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Green Economy Transition Handbook

European Bank
for Reconstruction and Development

Contents

Abbreviations, acronyms and definitions

ABI	Annual Business Investment. Volume of commitments made by the Bank during the year including (1) new commitments (less any amount cancelled or syndicated within the year) (2) restructured commitments and (3) amounts issued under the Trade Finance Programme (TFP) during the year and outstanding at year-end.
Activity	An activity is a project or project component. It can relate to technologies, processes, services, market-based financing instruments, capacity-building and policy dialogue. Sub-projects financed through financial intermediaries are also included.
BPN	Business Performance Navigator. Intranet application to report on the overall performance of the Bank, including portfolio and pipeline development.
BAT	BAT or 'best available techniques' means the most effective and advanced stage in the development of activities and their methods of operation. It indicates the practical suitability of particular techniques for providing the basis for emission-limit values and other permit conditions designed to prevent and, where that is not practicable, to reduce emissions and their impact on the environment as a whole: • 'techniques' includes both the technology used and the way in which the installation is designed, built, maintained, operated and decommissioned. • available techniques' means those developed on a scale that allows implementation in the relevant industrial sector, under economically and technically viable conditions, taking into consideration the costs and advantages, whether or not the techniques are used or produced inside the European Union Member State in question, as long as they are reasonably accessible to the operator • best' means most effective in achieving a high general level of protection for the environment as a whole.
BREF	BAT reference document. Thirty-two BREFs are available as of April 2017 and cover specific sectors that fall under Annex I to the Industrial Emissions Directive (IED). The documents are available on the website of the IPPC Bureau: http://eippcb.jrc.ec.europa.eu/reference/
Brownfield project (excluding building projects)	Brownfield projects may refer to: • modernisation, upgrading, improvement or rehabilitation of existing installations, plants, buildings and other facilities, or • new installations and so on that directly replace existing installations.
Building redevelopment or reconstruction	Refers to projects that include the full demolition of existing buildings and their rebuilding.
Climate change adaptation activity	An activity with the purpose or intention of improving climate resilience by adjusting a system in response to climate stimuli.
Climate change mitigation activity	An activity that promotes the reduction or limitation of greenhouse gas (GHG) emissions, or promotes GHG sequestration.
Climate resilience	The ability of a system to cope and remain functional in the face of increasing climate change and climate variability.
Climate vulnerability	The degree to which a system is susceptible to, or unable to cope with, adverse effects of climate change, including changes in climate variability and extremes.
Commitment	A legally binding obligation for the EBRD to invest a defined sum of money in a loan or equity investments, or to provide a guarantee, within a specified period of time and subject to agreed conditions, as approved by the Board and signed with the client.
CRB	Climate resilience benefit: an estimate of the value that is generated by making a project more resilient to the impacts of climate change.
Conservativeness principle	Where data is unavailable, uncertainty is to be overcome following a conservative approach where it is preferable that GET finance be underestimated rather than overestimated.

Abbreviations, acronyms and definitions

tCO_2e	Greenhouse gas expressed as tonnes of carbon dioxide equivalent. For the calculation of carbon dioxide equivalents for non-CO_2 gases the UNFCCC list of global warming potentials is used, using the 100-year time horizon (see Reference 6).
CR	Concept Review. First stage in project approval to confirm that an operation broadly fits the policies and priorities of the EBRD.
Critical mass	In an economy where the EBRD invests, critical mass is achieved when the state of the environment, with regard to a specific environmental issue, is better than that seen in high-performing EU countries or is in line with WHO or EU regulatory targets and standards. Further information about the regulatory targets and standards that apply to each environmental issue, and the countries where critical mass may have been achieved, can be found in the GET TI rating methodology at: https://intranet.ebrd.com/home/departments-and-groups/client-services-group/policy-and-partnerships/economics,-policy-and-governance/useful-links
DTM	Deal Tracking Module. Data application used by Banking teams to track key project data during pipeline development stages.
E2C2	Energy Efficiency and Climate Change
E2C2 Livelink	Local filing structure for filing, retrieving and managing E2C2 background information used for the estimation of GET impacts (for instance, Excel spread sheet calculations). This is particularly relevant for monitoring and evaluation purposes.
EPG	Economics, Policy and Governance
ESD	Environment and Sustainability Department
ESP	EBRD Environmental and Social Policy
Ex-ante	Before signing (of the loan, guarantee, equity, and so on)
Ex-post	After project implementation
Existing building project	"Existing building projects" may refer to the modernisation, upgrading or improvement of existing buildings but excludes the redevelopment of buildings.
Facility	The finance under each operation in the Deal Tracking Module (DTM) is entered as a facility. On input it is given a FACID, which is a unique identifier for this facility. Many operations only have one facility. But in some circumstances there can be more than one facility per operation. This occurs for reasons such as capital increases, different tranches that may be available on different dates, A and B loans which have different conditions, and so on.
FI	Financial intermediary
FR	Final Review. Stage in pipeline approval prior to submission of the operation to the Board.
GET	Green Economy Transition
GET data	Ex-ante data for GET finance and the prognosis for annual impacts including GHG reductions, energy savings, reductions in water use, and so on.
GHG emissions	Greenhouse gas emissions
Granularity	Green activities disaggregated from non-green activities through a reasonable level of data granularity, by dissecting projects into their main components. GET Finance includes only those project components (and/or sub components to the extent that data is available) which are included in the positive list of climate mitigation (Annex 2), other environmental activities (Annex 3) or covered by the climate adaptation approach (Annex 4).

Abbreviations, acronyms and definitions

Greenfield project (excluding building projects)	Greenfield projects refer to the development of new installations, plants, buildings and other facilities, not to directly replacing existing ones.
Gross GHG emissions	GHG emissions that a project is expected to produce for a representative year once it is complete and operating at full capacity.
ICOLD	International Commission on Large Dams http://www.icold-cigb.net/
IDFC	International Development Finance Club https://www.idfc.org/Who-We-Are/who-we-are.aspx
Installation	Stationary technical unit where one or more activities listed in Annex I to the Industrial Emissions Directive (IED) are carried out, and any other directly associated activities that have a technical connection with the activities carried out on that site and that could have an effect on emissions and pollution.
ISO 14001	International Organization for Standardization Environmental Management Standard
ISO 50001	International Organization for Standardization Energy Management Standard
Lock ins	Activities that prevent the rapid transition to a low carbon economy.
MDBs	Multilateral development banks, including the African Development Bank (AfDB), the Asian Development Bank (ADB), the European Bank for Reconstruction and Development (EBRD), the European Investment Bank (EIB), the Inter-American Development Bank (IDB), the World Bank (WB), and the nternational Finance Corporation (IFC).
MRV	Monitoring, reporting and verification. Refers to the MRV of GHG emissions, energy and water use, as well as the related reductions and savings.
Net GHG emissions	Estimated GHG emissions against a baseline, also referred to as 'GHG impact'.
New building project	This refers to the development of new buildings.
OL	Operation leader
Operation	A specific agreement to invest in a clearly defined project or an investee.
Other environmental activity	Activity that results in a materially positive environmental outcome that is primarily not climate change mitigation or climate change adaptation.
PEFC	Programme for Endorsement of Forest Certification
PMM	Project Monitoring Module. An EBRD application used to monitor Bank projects.
Primary energy	Energy that exists in a naturally occurring form, such as coal, natural gas, or hydropower potential, before being converted into an end-use form such as heat and electricity. Expressed in GJ or toe.
GEFF	Green Economy Financing Facility (formerly SEFF) – EBRD financing facility that targets investment opportunities in energy efficiency, small-scale renewable energy, technologies and services.
TPV	Total Project Value. The total amount of funding required to finance the project. This includes finance provided by the Bank, participants, external parties and the sponsor or client in relation to that specific project.
Transport modal change	Shift from high to low-carbon intensive modes of transport.

1. Introduction

1.1. Green Economy Transition approach

The EBRD has adopted the Green Economy Transition (GET) approach[1] to incentivise the Bank to finance projects that advance the transition to an environmentally sustainable, low-carbon and climate-resilient economy. It also seeks to prevent economies from being locked into carbon-intensive, climate-vulnerable and/or environmentally damaging pathways. Implementation of the GET approach is based on the established business model of the EBRD and in line with its operating principles.

The GET approach aims to increase the Bank's green financing to around 40 per cent of total EBRD financing. This is expected to correspond to GET financing of up to €18 billion over the period 2016-20, with annual GET financing reaching over €4 billion by 2020 (see Reference 1).

Increased GET financing is expected to be driven by the following factors:

- a ramp-up in existing activities through the recognition of scale effects on systemic impact
- enhanced innovation
- a broadening of the environmental dimensions of investment, from projects in sustainable energy and resource (water and materials) efficiency to all other types of projects that result in physical environmental benefits
- an active use of private and public financing channels.

GET components may also include environmental activities (such as management measures, studies and/or investments) in addition to the project. These are identified during the project due diligence and included in the Environmental and Social Action Plan (ESAP) for the project, provided they meet the other criteria in this handbook and are directly associated with the use of EBRD funds.

1.2. Purpose of the Handbook

The purpose of this Handbook is to provide guidance to Bank personnel involved in GET projects about the qualifying criteria for GET. It explains how to assess GET finance and GET benefits and describes the Monitoring, Reporting and Verification (MRV) aspects of the GET approach. The Handbook presents principles, criteria and approaches to:

1. determine which projects or project components qualify for GET finance
2. undertake an ex-ante estimate of the impact for GET indicators
3. monitor, verify and report on GET project implementation, after signing.

The focus of this Handbook is on GET finance and GET indicators. It does not cover the assessment of the Transition Impact (TI) of GET projects, which is described in a separate GET TI methodology developed by EPG (see Reference 2).

A checklist regarding GET for Operation Leaders (OLs) is provided in Annex 1.

[1] http://www.ebrd.com/what-we-do/strategies-and-policies/green-economy.pdf

2. GET finance qualification process

The GET qualification process flow chart is shown in Figure 1. The qualification of projects in the GET portfolio follows a three-stage process:

1. identifying projects or project components that meet the GET principles and criteria (see Section 3) and are on the positive lists of activities qualifying for GET (Annexes 2 and 3) or covered by the climate change adaptation approach (Annex 4)
2. assessing the physical environmental benefits of the GET projects and project components
3. confirming the proportion of GET finance and GET benefits of a project and explaining how this fits into the GET strategy, as well as examining other contributing factors and total GET benefits.

Project types that are listed in Annex 2 (Climate change mitigation)[2] and Annex 3 (Other environmental activities) are to be considered as GET eligible, subject to verification that each specific project is consistent with GET principles and criteria. The purpose of this positive-list approach is to establish practical, harmonised categories of classification for GET finance without having to resort to long, complex analyses. Further guidance with regard to GET finance for specific sectors is available in Annex 5.

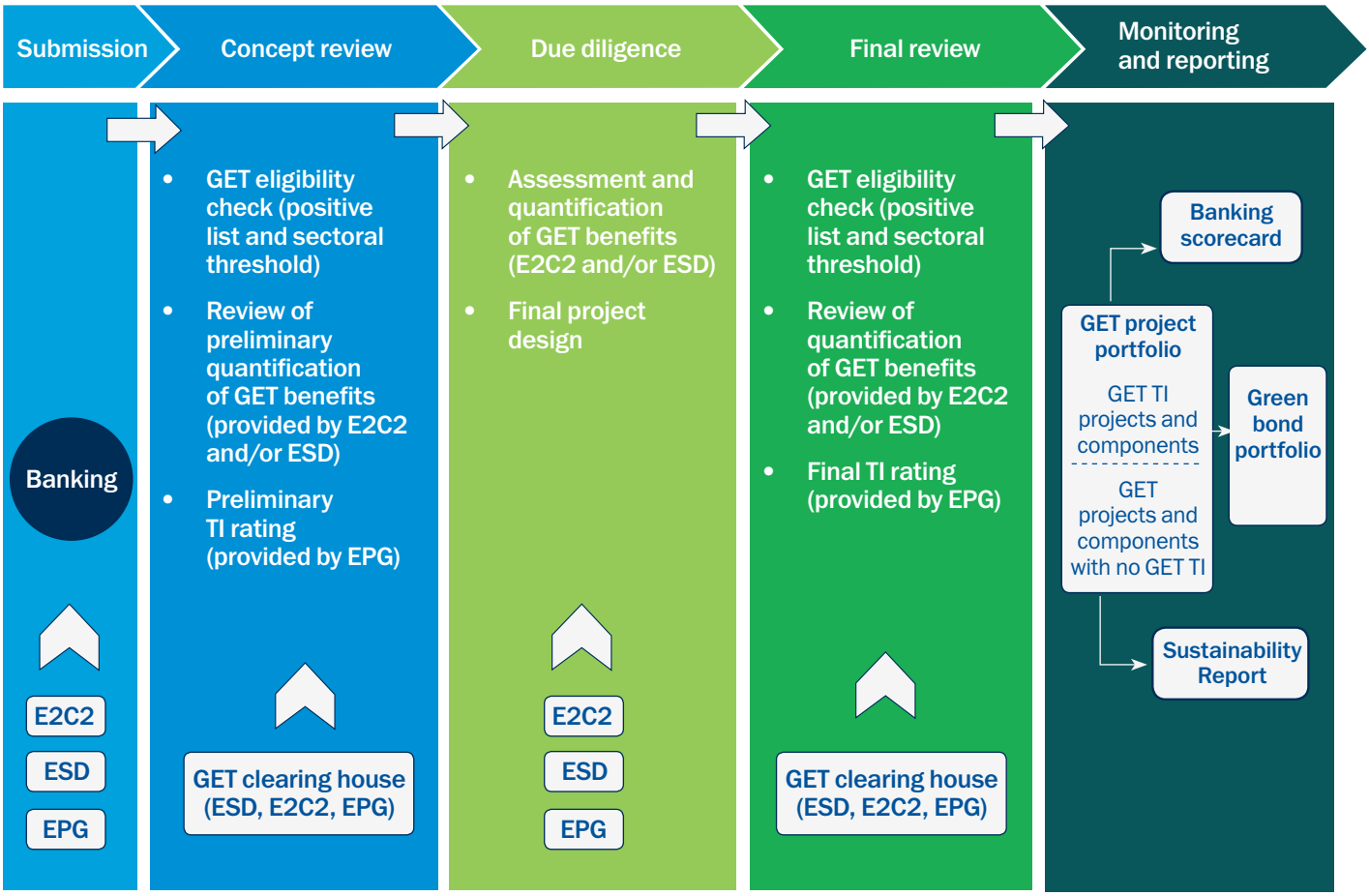
The projects and project components that qualify for GET are agreed at weekly 'Clearing House' meetings between ESD, E2C2 and EPG. For complex and challenging projects, representatives of Banking (the OL and/or GET bankers) and E2C2, ESD and EPG specialists will be invited to the discussions too. If there is uncertainty or a lack of information, the OL and/or sector specialists will be contacted for further inquiries. Meeting notes will be distributed among the participants of the meeting and the relevant OLs and GET bankers.

EPG determines the TI rating and takes into consideration GET qualification through the GET TI-rating methodology.[3] Part of the TI rating approach includes assessing if project has transition impacts in countries where a critical mass for specific environmental issues has been achieved (for example, air quality, waste and so on). Projects that are identified as having an impact in an economy where critical mass may have been reached will be flagged for discussion at a GET Clearing House meeting. The GET Clearing House will determine if the designation of critical mass should be applied or not, which EPG will then take into consideration in the TI rating. The designation of a project as being in an area where critical mass has been reached will have no impact on the contribution of the project to GET Annual Business Investment (ABI). Details of the critical mass assessment, including the screening process and TI rating implications, are outlined in the GET TI rating methodology.

[2] Based on the joint MDB Approach for Climate Finance Tracking, see Reference 3.

[3] https://intranet.ebrd.com/home/departments-and-groups/client-services-group/policy-and-partnerships/economics,-policy-and-governance/useful-links

Figure 1. The process of GET project definition, qualification and assessment



3. Qualifying principles and criteria

ESD, E2C2 and EPG have developed principles and criteria for projects to qualify for the EBRD's Green Economy Transition approach. The Bank assesses all new projects in light of how their specific characteristics and circumstances fit with the strategic aims of GET and in accordance with these principles and criteria. Projects that qualify for GET:

- are consistent with the overarching objectives of GET to advance transition to a green economy and to prevent economies from being locked into carbon-intensive and/or climate-vulnerable pathways
- result in clearly identifiable and measurable environmental benefits
- address environmental challenges that impact economic activity and human health
- bring incremental environmental benefits that would not be implemented without the Bank's financing (in other words, they are not seen as "business as usual").

3.1. Granularity

GET activities can consist of a standalone project, multiple standalone projects under a larger programme, a component of a standalone project, or a programme financed through financial intermediaries. Specific project components qualify for GET only when the underlying project (the non-GET part of the EBRD-financed project) does not contradict the GET objectives and criteria.

Where only certain project components qualify for GET, it is important to clearly identify these components in order to attribute GET finance and benefits only to them.

Only clearly defined environmental project activities or components that can be disaggregated from non-environmental activities or components of the same project, as far as reasonably possible, qualify for GET.

In case such disaggregation is impossible or component-level data is not (yet) available, GET finance may be estimated. This is done by taking a proportion of the project finance, using a more qualitative/experience-based assessment of the part of the project that results in the environmental benefits, consistent with a conservative approach.[4]

3.2. Environmental benefits

Projects or project components that qualify for GET must result in measurable environmental benefits that are consistent with the overarching objectives of GET. Specific components of projects can qualify for GET only when the activities (the GET and non-GET components) of the project financed by the Bank result in a net total environmental benefit compared with the baseline scenario.

3.3. Minimum environmental performance and standards

Projects must be structured to meet environmental and social performance and standards as outlined in the Bank's Environmental and Social Policy (ESP) (see Reference 4) and Performance Requirements (PRs).

The ESP and PRs include the requirement to structure projects to meet EU environmental standards, including EU Best Available Techniques (BAT) as defined in the EU Industrial Emissions Directive (IED). The applicable environmental performance criteria and standards are described in detail in the Best Available Techniques Reference documents (BREFs) for specific industrial sectors (see Reference 5). Information about the BREF process that leads to the adoption of BAT conclusions and the implementation of the IED can be found on the website of the European Integrated Pollution Prevention and Control (EIPPC) Bureau.[5]

Determination of the appropriate environmental standards that can be achieved using the best available methods of pollution prevention and control, technologies and practices ("techniques") to be applied to the project will also take into consideration the characteristics of the facilities and operations that are part of the project. In addition, it will consider the project's geographical location and local environmental conditions. The techniques applied to the project will favour the prevention or avoidance of impacts over minimisation and reduction. It should be taken into consideration that EU environmental requirements include specific time periods for transposition and implementation, which are often different for new and existing installations. Additional country-specific transition periods and derogations have been agreed as part of the EU Accession process and these time periods must be applied to projects.

It is also important to note that when the environmental regulations or standards of the host country are more stringent than the EU BAT, the projects will be expected to meet the more stringent standards.

Some flexibility in terms of achieving EU standards may be allowed for public sector projects. Specifically, this may apply to Municipal and Environmental Infrastructure (MEI) projects that result in material environmental benefits, but that cannot be structured to achieve full compliance with EU environmental standards due to limited financial resources and constraints on affordability.

For projects in sectors for which no EU BAT or other environmental standards have been defined, other relevant internationally recognised standards of environmental performance will be identified and used as the reference for good international industry practice. These standards include, among others, the environmental guidelines and standards of the World Bank Group and the World Business Council for Sustainable Development.

[4] Where data is unavailable, any uncertainty must be overcome taking a conservative approach, in which it is preferable to under-report rather than over-report GET finance.

[5] European Integrated Pollution Prevention and Control Bureau: http://eippcb.jrc.ec.europa.eu/index.html

Projects in sectors for which no internationally recognised reference standards can be identified must result in an environmental improvement of at least 15 per cent[6] compared with the baseline scenario.

3.4. Addressing multiple environmental benefits

GET projects can have single or multiple types of environmental benefits. In case the same project, sub-project or project element contributes to mitigation, adaptation and/or other environmental benefits at the same time, care should be taken that all environmental benefits are captured. However, the GET finance elements must not be counted more than once. The GET assessment is based on the primary environmental benefit while also recognising the other types of environmental benefits.

3.5. Attribution of GET finance as component of Annual Bank Investment

GET finance is considered to be a proportion of EBRD Annual Business Investment (ABI). For example, if a project is considered to be 100 per cent GET, GET finance is equal to ABI. If a project is considered to be 40 per cent GET, the GET finance is 40 per cent of ABI. This implies the following:

- The proportion of the project considered to be GET must be confirmed by E2C2 and ESD at the GET Clearing House meeting.
- GET finance is attributed at facility level in DTM at the date of signing of the facility.
- For each facility, GET finance can never exceed ABI.
- GET finance is determined on the basis of the use of proceeds for eligible GET projects and project components that provide clear environmental benefits, and does not depend on the type of financial instrument, subject to the following considerations relating to the use of proceeds:
  - When the proceeds are used for refinancing, the general rule is that they may qualify as long as the project has not been completed at the time of Board approval. Green bonds are an exception, where proceeds are used for the refinancing of existing green projects which have been completed at the time of Board approval. These green bonds may qualify as GET finance. (Provisions applicable to the GET qualification of green bonds are detailed in Annex 5.11).
  - When the proceeds are used for retroactive financing, these may qualify if the EBRD was involved in, or otherwise influenced, the project design and development.
- Financial restructuring does not qualify as GET.

Example

The EBRD is financing a €10 million water-supply rehabilitation project in a water-stressed region. The investment plan consists of four components, with three of these having GET impacts for climate mitigation, climate adaptation and water efficiency (GET finance elements). In accordance with the table below, GET finance for this project is €15 million (all GET components) minus €7 million (overlap) = €8 million.

Investment component		EBRD investment (€ million)	GET finance per investment component (€ million)	GET finance elements (€ million)		
				Climate change mitigation	Climate change adaptation	Water efficiency
1	Replacement of leaking water pipeline	5	5	0	5	5
2	Replacement of energy-inefficient pumps	2	2	2	0	0
3	New office building for water board administration	2	0	0	0	0
4	Public awareness campaign on water and energy consumption	1	1	1	1	1
Total		**10**	**8**			

3.6 Attribution of GET finance for general corporate finance (equity, working capital, bonds and balance-sheet restructuring loans)

EBRD finance for general corporate purposes can be counted as GET finance, provided that:

- there is a clearly defined energy or resource efficiency or environmental investment programme that identifies the GET investments with a breakdown of the investment costs for the GET components
- related GET impacts are estimated and quantified
- the time period for implementation is specified
- future GET investments will be enforceable through legal agreement/s that commit the company to implement the investments, for example, a loan agreement or shareholders' agreement.

[6] Dependent on the type of project and subject to sector-specific benchmarking.

4. Eligible project categories

The Board-approved GET approach explicitly recognises several categories of potential projects. These categories aim to address key global or local environmental concerns and provide physical environmental benefits. The three main categories for environmental benefits of GET projects and project-component activities are:

- climate change mitigation (reduction of greenhouse gas emissions)
- climate change adaptation (enhancement of climate resilience)
- other environmental benefits (including improved resource efficiency, reduced local pollution, improved resilience and restoration of ecosystems).

4.1. Climate change mitigation

An activity is considered to mitigate climate change if it contributes to 1) reducing GHG emissions into the atmosphere, or 2) sequestering GHG emissions from the atmosphere. The main categories are:

- renewable energy
- lower-carbon and efficient energy generation
- energy efficiency
- agriculture, forestry and land use
- non-energy GHG reductions
- waste and wastewater
- transport
- low-carbon technologies
- cross-cutting issues
- miscellaneous.

Project activities are considered to qualify as climate change mitigation if they are consistent with the MDB-IDFC Common Principles for Climate Finance Tracking and the MDB approach for climate finance tracking (see Reference 3) and are included in the positive list of climate change mitigation activities (see Annex 2).

4.2. Climate change adaptation

An activity is considered to qualify as climate change adaptation if it is intended to reduce the vulnerability of human or natural systems to the impacts of climate change and climate-related risks, by maintaining or increasing adaptive capacity and resilience.

Projects that fulfil the following three design-process criteria, in line with the MDB approach for tracking climate finance, can be considered to be climate change adaptation projects:

1. Set out a context of climate vulnerability (climate data, exposure and sensitivity), considering both the impacts of climate change as well as the risks related to climate variability.
2. Include a statement of purpose or intent to address or improve climate resilience, differentiating between adaptation to current and future climate change and normal good practice
3. Articulate a clear link between project activities and the context of climate vulnerability as set out under item 1 above.

When these three criteria have been met, a fourth step may be completed to estimate the GET climate adaptation finance in line with the above analysis.

As climate change adaptation activities are context- and location-specific, a process-based approach to tracking GET finance is applied, in accordance with the *Joint Report on Multilateral Banks' Climate Finance* (see Reference 3). Annex 4.1 presents the specifics of this approach.

In addition to tracking GET adapatation finance, the climate resilience results or outcomes of climate change adaptation projects are also reported, using the approach detailed in Annex 4.2.

4.3. Other environmental benefits

An activity is considered to have other environmental benefits if it results in a materially positive environmental outcome which is primarily not climate change mitigation or climate change adaptation. Project outcomes may include:

- sustainable and efficient water use and wastewater management
- sustainable and efficient use of materials and resources, including waste management, recovery, recycling and re-use and safe disposal of waste
- pollution prevention and control affecting air quality, surface water, soil and groundwater
- projects that increase the resilience of ecosystems, reduce the degradation of ecosystems or restore ecosystems
- development of new environmental technologies, environmental policy and management
- sustainable transport that reduces impacts connected to the movement of goods and people and reduces emissions of local air pollutants
- production of environmental goods and provision of environmental services.

Annex 3 presents a positive list of project types which may qualify for GET under the category of 'Other environmental benefits'. Annex 5 specifies some of these project types in more detail.

4.4. Specific exclusions

Projects with significant adverse environmental and social impacts and risks are not considered to be eligible for GET. Therefore the activities listed below are excluded from GET financing.

- project components of greenfield or capacity-increase projects consisting of:
  - — environmental protection measures required under applicable national law and regulations
  - — measures to mitigate or offset biodiversity impacts to achieve no net loss of biodiversity
- greenfield projects involving coal and oil extraction, although specific components may be considered as GET[7]
- greenfield construction or lifetime extension of large-scale industrial installations (as per EU IED BREF documents) involving technologies that either increase the use of coal or fuel oil or lock the installation into the use of coal or fuel oil.

Projects which are likely to be associated with these excluded activities will be discussed at the joint ESD, E2C2 and EPG 'Clearing House' meetings to evaluate these projects for their strategic fit with GET.

[7] Activities dedicated to reducing gas flaring reduction and to APG utilisation activities qualify based on the MDB list, provided that gas flaring is not prohibited by national law.

For each activity that qualifies for GET, the physical environmental benefits will be estimated. These are ex-ante estimates that are determined during the development phase of the project and should be available at the Final Review (see Section 6 - MRV process). In the ex-ante estimation of GET impacts the following aspects are of particular relevance:

- defining a representative year (or years) for the expected annualised impact
- setting a baseline
- defining the sources of project-related environmental benefits and adverse impacts.

For the estimation of GHG impacts in particular, the EBRD Protocol for Assessment of Greenhouse Gas Emissions should be applied (see Annex 6).

5. Assessment of physical environmental benefits

5.1. Boundaries

Boundaries for impact calculations should be used according to the following principles:

- Project impacts are calculated on the basis of use of energy, water and materials at the point of project intervention and investment, for example, the installation boundaries (such as a facility or a building) or component boundaries (such as process equipment like a boiler). For facilities that comprise multiple, independent processes, the boundary can be defined at this sub-process level, if the sub-process does not affect other sub-processes and has measurable inputs and outputs.
- Where the project appraisal quantifies the impact of the investment outside the project boundary (such as on the broader market or on the electricity grid or distribution system), those impacts must be factored into the calculation of project impacts.
- Baseline scenarios and calculations can have boundaries that are installation or component-based, or system-based and component-based (such as the electricity grid or distribution system).

The boundaries of a project will be defined based on the EBRD's due diligence in line with the Environmental and Social Policy. For projects that fall under the IED, the EU definition of installation will be used to define the project boundaries.

5.2. Baseline

The baseline should be both realistic and viable and consider the expected lifetime of the project. For example, equipment that is evidently operationally unviable (for instance, it is at the end of equipment life, no longer permitted by national law or otherwise expected to cease operating) does not constitute an acceptable baseline.

However, for some projects the realistic baseline would be a do-nothing scenario that would result in adverse environmental impacts (such as a reverse shift to higher-carbon alternatives).

For projects where the pre-investment and post-investment production levels are broadly equivalent, the performance of the pre-investment facility prior to the investment can represent the baseline, but only until the end of the expected lifetime of the pre-investment facility.

For projects where the investment is expected to increase production, for the additional output that is related to increased capacity and/or extended operation, the baseline is based on a benchmark for the environmental performance standards of existing production, regulatory requirements or, in some cases, for efficient new technologies or techniques (BAT).

5.3. Representative year

Impacts (such as CO_2 emissions, water, materials and energy consumption, renewable energy production) are calculated on an annual basis for a representative year at the expected average output of the post-investment facility. In some cases it is not possible to point out a single representative year, for example, when the baseline varies over the project lifetime. In that case, more representative years may be chosen, each with its own baseline, and a weighted average needs to be applied to ensure that comparable activity/production levels are taken into account.

5.3. Activity data

For production processes, activity data are expressed as the volume or mass of fuels or products. Examples are: tonnes of steel production, cubic metres (m^3) of clean water production, MWh of electricity production.

For transport projects, activity data are expressed as the product tonnes of goods or the number of passengers and distance (that is, tonne km and passenger km).

For services, project-specific activity data may be defined, such as the number of households.

5.5. Performance indicators

Performance indicators can be used to compare the GET performance of different projects. These are defined as the value of impact per unit of product or output. The indicators also enable the assessment of GET impacts against external benchmarks.

Table 1. GET impact indicators and baselines

GET topic	Impact Indicator	Unit	Baseline	Performance indicator	Activity data
GHG reduction	Annual CO_2e reduction	tonnes/ year	Annual CO_2emissions according to baseline scenario, see Annex 6	CO_2emissions per activity data	Units of production (including tonnes, MWh, passenger km, tonne km)
Water efficiency	Annual water savings	m^3/year	Annual water use according to baseline scenario	Water use per activity data	Units of production (including number of households, tonnes, MWh)
Energy efficiency	Annual primary energy savings	GJ/year or toe/year	Annual energy use according to baseline scenario	Primary energy use per activity data	Units of production (including tonnes, MWh, passenger km, tonne km)
Materials efficiency	Annual materials savings or waste minimised	tonnes/year, specified for type of material or waste	Annual materials used or waste produced according to baseline scenario	Materials used or waste produced	Units of production (including number of households, tonnes, MWh)
Renewable energy capacity installed	Capacity (peak)	MW	Zero for new or additional capacity	Not applicable	Not applicable
Renewable energy produced	Annual renewable energy production	MWh/year	Zero for new or additional capacity	Not applicable	Not applicable
Drinking water	Annual volume of clean and good-quality water (EU- or WHO-compliant) and/or number of people benefiting	m^3/year and/or number of people connected			
Wastewater	Volume of wastewater treated (effluent quality EU-compliant) and/or wastewater avoided or reduced	m^3/year			
Solid waste	Annual amount of waste recovered, utilised, recycled and/or disposed of appropriately (EU-compliant disposal facility)	tonnes/ year			
Air emissions/ pollution	Annual reduction in air emissions of particulate matter (PM), sulphur dioxide (SO_2), nitrogen oxides (NO_x) and volatile organic compounds (VOCs)	tonnes/ year	Annual air emissions according to baseline scenario (calculated or measured)	Annual air emissions (calculated or measured)	
Ecosystems	Size of the ecosystem area restored or having improved resilience or reduced degradation	hectare or m^2	Zero		

6. GET MRV process

The objective of the Monitoring, Reporting and Verification (MRV) process is to manage the activities in order to determine the GET data and make it available for management and reporting purposes. Table 2 presents the steps in this MRV process.

Table 2. Overview of MRV activities

Phase	MRV activity	Responsible (to initiate action)	Accountable (to take the final decision)	Consulted (before the decision is taken)	Registration systems and reporting	Informed (about the decision)	Remarks
Concept Review	Green project or component definition	ESD, E2C2	ESD	EPG, Banking teams	Weekly Clearing House meetings, minutes for projects discussed	Banking teams	For the attribution of climate adaptation finance the responsibility lies with E2C2
	Update DTM with GET finance percentage	E2C2	E2C2	OSP	DTM (GET data flagged as preliminary), BPN		GET data flagged as preliminary
Due diligence	Assessment of environmental benefits and estimation for GET impact indicators related to climate change mitigation and adaptation	Banking teams, E2C2	Banking teams E2C2	ESD, EPG	Due diligence reports E2C2 Livelink Projectlink		Included in the Environmental section of the Structure Review Memorandum (SRM) or Final Review Memorandum (FRM) See also GET information table, Annex 7
	Assessment of environmental benefits and estimation for GET indicators related to other environmental benefits	Banking teams, ESD	Banking teams ESD	E2C2, ESD, EPG	Due diligence reports Projectlink E2C2 Livelink		Included in the Environmental section of the Structure Review Memorandum (SRM)/Final Review Memorandum (FRM) See also GET information table, Annex 7
Final Review	Articulate GET rationale and benefits	Banking teams	Banking teams	E2C2, ESD, EPG	Projectlink		Included in the Environmental section of FRM
	Confirmation of GET finance and benefits	E2C2, ESD	ESD	EPG, Banking teams	Weekly Clearing House meetings, minutes for projects discussed	Banking teams	
	Update DTM	E2C2	E2C2	OSP	DTM (GET data flagged as final)		
	Complete GET TI section in FRM	Banking teams, EPG	Banking teams	ESD, E2C2	DTM (GET data flagged as verified)	Banking teams	
	Complete GET TI rating	EPG	EPG	Banking team	DTM and BPN		

Phase	MRV activity	Responsible (to initiate action)	Accountable (to take the final decision)	Consulted (before the decision is taken)	Registration systems and reporting	Informed (about the decision)	Remarks
	Add GET information to Project Summary Document (PSD)	Banking teams, ESD	Banking teams	E2C2			CO_2 data (gross and net) or other environmental benefits as relevant
Board submission	Refine GET presentation for the board document	Banking teams	Banking teams	E2C2, ESD, EPG	Board document		
Signing	Month-end reconciliation of GET data in DTM	E2C2	E2C2	OSP	DTM (GET data flagged as verified), BPN		
	Update PSD data	ESD	ESD, Banking teams	ESD			
Post-signing	Monthly progress reporting on Banking scorecard indicators and progress of GET finance	E2C2	E2C2		BPN, monthly E2C2 scorecard update		
	Management of green bond portfolio, including reporting on aggregated environmental benefits of GET projects	Treasury, ESD	Treasury	OSP, E2C2	BPN, quarterly reports		
	Environmental monitoring and evaluation of GET projects under implementation	ESD	ESD	E2C2			As part of environmental monitoring and evaluation processes
	Project Monitoring Report (PMR)	Banking teams	Banking teams	ESD			
	Reporting on EBRD sustainability performance including aggregated GET impact data	ESD	ESD	E2C2	Annual Sustainability Report, Q1		
	Annual joint MDB report on climate finance tracking	E2C2		OSP, ESD	On the basis of year-end consolidated data in DTM		

7. References

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Annex 1. GET checklist for operation leaders

1. Identification of GET projects and project components

- Refer to the GET Handbook for eligible GET projects and project components.
- Check the positive lists of activities qualifying for GET (Annexes 2 and 3) or covered by the climate adaptation approach (Annex 4).
- Check guidance and clarifications for specific project categories (Annex 5).
- Contact the relevant team's GET banker and/or E2C2 or ESD early on to check whether the project or project components have the potential to meet the GET principles and criteria (see Section 3 of the Handbook).
- Draft an outline of the potential GET approach for the draft Concept Review Memorandum and consult on the text with the relevant team's GET banker, E2C2 and ESD before submission.

2. Assessment of the GET components and benefits

- Work closely with E2C2 and/or ESD to define the baseline and assess the physical environmental benefits of the GET projects and project components, either as part of the due diligence or as a separate GET assessment.

3. Presentation of GET project or project components, finance and benefits in the Final Review Memorandum

- Work closely with E2C2 and ESD on how to present in the draft Final Review Memorandum the results of the GET assessment, GET finance and GET benefits of the projects.
- Articulate the strategic fit with GET and other contributing factors in consultation with EPG.
- Fill in the DTM GET information table with the help of GET banker or E2C2 and ESD.
- Work closely with EPG, E2C2 and ESD on the Green Transition Impact section and benchmarks.
- Work with ESD to include GET information in the Project Summary Document.

4. Refinement of GET presentation for the Board document

- As needed, work closely with EPG, E2C2 and ESD to refine and finalise the GET-related sections for the Board document.

5. Monitoring

- Work closely with ESD to ensure that the client reporting includes relevant information to monitor the implementation of the GET investments and realisation of the estimated GET benefits.

Annex 2. Positive list of climate change mitigation activities

Category	Sub-category	Mitigation activity
1. Renewable energy	1.1. Electricity generation	Wind power
		Geothermal power (only if net emission reductions can be demonstrated)
		Solar power (concentrated solar power, photovoltaic power)
		Biomass or biogas power (only if they result in net reductions in emissions, taking into account production, processing and transportation)
		Ocean power (wave, tidal, ocean currents, salt gradient, and so on)
		Hydropower plants (only if net reductions in emissions can be demonstrated)[8]
		Renewable-energy power plant retrofits
	1.2. Heat production or other renewable energy application	Solar water heating and other thermal applications of solar power in all sectors
		Thermal applications of geothermal power in all sectors
		Wind-driven pumping systems or similar applications
		Thermal applications of sustainably produced bioenergy in all sectors
	1.3. Measures to facilitate integration of renewable energy into grids	New, expanded and improved transmission systems (lines, substations)
		Storage systems (battery, mechanical, pumped storage) that facilitate integration of renewables, or increase renewable energy production
		New information and communication technology, smart grid and mini grid
2. Lower-carbon and efficient energy generation	2.1. Transmission and distribution systems	Retrofit of transmission lines or substations and/or distribution systems to reduce energy use and/or technical losses including improving grid stability or reliability (in the case of capacity expansion, only the portion of the investment that is reducing existing losses is included)[9]
	2.2. Power plants	Thermal power plant retrofit to switch fuel from a more GHG-intensive fuel to a different and less GHG-intensive type of fuel[10]
		Conversion of existing fossil-fuel based power plant to cogeneration[11] technologies that generate electricity in addition to providing heating or cooling
		Energy efficiency improvement in existing thermal power plant

[8] See Annex 5.8 for further guidance.

[9] In case of capacity expansion, only the part that is reducing existing losses is included.

[10] Excluding replacement of coal by coal.

[11] In all cogeneration projects energy efficiency is required to be substantially higher than separate production of electricity and heat.

Category	Sub-category	Mitigation activity
3. Energy efficiency [11]	3.1. Energy efficiency in industry in existing facilities	Industrial energy efficiency improvements though the installation of more efficient equipment, changes in processes, reduction of heat losses and/or increased waste-heat recovery and/or resource efficiency[13]
		Installation of cogeneration plants that generate electricity in addition to providing heating or cooling
		Replacement of an older facility (old facility retired) with a more efficient facility
	3.2. Energy efficiency improvements in existing commercial, public and residential buildings	Energy efficiency improvement in lighting, appliances and equipment, including energy-management systems
		Substitution of existing heating/cooling systems for buildings by cogeneration plants that generate electricity in addition to providing heating or cooling[14]
		Retrofit of existing buildings: architectural or building changes that enable a reduction in energy consumption
	3.3. Energy efficiency improvements in the utility sector and public services	Energy efficiency improvements in utilities and public services through the installation of more efficient lighting or equipment
		Rehabilitation of district heating and cooling systems
		Reduction of heat loss in utilities and/or increased recovery of waste heat
		Improvement in utility-scale energy efficiency through efficient energy use, and loss reduction, or resource efficiency[15] improvements
	3.4. Vehicle fleet energy efficiency	Existing vehicle, rail or boat fleet retrofits or replacements (including the use of lower-carbon fuels, electric or hydrogen technologies), or new vehicle, rail or boat fleets with ultra-low carbon emissions, exceeding available standards
	3.5. Energy efficiency in new commercial, public and residential buildings	Use of highly efficient architectural designs, energy-efficient appliances and equipment, and building techniques that reduce the energy consumption of buildings, exceeding available standards and complying with high energy-efficiency certification or rating schemes
	3.6. Energy audits	Energy audits of energy end-users, including industries, buildings, and transport systems

[12] The general principle for brownfield energy efficiency activities involving the substitution of technologies or processes is that: i) the old technologies are replaced well before the end of their lifetime and the new technologies are substantially more efficient; or ii) new technologies or processes are substantially more efficient than those normally used in greenfield projects.

[13] The general principle for resource efficiency activities is that activities are substantially more efficient than replaced technologies or processes, noting that efficiencies and avoided emissions may occur upstream or downstream of the project.

[14] Ibid.

[15] The general principle for resource efficiency activities is that activities are substantially more efficient than replaced technologies or processes, noting that efficiencies and avoided emissions may occur upstream or downstream of the project.

Category	Sub-category	Mitigation activity
4. Agriculture, forestry and land-use	4.1. Agriculture	Reduction in energy use in traction (such as efficient tillage), irrigation, and other agricultural processes
		Agricultural projects that improve existing carbon pools (such as rangeland management, collection and use of bagasse, rice husks, or other agricultural waste, reduced tillage techniques that increase carbon content of soil, rehabilitation of degraded lands, peatland restoration, and so on)
		Reduction in non-CO_2 GHG emissions from agricultural practices and technologies (for example, paddy rice production, reduction in fertiliser use)
		Resource efficiency[16] in agricultural processes and supply chains
	4.2. Afforestation and reforestation and biosphere conservation	Afforestation (plantations) and agroforestry on non-forested land
		Reforestation on previously forested land
		Sustainable forest-management activities that increase carbon stocks or reduce the impact of forestry activities
		Biosphere conservation and restoration projects (including payments for ecosystem services) seeking to reduce emissions from the deforestation or degradation of ecosystems
	4.3. Livestock	Livestock projects that reduce methane or other GHG emissions (for example, manure management with biodigesters, and improved feeding practices to reduce methane emissions)
	4.4. Biofuels	Production of biofuels, including biodiesel and bioethanol (only if net reductions in emission reductions can be demonstrated) [17]
	4.5. Aquaculture	Reduction in energy use or improvement in resource efficiency in aquaculture
5. Non-energy reductions in GHGs	5.1. Fugitive emissions	Reduction in gas flaring or methane fugitive emissions in the oil and gas industry
		Coal-mine methane capture
	5.2. Carbon capture and storage	Projects for carbon capture and storage technology that prevent release of large quantities of CO_2 into the atmosphere from fossil fuel use in power generation, and process emissions in other industries
	5.3. Air conditioning and refrigeration	Retrofit of existing industrial, commercial and residential infrastructure to switch to cooling agent with lower potential for global warming
	5.4. Industrial processes	Reduction in GHG emissions resulting from industrial process improvements and cleaner production (for example, cement, chemical), excluding carbon capture and storage
6. Waste and wastewater	6.1. Wastewater	Treatment of wastewater, including wastewater colleciton networks, that reduces GHG emissions (only if substantial net reductions in GHG emissions can be demonstrated)
	6.2. Solid waste management	Waste management projects that capture or combust methane emissions

[16] The general principle for resource efficiency activities is that activities are substantially more efficient than replaced technologies or processes, noting that efficiencies and avoided emissions` may occur upstream or downstream of the project.

[17] Currently the EBRD only considers second-generation biofuels to have the potential to qualify for GET.

Category	Sub-category	Mitigation activity
		Waste-to-energy projects[18]
		Waste collection, recycling and management projects that recover or reuse materials and waste as inputs into new products or as a resource (only if net reductions in emissions can be demonstrated)
7. Transport [19]	7.1. Urban transport modal change	Urban mass transit
		Non-motorised transport (bicycles and pedestrian mobility)
	7.2. Transport-oriented urban development	Integration of transport and urban development planning (dense development, multiple land-use, walking communities, transit connectivity, and so on), leading to a reduction in the use of passenger cars
		Transport and travel demand-management measures dedicated to reducing pollutant emissions including GHG emissions (such as high-occupancy vehicle lanes, congestion charging or road pricing, parking management, restriction or auctioning of licence plates, car-free city areas, low-emission zones)[20]
	7.3. Inter-urban transport	Railway transport ensuring a modal shift of freight and/or passenger transport from road or air to rail (improvement of existing lines or construction of new lines)
		Waterway transport ensuring a modal shift of freight and/or passenger transport from road or air to waterways (improvement of existing infrastructure or construction of new infrastructure)
		Bus passenger public transport ensuring a modal shift from a higher-carbon mode of transport
	7.4. Infrastructure for low carbon and efficient transport	Charging stations and other infrastructure for electric vehicles, hydrogen or dedicated biofuel fuelling
		Digital solutions and programmes dedicated to reducing GHG emissions[21]
8. Low-carbon technologies	8.1. Products or equipment	Projects producing components, equipment or infrastructure dedicated to the renewable and energy efficiency sectors, or low-carbon technologies
	8.2. Research and development	Research and development of renewable energy or energy efficiency technologies, or low-carbon technologies

[18] Making sure that the project is in line with the EU waste hierarchy.

[19] Modal shift includes prevention of future shifts to high-carbon modes.

[20] General traffic management is not included. This category is for demand management to reduce GHG emissions, assessed on a case-by-case basis.

[21] Dedicated measures can mean that a proportional approach may be used to take account of the fact that reduction of GHG emissions may be one of several project objectives.

Category	Sub-category	Mitigation activity
9. Cross-cutting issues	9.1. Support to national, regional or local policy, through technical assistance or policy lending	National, sectoral or territorial policies/planning/action plan/ planning/institutions dedicated to mitigation such as NDCs, NAMAs and plans for scaling up renewable energy
		Energy sector policies and regulations leading to climate change mitigation or mainstreaming of climate action such as energy efficiency standards or certification schemes; energy efficiency procurement schemes; renewable energy policies, power market reform to enable renewable energy
		Systems for monitoring the emissions of greenhouse gases
		Efficient pricing of fuels and electricity (such as subsidy rationalisation, efficient end-user tariffs, and efficient regulations on electricity generation, transmission or distribution, carbon pricing)
		Education, training, capacity-building and awareness-raising on climate change mitigation/sustainable energy/sustainable transport; mitigation research
		Other policy and regulatory activities, including those in non-energy sectors, leading to climate change mitigation or mainstreaming of climate activity, such as fiscal incentives for low-carbon vehicles, sustainable afforestation standards
	9.2. Carbon finance	Carbon markets and finance (purchase, sale, trading, financing and other technical assistance). Includes all activities related to compliance-grade carbon assets and mechanisms
	9.3. Supply chain	Measures in existing supply chains dedicated to improvements in energy efficiency or resource efficiency[22] upstream or downstream, leading to an overall reduction in GHG emissions
10 Miscellaneous	10.1. Other activities with net greenhouse-gas reduction	Any other activity if agreed by MDBs may be counted as climate mitigation finance when the results of *ex-ante* GHG accounting (undertaken according to commonly agreed methodologies) show emission reductions that are higher than a commonly agreed threshold, and the project is consistent with a pathway towards development that is characterised by low greenhouse-gas emissions

[22] The general principle for resource efficiency activities is that activities are substantially more efficient than replaced technologies or processes, noting that efficiencies and avoided emissions may occur upstream or downstream of the project.

Annex 3. Positive list of other environmental activities

Category	Environmental activity	Criteria and comments
1. Sustainable and efficient water use and wastewater management	1.1. Improvement of water supply and demand efficiencies, including leak-prevention, water supply from alternative and sustainable water sources, and performance optimisation	To qualify as GET the project will be expected to demonstrate a quantifiable reduction in water use compared with the pre-project baseline.
	1.2. Improvement of drinking-water quality	Projects should introduce EU standards in areas where they were not previously being met.
	1.3. Increased access to piped water supply	Projects should lead to the creation or expansion of the water supply network and an increase in the number of people connected to it.
	1.4. Improvement of wastewater quality, including wastewater treatment and the efficiency of the wastewater collection network	Projects should introduce EU standards in areas where they were not previously being met.
	1.5. Optimisation of water use in the agricultural sector, including water-efficient irrigation	To qualify as GET the project will be expected to demonstrate a quantifiable reduction in water use compared with the pre-project baseline.
2. Sustainable and efficient use of materials and resources	2.1. Sustainable waste management, including waste minimisation, recovery, recycling and re-use	Projects should introduce EU standards in areas where they were not previously being met.
	2.2. Sustainable supply-chain management activities that reduce environmental footprint, including 'circular economy' concepts	To qualify as GET the project will be expected to demonstrate a quantifiable reduction in resource or energy use compared with the pre-project baseline.
3. Pollution prevention and control	3.1. Clean transportation, including green or SMART systems	Project should result in a modal shift from a more polluting alternative compared with a viable baseline scenario. Projects that improve local air quality will qualify as GET, for example, bus projects that lower the use of diesel and reduce particulate emissions.
	3.2. Air pollution management	For brownfield sites, introduction of additional air-pollution management will qualify as GET. The EU standard will normally be the benchmark. Greenfield projects will not normally qualify as GET under this category unless they go substantially beyond normal good practice standards for that industry.
	3.3. Industrial pollution prevention and control	As above – greenfield projects will not normally qualify as GET under this category unless they go substantially beyond good practice standards for that industry.
	3.4. Manufacturing of green products	To qualify as GET, products must be innovative or have clear environmental benefits over equivalent products readily available in that market.
	3.5. Environmental remediation, including: • regeneration of contaminated sites, and disused brownfield sites • rehabilitation and tailings management for abandoned mines • soil remediation	To qualify as GET, remediation must be associated with clear environmental benefits that result directly from the use of EBRD funds. Such benefits may include the removal or isolation of contaminants, or reduction in long-term risks to human health. Projects should normally be benchmarked to a recognised good-practice guideline or standard (such as the Dutch Target and Intervention Values, 2000).

Category	Environmental activity	Criteria and comments
4. Projects that increase the resilience of ecosystems or avoid or reduce the degradation of ecosystems	4.1. Sustainable land use (including sustainable forestry, agriculture and farming inputs)	To qualify as GET, the project will be expected to demonstrate a quantifiable reduction in fertiliser, energy or other resource use compared with the pre-project baseline. Greenfield projects will qualify as GET if they introduce innovative methods or go substantially beyond legal requirements and normal good practice standards for the sector in that country. Where possible, the project should be benchmarked to a recognised good practice guideline or standard (such as the FSC for forestry).
	4.2. Protection or improvement of ecosystems	To qualify as GET, projects need to demonstrate additionality. Offsets or mitigation measures that address negative impacts of a project will not qualify as GET unless they go substantially beyond legal requirements and normal good practice standards for the sector in that country.
	4.3. Projects aiming to reverse the ongoing: • depletion of natural assets • decline of natural capital and degradation of ecosystems to ensure that ecosystem goods and services can sustain future economic growth • worsening land degradation driven by soil erosion, salination and nutrient depletion • depleted fish stocks.	To qualify as GET, projects need to demonstrate additionality. Offsets or mitigation measures that address negative impacts of a project will not qualify as GET unless they go substantially beyond legal requirements and normal good practice standards for the sector in that country.
5. Environmental technology development, environmental policy and management	5.1. Sustainable action plans, including green cities and green infrastructure	Components or sub-projects will be subject to the same criteria as other categories in this table.
	5.2. Activities supporting environmental technology transfer to countries with low technology penetration	To qualify as GET, products must be innovative or have clear environmental benefits over equivalent products readily available in that market.
	5.3. Local environmental technology development	To qualify as GET, products must be innovative or have clear environmental benefits over equivalent products readily available in that market.
	5.4. Environmental services and environmental management systems	To qualify as GET, activities must be associated with clear environmental benefits that result directly from the use of EBRD funds.
	5.5. Project preparation studies and design activities	To qualify as GET, the activities must be related to GET-eligible investments.

Annex 4. Approach to climate change adaptation activities

This Annex describes the EBRD's approach to tracking and reporting GET climate change adaptation activities. This approach will be applied systematically on a pilot basis during 2018, and may then be reviewed and refined at the end of 2018 on the basis of experience accumulated during the pilot phase.

Annex 4.1: Tracking GET finance for climate change adaptation

Background and guiding principles

Adaptation finance is calculated using the joint MDB approach to tracking adaptation finance. This method applies a context-specific, location-specific and granular approach in order to identify specific adaptation activities within projects. It is also conservative, which reduces the scope for over-reporting adaptation finance and establishes which specific elements of development operations are carried out in response to current or expected impacts of climate change.

In line with the MDB-IDFC common principles and the overall MDB methodology for tracking climate finance, this granular approach considers the 'sub-project' or 'project element' level to be appropriate for tracking. It also establishes a clear process for drawing the links between activities considered to be a form of adaptation and their explicit intent to address vulnerability to climate change.

In this way, adaptation finance captures the volume of project finance that is associated with specific project activities – as described in the project document – which contribute to overall project outcomes supporting adaptation to climate change. Project activities may not always be tracked in quantitative terms if they do not have associated incremental costs (for example, some operational procedures that ensure business continuity or the practice of siting assets outside the range of a future storm surge).

Application of the methodology for tracking adaptation finance

This methodology is applied through the following key steps of:

1. setting out the climate-vulnerability context of the project
2. making an explicit statement of intent to address climate vulnerability
3. articulating a clear and direct link between the climate-vulnerability context and the specific project activities
4. estimating GET adaptation finance in line with the above analysis.

Step 1. Set out the project's context of vulnerability to climate change

Adaptation finance may be identified in projects that clearly set out their context of climate vulnerability using a robust evidence base. Project documents may refer to existing analysis and reports or to original, bespoke assessments of climate vulnerability such as those carried out as part of project preparation.

Good practice in the use of existing analyses or reports includes citing authoritative, preferably peer-reviewed literature such as academic journals, national communications to the UNFCCC, Nationally-Determined Contributions (NDCs)) reports of the Intergovernmental Panel on Climate Change (IPCC) or the Strategic Programs for Climate Resilience (SPCRs).

Good practice in conducting original, bespoke analysis entails the use of records from trusted sources which document the vulnerability of communities or ecosystems to climate change. It also entails the use of data on recent climate trends including any departures from historic means. These may be combined with climate change projections drawn from a wide range of climate change models, with high and low greenhouse gas emission scenarios, to explore the full array of projected outcomes and uncertainties. Climate projection uncertainties should be presented and interpreted in a transparent way. The timescale of the projected impacts of climate change should match the intended lifespan of the assets, systems or institutions being financed through the project (for example, a time horizon of 2030, 2050, 2080, and so on). Detailed guidance on these points can be found in the EUFIWACC Guidance Note (see Reference 8).

Step 2. Make an explicit statement of purpose or intent

The project should set out the explicit intention to address the context- and location-specific climate change vulnerabilities in response to the project's climate vulnerability assessment. An explicit objective to reduce climate vulnerability is important in order to distinguish between a development project that contributes to climate change adaptation and a standard development project.

The methodology is flexible about the location and form of this statement of intent in the document, as long as the rationale for each adaptation element linked to the climate vulnerability context described can be recorded and tracked. A climate change adaptation project's intention to reduce vulnerability is typically stated in the final technical document, documents for Board approval, internal memos or other project documents.

Step 3. Articulate a clear link between stated climate vulnerability and project finance

In line with the principles of the overall MDB climate finance tracking methodology, the estimation of GET adaptation finance is based on finance allocated for specific project activities that are clearly linked to the project's context of climate vulnerability. The tracking of GET adaptation finance reflects project elements that address climate risks and vulnerabilities.

Step 4. Estimate GET adaptation finance

If the previous three steps have been properly applied, GET adaptation finance may then be estimated, taking into account the climate resilience outcomes of the project (see Annex 4.2). If the project's climate resilience outcomes are substantial, GET adaptation finance may be estimated based on a proportional basis as follows:

- one climate-resilience physical outcome: 20 per cent GET adaptation finance
- two climate-resilience physical outcomes: 40 per cent GET adaptation finance
- three or more climate-resilience physical outcomes: 50 per cent GET adaptation finance.

If a project's climate resilience benefits are not substantial, then GET adaptation finance may only be calculated based on the additional CAPEX allocated for specific project components that address the project's context of climate vulnerability.

Standalone climate resilience projects, in which the sole purpose of the project is to address a specific climate risk or risks, or water sector investments that create significant water savings of at least 15 per cent against baseline, or risks, may be counted as up to 100 per cent GET adaptation finance if the four steps above have been fully applied.

Annex 4.2: Reporting results for GET climate resilience

Principles

In addition to reporting GET adaptation finance (see Annex 4.1), the GET approach also includes reporting the **climate resilience results** of GET projects. This reporting is based on the joint approach of the MDB Climate Finance Group on climate resilience metrics, as shown in Figure A.4.2.1.

Figure A.4.2.1. Project-level monitoring and evaluation indicators used by the MDB Climate Finance Group

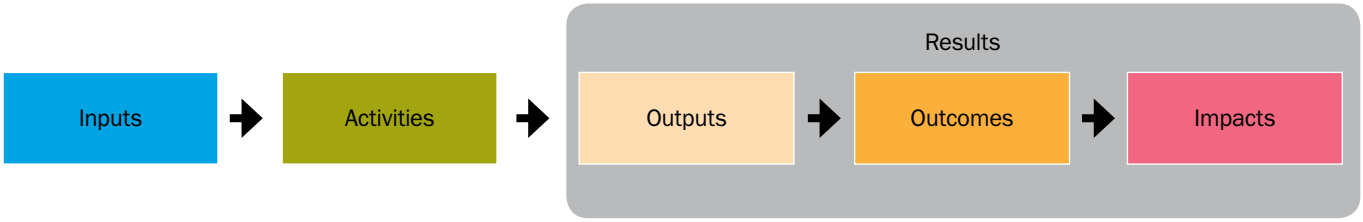


Table A.4.2.1 gives simplified examples of how these indicators could be used in climate change mitigation projects and in climate change adaptation projects.

Table A.4.2.1. Examples of how monitoring and evaluation indicators may be applied in mitigation and adaptation projects

	Inputs	Activities	Outputs	Outcomes	Impacts
Mitigation project: windfarm construction	€100 million GET mitigation finance Detailed technical feasibility study	Construction of windfarm	Fifty wind turbines installed, with total installed capacity of 200 MWh	Annual GHG reductions of three million tonnes/year of CO2 equivalent	Longer-term contribution to limiting anthropogenic climate change
Adaptation project: climate-resilient port upgrade	€120 million GET adaptation finance Detailed technical studies	Design and construction of improved breakwater	Breakwater heightened by 20 metres	Days of downtime due to extreme weather conditions reduced by 10 per year	Contribution to resilience to longer-term impacts of climate change

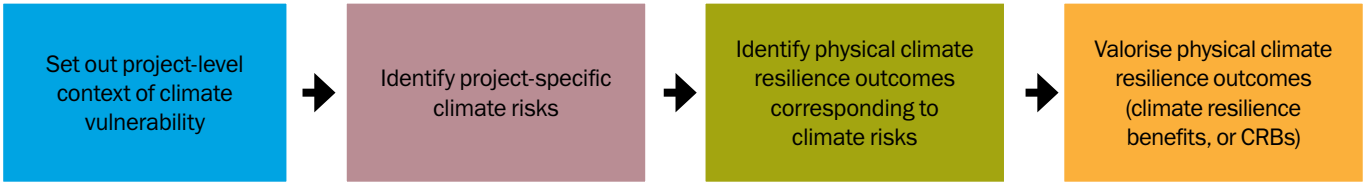
Methodology

As with the approach to tracking adaptation finance (see Annex 4.1), the starting point for assessing climate resilience results is to determine the context of climate vulnerability for the project in question. This makes it possible to identify the key climate risks that are relevant to the project. It is entirely conceivable that more than one climate risk may be relevant to a given project. It is very important to base this step on a robust assessment of climate risk and climate resilience, for example as set out in the EUFIWACC Guidance Note (see Reference 8).

Once the relevant climate risks have been identified, they are used to determine the non-financial or physical climate-resilience outcomes that the project is intended to deliver in response to each climate risk. These physical outcomes for climate resilience express in measurable units the system adjustment that the project achieves in response to the climate risk identified. For each climate risk it is possible to have more than one intended outcome for physical climate resilience.

Physical outcomes in terms of climate resilience are then valorised (and summed if there is more than one intended physical climate resilience outcome) to give a total financial outcome for climate resilience or climate resilience benefit (CRB) for each project. This gives a measure of the value that is generated by the system adjustment - in response to climate stimuli - which the project delivers. Figure A.4.2.2 summarises this process.

Figure A.4.2.2. Process for identifying appropriate indicators of climate resilience outcomes



Climate risks

Climate risks are categorised as either acute or chronic. Acute climate risks are associated with extreme and often unpredictable weather events. Chronic climate risks are associated with longer-term, progressive shifts in climate or weather patterns.

The EBRD has identified five types of climate risk that matter for its investment operations:

1. increasing frequency and severity of extreme weather events (acute)
2. increasing water stress (chronic)
3. increasing heat stress (chronic)
4. increasing hydrological variability (chronic)
5. increasing soil degradation (chronic).

Non-financial (physical) outcomes for climate resilience

Climate change is fundamentally a physical process, driven by processes in the global climate system that result in physical phenomena such as changes in temperature and patterns of precipitation. The EBRD therefore considers that it is appropriate to define climate resilience responses in physical terms.[23] The Bank has identified six types of intended physical climate-resilience outcomes as relevant to its investment operations in the face of growing variability in climate:

1. increased availability of water
2. increased availability of energy
3. increased agricultural potential
4. improvements to human health and/or productivity
5. reduced weather-related disruption
6. reduced weather-related damage.

A project must be able to demonstrate at least one of these outcomes in order to qualify as a GET climate-resilience project and for GET adaptation finance to be reported. These quantifiable outcomes are measured, within project boundaries, as the change (delta or) that the project delivers relative to the pre-project baseline, using physical units per year as described in Table A.4.2.2.

[23] While institutional and policy responses may also play an important role in building climate resilience, these are second- or third-order responses that aim to create or strengthen an enabling environment for responding to the physical impacts of climate change.

Table A.4.2.2. Units used to measure physical outcomes for climate resilience

'Family' of physical climate-resilience outcome	Description	Units (physical)
Increased water availability	Additional water made available as a result of the project, either through water savings or through the provision of additional usable water	Δ m^3/year
Increased energy availability	Additional energy made available as a result of the project, either through energy savings or through increased energy generation	Δ MWh/year
Increased agricultural potential	Additional capacity for agricultural potential achieved as a result of the project through improvements in soil quality, for example reduced soil erosion, increased soil carbon content or reduced soil salinity	Δ tonnes/hectare/year (soil erosion)
Improvements to human health and/or productivity	Improvements in human productivity due to improved health and well-being as a result of the project	Δ quality-adjusted life years (QALYs)
Reduced weather-related disruption	Reduction in the amount of time that a system or elements of a system are rendered inoperable (in other words, lost operational expenditure) due to acute climate risks such as increasing numbers of extreme weather events, or chronic climate risks such as increasing hydrological variability or increasing heat stress	Δ days/year
Reduced weather-related damage	Reduction in the damage to assets (in other words, lost capital expenditure), acute climate risks such as more frequent extreme weather events, or chronic climate risks such as increasing hydrological variability or greater heat stress	Δ risk frequency (of a damaging weather or climate event – acute risks only) Δ service life (chronic risks only)

It is vital to establish clear project boundaries for reporting GET climate-resilience results. These boundaries should reflect the intended use of proceeds for EBRD financing, but in some cases, may also need to reflect any supporting or interconnected systems on which the project or system being financed may depend (for example, the electricity supply for a port).

Establishing a realistic and viable pre-project baseline is an important initial step in assessing the physical climate-resilience outcomes of a project.

- In the case of a rehabilitation or brownfield project, the baseline will usually be the pre-project state of a system that has not yet been rehabilitated.
- In the case of a new-build or greenfield project, the baseline will usually be a hypothetical scenario of project development that does not take into account climate change projections, in other words, a 'no-adaptation' scenario.
- In the case of a project that expands operations or capacity, the baseline will be a scenario of the resources that would be required to match the level of production achieved using the unimproved pre-project system or technologies (for example, a specific level of water efficiency). For the additional output that is related to increased capacity and/or extended operation, the system should be treated as a greenfield project. The baseline should be a benchmark for the adaptation performance or non-performance of existing production.

A given project may be exposed to more than one climate risk, and may have more than one climate resilience outcome. However, in projects with multiple climate resilience outcomes each outcome should typically belong to a different family of outcome (such as water, energy, agricultural potential, health or productivity, disruption, damage). Having more than one outcome from the same family may lead to double-counting and may only be permitted in exceptional cases.

Financial climate resilience outcomes (climate resilience benefit)

The final step in the process entails assigning a value to each physical climate resilience outcome in monetary terms in order to estimate the climate resilience benefit (CRB). This step is carried out differently for each 'family' of physical climate-resilience outcomes, as shown in Table A.4.2.3.

In projects with more than one physical climate-resilience outcome, the outcome values should be summed to give a single

CRB for the project. The CRB may then be used to calculate a climate resilience benefit ratio, expressed as a percentage, which expresses the climate resilience benefit per euro or dollar invested. This ratio should be calculated using the total project value (TPV) of the project concerned. The climate resilience benefit ratio enables the climate resilience outcomes of a project to be assessed without being distorted by the overall size of the project.

Table A.4.2.3. Application of the valuation step for different 'families' of physical outcome

Physical outcome 'family'	Application of valuation step	Outcome value
Increased water availability	Annual additional water, measured on a volumetric basis (for example, m3), is assigned a value using a shadow price of water (in €/m3) that takes into account the full cost of production plus resource use and environmental externalities. The use of a shadow water price is important, as water prices in the EBRD region are often highly distorted and are not cost-reflective. A range of indicative shadow water prices for economies where the EBRD invests is provided in Appendix 1. In cases where increased water availability is estimated based on reduced effluent emissions, a suitable dilution factor should be used to estimate the expected increased availability of usable raw water.	Value of additional water (€)
Increased energy availability	The value of annual additional energy, measured in MWh, is determined using an appropriate energy price (€/kWh) that takes into account any distortions resulting from energy subsidies. Appendix 2 provides a range of suitable energy prices for economies where the EBRD invests.	Value of additional energy (€)
Increased agricultural potential	Increased agricultural potential as a result of improved soil quality is estimated based on the annual increases in crop yield that can be expected as a result of improvements in soil quality. These estimations should be calculated on a project-by-project basis that takes into account both the specific improvement in soil quality and the crop or crops being produced. The Food and Agriculture Organization (FAO) provides useful methodologies and information on this subject (for example at http://www.fao.org/faostat/en/#data), which Appendix 3 summarises.	Value of additional potential agricultural production (€)
Improved human health and/or productivity	Annual improvements to human health or productivity are measured using quality-adjusted life years (QALYs) which may be valued using the World Health Organization guidance[24] that a QALY may be worth up to three times the per-capita GDP of a given country. A list of indicative QALY values for economies where the EBRD operates is available in Appendix 4.	Value of additional QALYs (€)
Reduced weather-related disruption	Reduced disruption (measured in units of time such as days per year) may be assigned a value by using the estimated unit costs of an hour or day of downtime (such as €/hour or €/day). This will be highly industry-specific or business-specific and should be estimated on a project-by-project basis, taking into account project-specific circumstances.	Value of avoided downtime (€)
Reduced weather-related damage	Reduced damage risks (measured as a change in the risk frequency of a damaging extreme-weather event) in the context of **acute** climate risks may be assigned a value by first determining what constitutes an extreme weather event in the specific context of the project, and then multiplying the difference in risk frequency by the total value of the asset in question. Reduced damage (measured as the change in the service life of an asset) in the context of **chronic** climate risks may be assigned a value by comparing the decrease in annual depreciation of the asset using estimations of pre-project and post-project service lives and the value of the asset.	Value of extended asset lifespan (€)

[24] See http://www.who.int/whr/2002/en/ (last accessed May 2018).

Climate resilience outcomes, both physical and expressed in terms of their values, are calculated on an annual basis against a pre-project baseline. This is in line with the reporting of results for GET climate change mitigation, in which project-level GHG emission reductions are also calculated on an annual basis relative to a pre-project baseline. It is important to note that, in the context of climate resilience, this means that outcome reporting is based on current climate conditions and does not attempt to predict future climate conditions. However, robust information about climate change projections must be an integral part of project design and of setting out the context of climate vulnerability. Therefore, the climate resilience outcomes that the project delivers should be viewed as conservative measures or snapshots of the system's adjustment to the climate stimuli.

Examples of projects that apply this approach

The following tables provide some examples of the application of this approach. Table A.4.2.4 illustrates application in a water sector project, Table A.4.2.5 shows an example of a building sector project, and Table A.4.2.6 shows a financial intermediary (FI) project.

Table A.4.2.4. An example of application in a water sector project

Country	Kyrgyz Republic
Sector	Water and wastewater
Description	Upgrade of water supply system in a context of increasing water stress
Climate risks	Increasing water stress
Intended outcome for climate resilience	Increased water availability
Physical outcome unit	m^3/year
Physical outcome	2,887,515 m^3/year (annual water savings)
Value of outcome	€1,443,758 (value of water saved)
Climate resilience benefit	€1,443,758

Table A.4.2.5. An example of application in a building sector project

Country	Turkey	
Sector	Buildings	
Description	Construction of residential buildings designed to cope with increasing heat stress	
Climate risks	Increasing heat stress	
Intended climate resilience outcome	Improved human health and/or productivity	Increased availability of energy
Physical outcome unit	QALYs	kWh/year
Physical outcome	19.76 additional QALYs (indicating improved human health or productivity)	10,584,300 kWh (annual energy savings)
Value of outcome	€1,521.74 (value of additional QALYs)	€1,058,430 (value of energy saved)
Climate resilience benefit	€244,360	

Table A.4.2.6. An example of application in a financial institutions project

Country	Tajikistan		
Sector	Financial institutions		
Descriptionw	Financing facility for climate resilience technologies		
	Increasing Stress on water supplies	Increasing hydrological variability	Increasing soil degradation
Intended climate resilience outcome	Increased availability of water	Increased availability of energy	Increased agricultural productivity
Physical outcome unit	m3/year	kWh/year	tonnes or hectares/year
Physical outcome	1,413,120 m3/year (annual water savings)	4,421,040 kWh (annual energy savings)	2-6 tonnes/year (over 125 hectares)
Value of outcome	€706,560 (value of water saved)	€88,421 (value of energy saved)	€10,608 (value of additional agricultural production)
Climate resilience benefit	€805,588		

Appendices to Annex 4.2

Appendix 1. Indicative range of shadow water prices for economies where the EBRD invests

[to be developed]

Appendix 2. Indicative range of suitable energy prices for economies where the EBRD invests

[to be developed]

Appendix 3. Summary of FAO information on the relationship between improvements in soil-quality and increases in crop-yield

[to be developed]

Appendix 4. Indicative range of QALY values for economies where the EBRD invests

[to be developed]

Appendix 5. Guidance on the calculation and valuation of outcomes in terms of reduced disruption

[to be developed]

Appendix 6. Guidance on the calculation and valuation of outcomes in terms of reduced damage

[to be developed]

Annex 5. Guidance on specific project categories

The aim of this Annex is to provide some guidance and clarifications on how to attribute GET finance to projects or project components falling under certain categories:

1. energy efficiency projects
2. building developments
3. transport projects
4. desalination projects
5. flaring projects
6. environmental products, technologies, practices and services
7. gas projects (section under development)
8. hydropower projects
9. Green Economy Financing Facility (GEFF) and other financial intermediary (FI) transactions (section under development)
10. Trade Facilitation Programme (TFP) (section under development)
11. green bonds (section under development).

Annex 5.1. GET finance for energy efficiency projects

General

In energy efficiency projects, drawing the boundary between increasing production and reducing energy consumption and associated emissions is critical. In order to qualify brownfield energy efficiency projects for GET, old technologies must be replaced with substantially more efficient new technologies. Capacity increase of an existing facility may have a combination of brownfield and greenfield project activities.

Brownfield energy efficiency projects

For brownfield energy efficiency projects to qualify for GET the following is required:

- **Old technologies are replaced well before the end of their expected actual lifetime.** The baseline scenario for the project must demonstrate that the existing installation would continue to operate for at least another three to seven years.[25] Only if technically and economically feasible, the baseline scenario may include maintenance programmes and replacement of worn-out equipment parts.
- **The replaced technology is taken out of use and is not being used elsewhere.**
- **New technologies are consistent with best practice in industry** (EU BAT or other internationally recognised standards).

For exceptional cases, where no representative best practice data are available, new technologies are considered to be substantially more energy efficient than the replaced technologies if the lifetime economic benefit for the energy efficiency improvements is substantial compared to the size of the investment. As guidance, projects where representative best practice data is not available are considered to be 100 per cent GET if the payback time of the investment (CAPEX), based on the expected fuel, electricity and/or resource savings, is less than five years.[26] If this indicative threshold is not met, the project should be further broken down into its energy efficiency and non-energy efficiency components and GET finance should be attributed accordingly.

Greenfield energy efficiency projects

In accordance with the MDB-IDFC Common Principles for Climate Mitigation Finance Tracking, for climate change projects, greenfield energy-efficiency projects qualifying for GET include:

- installation of new co-generation plants, accommodating existing heat demand
- energy efficiency activities in urban transport projects
- production of components, equipment and infrastructure dedicated to energy efficiency and/or GHG reduction.

In addition, specific (investment) components of greenfield energy-efficiency projects may be considered GET if they include specific energy efficient technologies with low market penetration, consistent with best practice.

Furthermore, greenfield energy-efficiency projects can qualify for GET if the activities are on the EBRD positive list of other environmental activities (see Annex 3), for example if the project aims to reduce air pollution or wastewater discharges.

Capacity extensions and energy efficiency

In cases where energy efficiency investments result in an extension of the capacity of the existing installation, the existing capacity is treated as brownfield and the additional capacity as greenfield. The GET finance will be attributed pro-rata.

Resource efficiency and energy efficiency

Projects that reduce the use of resources other than energy, for example, activities in water and materials efficiency, can also have significant climate mitigation impacts. This is particularly the case for activities aimed at waste minimisation and loss prevention in production chains. For GET qualification, it should be taken into account that the major GET benefits, including energy efficiency improvements, might not be within the physical boundaries of the project and might also occur elsewhere in the product life cycle.

[25] Typically three years for industrial equipment, five years for power sector and seven years for infrastructure sector investments.

[26] For the purpose of payback-time calculations, use as a proxy the current EU averages according to Eurostat. Industrial end-users: electricity €0.12 per KWh; gas €0.034 per kWh. Households: electricity €0.21 per KWh; gas €0.071 per kWh.

Annex 5.2. GET finance for building developments

Existing buildings

The baseline for existing building projects is defined by the current condition of the building fabric as well as by the building's engineering systems.

Portfolio of building assets

A portfolio of building assets includes projects such as sustainable property funds and green real estate investment trusts. These activities are eligible to be classified as 100 per cent GET finance if:

- improving the resource efficiency of the building(s) is an integral part of the business model and
- the environmental performance of the portfolio of building assets improves in compliance with a trajectory – calibrated according to the local market – towards a relevant climate commitment (for example, a climate trajectory that is defined as a linear pathway from the emissions performance of the top 15 per cent of energy efficient buildings in a local market to zero carbon emissions in 2050), and
- the activities comply with a set of well-defined criteria[27] addressing all factors that have an environmental impact in the building environment, including:
  1. physical upgrading of the building infrastructure
  2. operational and management systems
  3. engagement with the building's occupants
  4. certification of a representative sample of assets
  5. reporting under recognised international schemes.

Financing for projects involving a major upgrade or deep renovation of a portfolio of public and/or residential building assets to achieve carbon performance that complies with a climate trajectory set up at the municipal or provincial level is 100 per cent GET.

In less developed markets,[28] if a portfolio of building assets does not comply with all of the requirements listed above, it can still be GET-eligible if, as a minimum, criteria 1 and 2 above are implemented. A gradual approach will be used to allocate the GET share, using the table below. The implementation of criteria 1 and 2 is mandatory for GET eligibility and provides a GET share for the portfolio of building assets. The implementation of any of the additional criteria (3-5) provides the project with an extra GET share that adds to the GET share allocated to criteria 1 and 2. The GET share reflects the environmental impacts associated with each criterion.

	Cost implications	Environmental impact	GET share (only for less developed markets)
1. Physical upgrading of building infrastructure	Medium to high	Medium to high	60%
2. Operational and management systems	Low to medium	Medium to high	
3. Engagement with occupants	Low	Low to medium	15%
4. Certification of a representative sample of assets	Medium to high	Low	15%
5. Reporting under recognised international schemes	Low to medium	Low	10%

[27] Climate Strategy and Partners, Guidelines for Sustainable Property Funds, final report for EBRD (2016).

[28] Less developed markets include Armenia, Azerbaijan, Belarus, Bosnia and Herzegovina, Egypt, FYR Macedonia, Georgia, Jordan, Kazakhstan, Kosovo, Kyrgyz Republic, Lebanon, Moldova, Mongolia, Morocco, Tajikistan, Tunisia, Turkmenistan, Ukraine, Uzbekistan, and the West Bank and Gaza.

Individual buildings
The following are eligible for classification as 100 per cent GET:

- Financing for projects that improve the environmental performance of existing buildings to the level of applicable EU standards for the upgrading or refurbishment of existing buildings.[29]
- Financing for projects that commit to certification of the existing buildings at the minimum levels presented in the following table for LEED, BREEAM or DGNB. The costs of land and of the acquisition of existing buildings (or the costs of refinancing) are not eligible for GET.

Economies where the EBRD invests	LEED	BREEAM	DGNB
More developed markets*	Gold	Very good	Silver
Less developed markets**	Silver	Good	Bronze

Note: * denotes Albania, Bulgaria, Croatia, Cyprus, Estonia, Greece, Hungary, Latvia, Lithuania, Montenegro, Poland, Romania, Serbia, the Slovak Republic, Slovenia and Turkey. ** denotes other all economies in the EBRD regions.

- Financing for projects that commit to certification of the existing building by EDGE or Passive House is GET-eligible, with the following GET shares. The costs of acquiring land and existing buildings, or the costs of refinancing, are not eligible for GET.

Certification	Economies where the EBRD invests		GET share
EDGE	More developed markets*	Individual buildings (not GET-eligible)	0%
		Portfolio of building assets: certified with all three indicators at a level of 20 per cent above the national EDGE base case***	40%
		Portfolio of building assets: certified with all three indicators at a level of 40 per cent above the national EDGE base case***	60%
	Less developed markets**	Individual buildings and portfolio of building assets: certified with all three indicators at a level of 20 per cent above the national EDGE base case***	60%
		Individual buildings and portfolio of building assets: certified with all three indicators at a level of 40 per cent above the national EDGE base case***	80%
Passive House	More developed markets*	Certified	60%
	Less developed markets**	Certified	80%

Note: * denotes Albania, Bulgaria, Croatia, Cyprus, Estonia, Greece, Hungary, Latvia, Lithuania, Montenegro, Poland, Romania, Serbia, the Slovak Republic, Slovenia and Turkey. ** denotes all other economies in the EBRD regions. *** The EDGE base case is defined by the typical current building practices for new developments around the world as well as by national environmental performance standards for buildings, where these standards exist.

- Financing for projects that improve the performance of an existing building by at least two energy-performance classes (such as from E to C), in cases where international certification is not feasible and there are no performance requirements for specific components or techniques. In countries where no energy classes have been set up by the legislation, an equivalent performance improvement should be achieved.

Components
Where the project does not fall under one of the categories listed above for individual buildings, GET investments are assessed on the basis of the project's individual components.

Technologies, equipment, materials, services and activities that improve the environmental performance of existing buildings are eligible for GET. Such components are 100 per cent eligible for GET if the level of applicable EU standards for the upgrading or refurbishment of existing buildings is achieved[30] and pro-rata if the EU standards are not achieved but the project exceeds the baseline. An example of a pro-rata estimation of GET share is provided at the end of Annex 5.2.

[29] Including the national standards of EU Member States implementing the EU Buildings Directive 2010/31/EU. If the project is implemented in a non-EU country, the assessment will be based on EU requirements for countries with similar climatic conditions.

[30] Including the national standards of EU Member States implementing the EU Buildings Directive 2010/31/EU. If the project is implemented in a non-EU country, the assessment will be based on EU requirements for countries with similar climatic conditions.

New building developments and building redevelopment or reconstruction

National building standards are **the baseline** for new building developments and building redevelopments or reconstructions.

Individual buildings or portfolios of building assets:
The CAPEX for building developments (excluding the cost of land acquisition and/or any existing buildings) is eligible for 100 per cent GET if the building(s) will be certified at minimum levels of LEED, BREEAM or DGNB, as presented in the table for existing buildings.

For projects that commit to the certification of the new development of buildings by EDGE or Passive House the provisions for GET eligibility and GET shares for existing buildings apply.

An independent accredited body should document and issue the certification.

The GET eligibility of projects undertaking only EPC certification for new buildings in a specific country will be assessed on a case-by-case basis, based on their compliance with and enforcement of the Energy Performance of Buildings Directive (EPBD) or similar legislation in other economies where the EBRD invests.

Components
As an alternative to certification, a component-based approach can be applied.

For greenfield building developments, investments in specific components (energy efficiency technologies, materials, equipment and services, activities) qualify as 100 per cent GET if they comply with EU standards or other component-based, internationally recognised performance benchmarks. For performance that is below these benchmarks but above the national standards, a pro-rata approach may be applied. An example of pro-rata approach is presented at the end of Annex 5.2.

Components qualifying for GET may address aspects other than energy performance, including materials efficiency, water efficiency, waste management, pollution control, site management and land use, transport and transport access to site, monitoring and control of environmental performance.

Environmental remediation and construction and demolition waste

Environmental remediation activities (such as land decontamination) within project boundaries can qualify as GET, subject to the criteria for environmental remediation activities detailed in Annex 3.

For brownfield and redevelopment or reconstruction building projects the following components also qualify as GET:

- reuse of existing building materials instead of using new materials
- reuse, recovery or recycling of construction and demolition waste (CDW).

Climate resilience of buildings

The GET results of adaptation finance and climate resilience projects in the building sector are tracked in line with the guidance provided in Annex 4 ("Approach to climate change adaptation activities"). The scope of EBRD project financing is used to determine the relevant total project value (TPV) to be applied in the calculation of the climate resilience benefit (CRB) ratio.

Example of pro-rata approach to estimation
An EBRD loan provided for a property and tourism investment in a new commercial building development includes proceeds that will be used to purchase and install transparent structures with advanced thermal performance. The overall project cost is €10 million, with the EBRD providing €3 million. The CAPEX for 1,000 m^2 of glazing is €280,000.

The EBRD has not been instrumental in the client's decision to use the proposed type of glazing. The main parameter that defines the energy performance of the glazing is the U-value ($W/m^2.K$). The U-value is defined as follows for the project, the BAT and the national regulations (the baseline):

- for the project: U-project = 1.8 $W/m^2.K$, low emissivity $\varepsilon = 0.29$
- for the baseline (national regulation requirements): U-baseline = 2.4 $W/m^2.K$, no emissivity requirement, market practice is to use standard glass ($\varepsilon = >0.92$)
- BAT: 1.2 $W/m^2.K$, $\varepsilon \leqslant 0.39$
- EU regulation requirements for similar climatic conditions: 1.6 $W/m^2.K$, $\varepsilon \leqslant 0.39$

Using the formula: $|([Project]-[Baseline])/([BAT]-[Baseline])|*100 = |(1.8-2.4)/(1.2-2.4)|=50\%$.

Since emissivity accounts for additional environmental benefits at a level of about 30 per cent, the incremental GET share is increased by 50%*(1+50%*30%) = 65%.

The resulting GET amount for this component is therefore: 65% * €280,000 = €182,000. This will account for 6% of the EBRD financing.

Annex 5.3. GET finance for transport projects

Avoidance of emissions in the transport sector

Transport projects are GET eligible if they advance the transition to low-emission transport. These are projects that lead to a reduction in the use of cars and trucks (in terms of passenger kilometres per year or tonne kilometres per year). Project examples include the integration of transport and development planning (urban and logistics), traffic management measures or Intelligent Transport Systems.

Road-based projects that aim to eliminate bottlenecks are eligible for GET only if at least 15 per cent of the emissions reduction (either CO_2 or local air pollutants) is achieved based on an assessment that includes long-term traffic forecasts, taking into account the induced traffic. A leakage analysis might also be required in order to ensure that the projects actually lead to emission reductions and are not shifting congestion and emissions to secondary or side roads.

Modal shift to lower carbon modes

Transport projects that result in the reduction of emissions through modal shift from higher to lower carbon modes are eligible for GET. Eligible projects include infrastructure or fleet investments on urban mass transit, inter-urban rail, inland waterways as well as intermodal and facilities for short sea shipping. Further details on the determination of modal shift GHG impacts can be found in the IFI Joint approach to GHG assessment in the Transport Sector (see Reference 7).

Example

A large municipality is improving its metro network by extending one of its lines. The EBRD is financing new rolling stock, one of the project components. According to traffic forecasts, in the near future demand for travel will grow significantly and without investments in public transport increased demand will be met mainly by high-carbon modes (such as cars and minibuses that use fossil fuels). The metro project will help to reverse this modal shift. Other environmental benefits of the project, in particular the control of air pollution, may be more significant than the climate mitigation benefits. The project is considered to be 100 per cent GET.

For fleet renewal projects, the project assessment may consider modal shift avoidance, where the 'without-project' situation would result in significant loss of existing public transport users to higher-carbon modes (notably cars). This is particularly relevant in cities with rapidly increasing car ownership and significant existing public transport systems and ridership.

Reduction of emissions by efficiency improvements

The retrofit or replacement of vehicles, rolling stock and ships to achieve better energy efficiency (or better environmental performance) is eligible for GET finance.

In the case of a road fleet the following boundary conditions apply:

- Old vehicles are replaced before the end of their actual lifetime. It should be likely that the existing vehicles would remain operational for at least another three years. If technically and economically feasible, the remainder of the lifetime may include the maintenance and replacement of worn-out parts.
- Projects involving replaced stock should include scrappage measures to prevent leakage impacts (in other words, causing emissions to occur elsewhere by re-use of the replaced stock).
- The minimum emission standards for vehicles should reflect the best available technology as defined by EU standards (currently EURO 6), unless this is not possible due to local circumstances, such as unavailability of the required fuel quality.
- Some flexibility in terms of achieving EU standards may be allowed for public transport projects which result in material environmental benefits but which cannot be structured to achieve full compliance with EU environmental standards due to limited financial resources and constraints on affordability.

For rail (locomotives) and shipping, the energy efficiency performance should be consistent with the best available technologies and involve replacing and scrapping the old stock at least five years before the end of its technical lifetime.

Annex 5.4. GET finance for desalination projects

In water-stressed areas vulnerable to climate change, desalination technologies may be eligible for GET under climate change adaptation activities. In addition to the guiding principle for adaptation finance tracking (see Annex 4) further eligibility criteria apply for desalination projects.

The energy used for the desalination must fall within one of the following categories:

1. renewable energy
2. energy from the valorisation of waste heat (cogeneration)
3. other forms of energy (such as grid electricity, fossil fuels),[31] as long as the criteria in Table 4 are fulfilled.

Table 4. GET eligibility criteria for "Other forms of energy" used in desalination projects

Criterion	Proposed benchmark	Notes
1	Energy demand per unit of fresh water generated must not exceed 5 kWh/m^3	Based on the review of desalination technologies and their respective typical energy efficiency performance.
2	CO_2 intensity per unit of fresh water generated must not exceed 1.9 kg CO_2/m^3	Based on a CO_2 emission factor of 380g CO_2/kWh[32] and an energy consumption of 5 kWh per m^3 of fresh water produced.

Furthermore, the following three eligibility criteria apply for desalination projects in order to qualify for GET finance:

Table 5. Additional GET eligibility criteria for desalination projects

Criterion	Proposed benchmark	Notes
1	Will the additional water be delivered to a water-stressed area where water stress is expected to increase as a consequence of climate change? For example, is annual water availability per capita **less than 1,700 m^3/cap/year?**	Based on the Falkenmark index of water stress. This step could be adjusted for specific project circumstances, for example in cases where the additional water is for purely industrial or agricultural use.
2	Does the amount of additional water make a significant contribution towards alleviating local water stress? For example, providing at least **25 per cent** of the local water deficit (m^3/year).	Verification if the project is making a sufficiently significant contribution towards alleviating water stress to justify the energy use and emissions identified in step 1.
3	Is the water produced used in an efficient manner? Does it not fuel additional, non-essential water demand, for example, due to inadequate water pricing?	Verification to ensure efficient water use, avoid incentivising excessive water use, and avoid maladaptation.

[31] Excluding coal.

[32] Reference emission factor of 380 g CO_2/kWh is based on typical emissions from the use of natural gas in air-cooled CCGT in a hot climate.

Annex 5.5. GET finance for projects to prevent gas flaring

Investments aimed at reducing gas flaring in the oil and gas industry are considered to be 100 per cent eligible for GET in countries where gas flaring and venting is common practice and provided that it is not effectively prohibited by national law.

These countries, presented in Table 6, typically have high flaring intensities (m^3 gas flared per barrel of oil produced, m^3/bbl) compared to the reference benchmark (USA, 2.6 m^3/bbl).

Table 6. Gas flaring intensity in EBRD countries of operations and reference countries (2015 data) [33]

Country	Gas flaring (million m^3/year)	Gas flaring intensity (m^3/bbl)	High
Russia	21,244	5.3	Yes
Kazakhstan	3,694	6.1	Yes
Egypt	2,826	10.7	Yes
Turkmenistan	1,843	19.3	Yes
Uzbekistan	1,115	47.7	Yes
Tunisia	496	21.6	Yes
Azerbaijan	193	0.6	
Ukraine	235	16.1	Yes
Romania	34	1.1	
Poland	19	2.7	
Serbia	15	2	
Mongolia	19	2.5	
Hungary	4	0.4	
Belarus	9	0.8	
Turkey	17	0.8	
Reference benchmark (United States of America)	11,852	2.6	
Best international practice (Saudi Arabia)	2,153	0.5	

[33] Gas flaring intensity is expressed as m^3 of gas flared per barrel of oil produced. Source: Global Gas Flaring Reduction Partnership (GGFR), 2016.

Annex 5.6. GET finance for environmental products, technologies and services

Environmental products

To be eligible for GET, environmental products will need to meet the criteria of internationally recognised eco-labels or energy, eco-efficiency or other relevant environmental certifications (such a Nordic Eco-label, EU eco-label, FSC, labelled/certified green bonds and PEFC) that are awarded to products that have a smaller environmental footprint over their life-cycle than other products serving the same use.

Environmental technologies and practices

In industry sectors for which EU BAT has been defined under the Industrial Emissions Directive, the eligible technologies and techniques should be consistent with EU BAT and the relevant associated performance levels (BAT-APLs). Other technologies or techniques not included in the EU BAT could be eligible for GET as long as it can be shown that they provide at least the same level of environmental protection as the ones included in the EU BAT. When the environmental regulations or standards of the host country are more stringent than those of the EU BAT, the projects will be expected to meet the more stringent requirements.

In industry sectors for which EU BAT has not been defined, internationally recognised environmental technologies, practices and standards will be identified in accordance with good international practice (for example, World Bank Group or World Business Council for Sustainable Development). This identification of eligible technologies and practices could include reference to market penetration of technologies (for example, based on the joint work that the EBRD is conducting with IEA or FAO) and benchmarking methodologies (such as EU ETS).

In other sectors, green technologies and practices will be defined on a case-by-case basis, taking into consideration the principle that the pollution prevention and control techniques minimise potential adverse impacts on human health and the environment while remaining technically and financially feasible and cost effective. This applies to the release of pollutants due to routine, non-routine or accidental circumstances. The eligibility assessment of the proposed technology will consider technically and financially feasible and cost-effective options to avoid or minimise environmental impacts. In sectors for which no internationally recognised reference standards can be identified, the eligible technologies and practices are expected to result in an environmental improvement of at least 15 per cent compared with the baseline scenario.

Eligible technologies and practices may also consist of technically and financially feasible and cost-effective measures that integrate resource efficiency measures and the principles of cleaner production into product design and production processes, with the objective of conserving raw materials, energy and water. At the same time, they should reduce the release of pollutants into the environment.

Environmental services

Projects where the material environmental benefits arise mainly from the provision of services such as energy services and waste management companies are eligible for GET if the services provide incremental environmental benefits and are consistent with the GET principles and criteria. In this case the GET finance will be the total amount of finance that is instrumental for the provision of the environmental services and not necessarily used for CAPEX.

Annex 5.7. GET finance for gas projects

Production, transportation and distribution of gas may qualify for GET provided that the project is a step towards the strategic shift to a low-carbon economy, does not keep the economy locked into a carbon-intensive pathway, and GET principles and criteria are met. The relevant project-specific and country-specific conditions (baseline fuel mix, destination of the gas) must be considered.

THIS SECTION WILL BE AMENDED FOLLOWING COMPLETION OF THE RELEVANT STUDIES TO HELP DEFINE A METHODOLOGY AND APPROACH.

Annex 5.8. GET finance for hydropower projects

Greenfield projects

The net environmental benefit of greenfield hydropower projects will be estimated taking into consideration the environmental impacts of the project as well as a baseline scenario for achieving the same economic output. For example, a new hydropower plant project will help avoid GHG emissions compared with a conventional power plant, but it may also result in potentially significant GHG emissions. Therefore, a hydropower scheme qualifies for GET if it emits significantly less than a thermal power plant with the same capacity over the first ten years of operation.

Annex 5.9. GET finance for Green Economy Financing Facility (GEFF) and other financial intermediary transactions

SECTION UNDER DEVELOPMENT

Annex 5.10. GET finance for the Trade Facilitation Programme (TFP)

SECTION UNDER DEVELOPMENT

Annex 5.11. Green bonds

SECTION UNDER DEVELOPMENT

Annex 6. EBRD protocol for assessment of greenhouse gas emissions

Background

The EBRD first published an assessment of the impact of its investments on greenhouse gas emissions in 2003. The purpose was to see climate change impacts in the wider context of the transition impacts of EBRD projects. The assessment also aimed to answer the simple question: "What impact is the Bank having, through its investments, on the build-up of greenhouse gases in the atmosphere?"

The EBRD GHG assessment methodology developed for this purpose provided a framework for the integration of GHG assessments into project due diligence and for the annual reporting of the forecast impact of the new direct investment projects added to the portfolio.

The Bank's focus on climate change mitigation, through promoting investments in energy efficiency, renewable energy and emission reduction projects, grew substantially via the Sustainable Energy Initiative (SEI) and later through the Sustainable Resource Initiative (SRI). The SEI was launched in 2006 with the aim of scaling up sustainable energy investments, improving the business environment for sustainable investments and removing key barriers to market development. In 2015, the EBRD's Board approved the Green Economy Transition (GET) approach, which replaces the SEI and aims to increase EBRD investments in the green economy to 40 per cent of Annual Bank Investment (ABI) by 2020.

Over the same period, in response to policy-makers' calls for greater harmonisation, the MDBs have agreed common principles for GHG accounting and are continuing to work towards more harmonised, sector-specific approaches. These developments required an update of the EBRD's approach to GHG assessment and reporting. This revision continues to serve its original objectives but now also encompasses the GHG benefit assessment of GET projects, which has a wider scope. The harmonisation process has led to the IFI Framework for a Harmonised Approach to GHG Accounting and the sector approaches for Renewable Energy, Energy Efficiency and Transport. Additional sector approaches will be agreed between the IFIs.

Objectives and basic principles

The EBRD is committed to estimating the future GHG impact of the projects that it finances on an ex-ante basis where these are likely to result in significant increases or reductions in emissions. Consistent with the Bank's transition mandate, the principal objectives are:

- to provide a fit-for-purpose estimate of the change in GHG impact that each year's newly signed projects will have, once fully implemented
- to demonstrate the broader climate change mitigation benefits that an increasing number of EBRD projects are designed to achieve.

Where possible, the assessment is undertaken during project appraisal.

In developing a GHG assessment methodology aimed at meeting these objectives, a wide range of choices in approach is available. Several basic principles, identified below, exist to help narrow such choices and these have been applied in shaping the EBRD approach:

Transparency and clarity of definition: In any project, some choices may remain subjective. A project may be assessed in different ways for different purposes. It is thus essential that choices and assumptions are clearly stated to preserve the usefulness of the assessment. Most important in this context is a clear understanding of what a project comprises, in terms of geographical and operational boundaries.

Conservatism: To minimise the risk of understatement of emissions or overstatement of savings, a conservative approach to assumptions should be made wherever significant uncertainty exists.

Fitness for purpose: Where a GHG assessment is required to form the basis of financial transactions – for example, carbon trading – greater resources will generally be required in order to apply the more complex approaches demanded. Where the assessment is carried out for information purposes only, simpler, less resource-intensive approaches may be acceptable.

Project specificity versus general applicability: It may be necessary to strike a balance between the desire to achieve as much project-specific accuracy as possible and the benefit of comparability that the use of common, consistent approaches provides across many projects of a given type.

Methodology

Selection of projects and thresholds

All direct investment projects are screened at the Concept Review stage of project appraisal and categorised according to the type of assessment needed.

Some direct investment projects involving corporate loans are excluded from assessment when a lack of information to identify precisely how funds are used makes GHG assessment impossible.

Most projects funded via financial intermediaries (FIs) are excluded from assessment on the grounds that they involve transfer of control to a third party. GHG assessment is undertaken, however, for certain FI framework projects in which substantial funds are ring-fenced for investment by the FI in relatively large numbers of small energy efficiency and renewable energy sub-projects. Although individually small, the combined impact of many sub-projects may be highly significant. The aggregate savings of a number of such FI funds which have been established have made a major contribution to total GHG savings in recent years.

From November 2014, the Bank's Environmental and Social Policy (ESP) mandated clients to procure and report the data necessary for the GHG assessment of projects whose emissions are expected to exceed 25 kt CO_2e per year.

Projects that are expected to result in a change in emissions, either positive or negative, of more than 25 kt CO_2e per year are subject to an ex-ante GHG assessment in line with this protocol. Projects that are expected to reduce GHG emission by less than 25 kt CO_2e per year may also be subject to a GHG assessment.

Project boundaries
The project boundary separates the entities (in other words, the facilities and operations) whose emissions are included in the assessment from those that are not. The project boundary is generally defined as the geographical boundary of the facility but may need to include associated facilities and activities where these exist solely to serve the project. Where, for example, a project involves a change from in-house production to external sourcing of a feedstock, it may be necessary to draw project boundaries to include external operations, thus ensuring no fundamental difference in the scope of service provision between the baseline and the post-investment scenario.

Where a project is a direct replacement for some, or all, of another, separate, existing facility (such as one owned by the same entity) this latter facility may be brought within the project boundary, provided the closure is certain to take place as a direct consequence of the project's implementation.

The project boundary for renewable energy (RE) power generation projects is always regarded as encompassing the electricity grid in which they serve. By nature of their role, they are assumed to displace the emissions associated with other electricity generation on the grid. Specific grid studies may be undertaken to derive appropriate carbon factors.

If high-quality project or regional grid emission studies are available, these should be applied. As a fall-back, it is possible to use national grid-average factors, as long this will not lead to an underestimation of the project impact or an overestimation of the GHG reductions.

In some cases a project may have impacts on GHG emission upstream or downstream in a supply chain or in the market that it serves. These would typically be considered as Scope 3[34] and excluded from EBRD's project boundary. However, if these impacts have significant mitigation benefits that underpin the rationale for the EBRD's investment in the project, the Bank may choose to extend the boundary of the assessment to include these benefits. These benefits may be included in reporting for the GET approach or as a separate line in the *Sustainability Report*, but are excluded from the reporting of overall GHG impact of the portfolio, which includes only Scope 1 and 2.

Different aspects of projects can have impacts over different areas. The boundaries used to assess, for example, a project's transition impact or social impact may therefore differ from those used for the GHG assessment.

The with-and without-project principle to determine baseline and project scenario
In keeping with the Bank's transition mandate, the EBRD methodology has focused primarily on estimating the change in GHG emissions (ΔGHG) that is to be brought about by investments. We may define this logically as the difference between the emissions following the implementation of the project investment ('project emissions') and the emissions that would have occurred in its absence. This 'without-project' scenario is referred to as the 'baseline' or 'reference scenario'.

While the project emissions are relatively predictable (and amenable to routine monitoring during the project lifetime), the emissions that would have occurred in the absence of the investment – the baseline or reference scenario – will remain hypothetical and therefore should be based on conservative assumptions.

Dynamic baseline
Depending on the extent of information available and the extent to which future developments can be predicted, a time-dependent (or dynamic) baseline or reference scenario may be constructed. An example of an instance where sufficient information might be available to develop a robust dynamic baseline is a power generation project that is part of a national power generation capacity modernisation plan, backed up by adequate technical assessments. Dynamic baseline approaches may be relatively complex and resource-intensive to develop yet are necessary, in particular when they are to underpin carbon trading transactions.

For the relatively small, but increasing, number of EBRD projects seeking to benefit from carbon mechanisms (for instance, those qualifying under the UNFCCC's JI or CDM), project and baseline emission assessments are based on methodologies approved by the UNFCCC or other internationally recognised bodies for this purpose.

Fixed baseline
Where the development of a dynamic baseline is not justified, a fixed (not time-dependent) baseline may be adopted. The simplest approach, and the one preferred for most EBRD projects, is the use of the pre-investment emissions within the project boundary as the baseline. In the case of greenfield projects, this is taken as zero, unless there are existing facilities included within the project boundary.

Alternatives to using pre-investment emissions as the fixed baseline are benchmark technologies or benchmark levels of operational performance. It is important to note that the forecast of a project's GHG impact depends critically on the choice of baseline. Thus clarity of definition and consistency in the choice of baseline type are fundamental for the sake of comparability.

Project scenario
The with-project emissions are taken as those expected to occur in a representative (usually the first) year following full implementation of the project.

Capacity expansion and increased output
Whenever the production output of a project is forecast to change as a result of the investment, the GHG emissions or savings associated with that change must be accounted for. In such cases, if efficiency improvements have been introduced, the resulting efficiency savings are only applicable to the pre-investment output level and must not be applied to the expansion increment unless it is certain that the same increase in output would have occurred in the absence of the project – in other words, unless the expanded output is entirely independent of the project implementation.

[34] Using the definitions adopted by the GHG Protocol of the WBCSD/WRI, direct emissions are called 'Scope 1', emissions from grid electricity used are 'Scope 2', while other upstream and downstream emissions are 'Scope 3'.

Scope of emissions assessed
Included in the assessment of project emission:

1. direct operational GHGs as recognised by the IPPC (see for example IPCC Fifth Assessment Report, 2014)[35] occurring within the project boundary, together with
2. the estimated GHG emissions associated with the generation of grid electricity used by the project[36]
3. where a project is designed specifically to generate downstream system and end-user benefits – for example, one involved in the manufacture of carbon-saving or energy-saving materials or technologies and covered by the scope of the Joint MDB Report on Climate Finance – these benefits are reported as separate line items as they fall outside the scope of emissions routinely assessed.

Construction phase emissions are normally not included in the assessment as they are typically not considered to be significant compared with operational emissions. Construction related emissions will be included in the assessment where they are likely to be significant (greater than 5 per cent) relative to the anticipated emission increases or savings associated with the operation of the project.

Leakage
Leakage is the phenomenon through which efforts to reduce emissions in one place simply shift emissions to another location or sector where they remain uncontrolled or uncounted. This happens for example when additional public transport capacity frees up capacity on roads which is then filled by previously suppressed demand. It is important to recognise and take account of any significant leakage that may arise in a project.

Guidance on calculation methods
The accuracy required for the calculations of the greenhouse gases arising from the processes involved in the baseline and project operations will depend on the significance and size of the project. The selected methods should be fit for purpose, recognising the information and manpower resources available. Comprehensive recognised methodologies such as described in the GHG Protocol, the UNFCCC Clean Development Mechanism methodology, Verified Carbon Standard, Gold Standard and the EU Emissions Trading Scheme, ISO 14064 (Part 1 and 2), or other international standards can be used where feasible. Where the scope of the project or the scale of its emissions do not justify in-depth assessments of this type, conservative simplifications of these approaches will be adequate. Calculation methods must nevertheless be transparent and based on reasonable assumptions.

Sources of data
GHG data may be obtained from a number of sources depending on the project's size, sector and the nature of the EBRD's investment. Project-specific sources of data may include:

- environmental impact assessments
- environmental audits
- energy audits
- feasibility studies
- investment plans.

Data may be compared against industry databases or benchmarks that are published by appropriate authorities and regulators.

GHG performance metrics
Absolute project annual GHG emissions (gross GHG emissions) and the change in emissions brought about by a project (net GHG emissions) are generally calculated and reported in aggregate, although in some cases where a project involves only a part of a larger complex facility the concept of gross emissions is not readily quantifiable or necessarily relevant. In the latter case only the net emissions of the proposed project are calculated.

GHG emissions are calculated for the whole project, not pro-rata for the Bank's financial involvement. EBRD investments invariably improve efficiency of production even where increased emissions arising from increased production offset the savings made, leading to an increase in overall emissions. To demonstrate efficiency benefits, GHG emissions **per unit of product output** may be calculated for the project and baseline cases, in addition to the gross and net GHG emissions.

The EBRD will report the aggregated GHG assessment results for each year in its *Sustainability Report*. This report will typically include details of the number of projects assessed with GHG data presented for greenfield and GET projects.

Annual reporting by projects
In line with the EBRD's Environmental and Social Policy, projects with annual emissions of 25 kt CO_2e per year are required to report such emissions annually to the Bank. The scope of this report will typically be limited to the boundaries of the EBRD-financed project and will align with the scope of the GHG assessment carried out during project appraisal. Annual reporting of GHG emissions should form part of the project's normal environmental and social reporting to the EBRD.

Alignment of the EBRD approaches to GHG accounting with the agreed IFI Framework for a Harmonised Approach to GHG Accounting

The IFI Framework for a Harmonised Approach to GHG Accounting (November 2012) has been approved by the following IFIs: Agence Française de Développement (AfD), the Asian Development Bank (ADB), the European Bank for Reconstruction and Development (EBRD), the European Investment Bank (EIB), the UK Green Investment Bank, the Inter-American Development Bank (IDB), the International Finance Corporation (IFC), KFW Development Bank, the Nordic Environment Finance Corporation (NEFCO), and the World Bank (WB). In December 2015, these IFIs agreed sector approaches for the renewable energy, energy efficiency and transport sectors.

A number of common principles have thereby been agreed but, for justifiable reasons, important differences in detail remain to be resolved. As a result a variety of alternative methodological options are included in the framework text.

[35] Emissions of non-CO_2 GHGs are expressed as CO_2 -equivalent based on their 100-year global warming potentials, as provided by the IPCC 2014 (op. cit).

[36] Using the definitions adopted by the GHG Protocol of the WBCSD/WRI, direct emissions are termed 'Scope 1' and emissions from grid electricity used are 'Scope 2'.

Grid emission factors for economies in the EBRD region

The values shown in Table 7 (see next page) are derived from the IFI (Interim) Dataset of Harmonised Grid Factors. Version 1.0 of that dataset, first released in July 2016, was based on the methodological approaches to GHG accounting - for emissions from grid-connected RE and EE projects - that were announced in December 2015 in Paris by the IFIs at the 21st Conference of the Parties to the UNFCCC. The efforts of the IFI Technical Working Group on GHG Accounting to refine approaches are ongoing. The Group will periodically publish an updated version of the harmonised dataset to reflect more recent data, methodological advances, evolving knowledge, good practice and the quality of data sources. The final dataset is due for release soon. Until then, IFIs will use and reference Version 1.0 of the dataset as the default basis of their GHG emission accounting from the start of their financial year after July 2016, unless otherwise referenced.

Table 7. Grid emission factors for economies in the EBRD region[37]

Economy	Operating margin (OM)	Build margin (BM)	Combined margin (CM) (0.5 OM + 0.5 BM)
	gCO_2/kWh	gCO_2/kWh	gCO_2/kWh
Albania	0	0	0[38]
Armenia	440	416	428
Azerbaijan	540	314	427
Belarus	436	336	386
Bosnia and Herzegovina	1,458	488	973
Bulgaria	979	378	678
Croatia	353	205	279
Cyprus	768	547	658
Egypt	496	339	417
Estonia	1,156	680	918
FYR Macedonia	1,049	576	813
Georgia	310	70	190
Greece	707	503	605
Hungary	337	225	281
Jordan	682	543	612
Kazakhstan	576	633	844[39]
Kosovo	1,103	752	928
Kyrgyz Republic	294	52	173
Latvia	248	135	191
Lebanon	833	558	695
Lithuania	381	212	297
Moldova	543	317	430
Mongolia	1,369	1,056	1,212
Montenegro	1,042	327	685
Morocco	593	551	572
Poland	891	667	779
Romania	604	297	451
Russia	542	294	418
Serbia	1,090	550	820
Slovak Republic	335	135	235
Slovenia	685	229	457
Tajikistan	27	4	15
Tunisia	505	325	415
Turkey	387	375	381
Turkmenistan	979	335	657
Ukraine	862	337	600
Uzbekistan	569	496	533

[37] No figures are currently available for the West Bank and Gaza.

[38] Note that project teams may propose other values for the build margin emission factor based on the country or regional context. For example, if the no-project scenario is a fossil-fuel-based power plant (natural-gas-based CCGT power plant with 60 per cent efficiency), the conservative emission factor of 0.335 tCO_2/MWh can be used.

[39] CM based on a study carried out by Lahmayer International as the value proposed in the IFI (Interim) Dataset of Harmonised Grid Factors is still subject to approval.

Annex 7

GET information table

Op. ID	*Op. ID*	**Date**	
Op. name	*Op. name*	**Prepared by**	
GET code	*Choose GET code*	**Status**	*Choose status*

DTM data

Fac. ID	EBRD ABI	Currency	Signing date

GET finance

Fac. ID	GET finance	Mitigation	Percentage	Adaptation	Percentage	Environment	Percentage	Override
0	0	0		0		0		
0	0	0		0		0		
0	0	0		0		0		
0	0	0		0		0		

(Adaptation finance should be in line with adaptation screening notes.)

GET impact

Fac. ID	Expected annual reductions						Annual renewable energy (RE) generated		RE capacity installed	Other environmental benefits**
	Scope 1 CO_2e (tonnes)	Scope 2 CO_2e (tonnes)	Scope 3* CO_2e (tonnes)	Energy (GJ)	Water (m^3)	Materials (tonnes)	Electricity (MWh)	Heat (GJ)	(MW)	Choose benefit category Choose unit
0										
0										
0										
0										

* The Deal Tracking Module (DTM) only reports Scope 1 and Scope 2 emissions. If there is significant reduction in Scope 3 emissions, this could be mentioned in the Final Review Memorandum or Board document but is not to be reported in the DTM.
** Choose one of the environmental impacts.

GET typology

Climate change mitigation	
Choose mitigation sectors	*Mitigation sub-sector – short description*
Climate change adaptation	
Choose adaptation sectors	*Choose adaptation sub-sectors*
Other environmental benefits	
Choose environmental benefit	*Environmental benefit sub-category*

(GET classification in line with GET Handbook.)

GET allocation (percentage)

Fac. ID	Energy efficiency	Renewable energy	Water
0			
0			
0			
0			

(State the percentage of the project allocated to GET.)

Identification of building projects (yes/no)

Fac. ID	Energy efficiency in buildings
0	
0	
0	
0	

(Indicate if a project has a building component.)

Justification and background

Provide background for the GET finance amounts and GET impact calculation

Screening note for climate change adaptation finance

Op. ID	*Op. ID*	**Sector**	*Choose sector*
Op. name	*OP. name*	**Climate co-finance**	*Choose adaptation sub-sectors*
Country	*Choose GET code*	**Prepared by**	

Step 1. Context of climate change vulnerability in the project region:

Consider the impacts of climate change as well as the risks related to climate variability. Provide the source of information (the country's NDCs, development plans, and so on):

Step 2. Statement of intent to address climate resilience:

1. Which category of risks does the project intend to address?
i) increasing frequency and severity of extreme weather events
ii) increasing water stress
iii) increasing heat stress
iv) increasing hydrological variability
v) increasing soil degradation

2. Please explain why this/these risk/s need to be addressed.

Step 3. Link between the climate-vulnerability context and the project activities:

1. Define the baseline.

Step 4. Justification of adaptation finance:

STEP 4: Justification of adaptation finance:			
	Climate risk 1	Climate risk 2	Climate risk 3
Climate risks	*Choose climate risks*	*Choose climate risks*	*Choose climate risks*
Intended outcomes	*Choose intended outcome/s*	*Choose intended outcome/s*	*Choose intended outcome/s*
	Choose intended outcome/s	*Choose intended outcome/s*	*Choose intended outcome/s*
	Choose intended outcome/s	*Choose intended outcome/s*	*Choose intended outcome/s*
	Choose intended outcome/s	*Choose intended outcome/s*	*Choose intended outcome/s*
	Choose intended outcome/s	*Choose intended outcome/s*	*Choose intended outcome/s*
	Choose intended outcome/s	*Choose intended outcome/s*	*Choose intended outcome/s*
Other	*Explain if GET adaptation finance is calculated based on the additional CAPEX allocated for specific project component.*		
Total climate resilience benefit (€)			
Overall adaptation proportion (per cent)			
Total project value (€)			
Climate resilience benefits ratio (per cent)			
Comment			

Step 4. Justification of adaptation finance (continued):

Justification of climate resilience benefits:			
Climate risk 1			
Intented physical outcome	Δ physical outcome	Absolute physical outcome	Annual valorised physical outcome (€)
Choose physical outcome/s			
Choose physical outcome/s			
Choose physical outcome/s			
Choose physical outcome/s			
Choose physical outcome/s			
Choose physical outcome/s			
Climate risk 2			
Intented physical outcome	Δ physical outcome	Absolute physical outcome	Annual valorised physical outcome (€)
Choose physical outcome/s			
Choose physical outcome/s			
Choose physical outcome/s			
Choose physical outcome/s			
Choose physical outcome/s			
Choose physical outcome/s			
Climate risk 3			
Intented physical outcome	Δ physical outcome	Absolute physical outcome	Annual valorised physical outcome (€)
Choose physical outcome/s			
Choose physical outcome/s			
Choose physical outcome/s			
Choose physical outcome/s			
Choose physical outcome/s			
Choose physical outcome/s			

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