



MINISTRY OF FUEL
AND ENERGY

ENERGY DEVELOPMENT IN THE SOUTH GOBI REGION

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REGIONAL DEVELOPMENT PROGRAM

“Central regional development” from the Regional development program adopted by the Government in 2005

First Stage / 2005-2010 /

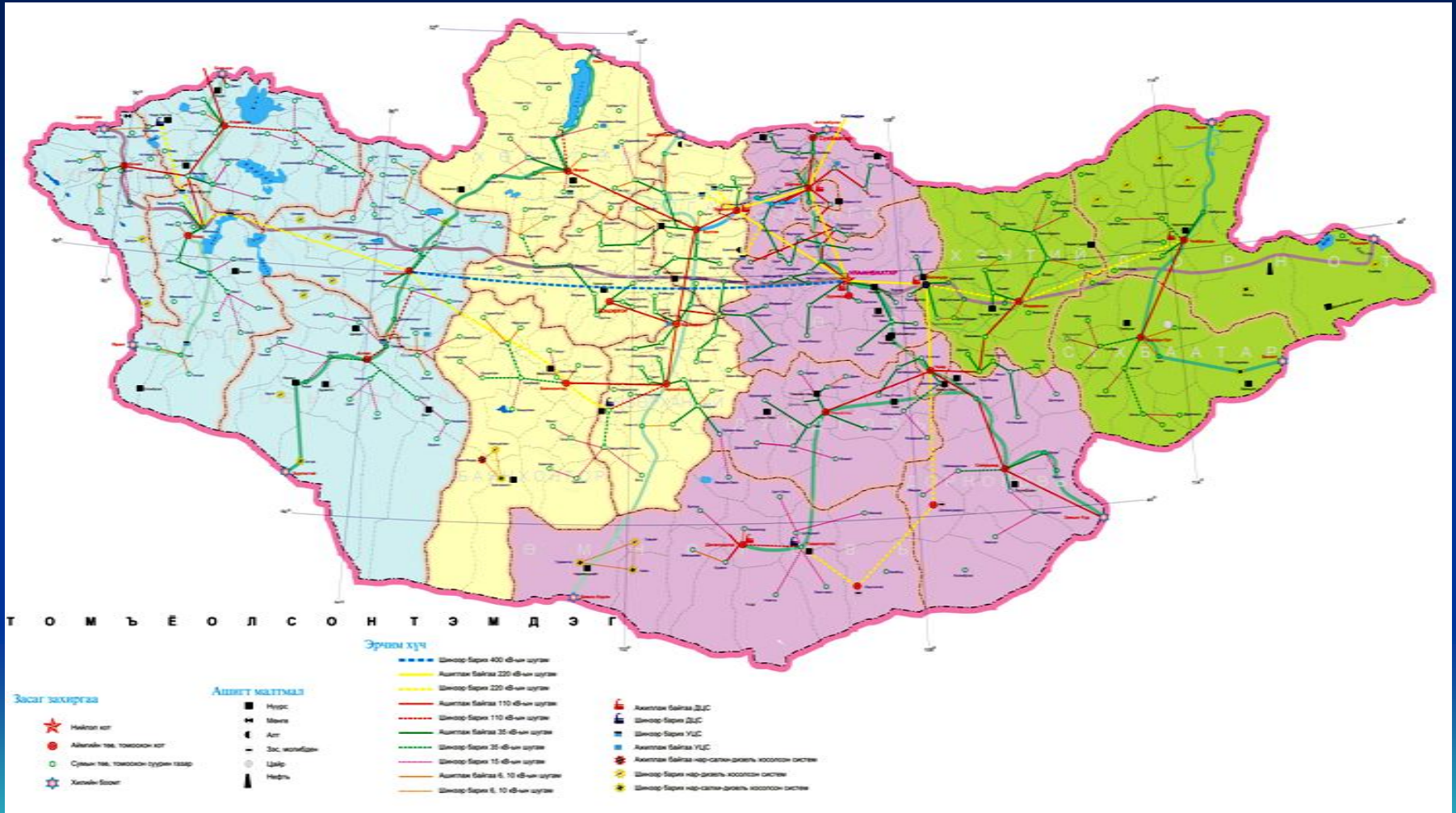
Priority goal 1. through energy supply of Oyutolgoi, Tavantolgoi deposits and industrial park, supply South gobi region with reliable and affordable electricity.

Second Stage /2010-2015/

Priority goal 1. Resolve energy supply of the region by improving fuel and energy sector’s management, introducing advanced technologies



Mongolian Integrated Power System Program



Energy demand and supply in the south gobi region

1. Electricity demand /big consumers to be build/

• Oyutolgoi copper mine	100-227 MW
• Tavantolgoi coal mine	100 MW
• Tsagaan suvarga mine	80 MW
• Dalanjargalan mine	40 MW
• Free zone of Zamyn Uud	30 MW
• Cement factory of Khukh tsav	20 MW

2. Electricity supply

- To build 220 kV DC transmission line Ulaanbaatar-Mandalgobi-Oyutolgoi from Central Energy System / 2008-2010 /
- To build Thermal Power Plant No.5 / 2009-2011 /
- To build Power Plant at Tavantolgoi / 2009-2012/
- To build power plant complexes with capacity of 3600 MW at Shivee-Ovoo / 2012-2015 /

220 kV DC transmission line Ulaanbaatar-Mandalgobi-Tavantolgoi-Oyutolgoi

- Feasibility Study was conducted in 2007 and approved by the Council of Science and Technique.

- Central Energy System's reserved capacity 150-200 MW
- Capacity of 220 kV DC transmission line 160-180 MW
- Energy demand of Oyutolgoi mine 100-215 MW

- Voltage 220 кWB
- Хэлхээний тоо 2
- Length of line 704 км

- Total investment 238,4 billion ₮
- Income /in 100-215 мW/ 35-50 billion ₮
- Investment recovery period 7-8 year

220 kV DC transmission line Ulaanbaatar-Mandalgobi-Tavantolgoi-Oyutolgoi (cont.)

- Under the fund of Mongolian Development, 238.4 billion tugrigs were allocated in the State Budget of 2008 for the construction of the line. Transmission line will be built in 2008-2010.
- The Tender Evaluating Committee, established by the Order No.57 of the Minister for Fuel and Energy of Mongolia in 2008, has prepared and submitted a tendering document for design, construction work of line to the Ministry of Finance in April.
- Building transmission line of Mandalgobi-Tavantolgoi-Oyutolgoi is discussed in Cabinet meeting with condition of 2 years' investment recovery period.



Ulaanbaatar Thermal Power Plant No. 5

- Installed electricity capacity 400-500 MW
- Heating capacity 800 - 1000 Gcal/hour
- Location - to establish gradually in eastern side of the city
- Total investment approx. US\$ 650 million

Progress

- The tender document preparation were finalized by the Ministry of Fuel and Energy.
- Investment issue were submitted and supported by the Cabinet discussion.
- The international bidding is planned to be announced in the near future.



Power Plant at Tavantolgoi

- Installed electricity capacity 600 MW
- Operation of capacity 6906 hours
- Annual production of electricity $4,1436 \cdot 10^9$ kW/hour
- Inside electricity demand 8 %

Total investment

USD 350 million

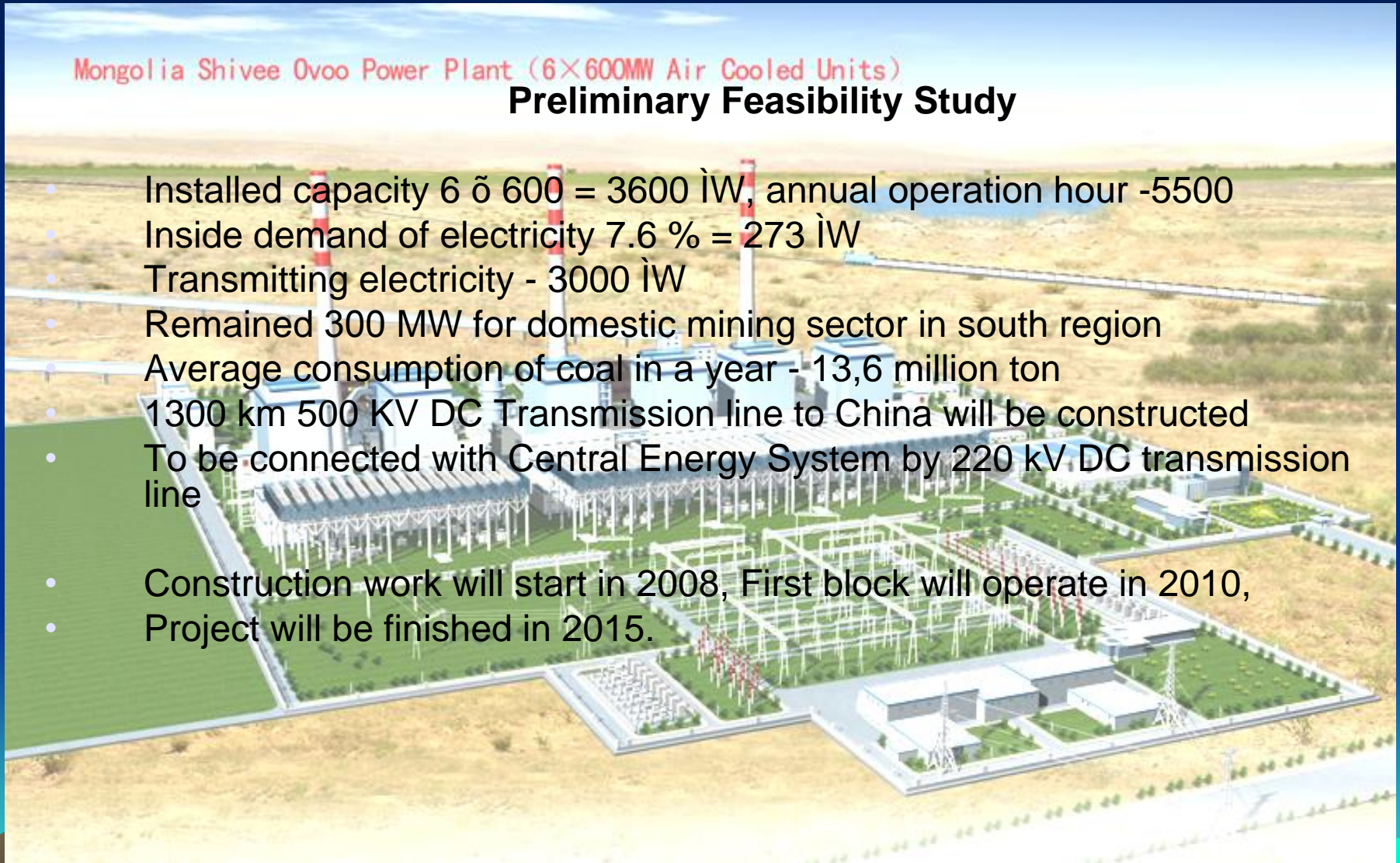


Power plant complexes at Shivee-Ovoo

Mongolia Shivee Ovoo Power Plant (6×600MW Air Cooled Units)

Preliminary Feasibility Study

- Installed capacity $6 \times 600 = 3600$ MW, annual operation hour -5500
- Inside demand of electricity $7.6 \% = 273$ MW
- Transmitting electricity - 3000 MW
- Remained 300 MW for domestic mining sector in south region
- Average consumption of coal in a year - 13,6 million ton
- 1300 km 500 KV DC Transmission line to China will be constructed
- To be connected with Central Energy System by 220 kV DC transmission line
- Construction work will start in 2008, First block will operate in 2010,
- Project will be finished in 2015.



Power plant complexes at Shivee-Ovoo (cont.)

Preliminary Feasibility study consists of power plant, coal mine and transmission line.

- 1. Construction work of Power Plant**
- 2. Extension of Shivee-Ovoo coal mine**
- 3. Construct 500 kV DC transmission line of Shivee-Ovoo-Erlian-Shouguang (Shanduang)**

Total cost of power plant complex at Shivee-Ovoo – USD 2976 mln.

After commissioning,

Electricity production – 20 billion kV/hour

Income /when 1 $\text{êV/h} = 2,5 \text{ cent/}$ - USD 505,6 million

Thank you for your attention!

