

## **Checklist 5 – Description of a proposed transmission infrastructure project**

### **CLARIFICATION OF THE NEED FOR AND FEASIBILITY OF THE PROPOSED PROJECT**

- justification of the need for the proposed transmission infrastructure project
- compliance with existing legal frameworks and/or with other local, national, regional or international policies and strategies related to electrical energy, renewable energy and transmission infrastructure
- justification of the route selection for the proposed transmission infrastructure project

### **DESCRIPTION OF THE PROPOSED TRANSMISSION INFRASTRUCTURE PROJECT**

- Technical information concerning the proposed transmission infrastructure project:
  - technical drawings and reports of the proposed transmission infrastructure project
    - proposed energy transmission capacity
    - typology and layout of installations
    - type and design of high-voltage transmission lines
    - above-ground or below-ground or marine
    - location, size, design and number of substations
    - location, size, design and number of transformers
    - cooling systems required
    - access infrastructures
  - technical characteristics of the proposed transmission infrastructure
    - drawings: plan, elevation and section
    - visualizations from relevant perspectives
    - layout of the installation
    - colour and finishing
    - height of the installations
    - details of foundations
    - above-ground height of the installations
    - material and design of the supporting infrastructure
    - amount of land to be cleared or graded
    - expected lifetime
  - technical information on the installation
  - overview of security plans and systems in place (lights, fences, override systems, fire warning systems)
  - description of the proposed life cycle
    - proposed lifetime of the transmission infrastructure project
    - Life Cycle Assessment, if available
    - description of the construction phase, including, for example:
      - CO<sub>2</sub> emissions
      - information on infrastructural plans
      - energy and water resources needed
      - quantification of waste and sewage water produced
      - information concerning construction sites and logistics
    - description of the operation phase, including, for example:
      - lights and security visual signals
      - maintenance plan

- risk management plan
  - traffic previsions
- outline of the end-of-life options planned
  - capacity upgrade: possible future capacity-upgrade scenarios (considering the possibility of technological advancements that might modify these scenarios)
  - in case of decommissioning: preview of models for a sustainable decommissioning scenario, dismantling of the transmission infrastructure and requalification plan
- geographical information (including GIS coordinates) for the location of all the infrastructural components of the transmission infrastructure
  - transmission infrastructure elements
  - access roads
  - construction sites
  - the project's area of influence, for example, with regard to visibility
- cost plan with a detailed estimate of costs
- measures for environmental improvements
- visibility studies and visual modelling from different selected viewpoints, considering night- and daytime

#### **ALTERNATIVES CONSIDERED**

- outlining of all alternatives proposed
    - alternative location
    - alternative type and layout of transmission infrastructure
    - no-go option
  - assessment of the alternative proposed and comparison with other alternatives considered
- explanation and justification of the preferred alternative