Ministry of Electricity and Energy
Oil and Gas Planning Department

Current Status of Oil and Gas Sector

25th August, 2016
Nay Pyi Taw
Contents

I. Institutional Framework of Myanmar Energy Sector

II. Organizational Structure of Ministry of Electricity & Energy

III. Oil and Gas Sector Policy

IV. Current Status of Upstream Sector

V. Current Status of Downstream Sectors

VI. Conclusions
I. Institutional Framework of Myanmar Energy Sector

Oil & Gas, Geothermal Power Transmission & Distribution

Renewable Energy (Solar, Wind, Mini/Micro Hydropower, Biomass, Bio-fuels, Biogas)

Coal

Energy Efficiency and Conservation

Civilian Nuclear Energy

MINISTRY OF ELECTRICITY & ENERGY

MINISTRY OF EDUCATION (Leader)

MINISTRY OF AGRICULTURE, LIVESTOVES AND IRRIGATION

MYANMAR ENGINEERING SOCIETY & RENEWABLE ENERGY ASSOCIATION MYANMAR

MINISTRY OF MINERAL RESOURCE & ENVIRONMENTAL CONSERVATION

MINISTRY OF INDUSTRY

MINISTRY OF EDUCATION

* Ministry of Electricity & Energy is Focal Point for Myanmar Energy Sector Cooperation with International and Regional organizations.
II. Organizational Structure of Ministry of Electricity and Energy

MOEE

Electricity
- DEPP
  - Policy & Planning
- DPTSC
  - Transmission & System Control
- DHPI
  - Hydro Power
- ESE
  - Distribution
- EPGE
  - Generation
- YESC
  - Yangon Distribution
- MESC
  - Mandalay Distribution
- OGPD
  - Technical Arm Coordination
- MOGE
  - Management
- MPE
  - Regulation
- MPPE
  - Exploration

Energy
- DEPP
  - Refineries
- DPTSC
  - Marketing
- DHPI
  - Fertilizers
- ESE
  - LPG
III. Oil and Gas Sector Policy

1. To fulfill the domestic energy requirement on a prioritized basis and to implement the effective utilization of discovered crude oil and natural gas in the interest of the entire nation including the region where the discovery was made
2. To implement sustainable energy development
3. To promote energy efficiency and conservation
4. To promote alternative energy utilization for household energy
5. To promote private sector participation in energy sector
6. To minimize environmental and social impacts in implementing the energy projects
7. To promote utilization of new and renewable energy resources
8. To cooperate with other relevant organizations for the compilation of reliable and accurate statistics pertaining to energy production, supply, demand and energy projection.
IV. Current Status of Upstream Sector
Demarcation of Blocks

<table>
<thead>
<tr>
<th>Type</th>
<th>Blocks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Onshore</td>
<td>53</td>
</tr>
<tr>
<td>Offshore</td>
<td>51</td>
</tr>
</tbody>
</table>
### Daily Gas Production:

- **Onshore** - 60 mmcf
- **Offshore** - 2.04 bcf

### Daily Oil Production:

- **Onshore** - 8,000 bbl
- **Offshore** - 8,000 bbl (Condensate from Yetagon Gas Field)

### Export Gas to Thailand
- 1.2~ 1.3 bcf/d

### Export Gas to China
- 400 mmcf/d

### Domestic Gas Utilization
- 260 mmcf/d

### Import Diesel
- 53,000 bbl per day
Current Offshore Projects

Onstream Projects

- Yadana Project - 1998 (Thailand)
- Yetagon Project - 2000 (Thailand)
- Shwe Project - 2013 (China)
- Zawtika Project - 2014 (Thailand)

New Project

- M-3 Project - 2018 (Only Domestic)
Current International Companies
Onshore and Offshore Blocks

(Onshore 26 blocks)

<table>
<thead>
<tr>
<th>Company</th>
<th>Block</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nobel Oil</td>
<td>PSC-A</td>
</tr>
<tr>
<td>North Petro-Chem</td>
<td>PSC-F</td>
</tr>
<tr>
<td>Gold Petro JOC</td>
<td>IOR-2</td>
</tr>
<tr>
<td>MPRL E&amp;P</td>
<td>MOGE-1</td>
</tr>
<tr>
<td>SNOG, UPR</td>
<td>IOR-4, IOR-6</td>
</tr>
<tr>
<td>Geopetrol Intl.</td>
<td>RSF-9</td>
</tr>
<tr>
<td>Jubilant Oil &amp; Gas Pvt.</td>
<td>PSC-I</td>
</tr>
<tr>
<td>PTTEPI</td>
<td>PSC-G, EP-2</td>
</tr>
<tr>
<td>Istech Energy Ltd.</td>
<td>EP-5</td>
</tr>
<tr>
<td>Asia Orient Intl. Ltd.</td>
<td>PSC-E</td>
</tr>
<tr>
<td>Eni Myanmar B.V</td>
<td>PSC-K, RSF-5</td>
</tr>
<tr>
<td>Bashneft Int’l B.V</td>
<td>EP-4</td>
</tr>
<tr>
<td>Pacific Hunt</td>
<td>PSC-C1, PSC-H</td>
</tr>
<tr>
<td>Brunei Petroleum</td>
<td>EP-1,</td>
</tr>
<tr>
<td>Petronas Carigali</td>
<td>IOR-5, IOR-7</td>
</tr>
<tr>
<td>CAOG</td>
<td>MOGE-4</td>
</tr>
</tbody>
</table>

(Offshore 38 blocks)

<table>
<thead>
<tr>
<th>Company</th>
<th>Block</th>
</tr>
</thead>
<tbody>
<tr>
<td>TOTAL</td>
<td>- M-5, M-6, YWB</td>
</tr>
<tr>
<td>PETRONAS</td>
<td>- M-12, M-13, M-14</td>
</tr>
<tr>
<td>DAEWOO</td>
<td>- A-1, A-3, AD-7</td>
</tr>
<tr>
<td>PTTEPI</td>
<td>- M-3, M-11, M-9</td>
</tr>
<tr>
<td>CNPC</td>
<td>- AD-1, AD-6, AD-8</td>
</tr>
<tr>
<td>MPRL E&amp;P</td>
<td>- A-6</td>
</tr>
<tr>
<td>PETROVIETNAM</td>
<td>- M-2</td>
</tr>
<tr>
<td>BG/ Woodside</td>
<td>- A4, AD-2</td>
</tr>
<tr>
<td>Woodside/ BG</td>
<td>- A-7, AD-5</td>
</tr>
<tr>
<td>UNOCAL</td>
<td>- A-5</td>
</tr>
<tr>
<td>Oil India</td>
<td>- M-4, YEB</td>
</tr>
<tr>
<td>Tap Energy</td>
<td>- M-7</td>
</tr>
<tr>
<td>Berlanga</td>
<td>- M-8</td>
</tr>
<tr>
<td>TRG/ CFG</td>
<td>- M-15</td>
</tr>
<tr>
<td>Relience</td>
<td>- M-17, M-18</td>
</tr>
<tr>
<td>Relience</td>
<td>- M-17, M-18</td>
</tr>
<tr>
<td>Reliance</td>
<td>- M-17, M-18</td>
</tr>
<tr>
<td>Reliance</td>
<td>- M-17, M-18</td>
</tr>
<tr>
<td>Shell</td>
<td>- AD-9, AD-11, MD-5</td>
</tr>
<tr>
<td>Statoil</td>
<td>- AD-10</td>
</tr>
<tr>
<td>Eni Myanmar</td>
<td>- MD-2, MD-4</td>
</tr>
</tbody>
</table>
Current Performance of Myanma Oil and Gas Enterprise (MOGE)

- Present in Onshore: 12 oil fields and 5 gas fields (Total 17 fields)
- Present in Offshore: 4 producing fields and 1 field under development
  - PSC Contracts are Basic Contract for E&P
  - IPR Contracts for existing oil and gas fields
  - 26 onshore blocks (10 PSCs, 5 IORs, 4 MOGEs, 2 RSFs and 5 EPs) and 38 offshore blocks (22 shallow and 16 deep water blocks) are being operated
- Unconventional prospects FS for Onshore area
1st **Onshore** bidding round for 18 blocks has been opened in 2011
- 6 Companies are operating in 8 Blocks for their E& P Activities.

2nd **Onshore** bidding round for 18 blocks has been opened in Oct 2013
- 9 Companies are operating in 14 Blocks for their E& P Activities.

1st **Offshore** bidding round for 30 blocks has been opened in March 2014
- 13 Companies are operating in 20 Blocks for their EIA & SIA Activities.
Opportunities in Upstream Sector

1. Onshore-Offshore E&P Activities under PSC basic when bidding coming out.
2. Improving recoverable volume in marginal fields by applying EOR or reliable technologies in its deeper prospects when launching the Tender.
3. Rehabilitating to suspended fields: onshore area
4. Unconventional prospects: Onshore area
5. Supply based for Onshore and Offshore E&P at SEZ on favorable shore/land location.
6. JV process for drilling, seismic and transportation
V. Current Status of Downstream Sectors
### Existing Petrochemical Plants Operated under Myanmar Petrochemical Enterprise (MPE)

<table>
<thead>
<tr>
<th>Plant Type</th>
<th>Count</th>
<th>Capacity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Crude Oil Refinery</td>
<td>3</td>
<td>51,000 bbl/day</td>
</tr>
<tr>
<td>LPG Plant</td>
<td>3</td>
<td>50 mmscfd</td>
</tr>
<tr>
<td>Fertilizer Plant (Urea)</td>
<td>5</td>
<td>Ammonia 1340 MTD &amp; Urea 2012MTD</td>
</tr>
</tbody>
</table>
Opportunities in Petrochemical Sector

✓ New Refinery (plan a new refinery of 56,000 bpd) along the Myanmar-China Pipeline Route JV with MPE
✓ New Petrochemical Plants
✓ Liquefied Petroleum Gas (LPG) distribution JV with MPE and local Partners
✓ Upgrading of Existing Thanlyin Refinery and Nyaungdone LPG Plant: JV system
✓ Research and Development, e.g. Laboratory, Process etc.
✓ Supply equipments spare for Factories and Plants
Opportunities in Downstream Marketing Sector

- Trading and Marketing of Petroleum Products in accordance with MIC Guidelines and Regulations
- Contemporary Transportation Units
- Fuel terminal and filling stations around country
- Indispensable equipments
- JV process for Aviation Turbine Fuel (ATF) distribution at the Airport and other Petroleum distribution services
VI. Conclusion

Priority and Opportunities

1. Exploration and Production in petroliferous Onshore and Offshore Myanmar Basins on International Bidding basis when we launched

2. Rehabilitating to marginal oil fields; and Enhancing to (declined) oil fields and suspended fields by tendering

3. JV process for drilling, seismic and transportation

4. JV process for Existing Refinery, LPG and Petroleum movement

5. Trading and Marketing of Petroleum Products

6. Research and Development
Contact Person for Oil and Gas Planning Department

**Person:** Assistant Secretary
Ministry of Electricity and Energy

**Address:** Building No.6, Nay Pyi Taw

**Fax.** +95 - 067 - 411 213
**Phone no.** +95 - 067 - 411 104

**Email:** kkaye1965@gmail.com

**Website:** http://www.energy.gov.mm
THANK YOU

FOR YOUR KIND ATTENTION