IEEJ: July 2013

THE REPUBLIC OF THE UNION OF MYANMAR

MINISTRY OF ENERGY

rresentation for IEEJ about OIL AND GAS SECTOR IN MYANMAR

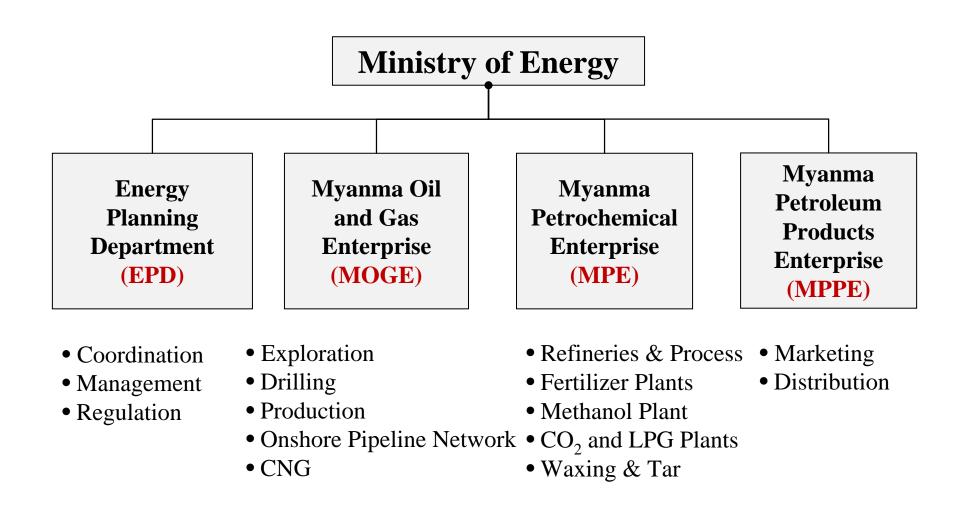
Wah Wah Thaung
Executive Officer
Myanma Oil and Gas Enterprise

The Republic of the Union of Myanmar BHUTAN INDIA BANGLADESH CHINA Mandalay Kerigtung **MYANMAR** THAILAND

Myanmar in Brief

- Myanmar is the second largest nation in South-East Asia
- Total area is 676,577 square kilometers
- Coastal strip is 2832 kilometers
- Population is about 60 million

Organization Setup of Ministry of Energy



Energy policy drawing and way forward to draw energy policy henceforth

Energy policy drawing is prioritized by the Ministry of Energy these days. We had 4 facts of energy policy already laid down <u>previously</u> as followed:-

- To maintain the status of energy independence,
- To save nonrenewable energy for future energy sufficiency of our nation.
- To promote efficient utilization of energy and impress on energy conservation and
- To prevent deforestation caused by excessive use of fuel wood and charcoal

Nowadays, those policy matters are less relevant to current energy industry situation, hence we draw the newly laid down policy by 7 facts as follows:-

- To fulfill Domestic Energy Requirement as Priority
- To implement the Status of Sustainable Energy Development
- To promote wider use of new and renewable sources of energy
- To promote energy efficiency and conservation
- To promote use of alternative fuels in household
- To implement effective utilization of discovered crude oil and natural gas resources in the Interest of the Entire Nation including the Regions where the discovery was made.
- To promote more private participation in energy sector.

Actually, the Energy Policy making is still in contemplation for revision to match for more competence.

Therefore, now we are formulating new and concrete energy policy to cover all energy sector in Myanmar.

Energy saving, giving prior to domestic supply and supporting electrification to whole country are our dreams.

My opinion is that our new energy policy should include these facts and also (1) Energy security policy.

- (2) Alternative energy policy.
- (3) Stable energy prices policy.
- (4) Energy conversation and efficiency policy.
- (5) environment protection policy.
- (6) Investment Policy.
- (7) Energy Sector Management Policy

Should be included.

Current Demand and Supply condition

Onshore Oil production is 7500 BOPD and Offshore Condensate Production is 10,000 BOPD.

Natural Gas Production (MMCFD)

Onshore - 65

Offshore- 900 (Yadana) + 460 (Yetagun export)

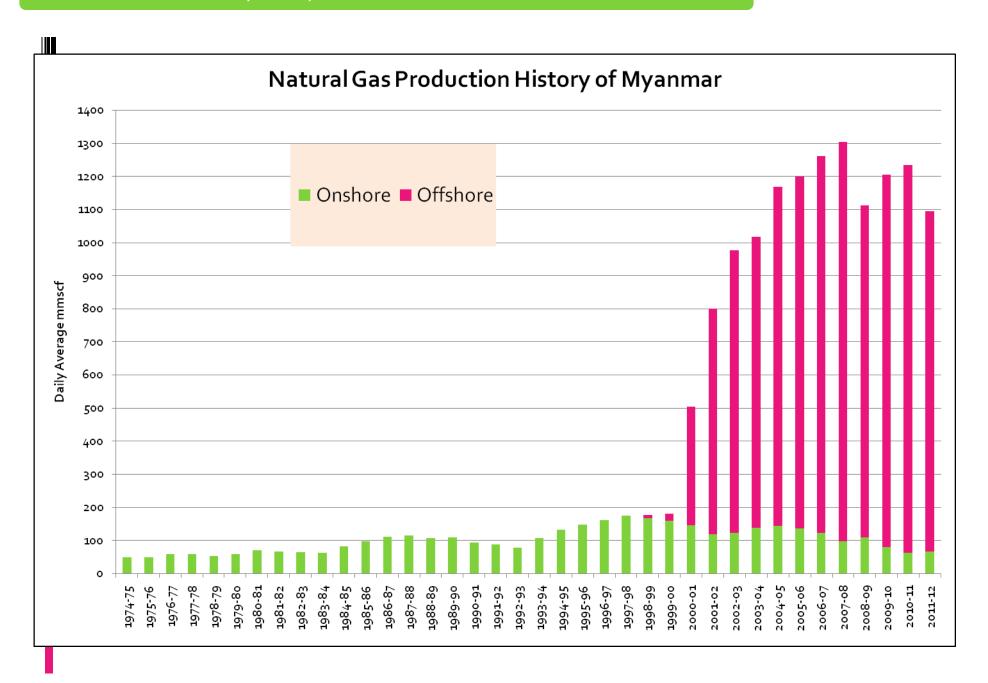
700 (export)

200 (domestic supply)

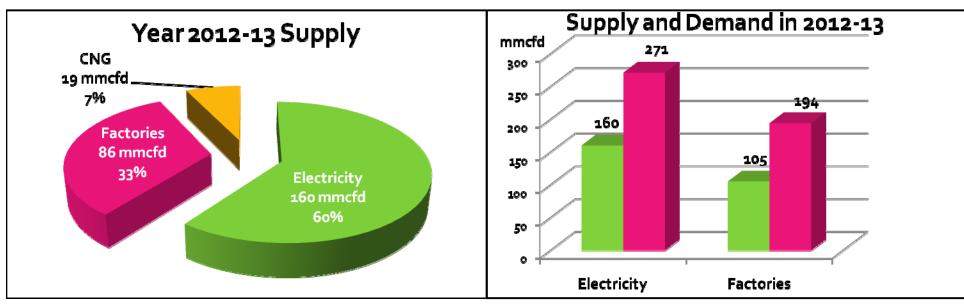
TOTAL DOMESTIC SUPPLY = 265

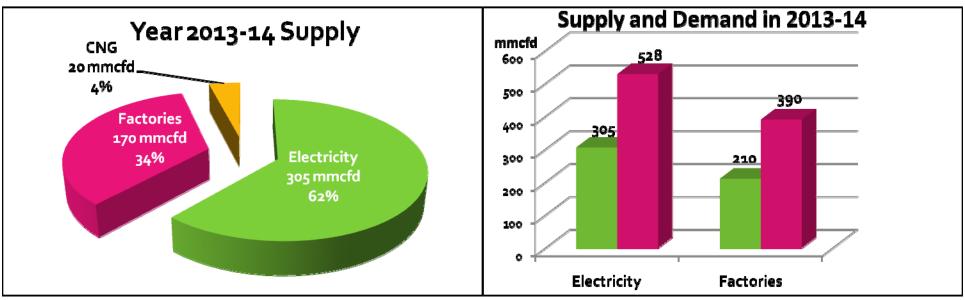
TOTAL EXPORT = 1160

Gas Production History of Myannmar



Supply and Demand





Supply Status I

ELECTRIC SECTOR

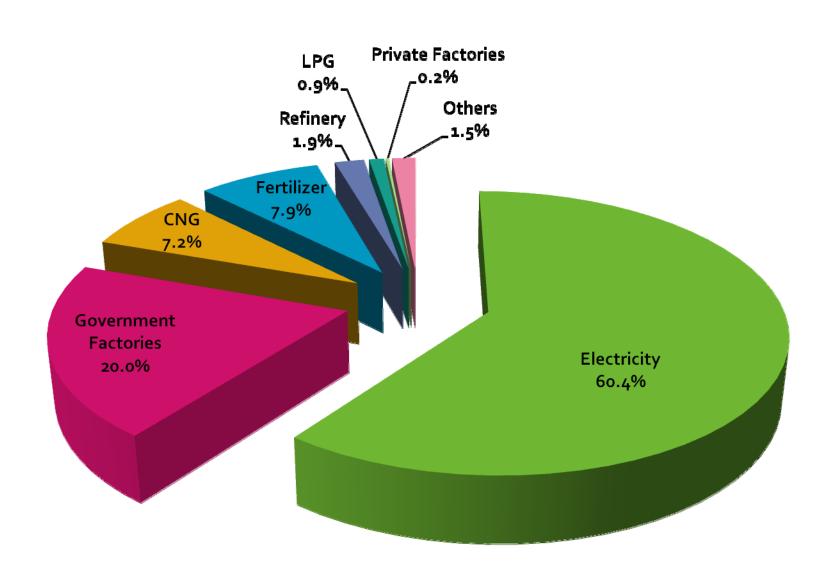
- Currently 160 MMCFD out of 265 MMCFD for Domestic is used for electricity Sector.
- In Coming 2 month, Electrification sector needs (260 MMCF) per day
- Todays and in this fiscal year MOGE can supply (160 MMCF) per day
- Next year Electric sector will need 652 MMCFD but MOGE can supply only 305 MMCFD which is less than half of demand (one of our challenges)

Supply Status II

INDUSTRIAL SECTOR

- 105 MMCFD out of 265 MMCFD is for Industries presently.
- In coming year, industrial sector will need triple the amount, is over 310 MMCFD.
- According to MOGE's planned schedule, we can supply 210 next year which is 2/3 of the demand.

Sectorwise Supply in 2012



Some difficulties of Energy Sector in Myanmar

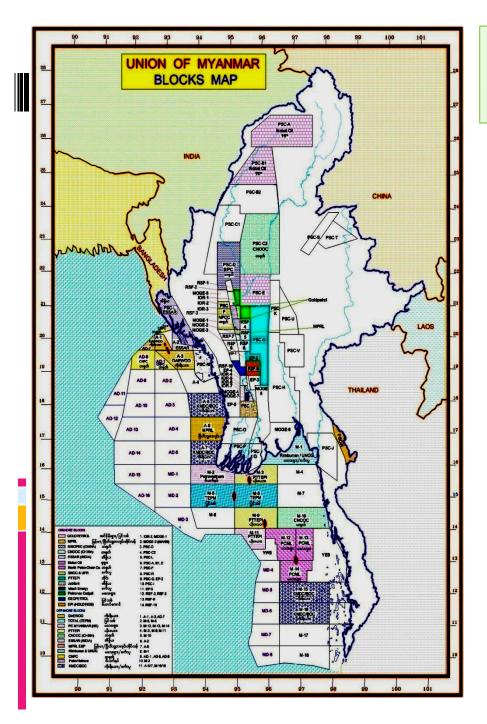
Insufficient power supply to the country

Power Generation Plant

- (20) Hydro Power Generation Plants
- (10) Gas Turbine Power Generation Plants
- (1) Power Plant using coal as raw

Requirement

- More modernized infrastructure
- More extracting technology
- More Investment
- Clean Development Mechanism
- Environmental conservation and
- Preservation of ecology
- Prevention of deforestation ***
- Precise Statistics

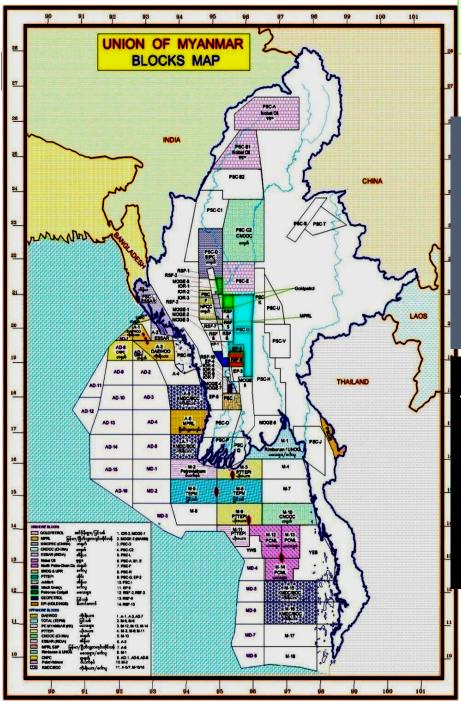


Demarcated Blocks for Production Sharing Basis

- Onshore Blocks 53 blocks
- Offshore Blocks 51 blocks
- Total 104 blocks for Onshore and offshore

Type of Contract

Mainly Production Sharing Contract (PSC)



Current Activities

Onshore Blocks

Currently,17 Blocks are under operating by

12 companies in onshore area.

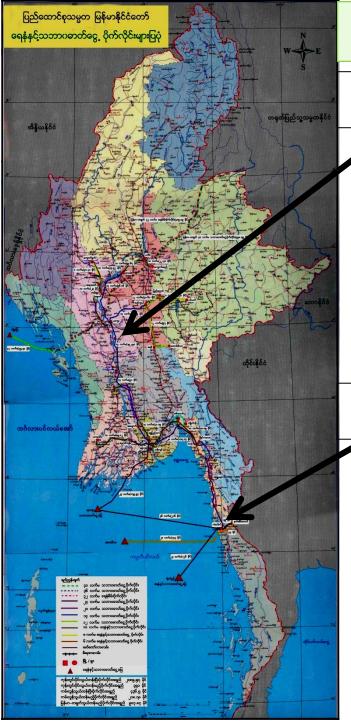
1st bidding round was completed in 2011 and

2nd bidding round was launched on 17.1.2013.

Offshore Blocks

Currently, 20 Blocks are under operating by 9 companies in offshore area.

Offshore bidding round will be launched in very near future.



Pipeline Network

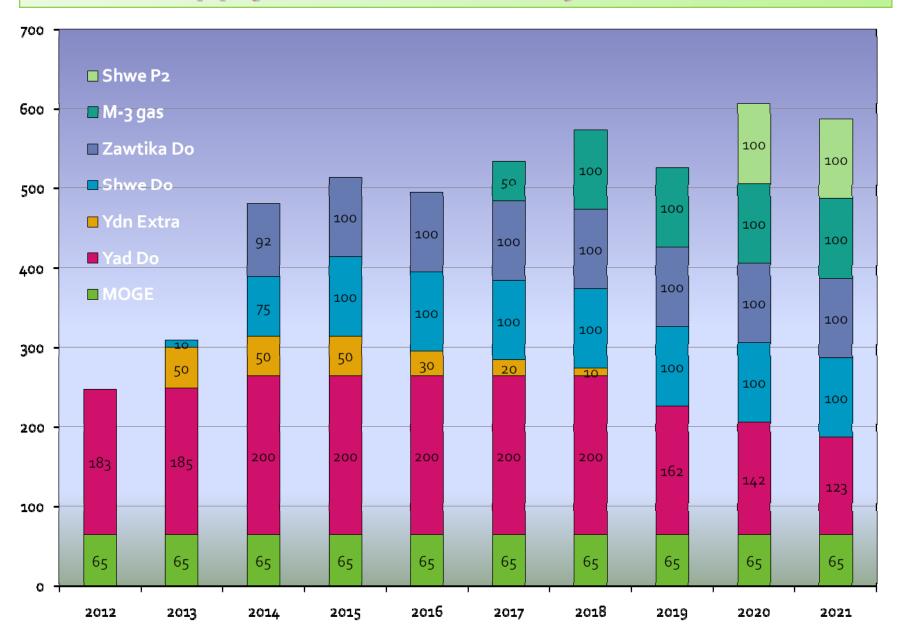
Domestic Pipeline

- MOGE has been laying the pipes throughout Myanmar to expand its national pipeline network.
- Various size from 6" to 24" of pipeline were constructed.
- Total length is about 2100 miles

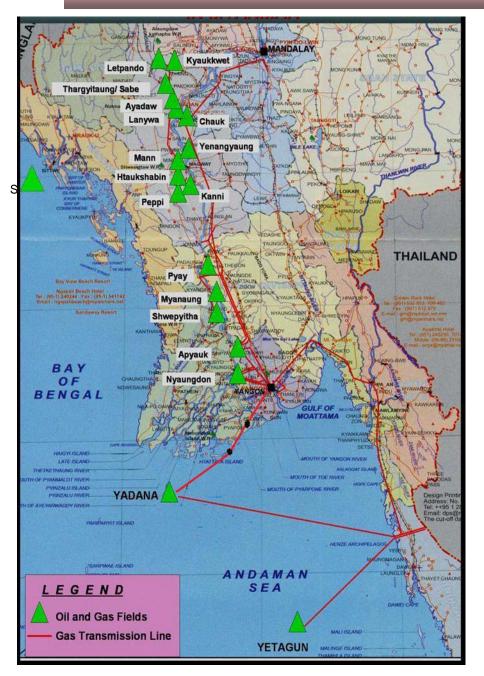
Export Pipeline

		<u>Offs</u>	<u>hore</u>	<u>On]</u>	<u>Land</u>	
•	Yadana(36")	216	miles	39	miles	
•	Yetagun (24")	126	miles	43	miles	
•	Zawtika (28")	143	miles	42	miles	
•	Shwe (32")	65	miles	3	miles	
•	<pre>China-Myanmar(4 (Gas)</pre>	0")	nil	495	miles	
•	<pre>China-Myanmar(3 (0il)</pre>	2")	nil	481	miles	
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Gas Supply Forecast from Myanma Offshore

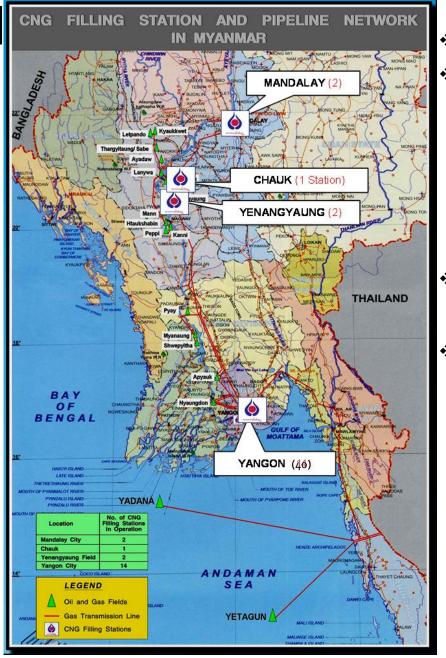


Onshore Oil and Gas Fields of Myanmar



SR NO.	OIL & GAS FIELDS	YEAR OF DISCOVERY
1	YENANGYAUNG	1887
2	AYADAW	1893
3	CHAUK	1902
4	PAYAGON	1959
5	MYANAUNG	1964
6	PYAY	1965
7	SHWEPYITHA	1967
8	PYALO	1969
9	MANN	1970
10	LETPANDO	1974
11	PEPPI	1976
12	HTAUKSHABIN	1978
13	HTANTABIN	1980
14	KANNI	1985
15	APYAUK	1991
16	KYAUKKWET/	1995
	LETPANDO	
17	INDAING	1996
18	DAHATPIN	1998
19	NYAUNGDON	1999
20	THARGYITAUNG/SAB	E 2001
21	HTANGAING	2007

CNG / NGV Converting Programme



- Initiated in Myanmar since 1985.
- 1985 August 2004 :
 - 5 CNG Filling Stations;
 - 2 in Yangon City
 - 2 in Yenangyaung Field
 - 1 in Chauk Field
 - 587 NGVs (Converted from petrol buses)
- CNG / NGV Programme was reactivated in August 2004 and Widely used in 2005.
- ❖ As at 2012 :
 - 45 CNG Filling Stations were constructed
 - 40 in Yangon City
 - 2 in Mandalay City
 - 2 in Yenangyaung Oil Field
 - 1 in Chauk Oil Field

Currently, more than 27600 passenger cars were converted to NGVs

The project is still continuing with high momentum

National Energy Management Committee

 To meet the requirements as mentioned and to fulfill the people's needs as well as to systematically manage the linkages of energy and electric sectors,

National Energy Management Committee and

Energy Development Committee

are formed on 9 January, 2013 by Notification No. (12/2013).

Stakeholders for Energy Sector

Ministry of Energy

for Oil and gas

sector

Ministry of Electric Power

for Electricity sector

Ministry of Mines

for Coal sector

Ministry of Industry

for EnergyEfficiency

Ministry of Science & Technology, Industry & Ministry of Electric Power

for Renewable

Energy

Ministry of Environmental Conservation and Forestry

Ministry of Agriculture and Irrigation

For Biomass & Fuel Wood

Now we are trying to integrate, coordinate and cooperate between the concerned ministries for efficient energy mix.



Contact : report@tky.ieej.or.jp