

**The Republic of the Union of Myanmar**  
**Ministry of Electricity and Energy**



**Current Energy Situation and Development**

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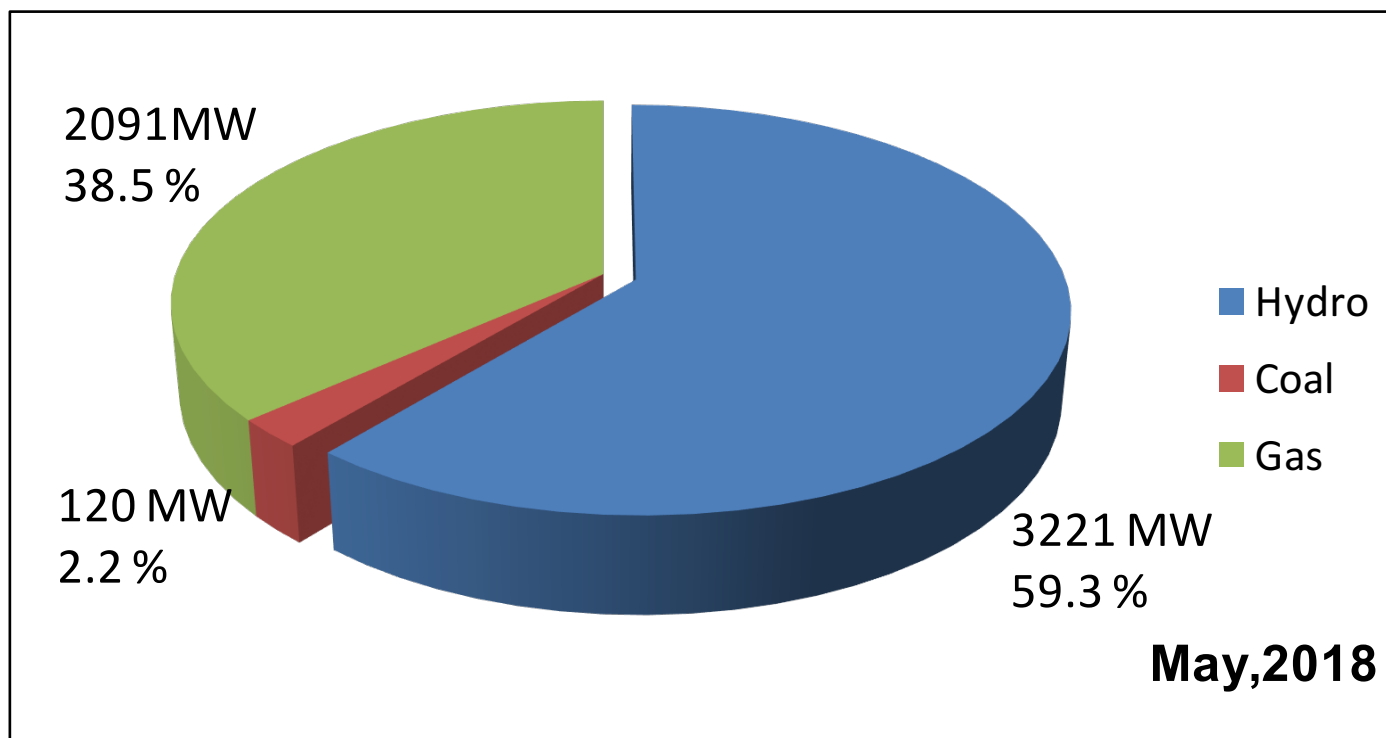
# Availabilities of Energy Resources in Myanmar

<b>Particular</b>	<b>Potential</b>
<b>Crude Oil (offshore &amp; On-shore)(Proven +Probable)</b>	<b>648.59 MMBBL</b>
<b>Natural Gas (offshore &amp; On-shore)(Proven +Probable)</b>	<b>122.5391 TSCF</b>
<b>Coal</b>	<b>711 Million Metric Tons</b>
<b>Hydropower</b>	<b>108,000 MW</b>
<b>Biomass</b>	<b>1.52.5% of total land area covered with forest. 2.Potential available annual yield of wood-fuel 19.12 million cubic ton.</b>
<b>Wind</b>	<b>365.1TWH per year</b>
<b>Solar Power</b>	<b>51973.8 TWH per year</b>

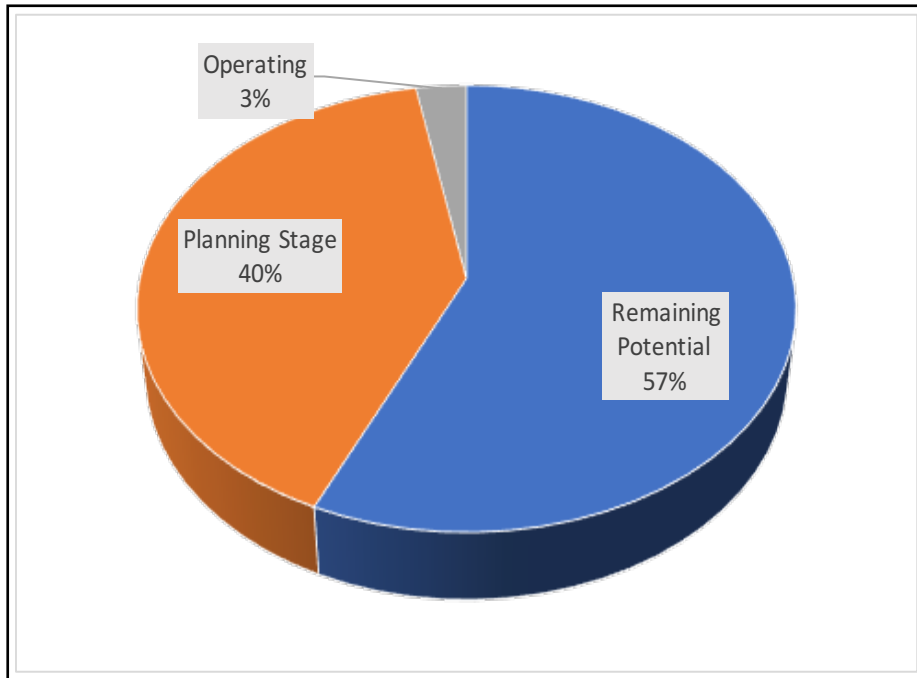
# Existing Myanmar Electricity Generation Mix

Types of Power Plants	No. of Stations	Installed Capacity (MW)
Hydropower Plants	27	3221
Coal-fired Thermal Plants	1	120
Gas Turbine	28	2091
Installed capacity connected to Grid		<b>5432 MW</b>
Small Hydro (Off Grid)	33	33.3 MW
Diesel (Off Grid)		101 MW

**Total 5566.3 MW**



# Development of Renewable Energy (Hydropower)



<b>Existing Potential</b>	<b>108000.00 MW</b>
Operating	3221.00 MW
Investigation and Planning	42204.60 MW



# Development of Renewable Energy(Solar)

## Large Scale Solar Projects

Nabuaing Solar Project (150MW)

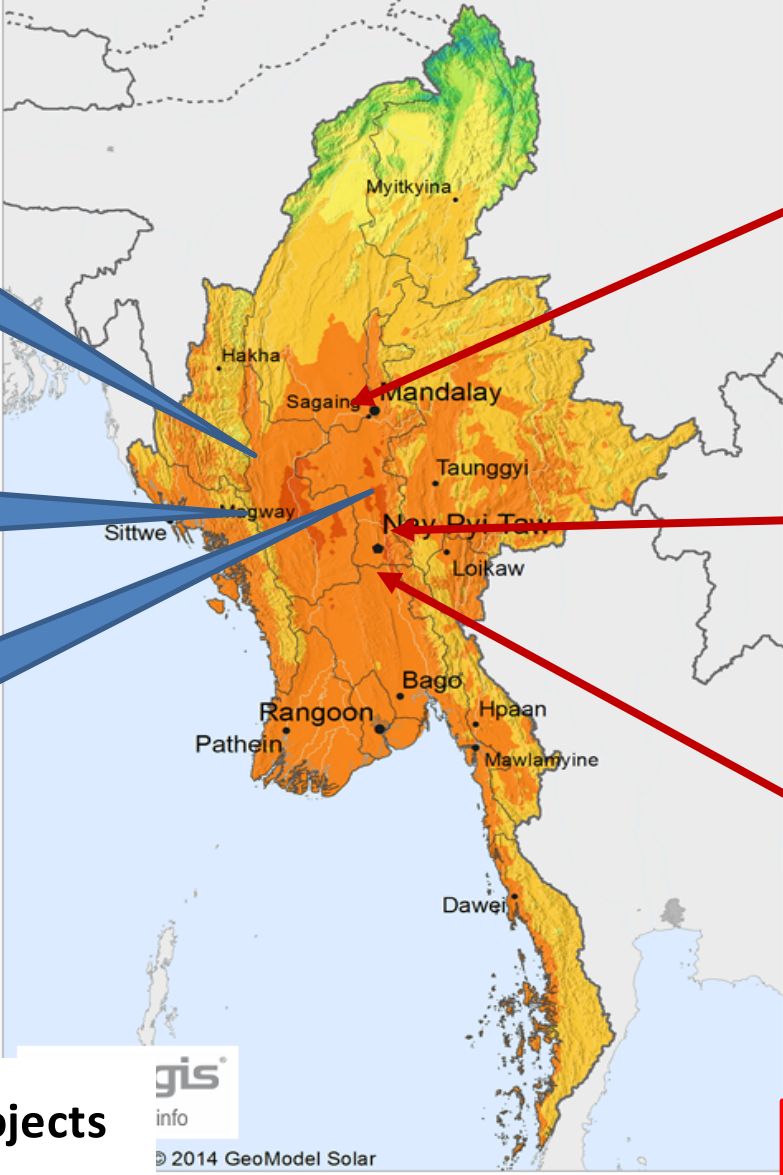
Minbu Solar Project (170MW)

Wundwin Solar Project (150MW)

Sagaing, Mandalay 880 MW

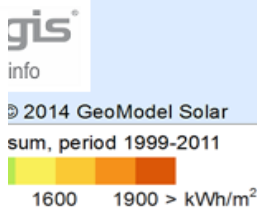
Shwemyo 10 MW

Thapyaysan 100 MW

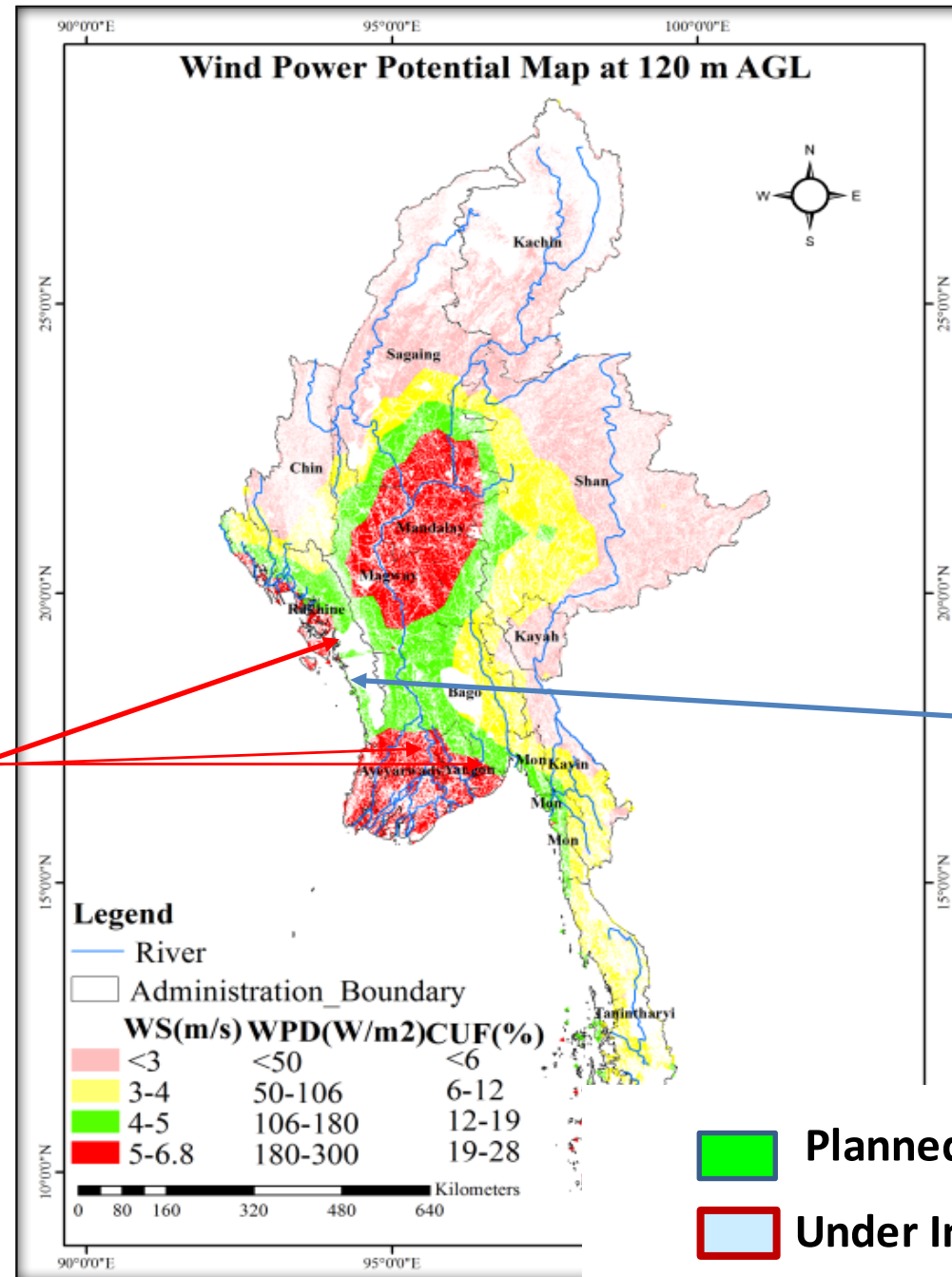


- Planned & On Going Projects
- Under Investigation

**Solar Total: 1460 MW**



# Development of Renewable Energy(Wind)



Rakhine, Ayeyarwaddy, Yangon  
830 MW

**Wind Total: 860 MW**

Chaung Thar  
30 MW

**Planned & On Going Projects**

**Under Investigation**

# Policies and Plans

## Master Plan

- Myanmar Energy Master Plan (ADB + MOE(NEMC)).
- National Electricity Master Plan (JICA+MOEE) (Currently under updating)

## National Electrification Plan

- Approved on November 2015 (WB + MOEE).
- To electrify the whole country in 2030-31
- Implement solar home(500000 HH)and mini grid(35000HH) up to 2020-2021

## Policies for Power Sector

- To utilize the available energy resources in power generation to meet our demand
- To generate power using Renewable Energy(solar,wind) for ensuring the stability and reliability of power system and lowering the cost of generation
- To encourage Private-participation in power generation and distribution

## Strategic Environmental Assessment(SEA)

- SEA for Hydropower Sector ( MOEE+MONREC+ IFC)
- SEA for Power Sector (MOEE+ JICA)

## International Solar Alliance (ISA)

- India and France invite to sign ISA
- Will joint near future



# National Electricity Master Plan (Previous Version)

conducted by the assistance of JICA

## Target

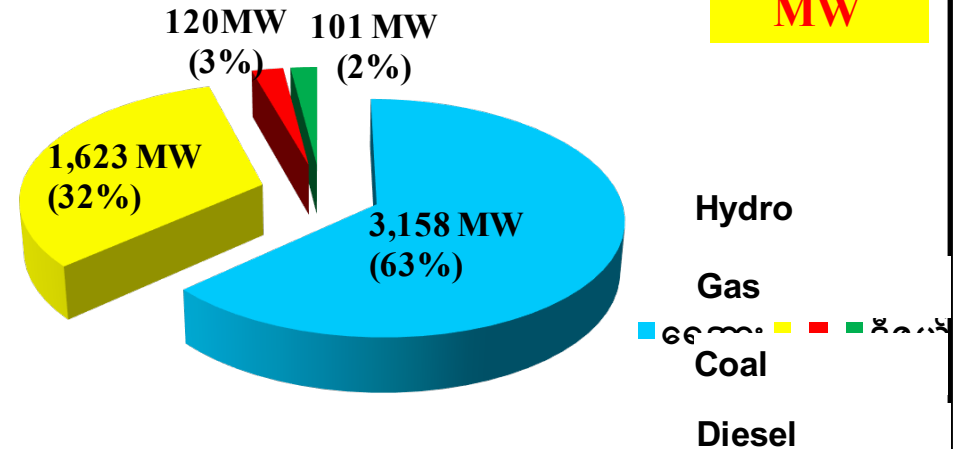
50% to be Electrified in 2020

75% to be Electrified in 2025

100% to be Electrified in 2030

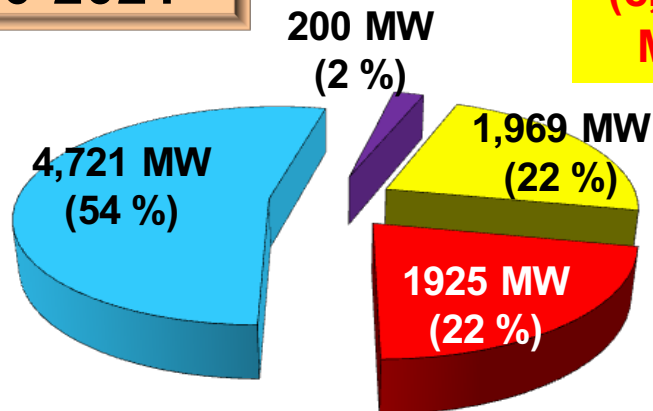
2015-2016

(5029)  
MW



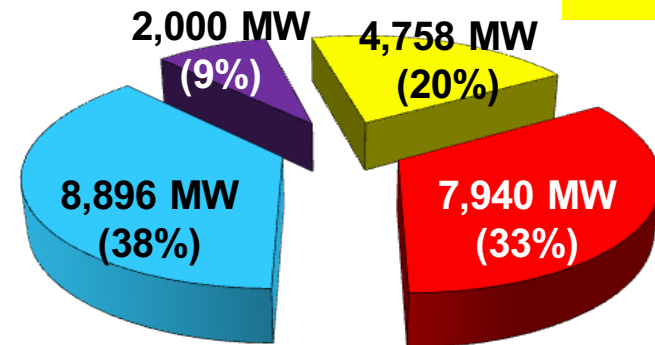
2020-2021

(8,815)  
MW



2030-2031

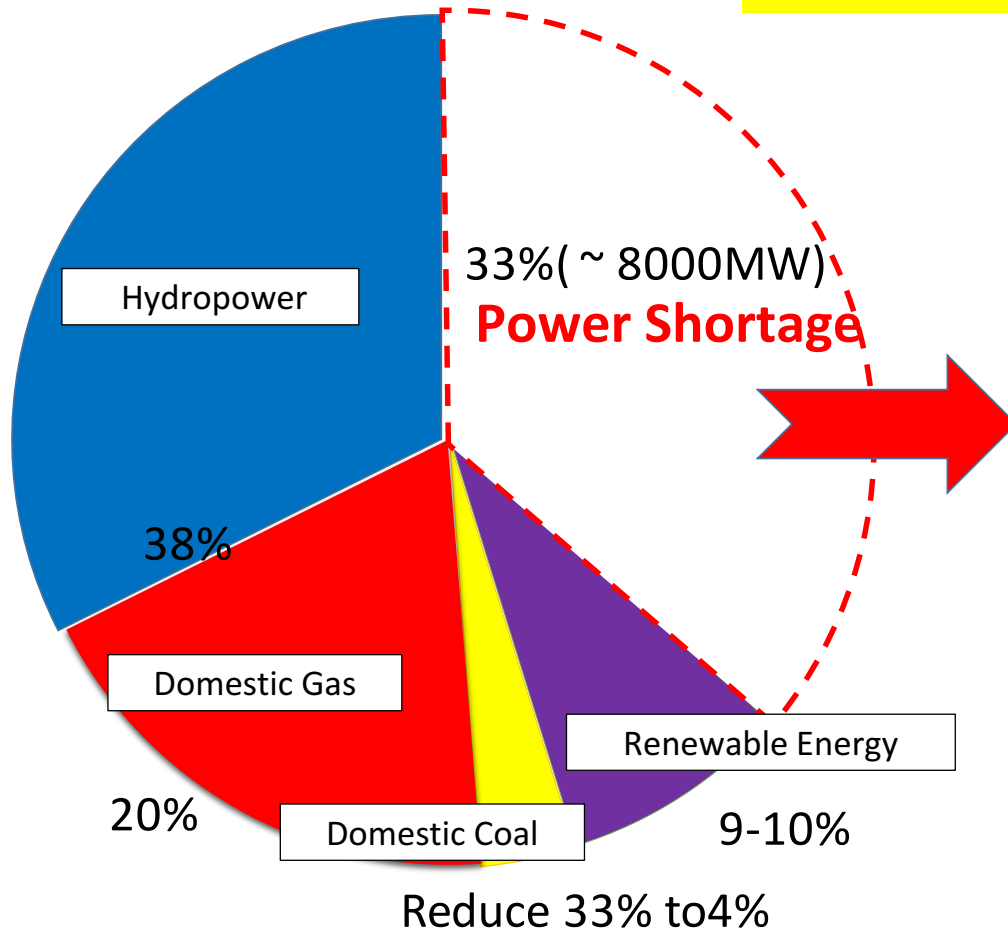
(23,594)  
MW



MOEE and JICA are reviewing on NEMP to be inline with current situation.

# Generation Mix and RE

Power Demand in 2030 (23,594) MW



To achieve System stable and Secure energy

Which resources should be filled or suitable?  
Can RE generate to Full fill Power shortage?  
If can, Is Power System stable?  
If not, may it need realistic Generation Mix?  
Do Import Power from neighbouring Country?

## Legal Framework

- Electricity Regulatory Authority (ERA) was not founded.
- Tariff Regulation was not established yet.
- Renewable Energy Policy was not established yet.
- Feed-in-Tariff ?

## Tariff

- Government Subsidize
- Difficult to Increase Tariff
- Tariff proposed could be high comparing to the current tariff.

## Technical

- Intermittent condition
- Myanmar National Grid System is not strong
- Prior to solve to put into grid
- Need new Based Load Power Stations and T/L & S/S.



# THANK YOU For Your Attention

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