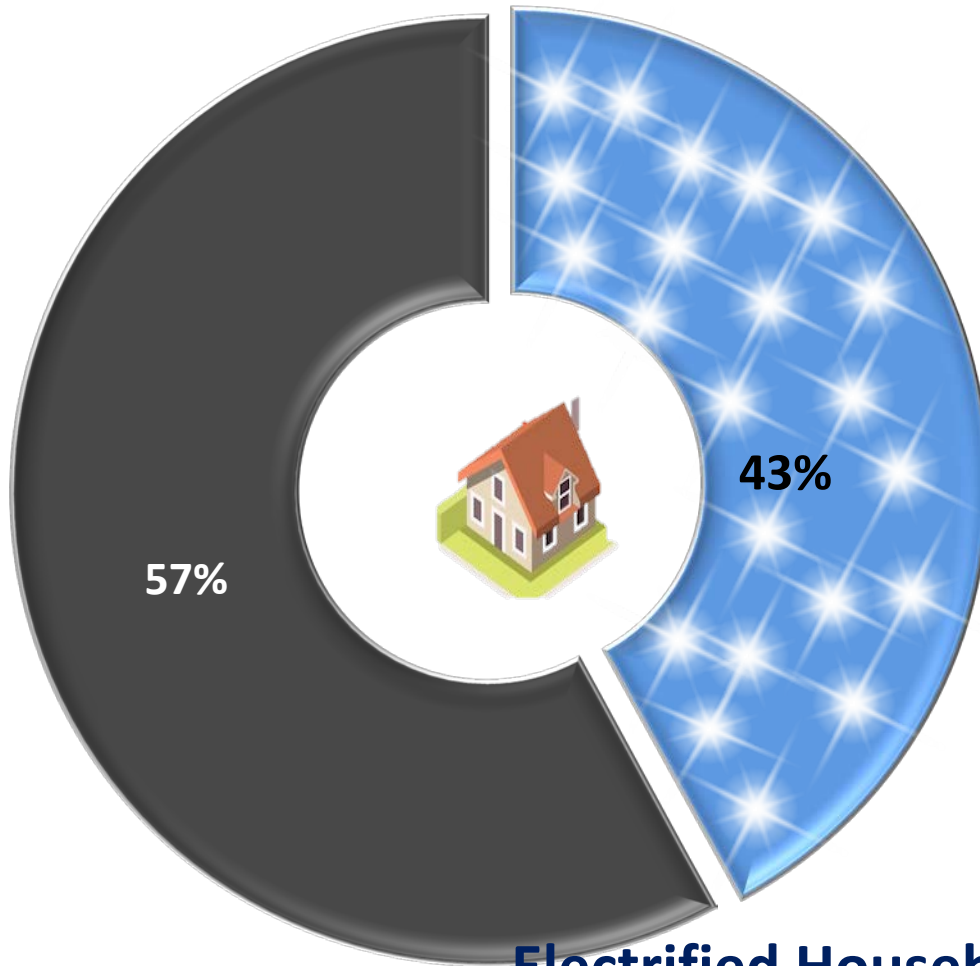
Thermal Power Generation (CCPP)

Installed Capacity 2300 (MW)
 Generation Unit (FY2017-18) 8345 (GWh)



National Electrification Ratio

Electrification Ratio



Electrified Households (43%) = 4.67 Millions

Remaining Households (57%) = 6.21 Millions

National Electrification Plan

- **100% Household Electrification in 2030**
- **The number of Household Connection required - 6.21 Millions**
- **Ways of Connection**

(A)National Grid (99%)

Within 2 Miles (Phase 1)

Within 2 - 5 Miles (Phase 2)

(B)Mini-grid (1%)(Department of Rural Development)

Mini-grid ☐ Solar Home

(C)Pre-electrifications

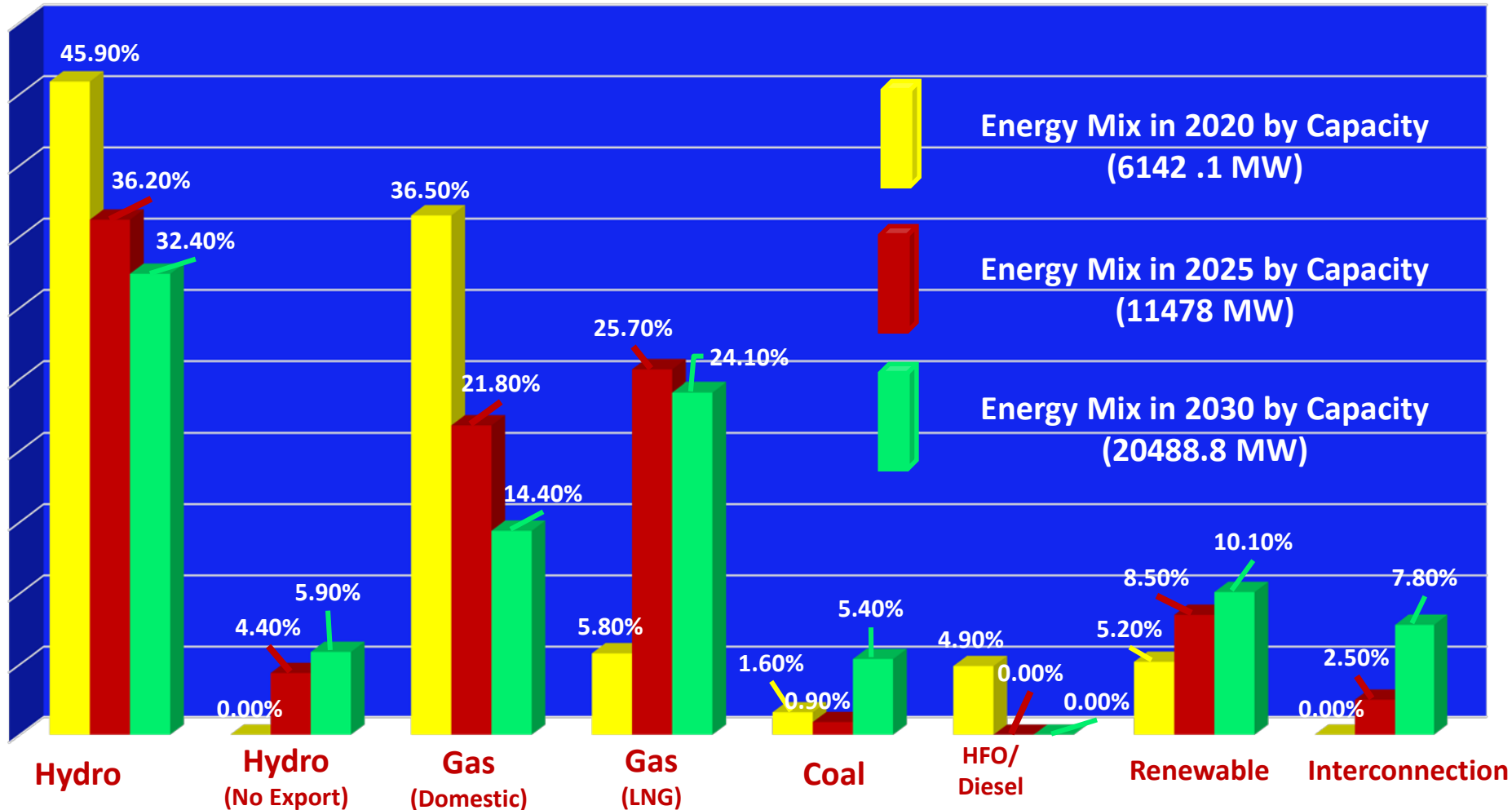
Solar Home, Mini hydro, Wind, Diesel,

Hybrid (Diesel + Solar, etc.)

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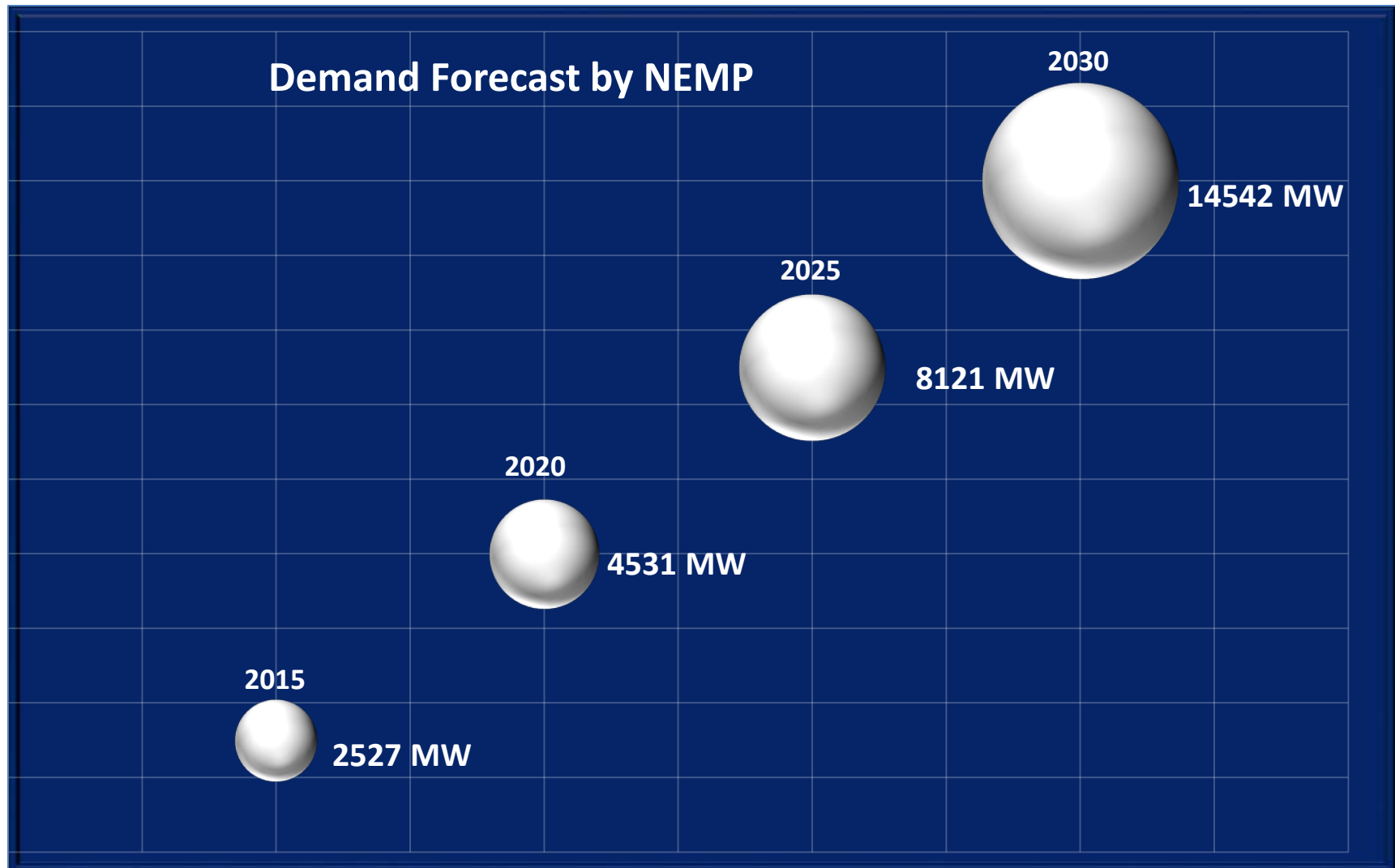
Energy Mix in 2030 by Capacity



- Ongoing gas power projects are developed in short term. Emergency temporary units may be necessary until 2020.
- LNG ,GTCC and new hydropower will be started to be introduced from 2021.
- International connection will be started from 2025.
- Additional GTCC and coal power plants will be utilized from 2026.

Demand in Future & Power Supply Scenarios

Forecasting increased consumption rate by 2030

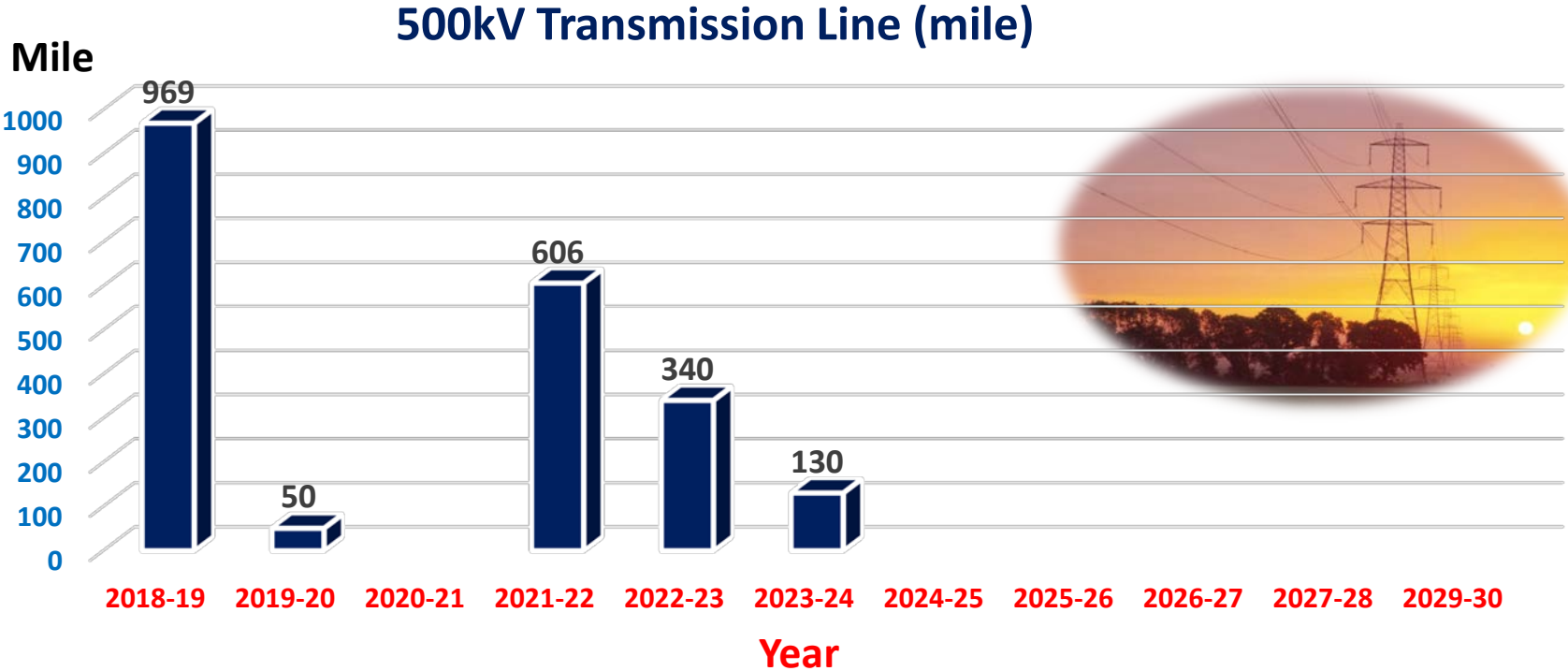


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Ongoing Power Supply Infrastructure

Ongoing Transmission Network



Total Number of lines = 11 Nos

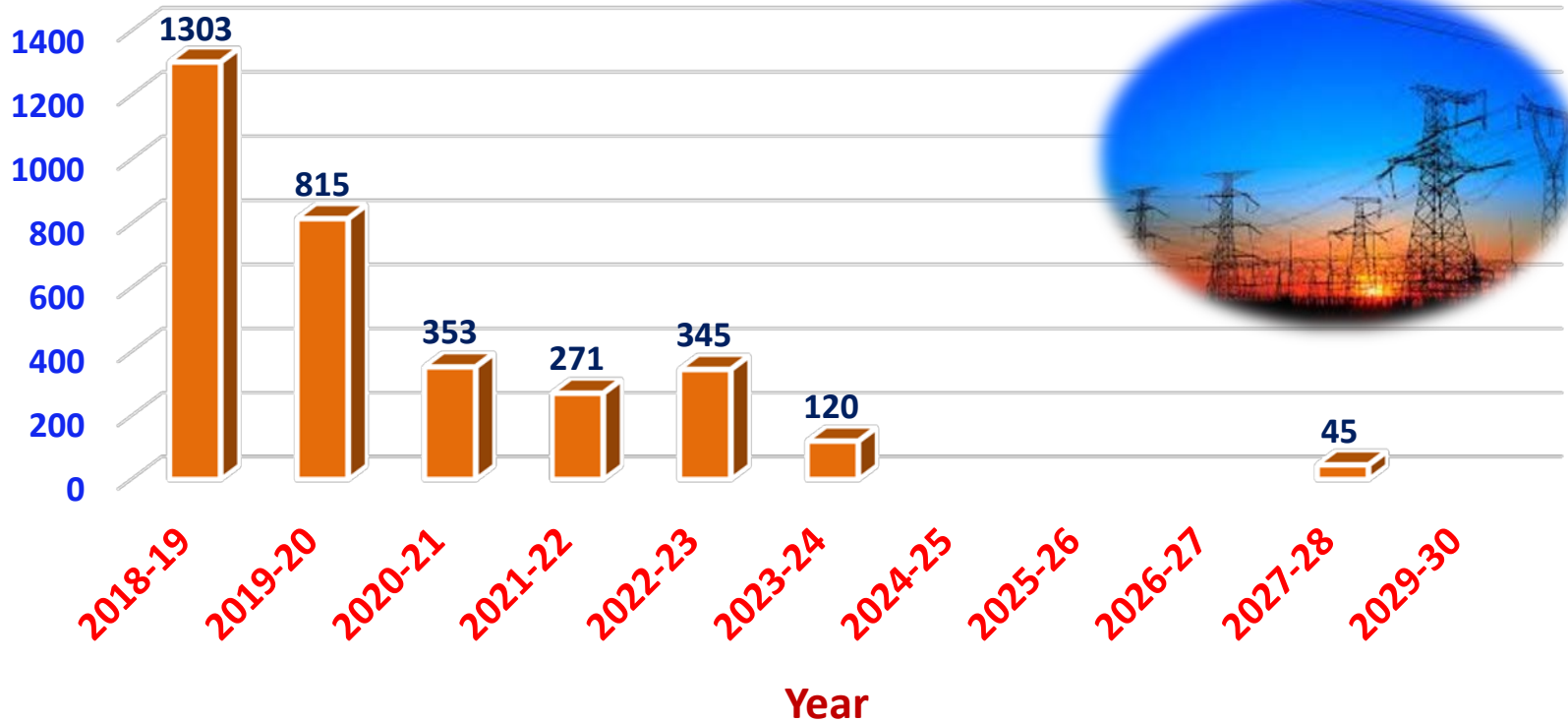
Total line miles = 2095 miles

Ongoing Power Supply Infrastructure

Ongoing Transmission Network

230kV Transmission Line (mile)

Mile

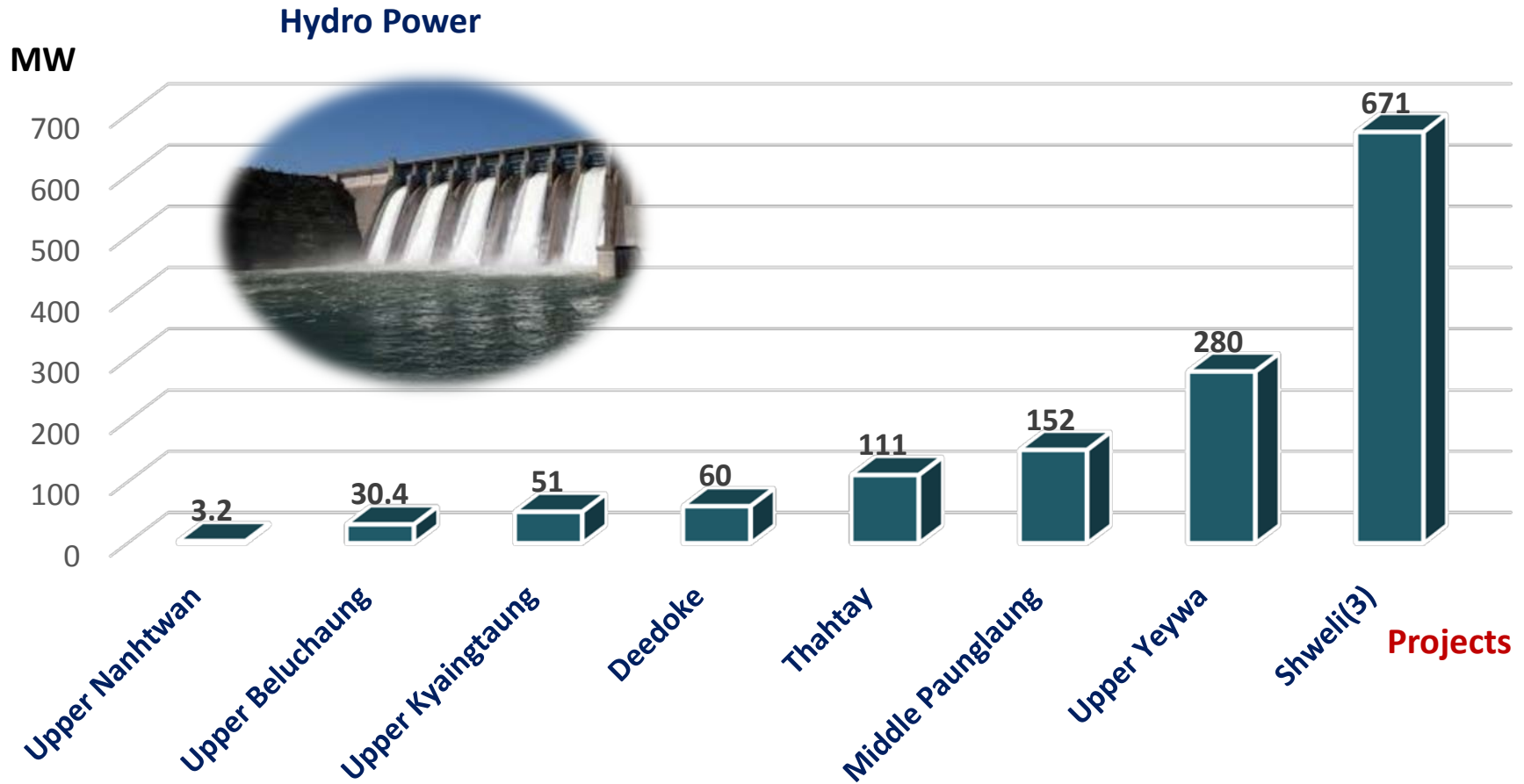


Total Number of lines = 55 Nos

Total line miles = 3207 miles

Ongoing Power Supply Infrastructure

Ongoing Generation Projects



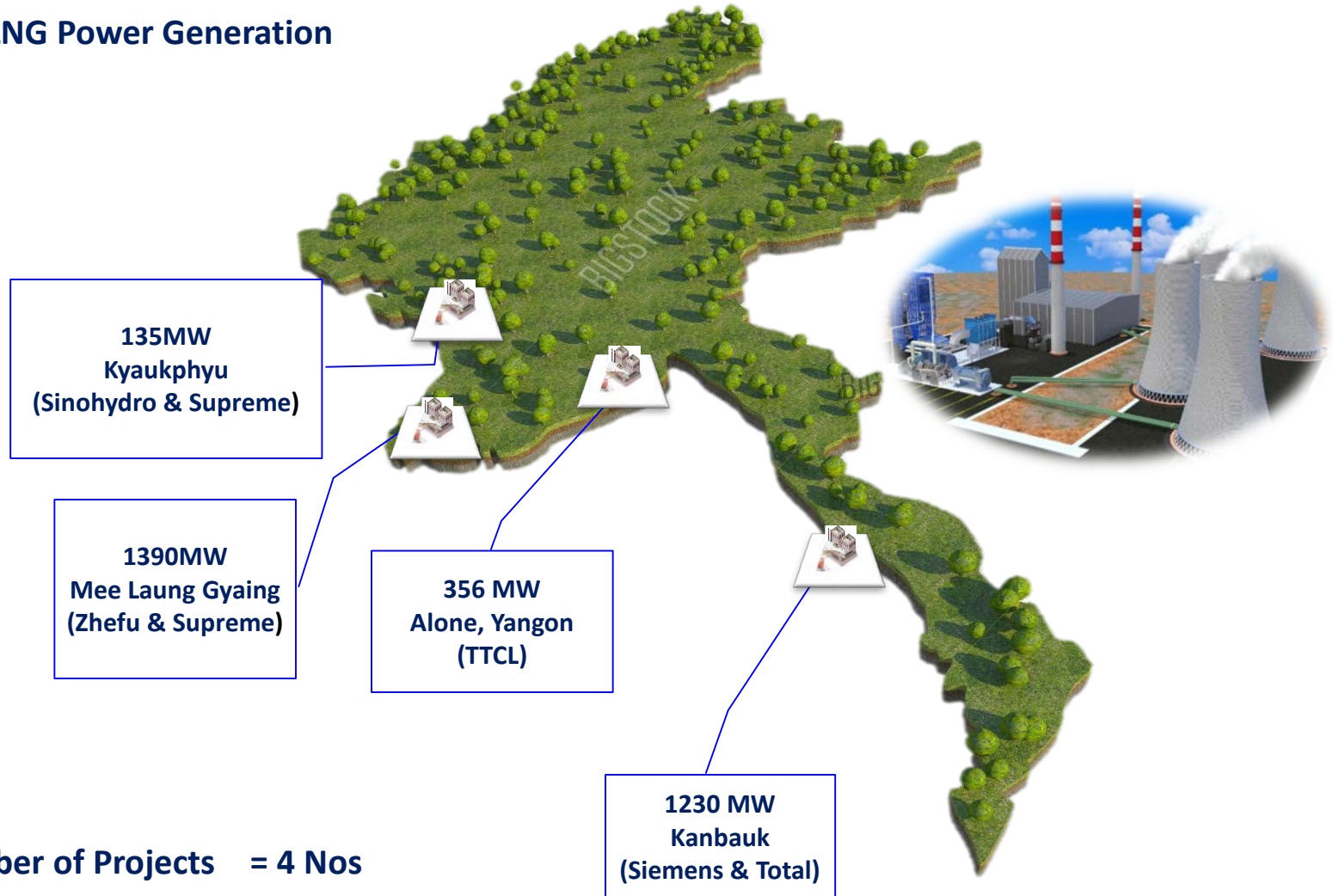
Total Number of Projects = 8 Nos

Total Capacity = 1359 MW

Ongoing Power Supply Infrastructure

Thermal Power Projects

Gas & LNG Power Generation



Total Number of Projects = 4 Nos

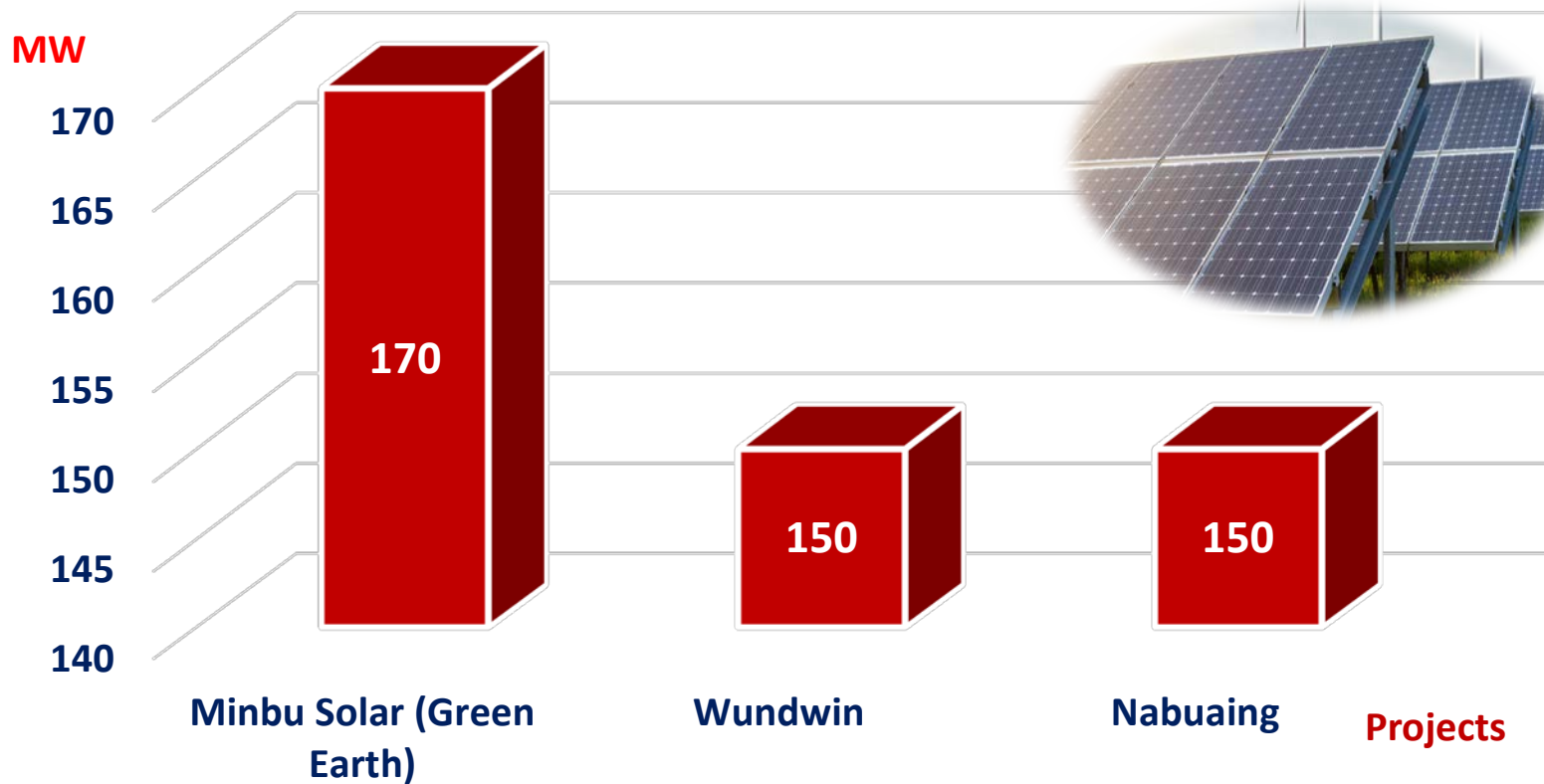
Total Capacity = 3111 MW

Ongoing Power Supply Infrastructure

Ongoing Generation Projects

Solar Power Generation

Installed Capacity (MW)



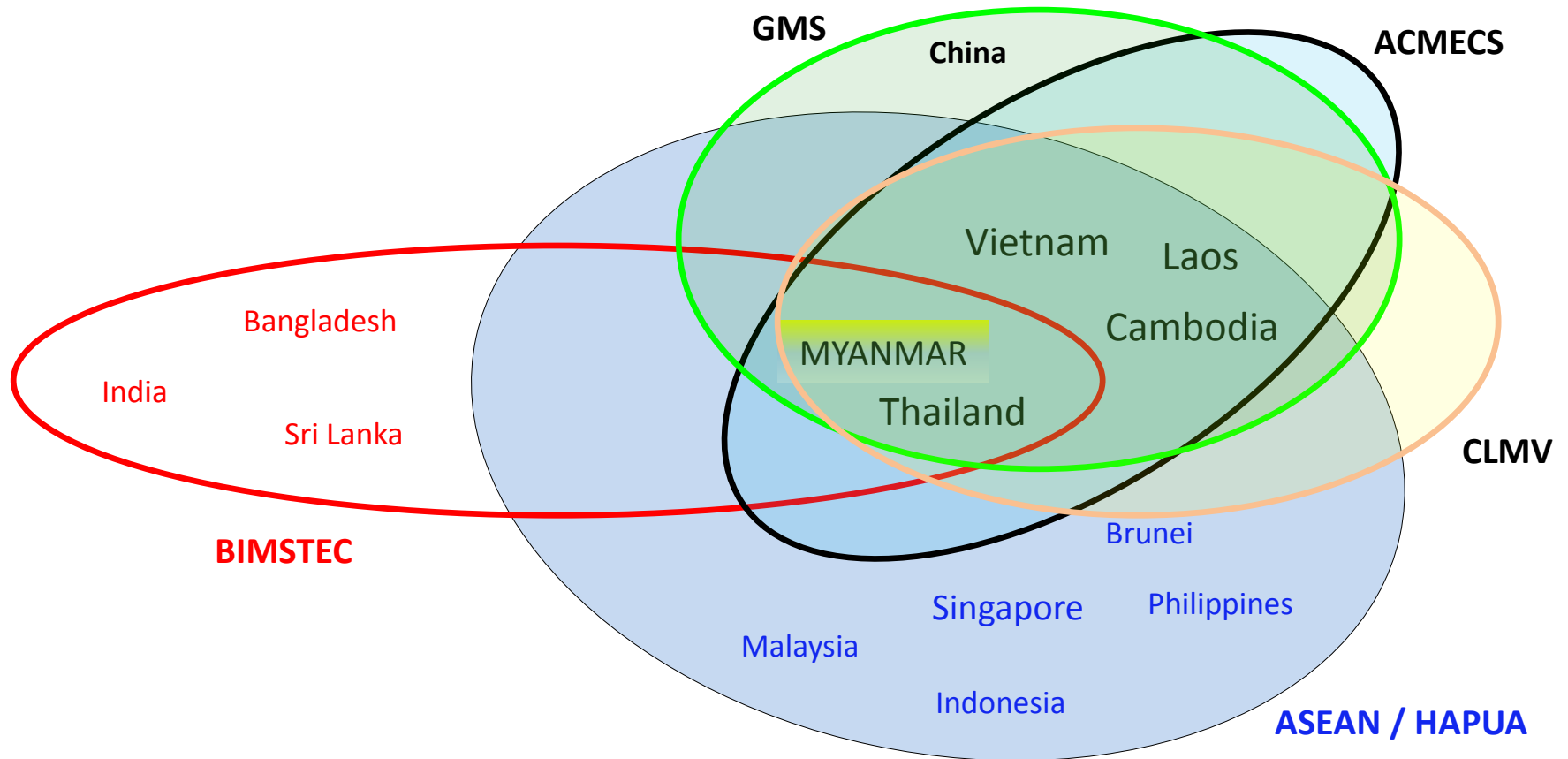
Total Number of Projects = 3 Nos

Total Capacity = 470 MW

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Cooperation with Regional Countries



BIMSTEC : Bay of Bengal Initiative for Multi Sectorial Technical and Economic Cooperation

GMS : Greater Mekong Sub-region

ACMECS : Ayeyarwady-Chao Phraya-Mekong Economic Cooperation Strategy

ASEAN : Association of South East Asia Nations \

HAPUA : Head of ASEAN Power Utilities / Authorities

CLMV : Cambodia, Laos, Myanmar and Vietnam

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Forward Mission

(A) Generation

- In 2021-2022, Demand will be additional 3000 MW. For Demand 3000 MW , LNG to Power should be implemented in short term plan,.
- To have Proper Generation Mix , Master Plan has being done based on Hydro, Gas, Coal and Renewable Energy. .

(B) Transmission

- 500 kV Transmission line Network has being implemented.
- Implementation of 230 kV, 500 kV Transmission (N-1 Criteria)

(C) Distribution

- To increase kWhr /Capita & Electrification Ratio (ER)
- To electrify remote & rural area
(NEP Plan by National Budget, World Bank JICA ☐ ADB ☐ KFW)
- To increase Electricity consumption with Decentralization System .
(By Grid or Hydro , Solar , Wind and other small resources in State and Region)

THANK YOU