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

Approved by the Board of Directors on 9 October 2024[1]

MONTENEGRO

EDUCATION ENERGY EFFICIENCY PROJECT

[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

BCF	Blended Concessional Finance
CESMP	Construction Environmental and Social Management Plan
CO_2e	Carbon dioxide equivalent
EA	Energy Audit
EE	Energy Efficiency
EEAP	Energy Efficiency Action Plan
EIB	European Investment Bank
ESAP	Environmental and Social Action Plan
ESDD	Environment and Social Due Diligence
ESIA	Environmental and Social Impact Assessment
ESP	Environmental and Social Policy
EU	European Union
EUR	Euro
FIRR	Financial Internal Rate of Return
FS	Feasibility Study
GBVH	Gender Based Violence and Harassment
GDP	Gross Domestic Product
GET	Green Economy Transition
GHG	Greenhouse Gases
GoM	Government of Montenegro
IFI	International Financial Institution
IMF	International Monetary Fund
IRR	Internal Rate of Return
KfW	Kreditanstalt für Wiederaufbau (“Credit Institute for Reconstruction”)
MDB	Multilateral Development Bank
MESI	Ministry of Education, Science and Innovation
MoF	Ministry of Finance
NECP	National Energy and Climate Plan
PA	Paris Alignment
PIA	Project Implementation Adviser
PIU	Project Implementation Unit
PP&R	EBRD Procurement Policies and Rules
PSD	Project Summary Document
RE	Renewable Energy
REEP	Regional Energy Efficiency Programme for the Western Balkans
SSF	Shareholder Special Fund
TC	Technical Cooperation
TPP	Thermal Power Plant
VAT	Value Added Tax

PRESIDENT'S RECOMMENDATION

This recommendation and the attached Report concerning an operation in favour of Montenegro (the "Borrower") for the benefit of the Ministry of Education, Science and Innovation (the "Client" or "MESI") are submitted for consideration by the Board of Directors.

The facility will consist of a sovereign loan to Montenegro in the amount of up to EUR 20 million to finance the implementation of energy efficiency and renewable energy measures in public educational establishments across the country (the "Project"). The Project is expected to be co-financed with an investment grant from the European Union ("EU") in the amount of up to EUR 4 million from the Regional Energy Efficiency Programme for the Western Balkans ("REEP").

The operation will enable MESI to improve the energy performance of the public buildings under its management across the country, as well as improve the thermal comfort of the building via improvements to heating, cooling and ventilation. The Project will also support Montenegro in the implementation of energy efficiency and air pollution legislation which is included in the conditionalities of the EU's Growth Plan and Reform Agenda for the Western Balkans agreed upon between Montenegro and the EU.

The expected transition impact of the Project stems primarily from the *Green* transition quality under the Bank's Green Economy Transition approach as 100% of the use of proceeds will contribute to energy efficiency improvements the public buildings, resulting in significant reduction of greenhouse gas ("GHG") emissions.

Technical cooperation support for project preparation in the amount of EUR 115 thousand has been provided by Austria's Delivering Resource Efficiency Investments ("DRIVE") Fund and the EBRD Shareholder Special Fund ("SSF"). Post-signing TC support in the amount of up to EUR 100 thousand for raising awareness and prevention of Gender Based Violence and Harassment ("GVBH") is expected to be provided from SSF.

I am satisfied that the operation is consistent with the Bank's Strategy for Montenegro 2021-2026, the Green Economy Transition (GET) approach 2021-2025, Municipal and Environmental Infrastructure Sector Strategy, Strategy for the Promotion of Gender Equality and with the Agreement Establishing the Bank.

I recommend that the Board approve the proposed loan substantially on the terms of the attached Report.

Odile Renaud-Basso

BOARD DECISION SHEET

MONTENEGRO - EDUCATION ENERGY EFFICIENCY PROJECT	
Transaction / Board Decision	Board approval[2] is sought for a sovereign loan of up to EUR 20 million in favour of Montenegro (the "Borrower") for the benefit of the Ministry of Education, Science and Innovation ("MESI", or the "Client"), to finance the implementation of energy efficiency ("EE") and renewable energy ("RE") measures in public educational establishments across the country (the "Project"). The Project will be co-financed with an investment grant from the EU's Regional Energy Efficiency Programme for the Western Balkans ("REEP") in the amount of up to EUR 4 million.
Client	MESI as the ministry responsible for implementing the Project has the overall responsibility for the education policy, strategic decisions, maintenance and (re)construction of public education buildings and capital investments. In 2024, MESI's budget amounts to EUR 300 million, or 10.1% of the total public expenditures.
Main Elements of the Proposal	**Transition impact.** Primary Quality – Green/GET Direct Track: The Project will introduce EE/RE measures in selected educational establishments resulting in energy savings estimated at ca. 23,000 MWh/year and ca. 4,440 tonnes of reduced CO_2e annually. The Project will also contribute to 60% water savings, amounting to a total of c.a. 75,290 m^3/year. **Additionality** **Financing Structure**: Commercial long-term financing for public infrastructure investments is not yet available in Montenegro, while commercial banks are already reaching their internal sovereign limits. Moreover, Montenegro has limited access to international capital markets. **Standard setting:** The Project includes energy audits ("EA") and preparation of energy passport certificates ("EPCs") for the renovated buildings. The procurement will be carried out in accordance with the EBRD Procurement Policies and Rules ("PP&Rs"). Gender SMART: the Project is Gender Additional as it integrates measures to raise awareness and prevent GBVH among teachers and school children. **Sound banking:** The transaction is a sovereign loan.
Key Risks	**Political stability:** The Project is strongly supported by the Montenegrin government and is expected to continue to be widely supported in the future due to its widely recognised public benefit. **Macroeconomic risk:** Montenegro's economy showed resilience and grew by 6.1% in 2022 and 6.0% 2023, while inflation is slowly stabilizing. Solid GDP growth above 3.0% is expected in 2024 and 2025. **Implementation risk:** [REDACTED]. This risk is mitigated by the appointment of an international consultant, acceptable to the Bank, to assist the Client with project preparation, design, procurement, implementation, and works supervision services.
Strategic Fit Summary	The Project is consistent with the Bank's Strategy for Montenegro 2021-2026, Municipal and Environmental Infrastructure Sector Strategy, and the Green Economy Transition (GET) approach 2021-2025, which identifies green buildings as a key theme to accelerate decarbonisation and reduce energy consumption in the building sector. The Project is also consistent with the Strategy for the Promotion of the Gender Equality 2021-2025.

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

ADDITIONAL SUMMARY TERMS FACTSHEET

EBRD Transaction	Up to EUR 20 million sovereign loan to Montenegro, for the benefit of the MESI to finance EE/RE investments in public buildings in the education sector.
Existing Exposure	The Bank's total sovereign portfolio in Montenegro as of 28 June 2024 was EUR 361 million, out of which operating assets were EUR 163 million. This includes sovereign loans of EUR 35.1 million under the Local Roads Reconstruction Project (BSD 13/107) and EUR 26.4 million under the Main Roads Reconstruction project (BSD 17/82), Hospitals Energy Efficiency Project (BSD 24/118), while the remaining exposure belongs to sovereign guaranteed loans.
Maturity / Repayment	Tenor of 15 years [REDACTED]
Potential AMI eligible financing	None.
Use of Proceeds - Description	The loan proceeds will finance the implementation of various EE/RE measures in 23 schools and kindergarten buildings and one students' dormitory across Montenegro, which will lead to improvement of their energy performance and thermal comfort for users, a reduction in GHG emissions, an extended life of buildings, and additional benefits such as lower maintenance costs and increased property value. Technical assistance for project implementation unit ("PIU") support, designs preparation and works supervision will also be funded by the loan.
Investment Plan	[REDACTED]
Financing Plan	[REDACTED]
Key Parties Involved	Ministry of Finance of Montenegro Ministry of Education, Science and Innovations of Montenegro
Conditions precedent to effectiveness	[REDACTED]
Conditions to disbursement	[REDACTED]
Key Covenants	[REDACTED]
Security / Guarantees	Sovereign loan.
Other material agreements	REEP Investment Grant Agreement, Grant Agreements for TCs, Construction and supply contracts
Associated Donor Funded TC and Blended Concessional Finance	**A. Technical Cooperation (TC)** **Pre-signing:** **TC1:** Energy Efficiency Feasibility Study. 1. Conduct energy audits in selected buildings to identify energy and resource efficiency investments and prepare a feasibility study ("FS") detailing the prioritised investments proposed. 2. Funding source: Austria's DRIVE Fund 3. EUR 50,000; Completed. **Post-signing:** **TC2:** Procurement Support - an individual consultant that will train and assist the Client with the procurement of the PIU support consultant. 1. On-the-job training for the preparation of the procurement documents, workshops on the Bank's PP&R, best procurement practices and reinforcement of the Client's procurement department. 2. Funding source: SSF.

	3. Amount/currency and funding status: EUR 25,000; Confirmed. **TC 3:** Supporting the Ministry of Education develop a comprehensive programme to raise awareness and prevent GVBH among schoolteachers and pupils. 1. The Assignment will ensure an effective and impactful campaign at national level with broad reach (teaching staff and pupils) against GBVH, 2. Funding source: GEI SSF 3. Amount/currency and funding status: EUR 100,000; Confirmed. **B. Blended Concessional Finance** 1. Type of BCF: Investment Grant. 2. The use of BCF is necessary to facilitate the much-needed financing of the EE improvement in public owned educational establishments. 3. Funding source: European Western Balkans Joint Fund for the Regional Energy Efficiency Programme - Replenishment II 4. Amount/currency and funding status: EUR 4.0 million; To be approved. **Reimbursement:** The above assignments are non-reimbursable transactional TCs required to evaluate the investments and assist the Client during project implementation. **Client contributions:** The Client will be responsible for paying all VAT and other indirect taxes that are applied to the donor-funded TC assignment where they are the contracting party as a parallel cost sharing contribution to the project (VAT is levied at 21% in Montenegro). Lastly, the Client will also provide in-kind support in the form of office space, communication connections, etc., for the consultants to work, presumed to amount to 3% of the total TC budget.

[REDACTED]

INVESTMENT PROPOSAL SUMMARY

1. STRATEGIC FIT AND KEY ISSUES

1.1 STRATEGIC CONTEXT

The building sector is one of the largest energy consumers in Europe being responsible for more than one third of the EU's emissions. Renovation of both public and private buildings is an essential measure in this context and has been singled out in the European Green Deal as a key initiative to drive energy efficiency in the sector and deliver on climate objectives. In this context and to accelerate the pace of renovations in the union, the European Commission launched "the renovation wave strategy" in October 2020 which aims to double renovation rates in the next ten years and to ensure renovations lead to higher energy and resource efficiency. In the Western Balkans, this initiative has been prioritised as part of the Economic Investment Plan (EIP) 2021-2027 where the European Green Deal is one of the six priorities targeted.

Montenegro has transposed energy performance regulation since 2019, however it is still in the process of adopting and enforcing secondary regulation implementing these laws (expected to be in place as of end 2024). Energy performance in buildings is lagging in Montenegro and renovation rates far below EU-average. In the public sector, decades of under investments led to significant deterioration of the public building stock in terms of energy performance and thermal comfort.

The Project will contribute to accelerating EE renovations in 24 public educational establishments across Montenegro. The feasibility study ("FS") prepared for the Project has identified the optimal mix of energy and resource efficiency measures and produced a detailing the proposed and prioritized investment. The selected educational buildings are distributed among ten cities in Montenegro. These buildings serve various education levels, including elementary (18 buildings), secondary (3 buildings), kindergarten (2 buildings) and university dormitory (1 building), encompassing a total area of 93,220 m² and benefitting 19,104 individuals. The Project will enable the reduction of greenhouse gases ("GHG") emissions and energy consumption, yielding electricity and heating savings. Furthermore, due to the nature of buildings (public sector with high number of users), the Project is expected to have a positive impact in promoting the benefits of EE to the general population and showcasing the potential for operating cost reduction and other benefits in the buildings of the public sector.

The proposed measures are compliant with relevant national regulations and with the targeted EE improvements and introduction of RE measures (delivering at least 50% primary energy savings or GHG emissions reduction) will satisfy REEP eligibility and the Bank's GET methodology for buildings. Notably, the savings achieved are significantly higher than necessary to meet the criteria for REEP eligibility and the Bank's GET criteria for buildings.

The Project is in line with Bank's Strategy for Montenegro 2021-2026, which identify as Bank's strategic priority to further support Montenegro's green economy transition through cleaner energy and more sustainable municipal services, including enhancement of climate resilience, improved EE performance and service delivery of public buildings and increase of RE capacities. The Project is fully consistent with (i) the Municipal and Environmental Infrastructure Sector Strategy, by supporting energy efficiency in buildings.

The Project is in line with the Bank's GET Approach 2021-2025, as implementing new RE/EE technologies in buildings will reduce the demand for carbon-intensive electricity and fossil

fuels, and thereby reduce GHG emissions in the country. The Project is aligned with the goals of the Paris Agreement ("PA").

The Project is also in line with the Strategy for the Promotion of the Gender Equality 2021-2025 which recognises GBVH as an obstacle for women equal participation in the economy and public life. The Women, Business and the Law 20243 ("WBL") report published by the World Bank Group assesses the supportive frameworks in Montenegro at the score of 50.8 out of 100.0 which is lower than the Europe and Central Asia regional average score (51.3). Violence against women remains a problem in many developed countries and the perpetrators often go unpunished. According to WBL, one of the lowest scores for Montenegro is on the indicator measuring supportive frameworks affecting women's safety. Supporting clients to introduce measures to eliminate the risk of GBVH significantly improves equality of opportunity for women and young girls.

1.2 TRANSITION IMPACT

The table below sets out the TI objectives and details of the Project.

Obj. No.	Objective	Details
1.1	*The percentage of EBRD use of proceeds that supports a green economy transition and therefore qualifies as GET finance exceeds 50%.*	The Project will promote EE by introducing new technologies in 24 educational buildings which is expected to have a strong demonstration effect in the country. The Project is expected to reach 53% primary energy savings compared to baseline energy consumption (up to ca. 23,000 MWh/year or 83,000 GJ/year) and ca. 4,440 tonnes of avoided CO_2e emissions annually. The percentage of EBRD proceeds qualifying as GET is 100%.

Delivery risks: [REDACTED]This risk is mitigated by the Government's commitment to enhancing EE in public buildings and the Bank's ongoing policy dialogue with the Montenegrin Government.

GENDER SMART TAG: Gender Additional
The Client will introduce awareness raising communication material and training for teachers and pupils in educational establishments around combatting sexual harassment and bullying in schools. This will contribute towards tackling the high levels of gender-based violence and harassment in Montenegro, where one in three women have experience some form of violence in her lifetime.

1.3 ADDITIONALITY

Identified triggers*
No triggers identified
Additionality sources
Financing Structure • The Bank provides long-term financing, which is not readily available in Montenegro from local or international commercial banks. The proposed tenor and grace period are above the market average and are necessary to structure the Project given its use of proceeds.

[3] https://wbl.worldbank.org/content/dam/documents/wbl/2024/pilot/WBL24-2-0-Montenegro.pdf

• Public sector: EBRD investment is needed to close the funding gap. At the same time, the EBRD does not crowd out other sources, such as from IFIs, government, commercial banks and/or complements them.
Standard-setting: helping projects and clients achieve higher standards. • The Bank's experience in financing similar projects, existing long-term relationship with the Government and on-going policy dialogue on sector reform process is highly appreciated by Montenegrin side. The Client will also comply with the Bank's environmental and social policies.
Standard setting: • Client seeks/makes use of EBRD expertise on **best international procurement standards**. • The Project includes a TC to assist the Company's with procurement capacity building and procurement process in line with the Bank's PP&R. **Standard-setting: helping projects and clients achieve higher standards.** • Client seeks/makes use of EBRD expertise on **higher inclusion** (e.g., adherence to labour standards which goes beyond the provisions set in PR2 of the environmental and social policy, development of sign comprehensive and institutional corporate social responsibility programmes), **gender standards and/or equal opportunities action plans**. • The Project will achieve higher energy efficiency standards, that are expected to go beyond national requirements. The EBRD have supported the Client in identifying and prioritising best practice EE and RE investments. • **Gender SMART**: Client seeks the use of EBRD expertise for the adoption of gender standards and/or equal opportunities action plans (e.g., improving women's access to safe transport and/or women-led businesses participation in the client supply chain); the Client will contribute to the prevention of GBVH by engaging in a campaign targeting teaching staff and pupils and raise awareness about GBVH and contribute to its prevention nation wide Considering c. 19,104 direct beneficiaries of the refurbished educational facilities that will benefit from this Project annually, the effects of such campaign will be significant. In addition, the employees of such facilities will be supported to recognize cases of GBVH and respond adequately by supporting the victim.

1.4 SOUND BANKING - KEY RISKS

Risks	Probability / Effect	Comments
Sovereign Risk	Low / High	**Montenegro maintains a stable economic outlook with a history of meeting obligations.** S&P upgraded its B credit rating to positive in March 2024, while Moody's affirmed its B1 credit rating with a stable outlook in Sept 2023. Despite manageable debt sustainability risks, government debt peaked at 107% of GDP in 2020, decreasing to 72% by end-2022. IMF projects a further decline to around 62% by end-2023, gradually rising to 77% by 2028 due to fiscal impacts of the 'Europe Now' reform package. **Political stability, post-election, and commitment to EU accession mitigate transition risks**. Montenegro's resilient economy grew by 6.1% in 2022 and maintained 6% growth in 2023, driven by robust household consumption and tourism, partly reflecting the substantial inflows of Russian and Ukrainian immigrants, but also many Turks, as well. Projected growth for 2024 is 3.7% due to moderation of tourism growth after a record season in 2023.
Implementation Risk	Medium / Medium	[REDACTED]The Client will be supported by international consultants during design preparation, procurement and implementation, including works supervision, which mitigates the implementation risk. [REDACTED]
Performance risk	Medium / Low	The FS confirmed the savings potential for the Project. Project implementation support consultants will monitor and verify the energy savings for each building.

2. MEASURING / MONITORING SUCCESS

Transition Impact Monitoring Indicators

Overall objectives of the project	*Monitoring benchmarks*	*Implementation timing*
- Enhancement of the sector of energy efficiency in 24 educational buildings - Improved energy performance of 24 educational buildings	- Successful project implementation - Project completion within the timeline and the budget	[REDACTED]

Primary Quality: Green

Obj. No.	*Monitoring indicator*	*Details*	*Baseline*	*Target*	*Due date*
1.1	*CO_2 emissions reduced (tonnes/year)*	The Project is expected to reduce ca. 4,440 tonnes of CO2e emissions annually.	0	4,440	[REDACTED]
1.2	*Renewable energy – electricity produced (MWh/year)*	The Project will enable installation of PV panels, which will produce 1,222 MWh per year.	0	1,222	[REDACTED]
1.3	*Primary energy saved (GJ/year)*	The Project is expected to contribute to over 50% primary energy savings compared to baseline energy consumption (up to c.a. 23,000 MWh/year or 83,000 GJ/year) annually.	0	83,000	[REDACTED]
1.4	*Water saved (m3/year)*	The Project will also lead to water consumption savings of 60%, or c.a. 75,290 m3/year.	*0*	*75,290*	[REDACTED]

Additional Indicators

Indicator type	Monitoring indicator	Details	Baseline	Target	Due date
Advisory & Policy Indicators	Practices of the relevant stakeholder improved (addressing violence, harassment and bullying risks) [*Covenanted*]	The Company will organise a campaign to raise awareness and contribute to prevention of violence and harassment. Communication materials will be produced and disseminated, and an online training module will be delivered throughout the education institutions. Staff will be supported to recognize and respond to such cases.	No	Yes	[REDACTED]

3. KEY PARTIES

3.1 BORROWER

The Borrower is Montenegro represented by the Ministry of Finance. Montenegro is one of the smallest countries in Europe with a total area of approximately 13,800 km^2 and population slightly over 600,000 inhabitants, and an open economy strongly dependent on tourism. The country's service sector, comprising almost 60% of GDP and employing 73% of workers, has seen steady growth, averaging below 3% annually over the past decade. After strong growth of 6.4% and 6.0%t respectively in 2022 and 2023 Montenegrin economy expanded further by

4.4% in Q1 2024, which is a good result having in mind high base form Q1 2023. Growth was evenly distributed among the sectors from the production side, with similar contributions from retail trade and hospitality sector, industry and mining and professional and administrative services. From the expenditure side, growth was driven by private consumption, and investment.

3.2 CLIENT

The Client and implementing entity is the MESI which has overall responsibility for education policy, strategic decisions, maintenance and construction of capital investments. MESI carries out administration tasks in the field of education which includes: (i) preschool, primary and inclusive education; (ii) general secondary, vocational and lifelong education; (iii) education and training of members of minority nations and other minority national communities; and (iv) higher education.

Allocation for education from GDP is around 4.1%. Public financing of pre-university is obtained from the central level, while local governments contribute as well to a certain extent. When it comes to the financing of public institutions of higher education, the Government of Montenegro ("GoM") determines the amount of funds for the financing of these institutions, and their students, for each year.

Education and upbringing services are provided in preschool institutions (21 public / 13 private), primary schools (162 / 5), secondary schools (51 / 3), 3 resource centres (for students with special education needs), 92 adult education providers, 3 universities, 9 autonomous private faculties, educational centres, art academies.

4. MARKET CONTEXT

Energy and EE Context

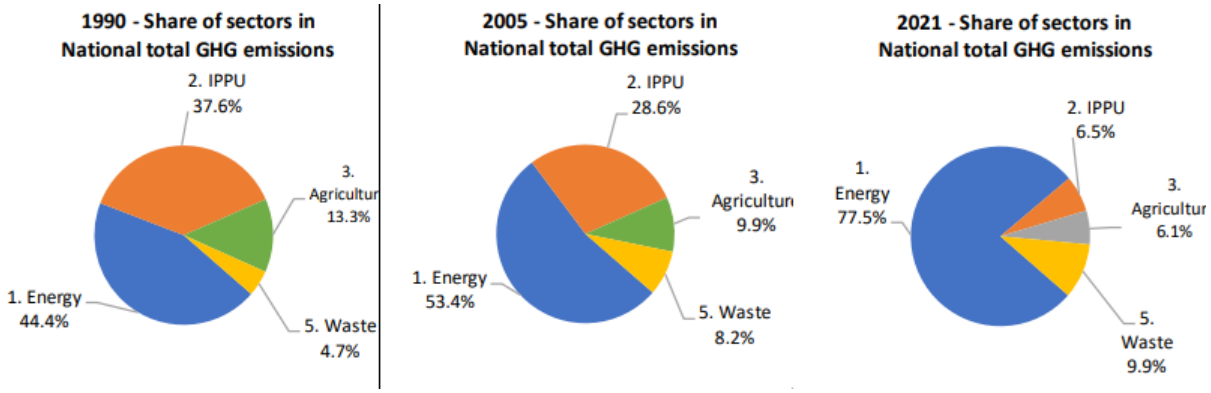
According to Eurostat, Montenegro's energy intensity in 2022 was 97.3 kilograms of oil equivalent (KGOE) per thousand euro in purchasing power standards (PPS), the second lowest among Energy Community contracting parties in the Balkans, and 11.6% higher than the EU (27) average. In 2022, the residential sector accounted for about 33%, and commerce and the public sector for about 14% of final energy consumption, respectively. Energy consumption in buildings is significant in Montenegro, and potential energy savings could substantially contribute to achieving significant energy savings and climate-related targets.

As of end-2021, the country's electricity mix consisted of: (1) hydropower plants 65.6% (705 MW); (2) Thermal Power Plant ("TPP") Pljevlja 20.9% (225 MW); (3) wind power plant 10.4% (118 MW), and (4) solar power plants 3% (32 MW)[4]. In 2021, the electrical energy production of 4,044 GWh was mainly generated by TPP (37.7%), followed by renewable energy sources (mainly hydro) with 62.3%.[5] There is a general dependency on coal for energy production and consumption in the country, while the production from hydro sources is very seasonal. Montenegro has significant potential for RE sources deployment with total RE capacity of 825 MW. The use of wind energy in Montenegro has been receiving an increasing interest from investors, and several medium-sized wind farms are planned. Energy demand is

[4] Montenegro Energy and Water Regulatory Agency of Montenegro, Energy Sector Report Montenegro 2023
[5] Ibid

increasing in all energy consumption sectors (except industrial) due to intensive economic activities in tourism and construction.

Montenegro has set ambitious climate targets under Paris Alignment's Nationally Determined Contributions (NDCs) from July 2021, aiming to reduce GHG emissions by 35% below 1990 levels by 2030 and to achieve climate neutrality by 2050. This includes various mitigation measures primarily focused on the energy sector (14 out of total 18 measures), which is the largest contributor to the country's emission. The energy sector mainly produces electricity and heat, while contributing significantly to GHG emissions. The latest Inventory Report from July 2023[6] shows that energy sector contributed with 77.5% to total Montenegro's GHG emissions (2.654 Gg CO_2e out of total 3.427 Gg CO_2e), followed by waste sector (340 Gg CO_2e or 9.9%), industry and transport (223 Gg CO_2e or 6.5%) and agriculture (208 Gg CO_2e 6.1%). Montenegro's base year 1990 total GHG emissions amounted to 5,292 Gg CO2e. In 2021, total emissions have been reduced by 35% compared to the base year, while by end-2023 it is expected that emissions reduced by 41% vs. base year to 3,100 Gg CO2e.



Regulatory Context

The Energy Development Strategy of Montenegro 2030 represents the main strategic document for energy and energy efficiency. According to the Energy Efficiency Directive, Montenegro should adopt three-year Energy Efficiency Action Plans ("EEAPs"). Since 2010, Montenegro has adopted four EEAPs, with the last one expired by end-2022, while the new one has not been adopted due to government changes. The plan is to cancel the adoption of future EEAPs, and that EE policy is planned under the NECP, which should represent a comprehensive planning document in the energy area. NECP should be adopted in 4Q 2024.
New NDC has been adopted in July 2021 increasing target from 30% to 35% reduction in GHG emissions. The implementation period is from 1 January 2021–31 December 2030. Progress will be tracked through the biennial reporting of GHG emission inventories to the UNFCCC and specified progress indicators. The First Biennial Transparency report is to be developed by the end of 2024.

EE in the building sector

Buildings are the largest energy consumer in Montenegro, accounting for more than 40% of the final energy consumption, mainly electricity (76.3%) followed by extra-light fuel oil (9%) and fuelwood (8.8%)[7]. The commercial and public services take c. 31% of total final energy consumption in Montenegro, electricity (65%)[8]. It is to be noted that most of the buildings in the education sector are inefficient and in need of renovation – almost half of them were built

[6] NIR_2023_MNE_v20230731_TK.pdf (unfccc.int)

[7] Energy Community - Energy Community Annual Implementation Report 2023

[8] International Energy Agency (IEA) - Energy Policies of IEA Countries: Montenegro 2022 Review

during 1970s and 1980s and a quarter during 1990s. It is evident that the building sector in Montenegro has strong EE potential which is estimated at 706 GWh of energy savings per year which would reduce the energy expenditures by EUR 63 million and energy consumption by 30-45%.[9]

IFIs EE Projects in Montenegro

Since 2010, Montenegro has made significant improvements in the field of energy efficiency in public buildings, covering healthcare, education, and administrative sectors through programs like MEEP and EEPPB. These initiatives have upgraded 48 buildings, cutting annual energy consumption by 49% and reducing CO2 emissions by 7.5 kt.

In December 2019, the GoM adopted the plan for the reconstruction of public buildings (2020-2022) to fulfil the objectives of the mandatory reconstruction of administrative buildings with the most unfavourable energy performance. Notable results were achieved through the implementation of projects financed from loans provided by different IFIs/MDBs. One of the most significant examples relates to Montenegro Energy Efficiency Project (2009-2018) which retrofitted 25 public buildings resulting in energy consumption savings of 45%. This is expected to avoid 60,750 tonnes of CO_2e over the lifetime of the project.

Continued efforts, such as the Montenegro Second Energy Efficiency Project (MEEP 2) and the "Promotion of Energy Efficiency in Public Buildings" initiative, aim to enhance energy efficiency with significant funding from IFIs, including a EUR 6 million IBRD loan and EUR 49.8 million (incl. EUR 4.8 million through the REEP) from KfW and the EU, promoting sustainable energy supply and compliance with EU directives.

5. FINANCIAL / ECONOMIC ANALYSIS

5.1 FINANCIAL PROJECTIONS

[REDACTED]

5.2 MACROECONOMIC OUTLOOK

[REDACTED]

5.3 SENSITIVITY ANALYSIS

[REDACTED]

5.4 PROJECTED PROFITABILITY FOR THE BANK

[REDACTED]

6. OTHER KEY CONSIDERATIONS

6.1 ENVIRONMENT

Categorised B in line with 2019 ESP. The Project will generate many environmental and social ("E&S") benefits from improved EE of the existing educational buildings and use of RE sources, including reduced energy usage and GHG emissions reduction, better lighting and

[9] Energy Community Secretariat, 2021, EE in Buildings in the Contracting Parties of the Energy Community

insulation, improved resilience to climate-related impacts, improved indoor air quality and overall comfort of the educational buildings for their users.

Environmental and social due diligence ("ESDD") comprised of an E&S audit and assessment of priority investments carried out by independent consultants, including asbestos containing materials ("ACM") review and a high-level life and fire safety assessment for the project sites. It has identified that the Client's E&S management systems and internal E&S capacity to successfully implement the EE improvements at the educational facilities as well as their labour and contractor management practices will require further improvement.

The Project will undergo an approval process for the scope of works of each of the 24 educational buildings requiring EE improvements after the main design is complete and will be required to obtain the necessary construction and environmental permits, approvals, and authorisations. The Project will not require any additional land acquisition and all construction works will be taking place within the footprint of the existing sites. The Project will be implemented in predominantly urban environment and will not have impacts on any sensitive areas or protected sites. All educational buildings plan to continue providing services during construction works, and no interruption is expected. Where possible, works will be taking place during the holidays period when use of the buildings is limited. Since the affected people may involve vulnerable (children), GBVH risks have also been considered, and the Client will take necessary measures to avoid any potential risks for vulnerable people.

Potential E&S impacts and risks will be commonly associated with the construction phase, including dust and noise generation, increased traffic and nuisance, health and safety risks for students and staff. The main receptors of these impacts will be educational building users. ESDD identified the need to improve storage and disposal of hazardous and non-hazardous wastes on sites, including old fluorescent and halogen lights. Some concerns on asbestos presence in the gym wall and corrugated cement roofing tiles have been identified at three sites. For that an ACM management plan will need to be developed for each affected site and implemented prior to start of the construction works and any ACMs will need to be removed and disposed of by competent contractors. A framework ACM management plan has been prepared for the Project and specific actions added to the ESAP, while PIU consultant will assist in further asbestos surveying for each site. The Client will also need to develop and implement an emergency preparedness and response procedure for the educational building sites. The RE will be generated from distributed solar PV panels installed primarily on building roofs and the cumulative capacity for all sites will be below 1MW. As this is a small solar component, the risks of the supply chain will be managed through the procurement process and additional requirements for the Client and the contractors in the environmental and social action plan (”ESAP”), as per Bank’s management approach.

ESDD confirmed that any impacts and risks are temporary, site-specific and can be effectively avoided, reduced, or remedied through the implementation of mitigation measures outlined in the Project's environmental and social management plan ("ESMP") and ESAP. A PIU will be established by the MESI and building representatives, and a PIU support consultant will be engaged to provide expertise in tendering procedures, pre-construction ACM surveying and ACM management plans preparation for any affected buildings, E&S monitoring and overall Project reporting. The contractor will be required to develop and implement a construction environmental and social management plan (“CESMP”), which includes a construction waste management plan, occupational health and safety ("OHS") plan, community health and safety plan and traffic management plan. Buildings will also need to implement the corrective measures identified in the life and fire safety assessment, and the limited number of sites with ACM presence will also require implementation of the ACM management plan. This will

address identified deficiencies in the current infrastructure and procedures, with a primary focus on prioritising the safety of all building users. A comprehensive stakeholder engagement plan ("SEP"), including a grievance mechanism, has been developed for the Project and will need to be fully implemented.

An ESAP has been developed for the Client to address these issues and support implementation of the project and management of the environment, health, and safety aspects of the buildings in line with the Bank's Performance Requirements. ESD will monitor the Project through annual environmental and social reports provided by the Client and site visits, if deemed necessary.

6.2 INTEGRITY

Integrity due diligence has been undertaken on the key officials of the Ministry of Finance and Ministry of MESI. [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.

6.3 OTHER CONSIDERATIONS

Concessional Finance: The Project will be co-financed with up to EUR 4 million investment grant by EU REEP, which comprises 16.5% of total investment (excl. TC). The investment grant enhances project economics and enables an EE investment with higher standards than normally taken into consideration for EE investments in publicly owned buildings in the country. The use of concessional finance is economically justified by significant energy savings, unpriced environmental externalities and demonstration effects. Without the support of the investment grant, the Project may not proceed due to the share in energy savings being insufficient to cover the repayment of the Bank's loan. The Project is expected to catalyse further investments in public buildings in the country.

ANNEXES TO OPERATION REPORT

ANNEX 1 Project Description

ANNEX 2 Green Assessments

ANNEX 3 Project Implementation

ANNEX 1 PROJECT DESCRIPTION

The Project will help implement EE and RE measures in 24 educational buildings distributed among ten cities in Montenegro, including kindergartens, preliminary, and secondary schools managed by the MESI. These buildings serve various education levels, including elementary (18 buildings), secondary (2 buildings), kindergarten (2 buildings), and high level (1 building), encompassing a total area of 93,220 m² and benefiting 19,104 individuals. The detailed list of building is presented in Table 1 below. [REDACTED].

ANNEX 2 GREEN ASSESSMENTS

SUMMARY

- The Project is a sovereign loan of up to EUR 20 million in favour of Montenegro for the benefit of the MESI, to finance the implementation of EE and RE measures in public educational buildings across Montenegro.
- The Project is determined **aligned with both mitigation and adaptation goals of the Paris Agreement.**
- The Project is attributed 100% **GET.**

[REDACTED]

PARIS ALIGNMENT ASSESSMENT

For Direct finance projects

Alignment with the mitigation goals of Paris Agreement - General screening

The Project is determined as aligned with the mitigation goals of the Paris Agreement based on the application of the Bank's Paris alignment approach for direct finance.

- The projects activity is included in the 'MDBs' aligned list' under the category Buildings.
- The Project is consistent with the substantial contribution criteria of the EU Taxonomy (over 30% reduction in primary energy demand).
- There are no activities included in the 'non-aligned list'.
- Applicable additional or specific conditions associated with the 'aligned' project/economic activity have been met (the project substantially improves the buildings energy performance delivering material primary energy savings and related GHG emission reduction, and complies with the relevant national regulatory framework).

Alignment with the adaptation goals of Paris Agreement

The Project is determined as aligned with the adaptation goals of the Paris Agreement as it satisfies all three steps of the assessment. All material physical climate risks have been addressed, through both operational and design measures**.**

GET ATTRIBUTION

The Project is attributed 100% GET. This share has been calculated in line with the GET guidance for EE renovations in buildings outside of EU.

The expected impacts of the transaction, compared to the baseline, are

- Annual primary energy savings of 53% (approx. 23,000 MWh/year or 83,000 GJ/year)
- GHG emissions reduction of 4,441 tCO_2e/year (53%)
- Annual reduction of air pollutants, thanks to the shift to more efficient and electricity-based heating systems. Specifically: reduction of 53% SOx and NOx; 51% PM2.5 and PM10; 48% CO.
- installation of on-site renewable energy systems (RES), with a capacity of 830 kW for solar PV and 4,500 litres for solar collectors[10] for production of domestic hot water. The expected impact of the installed RES is of approximately 1,200 MWh/year, considering both the produced electricity (solar PV) and the reduced energy demand for domestic hot water production (solar collectors).

[10] Solar collectors are proposed in two buildings where a considerable amount of hot water production is necessary, namely Kindergarten "JPU Dragan Kovačević Nikšić", Nikšić; and High "Studenstki dom", Podgorica (restaurant building).

- water saving measures (installation of water saving taps and rainwater harvesting systems, paired with awareness-raising initiatives) are expected to result in water consumption savings of 60% (75,292 m3/year). This is particularly relevant from both an environmental and a climate change resilience point of view, in a context of increasing water stress.
- considerable improvements in climate change resilience of the assets and users. More in detail: increased resilience to extreme heat events thanks to specification of materials and equipment according to projected temperature increase and highly improved internal thermal comfort (with a direct impact on pupils', students' and staff's health and wellbeing in a context of rising temperatures); increased resilience to floods and heavy rainfall events through the integration of dedicated operational and design measures (such as development and regular review of emergency preparedness and response plan; specification of adequate water-resistant materials and waterproofing); increased resilience to water stress, thanks to the above-mentioned water savings measures.

ANNEX 3 PROJECT IMPLEMENTATION

Procurement classification – *Public [sovereign]*

Project risk assessment:

[REDACTED]. The Client's capacity was assessed during a meeting with its representatives in Podgorica. The Client is the MESI, which has a relatively small, dedicated procurement department. [REDACTED].

The Client will establish the PIU for the purpose of implementation of the Project. Given the limited experience, the PIU will be supported by a PIU support consultant, appointed competitively in accordance with the EBRD PP&R.

Contracts risk assessment - *Moderate*

The contract proposed to be co-financed from the Bank's loan and REEP grant is detailed in the attached Procurement Plan. The support of an experienced consultant who will conduct the energy audits and detailed designs will ensure that technical specifications, employer's requirements and tender documents are suitable for open tendering and in accordance with the Bank's PP&R, and that any procurement and contractual issues that may arise will be addressed in a professional and timely manner.

The nature of the works contract is generally considered of medium complexity and has a relatively medium to low degree of implementation risk. This risk is mitigated by appointing an independent consultant to conduct the required energy audits of the selected buildings and prepare the technical specifications and employer´s requirements for the expected works, in addition, the consultant will support the client through the entire supervision, control and monitoring of the project along the entire project cycle. The risk will be mitigated by the appointment of an implementation consultant that will support the Client along the entire project cycle.

Project implementation arrangements:

The MESI will delegate the implementation responsibility to the PIU, who will have the overall responsibility for the implementation of the Project.

In terms of implementation risks, the higher risk resides on the potential number of buildings to be rehabilitated which parallel management may challenge the limited capacity of the PIU and Client. To mitigate this risk, the PIU capacity will be strengthened by a donor-funded experienced consultant(s) along the entire project. The consultant(s) will also assist the City in all aspects of procurement and implementation of the Project in accordance with the Bank's policies and support PIU in meeting requirements of various Financing Documents. When necessary, the consultant(s) will train the Client and PIU staff in addressing the project procurement and implementation matters, ultimately, this consultant will assist the client with the preparation and completion of the required Energy Efficiency certificates.

Procurement arrangements:

There is one envisaged one works contracts for reconstruction, rehabilitation or refurbishment of public buildings in different locations in Montenegro to improve their energy efficiency. The envisaged works contract will be procured following open tendering procedures in accordance with the requirements of the Bank's PP&R for public sector operations and will be subject to prior review by the Bank. It is

expected that the tender documents for the procurement of works will be based on the latest version of the Bank's standard tender documents for procurement of works.

The Project also envisages technical cooperation contracts: Project Implementation support, and Design preparation and Supervision support (which will be provided in three separate parallel assignments for the three geographical regions).

Both consultancy contracts will be procured following the provisions of the Bank's PP&R.

The contracts will be tendered via the EBRD Client E-Procurement Portal (ECEPP). [REDACTED].