



THE GOVERNMENT OF MONGOLIA
MINISTRY OF ENERGY

Current situation and future planning of
Mongolian Energy Sector





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 - **Structure of Mongolian energy sector**
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1. Brief country profile

Area: 1.564.116 sq km

Population: 3.026.102 (2015-06-21)

Capital city: Ulaanbaatar

Capital city population: approx.
1,200,000.00

National currency: Tugrug (MNT)

GDP per capita: US\$ 3800

Major industries: Mining, cashmere,
agriculture

Major trading partners: China, Russia,
USA, Japan





1. Brief country profile

Capital city Ulaanbaatar





1. Brief country profile

Countryside





2. Structure of Mongolian energy sector

Mongolia has four main energy systems:

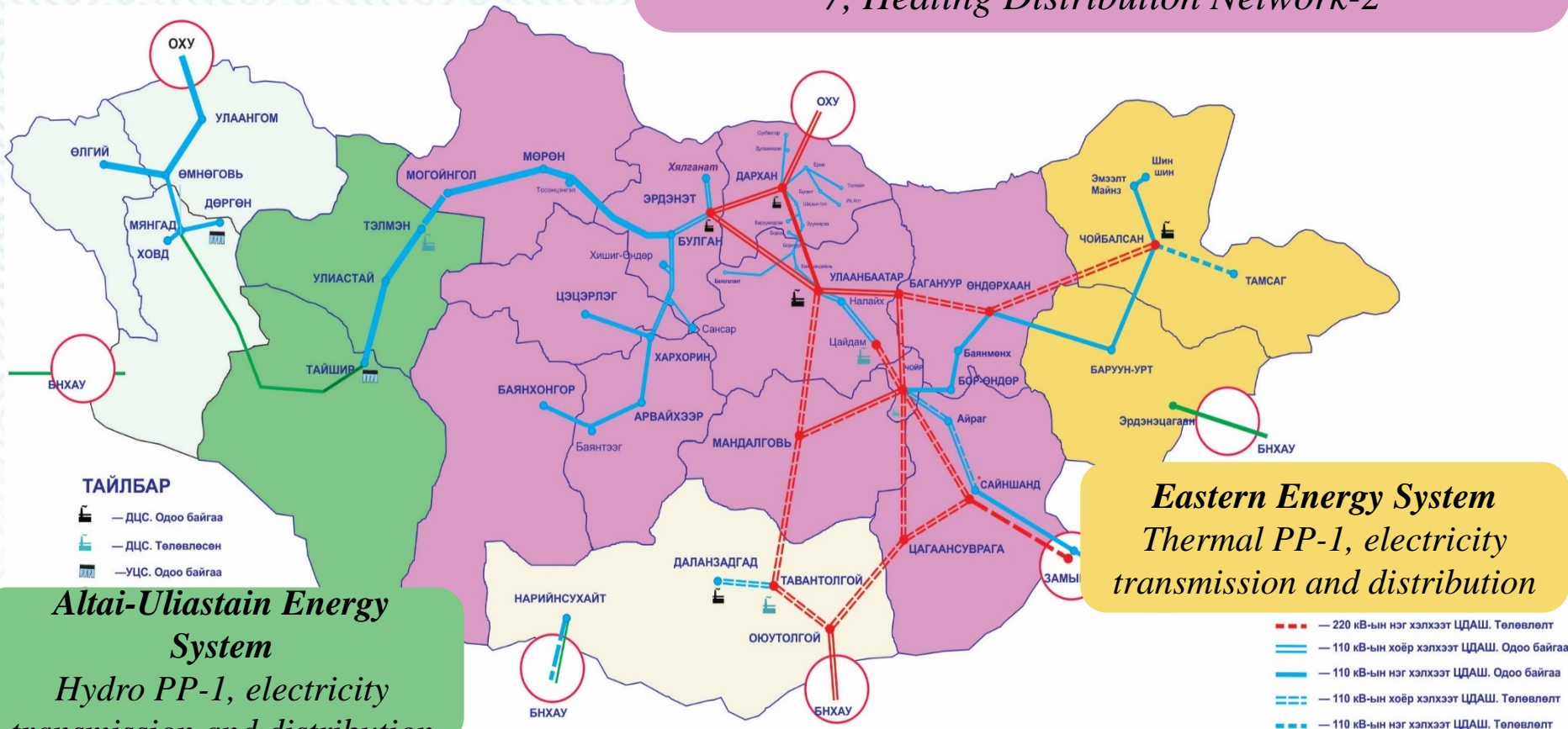
- Central Energy System (CES),
 - Western Energy System (WES),
 - Altai- Uliastai Energy System (AUES), and
 - Eastern Energy System (EES), comprising Seven thermal power plants with heat extraction (combined heat and power plants), Durgun and Taishir hydro power plants, Salkhit wind power plant, Altai-Uliastai's diesel generators, small renewable energy resources (solar and wind) and seven distribution systems.
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2. Structure of Mongolian energy sector

Western Energy System
Hydro PP-1, electricity transmission and distribution

Central Energy System
Thermal PP-7, Wind PP-1, National Power Transmission Grid, Electricity Distribution Network-7, Heating Distribution Network-2

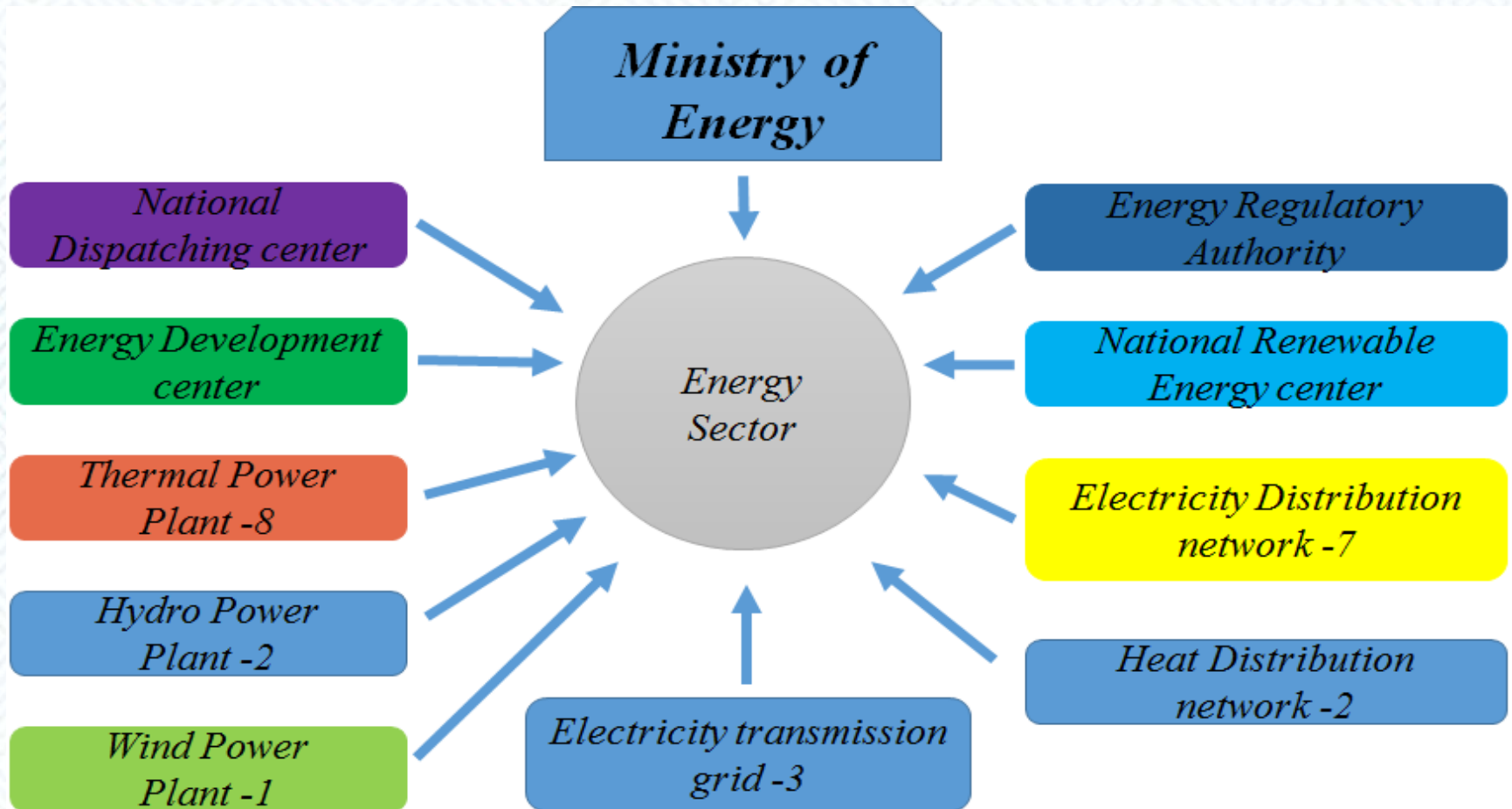


Altai-Uliastain Energy System
Hydro PP-1, electricity transmission and distribution

Eastern Energy System
Thermal PP-1, electricity transmission and distribution



2. Structure of Mongolian energy sector





2. Structure of Mongolian energy sector

Central Energy System

*Thermal PP-7, Wind PP-1, National Power Transmission Grid,
Electricity Distribution Network-7, Heating Distribution Network-2*

Altai-Uliastain Energy System

*Hydro PP-1, electricity transmission and
distribution*

*State
Owned
Company*

Eastern Energy System

*Thermal PP-1, electricity transmission
and distribution*

Western Energy System

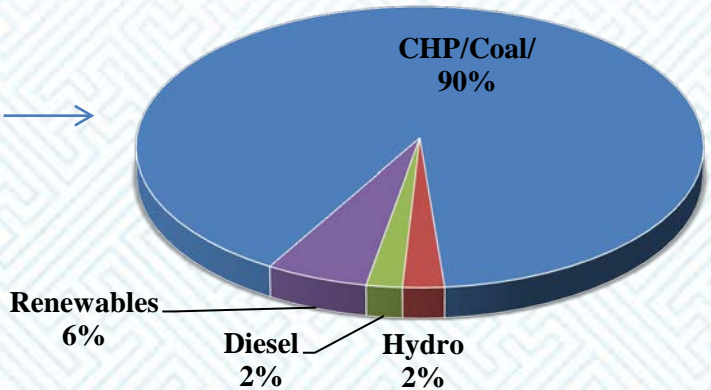
*Hydro PP-1, electricity transmission and
distribution*



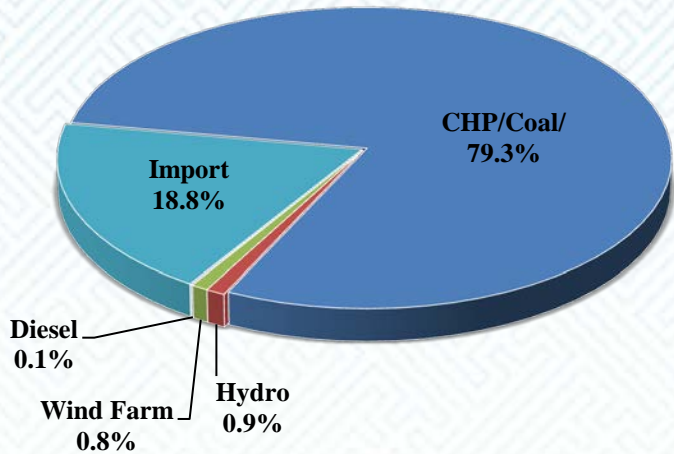
3. Current situation of Mongolian energy sector

The majority of our heating and electrical energy is being generated by coal fired thermal power plants and the remaining small amount is from hydro, wind, solar and diesel stations.

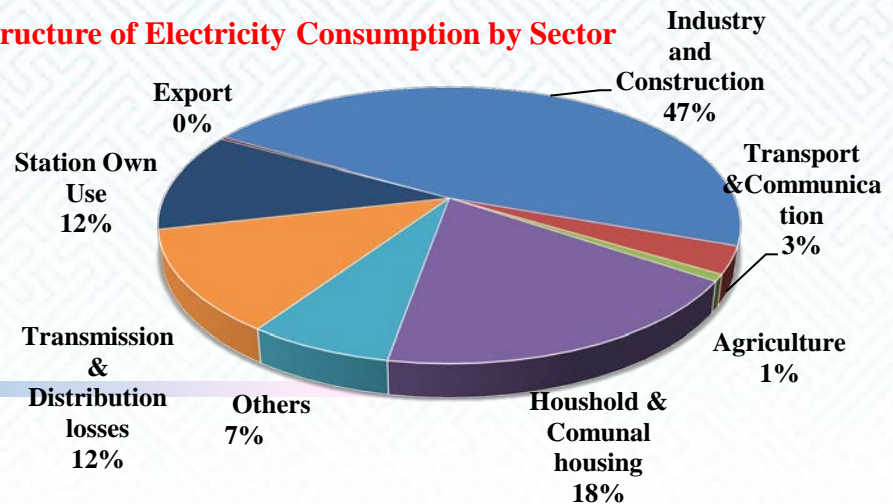
Total Installed Capacity of Power Plants: 1122 MW



Electricity Production + Import in 2013, by type of sources, total 6.3 bln.kWh

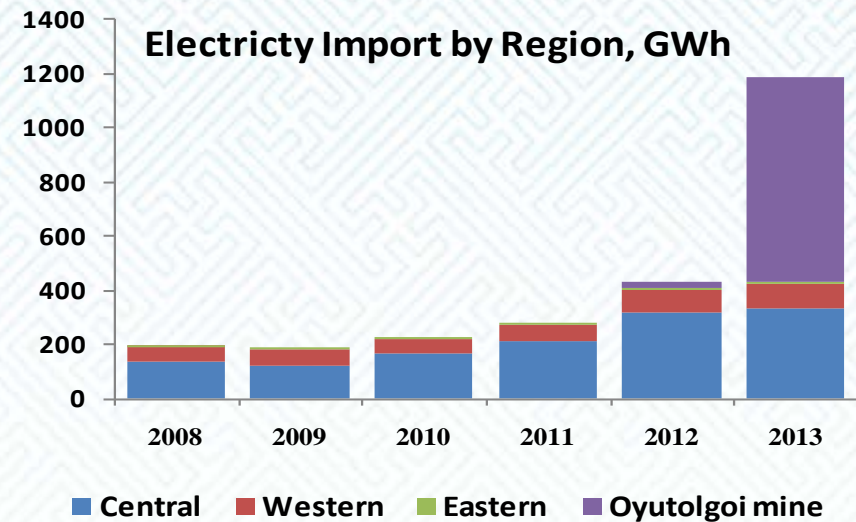
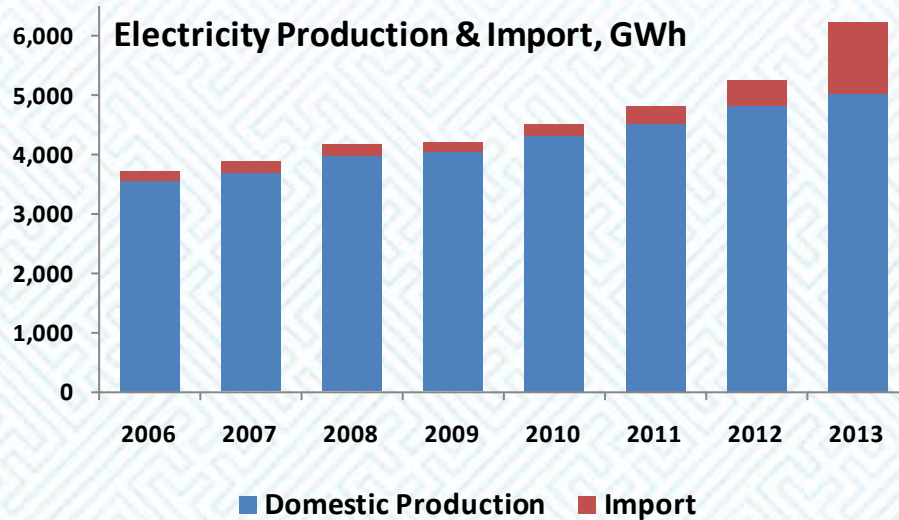


Structure of Electricity Consumption by Sector





3. Current situation of Mongolian energy sector

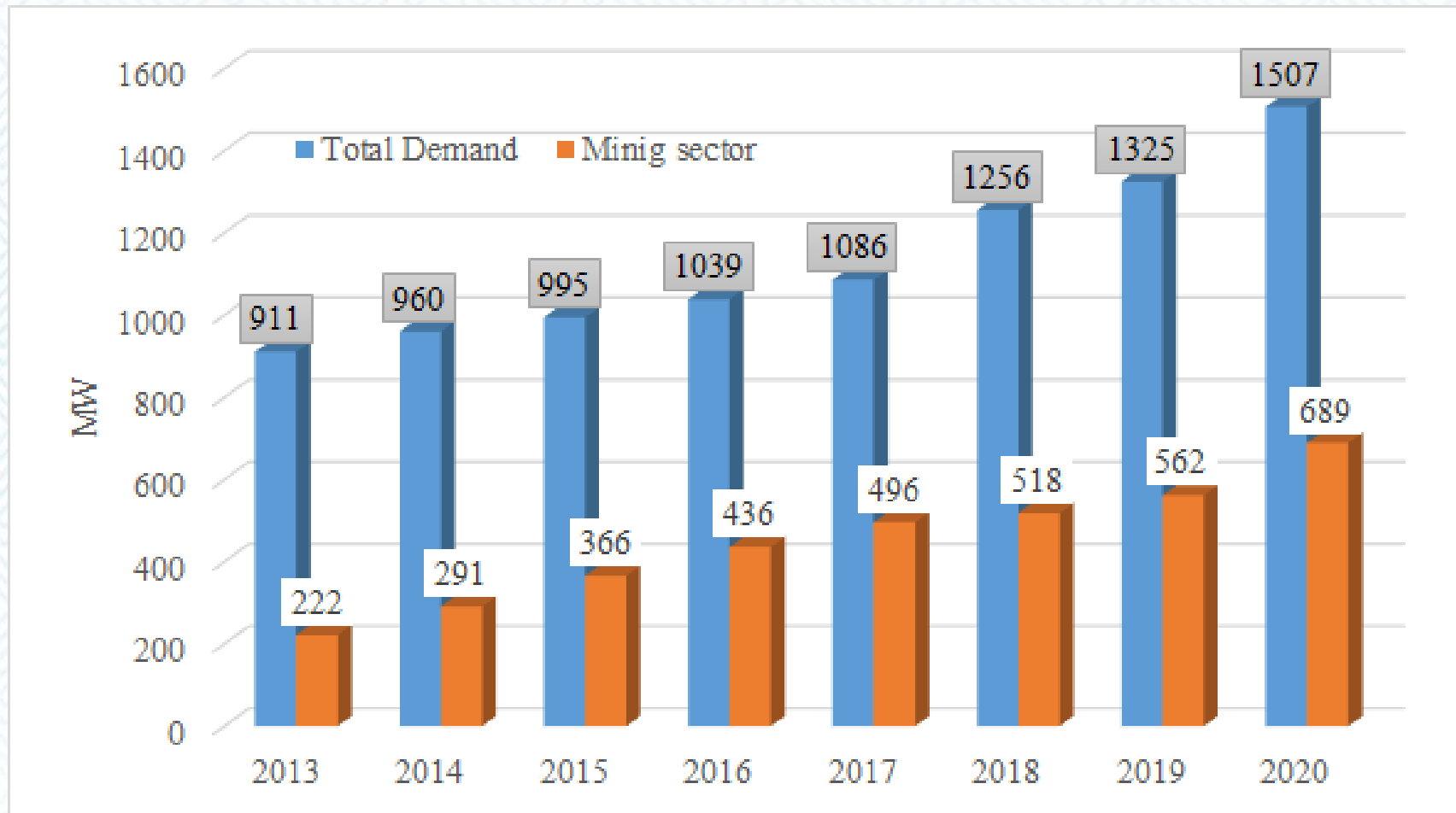


High Losses of Transmission & Distribution Network:

Long transmission & distribution lines to lower demand –lowest population density in the world



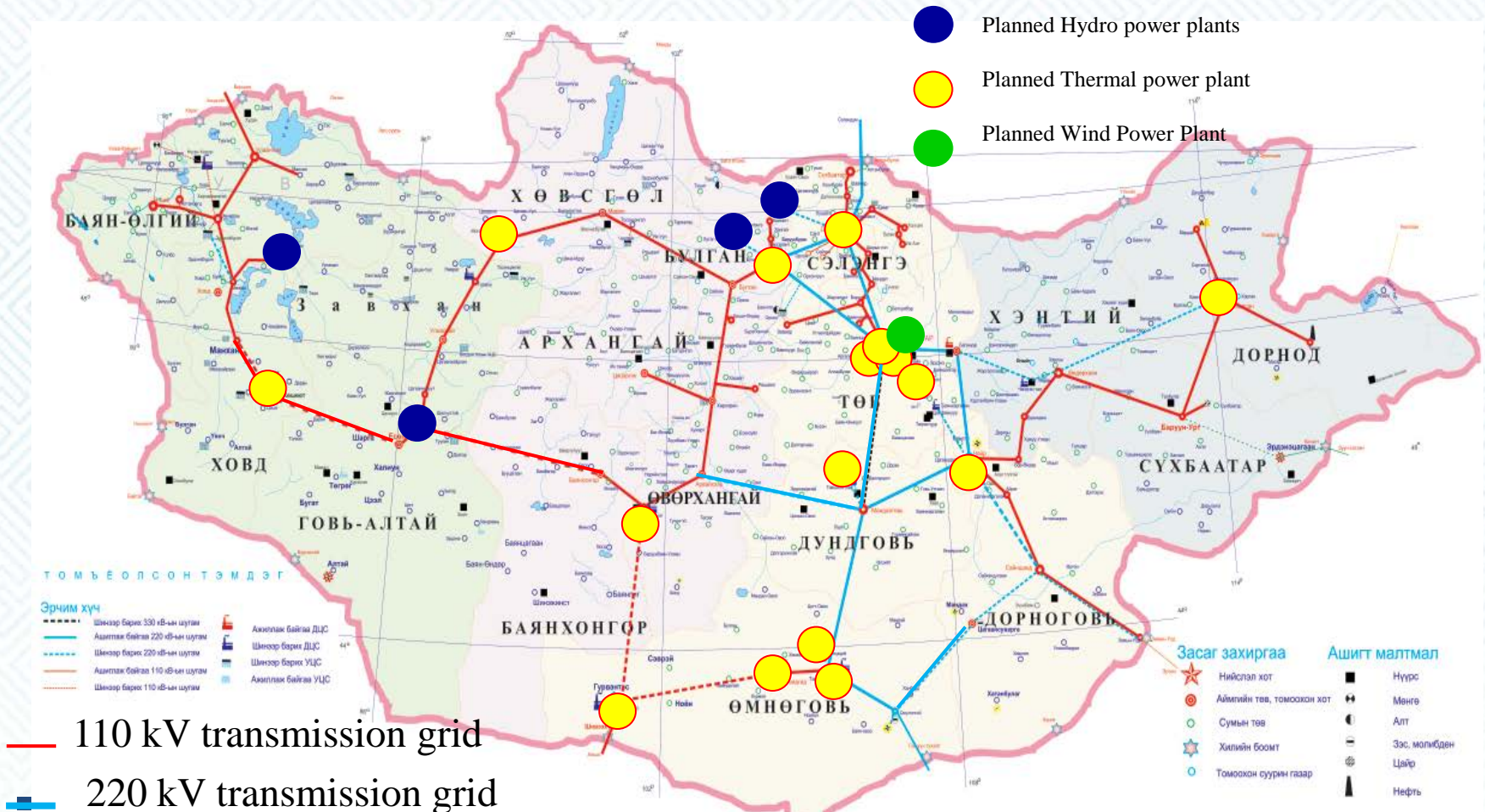
3. Current situation of Mongolian energy sector



Without “Oyutolgoi” mining demand



4. Future planning



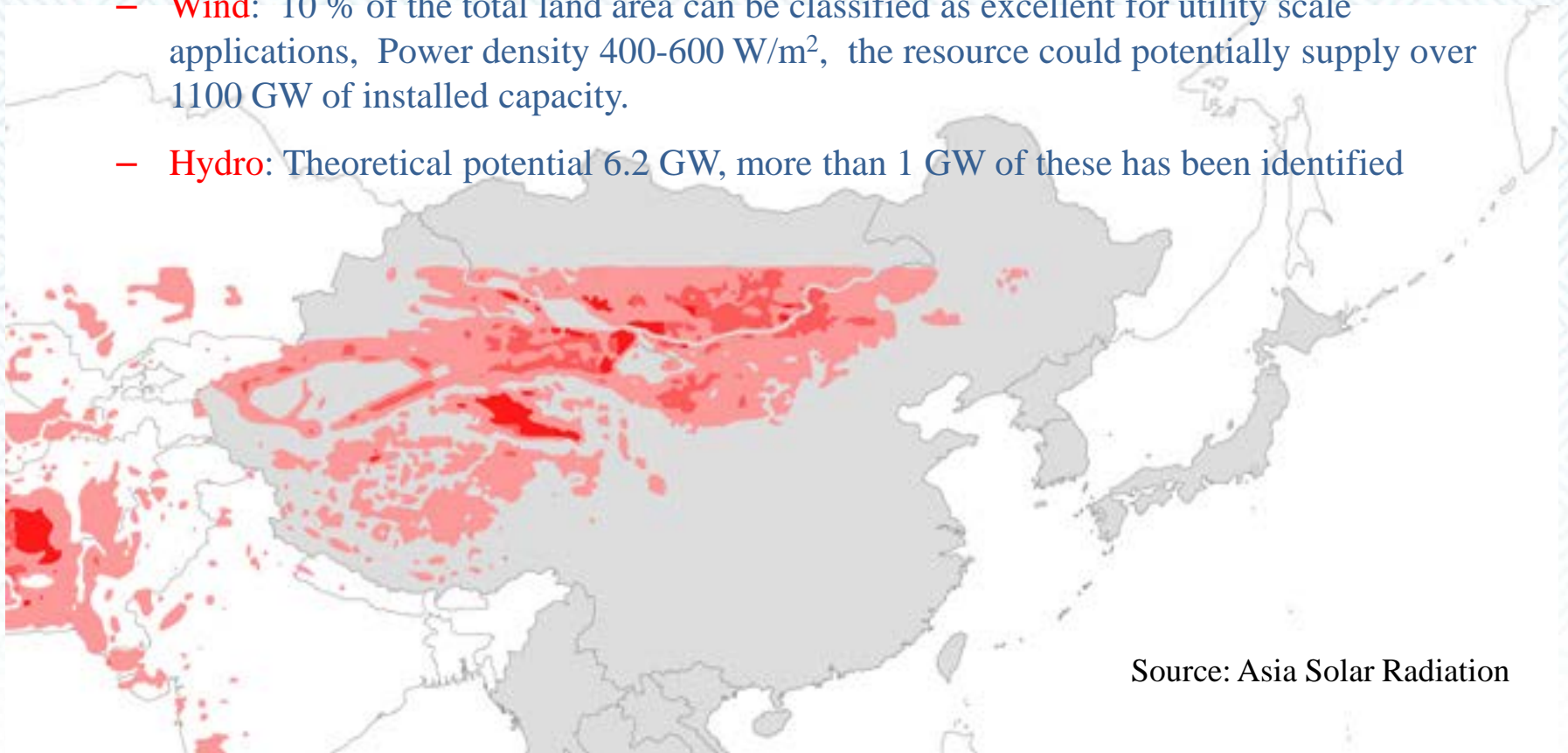
Rich resources of coal mining in Mongolia



5. Possibilities for further cooperation

There is a wide opportunity to cooperate in the **renewable energy** sector.

- Rich resources of Solar, Wind and Hydro in Mongolia:
 - **Solar**: 270-300 sunny days in a year, 4.3-4.7 kWh/meter or higher per day
 - **Wind**: 10 % of the total land area can be classified as excellent for utility scale applications, Power density 400-600 W/m², the resource could potentially supply over 1100 GW of installed capacity.
 - **Hydro**: Theoretical potential 6.2 GW, more than 1 GW of these has been identified



Source: Asia Solar Radiation



THANK YOU FOR YOUR KIND ATTENTION

Web page: www.energy.gov.mn

E-mail: gansukh@energy.gov.mn