FPI Results Framework - Indicator Methodology Note

1. Indicator Name and Code

Number of km powerlines rehabilitated

OPSYS Code: 65748

2. Technical Details

Unit of measure: Kilometres of rehabilitated powerlines.

Type of indicator: Quantitative; Actual (ex-post); Cumulative (not annual).

Level of measurement: This is an **Output** indicator. It is typically associated with results such as “Improved basic infrastructure in conflict-affected or disaster-affected areas” or “Increased access to essential energy services”.

Disaggregation: None.

3. Description

This indicator captures the physical restoration of energy infrastructure in areas affected by conflict, natural disasters or chronic fragility, focusing on the reactivation of electricity transmission or distribution. It reflects EU/FPI efforts to support stabilisation, recovery, or preparedness through infrastructure works that restore connectivity and ensure access to basic services for populations and institutions. Rehabilitated segments may include medium- or low-voltage lines, support structures, and associated cabling brought back into serviceable condition.

4. Calculation of Values and Example

The value of this indicator is calculated by measuring the total length, in kilometres, of powerlines restored to functional condition with support from the EU/FPI-funded intervention during the reporting period.

Technical definition:

Powerline: A physical infrastructure system used for the transmission or distribution of electrical energy over distance. It typically consists of conductors (wires or cables), support structures (poles or towers), insulators, connectors and related components that carry electricity from generation sources to substations or end users. Powerlines can be high-voltage (transmission) or low-/medium-voltage (distribution), and may be overhead or underground, depending on context and design specifications.

Counting Guidance:

- **Basic counting rules:** Count only powerlines whose rehabilitation was completed during the reporting cycle. The reported value must correspond to the actual physical length (in km) of segments restored to operational status.
- **Scope of rehabilitation:** May include repair or replacement of poles, towers, insulators, wires/cables, connectors, and related components needed to ensure safe and effective energy transmission or distribution. Partial works may be counted only if they result in full operational restoration of that segment.
- **Measurement standards:** Length must be verified using engineering reports, project documentation or geospatial measurement tools. Rounding should follow standard engineering practice (e.g. one decimal point where applicable).
- **Attribution:** Count only segments rehabilitated through activities funded by the concerned EU/FPI intervention. If works are co-financed with other partners, only the portion attributable to EU/FPI support should be reported.
- **Avoid double counting:** Do not report the same segment in multiple years unless additional rehabilitation has occurred. Extension or new construction must be reported under separate indicators, where applicable.

Quality Control Checklist:

1. Has the reported length (in km) been physically completed and verified during the reporting period?
2. Is there documentation confirming the functionality of the rehabilitated segment (e.g. engineering reports, completion certificates)?
3. Is the reported segment attributable to the EU/FPI-funded intervention?
4. Have partially rehabilitated lines been included only if fully restored to operational status?
5. Has double counting been avoided across years or components?
6. Was the measurement based on reliable technical standards or engineering documentation?

Example:

In reporting year Y, an EU/FPI-funded early recovery intervention in Country X completed the rehabilitation of three priority electricity corridors damaged during the conflict: a 5.2 km rural distribution line connecting health facilities and schools; a 3.8 km urban transmission segment linking two substations; and a 1.5 km low-voltage feeder line restored in a peri-urban settlement. All segments were restored to functional status, with works verified by engineering completion certificates and included in the intervention's technical progress report. The total value to be reported is 10.5 km.

5. Data Sources

Reported values should derive primarily from the internal monitoring systems of EU-funded interventions. Data must be collected and reported by the implementing partner and verified by the Operational Manager (OM). Examples of data sources: Engineering completion reports and technical assessments; Infrastructure monitoring tools or construction supervision logs; Verified construction progress reports submitted by implementing partners; Satellite imagery or geospatial tools confirming the length and location of rehabilitated segments; Field visit reports or photographic documentation confirming operational status; Delivery certificates or final handover documents signed by relevant authorities.

6. Other Uses / Potential Issues

This indicator can support operational assessments of infrastructure recovery, early stabilisation, and preparedness. It also contributes to monitoring the physical footprint of EU-funded interventions and their role in restoring essential services in crisis-affected contexts.

Potential issues: Over-reporting may occur if partial rehabilitation works are included without full restoration of functionality. Double counting is a risk when segments are referenced across multiple components or years—consolidation mechanisms are essential. Attribution errors may arise when interventions are co-funded or implemented in coordination with national infrastructure programmes—reporting must distinguish EU-funded works clearly. Documentation gaps (e.g. lack of engineering verification) can reduce data reliability; mitigation includes requiring clear measurement evidence and traceable reporting systems.