

About the Programme

Programme title: Green Finance Facility to Improve Air Quality and Combat Climate Change in North Macedonia

Short title: North Macedonia Green Finance Facility (NMGFF)

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Skopje, North Macedonia

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JOINT SDG FUND

NM GFF key points

- Supported by the Joint SDG Fund
- The project will set up and operationalize a **Green Financing Facility (GFF)**
- It is a new financial vehicle that will provide access to affordable green financing for **SMEs** and **individuals/households** for investments in **RENEWABLE ENERGY (RE)** and **ENERGY EFFICIENCY (EE)** solutions
- It will enable accelerated adoption of RE and EE solutions
- It will contribute to the reduction of greenhouse gas emissions and air pollution and strengthen the local ecosystem for RE&EE green finance

Background

- EBRD established the Green Finance Facility (GEF) in North Macedonia
- EBRD provides credit lines to Partner Financial Institutions (**PFIs**), being commercial banks and leasing companies in North Macedonia, for on-lending to SMEs (**Sub-borrowers**) for eligible investments (**Sub-projects**)
- Sub-projects will be complemented by grant funding from the UNDP to provide project support in the form of **Technical Assistance** (TA or TC) and investment incentives to the Sub-borrowers, payable after successful completion and verification of the Sub-projects.
- GFF will help to build internal capacity at the level of local PFIs
- Eligible technologies checked via the Technology Selector and verification process

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- Joint SDG Fund contribution, USD 7.8 million
 - Co-funding by the EBRD, USD 31.4 million
 - Co-funded by local banks, USD 6.5 million
 - Co-funding from the government of North Macedonia USD 0.8 million
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- **TOTAL: USD 46.5 million**



Влада на Република Северна Македонија

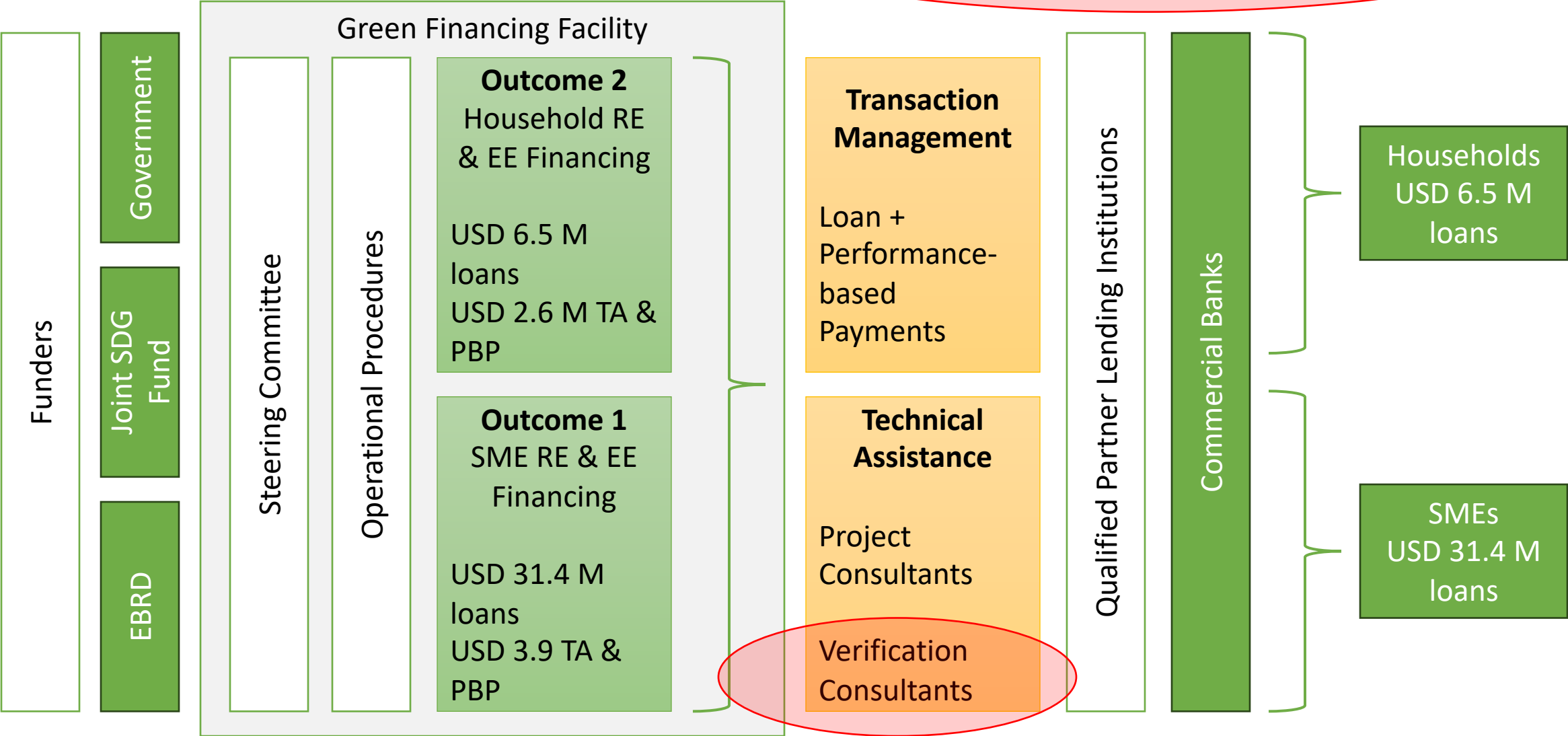
Strategic framework

- United Nations Sustainable Development Cooperation Framework UNSDCF OUTCOME 3 – by 2025, people in North Macedonia will benefit from ambitious climate action, sustainably managed natural resources, and well-preserved biodiversity through good environmental governance and disaster resilient communities (Output 3.1: Enabling policy and regulatory environment strengthened for low-emission development and resilience to climate change)
- Sustainable development goals
 - Target 7.2 by 2030, increase substantially the share of RE in the global energy mix
 - Target 7.3 by 2030, double the global rate of improvement in energy efficiency
 - Target 7.4 by 2030, enhance international cooperation to facilitate access to clean energy research and technology, including renewable energy, energy efficiency, and advanced and cleaner fossil-fuel technology, and promote investment in energy infrastructure and clean energy technology
 - Target 13.2.2 Total greenhouse gas emissions per year
- The project is aligned to and supports the achievement of SDG and the UNSDCF targets, and will result in:
 - **70,068 MWh of annual energy savings**
 - **80,510 tons of CO₂-eq emissions avoided**
 - **10.7 MW in new renewable energy capacity**



Financial Structure

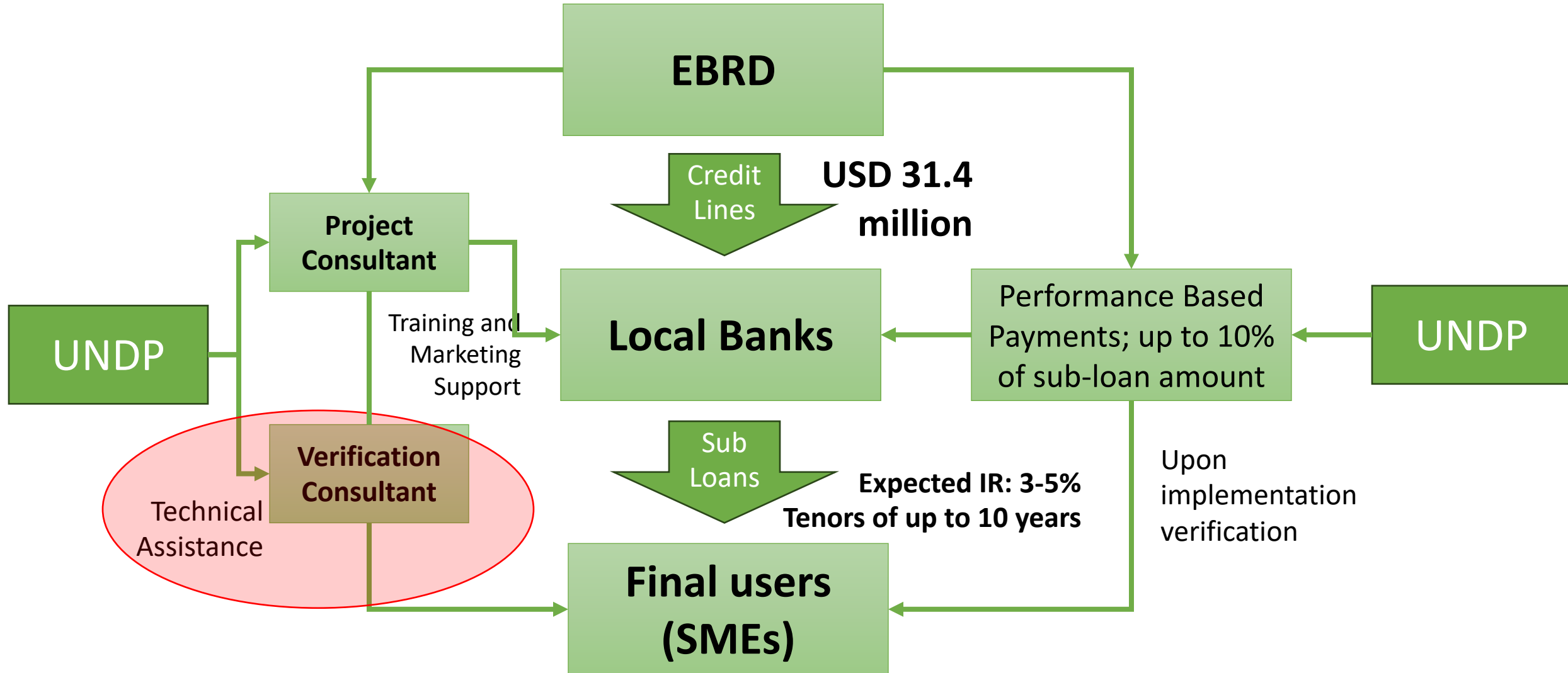
To incentivize borrowers, the loan instruments will be subsidized via ex-post-performance-based grants and free technical project design and verification services



OUTCOME 1

- **SMEs have greater access to finance for accelerating a transition to renewable energy and energy efficiency solutions**
- Focuses on the setup and implementation of Business RE/EE Financing
- Setup activities:
 - Defining the rules and procedures
 - Setting up sub-lending arrangements and documentation with local banks
 - Providing training for project and **verification consultants (UNECE)**
- Activities once launched
 - Monitoring and reporting services
 - Administration of the performance-based grants
 - Adjustment and standardizing the GFF rules and procedures
 - Promoting the GFF to other investors

Structure of Outcome 1



Output 1.1 Finance allocated to banks and borrowers

- EBRD will provide USD 31.4 million in the form of credit lines to local banks
- Local banks will on-lend the funds to SMEs in the form of sub-loans for **investments into RENEWABLE ENERGY and ENERGY EFFICIENCY solutions** that are in line with the Policy Statement (set of rules) that will be established for the Facility
- Estimated average loan: **EUR 0.3 million, capped at EUR 1 million**
- Local banks (75% of market share): Komercijalna Banka, NLB Bank Skopje, Sparkasse Bank Macedonia, Stopanska Bank and Procredit Bank Macedonia

Output 1.2 Performance-based payments deployed to qualifying commercial projects

- The UNDP/Joint SDG Fund will provide USD 3.14 million for loan recipients in the form of **EX-POST PERFORMANCE-BASED PAYMENTS (PBP)** for installed projects that have been **externally verified** to meet the established and agreed investment criteria
- PBP will range in value from **5% to 10% of the loan value**
- Only EE measures receive a PBP of 5% of the loan value
- RE or RE+EE measures receive a performance-based grant of 10%

Output 1.3 Projects designed and verified with technical assistance

- The UNDP/Joint SDG Fund provides USD 1.57 million for technical assistance via the GFF
- Two separate groups of consultants will work with the banks and with clients delivering the technical assistance:
 - **Project Consultants (PCs)** are responsible for Pipeline development and structuring support, Supporting the project lifecycle, Capacity building/initial training, Marketing and awareness-raising, and Monitoring
 - **Verification Consultants (VCs)** will ensure that funded investments have been completed according to the original investment plans. Performance-based payments to sub-borrowers are only paid following successful verification by selected verification consultants of the completed Sub-projects.

Indicators (1/2)

Description	Indicator	Baseline	Project impact	Contribution	Unit
SDG Target 7.2: By 2030, increase substantially the share of RE in the global energy mix	Contribution of the project to the increase in the installed generation potential	Installed capacity in the country excluding big hydro (586 MW) is 194 MW*	10.7 MW	5.5	%
	Contribution of the project to the increase in the installed solar capacity generation potential	Installed capacity in the country 30 MW*	10.7 MW	35.7	%
	Contribution of the project to the increase in the renewable energy share in total energy consumption	Renewable energy generation in the country in 2020 – 1,498 MWh*	16,052 MWh	1.1	%
SDG Target 7.3: By 2030, double the global rate of improvement in energy efficiency	Contribution of the project to the annual final energy consumption reduction target	Annual reduction target for the country up to 2030 2,406,616 MWh **	70,068 MWh	2.9	%

* Annual report 2020, ERC / ** NDC

Indicators (2/2)

Description	Indicator	Baseline	Project impact	Contribution	Unit
SDG Target 13.2: Integrate climate change measures into national policies, strategies and planning; Indicator 13.2.2: Total greenhouse gas emissions per year	Contribution of the project to the annual GHG emission targets (up to 2030)	GHG emission reduction target for the country up to 2030 – 3,328.82 kt**	80.51 kt	2.4	%
Additional indicators	Share the final energy consumption reduction target in the sector industry for 2030	Reduction target for the sector industry in 2030 – 922,538.5 MWh **	81,000 MWh (Outcome 1 loans with PBP to SMEs)	8.8	%
	Share of the final energy consumption reduction target for all sectors in 2030	Reduction target for all sector in 2030 – 3,238,82 MWh **	86,200 MWh (entire project)	2.7	%

** NDC figure 4

Definitions (1/2)

Assessment Report	The report prepared to evidence the eligibility of an Assessed Sub-project following the assessment of eligibility process. The assessment of eligibility process is designed to determine eligibility in accordance with facility criteria and where appropriate, to add value by enhancing Sub-project performance, originating further eligible opportunities and prioritising investment recommendations.
EBRD	European Bank for Reconstruction and Development
Eligibility Certificate	The confirmation generated by the Technology Selector that identifies the measure(s) involved in the Pre-approved Technology Sub-project that are eligible for funding using the proceeds under the facility.
Ex-post Verification of Impact	The process performed by the Verification Consultant by which the EBRD aims to verify the ex-ante estimated impact of the Sub-project as presented in the Sub-project Assessment Report or calculated according to the Technology Selector methodology. The term `impact` refers to inter alia energy and/or resource saving, GHG emission reduction, installed capacity or climate resilience impact.
Pre-Approved Technology Sub-project	If a proposed Sub-project consists of equipment or materials from the Technology Selector, that Sub-project may receive an Eligibility Certificate from the Technology Selector. Sub-projects defined as Pre-approved Technologies projects can be considered automatically eligible without undergoing an assessment of eligibility and are.

Definitions (1/2)

Project Consultant	The team of local and international experts procured and engaged by EBRD to support the implementation of the Facility.
Sub-borrower	An individual or legal entity satisfying the eligibility criteria set forth in the legal agreement between EBRD and the participating financial institution to which the participating financial institution proposes to make a Sub-loan or Lease.
Sub-project	Means any sub-project satisfying the eligibility criteria for financing under the facility by participating financial institutions through a Sub-loan or Lease, as such eligibility criteria are set forth in the legal agreement between the EBRD and the participating financial institution.
Technology Selector	The open list of Pre-Approved Technologies. The Technology Selector is developed by EBRD and maintained by the Facility Consultant.
Verification Consultant	The team of local and international experts procured and engaged by EBRD to support verification activities under the facility.
Verification of Completion	The process performed by the Verification Consultant by which the EBRD ensures Sub-projects have been implemented and completed in accordance with relevant Assessment Report or Eligibility Certificate and are on track to achieve the planned energy savings.

The objectives of the Verification Consultants' (VC) assignment are to verify and confirm that the Sub-project financed by each Sub-loan:

- Have been **completed substantially in line with the original investment plans** for the relevant Sub-loan as well as donor requirements, and **to calculate and confirm the investment incentive amount payable to eligible sub-borrowers** under the facility with PFIs that meet specific eligibility criteria
- Will have an **impact that complies with the information presented in the Sub-project Assessment Report**, including the **impact monitoring and verification plan**, as prepared by the Project Consultant or in the Eligibility Certificate generated by the Green Technology Selector

Scope of work of VCs – two distinct verification activities

Ex-post Verification of Completion

- activity performed by an independent Verification Consultant for every Sub-project financed under the Facility supported by investment incentives
- aims to confirm that the Sub-project was substantially implemented and completed in line with the recommendation presented in the Sub-project Assessment Report or the Eligibility Certificate generated by the Green Technology Selector (for Pre-Approved Technology Sub-project) and that the Sub-project is in line with the eligibility criteria of the Facility
- this type of verification is a pre-requisite for processing payment of investment incentives

Ex-post Verification of Impact

- aims to verify the ex-ante estimated *impact* of the Sub-project as presented in the Sub-project Assessment Report or calculated according to the Green Technology Selector methodology
- the term impact refers to inter alia energy and/or resource-saving, GHG emission, reduction, or climate resilience impact

Ex-post Verification of Completion (1/5)

- Sub-projects under GEF are differentiated by the mode of their eligibility assessment
- Sub-projects may either involve **Pre-Approved Technologies** or undergo an **Assessment of Eligibility by the Project Consultant** (Assisted Sub-project)
- Assisted Sub-project:
 - Starts with **Preliminary Assessment Report** (PAR)
 - Resulting in the development of either the **Simplified Assessment Report** (SAR) or **Full Assessment Report** (FAR)
- VC will physically determine the successful implementation and completion on-site
- VC will verify project completion through the desk review of available documentation followed by a site visit within one month from the date of notification of project completion and receipt of supporting documentation

Ex-post Verification of Completion (2/5)

- The VC will conduct a Verification Review (VR) for all Sub-projects implemented under the Facility using the format and procedures provided by the EBRD
- Tasks and activities:

Desk review

The VC will receive an electronic completed Verification Request Form and supporting documents and will schedule a date for the site visit with the Sub-borrower

Verification result

The Verification will result in a Verification Report confirming and providing sufficient evidence that the Sub-project has been completed in line with the eligibility criteria of the Facility

After the verification

The VC will record all verification information related to financed sub-projects in the EBRD Management Information System (MIS) database

Ex-post Verification of Completion (3/5)

- Verification will include:
 - Evaluation of the completion and commissioning of the Sub-project, confirming its compliance with the initial plans contained in the Simplified Assessment Report (SAR) or Full Assessment Report (FAR), as applicable.
 - Check the evidence of incurred costs based on invoices
 - Check that the Beneficiary has all relevant permits for construction and operation, as applicable
 - Copy of the acceptance certificate signed by the Beneficiary after the conclusion of the commissioning tests, as applicable
 - Evidence that the Beneficiary received the necessary training and all documentation necessary for the operation of the equipment
 - The relevant energy savings indicator
 - Ensure that the correct foreign exchange rates are applied when calculating the verified amounts of sub-loans and incentives*

Ex-post Verification of Completion (4/5)

- For buildings
 - The relevant energy savings indicator/certification
 - Assessment of how the recommendations included in the Simplified Assessment Report (SAR) prepared by the Project Consultant have been fulfilled
 - Check that the Beneficiary has all relevant permits for rehabilitation/construction and operation, as applicable
 - Check the evidence of incurred costs based on invoices
- For RE Sub-projects
 - Check that the Beneficiary has all relevant permits/concessions for construction, grid connection (as applicable) and operation
 - Copy of the acceptance certificate signed by the Beneficiary after the conclusion of the commissioning tests

Ex-post Verification of Completion (5/5)

- EBRD GEF Management Information System (MIS):
 - VC shall make use of the EBRD GEF Management Information System (MIS) database
 - MIS will be used for progress tracking as well as a centralized filing system for uploading deliverables
 - MIS will provide necessary information on Sub-projects, generate reports to the EBRD, and reconcile the records of PFIs and the EBRD
 - The Project Consultant (if needed jointly with VC) will carry out a quarterly reconciliation of the Database to the complete list of Sub-loans provided by each PFI

Ex-post Verification of Impact (1/4)

- The VC will conduct ex-post impact verification (review and inspection) of a selection of verified subprojects (up to 10% of the total) to confirm they are operational and performing as expected after completion by following the guidelines provided by the EBRD (*Methodological guidelines on Ex-post Verification of Impact for EBRD GEF Sub-projects*)
- The Ex-post Verification of Impact process shall involve a **DESK REVIEW** of the relevant documentation as well as an **ON-SITE VISIT**

Ex-post Verification of Impact (2/4)

- **Desk review:**

- Review of data and information available in the **Sub-project Assessment Report**, including the impact monitoring and verification plan or the **Eligibility Certificate** generated by the Green Technology Selector and the **Ex-post Verification of Completion Report** to confirm the completeness of the presented information
- **Identification of the boundary** of the sub-project (e.g., production line, building, auxiliary system, etc.), key **performance indicator** of the equipment (e.g., lumens per watts, specific energy consumption, etc.), and **key parameters affecting the energy savings** (operating hours, outside temperature/humidity, production volume, etc.)
- Review of **any available data/information of both the baseline scenario** (before the subproject implementation) **and the sub-project scenario** (after the sub-project implementation) as identified above (e.g., any information provided by the Sub-borrower, on-line reporting on electricity production from renewable energy projects)
- Verification of **quantitative data collected and used for the purpose of determining ex-ante impact**, including benchmarking with relevant data from other similar projects
- Calculation of impact based on **data collected before and during the site visit**

Ex-post Verification of Impact (3/4)

- **On-site Visit:**

- Check that all physical features (technology, project equipment, monitoring, and metering equipment, as relevant) of the Sub-project **continue to be in place and functioning/in use**
- **Assessment of the Sub-project operation** in accordance with the Sub-project Assessment Report, including the ex-post impact monitoring and verification plan or the Eligibility Certificate generated by the Technology Selector, and the Ex-post Verification of Completion Report
- **Collection of information** needed for calculation of the Sub-project performance (e.g. operational log, annual operational hours, annual production volume, energy bills, meter reading, as relevant) and check all information available before the site visit with real data found during the site visit
- **Interview key personnel at the site** to check the risk of an inappropriate or not expected operation that would influence the future sub-project performance and impact

Ex-post Verification of Impact (4/4)

- Ex-post Verification of Impact Report shall include:
 - Results of the check that **all physical features** (technology, project equipment, monitoring, and metering equipment, as relevant) **of the Sub-project are in place and functioning**/in full use and, if not, description of the deviation from the original/approved design/implementation
 - **Outcomes of the assessment** of the Sub-project operation
 - **Calculation of Sub-project real impact using data collected before and during the site visit** and comparison with the data in the Sub-project Assessment Report or the Eligibility Certificate and/or Verification of Completion Report
 - **Confirmation of the validity of the original assumptions** used to determine an impact
 - Confirmation of whether any of the **risks** mentioned in the impact monitoring and verification plan were present **and corresponding mitigating actions applied**
 - Assessment of any potential **risk for an inappropriate or unexpected operation that could influence the future Sub-project performance** and potential impact and recommendations for mitigation of such risk, if relevant and the Sub-borrower's reflection on such recommendations
 - **Any other relevant recommendations** to the EBRD and the Sub-borrower, including the Sub-borrower's initial response to the recommendations

Principles to guide ex-post verification of impact (1/3)

#	Parameter	Value	Notes
1	Periodicity of Ex-post Verification of Impact (How often?)	Once	<ul style="list-style-type: none"> - The PFIs perform regular financial monitoring - Regular compliance spot-checks on the portfolio, one-off Verification of Completion, and one-off Ex-post Verification of Impact are performed by the VC - The ex-post Verification of Impact process will be a one-off per single sub-project selected for the sample; however, the Ex-post Verification of Impact cycle (i.e., sample selection) will take place twice during Facility implementation, midway and towards the end of the Facility
2	Period between Verification of Completion and Ex-post Verification of Impact	At least 12 months	-
3	Sample size for Ex-post Verification of Impact	Statistically relevant random sample of Sub-projects of up to 10% of portfolio in number	-
4	Mode of Ex-post Verification of impact	Site Visit	<ul style="list-style-type: none"> - Physical check of the Sub-project operation and assessment of the performance based on the original project design and the impact monitoring and verification plan prepared by the Project Consultant and included in the Sub-project Assessment Reports (PAR/SAR/FAR) or the Eligibility Certificate generated by the Technology Selector and the Technology Selector Methodology - The impact monitoring and verification plan also includes any risks that may affect the attainment of an ex-ante estimated impact and corresponding mitigation measures

Principles to guide ex-post verification of impact (2/3)

#	Parameter	Value	Notes
5	What to verify?	The ex-ante estimated impact of the sub-project	<ul style="list-style-type: none"> - to verify that the ex-ante estimated impact calculation was correct - to confirm that the original assumptions remain valid and that any risks that may affect the attainment of the anticipated impact have been mitigated - to propose recommendations to the sub-borrower and the EBRD, where necessary
6	How to verify an impact?	Based on ex-post impact monitoring and verification plan included in the Sub-project Assessment Reports (PAR/SAR/FAR) or the Eligibility Certificate generated by the Technology Selector, and the one-off Verification of Completion (originally called Verification)	<p>During the site visit the following activities may be performed:</p> <ul style="list-style-type: none"> - Check that all physical features (technology, project equipment, monitoring and metering equipment, as relevant) of the sub-project are continue to be in place and functioning/in use; - Assessment that the Sub-project operation is in accordance with the Sub-project Assessment Reports (PAR/SAR/FAR) including ex-post impact monitoring and verification plan or the Eligibility Certificate generated by the Technology Selector, and Verification of Completion Reports; - Collection of information needed for calculation of the sub-project performance (e.g. annual operational hours, annual production volume, energy bills, meter reading, as relevant) and check all available information before the site visit with real data found during the site visit; - Interview with key personal at site to check the risk for an inappropriate or not expected operation that would influence the future Sub-project performance and impact.
7	Who will perform the verification?	Independent Verification Consultant	-

Principles to guide ex-post verification of impact (3/3)

#	Parameter	Value	Notes
8	The way of reporting	<ol style="list-style-type: none">1. Ex-post Verification of Impact Report (for individual sub-projects)2. Periodic aggregate report on the performance of the whole portfolio	Templates to be designed and potentially system generated
9	Data collection/management	Centralized IT database	EBRD in-house centralized database to support the Ex-post Verification of Impact process to the extent possible. Functionality to be designed, included, tested, and deployed in the system

Discussion

Thank you!

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