



# Design and Monitoring Framework

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Project Number: 42085  
July 2008

## AZE: Proposed Azerenergy Open Joint-Stock Company Power Transmission Enhancement Project

A design and monitoring framework is an active document, progressively updated and revised as necessary, particularly following any changes in project design and implementation. In accordance with ADB's public communications policy (2005), it is disclosed before appraisal of the project or program. This draft framework may change during processing of the project or program, and the revised version will be disclosed as an appendix to the report and recommendation of the President.

**Asian Development Bank**



## DESIGN AND MONITORING FRAMEWORK

Design Summary	Performance Targets/Indicators	Data Sources/Reporting Mechanisms	Assumptions and Risks
<p><b>Impact</b> Improved power transmission system that provides reliable and adequate electricity for sustained economic growth</p>	<p>Annual domestic electricity supply increased by 1,000 GWh by 2011.</p> <p>Annual average electricity outages reduced by 40 times, from 8-10 times/year to 0.2 time/year by 2011.</p> <p>Transmission system operating and maintained in accordance technical requirements by 2011.</p> <p>Optimization of power generation resource use through increase of domestic hydropower production 200 GWh and reduction of importation energy 650 GWh by 2011.</p> <p>Annual net CO<sub>2</sub> emission reduced by 1.3 million ton</p>	<p>Annual national statistics report.</p> <p>Statistics regularly conducted by Azerenergy;</p> <p>Project quarterly progress reports;</p> <p>ADB project completion reports</p>	<p><b>Assumptions</b> Macroeconomic growth remains stable.</p> <p>Government remains committed to power sector reforms and development.</p> <p>Planned transmission and generation projects commissioned.</p>
<p><b>Outcome</b> The capacity of backbone 220 kV power transmission and distribution network is expanded and strengthened with transmission bottlenecks removed and losses reduced</p>	<p>Transmission bottlenecks removed by 2011.</p> <p>Power transmission capacity of the 220 kV grid increased by 300 MW in 2011.</p> <p>Distribution capacity of 220 kV substations increased by 650 MVA in 2011.</p> <p>Reduction of transmission line losses by 25 GWh, from 6% to 3% in 2011.</p>	<p>National economic and social statistics.</p> <p>Azerenergy annual report, financial statement, and project account.</p> <p>ADB project performance evaluation report.</p> <p>Project quarterly progress reports ADB review missions</p>	<p><b>Assumptions</b> Government's high priority accorded to the Project.</p> <p>Load growth and system expansion as forecast.</p> <p>Improved institutional capacity.</p> <p>Adequate maintenance of facilities.</p> <p><b>Risk</b> Delay in project implementation.</p>

Design Summary	Performance Targets/Indicators	Data Sources/Reporting Mechanisms	Assumptions and Risks
<p><b>Outputs</b></p> <p>Construction of a new double-circuit 220 kV transmission line.</p> <p>Construction of a new 220/110 kV substation in Agdash with adequate facilities.</p> <p>Expansion of Absheron substation</p> <p>Construction of associated 110 kV transmission lines in the vicinity area of Agdash substation</p> <p>Capacity development activities for improving Azerenergy's performance</p>	<p>280 km double-circuit 220 kV transmission line from Mingechevir to Absheron.</p> <p>Installation of 2 sets of auto-transformers with a total capacity of 250 MVA, and other equipments.</p> <p>Installation of 1 set auto-transformer with a capacity of 400 MVA and other equipments.</p> <p>Erection of 110 kV transmission lines 50 km in vicinity areas of Agdash substation.</p> <p>Recommended social and environmental mitigation measures are well implemented.</p> <p>Implementation of Azerenergy operation improvement and training programs.</p>	<p>Azerenergy annual report, financial statement, and project account.</p> <p>Project quarterly progress reports ADB review missions</p>	<p><b>Assumptions</b></p> <p>Timely provision of counterpart funding.</p> <p>Azerenergy full cooperation with ADB and compliance with ADB's procurement and safeguard guidelines.</p> <p>Procurement of high quality equipment and material.</p> <p>Adequate project management</p> <p><b>Risks</b></p> <p>Unexpected increase in prices of commodities and raw materials.</p> <p>Delay on procurement and recruitment of consultants due to governmental approvals.</p>
<p><b>Activities with Key Milestones</b></p> <ol style="list-style-type: none"> <li>1. Recruitment of project implementation consultants completed by August 2008.</li> <li>2. Turnkey contract for civil works awarded by January 2009.</li> <li>3. Compensation for affected people completed by June 2009.</li> <li>4. Construction and installation of transmission facilities completed by 2011.</li> <li>5. Capacity development program commence by January 2009.</li> </ol>			<p><b>Inputs</b></p> <p>ADB \$160 million Azerenergy \$80 million <b>Total: \$240 million</b></p>