Environmental Assessments

Definition

Environmental assessments are formal systematic tools that measure the level of both positive and negative impacts that a project, program, policy or plan may have on the environment. As a precautionary tool, these assessments are conducted before the implementation of any given project in order to (ideally) avoid impact altogether or mitigate and adjust impacts to acceptable levels. These assessments can be conducted at a wider strategic level or a more focused project level, and generally fall into two categories; Strategic Environmental Assessments (SEAs) and Environmental Impact Assessments (EIAs).

The SEA Procedure and Directive:

A Strategic Environmental Assessment (SEA) is a systematic environment protection tool that allows for a high quality environmental report as well as obligatory consultations at the **planning stage** of a plan or programme. The European Commissions (EC) SEA Directive (2001/42/EC) sets out what plans must undergo an SEA before adoption and stipulates what individual procedural steps need to be taken. All EU Members States were required to transpose the SEA Directive into their national laws, a process that was completed by the last MS in 2009, after which the European Commission undertook a study to test the conformity of the transposition in each Member State.

SEAs emerged from the need to consider potential environmental impacts at the early stage and strategic level. In the context of grid development, an SEA can be conducted on a national grid development plan or during the spatial planning phase of a specific project. TSOs have also run SEAs on their investment and strategic plans. Certified external consultants most commonly conduct SEAs and often complement TSOs' in house guidelines.

The EIA Procedure and Directive

An Environmental Impact Assessment (EIA) is a formal systematic tool that measures the level of both positive and negative impact that a specific project will have on the environment. These projects are usually at a more advanced level of planning than for an SEA, allowing EIAs to use a project's proposed design to study the specific impacts. An EIA is usually run by an external consultant who sub-contracts specialists to conduct studies on the identified "sensitivities" of the area (e.g. bats, birds, marine life etc.). A final assessment document is then compiled and sent for the competent authority for review, and the authority can choose to accept, reject or stipulate alterations to the project.

The EIA Directive of the EC (2014/52/EU) is applied to both public and private projects. Whether an EIA needs to be run is determined by the Annexes under the Directive. Projects falling under the Annex I category must undergo an EIA. In relation to energy infrastructure projects, these include e.g. the construction of overheard power lines with voltages of **220 kV** or more and which are longer than **15km.** Projects that do not meet Annex I

conditions are listed under Annex II and are subject to a screening for potential impact; EIAs are then conducted in cases where significant impact on the environment is evident.

European Conventions and Directives

EIAs and SEAs are conducted under a set of international and European Conventions and Directives. UNECE Conventions **Espoo** and **Aarhus** (whose provisions are similar to those provided by the EIA Directive) place emphasis on specific areas. Espoo is relevant to transboundary energy infrastructure projects while Aarhus pertains to the rights that the public is entitled to.

The EU's **Bird and Habitat Directives** are built around the Natura 2000 network of protected sites and are a major consideration for both EIAs and SEAs, as they seek to protect especially sensitive or vulnerable areas.

Advantages

Both SEAs and EIAs have their respective advantages. The main advantage of conducting a SEA is the identification of potential harmful impacts that an intended plan may have on both the natural environment and human health. Seen as a precautionary measure, a SEA helps avoid possible conflicts by considering synergistic options and technological alternatives early on and minimises the need of conducting an assessment at a later stage, ultimately saving time.

EIAs, on the other hand, provide for a sound basis of identification, evaluation and mitigation of potential harmful impacts that a defined project can have on the environment before a decision to implement the project is made. Here, the nature, size and location of the project are considered in order to determine their possible impact.

More information

- Guidance Document from the European Commission on "Streamlining environmental assessment procedures for energy infrastructure 'Projects of Common Interest (PCIs)'"
- More information on the Espoo and Aarhus Conventions on the UNECE website
- Report from the EC on the application and effectiveness of the Directive on SEAs
- General Information on SEAs provided by the German Federal Ministry for the Environment, Nature Conservation, Building and Nuclear Safety

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