

Project Proposal 19

Project title:	CHOIR WIND FARM, 50 MW
Project background, project outline	<p>~ On June 9, 2005 the State Great Khural of Mongolia passed the "National Program for Renewable Energy". Government of Mongolia has established aggressive and meaningful targets for wind power development in the intermediate (2010 and 2020) time frame, coupled with objectives for establishing a commercially viable project development base.</p> <p>~ According to the Wind energy resource atlas of Mongolia, in southeastern of the Choir area there are significant areas of good-to-excellent wind resource for utility-scale applications. A pre-feasibility study of the Choir wind farm project recently started by Ebara Corporation of Japan.</p>
Production scale:	To be assumed 50MW
Market analyses, market survey:	To be connected to the Central Energy System
Total investment:	58.2 million US\$ (2005)
Requested Investment from foreign partners:	Loan/private investment BOT (any mode of investments are open). Long-term soft loan with interest rate of 1 % and term of 15 years
Project venue, construction venue:	<p>Choir city, Gobisumber aimag center, Mongolia</p> <p>The proposed project sites are located approx. in 230 km south of Ulaanbaatar city and in 8 km from Choir city, which is the third largest coal mining city in Mongolia. The Choir city has own substation which is connected to the Central Energy System through existing 220 kV transmission line. Also, the city has access to trans-Siberian auto and railroad. The Central Energy System is expected to expand to new discovered Cu-Au deposits in Oyu Tolgoi, coal deposits in Tavan Tolgoi through Choir. Also, the coal powered thermal power plant with 250MW installed capacity in planned to be constructed at Tavantolgoi.</p>
Estimated economic benefit:	<p>Estimated annual electricity production - 97.4 GWh;</p> <p>Estimated annual revenue - 6.8 million US\$ (based on 6.9 US¢/kWh);</p> <p>Estimated annual O&M cost - 1.1 million US\$;</p> <p>IRR - 14.5% (based on the tariff 6.9 US¢/kWh).</p>
Estimated investment profit rate:	6.5 %
Investment recovery period:	17 year (without CO ₂ offset), 10.5 year (with CO ₂ offset)