Global Europe Results Framework Indicator Methodology Note

1. Indicator name
GERF 2.3: Number of people with access to electricity with EU support through: (a) new access, (b) improved access
2. Technical details

Please use the information provided in OPSYS or the SWD.

Results Dashboard code(s): *(a) 65197; (b) 65198*.

Unit of measure: *Number of (#)*

Type of indicator: *Quantitative (not qualitative) – Numeric (not percentage); Estimated ex-post (not actual, but not ex-ante either); Cumulative (not annual); Flow (not stock).*

Level of measurement: *Specific Objective – Outcome; Direct Output; Output.*

Disaggregations: Sex (*Female; Male; Intersex*); Gender (*Woman/girl; Man/boy; Non-binary; Prefer not to say*); Rural/urban (*Rural; Urban; Other - peri-urban, isolated*).

DAC sector codes: *23110 – Energy policy and administrative management; 23181 – Energy education/training; 23182 – Energy research*.

Main associated SDG: *7.1 By 2030, ensure universal access to affordable, reliable and modern energy services*.

Other associated SDGs: *1.2 poverty in all its dimensions; 2.3 agricultural productivity; 3.8 universal health coverage; 8.3 entrepreneurship, MSMEs and decent job creation; 9.1 sustainable and resilient infrastructure; 9.4 upgrade infrastructure and clean technology*.

Associated GERF Level 1 indicator: *1.2 Proportion of population with access to electricity (SDG 7.1.1)*.

Associated GERF Level 3 indicators:

3.1 Amount and share of EU-funded external assistance contributing to: (a) climate change (adaptation and mitigation), (b) protecting biodiversity, (c) combating desertification, (d) protecting the environment (Aid to Env)

3.5 Leverage of EU blending and guarantee operations financed by EU external assistance, measured as: (a) Investment leverage ratio, (b) Total eligible financial institution financing leverage ratio, (c) Private financing leverage ratio

3.13 Number and share of EU- external interventions promoting gender equality and women's empowerment

3.14 Number and share of EU-funded external interventions promoting disability inclusion

3.15 Amount and share of EU-funded external assistance directed towards reducing inequalities

3.16 Amount and share of EU-funded external assistance qualifying as ODA

3. Policy context and Rationale

The European Union (EU) is committed to promoting sustainable development and addressing energy poverty as key components of its policy framework, in alignment with the Paris Agreement, the European Green Deal, the 2030 Agenda for Sustainable Development, and the New European Consensus on Development. The 2015 Paris Agreement seeks to limit global warming to well below 2°C above pre-industrial levels while striving to limit the temperature increase to 1.5°C. The European Green Deal, launched in 2019, outlines the EU's strategy for creating a sustainable economy by turning environmental and climate challenges into opportunities, ensuring a just and inclusive transition for all.

The 2030 Agenda for Sustainable Development and its Sustainable Development Goals (SDGs) includes a commitment to ensure access to reliable, affordable, sustainable and modern energy for all (SDG 7), and access to electricity is one of the indicators for energy target 7.1.

The New European Consensus on Development (SWD (2016)387) (Article 39)) has recognised energy as a key driver for sustainable development. Access to electricity was further emphasised as one of the BETS of the Staff Working Document on the "Empowering Development: Implementation of the new European Consensus on Development in energy cooperation "

4. Logframe inclusion

If an intervention generates the result measured by this indicator, then it must be reported in OPSYS. Corporate targets have been set for the indicators used to monitor the Strategic Plan and the Multiannual Financial Framework (see Section 9). Progress towards these targets is reported annually in the Annual Activity Plan (for the Strategic Plan) and the Programme Performance Statements (for the Multiannual Financial Framework). These values are calculated by aggregating the results reported in OPSYS. These reports ultimately contribute to the Annual Management Performance Report submitted by the European Commission to the Council and Parliament during the annual budgetary discharge procedure. If targets are not met, explanations must be provided. Therefore, it is crucial that all results are recorded in OPSYS.

There are two ways of doing this:

1. Include the indicator directly in the logframe (recommended approach);
2. Match the indicator to the closest logframe indicator (only if the indicator was not originally included in the logframe and modification is not possible).

Why? The matching functionality in OPSYS only accommodates reporting current values and does not yet support encoding baselines and targets. This is a significant drawback because targets are a valuable piece of information, especially at the beginning of a Multiannual Financial Framework. Indeed, results take time to materialise as they are the last step in the chain, appearing only after programming, commitments, contracting, and spending have occurred. Targets allow to see what results are expected long before they materialise, which is reassuring to the different stakeholders concerned with accountability. **Therefore, include all corporate indicators directly in the logframe whenever possible, and reserve the matching**

functionality only for cases when this is not feasible.

5. Values to report

The following values must be determined in line with the definitions provided in Section 6.

Baseline value: the value measured for the indicator in the baseline year. The baseline value is the value against which progress will be assessed. For GERF indicators, this value is usually zero**.** This is because the results being measured must be directly attributable to EU support; prior to the start of implementation, the specific intervention has not yet occurred and therefore cannot have generated a result. A non-zero baseline may only occur if the intervention is following up on work achieved by another intervention financed by the same instrument.

Current value:

- **For logframe indicators**: the most recent value for the indicator at the time of reporting. The current value includes the baseline value which is reported separately for logframe indicators in OPSYS.
- **For matched indicators**: the most recent value for the results achieved at the time of reporting since the start of implementation of the intervention. This value is obtained by taking the most recent value for the indicator at the time of reporting and subtracting off the baseline value which is not reported separately for matched indicators in OPSYS.

Current values will be collected at least once a year and reported cumulatively throughout the implementation period.

Final target value: the expected value for the indicator in the target year.

Intermediate target values (milestones). A tool has been developed in OPSYS to generate intermediate targets automatically[1].

- **For outputs**: the intermediate targets are generated using a linear interpolation between the baseline and target values because it is assumed that outputs materialise sooner and more progressively over implementation (than outcomes).

[1] This has been done in the context of the Primary Intervention Questionnaire (PIQ) for the EAMR. Three new KPIs provide an overall assessment of ongoing interventions (current performance and future performance) and completed interventions (final performance). Scores will be calculated for all INTPA and NEAR interventions participating in the annual results data collection exercise.

- *KPI 10* reflects the relevance, efficiency and effectiveness of ongoing interventions. The information on relevance is provided by the Operational Manager's response to a question in a survey. The information on efficiency and effectiveness is provided either by the logframe data, if sufficient data is available, or the response to a question in a survey, if not.
- *KPI 11* reflects expectations regarding the most probable levels of relevance, efficiency, effectiveness and sustainability that can be achieved by ongoing interventions in the future. In this case, all the information is provided by the Operational Manager's responses to questions in a survey.
- *KPI 12* reflects the relevance, efficiency and effectiveness of completed interventions. The information on relevance is provided by the Operational Manager's response to a question in a survey. The information on efficiency and effectiveness is provided by the logframe data if sufficient data is available, or the response to a question in a survey, if not.

- **For outcomes**: the expected progression over the course of implementation will vary across interventions. During the creation of a logframe, the expected outcome profile must be selected (OPSYS offers four options[2]) and this selection triggers the generation of intermediate targets for all 30 June and 31 December dates between the baseline and target dates for all output and outcome quantitative indicators. All automatically generated intermediate targets values and dates can be subsequently modified by the Operational Manager or the Implementing Partner with the approval of the Operational Manager.

6. Calculation of values

Specify all assumptions made, list definitions for all technical terms, provide any relevant guidance on (double) counting, and include checklist for quality control.

The value for this indicator is calculated by counting the number of people with access to electricity with EU support through: (a) new access, (b) improved access, using the technical definitions and counting guidance provided below. Please double check your calculations using the quality control checklist below.

Technical Definitions

New access to electricity includes:

Grid Connections: Extending the electrical grid to unconnected areas and providing households with their first connection to the electricity network.

Off-Grid Solutions[3]:

- *Mini and micro grids* are defined as a set of electricity generators and possibly energy storage systems interconnected to a distribution network that supplies electricity to a localized group of customers. They involve small-scale electricity generation (1 kW to 10MW) which serves a limited number of consumers via a distribution grid that operates in isolation from national electricity transmission networks.
- *Stand-alone electricity systems* include solar home systems, small hydropower plants, wind turbines, and generators operating with biofuel, biogas or solid biomass. The system should provide enough electricity to cover lighting, phone charging, TV and fans requirements if needed. For solar photovoltaic systems, we consider that the system has to be at least in tier 2 based on the World Bank's multi-tier matrix for measuring energy access[4] (minimum 50Wp and 0,2kWh produced per day).

New access to electricity includes support in four key areas:

- *Energy Generation*: Projects that create new sources of electricity, including renewable energy plants (solar, wind, hydro, biomass) and other generation facilities.

[2] a. *steady progress*: The outcomes are achieved continuously throughout implementation; b. *accelerating progress*: The outcomes are achieved towards the end of implementation; c. *no progress until end*: The outcomes are mostly achieved at the end of implementation; d. *none of the above*.

[3] For more details on these definitions see: https://www.ren21.net/2014-mini-grid-policy-toolkit/

[4] Beyond_Connections_Energy_Access_Redefined_Exec_ESMAP_2015.pdf (worldbank.org)

- *Transmission*: Projects that build or upgrade high-voltage power lines to transport electricity from generation sites to distribution networks.
- *Distribution*: Projects that develop or enhance medium- and low-voltage networks to deliver electricity to communities and households.
- *Last Mile*: Projects that focus on the final stage of delivering electricity to end-users, including household connections, installation of meters, and off-grid solutions such as solar home systems and mini-grids

Improved access to electricity includes:

Enhanced Reliability

- Metrics:
  - Reduction in the number of power outages (frequency and duration).
  - Increased hours of available electricity per day.
- Examples:
  - A project that upgrades the electricity grid to reduce downtime.
  - Installation of backup power systems that ensure continuous power supply.

Improved Quality

- Metrics:
  - Increase in voltage stability and reduction in fluctuations.
  - Improved power quality indices such as fewer instances of voltage sags or surges.
  - User satisfaction surveys indicating perceived improvements in electricity services.
- Examples:
  - Upgrading transformers and substations to ensure consistent voltage levels.
  - Implementing advanced metering infrastructure that detects and corrects power quality issues.

Increased Capacity

- Metrics:
  - Enhanced capacity of the electricity system (measured in MW or kWh).
  - Infrastructure upgrades allowing for higher energy consumption.
  - Expansion of grid connectivity or capacity of off-grid solutions.
- Examples:
  - Increasing the capacity of existing power plants.

<u>Counting Guidance</u>

1. Beware that blending operations and guarantees often finance actions that result in access to electricity INDIRECTLY, in two different ways. 1. Instead of financing a specific intervention that will directly result in access to electricity, the EU provides technical assistance which includes feasibility studies of interventions, some of which are expected to result in access to electricity. 2. Instead of financing a specific intervention that will directly result in access to electricity, these leverage-based mechanisms involve setting up a fund which will provide financing to a portfolio of

interventions which are not yet known, some of which are expected to result in access to electricity. In both cases, the monitoring will involve reporting upon the expected results to be generated by the interventions. Unfortunately, these EXPECTED results are often reported using the same indicators as the ACTUAL results. This is incorrect and must be avoided. Reporting results for this indicator must take place only after the intervention is under implementation and the results have already materialised.

2. The people should be reported once their access to electricity has materialised, most probably at the end of implementation
3. The unit of measure is number of people. If the data collected counts connections or households, then it must be converted to people.
   - The number of connections should be multiplied by the average number of households per connection and by the average number of people per household. If the average number of households per connection is not available, use 1 household per connection.
   - The number of households should be multiplied by the average number of people per household. The average number of people per household should be retrieved from intervention surveys, surveys realised in the same area of the intervention, department/regional statistics, and ultimately national statistics (in order of decreasing preference). If these sources are not available, use the data on the following website: https://population.un.org/Household/index.html#/countries/840.
4. This indicator only includes household access to electricity; individuals gaining electricity access from firms and government institution buildings are excluded.
5. The Gender Action Plan III (GAP III) requires the reporting of gender-disaggregated values if possible and sex-disaggregated values if not. Use intervention data to provide these disaggregations.
6. Double counting is not allowed: a person can be counted only once in the same reporting period. There are four areas of potential support when connecting people to electricity (energy generation, transmission, distribution and last mile), so we need to make sure that each person connected is only counted once during the same reporting period. To avoid the double counting of people over time, two approaches are possible. If it is possible to reliably estimate the number of people supported in the first year, and the number of new people supported in the following years (i.e. not yet supported during the reporting period in question), these numbers can be added up without the risk of double counting. However, if this information is not available, the maximum result of the reporting period should be used instead. Record the calculations in the calculation method field to facilitate quality control of the values reported. Report the geographic location of the people in the comment field to facilitate quality control of double counting.
7. However, there are exceptions to the double counting rule: people counted under GERF 2.3 can also be counted under the following GERF indicators if the relevant conditions are met

- GERF 2.20 *Number of migrants, refugees, and internally displaced people or individuals from host communities protected or assisted with EU support*;
- GERF 2.39 *Number of people directly benefiting from EU supported interventions that*

aim to reduce social and economic inequality.

Quality Control Checklist

1. Has the indicator been included directly in the logframe? Reserve the OPSYS matching functionality only for cases when this is not feasible.
2. If the indicator has been included directly in the logframe, does the current value *include* the baseline value? If the indicator has been matched to a logframe indicator, does the current value *exclude* the baseline value?
3. Has implementation begun? If not, report the GERF value as zero. Note that a feasibility study or the inclusion of an intervention in a portfolio to be financed do not count as implementation.
4. Have electricity connections for firms and public institutions been excluded? This indicator only considers access for households.
5. Does the GERF value count individuals? If only the number of connections is available, then convert to the number of individuals using average number of households per connection and average household size. If only the number of households is available, then convert to the number of individuals using average household size.
6. (a) only: Is the electricity connection sufficiently powerful to meet basic household needs? On-grid connections, mini/micro grids and some stand-alone electricity systems qualify.
7. (b) only: Is there information available on the reliability, quality and/or capacity of the household electricity supply before and after the intervention? If not, then it is not possible to report on this indicator.
8. Have gender (or sex) disaggregated values been reported? Gender (or sex) disaggregation is mandatory.
9. Has double counting been avoided? People can only be counted once.
10. Have all calculations been recorded in the calculation method field? Has all relevant information, including the geographic location of results, been reported in the comment field?
11. Does the intervention focus on migration? If so, this result should also be reported under GERF 2.20 *Number of migrants, refugees, and internally displaced people or individuals from host communities protected or assisted with EU support*, if all conditions are verified. Double counting with GERF 2.20 is allowed.
12. Does the intervention focus on inequalities? If so, this result should also be reported under GERF 2.39 *Number of people directly benefiting from EU supported interventions that aim to reduce social and economic inequality*, if all conditions are verified. Double counting with GERF 2.39 is allowed.
13. Has any other double counting been avoided? Smallholders who benefit from more than one type of support during the reporting period should only be counted once, except for the cases mentioned above

7. Examples of calculations

In Tanzania, an EU intervention in the energy sector has connected 50 new households and 27 firms to the Njombe District hydro power grid.

The total number of people with new access to electricity is reported as 50 * 6 (average household size in area) = 300 people.

8. Data sources and issues

Please use the data source categories specified in OPSYS.

EU intervention monitoring and reporting systems: *Progress and final reports for the EU-funded intervention; ROM reviews; EU-funded feasibility or appraisal reports*.

International organisation data portals and reports: *UN Database of Household Size and Composition, https://population.un.org/Household/index.html.*

Include any issues relating to the availability and quality of the data.

There may be data quality issues in cases where there is no intervention survey undertaken to estimate the number of people per household, and where the official census may be outdated or flawed in the intervention area.

9. Reporting process & Corporate reporting

The data collected on this indicator will be reported in OPSYS by the Implementing Partner. The values encoded in OPSYS will be verified, possibly modified and ultimately validated by the Operational Manager. Once a year the results reported will be frozen for corporate reporting. The methodological services in HQ that are responsible for GERF corporate reporting will perform quality control on the frozen data and aggregate as needed to meet the different corporate reporting requirements.

Please replace ○ *with* ● *for the relevant items below*.

This indicator is used for corporate reporting in the following contexts:

- ○ *NDICI via the Annual Report*
- ○ *NDICI via the 2021-27 Programme Performance Statements*
- ● *INTPA Strategic Plan 2020-24 via the Annual Activity Report*
- ● *INTPA Strategic Plan 2025-29 via the Annual Activity Report*
- ○ *NEAR Strategic Plan 2020-24 via the Annual Activity Report*
- ○ *ENEST Strategic Plan 2025-29 via the Annual Activity Report*
- ○ *MENA Strategic Plan 2025-29 via the Annual Activity Report*
- ○ *FPI Strategic Plan 2020-24 via the Annual Activity Report*
- ○ *FPI Strategic Plan 2025-29 via the Annual Activity Report*

This indicator has been included in the following other Results Measurement Frameworks:

- ● *EFSD+*
- ○ *GAP III*
- ● *IPA III*
- ○ *TEI-MORE*

10. Baseline alignment and Annualisation

Corporate reports most often cover different timeframes. Only rarely does the 7-year Multiannual Financial Framework (MFF) start in the same year as the 5-year Strategic Plans. Because the MFF drives the funding for these interventions, it serves as the primary baseline for data collection. To report against other cycles with different start dates, results must first be annualised and then re-cumulated starting from the required baseline year.

The annualisation method depends on the type of indicator, which can be found in Section 2:

- **Flow Indicators** (discrete achievements): These measure "one-off" events or new beneficiaries reached within a specific timeframe (e.g., Number of people trained). To find the annual result, we calculate the variation (the difference between the cumulative total at the end of the year and the beginning of the year).

  Example: If a project reached 500 total people by 2024 and 800 by 2025, the 2025 annual result is 300 (the new results generated that year).

- **Stock Indicators** (continuous support): These measure an ongoing state or sustained support (e.g., Number of countries supported). To find the annual result, we take the total cumulative value at the end of the year, as this represents the full extent of the EU's active footprint.

  Example: If the EU supports 10 countries in 2024 and continues supporting those same 10 in 2025, the 2025 annual result remains 10 (the total "stock" of support active that year).

  In this case, the result is often achieved at the onset of the intervention and remains ongoing throughout implementation. When re-baselining for a new corporate cycle, these results are maintained rather than recalculated as variations. The annual value is the total number of entities under active support at the end of the reporting year, regardless of whether that support commenced before or after the new baseline year.

11. Other uses

GERF 2.3 can be found in the following thematic results chains:

- Sustainable cities

GERF 2.3 can be found in the following groups of EU predefined indicators available in OPSYS, along with other related indicators:

- Energy

For more information, see: Core indicators for design and monitoring of EU-funded interventions | Capacity4dev (europa.eu)

External bodies using the same or similar indicator:

- World Bank Group: "People provided with new or improved electricity services"
- African Development Bank: "People with new electricity connections (thousands)"; "People connected through off-grid systems (thousands)"
- Asian Development Bank: "New households connected to electricity (number)"
- Dutch cooperation (DGIS): "Number of people with access to renewable energy

(improved cooking stoves, access to connection)"
12. Other issues
This indicator does not take into account the cost or sustainability of the access, which should be carefully considered and monitored at the intervention level.