ADB

Concept Paper

Project Number: 54056-001
June 2020

Proposed Partial Credit Guarantee Facility
UZB: Uzbekistan Solar Public-Private Partnership Program

Asian Development Bank

CURRENCY EQUIVALENTS
(as of 15 June 2020)

Currency unit	–	SUM
SUM1.00	=	$0.0000984557
$1.00	=	SUM10,156.85

ABBREVIATIONS

ADB	–	Asian Development Bank
JSC	–	Joint-Stock Company
LC	–	Letter of Credit
PCG	–	Partial Credit Guarantee
PPP	–	Public Private Partnership
PV	–	Photovoltaic
RFP	–	Request for Proposal
TA	–	technical assistance

NOTE

In this report, "$" refers to United States dollars.

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[a] Outposted to the Uzbekistan Resident Mission.

CONTENTS

INVESTMENT PROGRAM[a] AT A GLANCE

1. Basic Data — **Project Number:** 54056-001

Project Name	Partial Credit Guarantee Facility for Uzbekistan Solar PPP Program	**Department/Division**	CWRD/CWEN
Country	Uzbekistan	**Executing Agency**	Ministry of Energy of the Republic of Uzbekistan, Ministry of Finance, Ministry of Investment and Foreign Trade (MIFT), Public-Private Partnerships Development Agency
Borrower	Government of the Republic of Uzbekistan		
Country Economic Indicators	https://www.adb.org/Documents/LinkedDocs/?id=54056-001-CEI		
Portfolio at a Glance	https://www.adb.org/Documents/LinkedDocs/?id=54056-001-PortAtaGlance		

2. Sector

	Subsector(s)	ADB Financing ($ million)
✓ **Energy**	Renewable energy generation - solar	80.00
	Total	**80.00**

3. Operational Priorities

- ✓ Accelerating progress in gender equality
- ✓ Tackling climate change, building climate and disaster resilience, and enhancing environmental sustainability
- ✓ Strengthening governance and institutional capacity

Climate Change Information

GHG reductions (tons per annum)	247,950
Climate Change impact on the Project	Medium
ADB Financing	
Adaptation ($ million)	0.00
Mitigation ($ million)	80.00
Cofinancing	
Adaptation ($ million)	0.00
Mitigation ($ million)	0.00

Sustainable Development Goals

SDG 1.a
SDG 5.c
SDG 7.a
SDG 9.1
SDG 12.2
SDG 13.a

Gender Equity and Mainstreaming

Some gender elements (SGE) ✓

Poverty Targeting

General Intervention on Poverty ✓

4. Risk Categorization: Complex

5. Safeguards Categorization [Tranche 1] **Environment:** B **Involuntary Resettlement:** B **Indigenous Peoples:** C

6. Financing

Modality and Sources	Indicative Tranches ($million)				Amount ($million)
	I	II	III	IV	
ADB					**80.00**
Sovereign Partial Credit Guarantee: Ordinary capital resources	16.00	24.00	20.00	20.00	80.00
Cofinancing					**0.00**
None	0.00	0.00	0.00	0.00	0.00
Counterpart					**20.00**
Government	4.00	6.00	5.00	5.00	20.00
Total	**20.00**	**30.00**	**25.00**	**25.00**	**100.00**

Currency of ADB Financings: US Dollar

INVESTMENT PROGRAM[a] AT A GLANCE

7. Country Operations Business Plan

CPS	https://www.adb.org/sites/default/files/institutional-document/510251/cps-uzb-2019-2023.pdf
COBP	https://www.adb.org/sites/default/files/institutional-document/534956/cobp-uzb-2020-2022.pdf

8. Investment Program Summary

ADB was appointed as a Transaction Advisor to develop sustainable project structures and replicable project templates for 1GW solar power plants, which is part of Government's broader 5GW solar energy development strategy by 2030. All subprojects will be developed following an independent power producer (IPP) scheme where a private entity will generate electricity for sale to the power off-taker and recover the operating and investment costs through the electricity tariff. As an IPP will design, finance, build, own, operate and maintain the solar power plants, contracting an IPP avoids the financial pressure for the government to construct and own power plants requiring a vast outlay of initial capital. In many other countries, IPPs are playing crucial roles in adding the power generation capacity and providing security of energy supply with well-structured contractual arrangements and risks allocation.

Impact: Inclusive economic growth achieved through increased clean and sustainable energy supply
Outcome: Renewable energy generation increased by private investment

Outputs: (i)Solar power generation capacity increased, (ii)Grid interconnection infrastructure developed, and (iii)Government's capacity for attracting private investment strengthened

Implementation Arrangements: Ministry of Energy of the Republic of Uzbekistan, Ministry of Finance, Ministry of Investment and Foreign Trade (MIFT) and Public-Private Partnerships Development Agency will be the executing agencies.

Project Readiness: ADB's Transaction Advisory Service funded by the Preparation of Public of Public?Private Partnership Projects has been supporting the preparation. The site is based on the preliminary feasibility study developed with ADB?s technical assistance. On 1 February 2020, request for expressions of interest (EOI) for the first project was announced, with the liquidity support of a sovereign backed PCG indicated, and 54 EOIs were subsequently received. Request for Proposal (RFP) will be issued with design requirements and fully developed contract templates, based on which the IPP will conduct the detailed engineering design and construction. The indicative terms and conditions for PCG will be issued to the bidders as part of RFP, and the templates for PCG and related contracts will be prepared in parallel. The PCG will be fully implemented before the financial closing of the project and maintained during the entire duration of the project.

9. Milestones

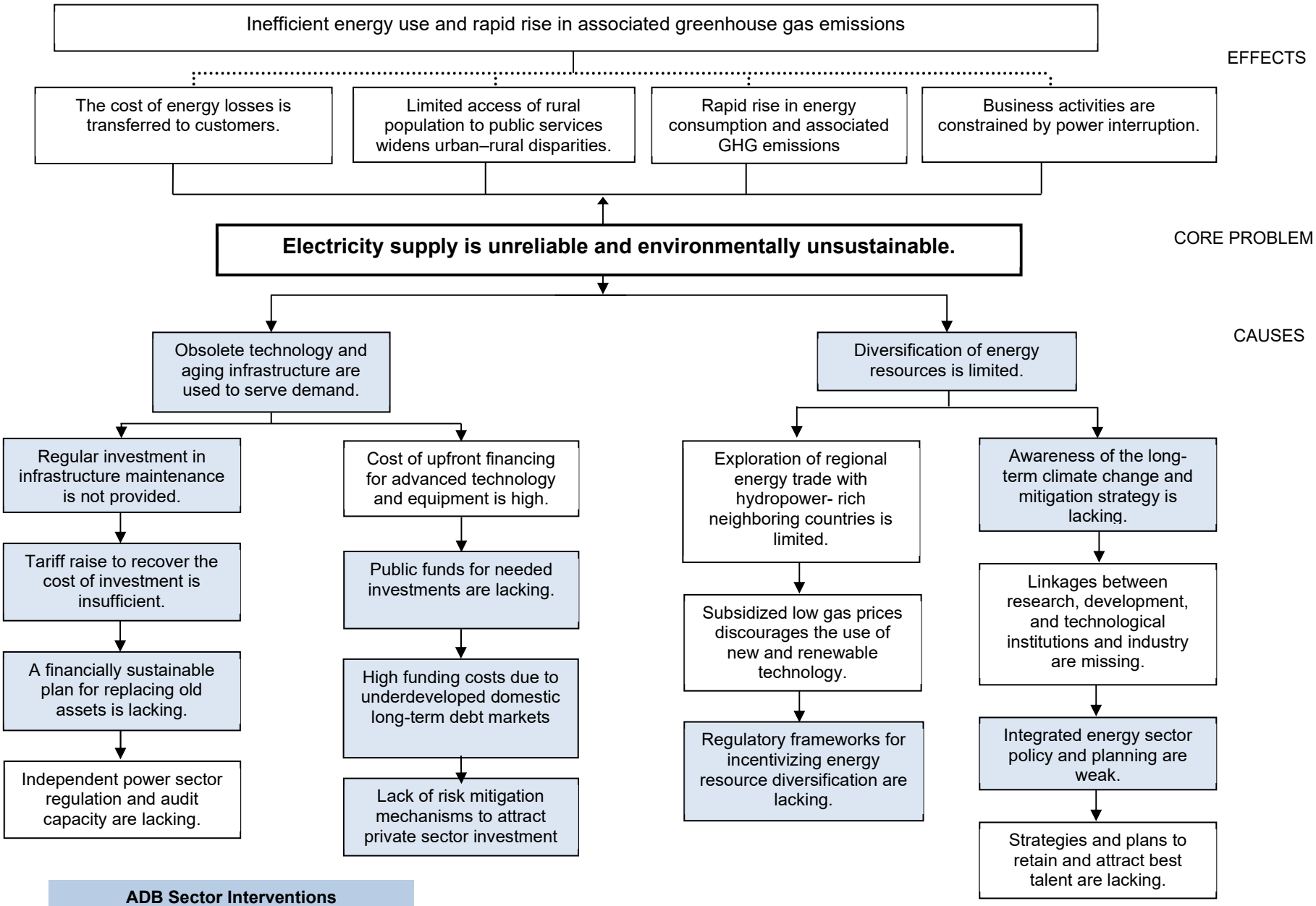
Modality	**Estimated Approval**	**Estimated Completion**[b]
Multitranche financing facility	25 January 2021	31 December 2025
Tranche I	28 February 2021	
Tranche II	31 January 2022	
Tranche III	28 February 2023	
Tranche IV	28 February 2024	

10. Project Data Sheet (PDS)

PDS[c]	Not posted yet

[a] Multitranche Financing Facility (MFF).
[b] For MFF, this refers to the end of the availability period; for tranches, this refers to the tranche closing date.
[c] Safeguard documents can be viewed by clicking the Document's hyperlink in the Project Data Sheet (PDS) page.

PROBLEM TREE



ADB = Asian Development Bank.
Source: ADB.

I. THE INVESTMENT PROGRAM

A. Rationale

1. Benefiting from high commodity prices, Uzbekistan experienced robust economic growth averaging more than 8% for the first part of the 2010s. However since 2015, unfavorable external environment conditions, such as declining commodity prices and subdued growth of trading partner countries, combined with the internal structural issue of extensive state control, weak governance, and limited foreign investments have slowed down economic growth, underscoring the need for far-reaching reforms to address major issues in the economy. In response, the government initiated macroeconomic reforms in 2017, with a view to stimulate demand and promote foreign investment and private sector development including the liberalization of the foreign exchange market.[1]

2. **Sector Roadmap.** In modern economies, reliable and affordable electricity is fundamental for driving economic growth and socio-economic development. The structure of the electricity supply industry is an important factor determining the ability of these economies to meet such goals. Uzbekenergo, as the monopolistic vertically integrated state-owned enterprise, was tasked to provide electricity for Uzbekistan. However, inherent limitations and inefficiencies of the state-controlled structure resulted in (i) uneven electricity supply seasonally and geographically, (ii) highly subsidized operational costs, (iii) inadequate investment in power generation capacity to meet the fast-growing demand, and (iv) aggravating dependence on fossil fuels. Of the existing 12.5 gigawatts (GW) thermal power plant capacity in Uzbekistan, more than 40% is in plants aged 40-50 years with low efficiency and poor reliability. In 2019, the country generated about 63,600 gigawatt-hours (GWh) of electricity and almost 56,500 GWh or 88.8% of the total electricity is generated from fossil fuels. To reduce the carbon footprints from the sector and lower the cost of electricity, it is instrumental to exploit the least-cost renewable resources at large scale.

3. **Policy Framework.** In 2020, the government adopted a power sector development strategy.[2] This strategy targets the deployment of renewable energy at large scale with a target of adding 5 GW utility scale solar capacity and distributed small-scale solar plants by 2030. The share of renewable energy will be 15% of the total electricity generation from its near-zero status, significantly contributing to meeting the climate commitment under Intended Nationally Determined Contribution. To achieve this, the government has also created a legal and institutional framework for the Public Private Partnerships (PPPs) through the Renewable Energy Law and PPP law enacted in 2019, and aimed to attract the private investments in the solar projects using PPP modality to fast-track the deployment of 5GW solar power projects. Given the nascent private sector investment environment and underdeveloped financing market for long-term financing in Uzbekistan, ADB's support is necessary to structure bankable projects in the international market and to create conditions for the private sector investments.

4. **Strategic Context.** To accelerate private investment at large scale in solar energy, the government needs to further liberalize the sector with market principles, strengthen the regulatory framework, and improve financial viability of the sector. ADB's country partnership strategy (CPS), 2019–2023 for Uzbekistan consolidates lending and non-lending activities into larger programmatic approaches and increases synergies to develop a robust private sector in the energy sector. ADB undertook multiple diagnostic and analytical studies since 2018. The findings

[1] Government of Uzbekistan. 2017. Presidential Decree No. 4947: The Strategy of Actions on Further Development of Uzbekistan. Tashkent.

[2] Government of Uzbekistan. 2020. *Concept Note for ensuring electricity supply in Uzbekistan in 2020-2030.* Tashkent

recommend prioritizing the financial sustainability issues to streamline pricing policy, offload public burden through private investments, and reduce costs of electricity by inducting solar and wind, as well as addressing the sector's governance and institutional constraints.[3] ADB will continue its engagement for the broader sector reform to tackle policy and regulatory hurdles, and, in parallel, help the government design, prepare, and bring to the market the bankable projects for the private investment.

B. Proposed Solutions

5. ADB was appointed as a Transaction Advisor to develop sustainable project structures and replicable project templates for 1GW solar power plants (Appendix 5), which is part of Government's broader 5GW solar energy development strategy by 2030. All subprojects will be developed following an independent power producer (IPP) scheme where a private entity will generate electricity for sale to the power off-taker and recover the operating and investment costs through the electricity tariff. As an IPP will design, finance, build, own, operate and maintain the solar power plants, contracting an IPP avoids the financial pressure for the government to construct and own power plants requiring a vast outlay of initial capital. In many other countries, IPPs are playing crucial roles in adding the power generation capacity and providing security of energy supply with well-structured contractual arrangements and risks allocation.

6. **Letter of Credit (LC)**. The IPP structure above is anchored on the credibility of the off-taker, the Joint-Stock Company National Electric Grid of Uzbekistan (NEGU). Established in 2019 as a successor of Uzbekenergo for the ongoing transmission project, NEGU inherited poor financial management practices from Uzbekenergo and the initial assessment indicates the financial management risk is high.[4] A time-bound action plan is under implementation to improve its creditworthiness with assistance of ADB and World Bank. It is challenging for NEGU to drastically improve its credit position in a short- to medium-term and establish track record of tariff payments for an IPP. A standby letter of credit (LC) facility provided by a bank (LC Issuing Bank) will cover the risk that the off-taker fails to make payments to the IPP in accordance with the terms of power purchase agreement (PPA). The LC Issuing Bank will be at least independent from the control of the government of Uzbekistan, and have acceptable credit ratings both for the IPP and ADB.

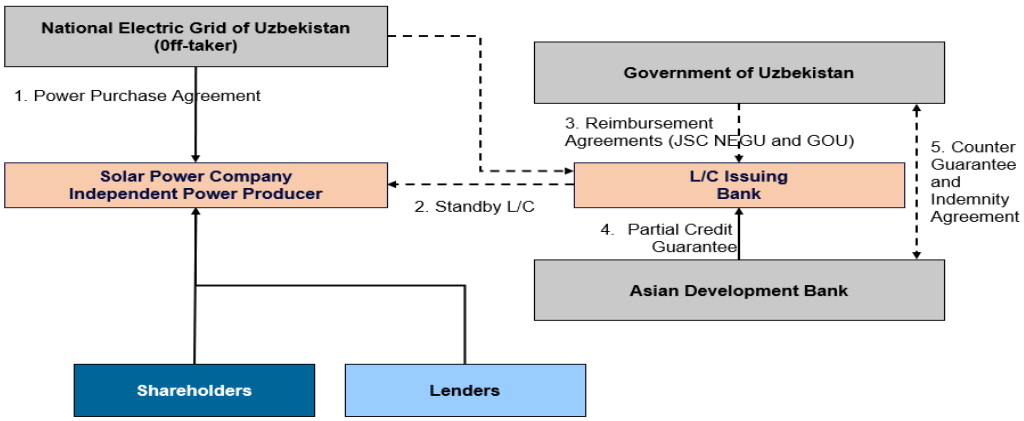
7. **Partial Credit Guarantee**. The standby LC will be further enhanced by ADB's partial credit guarantee (PCG) with a sovereign counterindemnity. The use of the PCG is essential for the LC Issuing Bank to provide the LC at a reasonable price by reducing credit risk of the off-taker. The involvement of ADB in the project structure with a PCG backed by a sovereign counterindemnity will also be instrumental in giving assurance to the private investors and commercial lenders that the government will honor its obligations. By offering this PCG upfront as a risk-mitigation measure during the international tender process, the bidders will be incentivized to propose the lowest possible tariff, which will eventually benefit the government and end consumers. The mechanism of the PCG is outlined in Figure 1. below: (1) a default in the payment obligation of NEGU under the PPA will result in (2) the on-demand payment of the LC, and (3) the LC Issuing Bank will then seek reimbursement from NEGU or the Government. If the LC is replenished, then the LC will be reinstated. (4) If reimbursement is not paid within 12 months by NEGU or the government, then the guarantee will be called and ADB will reimburse the LC Issuing Bank under

[3] ADB. 2017. *Technical Assistance to the Republic of Uzbekistan for Power Sector Reform and Sustainability Support Program*. Manila (TA 9459-UZB); ADB. 2020. *Country Diagnostic Study for Quality Job Creation as A Cornerstone for Sustainable Economic Growth*. Manila

[4] ADB. 2015. *Northwest Region Power Transmission Line Project*. Manila (Loan 3285-UZB).

the terms of the PCG. (5) ADB can then seek recoveries from the government under the Counter Guarantee and Indemnity Agreement. Provisions will be made in the documentation to ensure that the LC will not disburse in case of disputed payments.

Figure 1: Standby Letter of Credit Working Mechanism



GOU = Government of Uzbekistan, JSC NEGU = Joint-Stock Company National Electric Grid of Uzbekistan, LC = letter of credit
Source: Asian Development Bank

8. **Outcome and impact.** These solutions will result in the following outcome: private sector-led renewable energy generation increased. The project will be aligned with the following impact: inclusive economic growth achieved through increased clean and sustainable energy supply.

9. **Use of Multitranche Guarantee Facility.** A multitranche guarantee facility program ("Program") is proposed, consisting of four tranches, supporting four future tenders for solar IPPs as it: (i) provides long-term support to the government for the phased implementation of multiple projects of similar nature; (ii) allows for timely arrangements of PCG for subsequent tranches to support solar IPPs presented in Appendix 5 based on project readiness without occurring liabilities for the whole program; (iii) gives confidence to the government that ADB is highly likely to provide subsequent PCGs, and thus allows delivery of mutually dependent outputs (e.g. shared transmission infrastructure); and (iii) establishes a platform for ongoing dialogue and capacity building in attracting private investments. With the existence of a road map, sector strategy, and policy framework strongly owned by the government, the key preconditions for using the multitranche facility modality are met.

10. **Value Added by ADB**. The Program brings together a suite of ADB services from the Central and West Asia Department (CWRD), the Private Sector Operations Department (PSOD) and the Office of Public-Private Partnership (OPPP). The Program results from the power sector reforms and policy intervention supported by CWRD with a view to improve the sector's financial viability and promote the private investment. It will further benefit from the evolving policy support and strengthening regulatory framework through ADB's lending and non-lending operations. OPPP is advising the government in structuring the projects, developing templates of bankable project documents with capacity building, and procuring the projects. CWRD and Guarantees and Syndications Unit of PSOD will structure the PCG and develop template guarantee and LC documentation which will be used throughout the Program to attract private investment by mitigating credit risks. This One ADB approach provides an innovative one-stop-shop solution for the government to rapidly deploy privately funded solar projects at competitive tariffs and eventually lower the cost of electricity to sustain the economic development.

11. **Alignment with ADB Strategy and Operations.** ADB's CPS for Uzbekistan, 2019–2023 has a focus on supporting the country's movement towards a vibrant and inclusive market economy, including the transformation of the state's role.[5] The program is in line with the operational priorities of Strategy 2030, particularly, in tackling climate change, building climate and disaster resilience, and enhancing environmental sustainability.[6]

C. Proposed Financing Plans

12. **Financing Plan**. ADB is considering the provision of a guarantee facility covering up to $ 80 million for the full Program (Table 1), or equivalent of up to 6 months of PPA payments per project. The first tranche project will require around $16 million.[7] ADB will receive a sovereign counter-guarantee and indemnity from the Government of Uzbekistan, under which the government will indemnify ADB for any payments made, or any loss incurred, by ADB under the PCG. ADB will charge upfront, annual and guarantee commitment fees, based on ADB's equivalent pricing for sovereign loans. The PCG is expected to qualify as climate financing.

13. **Sherabad Solar Project (first tranche).** The first tranche project will facilitate the construction of a 200MW solar power plant in Sherabad (Output 1) and 52 km of 220 kilovolts (kV) transmission line and substations facilities (Output 2) by means of a PCG that will enhance creditworthiness of the offtaker. The first tranche project will: (i) develop a set of standard PCG, LC and related agreements for the first tranche, as well as templates replicable for the subsequent tranches, (ii) provide knowledge sharing sessions to build the government's capacity in the project structuring, and (iii) develop a gender responsive policy and guideline to promote gender equality in the private energy projects (Output 3). The indicative subsequent tranches are presented in Appendix 5 and respective PCGs will be provided to facilitate the construction solar power plants using the project structure and templates developed under the first tranche.

Table 1: Indicative Financing Plan

	Amount ($million)					**Share of Total**
Source	**Total**	**T1**	**T2**	**T3**	**T4**	(%)
Asian Development Bank	80.0	16.0	24.0	20.0	20.0	80.0
Ordinary capital resources	80.0	16.0	24.0	20.0	20.0	80.0
Government	20.0	4.0	6.0	5.0	5.0	20.0
Total	**100.0**	**20.0**	**30.0**	**25.0**	**25.0**	**100.0**

Source: Asian Development Bank

D. Implementation Arrangements

14. The individual PCGs under the Program will be prepared for approval under ADB's sovereign business processes during a 5-year availability period between March 2021 and March 2026. A PCG will have a tenor not exceeding ADB's ordinary capital resources, subject to risk and market conditions. The government's tender commission comprising the representatives of the government will select the IPP. The Ministry of Investment and Foreign Trade and the MOE will ensure that the respective government agencies and municipal entities involved with the project provide necessary support for the implementation of the project. The Public Private

[5] ADB. 2019. *Uzbekistan, 2019-2023 – Supporting Economic Transform*. Manila

[6] ADB. 2018. *Strategy 2030: Achieving a Prosperous, Inclusive, Resilient and Sustainable Asia and the Pacific*. Manila

[7] The amount is in United States Dollar equivalent as the currency of PPA will be in the national currency. As of June 2020, the average retail tariff in Uzbekistan is SUM450/kWh. $16 million is based on the average retail tariff for 6 months of payment with the plant output of 300MW. Bidders will be free to propose upto 300MW capacity to optimize the use of the land provided for the project. Actual PCG amount will be determined based on the proposed tariff of the selected bidder.

Partnership Development Agency, as the single window for PPP, will appraise and monitor PPP projects.

Table 2: Indicative Implementation Arrangements

Aspects	Arrangements
Program availability period	March 2021–March 2026
Management	
(i) Executing agency (the government's tender commission)	Ministry of Investments and Foreign Trade; Public Private Partnership Development Agency, Ministry of Finance; Ministry of Energy
(ii) Key implementing agencies	Joint-Stock Company National Electric Grid of Uzbekistan

Source: Asian Development Bank

II. PROJECT PREPARATION AND READINESS

15. ADB's Transaction Advisory Service funded by the Preparation of Public of Public–Private Partnership Projects has been supporting the preparation.[8] The site is based on the preliminary feasibility study developed with ADB's technical assistance.[9] On 1 February 2020, request for expressions of interest (EOI) for the first project was announced, with the liquidity support of a sovereign backed PCG indicated, and 54 EOIs were subsequently received. Request for Proposal (RFP) will be issued with design requirements and fully developed contract templates, based on which the IPP will conduct the detailed engineering design and construction. The indicative terms and conditions for PCG will be issued to the bidders as part of RFP, and the templates for PCG and related contracts will be prepared in parallel.[10] The PCG will be fully implemented before the financial closing of the project and maintained during the entire duration of the project.

III. DELIBERATIVE AND DECISION-MAKING ITEMS

A. Risk Categorization

16. The Program is classified *complex* as it follows a multitranche guarantee facility that involves a nonconventional PCG combined with a standby LC mechanism.

B. Project Procurement Classification

17. There are no procurement activities involved in the proposed PCG except the selection of LC Issuing Bank. PPFD will be consulted during the selection process.

C. Scope of Due Diligence

18. The due diligence activities will be supported by ADB staff and ongoing TA grant. The due diligence will benefit from the existing and/or ongoing studies and assessments conducted with ADB's assistance.[11] The scope of due diligence will include the following:

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[8] ADB. 2016. *Technical Assistance for Strengthening Project Preparation Capacity in Asia and the Pacific - Supporting Preparation of Infrastructure Projects with Private Sector Participation in Asia Pacific (Subproject 4)*. Manila. (TA 9292 – REG).

[9] ADB. 2011. *Technical Assistance to the Republic of Uzbekistan for Solar Energy Development.* Manila. (TA 8008-UZB).

[10] The project team intends to apply to the Asia-Pacific Climate Finance Fund for the preparation of PCG and LC documents.

[11] ADB. 2019. *Technical Assistance Facility to the Republic of Uzbekistan for Preparing Sustainable Energy Investment Project.* Manila (TA 9708-UZB).

(i) **Technical**. No major risks or issues are anticipated in providing PCG to the program as solar PV is well-proven technology and the technical risks deemed very low. The impact of coronavirus disease (COVID-19) will be assessed in an angle of supply chain disruption and the findings will be reflected at the final approval stage.
(ii) **Credit Assessment.** In addition to the standard financial and economic analysis of the project, credit risk and viability of NEGU will be conducted to ensure financial health of the offtaker.
(iii) **Poverty and social**. At the concept stage, the project has been classified "Some Gender Elements". The project team will assist the MOE in developing gender policy for the energy sector and guidelines for the private investors in the energy sector.
(iv) **Safeguards**. All safeguards issues will be addressed in accordance with the ADB's *Safeguard Policy Statement 2009*. A safeguard due diligence was conducted for the first tranche project to assess, address and mitigate all impacts from the construction and operation of solar PV plant. The first tranche is categorized "B" for the environment and the involuntary resettlement, and "C" for indigenous people. A detailed biodiversity assessment will confirm any impact on habitats of conservation value.

D. Processing Schedule and Sector Group's Participation

19. Table 4 presents the program's proposed processing schedule.

Table 4: Processing Schedule by Milestone

Milestones	Expected Completion Date
1. Concept approval	June 2020
2. Initial terms and pricing clearance for partial credit guarantee	July 2020
3. Fact finding mission	October 2020
4. Management review / Final credit committee review	December 2020
5. Negotiations including framework financing agreement	January 2021
6. Board approval of Guarantee Facility	Q1 2021
7. Management approval for the first tranche	Q1 2021
8. Execution of counter-guarantee and indemnity agreement / PCG	Q1/Q2 2021 [a]

[a] PCG should be executed before the financial close of the project.
Source: Asian Development Bank

E. Key Processing Issues and Mitigation Measures

Table 5: Issues, Approaches, and Mitigation Measures

Key Processing Issues	Proposed Approaches and/or Mitigation Measures
1. Inadequate appetite for long term project finance	PSOD along with other development financial institutions is keen on supporting long-term project financing, subject to the implementation of the internationally bankable structure.
2. Compliance with ADB's safeguard requirements under SPS	A biodiversity assessment will confirm impact on the critical habitats. The final transmission route will be confirmed by NEGU, and impact will be assessed to ensure the categorization. The IPP will be strictly required to comply with ADB's safeguard requirements.
3. Off-taker payment risk	NEGU's long-term creditworthiness and ability to fulfill its obligation under the PPA is not demonstrated. This risk is mitigated by "take-or-pay" obligation in the PPA and provision of a standby Letter of Credit (LC) to cover liquidity risk. The PCG will future mitigate the payment risks and attract project finance from international banks.

IPP = independent power producer, LC = letter of credit, NEGU = National Electric Grid of Uzbekistan, PCG = partial credit guarantee, PPA = power purchase agreement, PSOD = Private Sector Operations Department, SPS = Safeguard Policy Statement

PRELIMINARY DESIGN AND MONITORING FRAMEWORK

Impact the Program is Aligned with Inclusive economic growth achieved through increased clean and sustainable energy supply[a]			
Results Chain	**Performance Indicators with Targets and Baselines**	**Data Sources and Reporting Mechanisms**	**Risks**
Outcome Private sector-led renewable energy generation increased	a. By 2025, solar power generation increased by 2,000 GWh per annum (2019 baseline: 0) b. By 2025, at least 1,000 MW of solar power plants completed by private investors (2019 baseline: 0)	a, b. JSC NEGU annual report	Financial crisis leading to shortage in private sector credit or a geopolitical crisis weakening private investments. Policy support for renewable energy declines
Outputs 1. Solar power generation capacity increased	1a. By 2022, at least 200 MW of Sherabad solar project commissioned (2019 baseline: 0)	1a. Operational acceptance certificate	Disruption of solar panel and equipment supply chain by COVID19
2. Grid interconnection infrastructure developed	2a. By 2021, 52 km of 220kV transmission line and substation constructed (2019 baseline: 0)	2a. Operational acceptance certificate	Extreme weather events during the construction that delay the construction
3. Government's capacity for attracting private investment strengthened	3a. By 2021, at least one PPP project financing solution and templates of bankable document developed (2019 base line: 0) 3b. By 2025, at least four PPP solar projects identified and developed for financial close (2019 base line: 0) 3c. By 2021, at least two PPP knowledge sharing or training events organized, with at least 30% women participation	3a, b. Signed documentation package 3c. training report	

	3d. By 2021, the energy sector gender responsive policy approved and adopted by the Ministry of Energy to promote gender equality in the energy sector project (2019 base line: 0)	3d. Ministry of Energy's approved gender equality policy	

Key Activities with Milestones

1. Solar power generation capacity increased

1.1 EOI received from the potential bidders (February 2020)
1.2 Issuance of RFQ to potential bidders (July 2020)
1.3 Issuance of RFP to the prequalified bidders (September 2020)
1.4 PPA and GSA signing (Q1 2021)
1.5 Financial close (Q2 2021)
1.6 Construction completion (Q1 2022)

2. Grid interconnection infrastructure developed

2.1 Financial close for the project (January 2021)
2.2 Construction completion (February 2022)

3. Government's capacity for attracting private investment strengthened

3.1 Templates of bankable documents developed (June 2020)
3.2 Execution of the project documents (October 2020)
3.3 Capacity building workshop conducted (TBD)

Inputs

ADB: $80 million as Partial Credit Guarantee with $16 million for the first tranche
Government: TBD

Assumptions for Partner Financing

Not Applicable,

ADB = Asian Development Bank, EOI = Expression of Interest, JSC = Joint-Stock Company, GSA = government support agreement, GWh = gigawatts-hours, MW = megawatts, NEGU = National Electric Grid of Uzbekistan, km = kilometer, kV = kilovolt, PPA = power purchase agreement, PPP = Public-Private Partnership, Q = Quarter, RFP = Request for Proposal, RFQ = Request for Qualification, TBD = to be determined

[a] Resolution 3981 of the President of the Republic of Uzbekistan dated 23 October 2018 on measures to accelerate the development and ensure the financial sustainability of the electricity industry

Source: Asian Development Bank.

COMPARISON OF FINANCING MODALITY

Key Consideration Points	Financing Modality		
	Multitranche PCG Facility	**Series of PCG**	**Single PCG**
1. **Borrowing Capacity.** The government does not have sufficient capacity to borrow the entire investment program amount under one loan agreement.	The borrower does not need a PCG for the entire investment program in one go, but each tranche can be sized to fit in the borrowing capacity and project needs in each year.	The advantage is similar to that of the multitranche PCG facility.	It is not possible to provide a PCG for the entire investment program as the guarantee and LC beneficiaries may be different for each project.
	Conclusion: **preferable**	Conclusion: **preferable**	Conclusion: **not feasible**
2. **Financing predictability.** There will two or more outputs which are mutually dependent, constituting one system.	Delivery of mutually dependent outputs, i.e. shared transmission infrastructure, can be financed by two or more tranches or designed by the precedent tranche with a view to subsequent tranches. Board approval of the entire multitranche facility gives confidence to the government that ADB is highly likely to provide subsequent PCGs.	Delivery of mutually dependent outputs can be financed by two or more PCGs. The COBP can clarify when the second and subsequent PCGs will be processed. However, the borrower will face uncertainty that future commercial financing may or may not be available on time or at all without PCG.	It is not possible to provide a PCG for the entire investment program.
	Conclusion: **preferable**	Conclusion: **less preferable**	Conclusion: **not feasible**
3. **Longer-term engagement.** Improvements in the policy framework require a long-term plan on the government's actions and nonphysical investments.	The undertakings section of the framework financing agreement may provide the complete long-term plan for policy framework improvements throughout the duration of the entire facility period. ADB may consider the progress of each undertaking item when deciding the subsequent tranches.	The covenants of each PCG may provide the short- to medium-term plan for policy framework improvements. However, the coverage is limited to the period of each PCG. ADB may take the achievement of previous PCG covenants into consideration when deciding the second and subsequent PCGs.	The covenants of the PCG may provide the complete long-term plan for policy framework improvements throughout the duration of the PCG. However, the disbursement of PCG, which only happens in case of payment default, cannot link to the progress in policy framework improvements. Without the incentive of ADB approving future PCGs, there is little leverage on the government to comply with their undertakings.
	Conclusion: **preferable**	Conclusion: **less preferable**	Conclusion: **less feasible**

Key Consideration Points	Financing Modality		
	Multitranche PCG Facility	**Series of PCG**	**Single PCG**
Overall conclusion	A multitranche PCG facility is more advantageous in all the aspects above.	A series of PCGs is less advantageous in terms of longer-term predictability, implementation period, and engagement.	A single PCG is not feasible due to the constraints described above.

ADB = the Asian Development Bank, PCG = partial credit guarantee.

PROJECT PROCUREMENT CLASSIFICATION

Characteristic	Assessor's Rating:
Is the procurement environment risk for this project assessed to be *high* based on the country and sector and/or agency risk assessments?	☐Yes ☒No
Are multiple (typically more than three) and/or diverse executing agencies and/or implementing agencies envisaged during project implementation? Do they lack prior experience in implementation under an ADB-financed project?	☐Yes ☒No ☐Unknown
Are multiple contract packages and/or complex and high-value contracts (compared with recent externally financed projects in the developing member country [DMC]) expected?	☐Yes ☒No ☐Unknown
Does the project plan to use innovative contracts (public–private partnership, performance-based, design and build, operation and maintenance, etc.)?	☒Yes ☐No ☐Unknown Involves public-private partnership
Are contracts distributed in more than three geographical locations?	☐Yes ☒No ☐Unknown
Are there significant ongoing contractual and/or procurement issues under ADB (or other externally) financed projects? Has misprocurement been declared in the DMC?	☐Yes ☒No ☐Unknown
Does the DMC have prolonged procurement lead times, experience implementation delays, or otherwise consistently fail to meet procurement time frames?	☐Yes ☒No ☐Unknown
Do executing and/or implementing agencies lack capacity to manage new and ongoing procurement? Have executing and/or implementing agencies requested ADB for procurement support under previous projects?	☐Yes ☒No ☐Unknown
Regional department's overall recommendation (Seung Duck Kim, Energy Specialist)	
Overall project categorization recommended	☐ Category A ☒ Category B
There are no procurement activities involved in the proposed PCG except the selection of LC Issuing Bank. PPFD will be consulted during the selection process.	
Procurement, Portfolio, and Financial Management Department's recommendation (Olivier Leonard, Senior Procurement Specialist)	
PPFD confirms the classification during interdepartmental circulation of the project concept paper	

Source: Asian Development Bank.

INITIAL POVERTY AND SOCIAL ANALYSIS

Country:	Uzbekistan	Project Title:	Uzbekistan Solar PPP Program
Lending/Financing Modality:	Partial Credit Guarantee Facility	Department/ Division:	Central and West Asia Department / Energy Division

I. POVERTY IMPACT AND SOCIAL DIMENSIONS

A. Links to the National Poverty Reduction Strategy and Country Partnership Strategy

The proposed program is aligned with the government's National Development Strategy for 2017–2021, which entails market-oriented reforms and a shift from government subsidies to targeted social programs. It directly contributes to the government's goal of accelerating socioeconomic development and enhancing the living standards of Uzbekistan's population through (i) ensuring reliable, efficient and sustainable energy supply, which will improve livelihood options, (ii) modernizing old and deteriorating electricity supply infrastructure, and (iii) pioneering and supporting energy sector reform measures, particularly, promoting private sector investments. The program aims to (i) lower the barriers to the private investment and (ii) increase renewable energy generation, and thereby stabilize the power system and diversify the primary energy supply. The program aligns with ADB's country partnership strategy for Uzbekistan 2019–2023 by supporting the move toward a vibrant and inclusive market economy, modernizing energy infrastructure, and increasing energy efficiency.

B. Poverty Targeting

☒General intervention ☐Individual or household (TI-H) ☐Geographic (TI-G) ☐Non-income MDGs (TI-M1, M2, etc.)

As a grid connected renewable energy project, the ultimate beneficiaries of the program are the general population of Uzbekistan. Improved reliability and quality of electricity services will enable the population to use electricity appliances, and encourage them to set up businesses, both of which will raise living standards. Improved energy services would benefit especially (a) the poorer households, who currently bear the high cost of energy substitutes (kerosene lamp, battery powered lamps, candles and diesel generators); (b) women who work or stay at home more often than men and suffer from light, energy and time poverty; and (c) kindergartens, schools and other educational institutions, and health facilities who will be able to use teaching materials and health equipment full time. The proposed program is also expected to improve financial performance and operational efficiency of the power sector companies by introducing technological innovation and capacity building activities.

C. Poverty and Social Analysis

1. Key issues and potential beneficiaries.

The power sector is a driver of economic growth: the availability and quality of electricity services underpin enhanced productivity, and job creation. Although Uzbekistan has 100% electrification ratio, power supply is unstable and interruptions are frequent, especially during winter. The rural poor are the first to be cut off at times of supply shortage. Sufficient and stable electricity will expand livelihood options and businesses, boost local economic development and reduce poverty and inequities. Over 32.0% of firms operating in Uzbekistan identify the lack of reliable electricity as a major constraint to doing business. Small enterprises suffer more than large enterprise from interruption of electricity due to the lack of expensive diesel back-up generators. Small and Medium enterprises have experienced the interruption in electricity supply 29 days per year. Average losses due to electricity outages are reported to be around 7.0% of annual sales (World Bank Report Growth and Job Creation in Uzbekistan, December 28, 2019). Poverty rate has fallen from 27.5% in 2001 to 11.5% in 2018 (World Bank Uzbekistan Country Update Summer 2019), but significant poverty persists in rural areas far from the centers of economic activity, with inadequate public services and infrastructure, and incomes levels well below the national average. The recent economic reforms have caused price increases. As the average household spending is mainly on food products (47.3%) and utility services (20.4%), the price hikes implemented by utilities are having significant impact on households. The reforms may also cause reduction of jobs due to structural changes in the economy. It will therefore be important to have targeted plans to prevent people from falling back into poverty and ensure that members of the society can participate in and benefit from the economic growth.

2. Impact channels and expected systemic changes.

Improved and reliable supply of electricity will contribute indirectly to regional economic growth, an improved investment climate for the private sector, and enhanced employment opportunities in productive sectors.

3. Focus of (and resources allocated in) the transaction TA or due diligence.

Keeping in view the stakeholder needs, feasibility of the projects, bankability of the PPA to leverage much-needed infrastructure investment in the renewable energy sector.

4. Specific analysis for policy-based lending. Not applicable

II. GENDER AND DEVELOPMENT

1. What are the key gender issues in the sector and/or subsector that are likely to be relevant to this project or program?

Women are primary users of electricity at the household level. Reliable supply of electricity improves the efficiency and productivity of women in carrying out household tasks such as cleaning, cooking, laundry and further divert women's time and efforts to income-generating activities. A stable electricity supply in households has important gender implications. Productive use of electricity has oftentimes been biased. Spare household items such as televisions and radios are often given more importance over labor-diminishing domestic items such as modern cooking machineries. As men are the primary decision-makers in the household, their demands are oftentimes being prioritized over women's needs. Aging power infrastructure in Uzbekistan increasingly results in disruption of electricity supply. During the winter season when electricity demand becomes high, the houses in remote and rural areas suffer from extended blackouts for a few days or even weeks. During this season, the basic public services such as schools and health care are at the risk. With improved reliability of energy supply, the well-being and socio-economic condition of women will be improved, and they will have increased opportunities to participate in productive works.

2. Does the proposed project or program have the potential to contribute to the promotion of gender equity and/or empowerment of women by providing women's access to and use of opportunities, services, resources, assets, and participation in decision making? ☒ Yes ☐ No

The project has a potential to promote gender equality. It may offer extended job and capacity development opportunities during the course of program implementation.

3. Could the proposed project have an adverse impact on women and/or girls or widen gender inequality?
☐ Yes ☒ No

4. Indicate the intended gender mainstreaming category:
☐ GEN (gender equity) ☐ EGM (effective gender mainstreaming)
☒ SGE (some gender elements) ☐ NGE (no gender elements)

III. PARTICIPATION AND EMPOWERMENT

1. Who are the main stakeholders of the project, including beneficiaries and negatively affected people? Identify how they will participate in the project design.

General households, communities in the project area, business community, community-based organizations, local governments, social institutions such as schools and hospitals.

2. How can the project contribute (in a systemic way) to engaging and empowering stakeholders and beneficiaries, particularly, the poor, vulnerable, and excluded groups? What issues in the project design require participation of the poor and excluded?

Stakeholders' consultations through community meetings, discussions, and interviews will be conducted during the project preparation and implementation. Strategies to encourage poor women's participation as individual consumers or as representative of interested groups will be encouraged. Targeted vocational training may be provided to women. Consultations will be carried out with, but not limited to, the representatives of the project company, local cadaster office and district "khokimiyat" representatives, Women's Committee, representatives or leaders of "makhallas", representatives of business, educational and health facilities.

3. What are the key, active, and relevant civil society organizations (CSOs) in the project area? What is the level of civil society organization participation in the project design?

☒ Information generation and sharing (L) ☒ Consultation (L) ☐ Collaboration ☐ Partnership

4. Are there issues during project design for which participation of the poor and excluded is important? What are they and how should they be addressed? ☐ Yes ☒ No

IV. SOCIAL SAFEGUARDS

A. Involuntary Resettlement Category ☐ A ☒ B ☐ C ☐ FI

1. Does the project have the potential to involve involuntary land acquisition resulting in physical and economic displacement? ☒ Yes ☐ No

The project might have some acquisition of privately-owned land. While the solar power plant site will be located at an unused, government-owned land and there no existing facilities, 52 km transmission line (TL) and a substation need to be constructed (likely following the existing distribution line route) to evacuate the power from the solar power plant. The construction of TL and substation expected to have minor adverse impacts on private asset and economic activities of affected people. While the initial safeguards categorization takes pre-cautionary approach at the concept stage, the detailed safeguards due diligence reports will be prepared during the project preparation stage and necessary actions, including preparation of resettlement plan, will be pursued based on the outcome of due diligence.

2. What action plan is required to address involuntary resettlement as part of the transaction TA or due diligence process?

☒ Resettlement plan ☒ Resettlement framework ☐ Social impact matrix
☐ Environmental and social management system arrangement ☐ None

The safeguards categorization of each project under the Program will be separately assessed. The safeguards categorization for the Sherabad project is subject to change upon confirmation of the associated transmission line route. LARP will be prepared for the project accordingly.

B. Indigenous Peoples Category ☐ A ☐ B ☒ C ☐ FI

1. Does the proposed project have the potential to directly or indirectly affect the dignity, human rights, livelihood systems, or culture of indigenous peoples? ☐ Yes ☒ No

2. Does it affect the territories or natural and cultural resources indigenous peoples own, use, occupy, or claim, as their ancestral domain? ☐ Yes ☒ No

The project site does not have indigenous people's communities as defined in the Safeguard Policy Statement 2009.

3. Will the project require broad community support of affected indigenous communities? ☐ Yes ☒ No

4. What action plan is required to address risks to indigenous peoples as part of the transaction TA or due diligence process?
☐ Indigenous peoples plan ☐ Indigenous peoples planning framework ☐ Social impact matrix
☐ Environmental and social management system arrangement ☒ None

V. OTHER SOCIAL ISSUES AND RISKS

1. What other social issues and risks should be considered in the project design?
☒ Creating decent jobs and employment ☒ Adhering to core labor standards ☐ Labor retrenchment
☐ Spread of communicable diseases, including HIV/AIDS ☐ Increase in human trafficking ☐ Affordability
☐ Increase in unplanned migration ☐ Increase in vulnerability to natural disasters ☐ Creating political instability
☐ Creating internal social conflicts ☐ Others, please specify _____

2. How are these additional social issues and risks going to be addressed in the project design?

During the preparation and due diligence, the project team will confirm the core labor standards adherence of the IPP, and should there be any deficiency, appropriate measures will be discussed and agreed with the executing agency and implementing agency.

VI. TRANSACTION TA OR DUE DILIGENCE RESOURCE REQUIREMENT

1. Do the terms of reference for the transaction TA (or other due diligence) contain key information needed to be gathered during transaction TA or due diligence process to better analyze (i) poverty and social impact, (ii) gender impact, (iii) participation dimensions, (iv) social safeguards, and (v) other social risks. Are the relevant specialists identified?

☒ Yes ☐ No

2. What resources (e.g., consultants, survey budget, and workshop) are allocated for conducting poverty, social, and/or gender analysis, and participation plan during the transaction TA or due diligence?

Not applicable

1GW Uzbekistan PPP Solar Investment Program

Indicative Project Pipelines and Selection Criteria

The solar PV project pipelines had been developed with the ADB's technical assistant (TA) support. While the final capacity is subject to full-scale due diligence, potential projects pipelines were identified based on the multiple criteria including: (i) level of solar resource; (ii) land availability and its condition; (iii) interconnection condition; and (iv) anticipated safeguards issues. While proceeding a tender for the first tranche Sherabad solar project, the site location for the second tranche project has already been identified and is expected to accommodate approximately 300MW. In determining the indicative sequence of the tranches following the Sherabad projects, the following points were considered.

- Tranche 3: Mubarak is an important city near the Gas Processing Plant. There are two 220kV substations in the city where a new solar PV power plant can be connected.
- Tranche 4: Kokdumalak 220kV substation is well-connected to the Guzar 500/220kV substation. Hence, power evacuation could be easier compared to Jamza. A load flow analysis needs to be conducted to verify this. Kokdumalak area presents a site where 300MW capacity PV power plant could be developed easily.
- Tranche 5 (Standby): Jamza presents a nice land where more than 300MW could be developed easily. Placed in tranche 5 standby placed as the interconnection condition is deemed weaker compared to other project sites.

Table 1. Summary of Projects Pipeline

Tranches	Estimated Capacity	Estimated Project Cost	Estimated PCG Amount[a]	Solar Irradiation (kWh/m^2/year	Land availability/ Accessibility	Interconnection	Indicative Completion Schedule
Sherabad phase I	200 MW	$ 165 million (exclusive of transmission facilities)	$ 16 million	1,830	600 ha flat state-owned land offers suitable conditions for the PV power plant.	A new 220kV substation and 52km transmission lines will be built to connect the PV plant to the Surkhan 220kV substation.	Q1 2022
Sherabad phase II	300 MW	$ 250 million	$ 24 million	1,830	Land plots right next to the Tranche 1 project will be used. The identified land offers suitable conditions for solar PV plant and allow the project to share the power	The new substation constructed along with the Sherabad I would have enough capacity to accommodate the Sherabad phase 2 project.	Q4 2023

Tranches	Estimated Capacity	Estimated Project Cost	Estimated PCG Amount[a]	Solar Irradiation (kWh/m^2/year	Land availability/ Accessibility	Interconnection	Indicative Completion Schedule
					infrastructure of the tranche 1 project.		
Mubarak	300 MW	$ 250 million	$ 20 million	1,720	An initial land survey has been conducted for the 670 ha of flat land. The identified site has enough accessibility with several paths that connect with the selected area. As some irregular areas were identified, additional civil works to prepare lands would be needed.	Two 220kV substations are located in the city. The nearest substation is 18km away. Construction of overhead transmission lines shall be considered. Construction of access road to the existing substation shall be considered.	Q4 2024
Kokdumalak	300 MW	$ 250 million	$ 20 million	1,650	An initial land survey has been conducted for the 300 ha of flat area. The identified site has adequate accessibility.	The identified site is less than 8km away from the existing substation. Kokdumalak 220kV substation is well-connected to the Guzar 500/220kV substation	Q4 2025

[a] PCG amount is equivalent to off-taker's maximum possible 6 months PPA payment obligation. PCG is to be replenished by JSC NEGU (off-taker) or Government of Uzbekistan (GOU) in case of drawing. The exposure would not reduce except for amounts that are drawn from the LC bank and not replenished by the NEGU or GOU. However, not replenishing the LC would trigger an Event of Default potentially leading to termination.