

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

Approved by the Board of Directors on 3 December 2025<sup>1</sup>

**REPUBLIC OF NORTH MACEDONIA**

**ESM SPP BITOLA 3**

*[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]*

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<sup>1</sup> As per section 1.4.8 of EBRD's Directive on Access to Information (2024), 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

bps	Basis points
CAGR	Compounded Annual Growth Rate
CAPEX	Capital Expenditures
CFADS	Cash Flows Available for Debt Service
CFF	Cash Flow from Financing
CFI	Cash Flow from Investments
CFO	Cash Flow from Operations
CIF	Climate Investment Fund
CO2	Carbon Dioxide
CHP	Combined Heat and Power
COD	Commercial Operation Date
CP	Conditions Precedent
DSCR	Debt Service Coverage Ratio
DSRA	Debt Service Reserve Account
EBIT	Earnings Before Interest and Tax
EBITDA	Earnings Before Interest Tax and Depreciation
ESM JSC	Elektrani na Severna Makedonija
EPC	Engineering, Procurement and Construction
ERC	Energy Regulatory Commission
ESCP	Environmental and Social Commitment Plan
ESDD	Environmental and Social Due Diligence
EUR	Euro
EURIBOR	European Inter-Bank Offer Rate
FiT	Feed in Tariff
FiP	Feed in Premium
FX	Foreign Exchange
GDP	Gross Domestic Product
HPP	Hydro Power Plant
IFRS	International Financial Reporting Standard
IPP	Independent Power Producer
JETIP	Just Energy Transition Investment Platform
MKD	Macedonian Denar
MEPSO	Makedonski Elektroprenosen Sistem Operator
NECP	National Energy and Climate Plan
O&M	Operations and Maintenance
PV	Photovoltaic
PPA	Power Purchase Agreement
SPP	Solar Power Plant
SSF	Shareholder Special Fund
TC	Technical Cooperation
TPP	Thermal Power Plant
USP	Universal Service Provider
WOLCOT	Women-Led Coal Transition

## CURRENCY EQUIVALENTS

Country's Currency Unit 1 Euros = 61.5 Macedonian Denar (as of 10 September 2025)

## WEIGHTS AND MEASURES

1 kilowatt (kW) = 1,000 watts (103 W)
1 Megawatt (MW) = 1,000 kilowatts ( $10^3$ kW)
1 Gigawatt (GW) = 1 million kilowatts ( $10^6$ kW)
1 kilowatt-hour (kWh) = 1,000 watt-hours ( $10^3$ Wh)
1 Megawatt-hour (MWh) = 1,000 kilowatt-hours ( $10^3$ kWh)
1 Gigawatt-hour (GWh) = 1 million kilowatt-hours ( $10^6$ kWh)
1 kilovolt (kV) = 1,000 volts

## PRESIDENT'S RECOMMENDATION

This recommendation and the attached Report concerning an operation in favour of Elektrostopanstvo na Severna Makedonija AD Skopje (the “Company”), the wholly state-owned electricity utility of North Macedonia, active in the production and supply of electricity, are submitted for consideration by the Board of Directors.

The facility will consist of a sovereign-guaranteed loan to the Company in the amount of up to EUR 37 million, with the guarantee provided by the Republic of North Macedonia.

The proposed operation will support the financing of a 134 MWdc solar power plant, to be constructed on the site of an exhausted coal mine in Bitola, North Macedonia (the “Project”). This investment is 100% GET and represents a priority initiative under the Just Energy Transition Investment Platform (“JETIP”), a flagship program launched in 2023 by the Macedonian authorities with the critical technical support from the EBRD. The Project exemplifies the country’s commitment to decarbonization and repurposing legacy coal infrastructure for renewable energy development and ensure a just transition for coal-dependent communities.

The Project primarily targets the *Green* transition quality by boosting the share of renewable energy generation in North Macedonia’s energy mix. It also targets the *Well Governed* transition quality by supporting the development of Company’s internal compliance function through providing technical assistance, training and capacity building. The Project is classified as Gender Additional, as the transaction will deliver on the Women-Led Coal Transition (“WOLCOT”) platform which aims to tackle entrenched inequalities in energy transition. Through its participation in WOLCOT, ESM will serve as a key anchor institution, helping to ensure that the just energy transition is inclusive, equitable, and responsive to the needs of women and other underrepresented groups.

This will mark the first project to be jointly implemented with the German development bank Kreditanstalt für Wiederaufbau (“KfW”), which is the leading institution in the transaction and provide a parallel sovereign-guaranteed loan of EUR 50 million. A Project Implementation Agreement (“PIA”) will also be signed with KfW for the first time. This initiative builds on the Bank’s ongoing cooperation with KfW in the Western Balkans region [REDACTED].

TC support for the corporate governance and compliance workstream has been provided by EBRD Shareholders’ Special Fund (“SSF”).

I am satisfied that the operation is consistent with the Bank’s Strategy for North Macedonia, the Energy Sector Strategy, the Green Economy Transition approach, the Equality of Opportunity Strategy 2021-2025 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

### North Macedonia - ESM SPP Bitola 3 - DTM 56383

Transaction / Board Decision	Board approval <sup>2</sup> is sought for a sovereign-guaranteed loan of up to EUR 37 million in favour of Elektrostopanstvo na Severna Makedonija AD Skopje ("ESM", the "Company", or the "Borrower"), to finance the development, construction and operation of a 134 MWdc solar power plant on the exhausted coal mine in Bitola, North Macedonia (the "Project"). Kreditanstalt für Wiederaufbau ("KfW") is the lead IFI for the transaction, providing a parallel loan for the remaining funding of EUR 50 million. This is the first project jointly developed and to be implemented with KfW, and it is listed as a priority project of the Just Energy Transition Investment Platform ("JETIP"), launched by North Macedonia at COP28 2023 to mobilize EUR 3 billion and deploy 1.7 GW of renewables to replace the aged coal assets by 2030, with EBRD as lead technical partner and supported by other IFI, to ensure a just transition for coal-dependent communities.
Client	ESM is the Macedonian public electricity generation utility, fully owned by the Government of North Macedonia. The Company provides 58% of the entire domestic electricity production. Average annual production mostly originates from TPPs (2,300 GWh for 824 MW of installed capacity), followed by HPPs (1,200 GWh for 557 MW of installed capacity). ESM also operates the country's first wind farm (100 GWh for 37 MW of installed capacity financed by KfW) and a photovoltaic power plant (10 MW financed by EBRD). [REDACTED]
Main Elements of the Proposal	<p><u>Transition impact:</u>  <i>Green:</i> The Project is listed as the priority project of JETIP investment plan and will increase the share of renewables in the energy mix of the Company, thus accelerating the green transition by decreasing reliance on coal and further strengthening the country's energy security. The Project is 100% GET.</p> <p><i>Well-Governed:</i> The Project improves the corporate governance of the Company by developing anti-corruption action plan, practices and policies and supporting capacity building activities to lay the foundation for a new internal compliance department.</p> <p><u>Additionality:</u> Financing structure – EBRD supports the Project with its extensive experience with the Company and its leadership role in the JETIP. The collaboration with KfW lays the groundwork for a closer partnership between the two institutions and aims to mobilise critical funding to accelerate the green transition across the Western Balkans.</p> <p><u>Gender Smart Tag:</u> ESM will participate within the CIF Women-led Coal Transitions (WOLCOT) platform. The delivery of this programme will ensure that women play a leading role in the just energy transition but also enhance ESM's recruitment and retention of women while ensuring they are aligned with the country's Just Transition Roadmap.</p> <p><u>Sound banking</u> – The transaction is a sovereign loan guaranteed by the Republic of North Macedonia, rated BB- (Stable) by S&amp;P and BB+ (Stable) by Fitch as of July 2025. The Project will be jointly funded with KfW, acting as co-lender and lead IFI.</p>
Key Risks	<p>Project implementation risk: The risk of delays in project implementation is mitigated by ESM engaging (i) an experienced external PIU consultant to assist with procurement and (ii) a supervisor to oversee project's implementation.</p> <p>Company's Creditworthiness: The risk of limited debt service capacity of the Company is mitigated through the Republic of North Macedonia sovereign guarantee.</p>
Strategic Fit Summary	The Project is facilitating just transition to renewable energy as part of the Country's JETIP and NECP. The Project is aligned with the Bank's Strategy for North Macedonia, that promotes the diversification of energy sources and decarbonisation of the energy sector by supporting the development of renewable energy sources. It is also consistent with the Energy Sector Strategy, the Equality of Opportunity Strategy 2021-2025, and the Green Economy Transition approach .

<sup>2</sup> Article 27 of the AEB provides the basis for this decision.

## ADDITIONAL SUMMARY TERMS FACTSHEET

<b>EBRD Transaction</b>	A sovereign guaranteed Loan of up to EUR 37 million to ESM, guaranteed by the Republic of North Macedonia, rated BB- (Stable) by S&P and BB+ (Stable) by Fitch as of July 2025. The total project cost of EUR 87 million will be co-financed with a EUR 50 million parallel loan from KfW, which is the leading IFI for this transaction.
<b>Mutual Reliance</b>	No. A project-specific Project Implementation Agreement (“PIA”) will be signed with KfW. This initiative builds on the Bank’s ongoing cooperation with KfW in the Western Balkans region [REDACTED]
<b>Existing Exposure</b>	[REDACTED]
<b>Maturity / Repayment</b>	Term Loan: Tenor of up to 15 years from the date of signing of the Loan Agreement [REDACTED]
<b>Potential AMI eligible financing</b>	n/a
<b>Use of Proceeds</b>	The proceeds will be used for the construction and operation of a 134 MWdc solar photovoltaic power plant (“SPP Bitola 3”), located on the site of an exhausted coal mine in Bitola, in North Macedonia. The Project represents a strategic follow-on investment to the first Bitola 1 (20MW) solar plant financed by EBRD and Bitola 2 (60MW) solar plant financed by KfW, further advancing the region’s transition to renewable energy. The electricity generated by SPP Bitola 3 will be sold at the corporate level both to the universal supplier and on the open market, contributing to energy diversification and market competitiveness. A PIU consultant will be engaged and will be required to include in the procurement documents and ensure that the Project is aligned with ISO 27001, a management system for cybersecurity best practices as well as ISO 27002, 207005 and 27019 for industrial activities. As well incorporate the principles of the EU’s Network and Information System 2 (NIS2) Directive. This establishes enhanced obligations for risk management, incident reporting within 24 to 72 hours, supply chain security, and board-level accountability. The PIU consultant will also ensure IEC 62443 for Cybersecurity for industrial automation and control systems is adhered. PIU consultant will make sure to align project requirements with the latest cybersecurity standards and requirements and the EBRD Management Approach to Cybersecurity in the Sustainable Infrastructure sector.
<b>Investment Plan</b>	[REDACTED]
<b>Financing Plan</b>	[REDACTED]
<b>Key Parties Involved</b>	<b>Borrower:</b> Elektrostopanstvo na Severna Makedonija AD Skopje (“ESM”) <b>Co-lender:</b> Kreditanstalt für Wiederaufbau (“KfW”) <b>Guarantor:</b> Republic of North Macedonia
<b>Conditions to subscription / disbursement</b>	[REDACTED]
<b>Key Covenants</b>	[REDACTED]

<b>Security / Guarantees</b>	Sovereign guaranteed – Republic of North Macedonia (Fitch: BB+/S&P: BB-).
<b>Other material agreements</b>	<ul style="list-style-type: none"> <li>• Project Implementation Agreement with KfW</li> <li>• Sovereign Guarantee Agreement with the Republic of North Macedonia</li> </ul>
<b>Associated Donor Funded TC and Blended Concessional Finance</b>	<p><b>Technical Cooperation (TC)</b>  <i>Post Signing</i></p> <p><u>Focused Anti-Corruption Action Plan TC</u> – [REDACTED] have been provided by EBRD Special Shareholder Fund for the development of internal compliance policies and procedures. These policies will serve as the foundation for the compliance function to provide informed guidance and assessments on issues pertaining conflicts of interest and corruption.</p> <p><u>Women- Led Coal Transitions (WOLCOT) Platform TC</u> – This CIF grant [REDACTED] was awarded to the EBRD building on a previous grant. The WOLCOT Platform will respond to historical inequalities by supporting women to adopt leadership positions, build community networks as well as building capacity to participate within the transition and benefit economically from the shift to sustainable packages.</p>
[REDACTED]	

## INVESTMENT PROPOSAL SUMMARY

### 1. STRATEGIC FIT AND KEY ISSUES

#### 1.1 STRATEGIC CONTEXT

North Macedonia is undergoing an accelerated transformation of its energy sector, driven by a strong political commitment to climate action and energy independence. The country's enhanced Nationally Determined Contributions ("NDCs") commit to a net Green House Gas ("GHG") emissions reduction of 82% by 2030, compared to 1990 levels. Central to this ambition is the complete phase-out of coal and an increase in the share of renewable energy consumption to 38% by 2030, as outlined in the National Energy and Climate Plan ("NECP") [REDACTED]

To support these goals, North Macedonia launched the Just Energy Transition Investment Platform ("JETIP") at COP28 in 2023, with a critical technical support from the EBRD as a lead, and in partnership with several international financial institutions ("IFIs"), including KfW and the Climate Investment Fund (CIF). JETIP aims to mobilize up to EUR 3 billion in investments and provide technical and policy assistance to deploy 1.7 GW of new renewable energy capacity by 2030, while ensuring a just transition for communities affected by coal phase-out. This Project, with 134 MWdc of new solar capacity, is a clear priority under JETIP.

Historically, North Macedonia's energy mix was dominated by domestic lignite-fired units, and the country became increasingly import-dependent, including for lignite used in electricity production. Between 2020 and 2023, electricity imports accounted for 20–30% of total gross consumption. However, thanks to new renewable energy capacities, net imports dropped to 11.03% in 2024 and, despite the country's coal legacy, the renewable energy landscape in North Macedonia has evolved rapidly since the onset of the energy crisis. In 2024, for the first time, over half of the installed electricity capacity was from renewable sources (56%). Photovoltaic (PV) plants, with 848 MW installed capacity, became the second-largest source of electric power with 28.5% share in the energy mix, after thermal power plants (TPPs), which accounted for 34.65%, followed by hydro (24.13%), and combined heat and power (9.63%).

ESM, the state-owned electricity utility, plays a pivotal role in advancing the country's energy and climate targets. In 2024, ESM provided 58% of domestic generation, with a total installed capacity of 1,448 MW, primarily from lignite and large scale hydro. ESM met 52% of the gross electricity demand

in 2024, with the remainder supplied by the liberalised market. Given its strategic position, ESM is well-positioned to lead the expansion of solar PV assets, particularly on degraded industrial land such as exhausted coal mines.

Although North Macedonia's retail electricity market is technically liberalised pursuant to obligations under the EU Third Energy Package, ESM has been required by the Government to sell at least 90% of its electricity to the Universal Service Provider (USP) at tariffs significantly below market prices and production costs, to shield consumers from energy price shocks. The Bitola 3 PV project will help reduce ESM's overall production costs, with a striking breakeven price of 35 EUR/MWh.

In order to enhance ESM's financial resilience, support national energy security, and advance North Macedonia's decarbonization agenda, the Bank supported ESM with the preparation of a comprehensive Action Plan for decarbonisation of the Company and the Macedonian energy sector as part of the 2023 EBRD liquidity loan of EUR 100 million for Energy Crisis Liquidity Support to ESM. [REDACTED]

The Bitola 3 PV project, with 134 MWdc of installed capacity, will substantially contribute to the North Macedonia's energy transition, with an estimated 180.9 GWh of green electricity generated annually [REDACTED]. Featured as a priority project under the JETIP, the Project supports the country's coal phase-out and renewable energy targets, while enhancing energy security by reducing import dependency and lowering ESM's production costs.

The Project is part of the broader replacement plan of Bitola TPP plant which includes solar PV power plants Bitola 1 (20MW) and Bitola 2 (60MW – KfW project) and a new Battery Energy Storage System (BESS) with 300MWh capacity being developed with the Technical Assistance from WBIF and EBRD as lead IFI. The Bank is also supporting ESM in developing a 100 MW wind farm in Miravci (OpID 56382) and a 50MW Floating PV plant (OpID 55286) as part of the decarbonisation of ESM's electricity generation portfolio.

Finally, this will be the first project jointly developed, financed and implemented with the German development bank KfW, which will act as lead IFI, providing a parallel sovereign-guaranteed loan of EUR 50 million, representing 57.5% of the debt for the Project. A project-specific Project Implementation Agreement ("PIA") will be signed between the two organizations focusing on main procurement and implementation aspects to be coordinated and delegated to the Lead Financier (KfW).

The Project is aligned with the Bank's Strategy for North Macedonia, the Energy Sector Strategy and the Green Economy Transition approach. The Project is also in line with the Strategy for the Promotion of Gender Equality 2021-2025, which highlights the importance of promoting the role of women in traditionally male-dominated high value sectors, such as the energy one.

## 1.2 TRANSITION IMPACT

### Primary Quality: Green

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 percentage of EBRD use of proceeds that supports a green economy transition is 100%.
1.2	The Project results in new renewable energy generation equivalent to at least 0.3 % of	The ESM Bitola 3 PV power plant is expected to generate 180.9 GWh per year, i.e. ca. 0.3% of North

	annual electricity generation, so significantly contributes to greening the electricity grid.	Macedonia's annual electricity generation, thus reducing CO2 emissions [REDACTED].
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## Secondary Quality: Well-Governed

Obj. No.	Objective	Details
2.1	A comprehensive anti-corruption compliance programme, including the establishment of an effective compliance function responsible for oversight throughout the client's operations, will be implemented. This is to be defined in an anti-corruption action plan, developed in collaboration with the Office of the Chief Compliance Officer (OCCO), and will be formally agreed as part of the Project by way of covenant or condition precedent.	As part of the Project, TC funds are mobilized to provide trainings and develop anti-corruption practices and policies, laying the foundation for the newly established internal compliance function, thus improving the Company's overall corporate governance. As part of the Anti-Corruption Action plan (ACAP), the Bank will support the Company with technical assistance as it establishes this new department and strengthens its compliance policies and procedures.

**Delivery risks:** The overall risk to the delivery of the TI indicators is assessed as medium. The Borrower is an existing client of the Bank and has extensive experience in delivering complex large-scale projects. The Project will be cofinanced with KfW acting as the lead IFI, which also has extensive experience with ESM. Project implementation will not rely on the Bank's PP&R and KfW's procurement guidelines will apply instead.

## 1.3 ADDITIONALITY

Identified triggers	Description
<i>No triggers identified</i>	<i>n/a</i>

Additionality sources	Description of additionality sources
<b>Financing Structure</b>  EBRD offers a <b>tenor</b> , which is longer than available to the client in the market on reasonable terms and conditions.	Proposed 15-year tenor [REDACTED] are not available in the market. The Company would not be able to source the required financing without the Bank because long-term finance is not readily available to energy sector in North Macedonia. Longer tenor is in line with KfW's parallel lending terms and provides the Company with comfort and confidence to undertake this investment programme, encouraging the much-needed investments in RES and decarbonising of the energy sector.
<b>Financing Structure</b>  Public sector: EBRD investment is needed to close the funding gap. At the same time, EBRD does not crowd out other sources, such as from IFIs, government, commercial banks and/or complements them.	KfW and the Borrower invited EBRD to participate in the Project to leverage its extensive experience with the Company, deep energy sector knowledge, and its leadership role in the Just Energy Transition Investment Platform (JETIP). This collaboration not only enhances the Project's impact but also lays the groundwork for a closer partnership between the two institutions. Moreover, it aims to mobilise critical funding to accelerate the green transition across the Western Balkans.

<p><b>Standard-setting: helping projects and clients achieve higher standards</b></p> <p>- Client seeks/makes use of EBRD expertise on corporate governance improvements, including for climate risk management.</p>	<p>A comprehensive anti-corruption compliance programme, including the support for establishment of an effective compliance function responsible for oversight throughout the Company's operations, will be implemented. This is to be defined in an anti-corruption action plan, developed in collaboration with the Office of the Chief Compliance Officer (OCCO), as part of the Project by way of covenant or condition precedent.</p>
<p><b>Standard-setting: helping projects and clients achieve higher standards</b></p> <p>Client seeks/makes use of EBRD expertise on higher environmental standards, above 'business as usual' (e.g. adoption of emissions standards, climate-related ISO standards etc.)</p>	<p>The ESCP for the proposed Project will ensure compliance and implementation of best practice.</p>
<p><b>Standard-setting: helping projects and clients achieve higher standards</b></p> <p>Gender SMART Tag. Client seeks/makes use of EBRD expertise on gender standards and/or equal opportunities action plans</p>	<p>The Project is classed as Gender Additional as the transaction will deliver on the Women-Led Coal Transition (WOLCOT) platform which aims to tackle entrenched inequalities through the energy transition. ESM will participate within this programme (across all three themes/components). The WOLCOT platform grant has been provided by CIF and will support mainstreaming on women within the energy transition under three components:</p> <ul style="list-style-type: none"> <li>• <b>Creating Community Networks</b> that ensure the voices of women and disadvantaged groups in the community are amplified.</li> <li>• <b>Capacity Building</b> to enable women to effectively participate in the transition and to benefit economically from the shift to sustainable practices.</li> <li>• <b>Improving Women's Climate Leadership</b> – mentoring and education to cultivate a new generation of women climate leaders.</li> </ul> <p>From an ESM perspective, this programme will (a) support their HR department with talent acquisition and retention, by attracting women to the energy sector as well as (b) improving organisational performance and (c) aligning with North Macedonia's Just Transition Roadmap which emphasises "social inclusion and equal access to skills" through reskilling programmes.</p>
<p><b>Policy, sector, institutional, or regulatory change</b></p> <p>EBRD's involvement in a project is additional as it is triggering a change in the policy, sector, institutional or regulatory framework, or enhance practices at the sector or country level (e.g., an introduction of cost reflective pricing of energy, water etc.)</p>	<p>The EBRD provides unique value through its technical and policy expertise in transmission planning, regulatory frameworks, and market design, which are not available to the TSO (MEPSO) or national energy regulator (ERC) from other sources. The Bank's involvement ensures alignment with EU/ENTSO-E standards, supports the preparation of the Country's 10-year network development plan, and provides a regulatory and investment roadmap for transmission and storage. This helps the authorities address critical gaps in grid codes, market design, and investment prioritisation, and strengthens North Macedonia's capacity to integrate renewable energy while safeguarding system stability.</p>

## 1.4 SOUND BANKING - KEY RISKS

Risks	Probability / Effect	Comments
<b>Project implementation risk</b>	High/ Medium	<p>Risks include cost overruns, delays in procurement and failure to achieve expected technical outcomes</p> <p><b>Mitigation:</b></p> <ul style="list-style-type: none"> <li>External PIU consultant will provide necessary support for the procurement and implementation of the Project.</li> <li>The EPC contractors will be selected through open tendering in accordance with the KfW's procurement rules and close coordination with the Bank. The envisaged type of contract is FIDIC Yellow Book.</li> <li>[REDACTED]</li> </ul>
<b>Company's Creditworthiness</b>	Medium/ Low	<p>ESM's financial performance in 2024 evidenced decline in revenues and profit, largely because of reduced state subsidies, increased overhead and coal import expenses</p> <p><b>Mitigation:</b></p> <ul style="list-style-type: none"> <li>creditworthiness risk will be mitigated by the sovereign guarantee.</li> <li>ESM is implementing a shorth term action plan to improve operations and financial performance [REDACTED]</li> </ul>
Guarantor's Creditworthiness	Low / High	<p>The Bank will rely on North Macedonia's creditworthiness, as the government will provide a full sovereign guarantee for both EBRD and KfW's parallel loans.</p> <p><b>Mitigation</b></p> <p>North Macedonia's rating (BB+ with stable outlook by Fitch and BB- with stable outlook by S&amp;P), is supported by credible and consistent macroeconomic policies as well as commitment to an EU accession process which acts as a reform anchor over the medium term. However, ratings are constrained by high banking sector exposure to Euro currency, higher net external debt compared to peers, high structural unemployment, and weak productivity growth. The economy is forecasted by EBRD to have 2.6 per cent GDP growth rate in 2025. General government debt level at 50 per cent of GDP in Q1 2025 is moderate and North Macedonia has also access to capital markets issuing Eurobonds if needed.</p>
Foreign Exchange Risk	Low / Low	<p>Project financing is to be provided and repaid in EUR, whilst ESM's revenues are in MKD. In case of significant currency devaluation, this might lead to a reduction in repayment capability.</p> <p><b>Mitigation</b></p> <ul style="list-style-type: none"> <li>The Macedonian Denar (MKD) is pegged to the EUR and fluctuates against the EUR in a very narrow corridor (between 61.5 and 61.7 MKD per EUR, or 0.3% corridor). The revenues and operating expenses are in MKD.</li> </ul>

## 2. MEASURING / MONITORING SUCCESS

### Transition Impact Monitoring Indicators

#### Primary Quality: Green

Obj. No.	Monitoring indicator	Details	Baseline	Target	Due date
1.1	CO2e emissions reduced (tonnes/year)	The Project is expected to reduce CO2 emissions [REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
1.2	Renewable energy - electricity produced (MWh/year)	The Project is expected to generate 180.9 GWh (P90) of renewable energy per annum	[REDACTED]	[REDACTED]	[REDACTED]
1.3	Renewable energy capacity installed (MW)	The Project is expected to install 133.7 MW of renewable electricity generation capacity.	[REDACTED]	[REDACTED]	[REDACTED]
1.4	Recommended policy or strategy or regulatory framework/ standard agreed by relevant stakeholder(s)	Two new or revised grid code and market design elements will be developed and formally adopted. Potential areas include reactive power and voltage control requirements for renewable plants, forecasting and dispatch protocols for variable renewables, connection screening methodology, ancillary services for flexibility, balancing market enhancements, and curtailment/compensation protocols.	[REDACTED]	[REDACTED]	[REDACTED]

#### Secondary Quality: Well Governed

Obj. No.	Monitoring indicator	Details	Baseline	Target	Due date
2.1	Practices of the relevant stakeholder improved anti-corruption action plan)	<p>The Project will aim to support ESM with improvement of its Business Integrity functions and overall performance. This will be achieved through development of a focused Anti-corruption Action Plan (ACAP), i.e. a roadmap for the implementation of the recommendations focused on introduction of an enhanced compliance programme and related structural and operational improvements. This ACAP will be tailored to the risk profile and resources of the Company and will focus on:</p> <ul style="list-style-type: none"> <li>Conducting a high-level assessment of the Internal Audit, Risk Management, and Compliance functions to provide structural recommendations and develop strengthened policy and procedure manuals for these functions.</li> <li>Performing a gap analysis of existing Anti-Bribery and Anti-Corruption (ABC)</li> </ul>	[REDACTED]	[REDACTED]	[REDACTED]

		<p>compliance measures, including implementation status, resource allocation, and areas for improvement.</p> <ul style="list-style-type: none"> <li>Delivering targeted capacity building for ESM's newly established Compliance Department, including training for five employees on best practices in ABC risk assessment and mitigation.</li> </ul> <p>[REDACTED]</p>			
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## Additional Indicators

Indicator type	Monitoring indicator	Details	Baseline	Target	Due date
Gender SMART: Advisory & Policy Indicators	Practices of the relevant stakeholder improved (equal opportunity practices of the client)	ESM will participate within the WOLCOT platform as a crucial anchor institution within the energy transition	[REDACTED]	[REDACTED]	[REDACTED]
Gender SMART: Advisory & Policy Indicators	Number of women enhancing their skills as a result of training	Through the WOLCOT platform, we estimate that, [REDACTED] women will participate within the WOLCOT platform	[REDACTED]	[REDACTED]	[REDACTED]

## 3. KEY PARTIES

### 3.1 BORROWER

Elektrostopanstvo na Severna Makedonija AD Skopje (“ESM”) is the fully state-owned incumbent power utility in North Macedonia. Its main operations consist in the generation and supply of electricity, for which ESM has a generation licence valid until 1 November 2040. It also has a heat generation, distribution and supply licence for its Energetika branch. ESM has four subsidiaries, one of which is electricity trading company (ESM Trade), another subsidiary owns and operates non-generation assets like hotels and ski centres in the Country (ESM Turs) and the remaining two companies provide maintenance services to ESM. The Company employs close to 5,000 employees and provides 58% of the entire domestic production.

ESM is advancing its decarbonisation strategy by gradually shifting from coal to renewable energy, though coal-fired generation still accounted for around 60% of production in 2024. Most of ESM's electricity is generated by the TPPs (2,355 GWh in 2024 from 1,034 MW installed capacity), and the 10 units of large HPPs (1,108 GWh in 2024 from 587 MW installed capacity). The main thermal assets—TPP Bitola and TPP Oslomej—provide baseload power. TPP Bitola, with three 225 MW units, making it the primary generation hub. TPP Oslomej, with 125 MW capacity, operates only occasionally due to the lack of accessible lignite reserves. ESM also operates two Combined Heat and Power (CHP) plants (Energetika and Kogel) each with 30 MW capacity, supplying around 100 GWh annually and providing heat to the Skopje steel plant and nearby households. ESM is reducing its reliance on coal by investing in renewables, including the country's first wind farm (37 MW, 100 GWh annually, financed by KfW), now being expanded by 13 MW to add 50 GWh. On the solar side, ESM commissioned the 10 MW SPP Oslomej 1 (EBRD-financed) and is adding 30 MW through SPPs Bitola 1 and Oslomej 2, with EPC tendering in final stages and commissioning expected in 2027. Solar is prioritized for its faster rollout and use of degraded industrial land, as exemplified by the Project.

[REDACTED]

### 3.2 GUARANTOR

The Guarantor is the Republic of North Macedonia, represented by the Ministry of Finance. As of end-Q1 2025, country's general government debt increased slightly on a quarterly basis and accounted for just over 50 per cent of projected GDP. The increase was driven by higher domestic borrowing, while external debt decreased. Total public debt, including government guarantees, stood at 57.7 per cent of GDP, down from 61.9 per cent at the end of 2024. According to the government's fiscal strategy, the debt-to-GDP ratio is expected to gradually decline to below 60 per cent by 2029, supported by ongoing fiscal consolidation efforts and in line with the budget law, which limits the fiscal deficit to below 3 per cent of GDP in non-crisis years. The 2025 state budget targets a deficit of 4 per cent of GDP, compared to 4.4 per cent in 2024.

The IMF (Article IV, May 2025) underscores the need to reduce public debt, strengthen fiscal buffers, and improve fiscal risk management, particularly regarding state-owned enterprises and large infrastructure projects. Key risks include the indirect impact of weakened eurozone demand (main trading partner), due to new U.S. import tariffs and ongoing global trade tensions, which could disrupt trade flows and slow economic growth. Notably, around 25% of North Macedonia's exports go to Germany, representing over 18% of GDP. On the upside, effective implementation of structural reforms and capital investment projects could unlock higher growth, though concerns remain about fiscal space and execution capacity.

A bilateral loan agreement concluded with Hungary in the amount of EUR 1 billion, with a 15-year maturity, a three-year grace period, and an annual interest rate of 3.25 per cent was disbursed in two tranches at the end of 2024 and early 2025, to finance capital investments in municipalities and provide direct economic support to private sector (via local commercial banks). Owing to the availability of this preferential loan and ongoing access to financial markets, a new IMF programme is not currently envisaged. The two-year Precautionary and Liquidity Line (PLL) arrangement with the IMF, amounting to SDR 406.9 million (approximately EUR 493 million), approved in November 2022, expired in November 2024. Only one review was completed, and North Macedonia drew a total of SDR 203 million (around EUR 246 million). In 2025, North Macedonia is rated at BB- (Stable) by S&P and BB+ (Stable) by Fitch.

### 3.3 CO-LENDER

KfW is Germany's state-owned development bank, established in 1948 and headquartered in Frankfurt am Main. Operating as a public law institution, it is owned 80% by the Federal Republic of Germany and 20% by the federal states. As of September 2024, KfW recorded total assets for EUR 551 billion and consolidated profits for EUR 1.4 billion (9m 2024).

KfW financed ESM's first wind farm Bogdanci, with installed capacity of 36 MW and is now financing an extension of additional 14 MW (EUR 18 million). They are also financing 60 MW PV Bitola 2 project, for which construction and operation will go in parallel with that of the Project. This was enabled and is a follow-on investment to the 20 MW PV Bitola 1 plant financed by EBRD .

## 4. MARKET CONTEXT

In 2024, North Macedonia's electricity generation was 6.1 TWh, while gross consumption was 6.9 TWh, continuing the country's historical trend as a net importer. Approximately 11% of total domestic electricity consumption in 2024 was met through imports, which are primarily utilized to satisfy peak demand during the winter months. Domestic electricity generation, though liberalized, remains dominated by the state utility ESM, which holds 52% market share in gross electricity consumption and supplied 3.6 TWh of electricity in 2024.

The Macedonian electricity system has 5 interconnections (400 kV) with the electricity systems of Serbia, Greece, Kosovo and Bulgaria. After several delays, construction of the interconnection with Albania is expected to be finished in 2027. Once completed, this interconnection will finalize North Macedonia's connectivity with all neighbouring countries, forming part of the East-West electricity corridor linking Bulgaria, North Macedonia, Albania, and Italy, and more importantly to enhance the ability of the grid to accommodate increasing penetration of renewable energy sources, improve voltage stability, and reduce transmission losses at the regional level.

North Macedonia has made considerable progress towards meeting its Energy Community Treaty obligations and in liberalising its energy sector. Generation, transmission and distribution are fully unbundled. Transmission is owned and operated by Makedonski Elektroprenesen Sistem (MEPSO), an existing EBRD client. The distribution system operator (DSO), Elektroprivreda, is legally and functionally unbundled from other branches and is owned by EVN Makedonija AD. The latter also directly owns EVN Home, which was appointed as the USP and supplier of last resort for a second consecutive term, following a transparent and competitive process in 2024. MEMO serves as the national electricity market operator and oversees both the balancing market and the day-ahead market. The day-ahead market, introduced in May 2023, achieved a monthly volume of 135 GWh in July 2025 and is highly correlated with HUPX (key regional benchmark). In addition to its market operation functions, MEMO also acts as the off-taker for renewable energy under the Feed-in Tariff (FiT) scheme.

The Ministry of Energy, Mining, and Mineral Resources was established in June 2024 and holds primary responsibility for the energy sector in North Macedonia. This ministry has taken over strategic planning, project development, and regulatory oversight from the former Energy Department within the Ministry of Economy. The Energy Regulatory Commission (ERC) is the independent authority responsible for overseeing the country's energy sector. ERC sets tariffs for transmission and distribution, issues licenses to market participants, ensures compliance with energy laws, and protects consumer rights. ERC no longer sets the price for universal supply following the amendments to the Energy Law adopted in 2022.

From 2022 to 2024, North Macedonia had a consistent trend of significant investment in renewable energy power plants. By the end of 2024, North Macedonia's total installed renewable energy capacity reached 1,663 MW (946 MW in 2022 representing 717 MW addition), with solar accounting for 848 MW in 2024 (51% of renewable installed capacity). Among the operational solar power plants, the 10 MW Oslomej PV power plant (BDS18-234), financed by the Bank, marked a milestone as the first utility-scale facility in the country not relying on the feed-in tariff (FiT) regime. The Bank also supported the design and implementation of the first competitive auction tenders under the feed-in-premium (FiP) model, which led to the development of 35 MWac of solar PV on state-owned land and 27 MWac on private land, with contracts signed in early 2020. In April 2021, ESM announced the results of its PPP tender, also supported by the EBRD, for a fully merchant 100 MWac solar PV power plants at the Oslomej mine site. With EBRD support, the government is now preparing to launch its first competitive auctions for renewable energy under a Contracts for Difference (CfD) scheme. A total of 800 MW

installed capacity of solar and wind will be awarded across three auctions by 2030, starting with the first auction in Q1 2026.

The wind sector, is represented by 82 MW installed by 2024, consisting of the Bogdanci wind power plant, owned by ESM (36.8 MW), and two smaller private wind farms under FiT support scheme (Bogoslovec and Dren). New private wind projects are being developed, [REDACTED].

North Macedonia has continued to advance its energy transition agenda in line with EU decarbonisation goals. As of May 2025, a new Energy Law has come into force, implementing the EU's Clean Energy Package into national legislation. This regulatory framework introduces a revised process for developing energy generation and storage capacities, strengthens investor guarantees, and enables the integration of e-mobility with the electricity grid. The Strategy for Energy Development until 2040 remains the cornerstone of the country's long-term energy vision, complemented by the enhanced Nationally Determined Contributions (NDC) and the Long-Term Strategy, which collectively guide the modernisation and transformation of the energy sector. The National Energy and Climate Plan (NECP), adopted in May 2022, is currently undergoing updates to reflect recent developments and reinforce its commitment to achieve 82% net GHG reduction by 2030. This target is underpinned by the planned decommissioning of the thermal power plant fleet and the integration of 2.2 GW of new renewable energy capacity, including hydropower, by 2040.

## 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

Categorised B (ESP 2024) as the impacts associated with the Project were readily identified and mostly site specific and can be addressed through the implementation of Environmental and Social Management Plan (ESMP) and Environmental and Social Action Commitment Plan (ESCP) (Environmental and Social Commitment Plan is named as ESCP in this joint Project with KfW).

An Environmental and Social Due Diligence (ESDD) was performed by an independent consultant commenced by KfW and included review of Company's E&S performance and capacity, project site and activities. As part of the Bank's ESDD, ESD has reviewed the independent ESDD report and all relevant E&S documentation. This has met the Bank requirements and is in line with IFI standards.

EBRD provided additional comments and requirements which were incorporated into ESCP and ESMP to align with Bank's ESRs and best practice. A Non-technical Summary (NTS) and a Stakeholder Engagement Plan (SEP) have been prepared for the Project and will be disclosed by the Company.

ESDD has shown that E&S impacts associated to this Project are typical to similar PV solar power plants, mostly during the construction phase, including, but not limited to: water use; short term impacts from construction and traffic increase; health and safety risks during construction and operation; labour issues and community engagement which will be managed through ESACP, ESMP and relevant management plans.

The Project does not involve physical displacement; however, will have some livelihood impacts on grazing lands for some animal herders and other private landowners along the route of underground transmission lines. The impacts are partial and temporary; however, a livelihood restoration framework was prepared during ESDD. This will be developed into a livelihood restoration plan in line with Bank's requirements, which is agreed in ESACP. Risks to the health and safety of surrounding communities are limited and mostly related to the construction phase and can be avoided or mitigated through ESHS practices. Project ESMP includes measures to manage occupational and community H&S risks. The Project is not located near to sensitive human or biodiversity receptors. Bio-diversity impacts were assessed during ESDD which are construction related temporary impacts which will be managed by bio-diversity protection/management measures as agreed in ESMP.

Risks on the supply chain of PV panel suppliers will be managed through integration of Bank's Management Approach requirements for sovereign projects within procurement requirements. Relevant measures on supply chain mapping, presentation of declaration and no objections of KfW and EBRD were agreed. Additionally, requirement on verification of sourcing from suppliers with no objection of lenders are also included in ESACP.

ESCP is structured to meet with requirements of ESRs and includes also measures for management of contractors to further control and manage moderate risks. The Bank will monitor the Project implementation through regular reporting and site visits if needed.

## 6.2 INTEGRITY

In conjunction with OCCO, integrity due diligence was undertaken on the Company, its shareholders, senior management and other relevant parties. [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.

## ANNEXES TO OPERATION REPORT

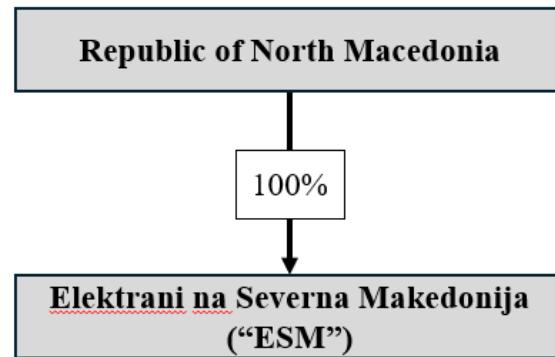
ANNEX 1	Transition impact scoring chart
ANNEX 2	Shareholding and organisation structure
ANNEX 3	Green Assessment
ANNEX 4	Historical Financials
ANNEX 5	Project Implementation
ANNEX 6	Implementation of existing ESM projects

## ANNEX 1 - TRANSITION IMPACT SCORING CHART

[REDACTED]

## ANNEX 2 – SHAREHOLDING STRUCTURE

ESM is the national electricity utility of North Macedonia and is 100% owned by the Government of North Macedonia. The ownership structure is provided below.



## ANNEX 3 – GREEN ASSESSMENTS

### SUMMARY

- The Project to finance is a 134 MW Solar PVs power plant on the exhausted coal mine Bitola, in North Macedonia.
- The Project is determined **aligned with both mitigation and adaptation goals of the Paris Agreement.**
- The Project is attributed **100% GET.**
- Climate-related financial risks have been assessed [REDACTED]

### PARIS ALIGNMENT ASSESSMENT

#### *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 project's activity is included in the 'j-MDBs' aligned list' under the category "Generation of renewable energy from solar, wind, wave power, run-of-the-river hydro, or geothermal with negligible lifecycle GHG emissions".
- There are no activities included in the 'non-aligned list'.
- [REDACTED] Applicable additional or specific conditions associated with the 'aligned' project/economic activity have been met.

#### *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.

### GET ATTRIBUTION

The Project is attributed 100% green finance. This share has been calculated in line with the following:

Climate Change Mitigation Category: 1. Energy Sub-category: 1.1 Solar powered energy generation GET Share: 100%	Climate Change Adaptation N/A	Other Environmental Activities N/A
<b>Overall GET Share: 100%</b>		

The Bitola 3 project will use the proceeds of the loan to fund the development of a solar PV plant of 134MW.

The Project's activities are included in the 'MDBs' aligned list' under the categories: "Generation of renewable energy with low lifecycle GHG emissions to supply electricity, heating, mechanical energy or cooling".

[REDACTED]

### GREEN PROJECT MONITORING PLAN

[REDACTED]



## ANNEX 4 - HISTORICAL FINANCIALS

[REDACTED]





## ANNEX 5 - PROJECT IMPLEMENTATION

### Procurement classification – *Public sovereign*

[REDACTED]

This is a well-known client to the Bank; thus, the risk assessment was determined based on the experience gained during the implementation of the projects (50415) ELEM Solar Project - Oslomej Photovoltaic Plant and (52320) ESM solar PV Transition. The Company has a track record of procuring goods and works contracts under IFI financing projects using diverse set of rules such as EBRD or KfW. The PIU will require direct support to ensure adherence to Banks' Policies as well as training on the application of best practise in relation to public procurement, contract management and project implementation. The Bank has previously provided training on EBRD Procurement Policies and Rules for the public sector operations (PP&R) and will extend its training in relation to the recently published guidance notes for value for money as well as support along the procurement and implementation of this Project.

[REDACTED]

#### **Project implementation arrangements:**

ESM will be responsible for the implementation of the Project, including carrying out the procurement process and contracting. [REDACTED]

The PIU will be established within ESM, and it will have overall responsibility for the implementation of the Project. Notwithstanding the client's prior experience in the implementation of previous KfW financed projects, the overall implementation risk will be mitigated through the engagement of a project implementation support consultant from project preparation phase until contract award including procurement support. The implementation support consultant will act as supervision engineer on behalf of ESM during the implementation of the works contract. The Consultants will assist the client in all aspects of procurement and the implementation of the Project in accordance with the Banks' policies and support the PIU in meeting requirements of the various financing documents.

#### **Procurement arrangements:**

The project is classified as public for procurement purposes. Under the Project, only the works contract will be co-financed with KfW, who will be the Lead Financier for this Project. Hence, KfW Guidelines for Procurement will apply as defined in the Project Implementation Agreement that shall be signed prior commencement of any procurement activity cofinanced by both Banks.

[REDACTED]

PUBLIC

PUBLIC

## **ANNEX 6 – IMPLEMENTATION OF EXISTING ESM PROJECTS**

[REDACTED]