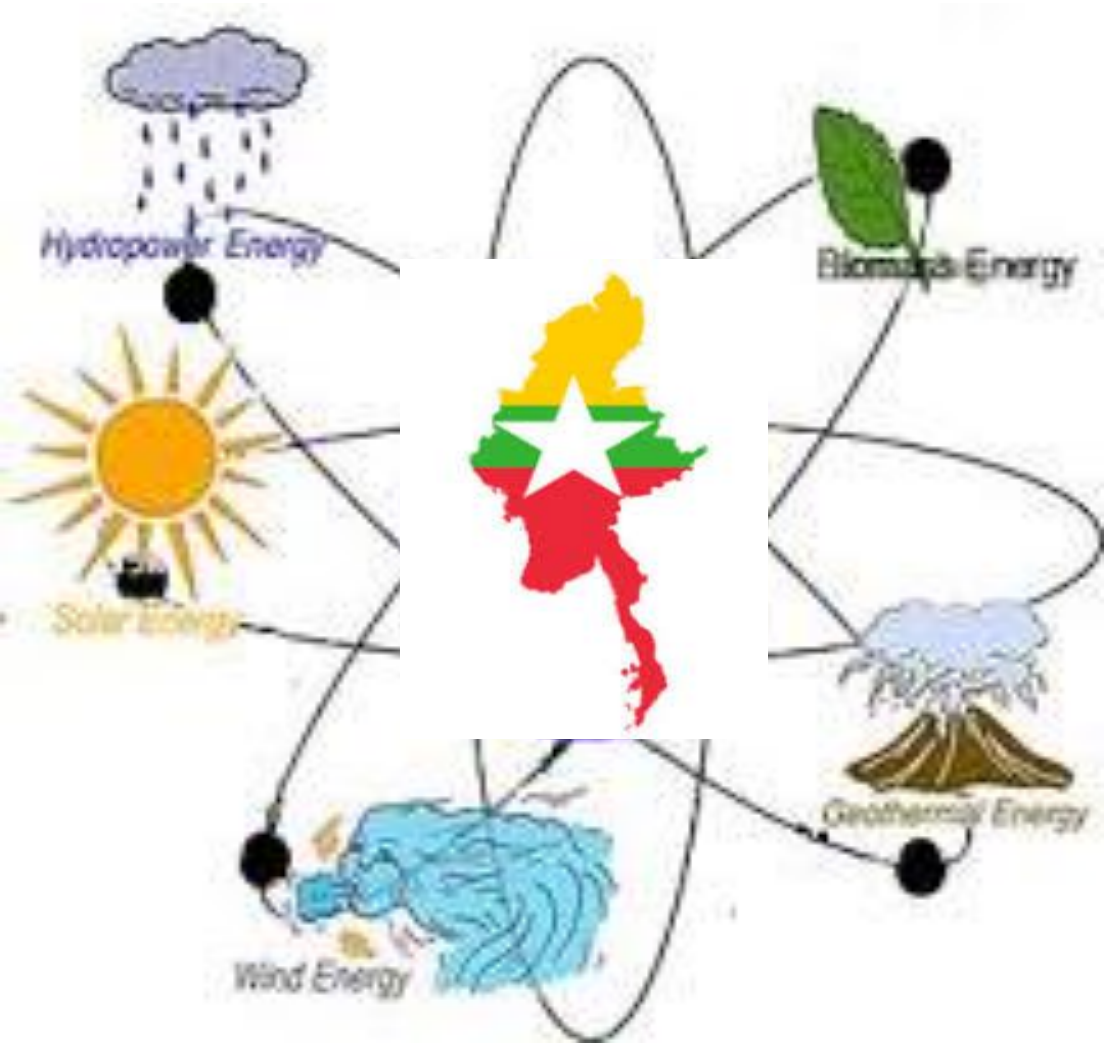

MYANMAR NATIONAL ENERGY POLICY

2013 (DRAFT)

MAIN CONTENTS

(August 2013)

U Thoung Win

CHAIRMAN- Energy and Renewable Energy Committee, Myanmar Engineering Society

MEMBER- (Energy Development Committee)
National Energy Management Committee

16th September 2013

Background

- The National Energy Management Committee (NEMC) and Energy Development (EDC) were formed on 9 January 2013 by the Office of the President .
- NEMC was formed with (22) set objectives and with 14 members as follows:
- Patron - The Vice President (2)
- Chairman - The Union Minister , MOE
- Dy. Chairman - The Union Minister , MOEP
- Secretary - Dy. Minister , MOE
- Joint Secretary - Dy. Minister , MOEP
- 6 Union Ministers , 1 High Government Official and 2 civilians ,President of MES and Gen. Secretary of REAM.

Background (Contd.)

- DEC was formed with (22) set objectives and (14) members as follows :
- Chairman - The Union Minister , MOE
- Secretary - 1 norminated by the Chairman
- 5 Union Dy. Ministers , 2 High Government Officials , 3 retired high government officials (civilians) and two civilians from MES and REAM .

The two committees worked as for their First Duty to draw the

National Energy Policy (NEP) and ADB also helped the government with the service of its 2 advisors in doing so and the Final Draft of NEP was nearly ready to submit to the President in August 2013 .

Introduction

- Mandate of the new government of President U Thein Sein, is to chart a new direction for the country, a major economic, social, and political transformation.
- With abundant natural resources, a strategic location in Southeast Asia, and a large and young population, Myanmar has a unique opportunity to lay the foundation for a brighter, more prosperous future for its people.
- President U Thein Sein, on 11 May, 2012 called for:
- The development of policies and reform strategies that can achieve people-centered development, civic participation and human resource development, effective and transparent use of public financial resources, sustainable regional development, decentralization and greater autonomy for local government, and poverty reduction.

National Framework of Economic and Social Reforms (FESR)

- FESR designed as a policy linkage between the existing plans of the government to the National Comprehensive Development Plan (NCDP), a long-term plan that GOM is developing through broad consultations and bottom-up processes.
- Under FESR, Ministries are required to prepare their respective Sector Policy Paper for approval by the Parliament
- FESR aims for two broad objectives for the medium-term:
  - Move the ongoing reform process forward and make it irreversible so that Myanmar can become a modern developed nation that meets the aspirations of its people for a better life; and
  - Accelerate Myanmar's greater integration with the international community.

Myanmar Energy Resources Endowment

A. Natural Gas

- Proven reserves are 7.8 trillion cubic feet.
- Significant and an important source of government revenue.
- Export to Thailand and PRC.
- Reduced gas supply for domestic use.
- Existing gas gathering and pipeline distribution system are old . Due to poor maintenance and lack of compression in gas pipelines, the system operates at a significantly lower capacity and efficiency.
- Domestic gas demand expected to increased from 400 mmcfd in FY 2011 to 700 mmcfd by the end of 2013. Deficit about 300 mmcfd, and would meet less than half the domestic demand.

B. Crude Oil

- Onshore production @ 7,400 BPD
- Offshore production @ 12,000 BPD (condensate)
- Significant interest, with over 75 letters of interest submitted for the onshore blocks.
- 16 foreign companies are working on 17 onshore blocks
- 15 foreign companies are involved in exploration or production on 20 existing offshore blocks, all in partnership with MOGE.

C. Coal

- Coal reserves estimated at about 540 million tons
- Proven reserves are significantly low.
- Current production about 700,000 tons
- Myanmar coal is generally low quality with lower heating value
- Mines are open-cast and require environmental and social addressed and mitigation measures designed.

D Hydropower

- About 93 potential sites with a very minimum 46,000 MW. Increased potential is generally advocated by all involved in Hydropower development.

E. Renewable Energy Resources

- **Myanmar is rich in every renewable source- solar, wind, mini-hydro**

F Geothermal

- About 93 potential sites for geothermal energy.
- Further studies to exploit geothermal potential
- For either electric power generation or steam for industrial applications.

G. Nuclear

- **The country has few uranium deposits. However, details are not available. The civilian use of nuclear energy, as a long term potential option, may be**

H. Oil Refinery

- The Myanmar Petrochemical Enterprise (MPE) runs the country's three oil refineries with total rated capacity of 50,000 BPD – Chauk Refinery (6,000 BD), Thanbayagan Refinery (25,000 BD) and Thanlyin (20,000 BD).
- Refineries are old and average utilization rates are only 41%.

I. Liquefied Petroleum Gas (LPG)

- There are three liquefied petroleum gas (LPG) plants in Myanmar with a total capacity of 42-50 million cubic feet per day (mmcfd).

J. Fertilizer Plants

- At present, Myanmar has five urea fertilizer factories using natural gas with a total capacity of over 2,000 metric tons per day.

Energy Sector Development Plan

A. Strategy

1. Increase National Electrification Rate
2. Provision of Community-based Renewable Energy/Rural Electrification
3. Generate Electric Power
   - ➢Establish properly the power demand
   - ➢Prepare least-cost generation plan.
4. Rehabilitate/ Expand Transmission System
5. Rehabilitate/ Expand Refining Capacity
6. Industrial Energy Efficiency

B. Proposed Development Plan

1. Additional Power Generation
   - Gas-based
   - Coal-based
   - Hydropower
   - Renewable Energy (Solar, Mini-Hydro)
2. Rehabilitation/ Expansion of Transmission System
   - The transmission system should be installed before the power generation is ready
3. Rehabilitation/ Expansion of Refining Capacity
   - To improve operations of the refineries, the government is consider a joint venture with a foreign company for the Thanlyin refinery.
4. Industrial Energy Efficiency

Energy Sector Institutional Structure and Organizational Set Up

- A large number of Government departments, agencies and offices are involved in the energy sector.
- Establishment of a new Directorate for Renewable Energy Resources Development.
- Establishment of a new Directorate for Energy Efficiency Improvement and Conservation Program.
- Establishment of an Independent Regulatory body for Energy and Power sector -- Myanmar Energy and Power Regulatory Authority- MEPRA responsible for.

Conclusions

- Energy sector is critical for a sustainable economic development. MOE has a challenging task of transforming the energy sector so it is responsive, grows rapidly and becomes financially sustainable.
- Country has adequate energy resources that is mostly clean (hydropower, gas, and renewable energy)
- Private sector is already investing in energy sector, and willing to invest more
- Development partners are keen to extend assistance for reducing poverty, which includes extension of energy supply to about 71% of the population, and
- Government is strongly committed to the reform process (market-based economy etc)
- With continued macroeconomic stability, Myanmar has a comparative advantage for foreign direct investments (in manufacturing, mining, oil and gas, renewable) that can help the economy grow at a rapid pace and large poverty reduction is possible with proper governance.
- By timely transforming the energy sector, MOE will ensure that energy supply does not become a binding constraint for economic growth, something faced by several developing countries.

Recommendations

A. Short-Term/ immediate Action Plan.

- ✓ **The Myanmar Electricity Law Should be approved as soon as possible.**
- ✓ **Construction on a fast-track basis, of a 150-200 MW coal- based power plant, utilizing domestic coal from Tigyit mine that should be suitable for clean technology. Coal reserve are estimated at 20 million tons .**
- ✓ **Availability of natural gas for use in CCGT power generation.**
- ✓ **Rehabilitate/Revamp of refinery, fertilizer , and LPG plant.**
- ✓ **Maintenance and new installation of Gas pipeline system**
- ✓ **Human Development and capacity building at MOE.**

B. Medium and Long-Term Action Plan

- ✓ **Optimization of Fuel Mix**
  1. **Hydropower generation**
  2. **Expansion of Renewable Energy**
  3. **Investment in Energy Resources Development**

- ✓ **Institutional Restructuring and Capacity Building**

Thank You