

Glossary

Base-load plant	Base-load power stations, largely coal-fired and nuclear, are designed to operate continuously
Clawback	The actual over-recovery against that allowed by Nersa in the multi-year-price-determination
Combined cycle	A technology for producing electricity from otherwise lost waste heat as it exits from one or more gas (combustion) turbines
Daily peak	The maximum amount of energy demanded in one day by electricity consumers
Decommissioning	Removing a facility (eg reactor) from service, and subsequent actions of safe storage, dismantling and making the site available for unrestricted use
Demand-side management (DSM)	Planning, implementing and monitoring activities to encourage consumers to use electricity more efficiently, including both the timing and level of electricity demand
Embedded derivative	A financial instrument that causes some or all cash flows that would otherwise be required by a contract to be modified according to a specified variable such as a currency
Energy availability factor (EAF)	A measure of plant availability taking account of energy losses not under the control of plant management and internal non-engineering constraints
Energy efficiency	Programmes to reduce energy used by specific end-use devices and systems, typically without affecting the services provided
Eskom sustainability performance index (ESPI)	Index covering technical, economic, environmental and social measures to score sustainable performance
Flashover	Electrical insulation breakdown
Forced outage	Shutdown of a generating unit, transmission line or other facility for emergency reasons or a condition in which generating equipment is unavailable for load due to unanticipated breakdown
Free basic electricity (FBE)	Amount of electricity deemed sufficient to provide basic electricity services to a poor household
Human resources sustainability index (HRSI)	A measure of Eskom's ability to achieve its human resources objectives
International financial reporting standards (IFRS)	Global accounting standards that require transparent and comparable information in general purpose financial statements issued by the International Accounting Standards Board
Independent power producer (IPP)	Any entity, other than Eskom, that owns or operates, in whole or in part, one or more independent power production facilities
Interruptible load	Load that can be interrupted in the event of capacity or energy deficiencies on the supply system
Interruptible power	Power whose delivery can be curtailed by the supplier; usually in agreement between Eskom and the customer
Kilowatt-hour (kWh)	Basic unit of electric energy equal to one kilowatt of power supplied to or taken from an electric circuit steadily for one hour; one kilowatt-hour equals 1 000 watt-hours
Load	Amount of electric power delivered or required at any specific point on a system
Load management	Activities to influence the level and shape of demand for electrical energy so demand conforms to the present supply situation, long-term objectives and constraints
Load profile	Information on a customer's electricity use over time, sometimes shown as a graph
Load shifting	The transfer of loads from peak to off-peak periods; eg in situations where a utility does not expect to meet demand during peak periods but has excess capacity in off-peak periods
Load shedding	Scheduled and controlled power cuts by rotating available capacity between all customers when demand is greater than supply to avoid total blackouts in the supply area
Lost-time incident rate	A proportional representation of the occurrence of lost-time injuries over 12 months
Maximum demand	Highest demand of load within a specified period
Megawatt	One million watts
Megawatt-hour (MWh)	One thousand kilowatt-hours or one million watt-hours
Metro	Municipalities of large cities
Mid-merit power generation	Installations that generate electricity during the day when electricity demand is higher than average
Mothballed	Plant (ie power stations) placed in long-term storage
Non-technical losses	The difference between total losses and technical losses is referred to as non-technical losses.

Outage	The period in which a generating unit, transmission line, or other facility is out of service
Off-peak	Period of relatively low system demand
Peak demand	Maximum power used in a given period, traditionally between 07:00 – 10:00 and 18:00 – 21:00
Peaking capacity	Generating equipment normally operated only during hours of highest daily, weekly or seasonal loads
Peak-load plant	Usually gas turbines or a pumped storage scheme used during peak-load periods
Power pool	An association of two or more interconnected electricity supply systems that agree to co-ordinate operations and seek improved reliability and efficiencies
Primary energy	Energy embodied in natural resources (eg coal, liquid fuels, sunlight, wind, uranium)
Pumped storage scheme	A pumped storage scheme consists of a lower and an upper reservoir with a power station/pumping plant between the two. During off-peak periods the reversible pump/turbines use electricity to pump water from the lower to the upper reservoir. During peak demand, water is allowed to run back into the lower reservoir through the turbines thereby generating electricity
Reserve margin	Difference between net system capability and system's maximum load requirements (peak load or peak demand)
Spent fuel	Nuclear fuel that has been irradiated in and permanently removed from a nuclear reactor. At Koeberg power station approximately 52 fuel assemblies (one third of the fuel assemblies) are removed from each of the two reactors on average every 16 months, and stored on site in the spent fuel pools in the respective fuel buildings next to the respective reactors
Supply-side management (SSM)	Planning, implementing and monitoring supply-side activities to create opportunities for cost-effective purchase, management, generation, transmission and distribution of electricity and all other associated activities
System minutes	The international benchmark for measuring the severity of interruptions to customers. One system minute is equivalent to the loss of the entire system for one minute at annual peak
Technical losses	Technical losses are the naturally occurring losses which depend on the power systems used
Unplanned automatic grid separations (UAGS)	A measure of the reliability of the service provided to the electrical grid that logs the number of supply interruptions per operating period
Unit capability factor (UCF)	A measure of plant availability indicating how well plant is operated and maintained
Unplanned capability loss factor (UCLF)	All occasions when plant has to be shut down and taken out of service. Energy losses due to outages are considered unplanned if they are not scheduled at least four weeks in advance

Energy terms

Units of power	Units of energy
Power is generated per unit of time	Energy is power multiplied by time
Power is expressed in watts (W)	
1kW (kilowatt) = 1 000W	1kWh (kilowatt hour) = 1kW expended over one hour
1MW (megawatt) = 1 000kW	1MWh (megawatt hour) = 1 000kWh
1GW (gigawatt) = 1 000 000kW or 1 000MW	1GWh (gigawatt hour) = 1 000 000kWh or 1 000MWh
1TW (terawatt) = 1 000 000MW	1TWh (terawatt hour) = 1 000 000MWh

Voltage

1kV (kilovolt) = 1 000V

Presentation currency

Unit of currency
R1 million = R1 000 000
R1 billion = R1 000 000 000