



International Energy Investment Forum

UNLOCKING THE INVESTMENT POTENTIAL FOR A GREENER FUTURE

Vienna, June 10-11, 2024

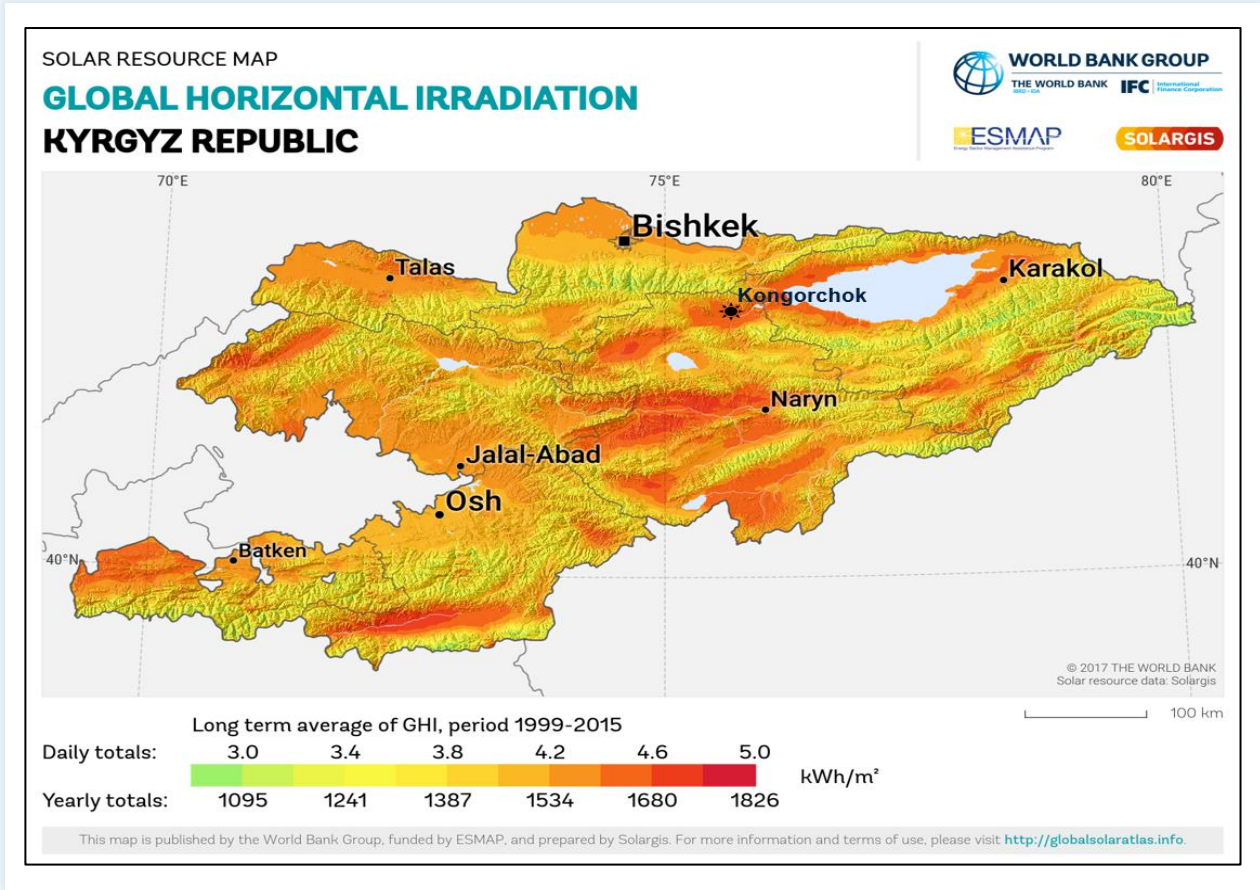





09


SOLAR PPP PROGRAM

WHY SOLAR ENERGY?




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The Kyrgyzstan boasts about 2,600 hours of sunshine a year on average, and a yearly Global Horizontal Irradiation (GHI) of up to 1,700 kWh/m².

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Yet, it currently less than 1% of the country's electricity mix, leaving ample untapped potential.

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There is a global trend towards solar PV price reduction, making it an affordable generation option.

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The implementation timeline of solar PV is generally shorter than other technologies, making it complementary to hydropower development.

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The main challenge lies in identifying suitable sites considering the mountainous geography of the Kyrgyzstan, grid capacity, population centers, arable land and other relevant factors.

- The National Development Strategy for 2018-2040 sets a target of at least 10% of renewable (other than hydro).
- ~700 MW of solar is considered under the preferred generation expansion scenario in the country's Energy Sector Master Plan from March 2022.



9.1

SOLAR PPP ROUND 1

SOLAR PPP ROUND 1 – PROJECT SITE (KONGORCHOK)



Location: Kochkor district, Naryn region



Site Area: ~300 hectares



Grid Connection: NEGK 220 kV Kemin-Ak Kya line



Connection Line: 13 km @220 kV



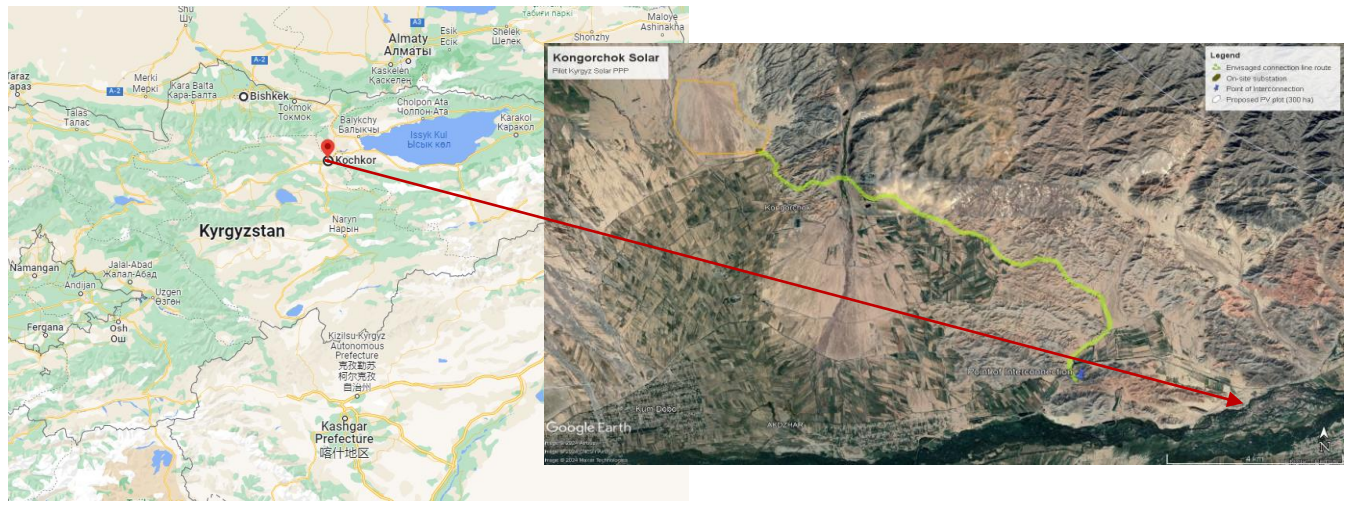
Installed Capacity: 100 to 150 MW, left to bidders to optimize within the site boundaries



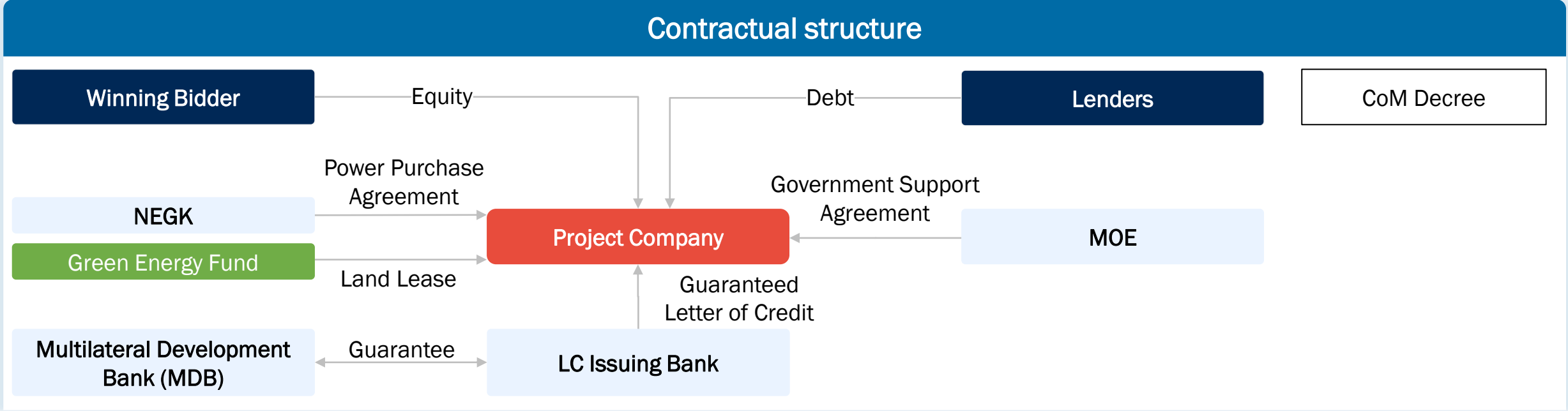
Terrain: Flat, pastureland, south-facing




Solar Irradiation: 1,678 kWh/m²/year



SOLAR PPP ROUND 1 – PROJECT STRUCTURE



The project is being developed as a PPP under the PPP Law.



The selected private partner will be compensated for the sale of electricity through a 25-year Power Purchase Agreement (PPA) with NEGK as single off-taker.




Additionally, the Ministry of Energy is expected to sign a Government Support Agreement (GSA) with the private partner, ensuring additional protections and government support to the Project.



GEF will lease the land to implement the Project to the private partner through a long-term land lease agreement.

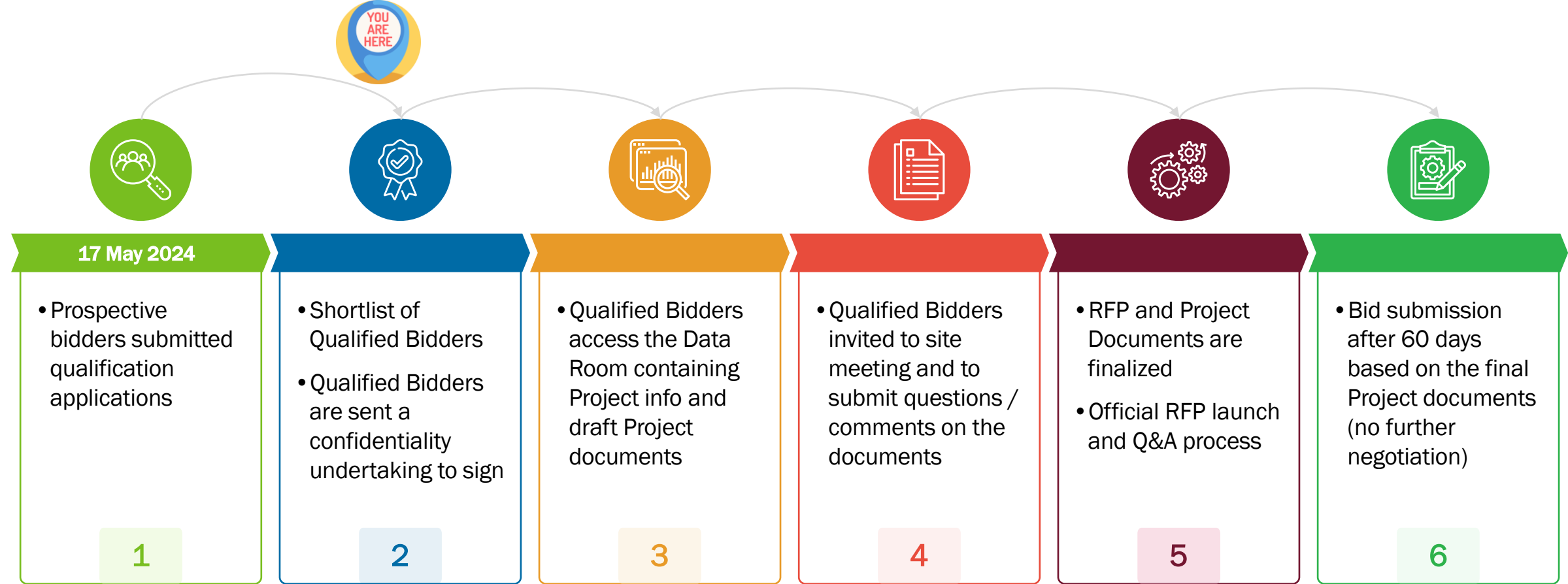


The project is expected to benefit from liquidity support mechanism backed by a Multilateral Development Bank guarantee as credit enhancement.



SOLAR PPP ROUND 1 – TENDER PROCESS

PROCESS



SOLAR PPP ROUND 1 – TENDER STATUS & NEXT STEPS

TENDER MILESTONES & TARGET DATES



The Request for Qualification was launched on 18th March 2024 and closed on 17th May 2024.



Four applications were received from reputable international investors.



The evaluation is under way and the Request for Proposals (RFP) process is expected to start shortly after it is complete.

Envisaged timeline is as follows:

MILESTONE	TARGET DATE
RFQ issued	18 March 2024
Qualification Application Submission Deadline	17 May 2024
Announcement of Qualified Bidders	End of May 2024
Start of the RFP process	June-July 2024
Execution of Project agreements	Q4 2024
Financial Close	Q1 2025
Commercial Operations	Q1 2026

PROJECT MILESTONES

- ✓ Site allocated to the Project after screening five locations
- ✓ Capacity reserved by NEGK on the grid
- ✓ Approved PPP Proposal
- ✓ Detailed site investigations including topographic, hydrological, geotechnical, archeological, site infrastructure and access, climate change assessment
- ✓ Environmental & Social Scoping Study
- ✓ Grid studies in final stage
- ✓ Legal due diligence
- ✓ Pre-requisites to land transformation
- ✓ Draft project documents in discussion
- ✓ Tender Commission appointed
- ✓ Four qualification applications received



9.2

SOLAR PPP ROUND 2

SOLAR PPP ROUND 2 – OVERVIEW

STATUS AND OVERVIEW



The Ministry of Energy and Ministry of Economy are in advanced stage of discussion with IFC on the following tender round, expected to be for two sites of ~150 MW each



Site identification has been carried out, leading to candidate sites being identified in Batken and Talas Regions. **This is subject to confirmation based on detailed assessment and approvals**



Detailed site investigations will be conducted, who are expected to form part of the same tender



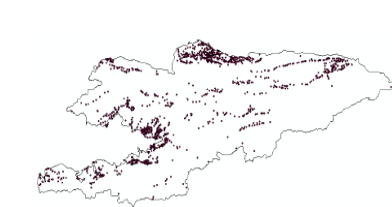
Project structure will replicate the Solar Round 1



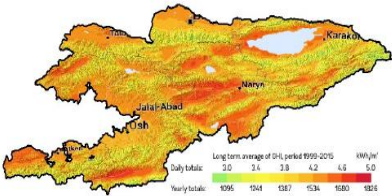
Project due diligence is expected to start in Q3 2024, and tender is expected to start in 2025

Sources: Internal Data

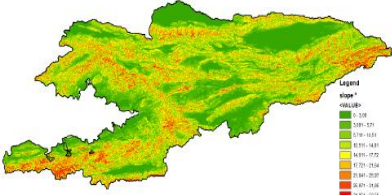
SITE SELECTION



Population centers



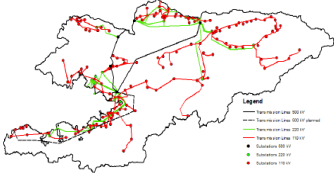
Solar irradiation



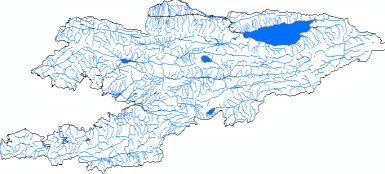
Terrain slope



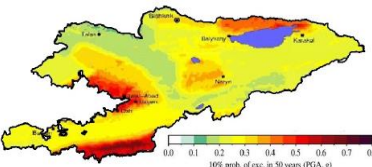
Roads & access



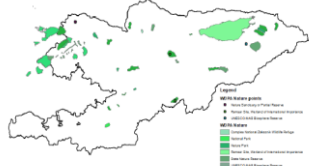
Grid connection



Rivers & lakes



Seismic risk



Protected areas

SOLAR PPP ROUND 2 – POTENTIAL PROJECT SITE (ALGA)



Location: Kadamjay district, Batken region



Site Area: ~300 hectares



Grid Connection: NEGK 500 kV network



Connection Line: 2 - 3 km



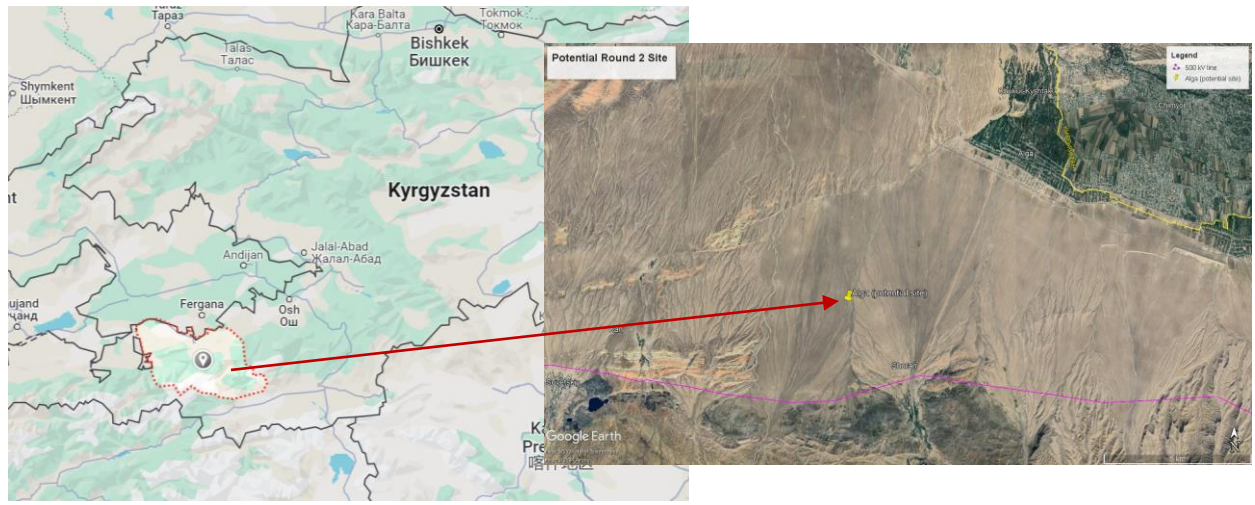
Installed Capacity: 100 to 150 MW



Terrain: Flat, barren land



Solar Irradiation: ~1,550 kWh/m²/year



SOLAR PPP ROUND 2 – POTENTIAL PROJECT SITE (TALAS)



Location: Talas district, Talas region



Site Area: ~450 hectares



Grid Connection: NEGK 220/110 kV Semetei substation



Connection Line: ~5 km



Installed Capacity: 100 to 150 MW



Terrain: Relatively flat pastureland, south facing



Solar Irradiation: 1,616 kWh/m²/year



SOLAR PPP ROUND 2 – PROPOSED ROADMAP



PHASE Preparation

Site selection
Mobilization

- Site selection process
- Initial data collection
- Presentation and agreement on transaction structure
- IFC consultants' procurement
- Kick-off



PHASE 1 Due Diligence

Review transaction structure	Draft project documents	RFQ process
Due Diligence & Market Sounding		

- Due diligence
- Preliminary marketing
- Financial analysis
- Transaction Structure Report
- Draft RFQ, RFP, PPA, GSA, etc.
- Prequalification process



PHASE 2 Implementation

Issue RFP	Bidders' due diligence	Bid submission & evaluation	Signing of project contracts
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- Virtual Data Room opening
- RFP issuance
- Sites visits, bidders' conference, clarifications
- Bid submission
- Evaluation
- Award
- Commercial Close

4-5 months

4-5 months

Sources: Internal Data
 Note: This timeline is indicative and may be subject to change.