ROLE AND EXPECTATION OF MONGOLIA IN PROMOTING ENERGY COOPERATION IN NORTH EAST ASIA

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- Vision statement

Vision of this policy document is to fully provide reliable operation of the energy sector, energy security, sustainable development and economic growth of the country and become an energy exporting country with efficient and environmentally friendly technology.

- Strategies

One of total 6 strategic goals in the document is - 3.1.2 Developing a mutually beneficial cooperation with neighboring and regional countries on energy;

- “Midterm action program implementing State Policy on Energy” approved by Government of Mongolia on 24th Oct 2018. The program has included measures to expand energy cooperation with neighboring and regional countries.

  - Establish long-term agreement on energy trade with neighboring countries
  - Cooperate with neighbors to develop energy transit infrastructure within the Initiative to create economic corridor between Russia and China through Mongolia,
  - Support Asian super grid international initiative and export oriented energy projects etc.,
Main drivers and motivation towards energy connectivity for Mongolia

- Big territory and rich energy resource
  - Rich domestic primary energy resources
  - Few population and limited domestic market

- Economic Benefits
  - Job creation
  - Diversification of economy
  - Cheap electricity from big generation unit

- Social Benefits
  - Poverty/unemployment reduction
  - Improved local infrastructure development
  - Increased energy security
Recent aspiration towards regional energy cooperation development:

- **Concession Law approved in 2010** - Establish the framework for granting concessions to private investors to use existing infrastructure facilities owned by the state, and to construct new infrastructure facilities for the purpose of providing services to the general public.

- **Investment Law approved in 2013** - Protect the legal rights and interests of investors in the territory of Mongolia, to establish a common legislative guarantee for investment, to stabilize the tax environment.


- **Amendment of Custom Law and Custom Tariff and Tax Law, - Dec, 2015** - Though the amendment, research and production equipment of renewables and its spare parts are exempted from custom and value added tax. Custom tax 5% to 0%, Value added tax 10% to 0%
Mongolia is a country that enjoys excellent relations with its neighbors and countries in the region, and we have no single contentious issue nor dispute with any of them. Therefore, Mongolia has proposed the initiatives, such as “Ulaanbaatar Dialogue” to promote dialogue and strengthen mutual understanding among the countries in the region.

Mongolia hosted the “Ulaanbaatar Dialogue on Northeast Asian Security” International Conference from 2014 with the participation of more than 35 representatives from Mongolia, Russia, China, Japan, DPRK, ROK etc.,
In the speech of President Khaltmaagiin Battulag

.........I call upon the **urgent and prompt commencement of the “North East Asian Super Grid” project** which can share the load during the peak hours and will be a resource-efficient and optimal solution for supplying Northeast Asian countries with energy.

......It is therefore necessary to **establish an organization with appropriate involvement of Mongolia, Russia, China, Japan, South and North Korea, six countries** that share responsibilities to successfully implement the “North East Asian Super Grid” project. The organization is to formulate a comprehensive policy by integrating all prior research works for the project and prepare relevant agreements and negotiations.........
How about to sign a MOU to develop North-East Asian Regional Power Interconnection in Presidential level during next eastern economic Forum?

Power interconnection issue in North-East Asian was one of the topic during the plenary session of the forum.
Recourse Based Power Trade

Coal Based

• Metallurgical coal will be extracted for exports
  – Raw coal, Washed coal, Produced coke

• Thermal coal resources can be utilized for on-site electricity production for the purpose of export.
  – Abundant thermal coal resources in Mongolia
  – Possible export markets: China, Korea, Japan lead its Electricity demand in the region
  – Ultra-high voltage (UHV) electricity transmission technology /800 kV, 1000 kV and above/ is developing year by year.
Mongolia – China joint initiative on Electricity export project based on Shivee-Ovoo coal mine in Mongolia

- Power plant: 660 MW x 8 unit, total capacity 5280 MW
- Transmission line: ±660 kV DC line 1280 km (435 km in Mongolia, 845 km in China)

It can be the pioneer project of Global Energy Interconnection Initiative.

Recourse Based Power Trade

Renewable based

- Rich Solar and Wind Rich Resources in Gobi Area /Southern part of Mongolia and Northern part of China/
- Green and Sustainable Energy
  - Gobi Tec and Asia Super Grid Initiative
Suitable areas for wind development

Legend
Wind speed (m/s)
- 2.5 - 6
- 6.1 - 7
- 7.1 - 8
- 8.1 - 9.5
- 9.6 - 17

Constraints
Administrative units

Best wind resource
Excluded areas

Interim results based on IRENA wind data. Update with new Vaisala wind data expected end of November 2017.
Suitable areas for solar PV development
Optimization of PV panels tilt

Based on Solargis solar data (Global Horizontal Irradiation - GHI). Optimization of PV panels tilt so as to increase performance: long term yearly average of daily totals of global irradiation at optimum tilt (GTI)
Energy Cooperation in Northeast Asia: Intergovernmental mechanisms

Intergovernmental Collaborative Mechanism on Energy Cooperation in North-East Asia (ECNEA):

- established by DPRK, Mongolia, ROK and Russia in 2005 and operated by KEEI and ESCAP
- Facilitated dialogue under Senior Officials Committee (SOC), Working Group on Energy Planning and Policy (WG-EPP), Working Group on Coal (WGC) and Government–Business Dialogue, and produced reports on Energy Policy and Statistics in North-East Asia
- In 2015, decided to change its status from intergovernmental to interagency mechanism. The mechanism is named as NEA Energy Forum today

Greater Tumen Initiative (GTI - China, Mongolia, ROK and Russia) Energy Board:
Created in 2007 to serve as an advisory board to GTI governments as well as an institutional tool to facilitate energy cooperation in NEA. Approved research proposals during the last 4 Board Meetings, but has not made significant progress yet.
National level (in case of Mongolia):
Enhance legal environment for investors, keep it sustainably
To have a clear policy for governmentally and politically for foreign investors
Develop infrastructure in border area /railway, road, capacity of checkpoints

Subregional level:
Reduce non-physical barriers for energy trade

Support existing and identified bilateral pioneer projects through the regional mechanism

Bilateral connection → Multilateral → Regional Connectivity

Regional level:
Develop multilateral dialog platform
Strengthen existing and initiated institutional mechanisms towards connectivity development

Governments should give floor to companies to work for cross border power trade and to seek new possibilities. Industrial driven approach may more intensive than top down.
THANK YOU

Website: http://www.energy.gov.mn/