

transmission system operator

The Transmission system operator (TSO) is one of the main actors in the electricity as well as in the gas market.

Definition

With regard to the **electricity market**, the definition is provided for by art. 2 no. 4 of the Directive 2009/72/EC of 13 July 2009 concerning common rules for the internal market in electricity and repealing Directive 2003/54/EC: TSO means a natural or legal person responsible for operating, ensuring the maintenance of and, if necessary, developing the transmission system in a given area and, where applicable, its interconnections with other systems, and for ensuring the long-term ability of the system to meet reasonable demands for the transmission of electricity.

With regard to the **gas market**, art. 2 no. 4 of the Directive 2009/73/EC of 13 July 2009 concerning common rules for the internal market in natural gas and repealing Directive 2003/55/EC defines the transmission system operator as follows: TSO means a natural or legal person who carries out the function of transmission and is responsible for operating, ensuring the maintenance of, and, if necessary, developing the transmission system in a given area and, where applicable, its interconnections with other systems, and for ensuring the long-term ability of the system to meet reasonable demands for the transport of gas.

Ownership unbundling

The aforementioned directives (art. 9 Dir. 2009/72/EC and art. 9 Dir. 2009/73/EC) provide for the ownership unbundling with regards to TSOs. These obligations have to be transposed by the Member states of the EU by 3rd March 2012. From that date onwards, undertakings will be approved and designed as TSOs. The procedural rules of certifying are laid down in art. 10 Dir. 2009/72/EC and art. 3 of Regulation (EC) No. 714/2009 for an undertaking owning an electricity transmission system as well as in art. 10 Dir. 2009/73/EC and art. 3 of Regulation (EC) No. 715/2009 for an undertaking owning a gas transmission system. Concerning the certification of transmission systems controlled by a person from a non EU-Member state, the European Commission has to be notified by the relevant national regulatory authority.

Tasks and Duties

The main tasks and duties of TSOs are listed in art. 12, 15, 16 Dir. 2009/72/EC (electricity) and in art. 12, 16 Dir. 2009/73/EC (gas):

- Operating, maintaining and developing the transmission grid
- Ensuring non-discriminatory access to the grid (according to art. 23 of both directives, TSOs have to implement efficient procedures for non-discriminatory connection of new power plants which are subject to the approval of the regulatory authority)
- Ensuring the ability of the transmission system to meet the demand for transmission
- Contribution to security of supply by adequate transmission capacity
- Technical management of transmission flows
- Providing sufficient information to any operator of other systems which are connected to the transmission system
- Build sufficient cross-border capacities to integrate European transmission infrastructure (gas)
- Dispatching of generating installations and balancing (electricity)
- Preservation the confidentiality of information
- Submission to the relevant regulatory authority a ten-year network plan every year [art. 22 Dir. 2009/72/EC (electricity) and art. 22 Dir. 2009/73/EC (gas)].

Equipment and structure

Member states have to ensure that TSOs are equipped with all human, technical, physical and financial resources necessary for fulfilling the aforementioned obligations [art. 17 Dir. 2009/72/EC (electricity) and art. 17 Dir. 2009/73/EC (gas)]. Furthermore Member states have to ensure the independence of TSOs [art. 18, 19 Dir. 2009/72/EC (electricity) and art. 18, 19 Dir. 2009/73/EC (gas)].

The directives oblige TSOs to have a supervisory body which can take decisions with a significant impact on the value of the assets as well as implement compliance programmes in order to ensure a non-discriminatory conduct [art. 20, 21 Dir. 2009/72/EC (electricity) and art. 20, 21 Dir. 2009/73/EC (gas)].

ENTSO-E

Currently, 42 European TSOs are part of the European Network of Electricity Transmission System Operators ENTSO-E: <https://www.entsoe.eu/>

Tariffs

In return for providing access to the transmission grid, the TSO receives network access tariffs from the users.