



2020

Integrated Annual Sustainability Report

APPENDICES



GRI DISCLOSURES – LIGHT SA

DIRECT ECONOMIC VALUE GENERATED AND DISTRIBUTED [GRI 201-1]

STATEMENT OF ADDED VALUE (R\$ THOUSAND)	CONSOLIDATED	
	2020	2019
Revenue	19,720,825	20,006,677
Sales of goods, products and services	19,454,431	19,254,052
Offset PIS and COFINS credits on ICMS	-	1,086,462
Revenue relating to construction of company assets	885,064	793,332
Expected allowance for doubtful accounts	(618,670)	(1,127,169)
Inputs purchased from third parties	(9,501,022)	(9,801,731)
Cost of goods sold and services rendered	(7,995,275)	(8,211,044)
Material, energy, outsourced services and other	(1,505,747)	(1,590,687)
Gross value added	10,219,803	10,204,946
Withholdings	(590,909)	(587,187)
Depreciation and amortization	(590,909)	(587,187)
Net value added	9,628,894	9,617,759
Transferred added value	1,068,436	1,863,032
Equity in income of associates	(28,232)	(38,367)
Finance revenue	1,096,668	1,901,399
Added value to be distributed	10,697,330	11,480,791
Distribution of added value	10,697,330	11,480,791
Personnel	432,879	423,188
Direct compensation	280,756	291,533
Benefits	109,217	95,703
FGTS	32,683	31,130
Other	10,223	4,822
Taxes, charges and contributions	7,622,380	8,509,165
Federal	3,369,032	4,081,377
State	4,236,673	4,415,775
Municipal	16,675	12,013
Interest on third-party capital	1,950,149	1,220,635
Interest	1,859,529	1,147,447
Rent	90,620	73,188
Interest on equity	691,922	1,327,803
Dividends	164,332	315,353
Retained earnings	527,590	1,012,450

GRID DATA [GRI EU4]

	2018	2019	2020
Installed capacity (MVA)	10,522	10,525	10,566
Transmission lines (Km)	2,039	2,039	3,145
Total distribution system length (km)	77,904	78,766	83,329
Substations	221	221	221
Distribution transformers (un.)	92,408	93,082	93,982

AVERAGE PLANT AVAILABILITY FACTOR (%) [GRI EU30]

	2018	2019	2020
Fontes Nova (FTN)	87.2	90.2	81.3
Nilo Peçanha (NLP)	94.7	97.7	98.7
Pereira Passos (PPS)	97.1	96.6	98.2
Ilha dos Pombos (ILH)	97.5	95.2	97.5
Santa Branca (SBR)	95.6	96.4	98.2

Source: IMS Performance Report

Note: Not including the Paracambi SHP, which is owned by LightGer, in which Light has a 51% interest.

ELECTRICITY GENERATED (GWh) [GRI EU2]

	2018	2019	2020
Fontes Nova (Piraí - RJ)	500	641	592
Nilo Peçanha (Piraí - RJ)	2,556	2,554	2,627
Pereira Passos (Piraí - RJ)	349	372	357
Ilha dos Pombos (Carmo/Além Paraíba RJ/MG)	594	495	654
Santa Branca (Santa Branca/Jacareí SP)	197	174	180
Gross Output (including losses and internal consumption)	4,197	4,235	4,410
Net Output - Electric power delivered to the National Grid	4,150	4,186	4,364

Source: Net Output 2020

Note: Not including the Paracambi SHP, which is owned by LightGer, in which Light has a 51% interest.

CAPACITY AGAINST PROJECTED DEMAND BY ENERGY SOURCE GWh [GRI EU10]	2018	2019	2020
Hydro (auctions + quotas)	17,846	16,915	15,657
Thermal (auctions + bilateral agreement)	9,729	9,999	10,782
Angra (Eletronuclear)	868	866	864
Proinfa (Small Hydropower)	284	211	257
Proinfa (Wind)	147	170	121
Proinfa (Biomass)	65	78	59
Wind (auctions)	256	999	1,008
Total	29,194	29,237	28,747

Note: Power is purchased to meet our projected demand through auctions without the option to choose the source of electricity. Power cannot be traded directly between Light Group generation and distribution/supply subsidiaries. Adjustment mechanisms are available that enable power supply and demand to be balanced by purchasing additional electricity or returning contracts.

TOTAL WATER WITHDRAWAL BY SOURCE (m³.10⁹/year) [GRI 303-3]	2018	2019	2020
Paraíba - Guandu Diversion (Annual Average)	111	106	126
Piraí – Guandu Diversion (Annual Average)	15	16	15
TOTAL WITHDRAWALS	126	122	141

Note: "Piraí - Guandu Diversion" refers to the average pumping rates at Santa Cecília; "Piraí - Guandu Diversion" refers to the average annual flow rates measured at the V-3-482 Rosário Tunnel Outlet and V-1-105 Fazenda Nova Esperança hydrological stations.

WATER SOURCES SIGNIFICANTLY AFFECTED BY WITHDRAWAL OF WATER (ANNUAL AVERAGE – m³/s) [GRI 303-3]	2018	2019	2020
Total water withdrawal to the Guandu River - Riberão das Lajes (Lajes + Diversion)	134.1	142.0	141.0
Total water withdrawal to the Guandu River - CEDAE Intake	5.4	5.6	5.6
Total withdrawal/supply	139.5	147.6	146.6

Note: Total water withdrawal to the Guandu River - Riberão das Lajes is measured as the average annual discharge at Station V-3-489 – downstream of Pereira Passos. Total water withdrawal to the Guandu River – CEDAE Channel is measured as the average annual discharge at Station V-3-486 – CEDAE Channel.

WATER CONSUMPTION AT LIGHT FACILITIES [GRI 303-5]	2018	2019	2020
Water consumption (average m ³ /day)	351	376	267

SCOPE 1 (OWN FLEET) ENERGY CONSUMPTION, BY PRIMARY SOURCE, IN MWh [GRI 302-1]

	2018	2019	2020
Diesel	5,651	7,097	14,744
Gasoline	5,253	5,297	13,238
Ethanol	53	29	10
Total	10,957	12,423	27,992

Note: In 2020 we adopted a new methodology for converting liters into MWh.

ENERGY CONSUMPTION OUTSIDE THE ORGANIZATION, BY PRIMARY SOURCE, IN MWh [GRI 302-2]

	2018	2019	2020
Diesel	6,761	2,627	6,220
Gasoline	8,729	7,572	9,970
Ethanol	183	24	293
Total	15,673	10,223	16,483

Note: In 2020 we adopted a new methodology for converting liters into MWh.

ENVIRONMENTAL INVESTMENT, IN R\$ THOUSANDS [GRI 103-2]

	2018	2019	2020
Light SESA	4,977	14,457	12,436
Environmental maintenance and safety	2,119	11,213	10,161
Environmental education and programs	1,200	642	840
Environmental licensing and compliance	725	957	1,068
Environmental management system implementation and maintenance	117	31	221
Reforestation / slope stabilization	99	114	117
Aquatic plant retrieval	NA	NA	NA
Research and development	717	1,500	29
Light Energia	7,519	11,328	47,030
Environmental maintenance and safety	1,096	4,870	42,476
Environmental education and programs	169	13	459
Environmental licensing and compliance	337	322	407
Environmental management system implementation and maintenance	376	409	405
Reforestation / slope stabilization	2,768	1,787	1,366
Aquatic plant retrieval	1,642	2,668	1,714
Research and development	1,131	1,259	203
Total	12,496	25,785	59,466
Environmental maintenance and safety	3,215	16,083	52,637
Environmental education and programs	1,369	655	1,299
Environmental licensing and compliance	1,062	1,279	1,475
Environmental management system implementation and maintenance	493	440	626
Reforestation / slope stabilization	2,866	1,901	1,483
Aquatic plant retrieval	1,642	2,668	1,714
Research and development	1,847	2,759	232

Note: Tree trimming costs are not classified as environmental investments, but as operation and maintenance expense.

Note: In 2020 we adopted a new methodology for converting liters into MWh.

WASTE BY COMPOSITION, IN METRIC TONS (T) LIGHT SESA [GRI 306-3]

IN 2020	Waste generated	Waste directed to disposal	Waste diverted from disposal
Hazardous waste	1,284.07	340.89	943.18
Transformer	657.94		657.94
Oily waste	491.58	335.94	155.64
Incandescent lamps	2.70		2.70
Electrical and electronic equipment/meters	126.52		126.52
Contaminated PPE	4.66	4.66	
Inorganic waste containing hazardous substances	0.29	0.29	
Asphalt and tar-based products	0.38		0.38
Nonhazardous waste	10,983.24	6,475.59	4,507.65
Metals	929.62		929.62
Insulators	141.17		141.17
Plastic	18.82		18.82
Wood	226.42	21.00	205.42
Concrete poles	151.52		151.52
Wood poles/crossarms	147.10		147.10
Tree trimmings	2,914.00		2,914.00
Non-contaminated PPE	12.90	12.90	
Construction and demolition	4,838.17	4,838.17	
Rock and soil	502.50	502.50	
Mud and sludge	0.02	0.02	
Earth and stones	65.00	65.00	
Grass cuttings	135.42	135.42	
Special waste	629.39	629.39	
Septic tank sludge	0.00	0.00	
Sewage	271.18	271.18	
Total waste volumes	12,267.31	6,816.48	5,450.83

Note: With our adoption of the new GRI 306 standard in 2020, the information reported in previous years is no longer comparable and has been omitted.

WASTE DIVERTED FROM DISPOSAL BY RECOVERY OPERATION, IN METRIC TONS (T) LIGHT SESA [GRI 306-4]

IN 2020	Within the organization	Outside the organization	Total
Hazardous waste			
Preparation for reuse		940.1	940.1
Recycling		3.08	3.08
Other recovery operations			
TOTAL		943.18	943.18
Nonhazardous waste			
Preparation for reuse		1,593.65	1,593.65
Recycling		2,914.00	2,914.00
Other recovery operations			
TOTAL		4,507.65	4,507.65
Waste prevented			

WASTE DIRECTED TO DISPOSAL BY DISPOSAL OPERATION, IN METRIC TONS (T) LIGHT SESA [GRI 306-5]

IN 2020	Within the organization	Outside the organization	Total
Hazardous waste			
Incineration (with energy recovery)			
Incineration (without energy recovery)			
Landfilling			
Other disposal operations		340.89	340.89
TOTAL		340.89	340.89
Nonhazardous waste			
Incineration (with energy recovery)			
Incineration (without energy recovery)			
Landfilling		6,191.48	6,191.48
Other disposal operations		284.11	284.11
TOTAL		6,475.59	6,475.59

Note: With our adoption of the new GRI 306 standard in 2020, the information reported in previous years is no longer comparable and has been omitted.

WASTE BY COMPOSITION, IN METRIC TONS (T) LIGHT ENERGIA [GRI 306-3]

IN 2020	Waste generated	Waste diverted from disposal	Waste directed to disposal
Hazardous waste			
Used insulating oil	14.06	14.06	-
Used lubricants	1.9	1.9	-
Lamps	0.12	-	0.12
Batteries	3.02	-	3.02
Contaminated material	6.04	-	6.04
Total waste volumes	25.14	15.96	9.18
Nonhazardous waste			
Vegetation (at water intakes and barriers)	3,263	-	3,263
Paper/cardboard	0.9	0.9	0
Construction waste	84.5	-	84.5
Rubber (miscellaneous)	0	-	0
Plastic	0.9	0.9	0
Scrap metal	0	-	0
Ferrous scrap	0	-	0
Glass	0	-	0
Wood	0	-	0
Electronic scrap	1	1	0
Tree trimmings	0	-	0
Septic tank sludge	48.6	-	48.6
Municipal waste	1.2	-	1.2
Washable towels	3.14	3.14	0
Total waste volumes	3,403.24	5.94	3,397.30

Note: With our adoption of the new GRI 306 standard in 2020, the information reported in previous years is no longer comparable and has been omitted.

WASTE DIVERTED FROM DISPOSAL BY RECOVERY OPERATION, IN METRIC TONS (T) LIGHT ENERGIA [GRI 306-4]

IN 2020	Within the organization	Outside the organization	Total
Hazardous waste			
Preparation for reuse	-	-	-
Recycling	-	15.96	-
Other recovery operations	-	-	-
TOTAL	-	15.96	-
Nonhazardous waste			
Preparation for reuse	-	3.14	3.14
Recycling	-	2.80	2.80
Other recovery operations	-	-	-
TOTAL	-	5.94	5.94

Note: With our adoption of the new GRI 306 standard in 2020, the information reported in previous years is no longer comparable and has been omitted.

WASTE DIRECTED TO DISPOSAL BY DISPOSAL OPERATION, IN METRIC TONS (T) LIGHT ENERGIA [GRI 306-5]

IN 2020	Within the organization	Outside the organization	Total
Hazardous waste			
Incineration (with energy recovery)	-	-	-
Incineration (without energy recovery)	-	-	-
Landfilling	-	-	-
Other disposal operations	-	9.18	9.18
TOTAL	-	9.18	9.18
Nonhazardous waste			
Incineration (with energy recovery)	-	-	-
Incineration (without energy recovery)	-	-	-
Landfilling	-	-	-
Other disposal operations	-	3,397.30	3,397.30
TOTAL	-	3,397.30	3,397.30

Note: With our adoption of the new GRI 306 standard in 2020, the information reported in previous years is no longer comparable and has been omitted.

TOTAL GHG EMISSIONS BY WEIGHT, IN METRIC TONS OF CO₂ EQ [GRI 305-1, GRI 305-2, GRI 305-3]

Categories	Emission sources	GROUP		
		2018	2019	2020
Mobile Combustion	Gasoline (Fleet)			2,697.22
	Diesel (Fleet)			3,578.78
	Ethanol (Fleet)	3,648.39	4,181.57	0.02
	Gasoline (Boats)			1.75
	Diesel (Boats)			3.47
Stationary Combustion	Gasoline (Point source)	1,112.90	798.63	0.06
	Diesel (Point source)			12.81
Fugitive Emissions	SF ₆			3,896.30
	HFC	3,094.30	4,771.56	606.32
	CO ₂			0.02
Wastewater Treatment	Wastewater treatment / Infiltrator	9.34	0.48	-
Solid Waste	Solid waste (Composting)	10,610.90	4,176.10	652.93
Total Direct (Scope 1) GHG Emissions		18,475.82	13,928.34	11,449.68
Energy Consumption	Electricity Consumption	8,849.23	8,711.96	10,646.32
T&D losses	T&D losses	163,513.63	191,680.26	155,124.38
Energy Indirect (Scope 2) GHG Emissions		172,363.07	200,392.22	165,770.70
Land Transportation	Gasoline (Contractors)			2,031.39
	Diesel (Contractors)	5,085.41	3,071.85	1,509.86
	Ethanol (Contractors)			0.53
	CNG (Contractors)			2.78
Air Travel	Air Travel	62.19	127.84	40.58
Wastewater Treatment	Wastewater treatment / Infiltrator	-	-	1.58
Solid Waste	Trimming Waste (Third-Party)	38,916.64	10,321.63	13,326.69
	Solid Waste (Landfilling)			5,328.39
Other Indirect (Scope 3) GHG Emissions		44,064.24	13,521.31	22,241.80
Total Emissions		234,903.13	227,841.87	199,462.17

Note 1: Light's Corporate Greenhouse Gas Emissions Inventory for fiscal 2020 was developed at our own initiative by a specialized consulting firm, in collaboration with Light staff. The inventory was compiled from December 2020 to March 2021 in accordance with the guidelines outlined in the "GHG Protocol Corporate Accounting and Reporting Standard" and international standard ISO 14.064-1, and includes the greenhouse gas emissions covered by the Kyoto Protocol namely: CO₂, CH₄, N₂O, PFCs, HFCs, SF₆ and NF₃.

The inventory boundaries were set using the Operational Control approach under the GHG Protocol, covering direct (Scope 1) GHG emissions, energy indirect (Scope 2) GHG emissions, and other indirect (Scope 3) GHG emissions. The inventory reports on emissions produced by Light S.A.'s three main subsidiaries: Light Serviços de Eletricidade S.A. ("SESA"), Light Energia S.A., ("Energia"), and Light Com Comercializadora de Energia S.A. ("COM").

Note 2: In accordance with the GHG Protocol, all biogenic CO₂ emissions (CO₂ from the use of biofuels or biomass) are reported separately in this inventory. A distinction is made between fossil and biogenic CO₂ emissions due to the fact that biogenic CO₂ emissions do not introduce new carbon into the existing natural carbon cycle and therefore do not contribute to the greenhouse gas effect.

Note 3: Light Com Comercializadora de Energia S.A. ("COM") was added to the GHG inventory in 2020.

TOTAL WORKFORCE BY EMPLOYMENT TYPE, EMPLOYMENT CONTRACT, AND REGION [GRI 102-8]

	2018	2019	2020
Definite employment agreement	58	135	56
Greater Rio	47	122	53
Rest of State	11	13	3
São Paulo	0	0	0
Indefinite employment agreement	4,654	5,051	5,531
Greater Rio	4,008	4,391	4,885
Rest of State	637	652	642
São Paulo	9	8	4
Total	4,712	5,186	5,587

Note: All employees with indefinite employment contracts work full time. Fixed-term contracts are for young apprentices, who work for 4 hours daily.

TOTAL DIRECT WORKFORCE, BY GENDER AND REGION [GRI 102-8]

	2018	2019	2020
Greater Rio	4,055	4,513	4,885
Women	1,001	1,041	972
Men	3,054	3,472	3,913
Rest of State	648	665	642
Women	56	61	37
Men	592	604	605
São Paulo	9	8	4
Women	0	1	1
Men	9	7	3
Total	4,712	5,186	5,531
Women	1,057	1,103	1,010
Men	3,655	4,083	4,521

WORKFORCE BY ACTIVITY AND REGION [GRI 102-8]

	2018	2019	2020
Administrative	768	801	737
Greater Rio	727	759	691
Rest of State	41	42	46
São Paulo	0	0	0
Middle Management	214	197	194
Greater Rio	202	188	185
Rest of State	12	9	8
São Paulo	0	0	1
Operational	1,970	2,374	2,689
Greater Rio	1,591	1,985	2,356
Rest of State	379	389	333
São Paulo	0	0	0
Professional	695	726	735
Greater Rio	667	694	697
Rest of State	25	29	35
São Paulo	3	3	3
Technical	1,065	1,088	1,176
Greater Rio	868	887	956
Rest of State	191	196	220
São Paulo	6	5	0
Total	4,712	5,186	5,531

NUMBER OF TERMINATIONS BY GENDER, AGE AND REGION [GRI 401-1]

	2018	2019	2020
Greater Rio	282	425	557
Women <30	29	59	21
Women 30-50	56	12	82
Women >50	7	76	38
Total Women	92	147	141
Men <30	54	84	89
Men 30-50	107	51	224
Men >50	29	143	103
Total Men	190	278	416
Total <30	83	143	110
Total 30-50	163	63	306
Total >50	36	219	141
Rest of State	32	18	69
Women <30	8	1	7
Women 30-50	0	0	9
Women >50	0	1	0
Total Women	8	2	16
Men <30	7	3	7
Men 30-50	10	7	17
Men >50	7	6	29
Total Men	24	16	53
Total <30	15	4	14
Total 30-50	10	7	26
Total >50	7	7	29
São Paulo	0	1	1
Women <30	0	0	0
Women 30-50	0	0	0
Women >50	0	0	0
Total Women	0	0	0
Men <30	0	0	0
Men 30-50	0	0	1
Men >50	0	1	0
Total Men	0	1	1
Total <30	0	0	0
Total 30-50	0	0	1
Total >50	0	1	0
Total	314	444	627
Total <30	98	147	124
Total 30-50	173	70	333
Total >50	43	227	170

EMPLOYEE TURNOVER BY GENDER, AGE AND REGION [GRI 401-1]

	2018	2019	2020
Greater Rio	7%	9%	11%
Women <30	10%	19%	9%
Women 30-50	9%	11%	13%
Women >50	8%	12%	52%
Total Women	9%	14%	15%
Men <30	8%	10%	10%
Men 30-50	5%	11%	8%
Men >50	8%	7%	28%
Total Men	6%	8%	11%
Total <30	8%	12%	10%
Total 30-50	6%	11%	9%
Total >50	8%	8%	32%
Rest of State	5%	3%	11%
Women <30	50%	5%	233%
Women 30-50	0%	0%	28%
Women >50	0%	3%	0%
Total Women	14%	3%	43%
Men <30	5%	2%	5%
Men 30-50	3%	6%	4%
Men >50	7%	2%	33%
Total Men	4%	3%	9%
Total <30	9%	3%	11%
Total 30-50	3%	6%	6%
Total >50	7%	2%	32%
São Paulo	0%	13%	25%
Women <30	0%	0%	0%
Women 30-50	0%	0%	0%
Women >50	0%	0%	0%
Total Women	0%	0%	0%
Men <30	0%	0%	0%
Men 30-50	0%	0%	0%
Men >50	0%	20%	0%
Total Men	0%	14%	33%
Total <30	0%	0%	0%
Total 30-50	0%	0%	100%
Total >50	0%	17%	0%
Total	7%	9%	13%
Total <30	9%	11%	17%
Total 30-50	6%	10%	9%
Total >50	7%	7%	32%

FORMULA = Number of terminations in the year / Workforce in previous period (use the number of employees in tens, separated by region and gender, to calculate the percentage).

RETURN TO WORK AND RETENTION RATES AFTER PARENTAL LEAVE, BY GENDER [GRI 401-3]

	2018	2019	2020
Employees that were entitled to parental leave (unit)	4,712	5,186	5,531
Women	1,057	1,103	1,010
Men	3,655	4,083	4,521
Employees that took parental leave (unit)	167	174	263
Women	30	46	51
Men	137	128	212
Employees that returned to work after parental leave ended (unit)	167	173	261
Women	30	45	50
Men	137	128	211
Employees that returned to work after parental leave ended that were still employed 12 months after their return to work (unit)	165	172	254
Women	30	45	49
Men	135	127	205
Return to work rate (%)			
Women	100%	98%	98%
Men	100%	100%	100%
Retention rate of employees that took parental leave (%)			
Women	100%	98%	96%
Men	99%	99%	97%

RATIO OF BASIC SALARY AND REMUNERATION OF WOMEN TO MEN (%), BY EMPLOYEE CATEGORY [GRI 405-2]

	2018	2019	2020
Average Salary Men / Women			
Administrative	108%	107%	103%
Middle Management	120%	113%	117%
Operational	112%	110%	107%
Professional	122%	123%	124%
Technical	107%	111%	107%

ENTRY-LEVEL SALARY AT SIGNIFICANT LOCATIONS OF OPERATION, IN R\$ [GRI 202-1]

	2018	2019	2020
Location			
Av. Mal Floriano, 168	1,203	1,263	1,279
No. of Employees	1,594	1,524	1,521
R. Frei Caneca, 363	1,243	1,305	1,322
No. of Employees	826	869	1008
Estr. do Tindiba	1,243	1,305	1,322
No. of Employees	223	229	137
Cascadura	1,160	1,218	1,233
No. of Employees	422	515	678
Barra do Piraí	1,203	1,263	1,279
No. of Employees	149	155	149
Nova Iguaçu	1,243	1,553	1,322
No. of Employees	338	388	504

TOTAL THIRD-PARTY WORKFORCE BY EMPLOYMENT CATEGORY, EMPLOYMENT CONTRACT, GENDER AND REGION [GRI 102-8]

	2018	2019	2020
Greater Rio	7,516	7,056	5,931
Women	440	1,096	1,185
Men	7,076	5,960	4,746
Rest of State	345	361	515
Women	17	24	29
Men	328	337	486
São Paulo	0	0	0
Women	0	0	0
Men	0	0	0
Total	7,861	7,417	6,446
Women	457	1,120	1,214
Men	7,404	6,297	5,232

Note: Full-time with indefinite employment agreements.

NUMBER OF OUTSOURCED WORKERS BY ACTIVITY AND GEOGRAPHY [GRI 102-8]

	2018	2019	2020
Maintenance, cleaning, security and upkeep	519	413	374
Greater Rio	498	398	359
Rest of State	21	15	15
Other administrative activities (core activities)	5,183	4,978	5,195
Greater Rio	4,859	4,632	4,884
Rest of State	324	346	311
Other administrative activities (supporting activities)	2,159	2,026	877
Greater Rio	2,159	2,026	688
Rest of State	0	0	189
Sales and marketing	0	0	0
Greater Rio	0	0	0
Rest of State	0	0	0
Other	0	0	0
Greater Rio	0	0	0
Rest of State	0	0	0
Total	7,861	7,417	6,446

Note 1: Contractor and subcontractor employees involved in construction, operation and maintenance activities are dedicated to these activities during the entire year and work during the working hours established in their employment contracts. [GRI EU17]

Note 2: Security-related activities are entirely outsourced. Light requires a complete training program, including training on the principles of human rights as set out in our Code of Ethics. [GRI 410-1]

AVERAGE HOURS OF TRAINING – DIRECT EMPLOYEES [GRI 404-1]

	2018	2019	2020
Overall Average	44.7	36.7	51.0
Women	29.6	22.6	10.4
Men	35.1	27.8	26.9
Administrative			
Women	13.8	12.3	4.4
Men	13.2	12.1	4.8
Middle Management			
Women	31.4	19.1	5.7
Men	35.3	23.5	5.7
Operational			
Women	39.5	36.8	12.1
Men	62.7	51	88.1
Professional			
Women	18.5	14.7	6.9
Men	25.1	20.2	10.1
Technical			
Women	44.9	30.4	22.7
Men	39.4	32.2	25.6

OCCUPATIONAL INJURIES [GRI 403-9]

2018
2019
2020
For all direct employees

Number of fatalities as a result of work-related injuries	0	0	0
Rate of fatalities as a result of work-related injuries	0	0	0
Number of high-consequence work-related injuries (excluding fatalities)	0	1	1
Rate of high-consequence work-related injuries (excluding fatalities)	0.00	0.09	0.08
Number of recordable work-related injuries	26	58	39
Rate of recordable work-related injuries	2.54	5.02	3.06
Number of hours worked	10,222,933	11,543,235	12,740,776
Main types of occupational injuries	Bruises and fractures	Bruises and sprains	Sprains and fractures

For all workers who are not employees, but whose work and/or workplace is controlled by the organization (outsourced workers):

Number of fatalities as a result of work-related injuries	0	0	0
Rate of fatalities as a result of work-related injuries	0	0	0
Number of high-consequence work-related injuries (excluding fatalities)	3	3	2
Rate of high-consequence work-related injuries (excluding fatalities)	0.17	0.18	0.13
Number of recordable work-related injuries	29	35	23
Rate of recordable work-related injuries	1.67	2.07	1.51
Number of hours worked	17,384,710	16,927,658	15,211,870
Main types of occupational injuries	Fractures and burns	Burns and bruises	Fractures and burns

Note 1: High-consequence work-related injury means a work-related injury that results in a fatality or in an injury from which the worker cannot, does not, or is not expected to recover fully to pre-injury health status within six months (GRI Definition)

Note 2: Lost-time injuries > =180 lost days

Note 3: Recordable work-related injury or ill health means a work-related injury or ill health that results in any of the following: death, days away from work, restricted work or transfer to another job, medical treatment beyond first aid, or loss of consciousness (GRI Definition). These figures include lost-time injuries only

Note 4: Total hours: MHW+Overtime for direct employees

Note 5: Types of work-related injury can include death, amputation of a limb, laceration, fracture, hernia, burns, loss of consciousness, and paralysis, among others. These figures include the two primary types of injuries in each year

WORK-RELATED HAZARDS THAT POSE A RISK OF HIGH-CONSEQUENCE INJURY [GRI 403-9]

How these hazards have been determined	Hazards are determined at the design stage when implementing or installing new processes, machinery or equipment. Hazards are also identified through risk analysis conducted when developing step-by-step work procedures, and on-site in pre-task Preliminary Risk Assessments
Which of these hazards have caused or contributed to high-consequence injuries during the reporting period	Electric shock, vehicle collisions, falling from heights
Actions taken or underway to eliminate these hazards and minimize risks using the hierarchy of controls	We widely disseminate information about risks based on our belief that a culture of challenging unsafe behavior can only be achieved when communication is fluid and transparent. Safety information is provided through toolbox talks, alerts, videos and retraining whenever skills gaps are identified following an incident, during inspections or in behavioral observations. In addition to providing up-to-date information, we are continuously seeking new approaches to managing hazardous energy, either by implementing administrative and engineering measures or, as a last resort, by implementing protection barriers (PPE/CPE) as a last line of defense. Near-miss investigations have also been an especially effective way of preventing recurrence of serious injuries by allowing us to identify, implement measures to address, and raise awareness about the impact of, the relevant risks.
Any actions taken or underway to eliminate other work-related hazards and minimize risks using the hierarchy of controls	As described above, high-quality, up-to-date information is provided regularly as a way to eliminate or mitigate risks in general. Standard training, toolbox talks, in-field monitoring (inspections and observation) and communication have been highly effective in this regard
Whether the rates have been calculated based on 200,000 or 1,000,000 hours worked	1,000,000 hours worked
Whether and, if so, why any workers have been excluded from this disclosure, including the types of worker excluded	No workers have been excluded. All workers providing services at Light are deemed to be part of our workforce
Any contextual information necessary to understand how the data have been compiled, such as any standards, methodologies, and assumptions used	ABNT 14280, ISO 45001 and the Accident Investigation Handbook issued by the Office of Labor of the Ministry of the Economy. The relevant calculation formulas are provided in notes

WORK-RELATED ILL HEALTH [GRI 403-10]

2018

2019

2020

For all direct employees:

Number and rate of fatalities as a result of work-related ill health	0	0	0
i. The number of cases of recordable work-related ill health	0	0	0
Main types of work-related ill health	-	-	-

For all workers who are not employees, but whose work and/or workplace is controlled by the organization (outsourced workers):

Number of fatalities as a result of work-related ill health	0	0	0
i. The number of cases of recordable work-related ill health	0	0	0
Main types of work-related ill health	-	-	-

WORK-RELATED HAZARDS THAT POSE A RISK OF ILL HEALTH [GRI 403-10]

How these hazards have been determined	Light’s Workplace Risk Prevention Program (PPRA) aims to identify, eliminate, mitigate or control risks and hazards in all activities Company-wide. Operating alongside the PPRA program, our Occupational Health Surveillance Program (PCMSO) uses a primarily preventive approach to employee health, including screening and early diagnosis of occupational illnesses. The individual and collective aspects of the workplace are taken into account in assessing, developing and implementing measures based on identified risks
Which of these hazards have caused or contributed to cases of ill health during the reporting period	There were no cases of work-related ill health within the Organization during the reporting period. Measures to protect employee health, integrity and safety were implemented within the PCMSO based on risks identified within the PPRA throughout the year. Both programs are included in the Occupational Health & Safety team’s annual planning process
Actions taken or underway to eliminate these hazards and minimize risks using the hierarchy of controls	As described above, high-quality, up-to-date information is provided regularly as a way to eliminate or mitigate risks in general. Standard training, toolbox talks, in-field monitoring (inspections and observation) and communication have been highly effective in this regard
Whether and, if so, why any workers have been excluded from this disclosure, including the types of worker excluded	No workers have been excluded. All workers providing services at Light are deemed to be part of our workforce
Any contextual information necessary to understand how the data have been compiled, such as any standards, methodologies, and assumptions used	NA

Greater Rio

Number of Injuries - Typical	23	47	32
Women	2	2	2
Men	21	45	30
Lost days	376	1,198	700
Women	19	60	17
Men	357	1,138	683
Days deducted	0	0	0
Women	0	0	0
Men	0	0	0
Fatalities – Typical	0	0	0
Women	0	0	0
Men	0	0	0
Number of injuries - Commuting	49	55	41
Women	18	16	5
Men	31	39	36
Fatalities - Commuting	0	0	0
Women	0	0	0
Men	0	0	0

Rest of State

Number of Injuries - Typical	3	11	7
Women	0	1	1
Men	3	10	6
Lost days	71	753	231
Women	0	32	136
Men	71	721	95
Days deducted	0	0	0
Women	0	0	0
Men	0	0	0
Fatalities – Typical	0	0	0
Women	0	0	0
Men	0	0	0
Number of injuries - Commuting	4	4	0
Women	0	1	0
Men	4	3	0
Fatalities - Commuting	1	0	0
Women	0	0	0
Men	1	0	0

LOST-TIME INJURIES INVOLVING OUTSOURCED WORKERS [GRI 403-9]

	2018	2019	2020
Fatal	0	0	0
Women	0	0	0
Men	0	0	0
Non-fatal	28	35	23
Women	0	1	1
Men	28	34	22
Total	28	35	23

**OVERALL ABSENTEEISM RATE (DIRECT EMPLOYEES)
DUE TO MEDICAL LEAVE BY REGION** [GRI 403-9]

	2018	2019	2020
Greater Rio			
Women	2.00	3.90	2.56
Men	1.60	2.63	2.96
Rest of State			
Women	2.23	0.63	3.49
Men	0.66	1.98	3.07

QUALITY-OF-LIFE INITIATIVES

Mental Health: This program aims to raise awareness among managers and employees about the importance of emotional health in maintaining a healthy and safe workplace environment, about integrative health, and about misconceptions related to essential precautions in taking care of mental health. The program is structured around three pillars: prevention, health promotion and intervention in employee health management, including management of chronic illnesses. During the shelter-in-place period due to the COVID-19 pandemic, 42 online psychoeducational workshops were held in an online format, in which guest experts discussed topics such as mindfulness, relaxation, avoiding alcohol and drug abuse, suicide prevention, and family relationships.

Workplace Exercise: At nine of our operations, workplace exercise sessions are administered for operational employees, with a total of 3,049 participants at the time of reporting. Fifteen-minute sessions—include stretching, breathing, body awareness and education, and muscle compensation exercises—are administered twice a week before the work shift. Benefits from workplace exercise include improved heart, respiratory and skeletal function; increased body awareness; prevention of occupational illnesses; reduced fatigue and burnout; stress relief; higher productivity and improved interpersonal relationships with coworkers.

“Vida Ativa” Space, our corporate gym: In-person sessions were replaced with online fitness classes available to all employees, with approximately 500 classes administered in 2020. We also provided online advice on nutrition and healthy diets, in a total of 66 sessions.

Counseling and advice: We expanded counseling and advice sessions and maintained the number of in-person session hours in operational areas, with an average of 450 sessions per month, including new cases and follow-up on previous cases. The most frequent cases included: health insurance, managing sick leave, managing occupational injuries, debt, mental health (including referral to psychiatric and psychological care), and managing COVID-19 cases among employees and family members.

Children’s Month: We distributed 3,000 kits with T-shirts modeled after our electricians’ uniforms, puzzles featuring the LIGHT WAY principles, and a card inviting employees’ children to create videos encouraging employees to put principles such as occupational safety and ethics into practice. This program is aimed at employee dependents aged 0 to 12 years.

TOTAL NUMBER OF INCIDENTS OF NON-COMPLIANCE CONCERNING HEALTH AND SAFETY IMPACTS AND RESULTING LEGAL PROCEEDINGS [GRI 416-2, GRI EU25]

	2018	2019	2020
Total number of nonfatal injuries involving consumers	17	10	7
Total number of fatal injuries involving consumers	7	8	5
Legal proceedings resulting from accidents involving consumers – Overall Legal Proceedings	379	405	356

PERCENTAGE OF EMPLOYEES ELIGIBLE TO RETIRE, BY JOB CATEGORY, TIME REMAINING AND REGION [GRI EU15]

	2018	2019	2020
Administrative			
Greater Rio	4	17	14
< 5 years	1	1	0
5-10 years	1	0	0
> 10 years	2	16	13
Retirees	1	1	0
Rest of State	4	6	7
< 5 years	1	0	0
5-10 years	0	0	0
> 10 years	3	6	7
Retirees	0	0	0
Middle Management			
Greater Rio	3	4	4
< 5 years	1	0	0
5-10 years	1	0	0
> 10 years	2	4	4
Retirees	0	0	0
Rest of State	2	1	1
< 5 years	1	0	0
5-10 years	0	0	0
> 10 years	1	1	1
Retirees	0	0	0

PERCENTAGE OF EMPLOYEES ELIGIBLE TO RETIRE, BY JOB CATEGORY, TIME REMAINING AND REGION [GRI EU15]

	2018	2019	2020
São Paulo	0	0	25
< 5 years	0	0	0
5-10 years	0	0	0
> 10 years	0	0	25
Retirees	0	0	0
Operational			
Greater Rio	4	44	48
< 5 years	1	1	1
5-10 years	1	0	0
> 10 years	2	43	47
Retirees	0	0	0
Rest of State	11	59	52
< 5 years	2	2	2
5-10 years	3	1	0
> 10 years	4	55	49
Retirees	1	1	0
Professional			
Greater Rio	7	15	14
< 5 years	2	1	0
5-10 years	1	0	0
> 10 years	4	14	13
Retirees	1	1	0
Rest of State	3	4	5
< 5 years	1	0	0
5-10 years	0	0	0
> 10 years	2	4	5
Retirees	0	0	0

PERCENTAGE OF EMPLOYEES ELIGIBLE TO RETIRE, BY JOB CATEGORY, TIME REMAINING AND REGION [GRI EU15]

	2018	2019	2020
São Paulo	11	38	75
< 5 years	0	0	0
5-10 years	0	0	0
> 10 years	11	38	75
Retirees	0	0	0
Technical			
Greater Rio	12	20	20
< 5 years	2	0	0
5-10 years	2	0	0
> 10 years	7	19	19
Retirees	1	1	0
Rest of State	17	30	34
< 5 years	3	1	0
5-10 years	3	1	1
> 10 years	9	26	32
Retirees	2	2	1
São Paulo	11	63	0
< 5 years	0	0	0
5-10 years	0	0	0
> 10 years	11	63	0
Retirees	0	0	0

Formula = Number of retireable employees by region and time remaining / Total by region

WORKFORCE BY EMPLOYEE CATEGORY AND DIVERSITY CATEGORY [GRI 405-1]

	2018	2019	2020
Administrative	768	801	737
Women < 30	162	180	134
Asian	5	4	2
White	64	70	53
Indigenous	0	0	0
Mixed race	67	61	49
Black	25	42	27
Not identified	1	3	3
Women 30-50	263	266	291
Asian	5	6	6
White	130	127	127
Indigenous	1	1	0
Mixed race	82	86	103
Black	40	40	48
Not identified	5	6	7
Women > 50	47	51	33
Asian	0	0	0
White	26	30	17
Indigenous	0	0	0
Mixed race	11	10	5
Black	5	5	5
Not identified	5	6	6
Men < 30	102	100	80
Asian	0	0	0
White	53	52	37
Indigenous	0	0	0
Mixed race	35	33	27
Black	14	15	15
Not identified	0	0	1

WORKFORCE BY EMPLOYEE CATEGORY AND DIVERSITY CATEGORY [GRI 405-1]

	2018	2019	2020
Men 30-50	123	131	136
Asian	3	3	4
White	65	63	67
Indigenous	0	0	0
Mixed race	33	38	38
Black	20	26	25
Not identified	2	1	2
Men > 50	71	73	63
Asian	0	0	0
White	23	24	18
Indigenous	1	1	0
Mixed race	20	21	17
Black	3	3	3
Not identified	24	24	25
Middle Management	214	197	194
Women < 30	1	1	1
Asian	0	0	0
White	1	1	1
Indigenous	0	0	0
Mixed race	0	0	0
Black	0	0	0
Not identified	0	0	0
Women 30-50	41	36	46
Asian	1	1	1
White	31	26	29
Indigenous	1	1	1
Mixed race	3	4	9
Black	2	2	2
Not identified	3	2	4

WORKFORCE BY EMPLOYEE CATEGORY AND DIVERSITY CATEGORY [GRI 405-1]

	2018	2019	2020
Women > 50	3	6	6
Asian	0	0	0
White	3	4	3
Indigenous	0	0	0
Mixed race	0	1	0
Black	0	1	1
Not identified	0	0	2
Men < 30	4	4	3
Asian	0	0	0
White	1	2	1
Indigenous	0	0	0
Mixed race	2	1	1
Black	0	1	1
Not identified	1	0	0
Men 30-50	126	127	123
Asian	3	3	2
White	89	91	93
Indigenous	1	0	0
Mixed race	24	25	16
Black	4	4	4
Not identified	5	4	8
Men > 50	39	23	15
Asian	0	0	0
White	26	18	10
Indigenous	0	0	0
Mixed race	7	2	2
Black	2	0	0
Not identified	4	3	3

WORKFORCE BY EMPLOYEE CATEGORY AND DIVERSITY CATEGORY [GRI 405-1]

	2018	2019	2020
Operational	1,970	2,374	2,689
Women < 30	52	59	22
Asian	0	1	0
White	12	12	3
Indigenous	0	0	0
Mixed race	28	32	12
Black	12	11	7
Not identified	0	3	0
Women 30-50	82	86	53
Asian	1	1	2
White	35	30	9
Indigenous	0	0	0
Mixed race	29	34	26
Black	17	20	15
Not identified	0	1	1
Women > 50	6	8	4
Asian	0	0	0
White	2	2	1
Indigenous	0	0	0
Mixed race	1	3	3
Black	2	2	0
Not identified	1	1	0
Men < 30	497	654	701
Asian	15	17	10
White	141	187	188
Indigenous	2	2	2
Mixed race	205	282	316
Black	118	145	157
Not identified	16	21	28

WORKFORCE BY EMPLOYEE CATEGORY AND DIVERSITY CATEGORY [GRI 405-1]

	2018	2019	2020
Men 30-50	1,148	1,340	1,705
Asian	15	18	23
White	314	361	428
Indigenous	6	8	10
Mixed race	578	663	865
Black	215	263	343
Not identified	20	27	36
Men > 50	185	227	204
Asian	1	1	0
White	49	65	59
Indigenous	1	1	1
Mixed race	57	76	69
Black	17	21	19
Not identified	60	63	56
Professional	695	726	735
Women < 30	49	52	55
Asian	0	1	1
White	29	28	27
Indigenous	0	0	0
Mixed race	16	19	19
Black	2	3	6
Not identified	2	1	2
Women 30-50	233	224	232
Asian	5	5	5
White	150	136	143
Indigenous	0	1	1
Mixed race	56	56	60
Black	18	20	17
Not identified	4	6	6

WORKFORCE BY EMPLOYEE CATEGORY AND DIVERSITY CATEGORY [GRI 405-1]

	2018	2019	2020
Women > 50	33	42	28
Asian	0	0	0
White	20	27	22
Indigenous	0	0	0
Mixed race	8	10	4
Black	2	1	0
Not identified	3	4	2
Men < 30	53	63	65
Asian	0	0	0
White	39	35	41
Indigenous	0	0	0
Mixed race	8	19	15
Black	3	6	5
Not identified	3	3	4
Men 30-50	255	262	293
Asian	2	3	3
White	174	172	185
Indigenous	3	3	3
Mixed race	57	62	76
Black	13	16	19
Not identified	6	6	7
Men > 50	72	83	62
Asian	0	0	0
White	52	60	41
Indigenous	0	1	1
Mixed race	8	10	8
Black	3	3	3
Not identified	9	9	9

WORKFORCE BY EMPLOYEE CATEGORY AND DIVERSITY CATEGORY [GRI 405-1]

	2018	2019	2020
Technical	1,065	1,088	1,176
Women < 30	30	35	35
Asian	1	1	1
White	15	16	18
Indigenous	0	0	0
Mixed race	7	10	9
Black	6	7	5
Not identified	1	1	2
Women 30-50	54	53	66
Asian	0	0	0
White	24	25	29
Indigenous	1	0	0
Mixed race	20	20	26
Black	8	8	10
Not identified	1	0	1
Women > 50	1	4	4
Asian	0	0	0
White	1	2	2
Indigenous	0	0	0
Mixed race	0	0	0
Black	0	1	1
Not identified	0	1	1
Men < 30	188	157	186
Asian	4	4	4
White	83	72	70
Indigenous	0	0	0
Mixed race	74	59	78
Black	24	20	29
Not identified	3	2	5
Men 30-50	671	673	770
Asian	9	8	12
White	285	278	313
Indigenous	3	3	3
Mixed race	271	277	324
Black	82	89	99
Not identified	21	18	19
Men > 50	121	166	115
Asian	0	1	1
White	66	81	50
Indigenous	1	1	1
Mixed race	31	54	40
Black	11	14	12
Not identified	12	15	11
Total	4,712	5,186	5,531

**REMUNERATION POLICY FOR THE BOARD OF DIRECTORS,
EXECUTIVE BOARD AND AUDIT BOARD (%) [GRI 102-35]**

2018

2019

2020

Board of Directors

ANNUAL FIXED PAY	100	100	100
Salary or management fees	100	100	99.8
Direct and indirect benefits	0	0	0.2
Participation in committees	0	0	0.0
Other charges	0	0	0
VARIABLE REMUNERATION IN THE YEAR	0	0	0
Bonuses	0	0	0
Profit sharing	0	0	0
Participation in meetings	0	0	0
Commission	0	0	0
Other charges	0	0	0
POST-EMPLOYMENT PAY	0	0	0
TERMINATION PAY	0	0	0
EQUITY-BASED	0	0	0

Statutory Board

ANNUAL FIXED PAY	44.2	46.3	48.9
Salary or management fees	48.9	39.8	41.9
Direct and indirect benefits	4.4	6.5	7.0
Participation in committees	0	0.0	0.0
Other charges	0	0	0
VARIABLE REMUNERATION IN THE YEAR	32.6	23.1	24.9
Bonuses	32.6	23.1	24.9
Profit sharing	0	0.0	0.0
Participation in meetings	0	0.0	0.0
Commission	0	0.0	0.0
Other charges	0	0	0
POST-EMPLOYMENT PAY	2.9	3.0	2.4
TERMINATION PAY	20.2	13.3	2.1
EQUITY-BASED	0	14.3	21.6

Audit Board

ANNUAL FIXED PAY	100	100	100
Salary or management fees	100	100	100
Direct and indirect benefits	0	0	0
Participation in committees	0	0	0
Other charges	0	0	0
VARIABLE REMUNERATION IN THE YEAR	0	0	0
Bonuses	0	0	0
Profit sharing	0	0	0
Participation in meetings	0	0	0
Commission	0	0	0
Other charges	0	0	0
POST-EMPLOYMENT PAY	0	0	0
TERMINATION PAY	0	0	0
EQUITY-BASED	0	0	0

REMUNERATION OF THE BOARD OF DIRECTORS, EXECUTIVE BOARD AND AUDIT BOARD (R\$) [GRI 102-35]

	2018	2019	2020
Board of Directors	2,289,346.63	2,442,803.99	3,578,400.33
Total members	20.89	12.58	12
No. of members receiving remuneration	16.78	11.08	8.6
Annual fixed pay	2,289,346.63	2,442,803.99	3,578,400.33
Salary or management fees	2,289,346.63	2,442,803.99	3,578,400.33
Direct and indirect benefits	0	0	6,784.66
Participation in committees	0	0	0
Other charges	0	0	0
Variable remuneration	0	0	0
Bonuses	0	0	0
Profit sharing	0	0	0
Participation in meetings	0	0	0
Commission	0	0	0
Other charges	0	0	0
Post-employment pay	0	0	0
Termination pay	0	0	0
Equity-based pay (including options)	0	0	0
Statutory Board	21,658,240.02	18,400,812.11	17,669,759.82
Total members	9	6.92	11
No. of members receiving remuneration	9	6.92	6.5
Annual fixed pay	9,580,570.5	8,516,050.1	8,637,571.9
Salary or management fees	8,629,496.1	7,317,391.0	7,408,059.3
Direct and indirect benefits	951,074.4	1,198,659.1	1,229,512.6
Participation in committees	0.0	0.0	0.0
Other charges	0.0	0.0	0.0
Variable remuneration	7,070,274.3	4,253,210.2	4,401,734.8
Bonuses	7,070,274.3	4,253,210.2	4,401,734.8
Profit sharing	0.0	0.0	0.0
Participation in meetings	0.0	0.0	0.0
Commission	0.0	0.0	0.0
Other charges	0.0	0.0	0.0
Post-employment pay	628,749.7	552,745.9	432,639.8
Termination pay	4,378,645.6	2,453,020.4	377,000.0
Equity-based pay (including options)	0.0	2,625,785.5	3,820,813.4
Audit Board	1,189,364.71	783,304.86	560,026.68
Total members	6.89	7.58	3
No. of members receiving remuneration	6.89	6.42	3
Annual fixed pay	991,313.12	652,754.10	466,689.00
Salary or management fees	991,313.12	652,754.10	466,689.00
Direct and indirect benefits	0	0	0
Participation in committees	0	0	0
Other charges	0	0	0
Variable remuneration	0	0	0
Bonuses	0	0	0
Profit sharing	0	0	0
Participation in meetings	0	0	0
Commission	0	0	0
Other charges	0	0	0
Post-employment pay	0	0	0
Termination pay	0	0	0
Equity-based pay (including options)	0	0	0

The number of members on the board is equivalent to the average number of members on the board in each month as recommended by CVM.

PROPORTION OF SPENDING ON LOCAL SUPPLIERS BY STATE AND BY TYPE [GRI 204-1]
2018
2019
2020
Rio de Janeiro

Number 694 694 681

% of spending 50 47 43

São Paulo

Number 381 415 430

% of spending 27 27 33

Paraná

Number 29 34 29

% of spending 8 8 7

Minas Gerais

Number 79 87 80

% of spending 7 7 8

Santa Catarina

Number 30 28 28

% of spending 2 2 1

Other

Number 93 115 128

% of spending 6 8 8

Total Material

Number 565 591 571

% of spending 29 29 35

Total Services

Number 741 782 805

% of spending 71 71 65

Total
1,306
1,373
1,376

NUMBER OF RESIDENTIAL DISCONNECTIONS FOR NON-PAYMENT [GRI EU27]	2018	2019	2020
Disconnections for Nonpayment in the Residential Segment	877,985	938,098	454,251

FINES AND PENALTIES RELATED TO SERVICES PROVIDED (R\$) [GRI 419-1]	2018	2019	2020
Financial Compensation IOD/IOF/MIOD/CDIOD	29,374	37,072	39,714
Regulatory fines	0	33,492	12,888
Credit for failure to meet commercial service terms	1,804	599	367
Total	31,178	71,163	52,969

(*) In 2020 Light incurred a total of R\$ 25,164,000 in compensation for consumer units and R\$ 14,549,000 in compensation for distribution companies.

(**) In 2020 we paid a single regulatory fine under AI 013/2017 - Quality Indicators for year 2014

PROVISIONS FOR TAX, CIVIL, LABOR AND REGULATORY RISKS (R\$ THOUSANDS) [GRI 419-1]

						CONSOLIDATED
						12/31/2019
			12/31/2020			
TOTAL PROVISIONS	Provision	Success fees	Total	Provision	Success fees	Total
Labor	99,072	383	99,455	120,914	428	121,342
Civil	208,524	84,933	293,457	198,658	91,650	290,308
Tax	172,012	30,890	202,902	55,783	28,643	84,426
Regulatory	50,719	500	51,219	47,124	-	47,124
Other	500	-	500	-	-	-
TOTAL	530,827	116,706	647,533	422,479	120,721	543,200

Note 1: The company is party to judicial and administrative proceedings relating to tax, labor, civil and regulatory matters. Management periodically reassesses the level of risk in these proceedings and, relying on the opinion of its legal advisors, establishes provisions for cases in which an unfavorable outcome is likely and the case value can be quantified.

Note 2: The change in "Provisions for tax, civil, labor and regulatory risks" primarily reflects the recognition of a provision for a fine imposed by ANEEL, as detailed in the [Notes to the financial statements](#).

Note 3: In 2019, Light was party to five Public Civil Actions. All material, non-confidential judicial, administrative and arbitral proceedings are detailed in section 4.3 of our [Reference Form](#).

ANEEL DISCLOSURES – LIGHT SESA

DIRECT ECONOMIC VALUE GENERATED AND DISTRIBUTED [GRI 201-1]

STATEMENT OF ADDED VALUE (R\$ THOUSAND)

	2020	2019
Revenue	18,144,504	18,549,454
Sales of goods, products and services	17,975,396	17,586,139
Offset PIS and COFINS credits on ICMS	-	1,086,462
Revenue relating to construction of company assets	787,778	726,368
Expected allowance for doubtful accounts	(618,670)	(849,515)
Inputs purchased from third parties	(9,081,801)	(8,966,731)
Cost of goods sold and services rendered	(7,891,993)	(7,485,763)
Material, energy, outsourced services and other	(1,189,808)	(1,480,968)
Construction Costs	-	-
Gross added value	9,062,703	9,582,723
Withholdings	(533,953)	(530,020)
Depreciation and amortization	(533,953)	(530,020)
Net added value produced	8,528,750	9,052,703
Transferred added value	748,230	1,767,384
Finance revenue	748,230	1,767,384
Added value to be distributed	9,276,980	10,820,087
Distribution of added value	9,276,980	10,820,087
Personnel	390,023	381,705
Direct compensation	244,986	258,318
Benefits	104,850	91,221
FGTS	30,619	28,539
Other	9,568	3,627
Taxes, charges and contributions	7,234,991	8,253,282
Federal	2,968,084	3,836,517
State	4,226,687	4,406,084
Municipal	40,220	10,681
Interest on third-party capital	1,377,118	1,031,742
Interest	1,173,756	961,412
Rent	203,362	70,330
Other	-	-
Interest on equity	274,848	1,153,358
Dividends	65,276	273,923
Retained earnings	209,572	879,435

PURCHASED ELECTRICITY

	2018	2019	2020
Purchased electricity (GWh) - Total	29,194	29,237	28,747
1) Itaipu	4,645	4,609	4,617
2) Initial contracts	0	0	0
3) Bilateral contracts	6,351	6,352	6,368
3.1) Third parties	6,351	6,352	6,368
3.2) Related parties	0	0	0
4) PROINFA	496	459	436
5) CCEAR (Hydro + thermal)	8,088	8,325	8,469
6) Surplus and Shortfall Offsetting Mechanism (MCSD)	1,846	1,244	773
7) Angra (Eletronuclear)	868	866	864
8) Quotas	6,645	6,384	6,211
9) Wind	256	999	1,008

Note: in 2020 Light sold 2,336 GWh on the spot market and 274 Gwh via the Surplus Sales Mechanism (MVE), for a total electricity requirement of 26,136 GWh.

MARKET [GRI 102-6]**TOTAL ELECTRICITY DISTRIBUTED (GWh)**

	2018	2019	2020
Segments / Total	28,034	27,658	25,703
Residential	8,600	8,414	8,339
Industrial	5,169	4,977	5,052
Commercial	7,775	7,874	6,864
Rural	63	55	56
Government	1,393	1,483	1,291
Public Lighting	802	825	764
Public Utility	1,447	1,499	1,395
Internal Use	120	116	146
Utilities	2,666	2,415	1,798

CAPTIVE CONSUMERS (GWh)	2018	2019	2020
Segments / Total	18,455	17,986	16,621
Residential	8,600	8,414	8,339
Industrial	697	569	477
Commercial	5,598	5,496	4,587
Rural	63	55	54
Government	1,393	1,483	1,278
Public Lighting	802	825	764
Public Utility	1,183	1,028	975
Internal Use	120	116	146
FREE CONSUMERS (GWh)	2018	2019	2020
Segments / Total	6,913	7,257	7,285
Industrial	4,472	4,408	4,574
Commercial	2,177	2,378	2,277
Rural			2
Government			12
Public Utility	264	471	420
UTILITIES (GWh)	2018	2019	2020
Utilities	2,666	2,415	1,798
% SHARE OF SEGMENTS IN TOTAL ELECTRICITY DISTRIBUTED	2018	2019	2020
Residential	30.68%	30.42%	32.44%
Low-Income Residential	1.66%	1.64%	2.69%
Industrial	18.44%	17.99%	19.65%
Commercial	27.73%	28.47%	26.70%
Rural	0.22%	0.20%	0.22%
Government	4.97%	5.36%	5.02%
Public Lighting	2.86%	2.98%	2.97%
Public Utility	5.16%	5.42%	5.43%
Internal Use	0.43%	0.42%	0.57%
Utilities	9.51%	8.73%	6.99%

NUMBER OF ACTIVE ACCOUNTS AT DECEMBER EACH YEAR – CAPTIVE CONSUMERS [GRI EU3]

	2018	2019	2020
Segments / Total	4,433,703	4,422,818	4,329,133
Residential	4,069,024	4,059,333	3,974,916
Industrial	10,191	9,959	9,152
Commercial	327,021	329,735	320,887
Rural	12,335	8,799	8,816
Government	12,214	12,062	12,392
Public Lighting	761	756	746
Public Utility	1,702	1,722	1,775
Internal Use	455	452	449

Note: number of installations per customer

NUMBER OF FREE CONSUMERS [GRI EU3]

	2018	2019	2020
Segments / Total	752	971	1,220
Industrial	130	165	172
Commercial	616	794	1,020
Government			1
Public Utility	6	12	27

Note: number of installations per customer

NUMBER OF UTILITIES

	2018	2019	2020
Utilities	3	4	4

GENERAL DATA

	2018	2019	2020
Electricity sales by installed capacity (GWh/MVA*No. hours/year)	2.66	2.63	2.43
Electricity sold per employee (MWh)	6,287	5,602	4,875
Number of consumers per employee	994	896	821
Added value / GWh sold	339,549	391,210	360,930

CONSUMERS

CUSTOMER SERVICE DISCLOSURES

	2018	2019	2020
Call Center			
Calls Received (unit)	3,944,543	4,378,788	4,394,354
Average number of agents (unit)	77	81	105
INS Level of Service Rate (%)	87.3	88.72	88.68
IAb - Abandonment Rate (%)	0.57	0.39	0.62
ICO - Busy Call Rate (%)	0.16	0.63	0.00
TMA - Average Interaction Time (s)	286	297	277
Compensation for Electrical Damages			
Volume of Applications (unit)	8,030	8,434	5,161
Confirmed (unit)	304	215	73
Complaints Disclosures (*)			
Confirmed Complaints (unit)	147,741	118,507	65,328
Equivalent Complaints Duration (ECD) (hours) (**)	212.45	166.79	161.27
Equivalent Complaint Frequency per One Thousand Consumer Units (ECF) (unit) (**)	38.22	28.78	17.22
Violation of commercial service time limits (pursuant to the relevant regulation – REN 414/2010)			
Service interactions (unit)	1,159,835	1,110,616	729,241
Service interactions timely completed (unit)	43,153	15,567	8,276
Service efficiency (%)	96.5	98.6	96.86
Number of customer complaints escalated			
to ANEEL – state / regional agencies	37,650	36,790	24,410
to the Company (excluding complaints relating to Outages, Electrical Damage and Supply Voltage)	371,235	260,761	151,773
to the courts	103,838	101,984	50.9
to PROCON	1,081	755	1,170

(*) Excluding complaints relating to Power Outages, Voltage Fluctuation and Electrical Damage, which under REN 414/2010 are not to be computed in ECD and ECF indicators as they are subject to rules and time frames under specific regulations

(**) Established in Regulatory Resolution 414/2010

INTERNAL STAKEHOLDERS

GENERAL INFORMATION

	2018	2019	2020
Total workforce	4,459	4,937	5,272
Turnover rate (%)	14.3	14.3	11.3
Average overtime per employee/year (hours)	164.9	133	120.7
Employees aged 30 or under (%)	28.2	29	23.2
Employees aged 31 to 40 (%)	39.3	38	42.0
Employees aged 41 to 50 (%)	20.8	21	24.1
Employees over 50 (%)	11.7	11	10.7
Percentage of female employees (%)	22.9	22	18.5
Women in managerial positions - out of total managerial positions (%)	21.5	22.5	28.8
Black female employees (black and mixed race) - out of total employees (%)	10.3	10.1	8.8
Black male employees (black and mixed race) - out of total employees (%)	41.9	44.2	48.4
Black employees (black and mixed race) in managerial positions out of total managerial positions (%)	20.4	22	20
Percentage of interns out of total employees (%)	1.1	0.9	1.0
Apprentice program employees (%)	1.2	2.6	1.1
Employees with special needs	193	181	155

COMPENSATION (R\$ THOUSAND)

	2018	2019	2020
Gross payroll	364,930	388,637	384,996
Compulsory social charges	78,411	61,863	52,444

TOTAL BENEFITS (R\$ THOUSAND)

	2018	2019	2020
Education	870	1,066	955
Food and Restaurants	35,043	29,679	33,992
Transportation	5,721	4,962	3,174
Health	25,033	21,417	24,155
Foundation	7,367	6,307	4,927
Occupational Health and Safety	551	1,080	1,344
Culture	0	0	0
Training and professional development	764	2,575	2,672
Day care and day care allowance	1,371	988	827
Other	2,029	1,672	621

PROFIT SHARING	2018	2019	2020
Total investment in profit-sharing program (R\$ thousand)	31,636	35,052	33,661
Amounts distributed in relation to gross payroll (%)	8.7	9.0	8.7
Highest compensation divided by the lowest compensation in cash paid by the Company (including profit shares and bonuses)	48	48	49
Highest compensation divided by the minimum salary in force (including profit shares and bonuses)	1.31	1.3	1.1
COMPENSATION PROFILE BY CATEGORY - AVERAGE SALARY (R\$)	2018	2019	2020
Managerial positions (managing directors, managers and coordinators)	14,651	16,160	17,642
Administrative positions	3,214	3,742	3,791
Production positions	2,690	2,767	2,884
RETIREMENT PROVISION	2018	2019	2020
Number of beneficiaries of supplementary pension plans	4,217	4,586	4,517
Number of beneficiaries of pre-retirement plan	0	0	0
EDUCATION LEVELS (PERCENTAGE OF TOTAL EMPLOYEES)	2018	2019	2020
Illiterate employees (%)	0	0	0
Primary education (%)	4.20	3.50	2.64
Secondary education (%)	71.50	73.30	76.61
Undergraduate (%)	20.00	19.60	17.49
Graduate (specialist, Master's degree, PhD) (%)	3.90	3.60	3.26
Amount invested in professional development and education (% of NOR)	0.01	0.02	0.02
NUMBER OF HOURS OF PROFESSIONAL DEVELOPMENT PER EMPLOYEE/YEAR (MH), BY EMPLOYEE CATEGORY	2018	2019	2020
Administrative	13.6	12.3	4.6
Middle management	35	22.8	5.4
Operational	60.6	50.3	86.2
Professional	21.9	17.7	7.9
Technical	40.8	32.7	25.6
General	34.4	27.1	50.6

LABOR CLAIMS (DIRECT EMPLOYEES)

	2018	2019	2020
Provision for liabilities in the period (R\$ thousand)	56,233	43,660	52,045
Number of labor claims brought against the company in the period (*)	64	68	56
Number of labor claims accepted in the period (**)	130	140	52
Number of labor claims rejected in the period (**)	38	58	46
Value of court awards in the period (R\$ thousand)	7,527	4,053	2,895

(*) New labor claims brought in the period by direct employees.

(**) Active claims at period-end from direct employees.

Note: partially accepted and settled claims have been included as accepted claims.

HEALTH & SAFETY**OCCUPATIONAL INJURY FREQUENCY RATE**

	2018	2019	2020
Total frequency rate for the period - employees	2.58	5.08	3.11
Total severity rate for the period - employees	41	167	75
Total frequency rate for the period - contractors	1.59	2.16	1.61
Total severity rate for the period - contractors	118	107	81
Total frequency rate for the period - workforce (employees + contractors)	1.96	3.35	2.3
Total severity rate for the period - workforce (employees + contractors)	90	131	78
Fatalities – employees	0	0	0
Fatalities – contractors	0	0	0

SUPPLIERS**OUTSOURCED EMPLOYEES**

	2018	2019	2020
Number of outsourced employees	7,418	7,007	5,928

COMMUNITY

LOW INCOME RATE [GRI 201-4]

	2018	2019	2020
Number of low-income households served	233,059	303,657	473,608
Total low-income households out of total households served (residential customers/consumers) (%)	7	8	13
Revenue from sales to low-income residential subsector (R\$ thousand)	386,849	376,425	431,673
Total revenue from sales to low-income residential subsector out of total residential revenue (%)	4.9	4.8	5.65

COMPANY INVOLVEMENT IN CULTURAL, SPORTS AND OTHER PROJECTS (ROUANET ACT)

	2018	2019	2020
Funds allocated to cultural or sports projects etc. (Rouanet Act) (R\$ thousand)	0	0	0
Funds allocated to the largest cultural or sports project (Rouanet Act) (R\$ thousand)	0	0	0

COMPANY INVOLVEMENT IN SOCIAL INITIATIVES (SPONSORSHIP)

	2018	2019	2020
Funds allocated to education (R\$ thousand)	0	0	0
Funds allocated to health care and sanitation (R\$ thousand)	0	0	0
Funds allocated to culture (R\$ thousand)	822	234	0
Funds allocated to sports (R\$ thousand)	88	0	0
Other funds allocated to social initiatives (R\$ thousand)	50	74	1,655
Employees carrying out voluntary work in the community outside the Company/total employees (%)	ND	ND	ND
Number of hours donated per month (employees released from normal working hours) by the Company for employee volunteer work	0	0	0

LIGHT INSTITUTE PROJECTS IN 2020

Light Culture Center Online: When on-site visits to the Light Culture Center and Light Electricity Museum were suspended, the team of educators produced online content for the Light Culture Center's Instagram, Facebook and YouTube accounts. The team produced more than 160 posts about energy efficiency, electric safety and efficiency, sustainability, cultural recommendations, and tutorials with at-home activities for the whole family. YouTube content not previously planned for 2020 was also published throughout the pandemic.

The team was trained on the United Nations (UN) Global Compact and was given a better understanding of the 2030 Agenda and its 17 SDGs and 169 targets. Equipped with this knowledge, the team then intensified outreach initiatives to engage more people around these global targets.

Solar Tree: A "Solar Tree" installed in Light Culture Center's "Electricity Plaza" is helping to raise awareness about sustainable energy. The sculpture—consisting of photovoltaic panels fitted to a tree-like metallic structure—converts solar energy into electricity for recharging electronic devices such as smart phones, tablets and other devices charged with a USB cable.

Electricity Consumption Simulator: The Electricity Consumption Simulator is a user-friendly app designed to increase awareness about residential electricity consumption. Using plain language and intuitive content, the app has been embedded on the Light and Light Electricity Museum websites, and can also be used as a teaching aid in a classroom setting.

Electricity Detective Game: Adapted from the workbook used in the Light in Schools training course, the Electricity Detective Game helps users to profile their family's electricity consumption habits. With engaging visuals suited for both child and adult audiences, the tool helps to raise awareness about electricity usage at home and to identify users' consumption profiles.

Seven-episode video series with electricity saving tips and pointers: Light produced a video series with practical tips on energy-saving and conscientious practices for all consumers. The videos also provide pointers on user safety to help improve both energy efficiency and electric safety.

Light in Schools Awards 2020: Since 2014, the Light in Schools Awards have recognized energy efficiency, anti-electricity theft and sustainable development initiatives at schools participating in training workshops. During the shelter-in-place period, with classes being taught online, we organized a virtual award ceremony that recognized five outstanding projects among those published on social media. These projects primarily revolved around environmental education. The winning projects received a kit to support continued online activities.

School renovations: In 2020 we supported infrastructure improvements at three public schools with funding provided from a social lending facility under contract no. CAPEX 2015-2016.

We expanded the kitchen and cafeteria at the João Salim Miguel elementary school in the West Side of Rio de Janeiro, improving comfort for kitchen staff and students and teachers at the cafeteria. New air-conditioners were also installed, lamps were replaced with new, energy-efficient LED models, and improvements were implemented at the sports court.

At the Euclides da Cunha primary and secondary school, in the same area, the power distribution panel boards, water tower and drainage systems were renovated, and the school was repainted. The auditorium was also remodeled with new flooring and air conditioning systems.

In the North Side, we built an urgently needed kitchen and cafeteria at the José de Souza Marques secondary school, which previously only served cold snacks and can now not only prepare and serve well-balanced meals, but also expand its capacity by an additional 300 places. In addition to the new cafeteria, the project also includes improvements to the perimeter wall structures, panel boards, bathrooms and library.

LIGHT-SPONSORED PROJECTS IN 2020

Hacking.Rio 2020: Hacking.Rio, the largest hackathon¹ in Latin America, was organized as an online event in 2020. Light's participation in the event included a panel on "Energy and Social Responsibility," discussing social challenges amid the COVID-19 pandemic and how we are preparing for the future; and an Energy cluster challenge in which participants were asked to develop a shared services platform as an interface between Light and customers for low-complexity, but high-value services. Employees participated as mentors and on the assessment committee, assisting the working groups in completing the challenge and helping to select the challenge winners. This initiative received an investment of R\$ 30,000.00.

Vem CA app and 3rd Accessible Theater Festival: In 2020 Light established a partnership with *Escola de Gente*, an organization that uses communications as a tool for inclusion. We sponsored two projects supporting inclusion, with total funding of R\$200,000.

The *Vem CA* app provides a national platform for accessible culture, helping to more broadly advertise free cultural events offering physical and communications accessibility. The funding was invested in new technological tools to improve the user interface experience. The platform is helping more people with disabilities to participate in free cultural activities inclusively and independently.

The 3rd Accessible Theater Festival featured activities designed to create a new generation of inclusive audiences and engage the drama community in making theater increasingly accessible. During the pandemic, a diversity-themed theater troupe, *Os Inclusos e os Sisos*, delivered fully accessible online performances with audio descriptions, subtitles and translation in Brazilian sign language (*Libras*).

¹ A programming marathon in which hackers meet for hours, days or even weeks to explore open data, develop code and logical systems, discuss new ideas and develop software or even hardware projects.

São João Marcos Cultural Education Project 2020:

This project is part of an ongoing program at the São João Marcos Archaeological and Environmental Park in Rio Claro (RJ). In the last nine years, the project has become an important tool for cultural outreach, preservation of historical and natural heritage and local traditions, entrepreneurship, and providing income opportunities. The initiative has had positive social and economic impacts across the entire Middle Paraíba River area. The project is an extension of Light's Educational & Cultural Program in Rio de Janeiro State, which organizes educational activities that use a fun and plain-language approach to raise awareness about the use of natural resources and electricity. This initiative received an investment of R\$ 1,594,404.00.

In 2020, some of the activities within the project—especially in-person activities—had to be reformulated when the venue was temporarily closed to the public from March to October due to the COVID-19 pandemic.

This led to the development of an Interactive Park as a digital extension of the São João Marcos Archaeological and Environmental Park. A series of digital cultural and educational products was developed to further the Park's mission of preserving the history of the former town of São João Marcos and support educators in providing distance learning on a virtual platform. These products were originally created to keep the public connected to the Park while it was closed, but due to their success with the public, some of them have been incorporated into the Park's permanent calendar of activities and will continue in 2021, with several new additions.

The Interactive Park produced more than 100 items across 14 cultural and educational product categories, including:

CULTURAL

Musicians and the Park: videos recorded by musicians whose life stories or careers intersect with the Park.

Live streams with musicians: live presentations on YouTube by musicians who have previously performed at the Park and by new project partners.

Virtual Tour: a sequence of subtitled films describing the tourist attractions at the Park.

Review Club: video reviews of academic texts describing São João Marcos and the surrounding area.

Experiences at São João Marcos: video testimonials recorded by visitors describing their experience.

360° Virtual Tour: a virtual tour of the Heritage Center and plazas at the Park.

E-books: e-books featuring short stories selected in contests organized by the Park. The e-books are available in three volumes, the third produced as part of the 3rd São João Marcos Short Story Contest in 2020.

EDUCATIONAL

Online workshops: video workshops featuring fun educational activities for children and young people.

Digital Archeology: 3D renditions of items found at the archaeological site.

Knowledge Pills: a sequence of short films featuring different aspects of the Park's history and heritage, posted first on Google Classroom and then on the project's social media accounts.

Remote guided visits: guided online visits via the Zoom platform to explore the natural and cultural heritage of São João Marcos.

Online games: jigsaw puzzles featuring the ruins and landscapes at the Park and crossword puzzles featuring topics related to the Park and the former town of São João Marcos, both available on the Park website.

Virtual Educational Tour: an educational film exploring the natural and archaeological heritage of São João Marcos.

Video Classes on Archeology: video classes for young audiences, developed and presented by archaeologists. The videos feature content about the world of archeology and the archaeological research at the Park.

Around 5,000 students have benefited from educational content and initiatives in partnership with several public schools.

Other projects linked to the São João Marcos Archaeological and Environmental Park are described below

Songwriting Contest: The authors of the three highest-voted songs received a cash prize and an invitation to record a video of their song on the Park's social media accounts. Songs of any musical genre were accepted in the contest provided they were original songs authored by the candidate, and included a reference to the former town of São João Marcos and the Park. All entered songs were evaluated by an assessment panel.

Knowledge Pills Writing and Drawing Contest: An initiative as part of the Park's educational program, designed to spark students' interest in the history of São João Marcos and raise discussion about the topics addressed both within and outside the school setting, encouraging these students to engage in disseminating knowledge. A total of 12 essays and 24 drawings were entered by children and teenagers aged 11 to 16.

An inclusive Park: To mark International People with Disabilities Day in December, the Park website introduced new text-to-speech web reader features and translation into Brazilian sign language (Libras). Eight video titles, including documentaries, clips and tours, were relaunched with subtitles, translation into Libras and audio descriptions. Blind singer Sara Bentes starred in the 14th episode of the "Musicians and the Park" series, with a song about how to help people with disabilities, featuring a mix of video footage recorded at the Park and images from the song's original music video. Sara also starred in the last live stream in the year.

As part of an effort to increase social awareness toward people with disabilities, members of the Park team attended a distance learning course about cultural accessibility. The course provided training on practices for the inclusion of new audiences in Park activities.

The Park website, www.saojoaomarcos.com.br, was also completely reformulated, and although in-person visits, educational activities and cultural events were suspended, the Park remained active in expanding its content into the digital environment and developing new activities to keep the public connected.

ENVIRONMENT

ENVIRONMENTAL DATA

	2018	2019	2020
Shielded and insulated lines (ecological grid or green lines) in urban areas (km)	53,614	54,303	56,230
Percentage of shielded and insulated lines out of total distribution lines in urban areas (%)	85	85	86
Annual volume of greenhouse gas (CO ₂ , CH ₄ , N ₂ O, HFC, PFC, SF ₆) emissions (in metric tons of CO ₂ equivalent) – Scopes 1 and 2	176,197	206,919	174,719
Annual volume of ozone-depleting emissions		Negligible	
Annual quantity (in metric tons) of solid waste generated (refuse, waste, rubble etc.) (*)	581,354	12,475	12,267
Total electricity consumption by source (in MWh)			
Fossil fuels	ND	ND	ND
Alternative sources (gas, wind, solar, etc)	ND	ND	ND
Hydroelectric	ND	ND	ND
Total electricity consumption (in MWh)	119,664	116,074	145,390
Electricity consumption per kWh distributed (sold)	0.001	0.001	0.001
Total direct energy consumption by primary source (MWh)			
Ethanol	52	29	10
Diesel	5,059	6,907	14,497
Natural gas	0	0	0
Gasoline	5,497	5,087	12,992
Total water withdrawal by source (m³)			
Municipal	119,578	129,340	91,779
Surface water (watercourses)	NA	NA	NA
Groundwater (wells)	NA	NA	NA
Total water withdrawal (m ³)	119,578	129,340	91,779
Water withdrawal per employee (m ³)	26.81	28.00	17.23
Number of employees trained in environmental education programs	328	273	67
Employees trained in environmental education programs out of total employees (%)	7.35	5.91	1.26
Number of hours of environmental training for employees out of total hours of training (%)	1.09	0.74	0.02

(*) Includes only waste materials documented on Waste Manifests.

RESEARCH & DEVELOPMENT

R&D INVESTMENT BY RESEARCH TOPIC (R\$ '000) (GRI EU8)

	2018	2019	2020
Alternative sources			
Thermal			
River Basin and Reservoir Management			
Environment			44
Safety			
Energy Efficiency			
Power Systems Planning			1999
Power System Operation	1,342	578	
Power System Supervision, Control and Protection	6,268	5,448	4,082
Power Supply Quality and Reliability	1,949	3,120	3,595
Metering, Billing and Loss Reduction	8,357	10,455	4,198
Other	2,143	5,458	4,123
Total	20,060	25,059	18,041

Note: in 2017, 2018, 2019 and 2020, in addition to project expenditure, respectively R\$ 693,000, R\$ 693,000, R\$ 1,088,000 and R\$ 582,000 was invested in our Management Project.

R&D INVESTMENTS - PROJECT CLASSIFICATION BY RESEARCH STAGE

	2018	2019	2020
Targeted Basic Research (# of projects)			
Targeted Basic Research (R\$ '000)			
Applied Research (# of projects)	11	10	9
Applied Research (R\$ '000)	5,132	5,974	1,605
Experimental Development (# of projects)	15	20	26
Experimental Development (R\$ '000)	8,217	14,613	13,832
Prototyping (# of projects)	5	6	5
Prototyping (R\$ '000)	3,810	2,652	421
Pilot Run (# of projects)	3	4	4
Pilot Run (R\$ '000)	2,901	1,820	1,163
Placement in Market (# of projects)	1	1	3
Placement in Market (R\$ '000)	-	-	1019
Total (# of projects)	35	41	47
Total (R\$ thousand)	20,060	25,059	18,041

R&D INVESTMENT - PROJECT CLASSIFICATION BY TYPE OF DELIVERABLE

	2018	2019	2020
Concept or Method (# of projects)	7	6	7
Concept or Method (R\$ '000)	3,067	3,995	1,301
Software (# of projects)	12	14	18
Software (R\$ '000)	6,021	9,687	7,315
System or Process (# of projects)	1	3	5
System or Process (R\$ '000)	315	1,206	3,184
Material or Substance (# of projects)	3	3	3
Material or Substance (R\$ '000)	2,037	1,862	111
Component or Device (# of projects)	7	7	6
Component or Device (R\$ '000)	4,920	3,601	1,881
Machinery or Equipment (# of projects)	5	8	8
Machinery or Equipment (R\$ '000)	3,700	4,707	4,249
Total (# of projects)	35	41	47
Total (R\$ thousand)	20,060	25,059	18,041

R&D PROJECTS COMPLETED IN 2020 (LIGHT SESA)

R&D 91/15 – Burnt-coil tamper alarm and blocking device for three-phase electromechanical meters - DISBLOQ

The “Burnt-coil tamper alarm and blocking device” project was completed in July 2020. In testing conducted at our laboratory, the prototype was proven to function as intended, although applications for the device are limited to specific electromechanical meter models. We are currently working to identify meters within Light’s service area that can be tested with the prototypes. The knowledge acquired in the development of this project can be replicated to cyclometer and electronic meters.

R&D 92/15 – Anti-cable-theft system

Two different prototypes have been developed: an underground cable locking system to prevent theft; and a system for locking transformer vaults and manholes, with a Wi-Fi-based remote control system and mechanical fixtures to retrofit Light-standard manhole covers.

R&D 93/16 – Regulatory aspects of non-technical losses in high-risk areas

This project developed a regulatory approach to areas with severe operational restrictions, including special rate structures, limits on economic risks, and quality indicators for Light SESA.

R&D 97/18 – Tamper-indicating meter

This R&D project developed a low-cost prototype that can allow meter readers to detect potential tampering with electronic meters, including unauthorized opening of meter enclosures, burnt metering coils and abnormal proximity of magnetic fields.

The device was tested exhaustively throughout 2020. A number of areas for improvement were identified, such as size and weight reduction. The test results were promising, with the electricity recovery team concluding that the meter can serve as an added tool for routine inspections and anti-theft efforts.

Although the project has been completed successfully, further development of the prototype will require time to coordinate the design with the meter manufacturers. We are currently discussing internally whether to move forward with the project within ANEEL’s established R&D pipeline. These discussions were initiated in 2020, but without significant progress so far.

R&D 108/18 – Hybrid IS-limiter for distribution systems

A prototype IS-limiter was developed as part of a study on short-circuit current limiting for field applications, and tested at a laboratory at Universidade Federal Fluminense. This research continued as part of project R&D 133/18, in which the technology was further developed for nominal voltage and short-circuit current levels in distribution systems, the controllers, topology and limiter element construction were perfected to optimize operation in three-phase systems, and tests were carried out to ensure safe operation.

Modernization of rate-setting approaches

This is a joint project to assess different rate-setting approaches for the power distribution segment, addressing the industry challenges created by technological disruption and changing consumer behavior. The project scope includes simulation of proposed distribution rate calculation methods using real-world data in Brazil, the use of modeling tools to assess rate-setting methods proposed by regulators, and outreach. The project also includes a sample-based survey of residential consumers to assess their understanding and acceptance of new rate-setting methods, and an assessment of the regulatory impacts from each rate-setting methodology.

R&D 96/18 – Biodegradable oil and as a replacement of DDB oil

This project is developing a biodegradable oil for insulation and heat exchange in fluid-filled cables, in replacement of conventional oil. The research addresses the need for less environmentally aggressive materials and new product options in the electric power sector. If successful, this project will also provide a major strategic advantage for Light by reducing dependence on suppliers and increasing product availability on the market.

R&D 100/18 – Nanotechnology materials for capturing gases in underground distribution system vaults

This project developed a system to eliminate any buildup of explosive gases such as CO₂, CH₄, acetylene and H₂ in confined spaces housing electrical equipment, such as in underground vaults. Ultraviolet light sources are used as photo catalysts within the prototype device to oxidate and convert explosive gases into inert gases. A prototype device has been delivered to the Distribution Engineering department for installation in underground distribution vaults to monitor the degradation of any explosive gases building up despite the operation of ventilation systems.

R&D 101/18 – Detection of oil leaks from underground fluid-filled cables

The goal of this project was to develop an innovative method for detecting oil leakage from fluid-filled cables by adding chemical and physical markers to the oil. These markers will provide tell-tale signs of leakage in simple inspections. A fluorescent marker can be detected in fluid leaks into the soil, and a smell marker with a distinctive odor. Minute quantities of these markers can change the dielectric properties of insulating oil, as well as being readily detectable by inspection crews.

R&D 105/18 – Oil leak sensor system for fluid-filled cables – Prototype

The goal of this product was to develop a process and equipment for detecting and locating insulating oil leaks from underground 138 kV power lines. The proposed process differs from conventional inspection methods in that it injects the signal into the cable's insulation. Another original feature is that the signal refracted and reflected by discontinuities in the insulation is analyzed using transducers that transform the signal into electric pulses that can be analyzed by electronic equipment. The new methodology has potential applications in other industries.

R&D 111/18 – Predicting the likelihood of failure and estimating losses involving structures, equipment and circuits in underground distribution systems

A predictive maintenance methodology was developed for Light's underground distribution systems that uses machine learning combined with public and proprietary data¹. Two predictive models were built: a transformer vault inspection model to optimize inspection routes, and a model for medium voltage lines, to inform the planning of annual cable maintenance.

¹ Machine learning is a technology in which computers are able to learn and predict expected responses by making associations between different data, including images, numbers and anything else that can be identified.

R&D 112/18 – Distribution system maintenance planning and monitoring system

This project developed a dashboard-based monitoring and decision-making platform designed to: provide a method for mapping areas requiring service via a Geographic Information System (GIS); establish parameters and methods for optimizing crew sizing, crew resources and job windows, which are dependent on climate conditions; build a dynamic matrix to match crew sizes and their resources to job requirements; optimize set ups and routes with a focus on reducing fines and improving EOD and EOF indicators.

R&D 117/18 – Smart Virtual Agent

The goal of this project was to improve customer service and reduce the number of requests handled by human agents at call centers and service offices.

R&D 118/18 – Development of a low-cost energy management tool (hardware and software) for government and commercial customer applications

The goal of this project was to develop a system—including hardware (sub-electricity meters) and software—to monitor real-time electricity consumption at a consumer unit, inform energy efficiency improvements, reduce wasteful electricity consumption, and inform decision-making by the management team. The project was completed in 2020 and, following exhaustive testing, has been shown to be a promising tool for optimizing power consumption. We are currently discussing internally whether to move forward with the project within ANEEL's established R&D pipeline.

R&D 120/18 – Assessing conditions and business models for implementing a trading platform for electricity credits from distributed generation facilities (DG Grant)

This project developed a business model—based on regulatory, technological, operational, tax and contractual assessments—to identify risks and opportunities involved in the development of a platform for trading surplus electricity from distributed generation facilities, including platform features and process specifications.

Power Sector Analytics Intelligence System (SIASE)

An ANEEL-led strategic project to develop a portal with information from market agents to support rate-setting and the development of a consistent database to inform decision-making supported by analytics intelligence tools. So far the project has completed the consumer app module, graphic interface, national distribution database, queries on ANEEL's database of tariff rules, a calculation tool for executing rules, and an interface for distribution companies to view results.

ENERGY EFFICIENCY PROGRAM

ENERGY EFFICIENCY PROGRAM INVESTMENTS BY TYPE OF PROJECT (R\$ '000) [GRI EU7] (DISBURSEMENTS IN THE YEAR)

	2018	2019	2020
Industrial	0	0	0
Own funds			
Third-party funds			
Customer funds			
Trade and services	949	3,870	7,153
Own funds	860	2,883	1,273
Third-party funds		30	0
Customer funds	89	957	5,880
Government	5,840	18,217	30,558
Own funds	5,777	16,476	23,840
Third-party funds		119	165
Customer funds	63	1,622	6,554
Public Utility	0	0	0
Own funds			
Third-party funds			
Customer funds			
Rural	0	0	0
Own funds			
Third-party funds			
Customer funds			
Residential	505	0	0
Own funds	388		
Third-party funds			
Customer funds	117		
Low-Income Residential	7,341	4,824	6,743
Own funds	7,341	4,824	6,743
Third-party funds			0
Customer funds			0
Public Lighting	0	7,575	5,440
Own funds		7,326	5,218
Third-party funds		75	30
Customer funds		174	191
Municipal Energy Management	0	0	0
Own funds			
Third-party funds			
Customer funds			
Education	10,348	3,766	1,202
Own funds	3,574	2,151	1,202
Third-party funds		1,615	0
Customer funds	6,773		0
EE management	633	629	772
Own funds	633	629	772
Third-party funds			0
Customer funds			0
ABRADEE Campaign	0	0	0
Own funds			
Third-party funds			
Customer funds			
PROCEL (0.1 NOR)	0	5,811	22,203
Own funds		5,811	22,203
Third-party funds			
Customer funds			
TOTAL	25,615	44,692	74,070
Own funds	18,573	40,100	61,250
Third-party funds		1,839	195
Customer funds	7,042	2,753	12,625

(*) PROCEL contributions in 2020 were collected under Resolution 2112, published July 20, 2020. This resolution established that contributions were to include the short-fall in relation to the full statutory amount for the period from May 2018 to June 2020, and for this reason contributions exceeded 0.1% of Net Operating Revenue.

ENERGY EFFICIENCY PROGRAM - OUTCOMES (FROM PROJECTS COMPLETED IN THE YEAR)

	2018	2019	2020
Industrial			
Units served	0	0	0
Energy savings (MWh)/year	0	0	0
Peak Shaving (kW)	0	0	0
Trade and services			
Units served	5	0	1
Energy savings (MWh)/year	983	0	412
Peak Shaving (kW)	233	0	102
Government			
Units served	53	10	65
Energy savings (MWh)/year	1,407	5,072	3,764
Peak Shaving (kW)	173	764	562
Public Utility			
Units served	0	0	0
Energy savings (MWh)/year	0	0	0
Peak Shaving (kW)	0	0	0
Rural			
Units served	0	0	0
Energy savings (MWh)/year	0	0	0
Peak Shaving (kW)	0	0	0
Residential			
Units served	1	0	0
Energy savings (MWh)/year	138	0	0
Peak Shaving (kW)	27	0	0
Low-Income Residential			
Units served	0	0	103,722
Energy savings (MWh)/year	0	0	49,222
Peak Shaving (kW)	0	0	9,923
Public Lighting			
Units served	0	1	5
Energy savings (MWh)/year	0	893	4,432
Peak Shaving (kW)	0	170	926
Municipal Energy Management			
Units served	0	0	0
Energy savings (MWh)/year	0	0	0
Peak Shaving (kW)	0	0	0
Education			
Units served	4	0	0
Energy savings (MWh)/year	0	0	0
Peak Shaving (kW)	0	0	0
TOTAL			
Units served	63	11	103,793
Energy savings (MWh)/year	2,528	5,965	57,829
Peak Shaving (kW)	432	934	11,513

ENERGY EFFICIENCY PROJECTS COMPLETED IN 2020

A lighting energy efficiency, environmental conditioning and renewable photovoltaic generation project for the Rio de Janeiro State Finance Department (SEFAZ);

Lighting energy efficiency and renewable photovoltaic generation projects at public buildings in the municipality of Rio Claro and for the Municipal Education Department of Queimados;

Lighting energy efficiency and environmental conditioning projects at the Brazilian Navy's Naval College *and Almirante Graça Aranha* Instruction Center, and at Hospital Nossa Senhora da Conceição;

Lighting energy efficiency projects at the Galeão Air Force Hospital and the Brazilian Navy's Naval War College and Almirante Alexandrino Instruction Center;

Public lighting energy efficiency projects in the municipalities of Três Rios, Piraí, Paracambi, Paty do Alferes and Comendador Levy Gasparian;

Energy efficiency projects in low-income communities: *Light Recicla III, Comunidade Eficiente IX and Comunidade Eficiente VIII.*

ANEEL DISCLOSURES – LIGHT ENERGIA

DIRECT ECONOMIC VALUE GENERATED AND DISTRIBUTED [GRI 201-1]

STATEMENT OF ADDED VALUE (R\$ THOUSAND)	CONSOLIDATED	
	2020	2019
Revenue	1,372,756	1,305,926
Sales of goods, products and services	1,272,729	1,238,962
Revenue relating to construction of company assets	100,027	66,964
Inputs purchased from third parties	(173,729)	(594,717)
Costs of goods sold and services rendered	5,617	(506,369)
Material, energy, outsourced services and other	(179,346)	(88,348)
Gross value added	1,199,027	711,209
Withholdings	(56,409)	(56,568)
Depreciation and amortization	(56,409)	(56,568)
Net value added	1,142,618	654,641
Transferred added value	347,381	102,558
Finance revenue	347,705	97,891
Equity in income of associates	(324)	4,667
Added value to be distributed	1,489,999	757,199
Distribution of added value	1,489,999	757,199
Personnel	18,276	20,318
Direct compensation	12,441	14,524
Benefits	3,507	3,612
FGTS	1,676	2,066
Other	652	116
Taxes, charges and contributions	358,432	236,012
Federal	357,541	235,047
State	14	1
Municipal	877	964
Interest on third-party capital	691,474	174,260
Interest	688,755	172,368
Rent	2,719	1,892
Interest on equity	421,817	326,609
Losses absorbed	-	159,022
Dividends	421,817	167,587

GENERATION OUTPUT

	2018	2019	2020
Total gross electricity generated (GWh)	4,197	4,235	4,410
Total net electricity generated (GWh)	4,150	4,186	4,364

Note: Not including the Paracambi SHP, which is owned by LightGer, in which Light has a 51% interest.

INTERNAL STAKEHOLDERS

GENERAL INFORMATION

	2018	2019	2020
Number of direct employees	220	219	220
Turnover rate (%)	12.3	4.3	11.4
Average overtime per employee/year (hours)	164.4	93.9	97.4
Employees aged 30 or under (%)	31.4	30.6	24.1
Employees aged 31 to 40 (%)	29.5	31.5	38.2
Employees aged 41 to 50 (%)	14.1	12.8	15.5
Employees over 50 (%)	25	25.1	22.3
Percentage of female employees (%)	10	9.6	8.2
Women in managerial positions - out of total managerial positions (%)	0	0	0
Black female employees (black and mixed race) - out of total employees (%)	1.8	1.8	1.4
Black male employees (black and mixed race) - out of total employees (%)	30.5	30.1	33.2
Black employees (black and mixed race) in managerial positions out of total managerial positions (%)	0	10	11
Percentage of interns out of total employees (%)	3.2	2.3	3.6
Apprentice program employees (%)	1.4	1.8	0
Employees with disabilities (%)	2.7	2.3	2.3

COMPENSATION (R\$ THOUSAND)	2018	2019	2020
Gross payroll	23,930	24,839	22,638
Compulsory social charges	6,083	5,279	4,933

TOTAL BENEFITS (R\$ THOUSAND)	2018	2019	2020
Education	25	119	60
Meals	1,718	1,876	1,862
Transportation	41	51	39
Health	1,072	1,158	1,137
Foundation	477	492	434
Occupational health and safety	0	0	0
Culture	0	0	0
Training and professional development	0	0	0
Day care and day care allowance	9	3	7
Other	37	30	28

PROFIT SHARING	2018	2019	2020
Total investment in profit-sharing program (R\$ thousand)	2,549	1,864	1,635
Amounts distributed in relation to gross payroll (%)	10.7	7.5	7.7
Highest compensation divided by the lowest compensation in cash paid by the Company (including profit shares and bonuses)	23.63	39.2	19.1
Highest compensation divided by the minimum salary in force (including profit shares and bonuses)	1.81	1.02	2.22

COMPENSATION PROFILE BY CATEGORY - AVERAGE SALARY (R\$)	2018	2019	2020
Middle management positions (managers and coordinators) - R\$	17,520	19,597	18,508
Administrative positions - R\$	4,165	4,435	4,547
Production positions - R\$	4,308	4,695	4,685

RETIREMENT PROVISION

	2018	2019	2020
Number of beneficiaries of supplementary pension plans	204	203	187
Number of beneficiaries of pre-retirement plan	0	0	0

EDUCATION LEVELS (PERCENTAGE OF TOTAL EMPLOYEES)

	2018	2019	2020
Illiterate employees (%)	0	0	0
Primary education (%)	4.5	3.7	2.7
Secondary education (%)	61.8	63	62.3
Undergraduate (%)	27.7	28.3	31.4
Graduate (specialist, master's degree, PhD) (%)	5.5	5	3.6
Amount invested in professional development and education (% of NOR)	0.002	0.001	0

NUMBER OF HOURS OF PROFESSIONAL DEVELOPMENT PER EMPLOYEE/YEAR (MH), BY EMPLOYEE CATEGORY

	2018	2019	2020
Administrative	9.7	9	2.9
Middle management	22.2	13.2	11.2
Operational	80.3	38.2	40.8
Professional	26.8	24	19.6
Technical	30.3	26.4	22.4
General	33.8	22.1	24.3

INTERNAL STAKEHOLDERS

	2018	2019	2020
Provision for liabilities (R\$ thousand)	4,309	1,363	999
Number of labor claims brought against the company in the period (*)	3	4	1
Number of labor claims accepted in the period (**)	3	4	3
Number of labor claims rejected in the period (**)	1	0	3
Value of court awards in the period (R\$ thousand)	175	40	0

(*) New labor claims brought in the period by direct employees.

(**) Active claims at period-end from direct employees.

Note: partially accepted and settled claims have been included as accepted claims.

COMMUNITY

COMPANY INVOLVEMENT IN CULTURAL, SPORTS AND OTHER PROJECTS (ROUANET ACT)

	2018	2019	2020
Funds allocated to cultural or sports projects etc. (Rouanet Act) (R\$ thousand)	893	1,057	60
Funds allocated to the largest cultural or sports project (Rouanet Act) (R\$ thousand)	300	650	60

HEALTH & SAFETY

OCCUPATIONAL INJURY FREQUENCY RATE

	2018	2019	2020
Total frequency rate for the period - employees	1.86	3.81	1.89
Total severity rate for the period - employees	91	209	19
Total frequency rate for the period - contractors	1.99	0	0
Total severity rate for the period - contractors	6	0	0
Total frequency rate for the period - workforce (employees + contractors)	1.95	1.58	0.71
Total severity rate for the period - workforce (employees + contractors)	35.67	87	7
Fatalities – employees	0	0	0
Fatalities – contractors	0	0	0

SUPPLIERS

CONTRACTORS

	2018	2019	2020
Number of contractors	443	410	518

ENVIRONMENT

ENVIRONMENTAL DATA

	2018	2019	2020
Annual volume of greenhouse gas (CO ₂ , CH ₄ , N ₂ O, HFC, PFC, SF ₆) emissions (in metric tons of CO ₂ equivalent) – Scopes 1 and 2	14,642	7,402	2,502
Annual volume of ozone-depleting emissions		Negligible	
Annual quantity (in metric tons) of solid waste generated (refuse, waste, rubble etc.)	4,784	5,273	3,403
Quantity of contaminated PCB waste	0	0	0
Total electricity consumption by source (in kWh)			
Fossil fuels	ND	ND	ND
Alternative sources (gas, wind, solar, etc)	ND	ND	ND
Hydroelectric	ND	ND	ND
Total electricity consumption (in MWh)	192	236	269
Total direct energy consumption by primary source (MWh)			
Ethanol	0.68	0.13	0
Diesel	154	190	247
Natural gas	0	0	0
Gasoline	195	210	246
Total water withdrawal by source (m³)			
Municipal	5,897	6,020	3,790
Surface water (watercourses)	NA	NA	NA
Groundwater (wells)	NA	NA	NA
Total water withdrawal	5,897	6,020	3,790
Water withdrawal per employee	26.81	28.00	17.23
Electricity consumption of generating and auxiliary units (maximum consumption in MWh by hydroelectric plant)	678,471	719,374	744,923
Water consumption per kWh generated (maximum flow rate - m ³ /s - per kWh delivered)	7.81	7.81	7.81
Restoration of riparian vegetation (ha)	35.87	77.87	26.1
Fish salvaged in turbines (kg of fish per shutdown)	ND	ND	ND
Fish restocking (number of fry released into reservoirs per year)	ND	ND	ND
Release of untreated sanitary effluent and leakage of lubricating and hydraulic oil from turbines (metric tons per year)	ND	ND	ND
Number of employees trained in environmental education programs	96	13	4
Percentage of employees trained in environmental education programs out of total employees (%)	43.64	6.05	1.82
Number of hours of environmental training for employees out of total hours of training	12.31	0.59	0.07

RESEARCH & DEVELOPMENT [GRI EU8]

R&D INVESTMENT BY RESEARCH TOPIC (R\$ '000) (GRI EU8)

	2018	2019	2020
Alternative sources			
Thermal			
River Basin and Reservoir Management	946	1,259	203
Environment	287	607	1643
Safety			
Energy Efficiency			
Power Systems Planning			
Power System Operation	549		205
Power System Supervision, Control and Protection	618	218	
Power Supply Quality and Reliability		43	287
Metering, Billing and Loss Reduction			
Other	751	798	564
Total	3,152	2,926	2,903

Note: in 2017, 2018, 2019 and 2020, in addition to project expenditure, respectively R\$ 56,000, R\$ 10,000, R\$ 54,000 and R\$ 386,000 was invested in our Management Project.

R&D INVESTMENTS - PROJECT CLASSIFICATION BY RESEARCH STAGE

	2018	2019	2020
Targeted Basic Research (# of projects)			
Targeted Basic Research (R\$ '000)			
Applied Research (# of projects)	3	2	2
Applied Research (R\$ '000)	1,140	1,823	467
Experimental Development (# of projects)	2	4	6
Experimental Development (R\$ '000)	1,462	1,103	2,436
Prototyping (# of projects)	1		
Prototyping (R\$ '000)	549		
Pilot Run (# of projects)			
Pilot Run (R\$ '000)			
Placement in Market (# of projects)			
Placement in Market (R\$ '000)			
Total (# of projects)	6	6	8
Total (R\$ '000)	3,152	2,926	2,903

R&D INVESTMENT - PROJECT CLASSIFICATION BY TYPE OF DELIVERABLE

	2018	2019	2020
Concept or Method (# of projects)	2	1	2
Concept or Method (R\$ '000)	389	1,025	408
Software (# of projects)		1	2
Software (R\$ '000)		607	1848
System or Process (# of projects)	4	4	3
System or Process (R\$ '000)	2,763	1,294	646
Material or Substance (# of projects)			
Material or Substance (R\$ '000)			
Component or Device (# of projects)			
Component or Device (R\$ '000)			
Machinery or Equipment (# of projects)			1
Machinery or Equipment (R\$ '000)			0
Total (# of projects)	6	6	
Total (R\$ '000)	3,152	2,926	2,903

R&D PROJECTS COMPLETED IN 2020 (LIGHT ENERGIA)

R&D 11/17e – Development of a system for predicting the quality and quantity of water in multipurpose reservoirs: Lajes Reservoir – ProLajes

The goal of this R&D project was to develop the groundwork for a multipurpose reservoir management tool to provide real-time or predicted data on water quality for generation and water supply. The tool is structured around two core pillars: automated, high-frequency monitoring and mathematical modeling. Automated high-frequency monitoring provides more granular information about environmental processes. This data will feed a robust database on water quality, circulation and meteorological data, and allow environmental behavior to be characterized even within a short operation timeframe. This database will then be used to make predictions using numerical modeling.

R&D 12/17e – Generator protection system response simulator

This project developed a method for the Light Energia team to test generator protection systems using protection data from Light's power plants.

The new method supports dynamic electromechanical modeling of power systems and, in particular, power plant generation systems and their protections, in order to assess the performance of protection systems. The method includes capabilities for integrated analysis of generation, transmission and distribution systems. The method was first tested using a dynamic electromechanical simulation software system, including generators and governors, and then on Light Energia's real-world power plant systems.

LIGHT S.A. SOCIAL BALANCE SHEET

	2020			2019		
1 - Calculation Base	Amount (R\$ thousand)			Amount (R\$ thousand)		
Net revenue (NR)			13,073,468			13,389,567
Operating income (OI)			1,809,492			1,325,701
Gross payroll (GP)			424,517			429,819
2 - Internal Social Indicators	Amount (R\$ thousand)	% of GP	% of NR	Amount (R\$ thousand)	% of GP	% of NR
Meals	36,327	9%	0%	31,746	7%	0%
Compulsory social charges	58,157	14%	0%	68,711	16%	1%
Pension plans	5,504	1%	0%	7,080	2%	0%
Health insurance	25,729	6%	0%	22,728	5%	0%
Occupational health and safety	1,106	0%	0%	1,065	0%	0%
Education	1,009	0%	0%	1,066	0%	0%
Culture	0	0%	0%	0	0%	0%
Training and professional development	2,785	1%	0%	2,700	1%	0%
Day care and day care allowance	882	0%	0%	1,034	0%	0%
Profit sharing	36,316	9%	0%	36,916	9%	0%
Other	3,927	1%	0%	6,740	2%	0%
Total – Internal Social Indicators	171,740	40%	1%	179,786	42%	1%
3 - External Social Indicators	Amount (R\$ thousand)	% of OI	% of NR	Amount (R\$ thousand)	% of OI	% of NR
Education	1,202	0%	0%	2,156	0%	0%
Culture	2,341	0%	0%	36,089	3%	0%
Health and sanitation	1,180	0%	0%	0	0%	0%
Sports	0	0%	0%	1,021	0%	0%
Combating hunger, and food security	0	0%	0%	0	0%	0%
Other	27,920	2%	0%	58,577	4%	0%
Total contributions to society	32,642	2%	0%	97,843	7%	1%
Taxes (not including social charges)	6,024,209	333%	46%	6,687,274	504%	50%
Total – External Social Indicators	6,056,851	335%	46%	6,785,117	512%	51%
4 - Environmental Indicators	Amount (R\$ thousand)	% of OI	% of NR	Amount (R\$ thousand)	% of OI	% of NR
Related to company operations	59,900	3%	0%	40,224	3%	0%
In external programs and/or projects	0	0%	0%	0	0%	0%
Total environmental investment	59,900	3%	0%	40,224	3%	0%
In relation to annual targets for minimizing waste and overall consumption in production/operation activities, and increasing natural resource efficiency, the organization:	() has no targets () is within 51 to 75% of its target(s) () is within 0 to 50% of its target(s) (X) is within 76 to 100% of its target(s)			() has no targets () is within 51 to 75% of its target(s) () is within 0 to 50% of its target(s) (X) is within 76 to 100% of its target(s)		

5 - Functional Staff Indicators	2020	2019
Number of employees at period-end	5,531	4,712
Number of new hires in the period	1,100	965
Number of outsourced workers	6,446	7,861
Number of trainees	63	57
Number of employees over 45	972	970
Number of women working at the company	1,010	1,057
% management positions held by women	27%	21%
Number of people of color working at the company	3,095	2,406
% management positions held by people of color	19%	21%
Number of employees with disabilities or special needs	160	199

6 - Material information regarding corporate citizenship	2020	2021 Targets
Ratio of lowest to highest compensation paid by the company	48.66	ND
Total number of occupational injuries	39	0
The social and environmental programs implemented by the company have been developed by:	() top management (X) top and middle management () all employees	() top management (X) top and middle management () all employees
Occupational health and safety standards have been developed by:	() top and middle management () all employees (X) all employees + CIPA	() top and middle management () all employees (X) all employees + CIPA
In relation to freedom of association, collective bargaining and internal representation of workers, the organization:	() does not get involved (X) complies with ILO requirements () promotes compliance and complies with (ILO) requirements	() will not get involved (X) will comply with ILO requirements () will promote compliance and comply with (ILO) requirements
Private pension plans are extended to:	() top management () top and middle management (X) all employees	() top management () top and middle management (X) all employees
Profit sharing is extended to:	() top management () top and middle management (X) all employees	() top management () top and middle management (X) all employees
When selecting suppliers the ethical, social responsibility and environmental standards adopted by the company:	() are not addressed () are suggested (X) are required	() will not be addressed () will be suggested (X) will be required
In respect of employee participation in voluntary programs, the company:	() does not get involved () gives support (X) offers organization and incentives	() will not get involved () will give support (X) will offer organization and incentives
Total number of consumer grievances and complaints:	to the company: 151,773 to consumer protection services: 1,170 in court: 51,128	to the company: Reduce by 10% to consumer protection services: Reduce by 10% in court: Reduce by 10%
% of complaints and grievances addressed or resolved:	by the company: 98.2% by consumer protection services: 99.2% in court: 42.3%	by the company: 100% by consumer protection services: 100% in court: 100%
Added value to be distributed (in R\$ thousand):	In 2020: 10,697,330	In 2019: 11,480,791
Distribution of Added Value (DVA):	71.25% government 4.05% employees 1.54% shareholders 18.23% third parties 4.93% retained	74.12% government 3.69% employees 2.75% shareholders 10.63% third parties 8.81% retained

7 - Other Information

*Operating income is exclusive of equity in income of subsidiaries.

LIGHT SESA SOCIAL BALANCE SHEET

	2020			2019		
1 - Calculation Base	Amount (R\$ thousand)			Amount (R\$ thousand)		
Net revenue (NR)			11,764,700			11,912,106
Operating income (OI)			795,694			1,015,719
Gross payroll (GP)			384,996			388,637
2 - Internal Social Indicators	Amount (R\$ thousand)	% of GP	% of NR	Amount (R\$ thousand)	% of GP	% of NR
Meals	33,992	9%	0%	29,679	8%	0%
Compulsory social charges	52,444	14%	0%	61,863	16%	1%
Pension plans	4,927	1%	0%	6,307	2%	0%
Health insurance	24,155	6%	0%	21,417	6%	0%
Occupational health and safety	1,344	0%	0%	1,080	0%	0%
Education	955	0%	0%	1,066	0%	0%
Culture	0	0%	0%	0	0%	0%
Training and professional development	2,672	1%	0%	2,575	1%	0%
Day care and day care allowance	827	0%	0%	988	0%	0%
Profit sharing	33,661	9%	0%	35,052	9%	0%
Other	3,796	1%	0%	6,633	2%	0%
Total – Internal Social Indicators	158,772	41%	1%	166,661	43%	1%
3 - External Social Indicators	Amount (R\$ thousand)	% of OI	% of NR	Amount (R\$ thousand)	% of OI	% of NR
Education	1,202	0%	0%	2,156	0%	0%
Culture	2,281	0%	0%	34,984	3%	0%
Health and sanitation	769	0%	0%	0	0%	0%
Sports	0	0%	0%	1,021	0%	0%
Combating hunger, and food security	0	0%	0%	0	0%	0%
Other	25,581	3%	0%	58,577	6%	0%
Total contributions to society	29,832	4%	0%	96,738	10%	1%
Taxes (not including social charges)	5,666,881	712%	48%	6,487,297	639%	54%
Total – External Social Indicators	5,696,713	716%	48%	6,584,035	648%	55%
4 - Environmental Indicators	Amount (R\$ thousand)	% of OI	% of NR	Amount (R\$ thousand)	% of OI	% of NR
Related to company operations	12,870	2%	0%	21,886	2%	0%
In external programs and/or projects	0	0%	0%	0	0%	0%
Total environmental investment	12,870	2%	0%	21,886	2%	0%
In relation to annual targets for minimizing waste and overall consumption in production/operation activities, and increasing natural resource efficiency, the organization:	() has no targets () is within 51 to 75% of its target(s) () is within 0 to 50% of its target(s) (X) is within 76 to 100% of its target(s)			() has no targets () is within 51 to 75% of its target(s) () is within 0 to 50% of its target(s) (X) is within 76 to 100% of its target(s)		

5 - Functional Staff Indicators	2020	2019
Number of employees at period-end	5,272	4,937
Number of new hires in the period	1,060	902
Number of outsourced workers	5,928	7,007
Number of trainees	55	49
Number of employees over 45	909	937
Number of women working at the company	974	1,065
% management positions held by women	29%	22%
Number of people of color working at the company	3,012	2,681
% management positions held by people of color	20%	22%
Number of employees with disabilities or special needs	155	181

6 - Material information regarding corporate citizenship	2020	2021 Targets
Ratio of lowest to highest compensation paid by the company	48.66	ND
Total number of occupational injuries	38	0
The social and environmental programs implemented by the company have been developed by:	() top management (X) top and middle management () all employees	() top management (X) top and middle management () all employees
Occupational health and safety standards have been developed by:	() top and middle management () all employees (X) all employees + CIPA	() top and middle management () all employees (X) all employees + CIPA
In relation to freedom of association, collective bargaining and internal representation of workers, the organization:	() does not get involved (X) complies with ILO requirements () promotes compliance and complies with (ILO) requirements	() will not get involved (X) will comply with ILO requirements () will promote compliance and comply with (ILO) requirements
Private pension plans are extended to:	() top management () top and middle management (X) all employees	() top management () top and middle management (X) all employees
Profit sharing is extended to:	() top management () top and middle management (X) all employees	() top management () top and middle management (X) all employees
When selecting suppliers the ethical, social responsibility and environmental standards adopted by the company:	() are not addressed () are suggested (X) are required	() will not be addressed () will be suggested (X) will be required
In respect of employee participation in voluntary programs, the company:	() does not get involved () gives support (X) offers organization and incentives	() will not get involved () will give support (X) will offer organization and incentives
Total number of consumer grievances and complaints:	to the company: 151,773 to consumer protection services: 1,170 in court: 51,128	to the company: Reduce by 10% to consumer protection services: Reduce by 10% in court: Reduce by 10%
% of complaints and grievances addressed or resolved:	to the company: 98.2% to consumer protection services: 99.2% in court: 42.3%	to the company: 100% to consumer protection services: 100% in court: 100%
Added value to be distributed (in R\$ thousand):	In 2020: 9,276,980	In 2019: 10,820,087
Distribution of Added Value (DVA):	77.99% government 4.20% employees 0.70% shareholders 14.84% third parties 2.26% retained	83.89% government 4.04% employees 0.00% shareholders 10.98% third parties 1.09% retained

7 - Other Information

None.

LIGHT ENERGIA SOCIAL BALANCE SHEET

	2020			2019		
1 - Calculation Base	Amount (R\$ thousand)			Amount (R\$ thousand)		
Net revenue (NR)			1,131,070			1,098,020
Operating income (OI)			974,269			485,026
Gross payroll (GP)			22,638			24,839
2 - Internal Social Indicators	Amount (R\$ thousand)	% of GP	% of NR	Amount (R\$ thousand)	% of GP	% of NR
Meals	1,862	8%	0%	1,876	8%	0%
Compulsory social charges	4,933	22%	0%	5,279	21%	0%
Pension plans	434	2%	0%	492	2%	0%
Health insurance	1,137	5%	0%	1,158	5%	0%
Occupational health and safety	0	0%	0%	0	0%	0%
Education	60	0%	0%	119	0%	0%
Culture	0	0%	0%	0	0%	0%
Training and professional development	0	0%	0%	0	0%	0%
Day care and day care allowance	7	0%	0%	3	0%	0%
Profit sharing	1,719	8%	0%	1,864	8%	0%
Other	67	0%	0%	80	0%	0%
Total – Internal Social Indicators	10,219	45%	1%	10,872	44%	1%
3 - External Social Indicators	Amount (R\$ thousand)	% of OI	% of NR	Amount (R\$ thousand)	% of OI	% of NR
Education	0	0%	0%	0	0%	0%
Culture	0	0%	0%	0	0%	0%
Health and sanitation	411	0%	0%	0	0%	0%
Sports	0	0%	0%	0	0%	0%
Combating hunger, and food security	0	0%	0%	0	0%	0%
Other	899	0%	0%	2,808	1%	0%
Total contributions to society	1,310	0%	0%	2,808	1%	0%
Taxes (not including social charges)	305,352	31%	27%	183,279	38%	17%
Total – External Social Indicators	306,662	31%	27%	186,087	38%	17%
4 - Environmental Indicators	Amount (R\$ thousand)	% of OI	% of NR	Amount (R\$ thousand)	% of OI	% of NR
Related to company operations	47,030	5%	4%	11,328	2%	1%
In external programs and/or projects	0	0%	0%	0	0%	0%
Total environmental investment	47,030	5%	4%	11,328	2%	1%
In relation to annual targets for minimizing waste and overall consumption in production/operation activities, and increasing natural resource efficiency, the organization:	() has no targets () is within 51 to 75% of its target(s) () is within 0 to 50% of its target(s) (X) is within 76 to 100% of its target(s)			() has no targets () is within 51 to 75% of its target(s) () is within 0 to 50% of its target(s) (X) is within 76 to 100% of its target(s)		
5 - Functional Staff Indicators	2020			2019		
Number of employees at period-end			220			219
Number of new hires in the period			29			9
Number of outsourced workers			518			410
Number of trainees			8			5
Number of employees over 45			56			72
Number of women working at the company			18			21
% management positions held by women			0%			0%
Number of people of color working at the company			76			70
% management positions held by people of color			11%			10%
Number of employees with disabilities or special needs			5			5
6 - Material information regarding corporate citizenship	2020			2021 Targets		
Ratio of lowest to highest compensation paid by the company			19.08			ND
Total number of occupational injuries			1			0
The social and environmental programs implemented by the company have been developed by:			() top management (X) top and middle management () all employees			() top management (X) top and middle management () all employees
Occupational health and safety standards have been developed by:			() top and middle management () all employees (X) all employees + CIPA			() top and middle management () all employees (X) all employees + CIPA
In relation to freedom of association, collective bargaining and internal representation of workers, the organization:			() does not get involved (X) complies with ILO requirements () promotes compliance and complies with (ILO) requirements			() will not get involved (X) will comply with ILO requirements () will promote compliance and comply with (ILO) requirements
Private pension plans are extended to:			() top management () top and middle management (X) all employees			() top management () top and middle management (X) all employees
Profit sharing is extended to:			() top management () top and middle management (X) all employees			() top management () top and middle management (X) all employees
When selecting suppliers the ethical, social responsibility and environmental standards adopted by the company:			() are not addressed () are suggested (X) are required			() will not be addressed () will be suggested (X) will be required
In respect of employee participation in voluntary programs, the company:			() does not get involved () gives support (X) offers organization and incentives			() will not get involved () will give support (X) will offer organization and incentives
Total number of consumer grievances and complaints:			to the company: – to consumer protection services: – in court: –			to the company: – to consumer protection services: – in court: –
% of complaints and grievances addressed or resolved:			to the company: – to consumer protection services: – in court: –			to the company: – to consumer protection services: – in court: –
Added value to be distributed (in R\$ thousand):			In 2020: 1,489,999			In 2019: 757,199
Distribution of Added Value (DVA):			24.06% government 1.23% employees 28.31% shareholders 46.41% third parties 0% compensation for damages			31.17% government 2.68% employees 22.13% shareholders 23.01% third parties 21.01% compensation for damages
7 - Other Information	None.					

