

Resolution of the State Ikh Hural of Mongolia

Date: Jan, 31, 2007

On adoption of the Adjusted Program on Integrated Power System of Mongolia

The State Ikh Hural of Mongolia issue the following resolution:

1. Adopt the Adjusted Program on Integrated Power System of Mongolia specified by in the Appendix;
2. Oblige the Cabinet (M.Enkhbold) to organize operation measures to involve international banking and financial institutions, donor countries, domestic and foreign investors into implementation of the Program on Integrated Power System of Mongolia and include local portions of financing sources in annual state budgets.
3. Upon adoption of this resolution revoke the Resolution of the State Ikh Hural on Adoption of the Program on Integrated Power System of Mongolia issued on may 30, 2002.

CHAIRMAN OF THE STATE

IKH KHURAL OF MONGOLIA TS.NYAMDORJ

Appendix to the Resolution of the State Ikh Hural of May, 2007 No10

Program on Integrated Power System of Mongolia

One. Purpose and Objective of the Program

1.1. The purpose of this Program is to form the Integrated Power System of Mongolia (IPSM) that enhance reliability of power supply in order to secure economic development of Mongolia, improves efficiency and loss reduction, uses and maintains export of energy resources effectively in harmonization with socio-economic development of the country.

1.2. The following objectives shall be achieved within the framework of the Program:

1.2.1. Form in Mongolia an independent and reliable power system and create an efficient energy generation complex with as less as possible loss;

1.2.2. Export power to be generated by sources properly located throughout the country;

1.2.3. Restructure energy generation sources and make power supply in urban and settled areas reliable by defining the Energy Economy Policy, introducing new and efficient technology and equipment and utilizing renewable energy sources;

1.2.4. Secure power supply reliability in regions by constructing hydropower plants and high voltage transmission lines to connect these plants, strengthen energy system in the Western region in order to produce further effective regime and work and form IPSM through connecting thereof to the central energy system(CES); and

1.2.5. Develop laws and legal basis and management system applicable in the market economy principles and increase participation of private sector in fuel and energy sectors.

Two. Program Implementation Phases

2.1. The program shall be implemented in three phases:

2.1.1. **The first phase (Nearest future: 2007-2012):** Provide all soums and settlements with permanent supply of power from central and renewable energy sources on the basis of reliability advancement of power supply in regions and construction of new power generating sources and transmission lines.

2.1.2. **The second stage (Mid-term: 2012-2022):** In order to supply regions with reliable energy supply, construct new power generating sources and electricity transmission lines and connect WES, EES and CES by high voltage transmission lines and create conditions for formation of the integrated energy system.

2.2.3. **The third stage (Long term: 2022~2040):** Formation of the Integrated Energy System by connecting CES and WES with a high voltage transmission line.

Three. Energy Resources of Mongolia

3.1. Coal Reserves

3.1.1. Mongolia's coal reserves have been estimated to be about 150 billion tons. As a result of preliminary and detailed prospecting 20 billion tons of coal reserves have been declared. From 200 coal deposits being discovered with comparatively different location throughout the country, prospecting research and reserve assessment have been carried out for 50 coal deposits, and 40 coal deposits are being exploited.

3.1.2. Only a few coal deposits such as Nuurst hotgor, Har tarvagatai and Hushoot for local supply have been discovered in the Western Region. Prospecting in Zavhan province shall be continued because no coal deposit has been discovered yet in the province.

3.1.3. In the Hangai Region, coal deposits of local unimportance such as Saihan-Ovoo in Bulgan province, Jinst in Bayanhongor province and Mogoin gol in Hovsgol province as well as Bayanteeg coal deposit in Ovorhangail province are being mined.

3.1.4. The Central Region's coal reserves are abundant and several mines including Tavantolgoi, Baganur, Shivee-Ovo, Tevshin govi, Alagтого, Hangai are already in operation.

3.1.5. Smaller coal deposits such as Aduunchuluun (in Dornod province) and Talbulag in Sukhbaatar province are being exploited in the Eastern Region.

3.1.6. Oil prospecting in Mongolia came up with small deposits in eastern and gobi regions. No combustible gas resources have been discovered.

3.2. Renewable Energy Resources

3.2.1. Energy Resources of Mongolia being estimated at 6,417.7MW, hydropower may generate up to 56.2 billion kWh per year. Hydropower plants with the total capacity of 700 MW can be built in short and med term in western and northern regions.

3.2.2. About 270-300 sunny days per year with an average sunlight duration of 2,250-3,300 hours are available in most of the territories of Mongolia. An annual average amount of solar energy is 1,400kWh/㎡ with solar intensity of 4.3-4.7 kWh/㎡ per day.

3.2.3. Wind power resources are estimated at 836.8 billion kWh with potential usable duration of 3,500-4,600 hours per year.

3.3. Nuclear Resources

3.3.1. Although considerable uranium deposits have been discovered in Mongolia, no study on construction of a nuclear power plant has been carried out. Construction of a nuclear power plant needs international acceptance and permit; therefore, making nuclear generation as one of the reliable generation source upon due study of the developed countries' experiences will be a trend to be considered.