Glossary

Connection
Set of grid elements consisting of the transmission line and the stalls at the ends of the same, including the relative circuit sectioning devices. Classification of connections by voltage level is carried out with reference to the nominal voltage. The length of the connection is normally the length of the line constituting the actual link.

Connection line
Any power line that links the power distribution plant with the user's plant, or the power distribution plant with the connection station.

Development
Intervention within the electricity grid involving an adaptation or expansion of the transport, transformation, connection and interconnection capacity, an increase in operating flexibility of the grid or a disposal of grid elements.

Dispatching
Electricity cannot be stored. It is therefore necessary to continuously produce the quantity of energy requested by consumers and deliver it to the National Transmission Grid in such a way as to keep electricity supply and demand in equilibrium, thereby ensuring continuing and security in supplying this service. Management of these flows of electricity along the grid is known as "dispatching".

Frequency
Represents the number of oscillations per second, during which the value of an alternating quantity, such as voltage, varies from positive polarity to negative polarity. It is measured in Hertz (Hz).

Generator
Electrical machine that transforms a source of primary energy into electricity.

Gigawatt (GW)
Unit of measurement equal to one billion watts (1,000 megawatts).

Grid management
The set of activities and procedures that bring about operation and the operating plan, under every condition, of an electrical network. Said activities and procedures include the management of electricity flows, interconnection devices and the necessary auxiliary services, as well as the decisions for maintenance and development measures.

Gross production of electricity
Sum of the quantities of electrical energy produced, measured at the electrical generator terminals.

High voltage
Nominal voltage greater than 35 kV and less than or equal to 220 kV.

High-voltage electricity line
An electricity line is a system that connects two power stations, or a power station and an energy input or withdrawal point. The length of an electricity line (km/line) is expressed as the length of the circuits projection over the ground (geographical length).

High-voltage power station
A transfer power station is the part of the grid used both for dividing electricity among the grid's lines and for transferring electricity among grids with different voltages.

Interconnection line
High-voltage power line in alternating current (a.c.) or direct current (d.c.) which links two different electrical transmission or distribution grids or even two generation plants.

Interconnection of electricity grids
Connection between electricity grids required for the transfer of electricity.

Interoperability of electricity grids
Operating method for the completion of management, operation, maintenance and development activities for two or more interconnected grids, in order to ensure simultaneous and coordinated functioning of the same.

kilowatt-hour (kWh)
Unit of measurement that expresses the quantity of electricity equal to 1,000 watts provided or requested in one hour.

kW
Unit of measurement of power (1 kW=1000 J/sec).

kWh
Unit of measurement of energy.

Maintenance
Measures and intervention aimed at the maintenance or restoration of efficiency and proper functioning of electricity plants, taking into account any declines in performance.

Maximum total transport capacity on interconnection with foreign countries
Maximum transport capacity for importing along the lines of the interconnection grid with the electricity plants of neighbouring countries.

Medium voltage
Nominal voltage greater than 1 kV and less than or equal to 35 kV.

Megavolt-ampere (MVA)
Unit of measurement of the apparent electrical power.
Megawatt (MW)
Unit of measurement equal to one million watts.
National Transmission Grid (NTG)
National electricity transmission grid as defined by the Decree of the Ministry of Industry of 25 June 1999 and subsequent amendments and additions.
Net production of electricity
Sum of the quantities of electrical energy produced, measured at the outgoing points of the production plants.
Operations planning
Preparation of plans and schedules for operation of the electricity system.
Peak power
The highest value of electrical power supplied or absorbed at any point of the system during a specific time interval.
Planning
Definition of the usage plans, for a specific period of time, for the available means of production and transmission, in order to satisfy the energy requirements with respect to quality and continuity of service.
Power station
Part of a grid, concentrated and closed within a specific site, used to distribute electricity among the lines of a grid, transfer electricity among grids at different voltages and transform electricity into the lowest voltage for the user.
Producer
Natural or legal person that produces electricity, regardless of ownership of the generation plant.
Production
Generation of electrical energy, in any way.
RAB (Regulatory Asset Base)
Value of the net capital invested, as recognised by the Italian Authority for Electricity and Gas for transport and distribution companies for the purposes of determining the applicable tariffs.
Requirement
Demand for electrical energy to be satisfied by the national electricity system. It shows a variable trend throughout the day, month and year.
Stall
Set of power plants and accessory systems linked to a power line or transformer that links said elements to the grid with the busbars of a power station.
Switch
Sectioning and manoeuvring device able to carry and interrupt current under normal operating conditions, as well as during specific exceptional operating conditions, such as in the case of short circuits.
Switching station
Part of a grid consisting of the set of equipment used to distribute the electricity among the lines of a grid at the same level of voltage.
Transformation station
Part of a grid consisting of the set of equipment used to transfer electricity between grids with different voltages.
Transformer
Electrical machine used for the connection and transfer of energy between grids at different voltage levels.
Transmission
Electricity transport and transformation activities along the interconnected high- and very-high-voltage grid for the purposes of delivery to clients, distributors and recipients of self-produced energy.
Transmission activity
The activity of transporting and transformation electricity across the grid.
Transmission line
High- and very-high-voltage power line, overhead or cable, used for the transport of electricity from the production plants to the distribution systems or to users.
Unified management of the grid
Coordinated management of all portions of the Grid.
Very-high voltage
Nominal voltage over 220 kV.
Volt
Unit of measurement of voltage.
Watt
Unit of measurement of electric power.

Coordination and Development by Terna S.p.A.

Department of Administration, Finance, Control and Investor Relations
Department of External Relations and Communication - Department of Corporate Affairs

Editorial Design
Interno Otto, Rome

Copy-editing and translation
Intrawelt s.a.s., Porto Sant'Elpidio

Photographs
All photos are the property
of the Terna Group archive

Printing
Marchesi Grafiche Editoriali, Rome