

**DOCUMENT OF THE EUROPEAN BANK
FOR RECONSTRUCTION AND DEVELOPMENT**

Approved on a no-objection basis by the Board of Directors on 12 December 2022¹

KYRGYZ REPUBLIC

CHAKAN GES MODERNIZATION

[Redacted in line with the EBRD's Access to Information Policy]

[Information considered confidential has been removed from this document in accordance with the EBRD's Access to Information Policy (AIP). Such removed information is considered confidential because it falls under one of the provisions of Section III, paragraph 2 of the AIP]

¹ As per section 1.4.8 of EBRD's Directive on Access to Information (2019), the Bank shall disclose Board reports for State Sector Projects within 30 calendar days of approval of the relevant Project by the Board of Directors. Confidential information has been removed from the Board report.

For the avoidance of any doubt, the information set out here was accurate as at the date of preparation of this document, prior to consideration and approval of the project.

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ABBREVIATIONS / CURRENCY CONVERSIONS

CAGR	Compound Annual Growth Rate
CAPS	Central Asian Power System
CHP	Combined Heat and Power
DD	Due Diligence
E&S	Environmental and Social
EBITDA	Earnings Before Interest, Tax, Depreciation and Amortization
EBIT	Earnings Before Interest and Tax
EPC	Engineering, Procurement and Construction
ESAP	Environmental and Social Action Plan
ESDD	Environmental and Social Due Diligence
ESIA	Environmental and Social Impact Assessment
ESMS	E&S Risk Management Systems
EUR	Euro
FX	Foreign Exchange
GDP	Gross Domestic Product
HTM	Historical Twelve Months
HPP	Hydropower Plant
IFI	International financial institution
IFRS	International Financial Reporting Standards
KR	Kyrgyz Republic
LCY	Local Currency
LTA	Lenders' Technical Advisor
MDB	Multilateral Development Bank
MEA	Middle East and Africa
MoF	Ministry of Finance
MoU	Memorandum of Understanding
NEHC	National Energy Holding Company
O&M	Operation and Maintenance
PIA	Project Implementation Advisor
PIU	Project Implementation Unit
PP&R	Procurement Policies and Rules
PPA	Power Purchase Agreement
SFF	EBRD Shareholder Special Fund
SIF	Sustainable Infrastructure Fund
TC	Technical Cooperation
TCO _{2e}	Tonnes of Carbon Dioxide Equivalent
TDD	Technical Due Diligence
USD	US Dollar

Currency Equivalents

EUR / KGS (Soms)	79.94 as at 4.10.2022
USD / KGS (Soms)	80.18 as at 4.10.2022

Measures

GW	Gigawatt
kV	Kilovolt
kWh	Kilowatt-hour
MW	Megawatt
TWh	Terawatt-hour

PRESIDENT'S RECOMMENDATION

This recommendation and the attached Report concerning an operation in favour of the Kyrgyz Republic (the "Borrower"), are submitted for consideration by the Board of Directors.

The facility will consist of a sovereign loan to the Borrower in the amount of up to EUR 8.8 million. The loan will be on-lent to Chakan GES JSC (the "Company"), a local state-owned hydropower operator, which will be the project implementation entity. The loan is proposed to be co-financed by an investment grant of EUR 5 million from the EBRD Shareholder Special Fund ("SSF").

The operation, the first direct engagement of the Bank in the hydropower sector of the country, will enable the Kyrgyz Republic to rehabilitate and modernize Lebedinovskaya HPP with resulting improvements in productivity and safety levels. The project will also strengthen the hydropower plant resilience against projected impacts of climate change. The expected transition impact of the Project is Green due to the modernization of the renewable energy capacity in the country, as well as Well-Governed since the Project will support the development and implementation of an enabling policy framework for small-scale HPPs in the country under a technical cooperation assignment. The Project is 100% GET.

Pre-signing technical cooperation ("TC") support for the Project preparation was financed by the Sustainable Infrastructure Fund ("SIF"). Post-signing TC support is expected to be financed by an international donor or the SSF.

I am satisfied that the operation is consistent with the Bank's Strategy for Kyrgyz Republic, Energy Sector Strategy, the Bank's Green Economy Transition Approach and with the Agreement Establishing the Bank.

I recommend that the Board approve, on a no-objection basis, the proposed loan and the SSF co-investment grant substantially on the terms of the attached Report.

Odile Renaud-Basso

BOARD DECISION SHEET

KYRGYZ REPUBLIC – CHAKAN GES MODERNIZATION – DTM 53600	
Transaction / Board Decision	Board approval ² is sought for a sovereign loan of up to EUR 8.8 million and an EBRD Shareholder Special Fund (“SSF”) co-investment grant in the amount of up to EUR 5 million in favour of the Kyrgyz Republic (the “KR” or the “Borrower”). The proceeds of the Loan will be used to finance the reconstruction and rehabilitation of the Lebedinovskaya HPP.
Client	The facility consists of a sovereign loan to the Kyrgyz Republic. The Project will be implemented by Chakan GES JSC (the “Project Entity” or the “Company”), a local power plant operator located in Bishkek with 9 small HPPs in its portfolio with a total installed capacity of 38.5 MW. The Company is a fully-owned subsidiary of OJSC National Energy Holding Company (the “NEHC” or “Parent Company”), which controls the state-owned energy companies in the country, and whose shares are 100% owned by the Kyrgyz Republic government.
Main Elements of the Proposal	<p><u>Transition impact</u></p> <ul style="list-style-type: none"> • <i>Primary Quality</i> – Green. The Bank will finance the priority rehabilitation program at the Lebedinovskaya HPP, the first direct engagement of the Bank in the hydropower sector of the country, improving its productivity, safety and resilience against projected impacts of climate change, aligned with adaptation goals of Paris Agreement. The Project will contribute to the efforts in solving the long-lasting operational issues in the country’s aged and inefficient HPP infrastructure through the rehabilitation program. The Project qualifies as a positive environmental activity with the increased energy output [REDACTED] from renewable energy sources. • <i>Secondary Quality</i> – Well-governed. The Project will entail development and implementation a policy framework for small-scale HPPs in the Kyrgyz Republic under a technical cooperation assignment. <p><u>Additionality</u></p> <ul style="list-style-type: none"> • <i>Financing structure</i>: The Bank will provide long-term financing, which is currently not available from commercial banks. • <i>Standard-setting</i>: The Bank will support the client in achieving higher standards that are above the market practice in the country through its conditionalities (e.g. PP&R and ESAP). • <i>Knowledge, innovation, and capacity building</i>: The Project will foster policy dialogue with the government entailing regulatory framework reforms in the energy sector, primarily targeting small scale HPPs in the country. <p><u>Sound banking</u></p> <ul style="list-style-type: none"> • The EBRD loan will be backed by the sovereign debt capacity.
Key Risks	<p><i>Sovereign risk</i>. Sovereign debt to GDP stood at 58.9% as of December 2021 and substantial part of the sovereign debt is concessional. Although the COVID-19 combined with the markets turbulence following the conflict in Ukraine had a negative impact on the country’s economy, the country’s GDP is expected to grow at 7% annually in 2022-2203 and at 5.5% annually in 2024-2025 on the back of increased real wage growth and strong demand for labour market, leading to strong domestic consumer demand. The sovereign debt of the Kyrgyz Republic is expected to remain manageable in the medium and long term.</p> <p><i>Implementation and project completion risk</i>: This risk is associated with the Company’s potentially weak implementation capacity and will be mitigated by involvement of a Project Implementation Support consultant.</p>
Strategic Fit Summary	The Project is in line with the Bank’s Strategy for Kyrgyz Republic, the Energy Sector Strategy and supports the Bank’s Green Economy Transition Approach.

² Article 27 of the AEB provides the basis for this decision.

ADDITIONAL SUMMARY TERMS FACTSHEET

EBRD Transaction	Up to EUR 8.8 million sovereign loan to the Kyrgyz Republic to support reconstruction and rehabilitation of the 7.6MW Lebedinovskaya HPP owned by Chakan GES JSC, 100% ultimately owned by the Government of the Kyrgyz Republic. The loan is proposed to be co-financed by an investment grant from the SSF in the amount of up to EUR 5 million.
Existing Exposure	Sovereign exposure to the Kyrgyz Republic (<i>Moody's B3/Negative</i>): EUR 112 million.
Maturity / Exit / Repayment	The proposed loan tenor is up to 15 years [REDACTED].
Potential AMI eligible financing	None.
Use of Proceeds	The proceeds of the Loan will be used to finance the reconstruction and rehabilitation of the Lebedinovskaya HPP unit with 7.6MW installed capacity, owned by the Company. The power plant consists of two hydropower units that are currently in operation, however, they have exceeded their operation lifetime and there is an urgent need for reconstruction and modernisation with replacement of the hydraulic units and auxiliary systems of the plant with new modern equipment (the "Project"). The use of proceeds will be monitored through application of the EBRD PP&R and via conditions precedent to disbursement, review of the progress reports on the agreed Project Implementation Plan (PIP) and monitoring visits, as well as other standard provisions in the legal documentation.
Investment Plan	[REDACTED]
Financing Plan	[REDACTED]
Key Parties Involved	<ul style="list-style-type: none"> • Borrower: Kyrgyz Republic • Project Entity: Chakan GES JSC
Conditions to subscription / disbursement	<p>Conditions to disbursement:</p> <ul style="list-style-type: none"> • Execution of the Loan Agreement, Project Agreement, Subsidiary Loan Agreement; • The Project Implementation Unit shall have been established at the Company [REDACTED]; • Procurement consultant is appointed; • Other standard EBRD conditions.
Key Covenants	<p>For the Company:</p> <ul style="list-style-type: none"> • Environmental and social compliance; • Compliance with the Bank's Procurement Policies and Rules; • IFRS reporting [REDACTED] • Other standard EBRD covenants.
Security / Guarantees	Sovereign loan
Other material agreements	Project agreement
Associated Donor Funded TC and co-investment grants/concessional finance	<p>A. Technical Cooperation (TC)</p> <p><u>Pre-signing</u></p> <ul style="list-style-type: none"> • TC1: Technical Due Diligence (including feasibility study and early stage engineering design): The cost of this assignment is [REDACTED] financed by the EBRD Sustainable Infrastructure Fund (the "SIF"); • TC2: Environmental and Social Due Diligence: The cost of this assignment is [REDACTED] financed by the SIF. <p><u>Post-signing</u></p> <ul style="list-style-type: none"> • TC3: Project Implementation Support: This includes (i) assistance with procurement of the goods, works and services under the Project including development of tender documentation, tenders evaluation and contracting, (ii) assistance with the establishment of the PIU; (iii) assistance with the supervision of contracts' implementation and supervision of the works (in the role of the

	<p>contracts' Engineer); and (iv) environmental and social implementation support and assistance with compliance and reporting obligations under the financing documents. Total cost [REDACTED] is expected to be financed by an international donor or the SSF.</p> <ul style="list-style-type: none"> • TC4: Policy framework support: This includes implementation and development of an enabling policy framework for small-scale HPPs in Kyrgyzstan. [REDACTED]. Total cost of this assignment is [REDACTED] expected to be financed by the SSF. <p>Reimbursement: The assignments above will not be reimbursable. Cost-sharing: The Company will be providing in-kind contribution (office space, local transportation etc.).</p> <p>B. Co-investment grants / Concessional Finance (Non-TC)</p> <ul style="list-style-type: none"> • SSF: The Project is proposed to be co-financed by a EUR 5 million investment grant from the SSF (expected from the Workplan 2021-2022).
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[REDACTED]

INVESTMENT PROPOSAL SUMMARY

1. STRATEGIC FIT AND KEY ISSUES

1.1 STRATEGIC CONTEXT

Kyrgyzstan's hydro-rich energy sector is characterised by aging infrastructure [REDACTED], which are exacerbated by a combination of climate shocks (draughts, severe winter conditions etc.) and growing demand. It has been suffering from years of underinvestment, non-cost reflective tariffs [REDACTED]. The country has an energy deficit driven by insufficient generation, especially in winter when demand is 2.5-3 times higher than in summer. The total losses in the sector are about 20% of net generation [REDACTED]. About half of generation capacity and up to 70% of distribution assets are beyond their useful lives, leading to frequent supply disruptions due to equipment failures and overloading across the country. These challenges pose a significant threat to the country's energy security, and make it particularly vulnerable to the impacts of climate change. At the same time, the power sector of Kyrgyzstan accounts for about 4% of the country's GDP and 16% of industrial production and has significant growth potential. More than 80% of electricity generation in the country relies on the hydropower plants and the country has potential to significantly increase hydropower generation.

The Project is the Bank's first direct investment into the hydropower sector in the country and its largest investment in the energy sector in the last 20 years. The Project will focus on rehabilitation of the existing Lebedinovskaya hydropower plant owned by the Company. It will strengthen the hydropower plant resilience to potential impacts of the climate change, adapting it to new water flow levels. It will enhance the power plant operational efficiency and safety and will help increase the electricity output [REDACTED].

To support the Government with priority reforms in the energy sector, in January 2022 the Bank signed a memorandum of understanding ("MoU") with the Kyrgyz Ministry of Energy for the purpose of fostering the development of renewable energy including introducing renewable energy auctions, modernization of energy infrastructure. The Project is the first investment under the MoU and will allow to promote and further support much needed reforms in the sector, including strengthening the regulatory framework to help enable private investment in small scale HPPs.

Following the signing of the MoU, the Bank has initiated a technical cooperation ("TC") assignment as the first step on the policy engagement with authorities in order to create and enable regulatory framework for renewables. The assignment aims to provide assistance to the Ministry of Energy to conduct a gap analysis and make recommendations to introduce utility-scale solar PV and/or onshore wind power generation through private sector participation. Ultimately it is aimed to address the broader industry challenges together with other IFIs active in the country, and contribute to development of sustainable power sector.

Under the Project, the Bank will also implement a technical cooperation assignment to support the development and implementation of enabling policy framework for small-scale HPPs in the country. The assignment is intended to (i) support the Ministry of Energy of Kyrgyzstan with its objective to develop a green recovery plan and achieve energy security in response to the challenges faced by the energy sector and aggravated by the Covid-19 by incentivizing small-scale HPPs, (ii) develop a supportive regulation for small-scale HPPs and (iii) provide an incentive framework to alleviate the Covid-19 and energy crisis burden on the SOEs and

contribute to the government agenda of economic recovery by building back better. The country has ample capacity to develop further small-scale HPP units and this TC assignment will alleviate the successful implementation of such projects in Kyrgyzstan.

The Bank also continues to engage with the Government of Kyrgyzstan over the priority tariff reforms. [REDACTED]. According to the World Bank estimations, without a change in tariffs, the deficit in the electricity sector is forecasted to increase 12-fold in the next five years. Therefore, the Bank and other IFIs have been working with the Government to implement cost-reflective tariffs across the sector. The continued dialogue has yielded the first positive result with the tariff increase for certain consumer groups including industrial users (including cryptocurrency farms) and minerals mining companies. The Bank is in close collaborations with the World Bank to further support the tariff reform efforts taking into account affordability constraints and support to vulnerable groups.

In the absence of long-term financing available in the country and in order to address the daunting challenges in the sector, Kyrgyz government approached the Bank with a proposal to consider financing the modernization works at the Lebedinovskaya HPP owned by Chakan GES JSC. The Company has been facing operational challenges for decades caused by the high level of depreciation of equipment in its HPP assets (the oldest turbines – used by Malaya HPP - were produced in 1913, the newest turbines are 65 years old), which causes low power supply reliability and power outages. Lebedinovskaya HPP is one of the largest units and a priority for the Company to rehabilitate. The Project will guarantee the long-term efficient operation of renewable electricity production, mitigate the hydrology risk by utilizing full potential of Lebedinovskaya HPP and will significantly increase electricity production due to the installation of modern equipment. The Project is expected to lead to a reduction in GHG emissions [REDACTED]. The Project is of high importance for the Kyrgyz Republic as, upon completion, it will provide secure, uninterrupted supply of green electricity to industrial and retail consumers of Bishkek city and region, one with the most business activity in the country.

The Project is proposed to be co-financed by investment grant from the SSF for up to EUR 5 million. The grant component will help improve the country's energy security by modernizing and rehabilitating the critical energy infrastructure. With one of the highest energy intensities in the EBRD region, a high reliance on hydropower for electricity production and increasing water stress due to potential impacts of climate change, the country has a significant need for financially and environmentally sustainable energy infrastructure. As the country has limited debt capacity, mobilising concessional finance following the guidelines of the IMF is essential to ensure necessary investments take place. [REDACTED]. By developing greener public utilities sector, the proposed Project is in line with the Bank's Strategy for Kyrgyz Republic, Energy Sector Strategy 2019-2023, and supports the Bank's Green Economy Transition Approach.

1.2 TRANSITION IMPACT

The tables below set out the TI Objectives and details of the project.

Primary Quality: Green

Obj. No.	Objective	Details
1.1	<i>The percentage of EBRD use of proceeds that supports a green economy</i>	The share of GET-compliant EBRD proceeds is 100%. The Project will contribute to solving the long-lasting operational issues in the aged and inefficient HPP infrastructure through

	<i>transition and therefore qualifies as GET finance exceeds 50%.</i>	the rehabilitation program. Modernization of renewable energy sources will result in a more resilient power sector in the country, ensuring a more reliable power supply by renewable energy sources. The Project qualifies as a positive environmental activity with the increased energy output [REDACTED] from renewable energy sources.
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Secondary Quality: Well-Governed

Obj. No.	Objective	Details
2.1	<i>The project entails a policy dialogue initiative that has been assessed as Strong Good by the sector economist.</i>	The Government of Kyrgyz Republic and the Bank signed an MoU in January 2022 which entails a cooperation towards the development of a comprehensive long-term strategy for the power sector transformation and the Country's low carbon transition. The Project aims to contribute to the policy agenda associated with the signed MoU. Under the Project, the Bank will carry out a TC assignment that is specific to the small-scale HPPs, which are crucial for the energy security for the capital city in Kyrgyzstan. Under the proposed TC assignment, the Project will support the development and implementation of an enabling policy framework for small-scale HPPs in Kyrgyzstan. The Bank is also in close collaboration with the World Bank, who has recently developed the Electricity Sector Modernization and Sustainability Project which entails institutional development of the energy sector.

Delivery Risks: The risks are moderate to high. One of the main risks is associated with the Project implementation, which will be mitigated by a Project Implementation Support consultant for procurement and supervision of civil works. Another risk relates to the political willingness to implement the regulatory reforms which is mitigated via close interaction with the authorities and the MoU signed with the Ministry of Energy.

1.3 ADDITIONALITY

Identified triggers	Description
A subsequent/consecutive transaction (issuance) with the same client/group either with the same use of proceeds or in the same destination country (repeat transaction).	The Bank previously financed two distribution companies owned by NEHC for the purpose of increasing energy efficiency and reducing network losses. The Project is the first financing of a power generation company owned by NEHC and will further enable the Bank to strengthen its involvement in the country's energy transition efforts, through replacing the deteriorated facilities in much needed and critical HPP infrastructure, thereby ensuring a more reliable power supply and preventing power outages.
Additionality sources	Evidence of additionality sources
Financing Structure - EBRD offers a tenor , which is above the market average and is necessary to structure the project.	The Bank will provide a loan with a 15-year tenor [REDACTED] which is not currently available from commercial banks in the local market.

<p>Policy, sector, institutional or regulatory change EBRD's involvement in the Project is considered additional when it is designed to trigger a change in the policy, sector, institutional or regulatory framework, or enhance practices at the sector or country level.</p>	<p>The Project aims to foster policy dialogue with the government that entails regulatory framework reforms in the energy sector through a dedicated TC assignment, which shall help develop enabling regulatory framework for small scale HPPs in the country. It is expected that it would help enhance private sector interest in the sector.</p>
<p>Standard-setting: helping projects and clients achieve higher standards Client seeks/makes use of EBRD expertise on best international procurement standards.</p>	<p>EBRD is providing the Project Implementation Support that ensures the use of international procurement standards and is also designed to strengthen the Company's procurement capacity. The Bank's conditionalities such as applying EBRD PP&R and implementation of ESAP will help develop the Company's capacity and allow for the Project's efficient implementation.</p>

1.4 SOUND BANKING - KEY RISKS

Risks	Probability / Effect	Comments
Sovereign risk	Low / High	<p>Kyrgyzstan has borrowed increasingly from bilateral creditors to address the most critical bottlenecks in infrastructure sector. Kyrgyz Republic remains vulnerable to risks arising from the pandemic, inflationary pressures, international commodity price volatility and fiscal policy.</p> <p><i>Mitigating factors:</i> sovereign debt was 68.1% of GDP in 2020, which is considered unsustainable, however, robust fiscal stance in 2021 helped to significantly reduce the burden of sovereign debt to 58.9% in December 2021, outperforming the IMF estimates. In accordance with the IMF recommendations, the major part of sovereign debt for Kyrgyzstan was raised on concessional basis. Further, the budget deficit declined sharply to 0.3% of GDP in 2021 from 4.2% in 2020. Subject to sustainability of fiscal improvements and retaining grant (concessionality) intensity, along with the expected GDP growth at 7% in 2022 and 2023 and 5.5% annually until 2025, the Kyrgyz Republic's creditworthiness could significantly improve in the short-term. In line with the financial model, the Company is able to service the on-lent EBRD loan [REDACTED].</p>
Generation / Hydrology risk	Medium / High	<p>The last four years have been characterized by low hydrology / precipitation with the Company's electricity generation peaking in 2017 at 189.9 GWh and reducing to 143.8 GWh as a result of poor hydrology, impacting the Company's revenues and its creditworthiness.</p> <p><i>Mitigating factors:</i> hydrological volatility has been accounted for in the technical assessment and will be mitigated by the Company's efforts in rehabilitating the equipment, ensuring a better operational performance under changing water flows. The loan is backed by sovereign debt capacity.</p>
Implementation and procurement risk	Medium / Medium	<p>Project implementation may incur cost overruns and/or completion delays.</p> <p><i>Mitigating factors:</i> a standalone PIU will be established to coordinate, manage, monitor and evaluate all aspects of the</p>

		Project. An international consultant will assist with the Project's implementation. Application of the EBRD's PP&R should ensure that an experienced and creditworthy contractor is selected to perform the work and that a balanced construction contract is signed between the parties. Engineering supervision will further mitigate implementation risks.
Regulatory risk	High / High	Creditworthiness of the Company depends on the tariff increases. <i>Mitigating factors:</i> the World Bank and the Bank are supporting the Government with tariff reforms and sector development to help enhance the financial viability and improve transparency and accountability in the power sector. The first positive development is the increased electricity tariff for industrial consumers. The Kyrgyz government has committed to implement a cost reflective tariff by 2028 which will strengthen the Project's feasibility and the Company's ability to service the on-lent debt. [REDACTED]. The loan is backed by sovereign debt capacity.
Currency Risk	Medium / High	The loan currency is denominated in EUR, whereas the Company revenues are in Kyrgyz som. Devaluation in local currency may have an adverse impact on the Company's debt service ability. <i>Mitigating factors:</i> aforementioned regulatory reforms with cost-reflective tariffs would allow the Company to increase the tariffs in line with inflation which would partially offset the currency devaluation risk. [REDACTED].

2. MEASURING / MONITORING SUCCESS

Overall objectives of project	Monitoring benchmarks	Implementation timing
Timely implementation of the Project	Completion according to the timeline and within the budget	[REDACTED]
Maintaining appropriate environmental standards	Successful and timely implementation of the ESAP	[REDACTED]
Enabling policy framework for small-scale HPPs	Implementation of cost-reflective tariffs for small scale HPPs	[REDACTED]

Primary Quality: Green

Obj . No.	Monitoring indicator	Details	Baseline	Target	Due date
1.1	CO2e emissions reduced (tonnes/year)	Based on the anticipated additional energy yield achieved as a result of the modernization.	[REDACTED]	[REDACTED]	[REDACTED]
1.2	Renewable energy - electricity produced (MWh/year)	Upon the modernization of Lebedinovskaya, the Project is expected to generate additional [REDACTED] MWh / year.	[REDACTED]	[REDACTED]	[REDACTED]

Secondary Quality: Well-Governed

Obj . No.	Monitoring indicator	Details	Baseline	Target	Due date
2.1	Supportive regulation in secondary legislation for small-scale HPPs (TC assignment)	Development and implementation of a supportive regulation in secondary legislation for small-scale HPP projects, including requirements for balancing, grid connection, permitting and licensing.	[REDACTED]	[REDACTED]	[REDACTED]
2.2	Cost reflective tariff methodology for small-scale HPPs (TC assignment)	Approval and implementation of a new tariff methodology for small-scale HPPs in Kyrgyzstan that is cost-reflective, equitable and incentivises investment and demand response.	[REDACTED]	[REDACTED]	[REDACTED]

3. KEY PARTIES**3.1 BORROWER**

The EBRD will extend a sovereign loan to the Kyrgyz Republic (B3/Negative by Moody's). The emergence of the global coronavirus pandemic has disrupted the KR's positive economic trajectory (average real GDP growth of 4.5% over the last decade), with real GDP contracting by 8% in 2020. Sovereign debt that had been declining since 2015, was negatively affected and increased to 74.3% of the GDP during 2020, due to additional external financing and depreciation of the Kyrgyz som, reducing to 59% thereafter by the end of 2021. The country's economy has rebounded with 3.6% GDP growth in 2021 and 7.7% year-on-year GDP growth in the first seven months of 2022.

The conflict in Ukraine is expected to impact the Kyrgyz economy negatively, but so far has not impacted remittance given the increase in remittances by 11% in the 1H-22. [REDACTED]. In addition, the surge in global interest rates is putting pressure on fiscal balance, which is being offset by the concessional loans as described above. Despite the challenges driven by the global macro-economic outlook and geopolitical issues, the Kyrgyz economy is projected to grow at 7.0% in both 2022 and 2023, and 5.5% annually until 2025, as per the Bank projections. KR's risk of debt distress is expected to remain "moderate" as its sovereign debt is largely made up of long-term concessional loans and is backed by adequate FX reserves (at USD 2.5 billion as of September 2022).

3.2 PROJECT ENTITY

The Project will be implemented by Chakan GES JSC, which is 100% owned by OJSC National Energy Holding. The Company is a local power plant operator in the Kyrgyz Republic and currently operates 9 small HPPs with a total installed capacity of 38.5 MW in and around the city of Bishkek, located on the cascade of Alamedin river. The HPPs have been in operation for more than 60 years, with the oldest plant, Malaya HPP, operating since 1913 and the newest plants, HPP-5&6 operating since 1957. The Lebedinovskaya unit has been in operation since 1943. The Company's plants generate around 160 GWh annually on average.

4. MARKET CONTEXT

The Kyrgyzstan power sector was restructured in 2002, when the sector was unbundled into generation, transmission and distribution divisions. State-owned JSC Electric Power Plants is the largest electricity generator, and JSC NESK is the state-owned transmission system operator (TSO) that also operates the national dispatch service. The distribution and retail functions of the power sector are still bundled, and distribution system operators (Discos) are obligated to provide retail services in their territories.

More than 80% of electricity generation in the country relies on the hydropower. As of 2021, JSC “Electric Power Plants” operates 7 HPP and 2 CHP with the total installed electricity capacity of c. 3.9GW. Chakan GES JSC and several other small HPPs operate separately with c 60MW of installed capacity. JSC “National Grid of Kyrgyzstan” is responsible for electricity transmission through high voltage lines (110kV-500kV) while distribution is operated by a recently consolidated distribution company via medium and low voltage lines to final customers in the regions of their operations. All state owned power assets are combined under NEHC whereas operational management is delegated to the companies’ level.

The Kyrgyz energy system provides a rather stable electricity supply to domestic consumers, with the annual 3-5% growth in demand. Electricity generation fluctuates between 13 TWh and 15 TWh depending on the inflow of water and the amount of water accumulated in the Toktogul reservoir. Kyrgyzstan has traditionally been a net exporter of electricity, but export has diminished in the last decade due to increased domestic demand and depreciation of assets.

The energy system of the Kyrgyz Republic is divided into northern (60% of electricity consumption, 20% hydropower capacity) and southern (40% of electricity consumption, 80% of hydropower capacity) parts, which are connected by a 500 kV line Toktogul-HPP Frunzenskaya and a 500 kV line Datka-Kemin, as well as through CAPS. Total wear of the JSC National Grid’s equipment is 36% for high voltage lines of 110-220-500 kV and 69% for substations of 110-220-500 kV, demonstrating chronic underinvestment in the past decades.

Electricity tariffs are regulated by the Agency under the Government for Fuel and Energy Complex Regulation based on cost plus methodology. Electricity tariffs are set by the regulator based on the Mid-Term Tariff Policy (MTTP) approved by the government. The 2021- 25 MTTP was approved in 2021 and introduced tariff increases for industrial consumers, including an increased step-up coefficient for certain categories, such as gold extraction plants, cryptocurrency mining farms, foundries, alcohol companies and cement plants (USDc 2.98/kWh, in contrast with USDc 0.9/kWh for low-use residential consumers). However, at present the electricity tariffs are not fully cost reflective with large residential consumers and non-residential consumers paying higher tariffs and cross-subsidising residential consumers. The World Bank with the support from other MDBs including EBRD is leading policy engagement on the tariffs methodology. In line with the recommendations, the Government started implementing the 2021 tariff increase with the industrial consumers as a starting point.

The Government’s primary focus is on diversifying energy sources and increasing domestic production, mainly for hydropower, given that the potential of Kyrgyzstan's rivers is approximately ten times what is currently utilised.

5. FINANCIAL / ECONOMIC ANALYSIS

5.1 FINANCIAL PROJECTIONS
[REDACTED]

5.2 SENSITIVITY ANALYSIS
[REDACTED]

5.3 PROJECTED PROFITABILITY FOR THE BANK
[REDACTED]

6. OTHER KEY CONSIDERATIONS

6.1 ENVIRONMENT

The Project has been Categorised B in line with EBRD's 2019 Environmental & Social Policy with medium low risk. As it is a rehabilitation project that it is not greenfield nor a major expansion, the proposed Project does not meet the definition of a Category A project as per the ESP. This approach is consistent with EBRD's Guidance Note on Hydropower Projects.

The E&S due diligence (ESDD), carried out by an independent consultant, confirmed that there are no major and long term environmental or social impacts or risks associated with the Project. However, ESDD identified some areas that the Company needs to focus on and an ESAP has been developed and has been agreed with the Company before submission of the Project to Board.

The construction and operation of the HPPs does not expose surrounding communities to major industrial accidents or flood risks in normal operation conditions. However, the HPPs flood routing capacity should be re-assessed in the context of the rehabilitation, considering modern standards and also climate change.

Key ESAP actions include: establishing and run a corporate ESMS covering the operation of all HPPs operated by Chakan GES, including annual internal performance audits and continuous improvement action, measures for contractor management and monitoring, measures to align the client labour provisions to EBRD PR2 (Update of the Human resource Policy, worker grievance mechanism, promotion of non-discrimination and equal opportunity actions, improve workers accommodation) as well as enhancing workers and contractor health and safety, public safety, waste management, air quality, traffic management and development of an internal and external grievance mechanism. The Company will be required to provide annual reporting on the implementation of the ESAP and compliance with the PRs.

6.2 INTEGRITY

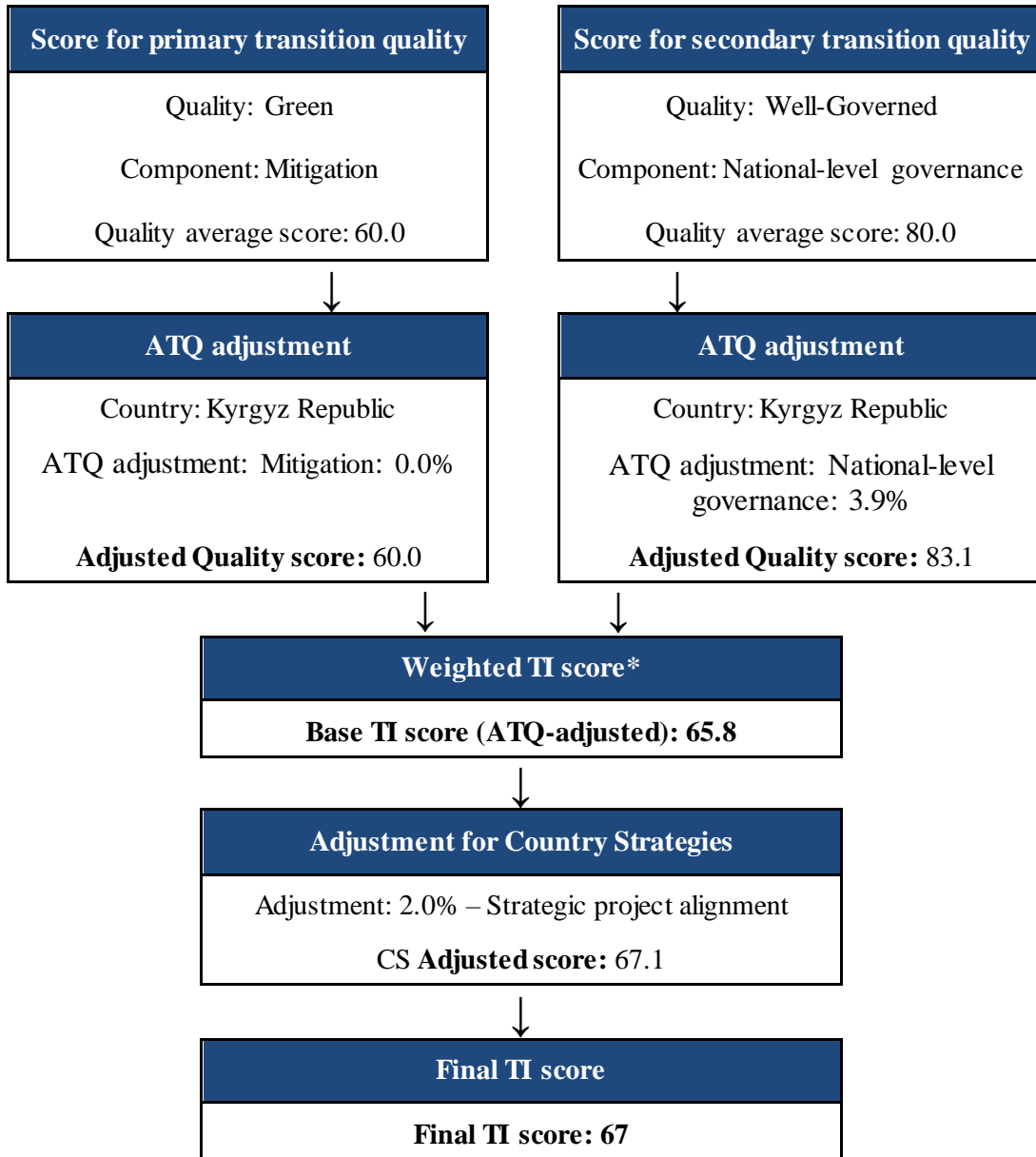
In conjunction with OCCO, integrity due diligence was undertaken on Chakan GES; its state-owned parent company NEHC; their senior management; and related parties, including the Ministry of Energy (sole shareholder of NEHC). [REDACTED].

All actions required by applicable EBRD procedures relevant to the prevention of money laundering, terrorist financing and other integrity issues have been taken with respect to the Project, and the Project files contain the integrity checklists and other required documentation which have been properly and accurately completed to proceed with the Project. The project was deemed not to pose an unacceptable integrity or reputational risk to the Bank.

ANNEXES TO OPERATION REPORT

ANNEX 1	TRANSITION IMPACT SCORING CHART
ANNEX 2	PROJECT IMPLEMENTATION AND PROCUREMENT PLAN
ANNEX 3	GREEN ASSESSMENTS
ANNEX 4	EBRD SSF CO-INVESTMENT GRANT FICHE
ANNEX 5	KYRGYZ ENERGY SECTOR STRUCTURE
ANNEX 6	HISTORICAL FINANCIAL STATEMENTS

ANNEX 1 - TRANSITION IMPACT SCORING CHART



*The Primary Quality score is weighted 75% for the calculation of the Base TI Score. The Secondary Quality is weighted 25%.

ANNEX 2 – PROJECT IMPLEMENTATION AND PROCUREMENT PLAN

Procurement classification – *Public [sovereign]*

[REDACTED]. By applying the EBRD’s toolkit to assess the public sector clients’ procurement capacities, the Project team’s Project Implementation Advisor undertook a capacity assessment of Chakan GES JSC focusing on sections related to the existing legal framework, organisation, support and control systems, staffing, records, procurement planning, and project risk. Areas of opportunities and improvements were identified and have been discussed with the Chakan GES JSC. Based on this assessment, the overall procurement risk has been identified as “*Moderately High*”. According to the changes in the local procurement legislation, the Chakan GES JSC, despite the fact of being a state owned enterprise with the government share of more than 50%, is no longer required to follow the national public procurement legislation. There are some project risks, e.g. the Client not being familiar with FIDIC Contracts. Moreover, Chakan GES JSC does not have a recent experience of undertaking a project of a similar size and nature. The Project will be implemented by the PIU, a separate legal entity to be established by the Chakan GES JSC. The PIU will be assisted by experienced project implementation consultant.

Contracts risk assessment - High -

As long as only the conceptual design is available for the moment, the Design and Build Contract (FIDIC Yellow Book) has been chosen as the most appropriate form for the reconstruction of Lebedinovskaya HPP unit. The Client does not have experience of working with FIDIC Contracts, however, the PIU support consultant will assist the Client within the entire duration of the contract.

Project implementation arrangements:

A PIU will be set up at the company level for the overall project management, including all aspects of procurement. The PIU will be supported by an experienced PIU support consultant, assisting the Company in all aspects of design review, procurement and implementation of the Project, in accordance with the Bank’s policies, and the requirements of various Project agreements.

Procurement arrangements:

The proposed operation is classified as public sector for procurement purposes. The planned contracts financed from the proceeds of the EBRD loan and investment grants will be procured through open tendering in accordance with Article 3 of Section 3 of the PP&R for public sector operations. A two stage tender is proposed to be used for the main work contract for the reconstruction of Lebedinovskaya HPP unit mainly to get access first to the technical proposals from tenderers for the preparatory works required to design and construct the flow diversion structures needed for reconstructing the plant.

All contracts will be subject to prior review by the Bank in accordance with the procedures set out in the PP&R. Disbursements under the contracts will be made directly to the contractor and consultant. The enclosed Procurement Plan provides the details of the planned investment and TC assignment. Dates are subject to change depending on the dates of loan signing. [REDACTED].

ANNEX 3 – GREEN ASSESSMENTS

Introduction

The Project entails financing of reconstruction and rehabilitation of Lebedinovskaya HPP unit with 7.6MW capacity, owned by Chakan GES JSC. The Lebedinovskaya HPP consists of two hydropower units that are currently in operation, however, they have exceeded their operation lifetime and there is an urgent need for reconstruction and modernisation with replacement of the hydraulic units and auxiliary systems of the plants with new modern equipment.

The Project has been assessed for alignment with the mitigation and adaptation goals of Paris Agreement. ESD performed a screening of the Project and concluded that it does not face any potentially material physical climate risks. Sector and the project type is included in the 'aligned list'.

Paris alignment assessment

General screening of alignment with the mitigation goals of Paris Agreement

- The project/economic activity is included in the 'aligned list'.
- Regarding project/economic activity(ies), there are no activities included in the 'non-aligned list'.

Alignment with the adaptation goals of Paris Agreement

- The project is considered aligned with the objectives of the Paris Agreement as potential climate hazards have been determined to be non-material.
- The climate resilience measures integrated into future project design have addressed any potential project vulnerabilities. Physical climate risk is not applicable for this transaction.
- Appraisal of broader climate resilience context: the Project is compatible with Bank's Strategy for Kyrgyz Republic and is in line with an MoU signed between Kyrgyz Ministry of Energy and EBRD in January 2022 for the purpose of fostering the development of renewable energy (including new RES auctions), modernization of energy infrastructure and development of national long-term strategy to achieve carbon neutrality.

GET attribution

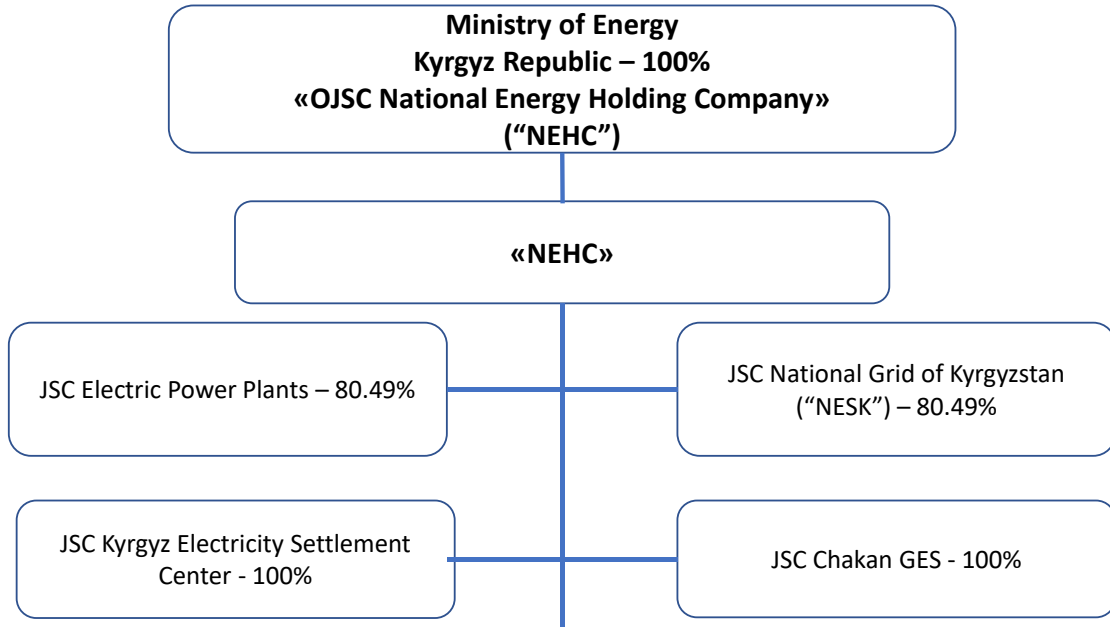
100% of proceeds will go towards reconstruction and rehabilitation of Lebedinovskaya HPP unit with 7.6MW capacity in Kyrgyz Republic. The Project is expected to lead to a reduction in GHG emissions [REDACTED] annually and add [REDACTED] additional national electricity generation volume.

ANNEX 4 – EBRD SHAREHOLDER SPECIAL FUND

CO-INVESTMENT GRANT FICHE

[REDACTED]

ANNEX 5 – KYRGYZ ENERGY SECTOR STRUCTURE



Brief description of the companies:

- i. **NEHC:** Established in January 2016 for the purpose of unifying the electricity generator, transmission and distribution companies, 100% owned by Ministry of Energy.
- ii. **JSC Electric Power Plants:** Largest electricity generator in the Kyrgyz Republic, owns 7 large HPPs and 2 CHPs with a total installed capacity of c. 4.3GW.
- iii. **JSC National Grid of Kyrgyzstan («NESK»):** National transmission company, which recently merged with five distribution companies, namely, Sevelectro, Vostokelectro, Oshelectro, Jalalabatelectro and Bishkektenploset.
- iv. **JSC Kyrgyz Electricity Settlement Center:** Established in August 2015 for the purpose of improving transparency of the country's power and associated revenue flows.

ANNEX 6 – HISTORICAL FINANCIAL STATEMENTS

OJSC Chakan GES

Balance Sheet				
EURk	2018	2019	2020	2021
Cash and Cash Equivalents	295	190	313	453
Financial Assets	118	128	76	110
Trade Receivables	261	287	221	382
Other Current Assets	114	40	30	19
Total Current Assets	786	645	640	965
Property, Plant and Equipment	10,987	11,486	8,636	9,052
Intangible Assets	16	10	9	-
Other	102	230	208	-
Total Non-current Assets	11,106	11,727	8,854	9,052
Total Assets	11,892	12,372	9,493	10,017
Financial Liabilities	-	-	-	-
Trade Payables	12	43	23	36
Tax Payables	605	587	426	421
Other liabilities	251	223	271	288
Total Liabilities	867	854	720	745
Paid-in Capital	12,603	13,146	10,118	10,630
Reserve Capital	55	57	44	46
Accumulated Losses	(1,634)	(1,686)	(1,389)	(1,405)
Total Equity	11,025	11,518	8,773	9,271
Total Equity and Liabilities	11,892	12,372	9,493	10,017

Income Statement				
EURk	2018	2019	2020	2021
Revenue	2,468	2,591	2,241	2,123
COGS	(1,839)	(2,073)	(1,822)	(1,579)
Gross Profit	629	518	419	544
G&A Expenses	(610)	(50)	(13)	(14)
Other income / loss	(75)	74	(35)	(47)
EBITDA	(56)	542	371	484
D&A	-	(520)	(462)	(429)
EBIT	(56)	22	(91)	55
Tax Income / (Expense)	26	(3)	3	(3)
Profit / (Loss) Before Tax	(30)	19	(88)	52
Other comprehensive income	-	-	-	1
Net Profit / (Loss) for the Year	(30)	19	(88)	53

Cash Flow Statement				
EURk	2018	2019	2020	2021
Profit / (Loss) for the Period		19	(88)	53
Adjustments to Profit / (Loss)		515	548	476
Changes in Working Capital		59	51	(194)
Taxes Paid		3	2	3
Cash Flows from Operating Activities		596	513	338
Acquisition of fixed assets and intangible assets		(625)	(269)	(269)
Proceeds from the sale of property, plant and equipment		-	0	22
Advances paid for long-term assets		-	(3)	3
Cash Flows from Investing Activities		(625)	(272)	(244)
Short-term loans issued		-	(28)	-
Proceeds from short-term loans issued		1	1	25
Dividend payment		(89)	(16)	-
Cash Flows from Financing Activities		(88)	(44)	25
Net Increase / (Decrease) in Cash and Cash Equivalents		(117)	197	119
Cash and Cash Equivalents at the BEG		307	167	321
FX effect		(0)	(0)	0
Cash and Cash Equivalents at the END		189	364	440

OJSC National Energy Holding Company:

Balance Sheet		
EURk	2019	2020
Cash and Cash Equivalents	3	1
Financial Assets	-	-
Trade Receivables	7	-
Dividend Receivables	240	109
Other Current Assets	17	17
Total Current Assets	267	127
Investments in subsidiaries	80,028	61,592
Property, Plant and Equipment	76	51
Intangible Assets	-	-
Deferred Tax Assets	2	-
Other	-	-
Total Non-current Assets	80,105	61,644
Total Assets	80,372	61,771
Financial Liabilities	-	25
Lease Liabilities	-	-
Trade Payables	-	-
Tax Payables	28	58
Other liabilities	77	61
Total Liabilities	105	144
Paid-in Capital	80,092	61,642
Reserve Capital	111	-
Accumulated Losses	65	(15)
Total Equity	80,267	61,627
Total Equity and Liabilities	80,372	61,771

Income Statement		
EURk	2019	2020
Income from investments	457	390
G&A Expenses	(738)	(562)
Other income / loss	9	3
Profit / (Loss) Before Tax	(272)	(170)
Tax Income / (Expense)	0	(2)
Net Profit / (Loss) for the Year	(272)	(172)

Cash Flow Statement		
EURk	2019	2020
Cash receipt from subsidiaries	393	7
Other cash inflow	2	2
Payments to suppliers for goods and services	(54)	(43)
Paid operating expenses	(619)	(463)
Other disposal of cash	(4)	-
Income tax paid	(4)	-
Cash Flows from Operating Activities	(285)	(497)
Dividends received	223	476
Acquisition of fixed assets and intangible assets	(14)	(8)
Cash Flows from Investing Activities	209	468
Proceeds from loans	-	28
Dividends paid	(114)	-
Cash Flows from Financing Activities	(114)	28
Net Increase / (Decrease) in Cash and Cash Equivalents	(190)	(1)
Cash and Cash Equivalents at the BEG	193	2
Cash and Cash Equivalents at the END	3	0