GOVERNMENT OF MONGOLIA
MINISTRY OF ENERGY

RENEWABLE ENERGY POLICY
OBJECTIVES AND PLANS TO INTEGRATION ON NORTH-EAST ASIAN POWER INTERCONNECTION

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July 08, 2021
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• Current condition of Energy sector in Mongolia;
• Renewable energy policy objectives and plans;
• Key milestones of ADB technical assistance on “Northeast Asian Power System Interconnection” project
ENERGY SYSTEM OF MONGOLIA: INSTALLED POWER PLANTS AND PROPOSED PROJECTS

Majority of electrical energy is being generated by coal fired thermal power plants and the remaining is from hydro, wind, solar and diesel stations.

POWER PLANT
HYDRO PLANT
WIND PLANT
SOLAR PLANT

WESTERN REGION ELECTRICITY SYSTEM
ALTAI-ULIASTAI REGION ELECTRICITY SYSTEM
CENTRAL REGION ELECTRICITY SYSTEM
EASTERN REGION ELECTRICITY SYSTEM

Source: Ministry of Energy
**Upper limit of Renewable Energy Tariff Rates in Dollar/KW**

- **Wind Farm**: $0.085
- **Hydropower (Less than 5 MW)**: $0.045-0.06
- **Solar Energy**: $0.12

**Green Tariff**

Difference in Tariffs: **80-300 Tugrugs**

The Energy Regulatory Commission’s Green Tariff:

- **11.88 tugrugs** per user per kW/hour

Approximately 3-4% of average household’s monthly electricity bill.

**Imported Tariff Rates**

- **CES import electricity rates**:
  - 160-190 Tugrugs
  - 170 Tugrugs

  *Unofficial estimate from Ministry of Energy

- **Western region import electricity rates**:
  - 0.65 Yuan or **240.5 Tugrugs**
  - 2.77 Rubles/ **116.3 Tugrugs**
“State energy policy 2030” ensure achieving SDGs vision 7 “Ensure access to affordable, reliable, sustainable and modern energy for all” goals

- Renewable energy share on total installed capacity 20% by 2020 /271.2MW or 18.3% in 2020/
- Feed in tariff for solar, wind and small hydro;
- Renewable energy share on total installed capacity 30% by 2030 /1036 MW or 30% in 2030/
  - Competitive bidding, net metering for renewable energy generation on households;

36% or 376MW
33.5% or 345MW
30.6% or 315MW
50MWh
Long term development policy document “Vision 2050”:

1st Phase 2021-2030
• Cut energy sector GHG emissions by improving mitigation policy

2nd Phase 2031-2040
• Strengthening existing power grid by horizontal and vertical dimension
• Moderate exiting power plants and improve efficiency
• Transfer of green energy from coal fired heating system in urban areas, continue supporting net metering;
• Phase out of existing old coal fired power plants and introduce of new low emission and high power plants;
• Facilitate export oriented power generation and initiate energy export

3rd Phase 2041-2050
• Self-sustained, resilient and smart electricity system with appropriate renewable energy combination, become net exporter of energy
• Facilitate sustainable green energy export by boosting renewable energy generation specially solar and wind
Evaluation target of Government policy

- Number of people access to affordable energy sources by 2025 is 95.5%, 100% by 2030, 100% 2050
- Cut GHG emission by 12.3% compared with 2015, 22% reduction on GHG emission in 2030 compared by 2015.
Scenario 0: “minGW” capacity in 2020, connected to Mongolian 220kV power grid, only for Mongolia electricity consumption. The “minGW” capacity refers to the available connection capacity to current 220kV substations.

Scenario 1: + 5GW in 2026, mainly for exportation to neighbouring countries.

Scenario 2: + 10GW in 2036 (therefore + 5GW between 2026 and 2036) for exportation to neighbouring countries as well.

Scenario 3: +100GW in the long term.
OBJECTIVES AND NEXT STEPS

REGULATORY FRAMEWORK

- Establish NAPSI Authority organization
- Elaborate NEA Grid Code
- Implement Regulation at regional level and the follow-up of the necessary evolutions and harmonization of the National regulations
- Continue comprehensive study on Market and Power Trade
  - Power trade contracts standardization
  - Institutionalization of competitive mechanisms
  - Regional Grid Code: Clear common rules
  - Transmission rights: Development of comprehensive methodology
OBJECTIVES AND NEXT STEPS

STRATEGY AND INFRASTRUCTURE

National level:
- 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:
- Develop electricity cooperation on the basis of bilateral agreements
- Support existing and identified bilateral pioneer projects through the regional mechanism

Regional level:
- Develop multilateral dialog platform
- Strengthen existing and initiated institutional mechanisms towards connectivity development
THANK YOU FOR YOUR ATTENTION