

Statistical Summary

2015 - 2019

Studies and Planning Directorate
Investment Management and Studies Division
Statistical Studies Department



1. Generation

1.1) Origin of Electrical Energy (MWh)

	2015	2016	2017	2018	2019
Gross Generated Energy					
Acaray	1,060,236	1,290,149	957,530	1,083,691	979,943
Thermal	1,373	1,250	1,509	1,553	1,820
Gross Total Energy	1,061,609	1,291,399	959,040	1,085,244	981,763
Purchased Energy					
Itaipú	10,636,323	11,227,393	13,454,277	15,043,900	15,266,241
Yacyretá	2,607,479	2,458,889	1,236,502	476,891	1,203,238
Total Purchased Energy	13,243,802	13,686,282	14,690,779	15,520,791	16,469,479
Total Origin	14,305,410	14,977,680	15,649,819	16,606,035	17,451,242

Source: ANDE

1.2) Destination of Electrical Energy (MWh)

	2015	2016	2017	2018	2019
National Consumption					
Interconnected National System (SIN)	14,186,610	14,848,092	15,575,124	16,577,415	17,319,097
Bahía Negra	1,290	1,250	1,509	1,553	1,820
Total National Consumption	14,187,900	14,849,342	15,576,633	16,578,968	17,320,917
Energy Export					
Ebisa (Argentina)	117,510	128,339	73,186	27,067	130,325
Total Energy Export	117,510	128,339	73,186	27,067	130,325
Destination	14,305,410	14,977,680	15,649,819	16,606,035	17,451,242

Source: ANDE



1. Generation

1.3) Electrical Energy Balance - National Market (MWh)

	2015	2016	2017	2018	2019
Net Generation (a)	1,059,130	1,289,011	957,241	1,083,126	979,674
Purchased Energy (b)	13,243,802	13,686,282	14,690,779	15,520,791	16,469,449
Import Energy (c)	0	0	0	0	0
Export Energy (d)	117,231	128,101	73,025	27,009	130,175
Net Energy Available (e=a+b+c-d)	14,185,701	14,847,192	15,574,996	16,576,908	17,318,948
Own Energy Consumption (f)	23,167	21,963	6,620	7,280	8,999
Public Lighting Consumption(g)	239,782	246,118	332,738	330,927	319,605
Total Energy Billed (h)	10,336,604	10,767,398	11,237,933	12,172,700	12,520,192
Total Energy Loss (i =e-f-g- h)	3,586,147	3,811,713	3,997,705	4,066,001	4,470,152

Source: ANDE

1.4) Electrical Energy Losses - National Marker (%)

	2015	2016	2017	2018	2019
Transmission	6.21	6.18	5.76	5.36	5.25
Distribution	19.07	19.49	19.91	19.17	20.56
Total	25.28	25.67	25.67	24.53	25.81

Source: ANDE



1. Generation

1.5) National Interconnected System (NIS)

	2015	2016	2017	2018	2019
Energy (MWh)					
Metropolitan	7,460,946	7,793,673	8,221,343	8,680,831	9,019,443
Center	1,322,612	1,403,944	1,480,363	1,577,072	1,687,126
South	1,151,460	1,232,101	1,298,146	1,360,075	1,400,074
North	631,609	667,598	679,469	760,093	836,672
East	2,539,203	2,623,912	2,755,592	3,054,866	3,201,156
West	190,764	199,676	234,648	247,243	254,115
Total Electrical System	13,296,594	13,920,905	14,669,561	15,680,180	16,398,586
Own Consumption	8,557	9,041	8,212	9,293	10,756
Transmission Losses	881,459	918,145	897,351	887,943	909,845
Total Energy NIS	14,186,610	14,848,092	15,575,124	16,577,415	17,319,097
Peak Power Demand (MW)	2,656	2,917	3,135	3,226	3,553
Load Factor (%)	61.0	57.9	56.7	58.7	55.6

Source: ANDE

2. Transmission and Distribution

2.1) Transmission Infraestructure

	2015	2016	2017	2018	2019
Transmission Lines (km)					
500 kV	364	364	364	711	711
220 kV	4,172	4,529	4,564	4,575	4,616
66 kV	1,305	1,261	1,291	1,345	1,355
Installed Capacity (MVA)					
500/220 kV	4,750	4,750	4,750	5,350	5,350
220/66 kV	2,298	2,298	2,815	3,350	3,575
220/23 kV	2,295	2,488	2,883	3,115	3,418
66/23 kV	2,056	2,124	2,334	2,519	2,684
Customers served in High Voltage (*)	306	318	493	511	558
ANDE Substations (N°)	81	82	89	90	94
Substations that do not belong to ANDE (N°)	14	15	18	18	18
Total Substations (N°)	95	97	107	108	112

Obs.: This data is updated as of the 31st of December for each year.

(*) INC, ESSAP, GHN, CLYFSA, ADM, SIC, CMY, ELKEN, CAI, CERV, VET, VMC, BTW, CHORT, FERNH, CARGILL, WMA, INP. (Excluding BCP and VCE)

Adjustments in calculation methodology were performed.

Source: ANDE

2. Transmission and Distribution

2.2) Distribution Infrastructure

	2015	2016	2017	2018	2019
Medium Voltage Lines (km)	65,696	66,339	67,354	67,815	68,331
Distribution Transformers (number)	74,480	76,972	79,920	81,942	85,913
Distribution Transformers (MVA)	5,573	5,791	6,000	6,220	6,561
Active Customers (Number)	1,472,911	1,512,725	1,577,655	1,630,249	1,678,081

From 2014 includes the length of self-help lines and transformers of exclusive use.

Source: ANDE

2.3) Service Interruption Index - Metropolitan

	2015	2016	2017	2018	2019
Equivalent Outage Frequency by Power - FEP (N°/kVA-year)	23.81	32.38	27.55	22.83	23.41
Equivalent Outage Duration by Power - DEP (hours/kVA-year)	28.91	41.00	30.80	21.88	28.35

Source: ANDE

3. Commercialization

3.1) Billed Energy (MWh)

	2015	2016 ⁽¹⁾	2017 ⁽²⁾	2018 ⁽²⁾	2019 ⁽²⁾
Residential	4,542,495	4,793,863	4,920,271	5,376,642	5,533,958
Commercial	1,892,526	1,929,452	0	0	0
Industrial	2,116,997	1,818,777	988,716	749,445	411,616
General	911,180	1,336,237	0	0	0
Government	632,737	643,475	457,253	401,080	352,048
Public Lighting	240,669	245,595	164,004	171,448	187,814
Other	0	0	3,937,962	4,519,966	5,007,948
Differential	0	0	123,013	138,168	130,333
High Voltage	0	0	554,503	594,360	639,171
Very High Voltage	0	0	65,971	135,913	158,884
Electrointensive	0	0	26,240	85,678	98,419
Total National	10,336,604	10,767,398	11,237,933	12,172,700	12,520,192
Export	113,307	120,179	70,493	26,162	127,001
Total National and Exportación	10,449,911	10,887,577	11,308,426	12,198,862	12,647,192

⁽¹⁾In September 2016, approximately 20,000/industrial customers were transferred to the group of General consumption.

⁽²⁾Since 2017, the structure of consumption groups is considered according to the Statement of Tariffs N° 21.

Source: ANDE

3. Commercialization

3.2) Revenue from Energy (million \$)

	2015	2016 ⁽¹⁾	2017 ⁽²⁾	2018	2019
Residential	1,646,262	1,751,261	1,931,272	2,189,284	2,355,701
Commercial	633,473	650,758	0	0	0
Industrial	533,723	446,706	302,354	242,160	129,598
General	208,234	341,175	0	0	0
Government	130,736	135,936	122,094	143,911	135,468
Public Lighting	76,408	77,972	61,542	66,400	72,739
Other	0	0	1,406,418	1,643,774	1,831,297
Differential	0	0	49,814	54,373	52,565
High Voltage	0	0	126,459	144,836	156,384
Very High Voltage	0	0	13,932	35,216	42,474
Electrointensive	0	0	5,098	15,297	19,392
Total National	3,228,836	3,403,808	4,018,983	4,535,251	4,795,617
Export	82,509	95,716	55,647	18,695	94,413
Total National and Exportación	3,311,345	3,499,524	4,074,630	4,553,946	4,890,030

⁽¹⁾In September 2016, approximately 20,000/industrial customers were transferred to the group of General consumption.

⁽²⁾Since 2017, the structure of consumption groups is considered according to the Statement of Tariffs N° 21.

Source: ANDE

3. Commercialization

3.3) Billed Customers (N°)

	2015	2016 ⁽¹⁾	2017 ⁽²⁾	2018	2019
Residential	1,280,964	1,281,931	1,175,992	1,235,521	1,281,498
Commercial	128,831	129,562	0	0	0
Industrial	23,878	1,523	1,574	1,402	480
General	24,576	46,391	0	0	0
Government	14,407	14,073	7,568	7,530	7,582
Public Lighting	0	0	0	0	0
Other	0	0	169,949	176,540	179,444
Differential	0	0	121	155	168
High Voltage	0	0	11	13	12
Very High Voltage	0	0	1	3	4
Electrointensive	0	0	1	3	1
Total National	1,472,656	1,473,480	1,355,217	1,421,167	1,469,189
Export	1	1	1	1	1
Total National and Exportación	1,472,657	1,473,481	1,355,218	1,421,168	1,469,190

⁽¹⁾ In September 2016, approximately 20,000/industrial customers were transferred to the group of General consumption.

⁽²⁾ Since 2017, the structure of consumption groups is considered according to the Statement of Tariffs N° 21.

The values for the year 2017 correspond to the average for the period from January to December.

Source: ANDE

3. Commercialization

3.4) Average Consumption per Customers (kWh/month)

	2015	2016	2017	2018	2019
Residential	296	312	349	363	360
Total National Market	585	609	691	714	710

Source: ANDE

3.5) Electricity Consumption per Capita

	2015	2016	2017	2018	2019
National Consumption (MWh/año)	10,336,604	10,767,398	11,237,933	12,172,700	12,520,192
Total Population (inhabitants)	6,755,756	6,854,536	6,953,646	7,052,983	7,202,514
Electricity Consumption per Capita (kWh/year)	1,530	1,571	1,616	1,726	1,738

Estimated population as of 30 st of june of each year.

Source: ANDE and DGEEC

3.6) National Electricity Coverage

	2015	2016	2017	2018	2019
Served Population (inhabitants)	6,765,270	6,895,546	6,997,344	7,099,117	7,198,913
Total Population (inhabitants) (*)	6,804,967	6,903,913	7,003,138	7,102,668	7,202,514
National Electricity Coverage (%)	99.42	99.88	99.92	99.95	99.95

Com.: (1) Estimated population as of 31 st of december of each year. (2) Starting from the year 2015 it will be used in the calculations for national electrical coverage, the projection devised by the General Office for Statistics, Surveys and Census (DGEEC) as of October of 2015.

Source: ANDE and DGEEC

4. Electricity Rates

4.1) Average Rates of Electricity (€/kWh)

	2015	2016	2017	2018	2019
Residential	362.4	365.3	392.5	407.2	425.7
Commercial	334.7	337.3	0.0	0	0
Industrial	252.1	245.6	305.8	323.1	314.9
General	228.5	255.3	0.0	0	0
Government	206.6	211.3	267.0	358.8	384.8
Public Lighting	317.5	317.5	375.2	387.3	387.3
Other	0.0	0.0	357.1	363.7	365.7
Differential	0.0	0.0	404.9	393.5	403.3
High Voltage	0.0	0.0	228.1	243.7	244.7
Very High Voltage	0.0	0.0	211.2	259.1	267.3
Electrointensive	0.0	0.0	194.3	178.5	197.0
Total National	312.4	316.1	357.6	372.6	383.0

Source: ANDE

4.2) Social Tariffs for Electricity

	2015	2016	2017	2018	2019
Subsidized Customers (N°)	298,823	295,022	273,023	289,395	280,741
Subsidized Amount (million €)	60,347	59,245	56,456	61,345	60,460

Com.: The quantity of customers benefit corresponds to the average of the period from January to December of each year.

Source: ANDE

5. Human Resources

5.1) Employees by Occupational Level (N°)

	2015	2016	2017	2018	2019
Professional	667	636	609	581	621
Technical	571	575	532	544	514
Administrative	1,258	1,234	1,206	1,237	1,146
Operational	1,562	1,779	1,723	2,065	2,025
Total Permanent	4,058	4,224	4,070	4,427	4,306
Contracted	1,446	1,047	1,011	487	546
Total Employees	5,504	5,271	5,081	4,914	4,852

Values correspond to the 31 st of december of each year.

Source: ANDE

5. Human Resources

5.2) Employees by Sector (N°)

	2015	2016	2017	2018	2019
Generation	69	62	58	58	57
Transmission	630	606	570	572	556
Distribution	1,421	1,604	1,555	1,807	1,758
Commercialization	929	993	968	1,034	1,012
Administrative	1,009	959	919	956	923
Total Permanent	4,058	4,224	4,070	4,427	4,306
Contracted	1,446	1,047	1,011	487	546
Total Employees	5,504	5,271	5,081	4,914	4,852

Values correspond to the 31 st of december of each year.

Source: ANDE

5.3) Personnel Index

	2015	2016	2017	2018	2019
Connected Customers per Employee (N°/employee)	363	358	388	368	390
Billed Electricity per Employee (MWh/employee-year)	2,547	2,549	2,761	2,750	2,908

Source: ANDE

6. Financial Management

6.1) Balance Sheet (million ₺)

	2015	2016	2017	2018	2019
Assets					
Current	2,850,641	3,890,120	3,585,852	4,011,600	4,060,133
Non-current	12,793,740	11,773,543	13,126,290	15,661,656	17,406,326
Total Assets	15,644,380	15,663,663	16,712,142	19,673,256	21,466,459
Liabilities					
Current	1,217,473	1,106,404	1,176,404	1,338,298	1,409,245
Non-current	4,225,504	4,608,251	4,904,624	5,648,462	6,190,932
Total Liabilities	5,442,977	5,714,655	6,081,028	6,986,760	7,600,176
Equity	10,201,403	9,949,007	10,631,114	12,686,495	13,866,283
Total Liabilities and Equity	15,644,380	15,663,663	16,712,142	19,673,255	21,466,459

Source: ANDE

6.2) Income Statement (million ₺)

	2015	2016	2017	2018	2019
Operating Income (a)	3,445,065	3,673,215	4,216,980	4,693,727	5,056,866
Operating Expenses (b)	3,678,677	3,885,520	3,842,781	4,110,061	4,580,303
Net Operating Income (c=a-b)	-233,611	-212,305	374,199	583,666	476,564
Non-Operating Income (d)	937,081	702,727	566,455	689,835	891,560
Non-Operating Expense (e)	596,332	564,169	399,272	640,953	1,015,285
Profit Before Tax (f=c+d-e)	107,138	-73,747	541,382	632,548	352,839

Source: ANDE

6. Financial Management

6.3) Profitability Rate (Law N° 966/1964)

	2015	2016	2017	2018	2019
Net Revenue (million ¢) [a]	-233,611	-212,304	374,199	583,666	476,564
Immobilized Investment (million ¢) [b]	6,604,768	7,118,810	7,456,615	7,663,136	10,028,129
Profitability Rate (%) [c=(a/b)x100]	-3.54	-2.98	5.02	7.62	4.75

Source: ANDE

6.4) Commercial, Economic and Financial Indicators

	2015	2016	2017	2018	2019
Unpaid Bills - Consumers (%)	30.73	33.07	33.03	27.83	31.44
General Chargeability Margin (%)	78.98	81.16	80.46	76.88	77.07
Current Liquidity (times)	2.34	3.52	3.05	3.00	2.88
Solvency (%)	65.21	63.52	63.61	64.49	64.60
EBITDA Margin (%)	4.06	5.55	19.61	22.43	18.78
Equity Profitability (%)	1.05	-0.74	5.09	4.99	2.54

Source: ANDE

ANDE's Mission Statement: To satisfy the country's electrical power needs and act in the regional electricity sector, with social and environmental responsibility, to excel in management and provision of services in order to contribute towards national development and to the welfare of its population.



*Paraguay
de la gente*