

Electricity service

Grid

ELECTRICITY SUBSTATIONS

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	Unit	2018	2017	2016	Change 18-17	% change 18-17
380 kV						
Substations	no.	164	164	161	-	-
Power transformed	MVA	115,258	114,008	110,708	1,250	1.1
220 kV						
Substations	no.	150	150	150	-	-
Power transformed	MVA	31,417	31,317	30,837	100	0.3
Lower voltages (≤ 150 kV)						
Substations	no.	567	557	544	10	1.8
Power transformed	MVA	3,914	3,890	3,911	24	0.6
TOTAL						
Substations	no.	881	871	855	10	1.1
Power transformed	MVA	150,589	149,215	145,456	1,374	0.9

POWER LINES (*)

	Unit	2018	2017	2016	Change 18-17	% change 18-17
380 kV						
Length of circuits	km	12,496	12,487	12,314	9	0.1
Length of lines	km	11,315	11,305	11,238	10	0.1
220 kV						
Length of circuits	km	11,915	11,915	11,698	0	0
Length of lines	km	9,549	9,549	9,363	0	0
Lower voltages (≤ 150 kV)						
Length of circuits	km	50,031	50,123	48,832	-92	-0.2
Length of lines	km	46,806	46,852	45,765	-46	-0.1
TOTAL						
Length of circuits	km	74,442	74,525	72,844	-83	-0.1
underground cables	km	1,945	1,880	1,804	65	3.5
submarine cables	km	1,454	1,463	1,422	-9	-0.6
200, 400 and 500 kV direct current	km	2,077	2,077	2,066	0	0
Length of lines	km	67,671	67,706	66,366	-35	-0.1
underground cables	km	1,945	1,880	1,804	65	3.5
submarine cables	km	1,454	1,463	1,422	-9	-0.6
200, 400 and 500 kV direct current	km	1,757	1,757	1,746	0	-

(*) The figures for 2017 are different from those previously published following the emergence of more up-to-date figures.

Quality of service

GRID EFFICIENCY

	Unit	2018	2017 ⁽¹⁾	2016	Change 18-17	% change 18-17
Power supplied	GWh/yr	321,910	320,458	314,261	1,452	0.5

⁽¹⁾ The figure for 2017 has been recalculated with the final data for that year and is, therefore, different from the figure shown in the 2017 Sustainability Report. The figure for power supplied in 2018 is provisional.

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TECHNICAL QUALITY

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	Unit	2018	2017	2016	Change 18-17	% change 18-17
<i>Service continuity indicators</i>						
ASA (Average Service Availability) ⁽¹⁾	%	n/a	99.99974	99.99973	n/a	n/a
SAIFI + MAIFI (System Average Interruption Frequency Index) Terna ⁽²⁾	no.	n/a	0,26	0,22	n/a	n/a
SAIFI + MAIFI (System Average Interruption Frequency Index) Terna Rete Italia ⁽²⁾	no.	n/a	n.d	n.d.	n/a	n/a
AIT (Average Interruption Time) Terna ⁽³⁾	min.	n/a	1.36	1.41	n/a	n/a
AIT (Average Interruption Time) Terna Rete Italia ⁽³⁾	min.	n/a	n.d	n/a	n/a	n/a
RENS (Regulated Energy Not Supplied) Terna ⁽⁴⁾	MWh	n/a	855	399	n/a	n/a
RENS (Regulated Energy Not Supplied) Terna Rete Italia ⁽⁴⁾	MWh	n/a	n.d	n/a	n/a	n/a

⁽¹⁾ ASA measures the availability of the NTG. It is calculated as the ratio of the sum of energy not supplied to users connected to the NTG (ENS) and the energy fed into the grid. At the date of preparation of this document, the figures for 2018 are not yet final and have not been approved by the regulator (ARERA).

⁽²⁾ The number of short and long outages. It is calculated as the ratio of the number of users connected directly to the NTG involved in the outages and the number of users of the NTG. At the date of preparation of this Report, the figures for 2018 are not yet available.

⁽³⁾ The average duration of electricity system (NTG) outages in a year. It is calculated as the ratio of the energy not supplied in a certain period (ENS) and the average power absorbed by the electricity system in the period in question. The figures for 2018 are not yet available at the time of publication of this Report.

⁽⁴⁾ The indicator also includes energy not supplied to directly connected users due to events on other grids not forming part of the NTG and a share of the energy not supplied due to events of force majeure or major incidents (a "major incident" is any outage where the energy not supplied exceeds 250 MWh). The share included in the RENS indicator is a percentage that declines as the amount of energy not supplied in the individual major increases. The lower the indicator, the better the service performance. The final figure for RENS for 2018, to be provided by the regulator (ARERA), is not yet available at the time of publication. The RENS indicator for 2017 is provisional whilst awaiting confirmation of the related amount by ARERA.