

EU Results Framework Indicator Methodology Note

| 1. Indicator name | | | | | | | | | | | | | | | | | |
|--|---|------------|--------------|--------------|--------------|--------|----------|-------|----------|-----------|-----------|------------|--------------------|------------|--------------|--------------|--------------|
| Number of individuals provided with access to electricity with EU support through: a) new access, b) improved access | | | | | | | | | | | | | | | | | |
| 2. Associated EU Results Framework statement and primary SDG | | | | | | | | | | | | | | | | | |
| SDG 7 – Affordable and clean energy EU RF statement - Improved access to energy for all, and increased energy efficiency and renewable energy generation | | | | | | | | | | | | | | | | | |
| 3. Technical Definition | | | | | | | | | | | | | | | | | |
| <p>The number of individuals with a) new access and b) improved access to on-grid, mini/micro grids or stand-alone electricity systems.</p> <p><u>Mini and micro grids</u> 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.</p> <p><u>On-grid</u> concerns grids which are larger than mini or micro grids as defined above.</p> <p>Electricity generated by renewable, <u>stand-alone electricity systems</u>, such as solar home systems (at least tier 2 based on the multi-tier matrix for measuring energy access¹, also see below), small hydropower plant, wind turbine, generator operating with biofuel, biogas or solid biomass. For solar photovoltaic systems, we consider that the system has to be at least in tier 2 (minimum 50Wp and 0,2kWh produced per day). The system should provide enough electricity to cover lighting, phone charging, TV and fans requirements if needed. Please see more details of the definitions at: http://www.minigridpolicytoolkit.euei-pdf.org/policy-toolkit</p> <p><u>Improved access</u> - a household connection will be considered as improved when its classification in the multi-tier matrix¹ developed by the World Bank (ESMAP) for measuring access to household electricity supply has been moved into a higher category with EU support. Please see Table E S . 1-3 of the Beyond Connections Energy Access Redefined – conceptualization report for more details. A summary given below based on electricity supply capacity.</p> | | | | | | | | | | | | | | | | | |
| | <table border="1"> <thead> <tr> <th></th> <th>Tier 2</th> <th>Tier 3</th> <th>Tier 4</th> <th>Tier 5</th> </tr> </thead> <tbody> <tr> <td rowspan="2">Capacity</td> <td>Power</td> <td>Min 50 W</td> <td>Min 200 W</td> <td>Min 800 W</td> <td>Min 2,000W</td> </tr> <tr> <td>AND Daily capacity</td> <td>Min 200 Wh</td> <td>Min 1,000 Wh</td> <td>Min 1,000 Wh</td> <td>Min 8,200 Wh</td> </tr> </tbody> </table> | | Tier 2 | Tier 3 | Tier 4 | Tier 5 | Capacity | Power | Min 50 W | Min 200 W | Min 800 W | Min 2,000W | AND Daily capacity | Min 200 Wh | Min 1,000 Wh | Min 1,000 Wh | Min 8,200 Wh |
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¹ Beyond Connections Energy Access Redefined – conceptualization report, ESMAP June 2015

Number of individuals with a) new access and b) improved access to electricity should be reported separately.

This indicator includes only household access to electricity; individuals gaining electricity access from firms and government institution buildings are excluded.

4. Rationale (including policy priorities and links to this indicator)

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"²

5. Level of disaggregation and other reporting requirements

The indicator must be disaggregated according to the categories below:

- Number of individuals provided with access to electricity with EU support through new access;
- Number of individuals provided with access to electricity with EU support through improved access

Where possible, disaggregate by rural/urban, by sex and source of access (e.g. on/off grid, mini/micro grid).

6. Data Sources (including any issues on (i) different definitions by source, and (ii) level of availability of the data)

EU interventions monitoring and reporting systems: annual and final reports from implementing organisations (e.g. governments, international organisations, non-state actors, etc), ROM reviews, evaluations.

Data on household size should come from either intervention surveys, or from the most recent national census or a recent nationally representative household survey. Where this is not possible, information on selected countries can be found United Nations Database of Household Size and Composition 2017 - <https://population.un.org/Household/index.html>

7. Data calculation (including any assumptions made)

Number of individuals calculation is based on:

- Number of households with a new (or improved) connection to electricity
- Average number of people per household within the intervention implementation area

² https://ec.europa.eu/europeaid/empowering-development-implementation-new-european-consensus-development-energy-cooperation_en

- Average number of households per connection

The number of connections should be multiplied by the average number of households per connection and by the number of people per household (based on information on the number of people per household should be sought from the data sources mentioned in section 6)

If any information is not available the following assumptions could be applied as a last resort:

- 1 household per connection
- Average of 5 persons per household.

Please use intervention data to disaggregate by sex as much as possible. Where this information is not available, please apply the relevant regional (or at last resort national) sex ratios to the overall number of people.

8. Worked examples

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 firms are reported separately and for this indicator, the total number of beneficiaries is reported as $50 * 6$ (average household size in area) = 300 individuals.

9. Is it used by another organisation or in the framework of international initiatives, conventions, etc? If so, which?

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)"

10. Other issues

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.

This indicator does not take into account of the cost or sustainability of the access, which should be considered more carefully and monitored at the intervention level.