Project Information Document (PID)

Appraisal Stage | Date Prepared/Updated: 02-Jun-2023 | Report No: PIDA35678

BASIC INFORMATION

A. Basic Project Data

Country	Project ID	Project Name	Parent Project ID (if any)
Uzbekistan	P180432	Innovative Carbon Resource Application For Energy Transition	
Region	**Estimated Appraisal Date**	**Estimated Board Date**	**Practice Area (Lead)**
EUROPE AND CENTRAL ASIA	31-May-2023	27-Jun-2023	Energy & Extractives
Financing Instrument	**Borrower(s)**	**Implementing Agency**	
Investment Project Financing	The Republic of Uzbekistan	Ministry of Energy, UzHydromet, Ministry of Economy and Finance, Agency for Strategic Reforms	

Proposed Development Objective(s)

The project development objective is to reduce carbon emissions through subsidy reforms and leveraging policy-based climate and carbon funds.

Components

Component 1: Payments for measured, reported and verified emission reductions (ERs) – Climate Finance
Component 2: Payments for measured, reported, and verified Internationally Transferred Mitigation Outcomes (ITMOs) – Carbon Finance

PROJECT FINANCING DATA (US$, Millions)

SUMMARY

Total Project Cost	46.25
Total Financing	46.25
of which IBRD/IDA	0.00
Financing Gap	0.00

DETAILS

Non-World Bank Group Financing

Trust Funds	46.25
Transformative Carbon Asset Facility Tranche A	46.25

Environmental and Social Risk Classification

Moderate

Decision

The review did authorize the team to appraise and negotiate

Other Decision (as needed)

B. Introduction and Context

Country Context

1. **Despite global uncertainties and external challenges, structural reforms and effective economic management thus far have helped maintain macroeconomic stability and an environment to further accelerate market transition through the next phase of structural reforms**. Reforms to liberalize trade, exchange rate, domestic prices and the tax system have supported Uzbekistan's continued economic growth and the reduction of resource misallocations in the economy. As a result, notwithstanding the COVID-19 pandemic, Uzbekistan has maintained an economic growth of 2.0 percent in 2020 and a further growth rebound of 7.4 percent in 2021. However, the Russian Federation's economic crisis and the global and regional spillovers from Russia's invasion of Ukraine have had an overall negative impact on Uzbekistan's economic growth. Economic growth in 2022 moderated to 5.7 percent led by strong remittances, consumption, and exports. Growth is expected to moderate to 5.1 percent in 2023 and accelerate gradually in the medium term. The slowing global economy, Russia's invasion of Ukraine and increased logistical challenges linked to sanctions on Russia are expected to prolong high food prices and reduce private consumption growth. Private investment and trade are expected to grow, and the current account deficit to widen, with remittances to Uzbekistan expected to moderate from their peak in 2022.

2. **The reform path in addition to navigating a difficult economic transition, must also successfully manage the growing need to tackle climate change for the country to achieve a sustainable development path**. Uzbekistan has demonstrated increased commitment to climate initiatives by presenting its intended Nationally Determined Contribution (NDC) on April 19, 2017, which became the country's first NDC upon ratifying the Paris Agreement. To stimulate 'green' economic growth in the country, rationalize the use of energy and natural resources, attract 'green' investments, and mitigate the negative impact of the environmental crisis, the Presidential Resolution dated October 5, 2019 approved the Strategy for Uzbekistan's transition to a 'green' economy in the period of 2019–2030. Furthermore, at the 26th session of the Conference of the Parties (COP26) of the UNFCCC in November 2021, Uzbekistan presented its updated NDC with a much higher target to reduce GHG emissions per unit of GDP by 35 percent by 2030 compared to the 2010 levels (against the previous target of 10 percent). Over the life of the Project, around 60 MtCO2e of emission reductions (ERs) are forecasted, assuming the proposed subsidy reforms are implemented, significantly contributing to Uzbekistan's NDC. Additionally, in May 2022, it also joined the Global Methane Pledge initiative to achieve a collective goal

of reducing methane emissions by at least 30 percent by 2030 compared to the 2020 level.

Sectoral and Institutional Context

Uzbekistan is one of the most energy- and emission-intensive countries in the world seeking to transition to a greener economy.

3. **Uzbekistan remains one of the most energy-intensive economies in the world, as the energy sector is overwhelmingly dependent on natural gas, and significant space remains for energy efficiency improvement.** Energy use in Uzbekistan is high and largely based on fossil fuels, even though the country has significant renewable energy (RE) potential in solar and wind. Natural gas makes up to 83 percent of total primary energy consumption and more than 80 percent of the electricity mix. There are significant opportunities to enhance energy efficiency primarily in large energy-intensive sectors, and the International Energy Agency (IEA) estimates that more efficient use of energy resources has the potential to reduce the country's required generation by around 10 percent by 2040. These characteristics have contributed to Uzbekistan's energy-intensive economy, where GDP energy intensity is about 50 percent higher than that of neighboring Kazakhstan and around three times higher than that of Türkiye. While the country accounts for 0.3 percent of global emissions, its energy sector accounts for three-quarters of the country's total greenhouse gas (GHG) emissions. Natural gas is a major source of commodity exports but is getting depleted (at the current pace of consumption, the existing proven gas reserves would be depleted within the next 20 years). The system is therefore vulnerable, and the country is taking actions toward sustainable energy transition pathways and improved economic competitiveness.

High energy-intensity of Uzbekistan's economy is primarily driven by below cost-recovery tariffs and consequent energy subsidies, leading to wasteful use of energy resources.

4. **Uzbekistan is one of the top 25 countries in the world with the largest energy subsidies, which accounted for 6.6 percent of GDP in 2020.** Electricity and natural gas prices are among the lowest in the world, with average electricity tariffs standing at around US¢4.5 per kWh, which is around 70 percent of its cost, placing the country among the top 10 countries with the cheapest prices out of 230 countries. Only Tajikistan, the Kyrgyz Republic[1] with hydro resources and some African countries offer lower tariffs. Similarly, natural gas tariffs are among the lowest in the world, with the average tariff of around US¢72 per m^3 which stands at about half of its prevailing cost and at around 40 percent of its opportunity cost.

5. **The below-cost recovery tariffs have created continued disincentive to efficiently consume energy aside from being a drain on government finances.** First, the low tariff resulting from subsidies creates a lack of incentive for households and businesses to conserve energy or invest in energy efficiency measures, thereby hindering efforts to optimize energy consumption. Moreover, these subsidies are limiting the GoU's fiscal capacity for other pressing priorities like education and health.

6. **The GoU has committed to continue pursuing energy subsidy reforms with a target to reach cost recovery in both electricity and gas sectors by 2026.** In April 2019, the GoU adopted a new electricity tariff setting methodology, defining a path for tariffs to be systematically adjusted in the future. Similarly, a new natural gas tariff methodology has been prepared with support from the World Bank that is being finalized by the GoU. The GoU also established a separate tariff commission under the Cabinet of

[1] Tajikistan and Kyrgyz Republic have 80-90% of hydro resources in their generation mix.

Ministers to set out a path for tariffs to be adjusted towards full cost recovery levels. Supported by the World Bank's series of Development Policy Operations (DPOs) and Energy Sector Strategy Programmatic Advisory Services and Analytics (Energy PASA, P168487), the GoU also implemented three tariff adjustments in 2018-2019 that collectively doubled the weighted-average tariff of electricity and gas. Although tariff reforms were paused in 2020-2021 due to the impacts of COVID-19, the GoU further adjusted electricity and gas tariffs for selected non-residential customers in May 2022. However, despite the recent tariff reforms, the current level of retail electricity and gas tariffs are not sufficient to recover the cost of supply.

7. **The Government has prioritized social protection measures and communication campaigns** to accompany tariff reforms. The authorities reviewed several mitigation options to address negative impacts, including (a) phasing tariff increases to allow adaptation among users, (b) adjusting social transfer amounts and coverage to offset the budgetary impact of tariff increases, (c) adjusting the tariff design itself, and (d) potential lifeline tariffs. Phased tariff increases are standard in reform policies that may have particularly adverse effects on vulnerable groups rather than increasing tariffs to full cost recovery levels in a single large step. This has been the principal approach to mitigate the impact of tariff reform the Government has taken over the past decade. The approach allows consumers to prepare for increases, for instance by adapting their energy use or more quickly retiring inefficient appliances. Under plausible assumptions of adaptive behavior on the part of energy consumers, a more gradual approach is expected to moderate welfare losses and the resulting increase in poverty.

Uzbekistan has committed to accessing climate and carbon funds to support its green growth agenda.

8. **In 2021, Uzbekistan increased its climate ambitions through the new NDC target of reducing specific GHG emissions per unit of GDP by 35 percent by 2030 from the 2010 levels.** Furthermore, in 2019 the GoU adopted a National Strategy on Green Economy Transition for 2019–2030 (Green Economy Strategy). In December 2022, it approved a State Program on Green Economy Transition setting the stage to participate in international carbon markets through Article 6.2 of the Paris Agreement. The MoEF is assigned as a coordinating entity particularly regarding international carbon transactions; the ASR and the MoE are assigned responsibility for energy sector reforms, renewables development, energy efficiency, and energy tariffs; and Uzhydromet (UHM) is responsible for all reporting requirements related to the Paris Agreement.

C. Proposed Development Objective(s)

Development Objective(s) (From PAD)

The project development objective is to reduce carbon emissions through subsidy reforms and leveraging policy-based climate and carbon funds.

Key Results

9. Progress toward PDO will be monitored using the following indicators:

    (a) GHG emission reductions generated by the Project (MtCO2e).

    (b) Amount of payments made for CO2e emissions reductions generated by the Project (US$).

10. The following intermediate indicators will also be monitored against the project progress.

(a) Cost recovery tariff trajectory established and implemented over time (Text).

(b) Measurement, Reporting and Verification (MRV) system established and operationalized (Text).

(c) Citizen views and feedback on tariff reform collected and utilized for decision-making (Yes/No).

D. Project Description

11. The Project is designed as a pilot initiative to establish a results-based climate and carbon finance system and payments that supports the GoU's initiative to reform energy subsidies and promote rational energy use in Uzbekistan. The ultimate outcome would be the reduction in carbon emissions, which will be credited and paid for through the Project funds. To this end, the GoU will annually measure and report underlying ERs using a dedicated MRV methodology developed as part of the Project. A third-party independent firm, to be hired by the World Bank -administered TCAF, will verify these ERs. Once ERs are verified, result-based payments will be made to the GoU.

12. **The Project has two interrelated components:** (a) payments for ERs - climate finance (US$20 million) and (b) payments for ITMOs - carbon finance (US$26.25 million). Results-based payments would be made against the ERs measured, reported, and verified, which would result from more efficient energy use incentivized by energy subsidy reforms. The description of specific components is outlined in the following paragraphs.

13. **Component 1: Payments for measured, reported and verified emission reductions (ERs) - Climate Finance (US$20 million).** This component encompasses the results-based payments under the ERPA. ERs will be generated due to the change in end-user energy demand resulting from the gradual adjustment of electricity and natural gas tariffs. Annual payments will be made based on the amount of ERs generated and contracted in the preceding year. The payments will reflect the volume and price outlined in the ERPA to be agreed between the GoU and TCAF contributors. The generated ERs under this component will remain in Uzbekistan and will be used for the country's NDC goals.

14. This component directly supports Uzbekistan's plans in both its NDC and Green Economy Strategy with respect to engaging international cooperation and mobilizing climate finance[2]. In addition, the VERs and respective payments under this component would serve as a simulation of carbon trading. The experience gained during the simulation will be put into practice and will pave the way for a pilot international carbon transaction under Component 2, as outlined below.

15. **Component 2: Payments for measured, reported, and verified Internationally Transferred Mitigation Outcomes (ITMOs) – Carbon Finance (US$26.25 million).** Similar to Component 1, under Component 2 payments would be made for measured, reported, and verified ERs resulting from energy tariff reforms. The key difference from Component 1 is that the ERs under Component 2 will be transferred out of Uzbekistan and become ITMOs, that is, Uzbekistan will sell ERs and TCAF[3] donor(s) (contributors) will buy the same.

[2] https://unfccc.int/sites/default/files/NDC/2022-06/Uzbekistan_Updated%20NDC_2021_EN.pdf
[3] TCAF will use the in-house Carbon Asset Tracking System (CATS) to record the transfers and subsequently allocate the ITMOs to the different carbon market contributors.

16. Component 2 will pilot an international carbon market transaction of Uzbekistan under Article 6.2 of the Paris Agreement. This will require that Uzbekistan comply with the accounting and reporting requirements of the Paris Agreement. Some progress has been made by the GoU in this regard, such as designating the primary Ministry (MoEF) responsible for international carbon trades. Additionally, a registry law, a critical element, is being drafted. The proposed technical assistance (see below) will help Uzbekistan continue these efforts to establish the national registry and implement the authorization process for the international transfers of ITMOs. Broadly, the associated TA (see the next section for details) will support Uzbekistan's Article 6 readiness efforts in line with its NDC commitments and relevant state programs outlined in the background section above.

17. **Technical Assistance (TA).** The Project will be accompanied by a TA with an estimated amount of up to US$2 million to be funded by TCAF and administered by the World Bank (BETF). The TA will play a critical role in developing the institutional capacity, systems, and infrastructure to help the GoU meet its NDC goals and those outlined in relevant state programs toward the development of a state system of inventory, reporting, and control of GHG emissions. The TA also aims to support the GoU in developing a robust MRV framework in compliance with Article 6 of the Paris Agreement. A draft Policy Implementation Support Plan (PISP) has been prepared by the GoU towards that goal, which provides stepwise actions to prepare for Article 6 collaboration. It is structured around two main sections: (a) strategizing for Article 6 engagement, which explores high-level opportunities, risks, and conditions for such engagements and identifies key areas to be explored for an engagement strategy and (b) governing Article 6 collaboration, which explores the necessary governance and institutional frameworks that need to be developed to guide and implement Article 6 collaboration.

Legal Operational Policies

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

Summary of Assessment of Environmental and Social Risks and Impacts

E. Implementation

Institutional and Implementation Arrangements

18. The MoEF has been leading the preparation of the proposed Project and will also lead the Project implementation along with the MoE. Based on Presidential Decree #436, dated December 2, 2022, the MoEF is the authorized state body in charge of coordinating the green growth agenda and will facilitate the efforts in preparation for the establishment of a national legal framework for carbon trade and accessing carbon markets and piloting the first carbon transaction under this proposed Project as part of Article 6 of the Paris Agreement. A Project Implementation Unit (PIU) will be established under the MoEF for the overall coordination and day-to-day implementation of the Project.

19. The MoE will be responsible for implementation of the Project along with the MoEF. The MoEF and MoE have been involved directly in all aspects of implementation with other projects and have gained

extensive experience with the World Bank's projects in general, including environmental and social policies and operating procedures. Capacity development for the MoEF and UHM will be needed in the area of carbon transactions, as iCRAFT will be the first of its kind in the country, which will be supported through the accompanying TA.

20. The MoEF and MoE will be signatories of the ERPA and MOPA, representing the Republic of Uzbekistan. The HCA will be executed between the Trustee and the Republic of Uzbekistan, represented by the MoEF.

21. The ASR, a sole shareholder of power and gas companies, is a lead state body responsible for the design and implementation of energy sector reforms. ASR will be involved as a coordinating body of the energy sector and energy reforms in the country.

22. The Ministry of Investment Industry and Trade (MIIT) is a central coordinating state body responsible for coordinating activities of international financial institutions and foreign government financial organizations as well as the implementation of the state investment policy programs.

23. The UHM (Center of Hydrometeorological Service of the Republic of Uzbekistan) is the state governing body specially authorized for the solution of tasks in the field of hydrometeorology in the Republic of Uzbekistan and the state focal point for NDC and Paris Agreement. The UHM will lead the activities on assessing, quantifying, verifying, and reporting the expected results of the operation, including potential GHG reductions according to Article 6 of the Paris Agreement. The accompanying TA on development of institutional capacity, systems, and infrastructure for MRV of carbon transactions will be provided to the UHM.

24. A governmental working group was established in 2022 specifically to prepare the proposed Project jointly with the World Bank. The working group led by the MoEF and comprising representatives from the MIIT, MoE, and UHM has been providing overall strategic and policy guidance as well as facilitating coordination among different ministries and agencies. Following the recent administrative reforms in Uzbekistan, the GoU will reestablish the working group as a Steering Committee to coordinate the efforts of different agencies involved during the Project implementation.

CONTACT POINT

World Bank

Maksudjon Safarov
Senior Energy Specialist

Jason James Smith
Senior Climate Finance Specialist

Borrower/Client/Recipient

The Republic of Uzbekistan

Implementing Agencies

Agency for Strategic Reforms
Rustamkhon Azizov
Deputy Director General
r.azizov@asr.gov.uz

Ministry of Economy and Finance
Ilkhom Norkulov
Deputy Minister
inorkulov@mineconomy.uz

Ministry of Energy
Akmal Jumanazarov
Deputy Minister
a.jumanazarov@minenergy.uz

UzHydromet
Firuz Safarov
Deputy Chairman
sf@meteo.uz

FOR MORE INFORMATION CONTACT

The World Bank
1818 H Street, NW
Washington, D.C. 20433
Telephone: (202) 473-1000
Web: http://www.worldbank.org/projects

APPROVAL

Task Team Leader(s):	Maksudjon Safarov Jason James Smith

Approved By

Practice Manager/Manager:		
Country Director:	Marco Mantovanelli	02-Jun-2023