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Glossary of statistical terms

The Glossary of statistical terms contains all terms used in this Statistical Yearbook. The corresponding explanations are available on the ENTSO-E internet site www.entsoe.eu under "Resources / Data Portal / Statistical Glossary".

Term	Definition
Alternating Current (AC)	An electric current that reverses its direction at regularly intervals.
Circuit length	The circuit length of an electrical line or cable is the actual length of each of its conductors or the mean of the lengths of the conductors, if there is any appreciable difference in their lengths.
Classification of Power units	According to the category of Primary Energy and fuel used for electricity generation, the ENTSO-E statistics considers the following classification in its publications: <ul style="list-style-type: none">• Hydro• Nuclear• Fossil fuels• Other Renewable (...of which wind, solar)• Not clearly identifiable In some publications, thermal conventional is also split into lignite, hard coal, gas, oil and mixed fuels and non attributable fuels.
Consumption	See Load and relations to consumption in the following document: https://www.entsoe.eu/fileadmin/user_upload/_library/publications/ce/Load_and_Consumption_Data.pdf
Consumption of Pumps	The electrical energy absorbed by the motor pumps in raising the water into the upper reservoir for the generation of electrical energy. It should include the electrical energy consumed by the auxiliary equipment and transformer losses during pumping. See also Pumped Storage.
Control Area	the composition of one or more market balance areas under the same technical load frequency control responsibility. Note: In some cases there may be some metering points that belong to a market balance areas that is not a part of the control area. However these do not impact the general definition , for example, a village in one country connected to the grid of another.
Conventional Transmission Capacity	A theoretical value based on parameters standardized within ENTSO-E (Continental Europe) for calculation of the thermal load capacity of each tie line. These are: ambient temperature of + 35°C, wind velocity of 0,56 m/s at a right angle to the line, as well as the voltage of the line.
Cross frontier line	See Tie line.
Direct Current (DC)	Direct current or DC electricity is the continuous movement of electrons from an area of negative (-) charges to an area of positive (+) charges through a conducting material.

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Term	Definition
Electricity Balance (Electricity Supply Situation)	Computes the consumption of electricity from the supply side (not metered in final consumer). In the ENTSO-E, it is presented as the sum of Net Production (split by Classification of Power Units) minus the Consumption of Pumps plus Exchange Balance. Due to fact that consumption is computed from the supply side, the electricity balance includes the distribution and Transmission Losses.
Energy Not Supplied (ENS)	An estimation of the energy not supplied to final customers due to incidents in the transmission network.
Equivalent Time of Interruption	The duration of an interruption in minutes multiplied by the energy not supplied divided by the consumption for the last 12 months. This value allows a direct comparison of interruptions that occurred during a year.
Exchange Balance	The difference between the import and export physical flows on each interconnection line of a country.
Hydro	Electricity derived from the potential and kinetic energy content of water. It can be classified as: Storage Hydro, Run of River, Pure Pumped Storage and Mixed Pumped Storage.
Load	<p>Load on a power system is referred to as the hourly average active power absorbed by all installations connected to the transmission network or to the distribution network. The load is the value at a given moment of the electrical power supplied or absorbed at any point of a system as determined by an instantaneous measurement or by the integration of power during a given period of time. Load can refer to a consumer, an appliance, a group of consumers or appliances or a network. Load is the power consumed by the network including (+) the network losses but excluding (-) the consumption for pumped storage and excluding (-) the consumption of generating auxiliaries.</p> <p>For the power balance, the load of each country, also called reference load, is represented at 11 a.m. on the 3rd Wednesday of each month without regard to the export power. Concerning the calculation method for the 24 load values, the countries use the average values of the 10, 15 or 60 minutes load preceding the hour.</p>
Net Generating Capacity	<p>Net Generating Capacity of a power station is the maximum electrical net active power it can produce continuously throughout a long period of operation in normal conditions, where:</p> <ul style="list-style-type: none"> • "net" means the difference between, on the one hand, the gross generating capacity of the alternator(s) and, on the other hand, the auxiliary equipments' load and the losses in the main transformers of the power station; • for thermal plants "normal conditions" means average external conditions (weather, climate...) and full availability of fuels; • for hydro and wind units, "normal conditions" refer to the usual maximum availability of primary energies, i.e. optimum water or wind conditions. <p>Net Generating Capacity of a country is the sum of the individual Net Generating Capacity of all power stations connected to either the transmission grid or to the distribution grid.</p>
Mixed Pumped Storage	Pumped Storage with a significant cumulative flow into the upper reservoir.
Net Generation (Net Production)	It is the Gross Generation less the electrical energy absorbed by Generating Auxiliaries and the losses in the main generator transformers.

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Term	Definition
Network Reliability	Reliability is a general term encompassing all the measures of the ability of the system, generally given as numerical indices, to deliver electricity to all points of utilization within acceptable standards and in the amounts desired. Network reliability (comprising generation and transmission facilities) can be described by two basic and functional attributes: Adequacy and Security.
Non-Identifiable Sources	Not Clearly Identifiable Sources comprise Power Plants or Power Units, which, according to Sources the primary energy used, cannot be categorized.
Nuclear	Electricity generated by the use of thermal energy released from the fission of nuclear fuel in a reactor.
Other Renewable Energy Sources	In the ENTSO-E statistics, this category comprises all Renewable Energy Sources except total Hydro production.
Peak Load	The maximum hourly demand during a period of time: day, month or year. (Maximum Load)
Physical Energy Exchange	Physical Energy Flow: Physical Export, Physical Import: It represents the real movements of energy between neighboring countries metered in cross-border tie lines in both directions, in the system and out of the system.
Protection Device	Equipment applied to electric power systems to detect abnormal and intolerable conditions and to initiate corrective actions to ensure continuity of electric service, to limit injury to people and to limit damage to equipment. These devices include lightning arresters, surge protectors, fuses and relays with associated circuit breakers, reclosers and so forth.
Pumped Storage	A hydro unit in which water can be raised by means of pumps and stored, to be used later for the generation of electrical energy. It can be classified as: Pure Pumped Storage and Mixed Pumped Storage.
Pure Pumped Storage	Pumped Storage without a significant natural cumulative flow into the upper reservoir.
Reference points	The dates and times for which power data are collected. Reference points are characteristic enough of the entire period studied to limit the data to be collected to the data at the reference points.
Renewable Energy Sources (Renewables)	It means renewable non-fossil energy sources (wind, solar, geothermal, wave, tidal, hydropower, biomass, landfill gas, sewage treatment plant gas and biogases).
Representativity (National representativity Index)	This is a specific ENTSO-E term, which generally means that certain values might not cover the whole country. It is expressed as a percentage. There might be differences between the approaches of the ENTSO-E statistics and System Adequacy reports.
Run of River	A hydro unit at which the head installation uses the cumulative flow continuously and normally operates on base load.
Solar Energy	Solar radiation used to generate electricity in photovoltaics or heat engines.

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Term	Definition
Storage Hydro	A hydro unit, at which the head installations store their cumulative flows wholly or partially in their retaining works (dam) in order to generate electricity later. Depending on the period required to fill a reservoir, storage hydro can be defined as follows: pondage (between 2 and 400 hours) and reservoir (>400 hours). These head installations are normally operated in such a way as to allow load following. By extension, when the operation of a head installation is directly related to that of a reservoir upstream and the intermediate inflows are negligible, these head installations must be considered to belong to the same category as the one who governs them.
Substation	Facility equipment that steps up or steps down the voltage in utility power lines. Voltage is stepped up where power is sent through long distance transmission lines, and stepped down where the power is to enter local distribution lines. They can be classified as normal outside substation, armoured substation and underground substation.
Fossil Fuels	Electricity generated by an electric power plant using mainly coal, petroleum (derivates) or gas as its primary source of energy. In ENTSO-E statistics, we use the term “conventional” for the production of electricity with a thermal process that is not generated using Nuclear or Renewable Energy Sources.
Tie Line	A transmission line connecting two countries.
Transit	An energy flow that occurs in a country, which is neither the source nor the sink of the energy flow. The energy flow arrives in the grid over one border and leaves the country over one or more borders
Transmission Losses	The difference between the fed-in (generation) and the delivery energy to distributors. Own-needs for the operation of the grid are included.
Transmission System Operator (TSO)	A company that is responsible for operating, maintaining and developing the transmission system for a control area and its interconnections.
Vertical Load	The total amount of power flows out of the transmission network into distribution and large customer networks.
Wind energy	Kinetic energy in wind used to generate electricity in wind turbines.

Publisher: Secretariat of ENTSO-E
Avenue de Cortenbergh 100, B-1000 Brussels
Internet: www.entsoe.eu
Executive Editor: Secretariat of ENTSO-E
Managing Editor: Edda Asmus
Production Editor: Vattenfall Europe Information Services
Printed by: Oswald und Martin Werbeagentur
Berlin

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Contact

ENTSO-E AISBL

Avenue de Cortenbergh 100
1000 Brussels
Belgium

Tel +32 2 741 09 50

Fax +32 2 741 09 51

info@entsoe.eu

www.entsoe.eu



European Network of
Transmission System Operators
for Electricity