

## RISK ASSESSMENT AND RISK MANAGEMENT PLAN

Risk Description	Risk Assessment	Mitigation Measures or Risk Management Plan
<b>Financial Management</b>		
Flow funds arrangements	Low	<ul style="list-style-type: none"> <li>- Asian Development Bank (ADB) direct payment, commitment letters, and reimbursement procedures will be used for the project. No imprest account will be established.</li> <li>- The relending agreement between the Ministry of Finance and Uzbekenergo will be submitted to ADB.</li> </ul>
Accounting policies, procedures, and systems	Medium	<ul style="list-style-type: none"> <li>- An accounting system will be established and maintained for the project in order to minimize risk.</li> <li>- Information technology systems diagnosis and strategy development will be carried out by an international consultant to identify the weaknesses and design a mitigation plan including upgrading the accounting system and introducing an integrated management information system.</li> <li>- International financing reporting standards (IFRS) will be adopted and introduced by recruited or internally-trained accountants.</li> <li>- Documented procedures and staff training will be provided to retain institutional knowledge.</li> </ul>
Internal audit	Medium	<ul style="list-style-type: none"> <li>- Adequate staffing and sufficient training will be provided in the newly established internal audit unit by Uzbekenergo with the help of an international consultant.</li> </ul>
External audit	Medium	<ul style="list-style-type: none"> <li>- Loan and Project Agreements require Uzbekenergo's financial statements and project financial statements to be audited in accordance with international standards on auditing by an auditor acceptable to ADB. Uzbekenergo will submit to ADB the audited project financial statements within 6 months of the end of the fiscal year.</li> </ul>
<b>Administrative</b>		
Inherent risks	Medium	<ul style="list-style-type: none"> <li>- The PMU will be supported by international consultants. Training on ADB procedures will be provided.</li> </ul>
Staffing	Medium	<ul style="list-style-type: none"> <li>- Uzbekenergo will be responsible for retaining adequate staffing and timely payment of salaries to staff. Staff recruitment and training for IFRS will be implemented by Uzbekenergo with the help of an international consultant.</li> </ul>
Reporting and monitoring	Medium	<ul style="list-style-type: none"> <li>- A reporting system that will be able to generate financial reports automatically will be established and maintained for the project.</li> <li>- Implementation consultants will be recruited to assist PMU in supervising the project implementation, recording project costs, and preparing withdrawal applications and progress reports.</li> </ul>
Information systems	Medium	<ul style="list-style-type: none"> <li>- Information systems and processes will be enhanced to meet the demands of the organization, ensure operational stability, and allow management</li> </ul>

		information and financial data to be fully consolidated.
<b>Procurement</b>		
Procurement of the turnkey contract is delayed	Medium	<ul style="list-style-type: none"> <li>- Advance contracting will be adopted.</li> <li>- An international consulting firm will be recruited to assist Uzbekenergo in project implementation.</li> <li>- Uzbekenergo will recruit a sufficient number of experienced procurement specialists for the project management unit (PMU) before the bidding process.</li> <li>- Key stakeholders from Uzbekenergo and other bodies will be identified and involved in decision making from the beginning.</li> <li>- Procurement assistance will be provided through project preparatory technical assistance to the PMU staff before the bidding process.</li> <li>- The institutions responsible for contract registration assessment will be involved in the procurement and consultant recruitment process in order to avoid delays in the contract registration required for contract effectiveness.</li> </ul>
Delay in the Ministry of Foreign Economic Relations, Investment, and Trade contract registration	Medium	<ul style="list-style-type: none"> <li>- Continuous dialogue will be held between the executing agency and the Ministry of Foreign Economic Relations, Investment, and Trade to ensure that (i) contract registration does not cause unnecessary procurement delays, and (ii) the procurement complies with the Procurement Guidelines (2013, as amended from time to time) and price verification is not applied.</li> </ul>
<b>Corruption</b>		
Compromised procurement processes or integrity concerns	Medium	<ul style="list-style-type: none"> <li>- Project preparatory technical assistance and implementation consultants will be involved in the procurement process and will critically review the authenticity of proposals. ADB will conduct parallel reviews of eligibility documents and expressions of interest and proposals for the Engineering, Procurement and Construction (EPC) turnkey contract and consulting services contracts.</li> </ul>
<b>Technical</b>		
Photovoltaic (PV) module price fluctuation	Low	<ul style="list-style-type: none"> <li>- Early procurement.</li> </ul>
Lack of experience on building PV plants in Uzbekistan	Low	<ul style="list-style-type: none"> <li>- An EPC turnkey contract for the solar power plant will transfer the risk to a company with experience and sound financial capability.</li> <li>- Local capacity development assistance will be provided to increase the local share content and ownership.</li> </ul>
Lack of experience on the operation and maintenance (O&M) of solar power plants	Low	<ul style="list-style-type: none"> <li>- The EPC contractor will operate and maintain the PV plant for 3 years after commissioning to assure a smooth transition and capacity building.</li> <li>- Local capacity development assistance will be provided to increase local share content and ownership.</li> </ul>
Lack of the local industry to supply goods and profit from	Low	<ul style="list-style-type: none"> <li>- A specific budget has been allocated for capacity development to increase local manufacturing and services for the project and for future solar power</li> </ul>

the construction of the power plant		- plants in the region. - During the first three years of operation, the allocation of spare parts in the power plant warehouse will be guaranteed to minimize stops in the operation of the power plant.
Grid capacity, grid stability, and voltage drops	Low	- Uzbekenergo has checked grid capacity to evacuate 100 Megawatt electricity and grid stability. Specifications in the bidding documents and contracts for both the power plant and transmission system will ensure that international standards in PV grid integration are followed including voltage ride-through, voltage and frequency regulation, reactive power, and power factor requirements.
Nearby chemical plants	Low	- Emission standards according to Uzbekistan regulations are low enough so that the chemical plant will not be a risk to the power plant. The plant is situated away from dominant winds. The project site was moved 6 kilometers further from the chemical plant. The presence of harmful chemicals in the air will be monitored as part of the Environmental Management Plan and appropriate actions will be taken if needed.
Dust	Low	- Cleaning schedule and requirements will be adjusted to real conditions, and water consumption will be accounted for. EPC and O&M specifications will be established accordingly, as the warrantee will be based on the plant having the expected production.
Flooding areas	Low	- Dried creeks will be identified. The power plant will not be constructed in areas prone to flooding.
Seismic Risk	Low	- Civil works and buildings will be designed and constructed following international and national codes. Minimum design criteria should be equivalent to the Medvedev–Sponheuer–Karnik scale IX for ground-shaking intensity.
<b>Overall</b>	<b>Medium/Low</b>	

Source: Asian Development Bank.