ESG Performance Indicators

		2024	2025
Finance	**Capital Investment, Operating Earnings and Revenue**		
	Net Sales (MMOP)	7,755	7,576
	Total Liabilities (MMOP)	4,840	4,581
	Total Equity (MMOP)	6,179	5,993
	Total Capital Investment Incurred by Asset Type (MMOP)		
	Transmission & Distribution	778	593
	Generation	168	211
	Others	170	175
	Total Operating Expenses (MMOP)	8,235	8,250
	Resulting HC ROI	2.84	2.43
Climage Change	**Greenhouse Gas Emissions (CO_2-e (Metric Tons))**		
	In accordance with ISO 14064		
	Direct GHG Emissions and Removals	317,914.58	327,539.20
	- Electricity Generated By Own Facilities	315,407.10	324,105.71
	- Electrical Transmission and Distribution	1,895.72	2,597.94
	- Transportation Mobile Source (Owned)	213.16	169.47
	- Fugitive Refrigerant & Fire Suppression Equipment Emissions	398.49	665.82
	- GHG Removals from Newly Planted Trees	0.00	-0.02
	- Non-Energy Processes	0.12	0.29
	Indirect GHG Emissions from Imported Energy	90,328.77	57,557.96
	- Asset Consumption	2,795.81	2,360.28
	- Transmission and Distribution losses	87,532.96	55,197.68
	Indirect GHG Emissions from Transportation	489.93	451.29
	- Transportation Mobile Source (Staff)	461.71	419.39
	- Business Travel	28.22	31.90
	Indirect GHG Emissions from Products Used by Organization	3,391,390.07	2,530,008.50
	- Purchased fresh water from Macao Water Supply Company	34.61	27.96
	- Transportation of Materials from Suppliers	N/A	N/A
	- Purchased Electricity from Mainland China (CSG) that resale to end-user	3,053,103.71	2,155,294.80
	- Purchased Electricity from Refuse Incineration Plant (CIRS) that resale to end-user	338,251.75	374,685.75
	Indirect GHG Emissions Associated with the Use of Products from the Organization	N/A	N/A
	Indirect GHG Emissions From other Sources	N/A	N/A

ESG Performance Indicators

		2024	2025
Climage Change	**In accordance with the GHG Protocol**		
	Total direct GHG emissions (Scope 1)	317,914.58	327,539.20
	Indirect Greenhouse Gas Emissions (Scope 2) - Location-based	90,328.77	57,557.96
	Indirect Greenhouse Gas Emissions (Scope 2) - Market-based	90,328.77	57,557.96
	Indirect Greenhouse Gas Emissions (Scope 3)	6,783,237.00	5,060,442.07
	- Category 1 (Purchased fresh water from Macao Water Supply Company)	34.61	27.96
	- Category 3 (Total Emissions for Category 3)	3,391,355.46	2,529,980.55
	• Category 3 (Purchased Electricity from Mainland China (CSG) that resale to end-user)	3,053,103.71	2,155,294.80
	• Category 3 (Purchased Electricity from Refuse Incineration Plant (CIRS) that resale to end-user)	338,251.75	374,685.75
	- Category 6 (Business travel)	28.22	31.90
	- Category 7 (Transportation Mobile Source (Staff))	461.71	419.39
	Greenhouse Gas Emissions Intensity (kg CO_2-e/kWh)		
	Electricity generated by CEM	0.587	0.556
	Purchased Electricity from Mainland China (CSG)	0.5703	0.4042
	Purchased Electricity from Refuse Incineration Plant (CIRS)	1.7622	1.768
	GHG Emissions Intensity of Electricity Sold (kg CO_2-e/kWh)		
	Macao SAR CO_2 Emissions Factor	0.609	0.465
Environment	**Environmental Compliance**		
	Environmental Regulatory Non-Compliances Resulting in Fines or Prosecutions (Number)	0	0
	Environmental License Limit Exceedances & Other Non-compliances (Number)	0	0
	Air Pollutants		
	Nitrogen Oxides (NO_x) (mg/m^3)	CCA: 345 CCB: 42	CCA: 344 CCB: 38
	Nitrogen Oxides (NO_x) (Metric Tons)	181	149
	Sulphur Dioxide (SO_2) (mg/m^3)	CCA: 199 CCB: 1	CCA: 196 CCB: 1
	Sulphur Dioxide (SO_2) (Metric Tons)	39	24
	Particulates (PM) (mg/m^3)	CCA: 37 CCB: 4	CCA: 36 CCB: 4
	Particulates (PM) (Metric Tons)	16	14
	Sulphur Hexafluoride (SF_6) (kg)	78	107
	Emissions Ratio in Densely Populated Areas (%)		
	Macao Peninsula	0	0
	Taipa	0	0
	Coloane	100	100

ESG Performance Indicators

		2024	2025
Environment	**Waste**		
	Hazardous Solid Waste (t)		
	Produced	31.1	15.4
	Recycled	2.6	15.2
	Disposal	28.5	0.2
	Hazardous Liquid Waste (kl)		
	Produced	23.0	26.2
	Recycled	0.0	25.8
	Non-hazardous Solid Waste (t)		
	Produced	127,592.8	120,255.9
	Recycled	127,201.3	120,089.2
	Disposal	391.5	166.7
	Non-hazardous Liquid Waste (kl)		
	Produced	44.2	0.0
	Recycled	25.2	0.0
	By-products (t)		
	Produced	0.0	0.0
	Recycled	0.0	0.0
	Water		
	otal Water Withdrawal (m^3)		
	For Cooling Purpose		
	Water Withdrawal from Freshwater Resources	1,300	' 869
	Water Withdrawal from Marine Water Resources	125,325,543	128,068,929
	For Non-cooling Purposes		
	Water Withdrawal from Freshwater Resources	1,767	42,585
	Water Withdrawal from Municipal Sources	224,484	204,409
	Total Water Discharge	125,345,690.0	128,089,773.5
	From Cooling Process		
	Treated Wastewater to Freshwater Bodies	0	0
	Water Discharge to Marine Water Bodies	125,325,543	128,068,929
	Wastewater to other Destinations	0	0

ESG Performance Indicators

		2024	2025
Environment	**From Non-cooling Processes**		
	Treated Wastewater to Freshwater Bodies	0	0
	Treated Wastewater to Marine Water Bodies	20,147	20,845
	Wastewater to other Destinations	0	0
	Wastewater to Sewerage	0	0
	Total Freshwater Consumption (m^3)	226,251	246,994
	Freshwater intensity		
	Freshwater Intensity of Power Generation (m^3/MWh)	0.273	0.229
	Freshwater Reused/Recycled		
	Freshwater Reused/Recycled Volume (m^3)	10,390,594	9,838,435
	Average Levels of the Wastewater Parameters		
	TSS (mg/L)	CCA: 29.1 CCB: 10.7	CCA: 35.24 CCB: 12.67
		25.7	31.7
	Detergent (mg/L)	CCA: 1 CCB: 1	CCA: 0.9 CCB: 1
		1.0	0.9
	COD (mg/L)	CCA: 42.1 CCB: 20	CCA: 33.11 CCB: 20
		38.1	31.0
	pH	CCA: 6.92 CCB: 7.38	CCA: 7.11 CCB: 7.3
		7.2	7.1
	BOD (mg/L)	CCA: 14.3 CCB: 10	CCA: 13.33 CCB: 10.83
		13.5	12.9
	Oils and Greases (mg/L)	CCA: 5 CCB: 5	CCA: 5 CCB: 5
		5.0	5.0
	Noise Abatement Notice		
	Noise complaints received / Noise notices issued	0	1
	Environmental Training		
	Number of participants in environmental training	70	127
	Total duration of environmental training (Hours)	53.5	75.4

ESG Performance Indicators

		2024	2025
Customers	**Customer Portfolio**		
	Total Customers (Number)		
	By Customer Classification		
	Residential	246,088	248,792
	Commercial	35,188	35,305
	Industrial	1,963	1,946
	By Tariff		
	A	281,682	284,399
	B	596	611
	C	10	10
	D	9	9
	EV - Electric Vehicle Charging	439	501
	IP - Public Lighting	503	513
	Total Energy Sales (GWh)		
	By Customer Classification		
	Residential	1,313.655	1,327.233
	Commercial	4,581.534	4,648.159
	Industrial	133.932	133.757
	By Tariff		
	A	2,750.829	2,745.173
	B	1,535.364	1,526.489
	C	106.454	157.562
	D	1,611.066	1,650.557
	EV - Electric Vehicle Charging	5.912	9.455
	IP - Public Lighting	19.496	19.913
	Availability and Reliability		
	SAIDI - System Average Interruption Duration Index	0.35	0.25
	SAIFI - System Average Interruption Frequency Index	0.085	0.03
	ASAI - % Average System Availability Index	99.99993%	99.99995%
	CAIDI - Customer Average Interruption Duration Index (Min)	4.04	7.51
	Unplanned M-Index	0.26	0.19

ESG Performance Indicators

		2024	2025
Customers	**Access to Electricity**		
	% Connection of Supply	100%	100%
	% Supply Reconnection	99.99%	100.00%
	% Bill Correction	100%	100%
	% Complaint Handling	100%	100%
	% Appointment Time Schedule	100%	100%
	% Emergency Service	99.88%	99.89%
	% Supply Restoration	99.94%	99.93%
	% Public Lighting	100%	100%
	Customer Satisfaction Index	83.68%	84.93%
	% Transmission Losses	0.64%	0.63%
	% Distribution Losses	1.91%	2.03%
	% Generation Losses	7.90%	7.35%
	Substantiated complaints received concerning breaches of customer privacy (no. of complaint)	0	0
	Fuel Use (For Power Generation)		
	Natural Gas (NG) (10^6 m^3)	130.0	140.2
	Heavy Fuel Oil (HFO) (10^3 t)	10.1	6.3
	Diesel Oil (DO) (10^3 t)	0.5	0.0
	Installed natural gas generation capacity		
	Capacity (MW)	136.4	136.4
	Share of capacity (%)	33.45%	33.45%
	Installed oil generation capacity		
	Capacity (MW)	271.4	271.4
	Share of capacity (%)	66.55%	66.55%
	Total non-renewable installed capacity		
	Capacity (MW)	407.8	407.8
	Share of capacity (%)	99.99%	99.99%
	Installed solar generation capacity		
	Capacity (MW)	0.002	0.035
	Share of capacity (%)	0.001%	0.009%

ESG Performance Indicators

		2024	2025
Customers	**Total Generation by Asset Type (MW(%))**		
	Natural Gas	90.26%	94.49%
	Heavy Fuel Oil & Diesel Oil	9.74%	5.51%
	Solar (kWh)	1,405	1,434
	Share generation own assets (GWh)		
	Natural Gas	485	551
	Heavy Fuel Oil & Diesel Oil	52	32
	Plant Thermal Efficiency		
	Total (%)	41.86%	43.28%
	Natural Gas (%)	41.61%	43.14%
	Heavy Fuel Oil & Diesel Oil (%)	44.35%	45.71%
	Gross Consumption (GWh)	6,235	6,263
	Generation by CEM	537	583
	Importation from CSG	5,502	5,464
	Purchase from Macau Refuse Incineration Plant	194	213
	Photovoltaic Generation	2.308	2.889
	Free Supply	11	11
	Sales	6,023	6,103
	Transmission and Distribution Losses	157	131
	Generation Losses	42	43
Operations	**Infrastructure (Number)**		
	Customer Substations	1,787	1,841
	EV chargers for e-cars	2,032	2,105
	charging sockets for e-motorcycles	630	913
	Cable Length (km)		
	Total (km)	5,647	5,760
	Above ground (km)	72	73
	Underground (km)	5,575	5,687

ESG Performance Indicators

		2024	2025
Operations	**HV Cable Length (km)**		
	Total Length of 220kV HV Cables	123	123
	Total Length of 110kV HV Cables	375	382
	Total Length of 66kV HV Cables	585	585
	Overall HV Cables	1,083	1,090
	MV Cable Length (km)		
	Total Length of MV Cables	2,809	2,868
	LV Cable Length (km)		
	Underground LV Cables	985	1,010
	Overhead LV Cables	72	73
	Total Length of LV Cables	1,057	1,083
	Public Lighting		
	Underground PL Cables (km)	636	657
	Overhead PL Cables (km)	61	62
	Total Length of PL Cables (km)	698	719
	Number of PL Poles	12,957	13,573
	Number of PL Wall-mounted	4,541	4,582
Our Staff	**Employee Profile**		
	Total Employee Headcount (Number)	715	714
	Permanent (Number)	680	680
	Temporary Contract (Number)	35	34
	Permanent (Ratio (%))	95.1%	95.2%
	Temporary Contract (Ratio (%))	4.9%	4.8%
	By Age Group (Ratio (%))		
	Below 20	0.00%	0.00%
	20-29	21.12%	18.91%
	30-39	33.15%	35.43%
	40-49	13.01%	15.13%
	50-59	20.42%	17.37%
	Above 60	12.31%	13.17%

ESG Performance Indicators

		2024	2025
Our Staff	**By geographical region (Ratio (%))**		
	Macao	95.94%	96.08%
	Others	4.06%	3.92%
	By Gender (Ratio (%))		
	Male	76.36%	75.07%
	Female	23.64%	24.93%
	Gender Distribution by Professional Category (Ratio (%))		
	Managerial - Male	66.67%	68.29%
	Managerial - Female	33.33%	31.71%
	Professional - Male	69.28%	66.55%
	Professional - Female	30.72%	33.45%
	General & Technical Staff - Male	82.44%	82.49%
	General & Technical Staff - Female	17.56%	17.51%
	Voluntary Staff Turnover Rate (Ratio (%))	5.11%	2.95%
	By Age Group		
	20-29	47.22%	23.81%
	30-39	41.67%	47.62%
	40-49	2.78%	4.76%
	50-59	2.78%	14.29%
	Above 60	5.55%	9.52%
	By Gender		
	Male	83.33%	90.48%
	Female	16.67%	9.52%
	Total Staff Turnover Rate (Staffs who have left voluntarily, retired, had their employment contracts terminated by the company, or whose contracts have expired.) (Ratio (%))	7.81%	6.03%
	By Age Group		
	20-29	30.91%	20.93%
	30-39	30.91%	23.26%
	40-49	1.82%	2.33%
	50-59	1.82%	9.30%
	Above 60	34.55%	44.19%

ESG Performance Indicators

		2024	2025
Our Staff	**By Gender**		
	Male	81.82%	88.37%
	Female	18.18%	11.63%
	Newly Admitted Employees (Number)		
	Total	63	42
	By Age Group		
	Below 30	45	30
	30-39	15	7
	40-49	2	3
	50-59	1	2
	Above 60	0	0
	By Gender		
	Male	43	28
	Female	20	14
	Parental Leave		
	No. of employees who have taken parental leave during the year	21	14
	By Gender		
	Male	11	10
	Female	10	4
	Return to work rates of employees who returned to work after parental leave		
	Male	100%	100%
	Female	100%	100%
	Retention rates of employees who remained employed 12 months after returning to work from parental leave		
	Male	100%	100%
	Female	90%	100%
	Percentage of open positions filled by internal candidates (internal hires)	7.31%	13.79%
	Employees Eligible to Retire Within the Next Five Years		
	Total (%)	12.02% (86)	12.89% (92)
	Technical Trainees Intake (JMTP/NGTP)		
	Total (Number)	35	12
	Male	26	8
	Female	9	4

ESG Performance Indicators

		2024	2025
Our Staff	**Training Hours per Employee**		
	Total Training Hours (Hours)	24,906	28,844
	Average Training Hours per Employee (Hours)	34.88	40.93
	By Gender (Hours)		
	Male	40.50	47
	Female	16.54	22
	By Professional Category (Hours)		
	Managerial	15.74	42.91
	Professional	17.40	46.97
	General & Technical Staff	20.69	35.89
	Average amount spent per FTE on training and development (MOP)	5,083	2,900
	Percentage of Employees Trained		
	By Gender (%)		
	Male	88.10%	99.00%
	Female	85.80%	96.00%
	By Professional Category (%)		
	Managerial	97.62%	97.56%
	Professional	92.34%	98.63%
	Gender Distribution of Executive Committee Members (%)		
	Male	100%	100%
	Female	0%	0%
	Gender Diversity Targets		
	Women in Leadership (%)	33.33% (14)	31.71% (13)
	Women in Engineering (%)	12.30% (23)	14.14%(28)
	Employee Average Length of Service		
	Number of Years	16.15	15.78

ESG Performance Indicators

		2024	2025
Contractor	**Contractor Type (Number)**		
	Total Contractor	510	443
	Material Suppliers	287	274
	Service Contractor	223	225
	Number of worked hours (Hours)	1,008,440	1,085,529
	Number of Accidents of contractors	0	1
	No. of Absence Days for contractors	0	27
Occupational Health & Safety	**Safety Performance**		
	Employees		
	Fatalities (Number of personnel) (Number of deaths resulting from work-related injuries)	0	0
	High-consequence Injuries (Number of personnel) (Refers to the number of personnel who sustain life threatening or life-altering work-related injury)	0	0
	IFR - Injury Frequency Rate	0.00	1.52
	No. of Accidents	0	2
	ISR - Injury Severity Rate	0.00	47.78
	No. of Accidents Days	0	63
	TRIR - Total Recordable Incident	0.00	0.30
	Fatality Rate	0	0
	NMFR - Near Miss Frequency Rate	1.67	1.97
	Contractors		
	Fatalities (Number of personnel) (Number of deaths resulting from work-related injuries)	0	0
	High-consequence Injuries (Number of personnel) (Refers to the number of personnel who sustain life threatening or life-altering work-related injury)	0	0
	IFR - Injury Frequency Rate	0.00	0.92
	No. of Accidents	0	1
	ISR - Injury Severity Rate	0.00	24.92
	No. of Accidents Days	0	27
	Employees and Contractors Combined		
	Fatalities (Number of personnel) (Number of deaths resulting from work-related injuries)	0	0
	High-consequence Injuries (Number of personnel) (Refers to the number of personnel who sustain life threatening or life-altering work-related injury)	0	0
	IFR - Injury Frequency Rate	0.00	1.25
	No. of Accidents	0	3
	ISR - Injury Severity Rate	0.00	37.44
	No. of Accidents Days	0	90

ESG Performance Indicators

		2024	2025
Occupational Health & Safety	**Safety index**		
	Employees	0	5
	Safety Drills and Training		
	Number of safety drills	14	14
	Number of safety training sessions	23	32
Partners	**Code of Conduct**		
	Total Number of Breaches of Code of Conduct Reported (Cases)	0	0
	Anti-corruption		
	Convicted Cases of Corruption Reported (Cases)	0	0
	Total number of employees covered by anti-bribery and anti-corruption training (Persons)	0	210
	Percentage of employees covered by anti-bribery and anti-corruption training (%)	0.00	23.52
	Supplier Distribution		
	Total Payments to Suppliers (Number)	510	443
	Payments to Suppliers by Region (Number)		
	Mainland China	54	48
	Hong Kong	144	132
	Macao	240	204
	Others	72	59
	Payments to Suppliers		
	Total Payments to Suppliers (MMOP)	6,402	2,170
	Payments to Suppliers by Region (MMOP)		
	Mainland China	4,396	185
	Hong Kong	197	411
	Macao	1,736	1,505
	Others	73	69
Community	**Community Investment**		
	Community Programs Implemented (Number)	33	32
	Community Spending		
	Total Spending (MOP)	2,856,032	2,847,712

ESG Performance Indicators

		2024	2025
Community	**Community Spending by Region (%)**		
	Mainland China	0	0
	Hong Kong	0	0
	Macau	100	100
	Others	0	0
	Community Spending by Theme (%)		
	Education and Development	31.2	32.3
	Community Wellbeing	4.6	4.1
	Environment	16.2	18.2
	Arts and Culture	5.3	4.7
	Community Engagement	42.7	40.7
	Donations		
	Amount Donated for Charitable and other Purposes (MOP)	2,211,332	2,726,012
	Corporate Sponsorship / Donation (%)		
	Art & Sports	3%	11%
	Social Solidarity & Subsidy	97%	89%
	Time and Expertise Contributed		
	Volunteer hours from CEM Staff and Family Members (Hours)	550	857
	Skill-based (%)	17.7%	4.0%
	Non skill-based (%)	82.3%	96.0%
	Beneficiaries		
	Beneficiaries (Number)		
	Direct Beneficiaries	0	0
	Organizations Benefitted	44	48
	Beneficiaries by Theme (%)		
	Education and Development	13%	12%
	Community Wellbeing	63%	66%
	Environment	6%	8%
	Arts and Culture	19%	14%
	Access to electricity		
	Disconnections for CEM residential customers (Cases)	16,116	10,252
	It refers to the disconnection orders completed due to overdue payment (Cases)	15,940	9,975