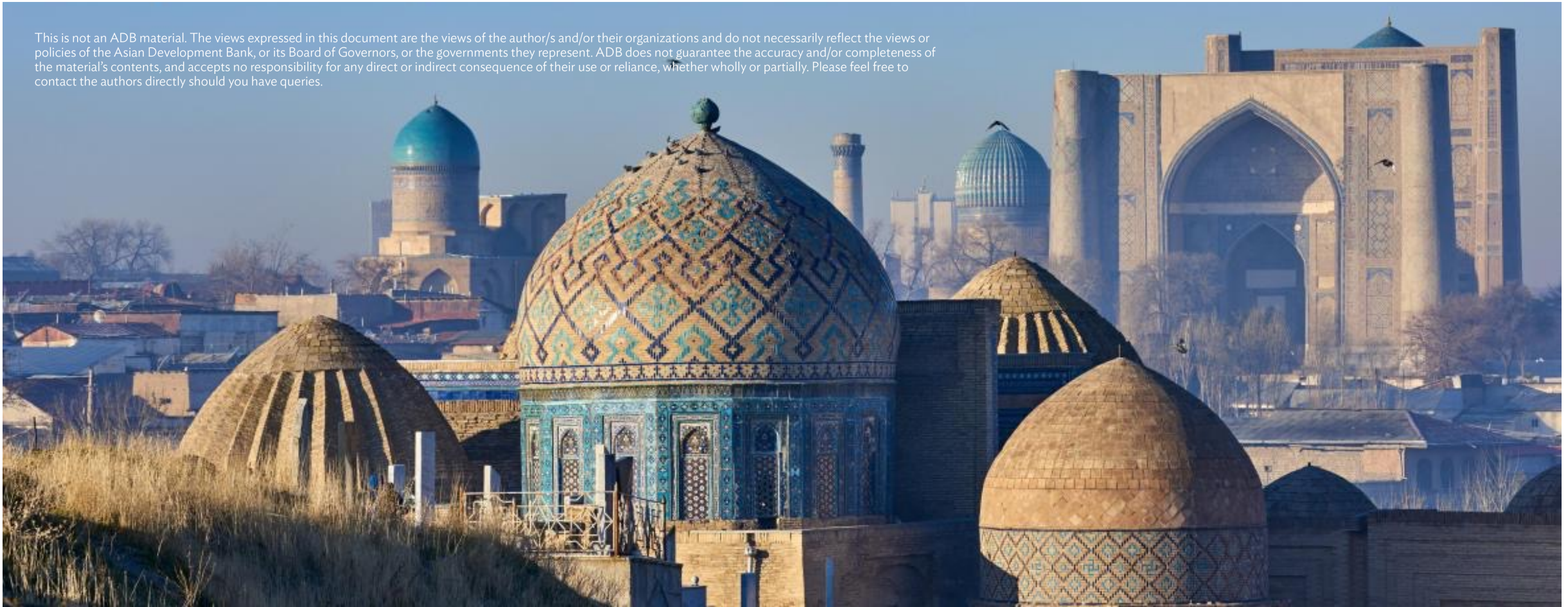


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# Uzbekistan Solar Public-Private Partnership Investment Program ACEF 2022

15 June 2022

ADB

# Uzbekistan Solar PPP Program: Rationale and Drivers

## ■ Issues

- Heavy reliance on fossil fuel call for a shift to deployment of renewables at scale
- \$40 billion investment needs by 2030 for modernizing power infrastructure and meeting fast-growing power demand
- Low creditworthiness of the state-owned off-taker JSC NEGU, along with virtually non-existent track record with private sector projects, is the key stumbling block.

## ■ Main Drivers for Project

- Government's strong commitment for macro-economic reforms, and to seeking high economic efficiency and private sector participation in power sector
- Well aligned with the Government's power sector development plan to deploy renewable energy project at scale
- Climate commitment under the Paris Agreement and energy strategy to diversify sources using renewables on a large scale
- One ADB collaboration provides tailored one-stop-shop solutions to address various sector challenges

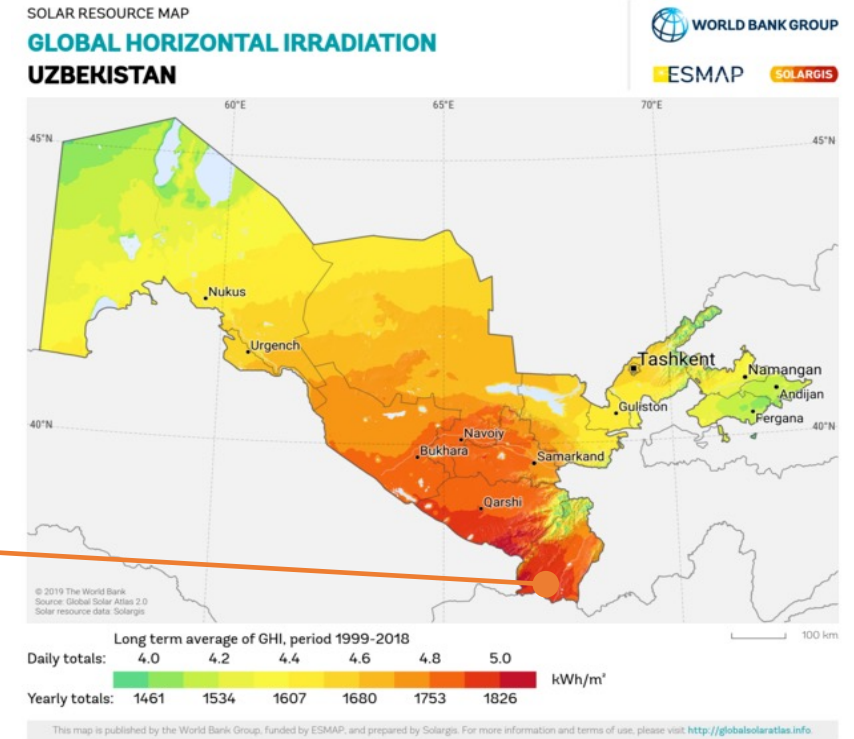
# ADB Support for Solar PPP Program

- **ADB pioneered solar energy development in Uzbekistan**
  - ADB pioneered solar energy development in UZB since 2011 and developed a solar development roadmap with candidate project sites identified
  - ADB supported power sector masterplan (2019) triggered a shift to more diversified and renewable energy-based energy mix for 2030
  
- **Upstream policy interventions in the sector restructuring and regulatory reforms**
  - Sector reform supported by ADB, EBRD, and World Bank enabled the entry of private sector partners into Uzbekistan's power sector
  - Improvement and strengthening of regulatory framework and policy direction (refinement of PPP Law) has formulated enabling environments for the private sector investments.
  
- **Downstream One ADB solutions to address various sector challenges**
  - Mainstreaming of transaction structure for replication in the subsequent projects
  - One ADB Package Deal – transaction advisory + sovereign supported products and supporting infrastructure development + non-sovereign financing

# Sherabad Solar Project (Initial Design)

Item	Description
Location	Sherabad, Surkhandarya region
Total area	600 ha
Capacity	Minimum 200 MW
Estimated generation	Minimum 459 GWh per annum
Contractual Arrangement	25 year “take-or-pay” power purchase agreement, investment agreement, land lease contract
Estimated Total project cost	\$ 190 million
Target COD	December 2021
Project Type	BOO or BOOT by private sector
Unique Feature	Including substation/transmission line development and transfer the ownership to the state upon completion

# Sherabad Solar Project (Initial Design)



# Issue and Solution

## Issue: Offtaker Risk

- JSC NEGU is the off-taker under 25-year PPA.
- JSC NEGU was established in 2019 as a result of unbundling of Uzbekenergo.
- Currently, JSC NEGU's revenue is transferred from the total revenue collected on a fixed percentage basis.
- Given the above issues, **the Offtaker Risk of JSC NEGU may be perceived as HIGH.**

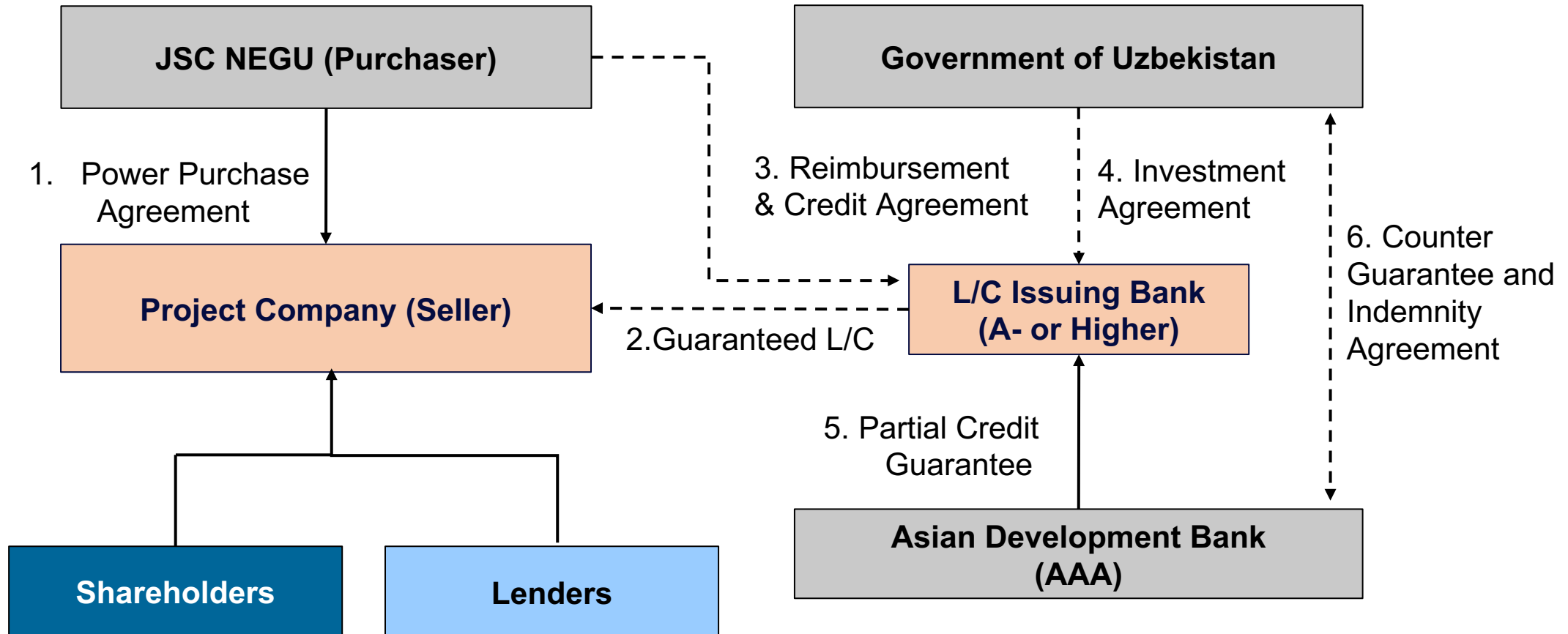
## Solution: Credit Enhancement Mechanism

- **Government credit enhancement:** Credit enhancement is needed for the off-taker (JSC NEGU) to maintain Project's bankability.
- Guaranteed Letter of Credit for NEGU- Partial Credit Guarantee to cover a letter of credit issued by a commercial bank in favor of the solar project company (IPP).
- L/C will support the payment obligations of JSC NEGU to the IPP under the Power Purchase Agreement (PPA).

# Credit Enhancement Mechanism

1. **Off-taker/GCA** defaults in a payment obligation
2. **Project Company** draws on the Standby Letter of Credit (L/C)
3. **L/C Issuing Bank** will then seek reimbursement from **Off-taker/GCA**. Reimbursement period of [12 months] commences. If **Off-taker or Government** pays within reimbursement period [12 months], then the L/C is reinstated, and no further action is taken.
4. If **Off-taker or Government** does not pay within reimbursement period [12 months], then **ADB** pays the **L/C Bank** under the Partial Credit Guarantee
5. **ADB** triggers the counter-guarantee and indemnity and discusses remedies with **Government**. ADB has the same rights under its counter-guarantee as it does under its sovereign lending agreements.

# Credit Enhancement Mechanism: Sherabad Solar

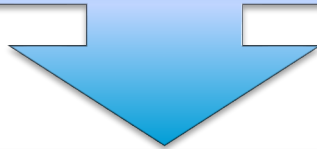




# Credit Enhancement Mechanism: Benefits

## Lenders

Certainty of cash flow makes the project attractive and results in a **lower Interest rate loan**



## Bidders / sponsors

The lower risk in the project, as well as the AAA rating of the ADB, translate into **lower cost of capital for the bidder/concessionaire**



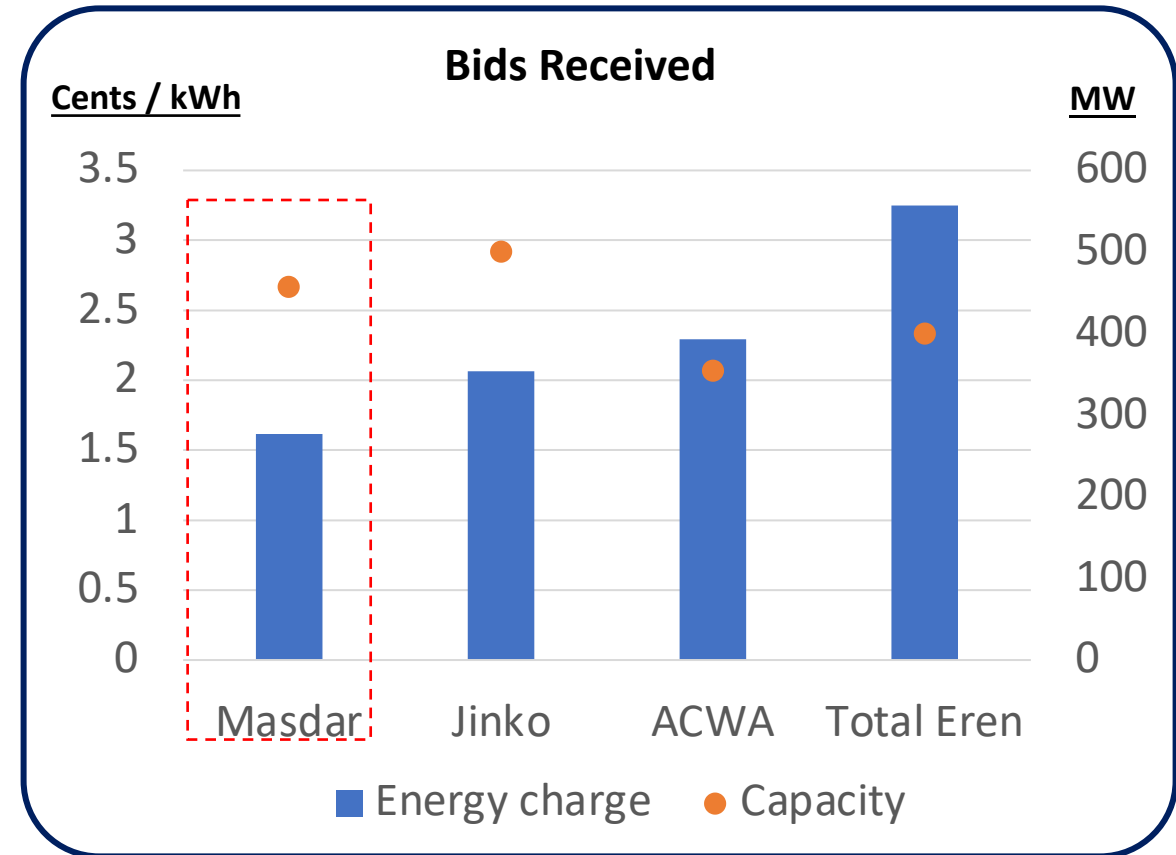
## Government / Consumers

**Lower costs results in lower tariffs = cost savings for consumers and better outcome for governments**

# Lessons learned

## ■ Project result demonstrates...

- Involvement of renowned private sponsors, contractors and lenders means projects incorporate international best practices making projects much more robust and reliable
- well-structured tender with bankable PPAs results in true price discovery and better terms for the off-taker although this mainly depends on the PPA bankability, resource abundance, land availability, regulatory certainty and off-taker credit rating
- Additional optimizations such as the inclusion of a credit enhancement mechanism and public support for public infrastructure significantly improves the attractiveness of projects for the private sector and, hence, deliver better results for the buyer of power



\* Exclusive of transmission component

# Could this mechanism be applied in other sectors?

- **This structure is needed commercially under the following conditions:**
  - ✓ Perception of weak offtaker or government contracting agency by the market
  - ✓ Newer projects/ first in kind, developing market
  - ✓ Government is willing to have a sovereign undertaking for the project
  - ✓ Government credit rating is weak
  - ✓ Project is commercially viable!! This is not a band-aid that can be applied to an unattractive PPP.
  
- **Examples of other sectors where this can be applied:**
  - **Road projects with availability payments** – an LC can backstop government’s payment obligations
  - **Water Supply or Wastewater Treatment** – when there is an offtake arrangement for wastewater or bulk water supply
  
- **Comprehensive sector intervention needs to be considered**
  - Formulating enabling regulatory framework and addressing fundamental underlying SOE’s offtaking risks need to be carefully addressed.

**Thank You!**

**Q&A**