



Project Summary Information

Project Name	Masdar 897MW Solar PV Portfolio (Samarkand, Jizzakh, and Sherabad solar PV plants)
Project Number	P000677
AIIB member	Uzbekistan
Sector/Subsector	Energy, Solar PV
Alignment with AIIB's thematic priorities	Green infrastructure; Private Capital Mobilization
Status of Financing	Under Disbursement
Objective	To support Uzbekistan's energy transition through the expansion of solar photovoltaic (PV) installed capacity.
Project Description	<p>The Project involves the design, financing, construction, ownership, operation, and maintenance of three solar photovoltaic independent power plants representing a combined 897 megawatt (MW) of installed capacity (Samarkand 220MW plant, Jizzakh 220MW plant and Sherabad 456.7MW plant) (the PV plants), and their associated interconnection facilities.</p> <p>The PV plants are being developed by Masdar (Abu Dhabi Future Energy Company PJSC), a global leader in renewable energy and sustainable urban development, through three separate special-purpose entities domiciled in Uzbekistan. Masdar was selected through an international competitive tender set up by the Ministry of Investment and Foreign Trade, the Ministry of Finance, and the Ministry of Energy with assistance from the International Finance Corporation (IFC) Scaling Solar 2 program (Samarkand and Jizzakh PV plants) and the Asian Development Bank (ADB)'s PPP Advisory Office (Sherabad PV plant).</p> <p>The Project is financed by a group of international financial institutions including the ADB, the European Bank for Reconstruction and Development (EBRD) and the European Investment Bank (EIB), in addition to AIIB (the Lenders).</p> <p>The Project is underpinned by three separate long-term power purchase agreements (PPA) with JSC National Electric Grid of Uzbekistan (NEGU). Each plant has its own separate Government Support Agreement and Investment Agreement, Land Agreement, and Land Lease Agreement.</p> <ul style="list-style-type: none"> • <u>Samarkand 220MW solar PV plant (L0677A)</u>

	<p>A 220MW solar PV plant situated in a 438-hectare (ha) area in the Kattakurgan district, 50 kilometers (km) northwest of the city of Samarkand, in the Samarkand region, in the Republic of Uzbekistan (Samarkand Plant). The Samarkand Plant is connected to the national grid by the 4.5 km 220kV new Overhead Transmission Line (OHL) to the nearest substation, in Ishtihan.</p> <ul style="list-style-type: none"> • <u>Jizzakh 220MW solar PV plant (L0677B)</u> <p>A 220MW solar PV plant situated in a 562-ha area situated 243 km southwest of Tashkent and 25 km west of the city of Jizzakh, in the Galaoroll district, in the Jizzakh Region, in the Republic of Uzbekistan (Jizzakh Plant). The Jizzakh Plant is connected to the national grid by the 14.70 km 220 kV new OHL to the nearest substation, in Saribazar.</p> <ul style="list-style-type: none"> • <u>Sherabad 457MW solar PV plant (L0677C)</u> <p>A 457MW peak capacity plant situated in a 631-ha area around 20 km south-west from Sherabad in the Surkhandaryya region, in the Republic of Uzbekistan (The Sherabad Plant). The Sherabad Plant is connected to the national grid by the 50.5 km 220kV new OHL to the nearest substation, in Jarkurgan.</p>
Expected Results	Expected results from the project will be measured based on: total capacity installed (renewable) (MWac), electricity generation (renewable) (GWh/year), electricity transmission lines (km), GHG emissions avoided (tCO ₂ eq), and indirect private capital mobilization (USD million).
Environmental and Social Category	EBRD Category B (which is equivalent to Category B if AIIB's ESP were applicable)
Environmental and Social Information	<p>Applicable Policy and Categorization. The Project is co-financed with EBRD, and the Project's Environmental and Social (ES) risks and impacts have been assessed in accordance with EBRD's Environmental and Social Policy (EBRD's ESP) and related Performance Requirements (PRs). To provide for a harmonized approach to addressing the ES risks and impacts of the project, and as permitted under AIIB's Environmental and Social Policy (AIIB's ESP), EBRD's ESP and relevant PRs will apply to the project in lieu of AIIB's ESP. AIIB has reviewed the EBRD's ESP and PRs and is satisfied that: (a) they are consistent with AIIB's Articles of Agreement and materially consistent with the provisions of AIIB's ESP, including AIIB's Environmental and Social Exclusion List (ESEL) and the relevant Environmental and Social Standards (ESSs); and (b) the monitoring procedures that are in place are appropriate for the project. EBRD has categorized the ES risks of the Project as Category B which is equivalent to Category B if AIIB's ESP were applicable.</p>

Environmental and Social Instruments. For each of the three PV plants, the client has prepared an Environmental and Social Impact Assessment (ESIA), which also included the project's framework of Environmental and Social Management and Monitoring Plan (ESMMP). Supplemental Critical Habitat Assessment (CHA) has been prepared to identify the species of concern and the draft Biodiversity Action Plan (BAP) aims to achieve No Net Loss (NNL) and Net Gain (NG) target as defined in EBRD PR6. Land Acquisition Audit has been proceeded to identify any legacy issue, with Livelihood Restoration Plan (LRP) been prepared to align with EBRD's PR5. Stakeholder Engagement Plan (SEP) is prepared and disclosed with other ES instruments including ESIA and LRP. The Lender's independent ES Consultant (LESC) has reviewed the ES documentation and finalized the Environmental and Social Due Diligence (ESDD) report and prepared Environmental and Social Action Plan (ESAP). Results of the ESDD are undertaken by the EBRD, and the LESC concludes that the Project is structured to comply with the EBRD's PRs.

Environmental Aspects. The site selection for three PV plants was undertaken prior to the sponsor securing the Project by the Government of Uzbekistan, with support from international consultants. The site selection process has balanced ES and other factors and largely avoided key ES impacts. All three PV plants are not located in protected areas but located in modified habitats. All PV plants required new 220KV OHLs to connect to the nearest sub-station. Those OHLs mainly cut across agricultural land or cultivated land. The CHA undertaken for the three PV plants has identified Central Asia Tortoise and other reptile species that are classified as Priority Biodiversity Features (PBFs) under EBRD PR6. No Net Loss is required and can be implemented through a combination of mitigation measures including pre-construction translocation, adapted fencing, and offset of lost habitat through the restoration of the available modified habitat wherever possible within the PV site. The Khaudag Ridge area at the eastern end of the Sherabad OHL has also been classified as Critical Habitat for Tajikistan Toadhead Agama. While permanent impacts will be limited to areas affected by tower footings, an NG of the species will be likely achieved through habitat restoration in this area. In addition, all three PV plants are not located on any major bottleneck or geographical feature that would concentrate migrating bird species and does not contain features that would attract migrating or over-wintering birds. Several species of birds have been assessed as PBFs and operational phase collision risk can be mitigated by the installation of bird diverters along the entire length of the OHLs. The site and OHL for Jizzakh and Samarkand are in proximity to important wintering habitat for Great Bustards (International Union for Conservation of Nature, Vulnerable) during cold winters. A draft Biodiversity Action Plan (BAP) is prepared to elaborate on the offset strategies and monitoring of mitigation and offset measures proposed in the ESIA.

Social and Gender Aspects. The proposed three PV plants have permanent and temporary land impacts. None of the three PV plants will require physical displacement, however, there are economic displacement impacts within the solar PV sites in Samarkand and Jizzakh and under the proposed OHLs. An audit of the historical land acquisition has identified gaps against Lenders' standards which will be addressed in the form of additional compensation for affected agricultural assets

and provision of livelihood restoration measures including a specific land enhancement grant and technical assistance to improve the capacity of leaseholders remaining land. Livelihood restoration measures proposed include securing and enhancing alternative community grazing land, maintaining access to the project site to continue feed collection and development of feed storage facilities as well as specific measures for affected herders. The final route and tower location for the OHLs have been selected in consultation with leaseholders to avoid structures and higher value crops where possible. Compensation for temporary and permanent impacts to 56 households in Sherabad, 7 leaseholders in Jizzakh and 4 leaseholders in Samarkand along the OHLs will also be provided. To mitigate the economic displacement impacts, a draft LRP for each PV plant has been developed and disclosed by the Borrower. In addition, provisions for equal employment opportunities will be reflected in the Contractor's and Company's human resource policies and management systems, and measures to support the employment of women, and measures to mitigate the potential influx of labor and Gender-Based Violence and Harassment (GBVH) risks will be implemented. This involves introducing an anti-GBVH policy with supporting procedures at each PV plant.

Occupational Health and Safety (OHS), Labor and Working Conditions (LWC). Each PV plant will develop a community health and safety management to mitigate the potential OHS impact for project-affected communities. The Project is co-financed with EBRD and AIIB will follow the same approach as that adopted by the EBRD in addressing potential issues regarding LWC. Enhanced supply chain due diligence has been conducted for the solar components. The Sponsor has provided evidence of a functioning supply chain management system including a number of policies and position statements stating that the Sponsor has a zero tolerance to labor violations. The supply chain for this particular Project, to polysilicon, has been mapped and will be verified by an independent consultant for point of origin. The Financing Agreement and ESAP require the Sponsor and the Borrower to maintain due diligence and management procedures for the sourcing of solar modules in accordance with Good International Practice.

Stakeholder Engagement, Consultation and Information Disclosure. The draft ESIA and associated documentation, including Non-Technical Summary (NTS), SEPs and LRPs in English and Uzbek were disclosed in December 2022 by the Borrower for Samarkand, Jizzakh and Sherabad PV plants on its website.¹ Those documents have been disclosed locally for a public consultation with consultation activities to be undertaken as outlined in the SEP. AIIB disclosed prepared ES

¹ **Masdar website:** <https://masdar.ae/en/renewables/our-projects/samarkand-solar-project>
<https://masdar.ae/en/renewables/our-projects/jizzakh-solar-project>
<https://masdar.ae/en/renewables/our-projects/sherabad-solar-project>
EBRD website: <https://www.ebrd.com/home/work-with-us/projects/psd/53062.html>
<https://www.ebrd.com/home/work-with-us/projects/psd/53062.html>
<https://www.ebrd.com/home/work-with-us/projects/psd/53063.html>

	<p>documents for the Project in English and Uzbek in an appropriate manner.² The Borrower has developed draft BAPs to elaborate on the offset strategies and monitoring measures, based on further consultation with recognized stakeholders in avian conservation, to demonstrate NNL/NG for CH and PBFs and will be disclosed once finalized.</p> <p>Project Grievance Redress Mechanism (GRM). The Borrower will disseminate the information of Grievance Redress Mechanisms (GRMs) at the project level for related stakeholders including local communities in accordance with EBRD's PR10 (Information Disclosure and Stakeholder Engagement) requirements. The information on project-level GRMs and EBRD's independent accountability mechanism in Uzbek at least will be disclosed timely in an appropriate manner. The EBRD's independent accountability mechanism (IAM) will provide avenues for complaints to file any concerns regarding the Project if the GRM at the project level for each one of three PV plants is not functional or irresponsive. Access to the mechanism including project-level GRMs and the IAM will be free of cost. The relevant EPC Contractor will also be required to establish its GRM, and the contacts to access this GRM will be disclosed in a timely and appropriate manner.</p> <p>Monitoring and Supervision Arrangements. The Project will be monitored by the LESC quarterly during the construction stage, and annually during the operation stage, to comply with the ESAP and EBRD's PRs, and the monitoring reports for three PV plants will be prepared based on an agreed format and submitted to the lenders including AIIB for review. The AIIB's ES Specialists will join the Lenders' group's field-based ES monitoring missions. AIIB has agreed with EBRD on the sharing of ES information and the monitoring of ESAP implementation.</p>
<p>Cost and Financing Plan</p>	<p>Total construction costs: approx. USD 622 million (excluding VAT and Finance Costs)</p> <ul style="list-style-type: none"> - Samarkand Plant cost: USD 151 million - Jizzakh Plant cost: USD 155 million - Sherabad Plant cost: USD 316 million <p>The final allocation of debt amounts committed by each lender are: ADB 26%, EBRD 34%, AIIB 20%, and EIB 20%. In respect of AIIB, the committed financing amount for the Project is USD 84 million.</p>
<p>Borrower</p>	<p>Samarkand Plant: Nur Samarkand Solar PV Foreign Enterprise LLC (Uzbekistan).</p> <p>Jizzakh Plant: Nur Jizzakh Solar PV Foreign Enterprise LLC (Uzbekistan).</p>

² AIIB website: <https://www.aiib.org/en/projects/details/2023/approved/Uzbekistan-Masdar-897MW-Solar-PV-Portfolio-Samarkand-Jizzakh-and-Sherabad-solar-PV-plants.html>

	Sherabad Plant: Nur Sherabad Solar PV Foreign Enterprise LLC (Uzbekistan).
Sponsor	Masdar (Abu Dhabi Future Energy Company PJSC)
Estimated date of last disbursement	Q4 2025

Contact Points:	AIIB	Borrower / Sponsor	
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Date of Concept Decision	Jul. 8, 2022		
Date of Appraisal Decision	Mar. 22, 2023		
Date of Financing Approval	Mar. 24, 2023		

Independent Accountability Mechanism	Pursuant to AIIB's agreement with EBRD, EBRD's independent accountability mechanism, the Independent Project Accountability Mechanism (IPAM), will review, in accordance with the EBRD Project Accountability Policy, all requests regarding environmental and social issues that may arise under the Project. Consequently, in accordance with AIIB's Policy on the Project-affected People's Mechanism (PPM), submissions to the PPM under the Project will not be eligible for consideration by the PPM. Information on EBRD's IPAM is available at https://www.ebrd.com/home/what-we-do/projects/independent-project-accountability-mechanism.html .
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