



Project Information Document

Concept Stage | Date Prepared/Updated: 05-27-2021 | Report No: 159585



BASIC INFORMATION

A. Basic Project Data OPS TABLE

Country Uzbekistan	Project ID P174322	Parent Project ID (if any) n.a	Project Name Uzbekistan: Scaling Solar Independent Power Producers (IPPs) Project
Region Europe and Central Asia	Estimated Appraisal Date October 29, 2021	Estimated Board Date December 15, 2021	Practice Area (Lead) Energy&Extractives
Financing Instrument Investment Project Financing - Guarantees	Borrower(s) Government of Uzbekistan	Implementing Agency JSC Uzbekistan National Power Networks (NES)	

Proposed Development Objective(s)

The Project Development Objective (PDO) is to increase and diversify electricity generation capacity through private investment in Uzbekistan.

Financing (in USD Million)

Financing Source	Amount
Total Project Cost	50.00

Environmental Assessment Category

Substantial - B

Concept Review Decision

Substantial - B

Have the Safeguards oversight and clearance functions been transferred to the Practice Manager? (Will not be disclosed)

Yes

Other Decision (as needed)



B. Introduction and Context

Country Context

Uzbekistan is a resource-rich, double-landlocked, lower-middle-income country that has the unique position of bordering all other Central Asian countries. The country has the largest population in Central Asia Region—33 million as of 2018, which is growing annually at about 1.7 percent in recent years—over 70 percent of whom are under the age of 40. The region is adjacent to some of the largest and rapidly growing economies in the world, including the People's Republic of China, the Republic of India, the Russian Federation, and the Islamic Republic of Pakistan, which presents an opportunity for Uzbekistan to become a hub for energy production and trade.

Uzbekistan has been progressing in major transformational reforms across the country and its economy, including the energy sector, aimed at the adoption of a market-based model for the sector in the medium and long term. Uzbekistan ranks among the top 10–30 countries with the largest energy and mineral reserves, including natural gas, gold, copper, uranium and coal. It has significant potential in renewable energy sources, such as solar, wind, and hydro, that can cater to the country's growing energy needs and transition to a clean and efficient energy economy. The energy sector sustainability is crucial for the security of supply, functioning of the economy and service delivery that the institutions, businesses and citizens rely on every day in Uzbekistan. Energy services are also essential in supporting the delivery of healthcare and public services during the current coronavirus (COVID-19) pandemic and in stimulating economic recovery and job creation, when COVID-19 crisis eases. Despite COVID-19 impact, broader sector reforms remain in progress, and the Government of Uzbekistan (GoU) is committed to further pursue such reform initiatives.

Uzbekistan's macroeconomic position remains relatively well managed through the initial phase of reforms. Prior to the onset of the coronavirus (COVID-19 crisis), Uzbekistan was on track for another strong year of economic performance in 2020. Real gross domestic product (GDP) growth was robust at 5.6 percent in 2019, responding to several reforms enacted since 2017. It was also broad-based, leading to a decline in poverty. However, the COVID-19 crisis has since extinguished economic growth, with GDP projected to increase by just 0.6 percent in 2020, which represents a significant downgrade from the 5.9 percent forecast before the pandemic, and a substantial slowdown compared with 5.5 percent average growth in 2018 and 2019. Macro risks have become more elevated due to the pandemic, but internal and external imbalances remain sustainable, because of strong buffers built up before the crisis.

Sectoral and Institutional Context

Uzbekistan is one of the most energy-intensive countries in the world. While Uzbekistan's energy intensity declined by about 45 percent during the last 15 years, the country's energy use per unit of GDP is 3.1 times higher than the average for the Europe and Central Asia region. The high level of energy intensity is common for all parts of the economy. The demand for electricity in Uzbekistan is primarily driven by industrial and residential customers, and the supply-demand balance is generally tight. Once the economy fully recovers from the COVID-19 impact and the ongoing transition results in economic and social development, the demand for electricity (64TWh in 2020) is expected to resume the steady growth in conjunction with the economic growth according to the Least-Cost Generation Expansion Plan (LCP; base-case scenario) supported by the World Bank. In terms of electricity consumption, the industrial sector currently represents the largest customer segment (41 percent), followed by residential (24 percent), agriculture (21 percent), commercial (11 percent), and others.

Uzbekistan's energy system is characterized by high losses and low reliability of supply, partially due to the rapidly aging supply infrastructure that was mostly constructed during the Soviet era. The weighted-average thermal efficiency of existing gas-fired thermal plants is 33 percent, significantly lower than new units with 53–56 percent efficiency. Transmission and distribution losses are estimated to be at around 20 percent of net generation. Both number and



duration of outages are high by the region's standards. High system losses are a symptom of the aging electricity supply infrastructure, as average electricity transmission and distribution systems have been used for over 30 years, and some of them require urgent rehabilitation and extension, in which IFIs have been supporting the GoU for loss reduction and supply efficiency as part of the sector reform in order to bring those losses to internally accepted levels by 2030.

As part of clean energy transition and decarbonization efforts, the electricity sector needs a fundamental shift in its power generation to cleaner and efficient energy sources, in order to meet the increasing energy demand in line with the predicated growth in the GDP and population, while also meeting the country's greenhouse gas (GHG) emissions reduction targets under the Paris Agreement. Diversification of power mix is currently limited as 85 percent of the total installed capacity of 13 GW depends on natural gas based, followed by hydropower (12 percent) and coal (3 percent). Large-scale deployment of renewable energy generation is urgently needed to diversify the fossil fuel dominated energy mix and to free up gas production to achieve resource optimization.

The energy sector is highly dependent on natural gas, which is also a major source of commodity exports and revenue. The depleting natural gas resources and energy system's overdependency on gas prompted the country to seek sustainable energy transition pathways, in which the introduction of renewable energy (solar and wind) and replacement of inefficient and old gas-fired generation units with new combined cycle gas turbines (CCGTs) will reduce demand pressure and rationalize gas consumption for power, because insufficient capital investment into new gas exploration and production and network modernization pose challenges in gas supply. To better address the gas sector issues and improve the supply efficiency and financial sustainability, the GoU has already unbundled the Uzbekneftegaz (UNG, SOE in oil and gas) and has been developing a natural gas sector reform program supported by international financial institutions (IFIs) and sector stakeholders.

Renewable energy is therefore a promising source of energy to diversify the energy mix away from its dependency on natural gas and other fossil fuels, but it is not yet exploited on a large scale, except for hydropower. The estimated technical potential of renewables (3,494 TWh) is significantly higher than the current demand for electricity (61.2 TWh) and they are increasingly becoming economically competitive, but the utilization of renewables remains a fraction of the potential. Some of the challenges identified include inadequacy of the institutional framework for renewable energy development, subsidized pricing of competitive power sources, and financial weakness of unbundled Uzbekenergo (UE) companies. To accelerate deployment of renewable energy potential, the GoU has embarked on major reforms to stimulate renewable energy investment including adopting the Renewable Energy Law and Grid Code, strengthening energy sector institutions, and establishing supportive investment legal and regulatory frameworks including PPP-related laws and a national target such as 25 percent of renewables in power mix by 2030.

Recognizing the country's huge renewable energy potential for diversification of the energy mix and emphasizing the need for clean energy transition, the GoU has taken initial measures for the development of renewables with private sector participation, to which the proposed Project aims to contribute. The GoU approved in April 2020 its 2020-2030 generation expansion plan, which calls for development of about 15 GW of net generation capacity (at an estimated investment cost of US\$14.7 billion) by 2030, of which 5,000 MW and 3,000 MW solar and wind power, respectively.

Relationship to CPF

The Project is well aligned with and contributes to the World Bank Performance and Learning Review (PLR) of the Country Partnership Framework (CPF) for Uzbekistan (FY2016–20), including adjusted in response to COVID-19. Specifically, it is consistent with and contributes to the PLR's following objectives: (a) Objective 1.1. Enhanced economic growth and transition toward a market economy; (b) Objective 2.1. Strengthening fiscal institutions and financial sustainability of SOEs; (c) Objective 2.2. Increased access, efficiency and reliability of power supply and heating services; and (d) Objective 1.5. Improved efficiency of infrastructure service delivery, including through PPPs. The PLR identifies



key priorities for World Bank Group engagement in the energy sector, among others, (a) SOE reforms, (b) energy sector strategy development, (c) scaling-up of clean energy development and energy efficiency, and (d) strengthening of regional energy trade and market development. The proposed Project would contribute to these four priorities in the energy sector. The World Bank Group's engagement in Uzbekistan has been adjusted to the unexpected COVID-19 impact. The Bank's priority in FY21-22 is to sustain Uzbekistan's ambitious reforms in the context of a new post-COVID normal. The Bank's program in Uzbekistan is well-balanced between supporting the emergency response and strengthening the economy post-COVID.

C. Proposed Development Objective(s)

The Project Development Objective (PDO) is to increase and diversify electricity generation capacity through private investment in Uzbekistan.

Key Results (From PCN)

Success of the project will be monitored against achievement of the following results indicators:

- (a) Power generation capacity constructed (renewable/solar, MW);
- (b) Electricity supplied by the project into the grid (renewable/solar, GWh);
- (c) Private capital mobilized (equity/debt; US\$); and
- (d) Greenhouse gas emissions avoided (tCO₂/year).

D. Concept Description

The proposed Project consists of the development of 900 MW solar PV capacities as Component 1 (400MW) and Component 2 (500MW) to be implemented under the WBG Scaling Solar initiative that will support private investments in renewable/solar power generation through provision of IBRD payment and/or loan guarantees, whichever may be appropriate depending on the financing strategy of the bidders. IFC Transaction Advisory has already been in place to assist the GoU in attracting international investors for the development of the planned solar PV capacities.

- Component 1 - Scaling Solar 2 (400MW): The Scaling Solar 2 will include development by private developers of two solar power generation projects in Samarkand and Jizzakh regions.
- Component 2 - Scaling Solar 3 (500MW): The Scaling Solar 3 will include development of three solar power generation plants by private developers in Bukhara, Namangan and Khorazm regions.

Both project components will be developed under the WBG Scaling Solar Initiative. WBG Scaling Solar brings together a suite of World Bank, IFC, and MIGA services and instruments under a single engagement aimed at creating viable markets for grid-connected solar PV power plants. It is an open, competitive, and transparent approach that facilitates the rapid development of privately owned, utility-scale solar PV projects, and now in Uzbekistan, first time outside Africa. It is capable of rapid implementation and offers a 'one-stop-shop' package of advisory services, contracts, financing, guarantees, and political risk insurance. This enables governments and utilities to procure solar power transparently and at the lowest possible cost. The program has been designed to ease replicability in similar countries while taking into account local specificities (for instance, site availability).

The objective of the WBG Scaling Solar Program is to target markets with perceived high risk for the private sector, playing a catalytic role in relatively more challenging markets. A typical Scaling Solar market would have the following



characteristics: (a) single-buyer electricity supply industry structure; (b) low credit quality off-takers; (c) governments with limited institutional capacity; and (d) nonexistent, limited, or poor track record with IPPs. As a country with limited PPP track record, Uzbekistan’s recently unbundled off-taker, NES and the power market in transition present a substantial risk to private developers to deploy long term capital. In this context, the contractual framework is designed to address the single buyer risks with appropriate risk allocation and appropriate government support. Standardized documentation makes it easier for governments to adopt the Project framework and achieve speedy implementation. The program aims to start delivering energy within a two-year timeframe from initial government engagement.

As part of the WBG Scaling Solar program’s original design, IFC Advisory Services (IFC Advisory) supports governments in preparing a competitive and transparent solar tender based on template documents and processes. Based on the bid package, IFC Investment Services (IFC Investment), World Bank, and MIGA then provide term sheets for financing, guarantees, and political risk insurance, respectively. Bidders can decide to use none, a combination, or all of these WBG instruments. For the Project and in light of the role identified for the World Bank Guarantee support, two applications of the IBRD Guarantees for each project have been discussed with the GoU to be included as part of the RFP to the private investors: WB Guarantee for a letter of credit (L/C) (WB Payment Guarantee) and a WB Guarantee for a commercial bank tranche of debt (WB Loan Guarantee). Both WB Guarantee structures (and the cover provided) are commonly used in PPP transactions.

Legal Operational Policies	Triggered?
Projects on International Waterways OP 7.50	No
Projects in Disputed Areas OP 7.60	No

Summary of Screening of Environmental and Social Risks and Impacts

The Project will be processed and prepared in accordance with OP 4.03 Performance Standards for Private Sector Activities. Based on the preliminary findings, the environmental risk rating is expected to be substantial and the social risk rating moderate at this stage. As part of the IFC Advisory, a preliminary site-specific environmental and social suitability assessment has been conducted for the Project’s Component 1 locations (Samarkand and Jizzakh). The report indicates that the selected sites are appropriate for the planned Solar PV plants with no significant, unmitigable environmental or social impacts. The same approach will be adopted for Component 2 (Bukhara, Namangan and Khorazm Scaling Solar IPPs) at further stages, when the site selection is completed, and preliminary assessments are conducted before the decision and board submission stages.

The winning bidder to be selected will prepare the following instruments for the proposed Solar PVs under the Project, to be approved by the Bank prior to appraisal: an Environmental and Social Impact Assessment (ESIA) and Management Plan (ESMP); Resettlement Policy Framework (RPF), Labor Management Procedures (LMP) for the project; a Grievance Redress Mechanism (GRM); and a Stakeholder Engagement Plan (SEP). During project preparation, the Bank will work with the winning bidders to identify appropriate monitoring framework to ensure that the Bank performance standards will be complied by the solar PV power plants supported under the proposed guarantee program. The planned Solar PV plants are not expected to trigger the World Bank’s Operational Policies on Projects on International Waterways (OP 7.50) or Projects in Disputed Areas (OP 7.60).



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APPROVAL

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