

2024

CEM Sustainability Report



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Chairman of the Executive Committee's Message





Today's world contains new and complex issues which elevates risks and uncertainties to businesses. CEM realized all these constraints but achieved success and good performance. This is the CEM Sustainability Report 2024, in which we reveal our company vision and disclose our corporate-wide performance in the areas of environment, social and governance (ESG) for 2024.

2024 was an important year for Macau, as its citizens celebrated the 75th anniversary of the founding of the People's Republic of China and the 25th anniversary of the establishment of the Macau SAR, with various city-wide events throughout the year. CEM played a vital role as a partner of the Macau SAR Government, ensuring a stable and reliable energy supply during all the commemorative activities. CEM once again reached a world-class result of Average System Availability Index¹ (ASAI) of 99.9999% for the fifth consecutive year, while the Customer Average Interruption Duration Index¹ (CAIDI) was at 4.04 minutes. We are humbled to have received an all-time high customer satisfaction level of 91.9% in 2024. This shows that CEM's customers appreciate the efforts, improvements, and quality that the company inserts into the processes and procedures every day.

CEM implemented adequate technical advancements to its facilities in 2024. A combination of external factors like global warming, the ongoing economic recovery of post-pandemic Macau, among others, drove the increase in overall energy demand and consumption in Macau. Our power sources were fully prepared to meet this increased demand. Moreover, CEM also proceeded with the planned works necessary to strengthen the power network infrastructure, including the maintenance and construction of two primary substations and several customer substations, which are vital for ensuring a stable energy supply to customers. There were ongoing and completed projects aimed at delivering best practices in cyber technologies and solutions to protect the customers' critical information and the operational networks against advanced and persistent threats.

CEM strived to continue promoting and enhancing the company's environmental culture. The electric vehicle charging station infrastructure of Macau continued to advance, and we are designing and building new facilities with more green spaces. Several environmental initiatives, such as the project of floating photovoltaic system in the Power Station, were also implemented to reduce the company's overall carbon footprint and to educate employees about sustainability.

Addressing health risks, we continued our effort to intensify and elevate our employees' awareness of the importance of health, fitness and well-being. In 2024, CEM implemented the CEM Occupational Health Evaluation, in which employees went through an overall and detailed health screening. Our medical professionals analyzed the results of the screening, made the individual results available to the employees, and arranged for follow-up as needed. Furthermore, we continued our journey in safety by persisting in organizing training and awareness sessions for employees on various safety issues, performing inspections and audits, listening to our employees' and contractors' feedback and suggestions, and following up on recommendations for improvement. CEM is very proud of 2024's achievement of zero work accidents throughout one calendar year. This is not the first time we have reached this goal, and it won't be our last.

CEM faces many challenges concerning the future and we know that we must adapt to cope with new pressures. We must evolve with the external changes. We remain steadfast in following our corporate mission and serving our customers with integrity, empathy, and innovation. We do not work alone; we foster positive relationships with our partners and stakeholders so that jointly, we can achieve operational excellence, reduce the environmental impact of our activities, and offer a healthy and safe workspace to our people.

Sustainability is not just a goal—it is an ongoing endeavor. We will continue to strengthen our actions and propose sustainable development in various areas of CEM. 2025 has arrived, and our journey in sustainability continues.

Bernie Leong Wa Kun
Chairman of the Executive Committee

¹ Outages under CEM's responsibility

The background is a vibrant green with a close-up of water droplets on a leaf. A large, bold white number '2' is positioned on the left side. The right side of the image features a vertical yellow-to-green gradient bar. Overlaid on the green background are several semi-transparent, wavy green shapes that create a layered, organic effect.

2

ESG Highlights



Environment

- Full compliance with environmental regulations for atmospheric emissions and wastewater.
- Organized visits to educate employees on environmental sustainability.
- Adopted a new policy of greener constructions for new facilities, by introducing larger green areas on the roofs and/or walls of new primary substations.



Social

- Obtained an all-time high level of customer satisfaction of 91.9% from customers.
- Reached once more the significant achievement of zero work accidents in one calendar year for CEM employees and contractors.
- Performed the CEM Occupational Health Evaluation, a major initiative to monitor and follow up employees' overall health status.



Governance

- Reached world-class level of Average Service Availability (ASAI) of 99.9999%.
- Re-certified all five ISO certifications in 2024, namely ISO 9001, ISO 14001, ISO 45001, ISO 20000-1 and ISO 14064-1.

Inputs

Number of Customers: **283,239**, among commercial, residential and industrial contracts

Number of Employees: **715**
Number of Material Suppliers: **288**
Number of Service Vendors: **223**

Power Infrastructure

1 Power Station

1 Dispatch Centre

29 Primary Substations
8 High voltage Switching Stations
1,787 Customer Substations
2,032 EV chargers for e-cars
630 charging sockets for e-motorcycles

3 Warehouses

2 Customer Service Centers

1 Call center

Company Operations

Power Generation

Power Generated: **537** GWh
Power Purchased from Mainland China (CSG): **5,502** GWh
Power Purchased from Macau Refuse Incineration Plant (CIRS): **194** GWh

Net Sales: MOP **7,755** million
Total Liabilities: MOP **4,840** million
Total Equity: MOP **6,179** million

Safety Statistics

Number of Accidents (employee): **0**
Number of Accidents (contractor): **0**

Outputs

CO₂ Emission Factor: **0.609** kg CO₂e/kWh

Atmospheric Emissions

CCA

NO_x Emissions: **345** mg/m³
SO₂ Emissions: **199** mg/m³
PM Emissions: **37** mg/m³

CCB

NO_x Emissions: **42** mg/m³
SO₂ Emissions: **1** mg/m³
PM Emissions: **4** mg/m³

Sales of **6,023** GWh to customers

Customer Satisfaction Index: **91.9%**

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Corporate Governance



Companhia de Electricidade de Macau – CEM, S.A. (hereinafter “CEM”) is a public utility company with the sole concession for the transmission,

distribution, and sale of high, medium, and low-voltage electricity in Macau. CEM also possesses power generation facilities.

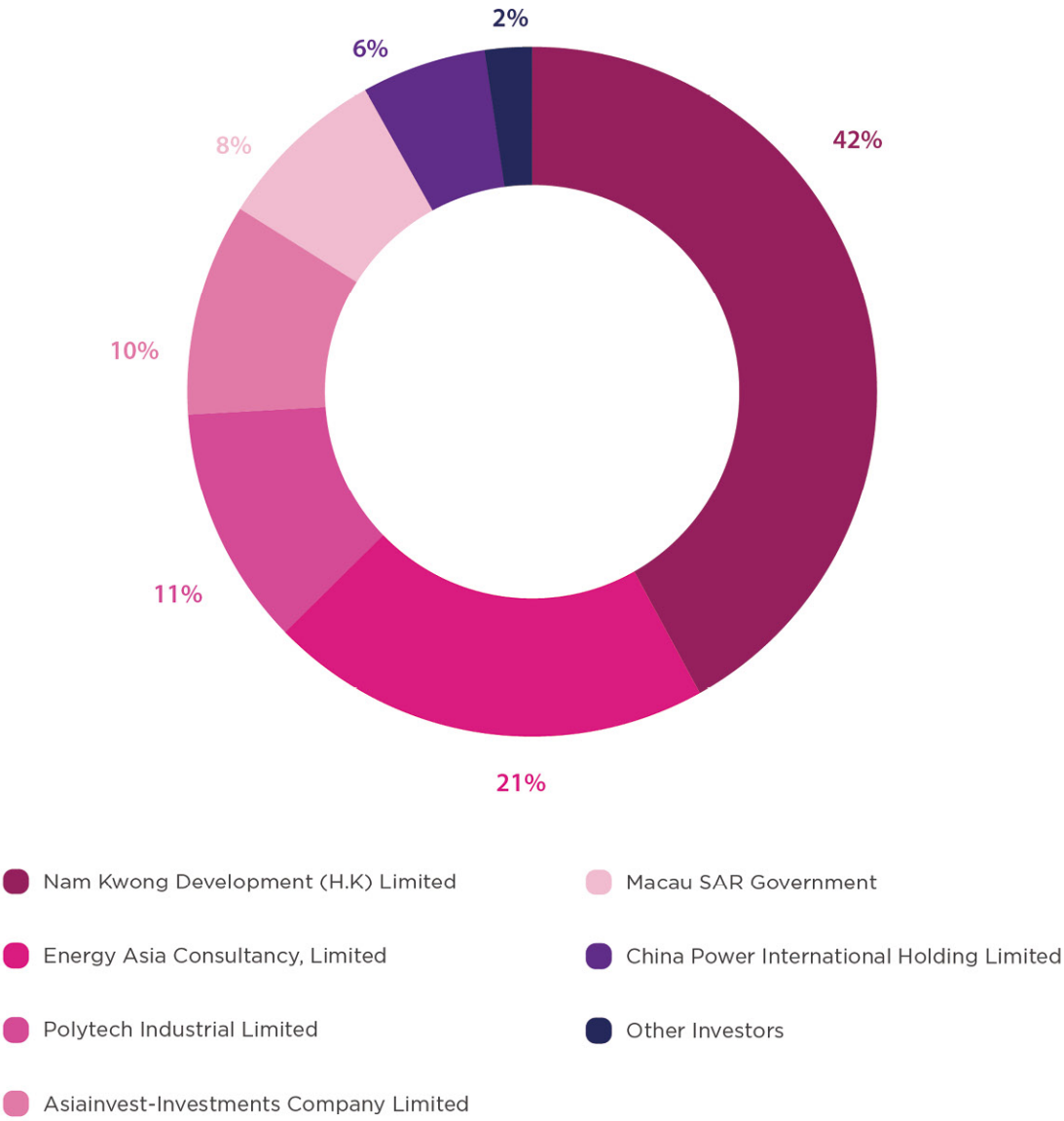
CEM corporate organs comprise of five entities, namely the Board of General Meeting, Board of Directors, Executive Committee, Supervisory Board

and Committee mentioned in Article 34 of the Memorandum and Articles of Association.

Management’s Roles and Responsibilities

CEM is owned by a diverse range of entities, including various institutional investors and the Macau SAR Government, among others.

Shareholder Pattern of CEM



CEM Corporate Organs



The management of CEM is formed by a Board of Directors and an Executive Committee (EC). EC is collectively responsible for delivering CEM’s mission, vision and annual targets. Each EC member is assigned with specific areas to ensure the effective and efficient management of CEM’s operation. This is done through decision-making on strategy, business planning and execution across

the company, managing the overall CEM financials, and developing and amending corporate policies and procedures to support the delivery of the overall business objectives. EC also communicates and accesses support and approval from the Board of Directors on matters outside the authority of the EC.

Compliance

CEM's roles and responsibilities are stated in the CEM Concession Contract, the agreement between CEM and the Macau SAR Government, where the assessment standards in regard to technical and customer service are set forth. It describes in detail ten key performance indicators. We monitor the results of the indicators and report them regularly

to the Macau SAR Government. By meeting the targets set for each indicator by our regulator, CEM ensures that the services rendered are at the highest level. The next table shows the performance of the past three years. Once again, all the results exceeded the targets set by our regulator.

Over 20 years ago, CEM started walking the initial steps to achieve a more robust, effective and productive company by changing the internal company processes to follow the requirements of

different ISO standards. Within these two decades, we are proud to have been awarded the following ISO certifications:

CEM Service Quality Indicators in Concession Contract

Indicator	Target (2022/ 2023-2024)	Result		
		2022	2023	2024
Average Service Availability (ASAI) ² (%)	99.9900	99.9999	99.99996	99.9999
Customer Average Interruption Duration (CAIDI) ² (min)	19.00	7.95	14.31	4.04
Connection of Supply (%)	96.00	99.96	100.00	100.00
Supply Reconnection (%)	98.00	99.97	99.97	99.99
Bill Correction (%)	95.00 / 96.00	100.00	100.00	100.00
Complaint Handling (%)	95.00	100.00	100.00	100.00
Appointment Time Schedule (%)	96.00	100.00	100.00	100.00
Emergency Service (%)	90.00 / 91.00	99.85	99.79	99.88
Supply Restoration (%)	95.50	100.00	99.91	99.94
Public Lighting (%)	96.00	100.00	100.00	100.00



ISO 9001 Quality Management System



ISO 14001 Environmental Management System



ISO 45001 Occupational Health and Safety Management System



ISO 14064-1 Greenhouse Gases Management System



ISO 20000-1 IT Service Management System

The ISO requirements have been combined to form the Integrated Management System (IMS). The implemented IMS has established clear objectives and goals, and standardizing our processes brought about improved efficiency and productivity, and consequently better outcomes in network reliability, customer services, employee and partners' safety and environmental impact. Our results of customer satisfaction surveys show consistently high levels of satisfaction.

The five ISO standards were subject to re-certification in 2024. For this, CEM submitted to demanding external audits in March for ISO 14064-1 and in November for the other four standards. The auditors examined processes by performing comprehensive inspections of several CEM installations, verified a considerable number of records and collected employees' testimonies. In the end, we are proud to state that all five certifications have been re-awarded.

² Outages under CEM's responsibility



ISO 9001



ISO 14001



ISO 45001



ISO 14064-1



ISO/IEC 20000-1

Risk Management

Successful businesses must treat risk management as paramount. Risk management, when well-implemented, is a key factor in strategic decision-making that can be conducive to thriving and sustainable operations, minimization of financial losses and upholding company image.

This process demands several steps, the most significant of which are the identification and

evaluation of the risk in all levels and processes of CEM, according to their severity and probability. Risks are found in various areas of the company, be it on the operational side, financial, compliance, etc. For risks rated high level or above, CEM documents the associated mitigation or risk minimization strategies.

These are the top risks identified in CEM in 2024.

Failure of Critical Aging Power Assets



Aging power assets is a major risk for CEM. Some sections of the power grid have been in operation since the early 1970s, and their failure could lead to a decrease in reliability and efficiency, and an increase in maintenance costs. As such, CEM developed and implemented a detailed plan of diagnostics, rehabilitation, repair and replacement for the existing equipment. This plan also eases several safety, health and environmental risks associated with aging assets and includes the implementation of decisions such as operating the old units of the power station as backup units. In addition, there are ongoing projects like the migration of customer substations in the distribution network to fiber communication and the retrofit plan to replace aging equipment in primary substations, among other examples.

Failure of Critical Power Assets due to Extreme Weather



The climate crisis emanates major risks as well. Macau was hit by seven tropical cyclones of various intensities in 2024. Typhoons and the associated floods can damage CEM's facilities and equipment, creating energy outages, which in turn incur financial losses and impact company image. As such, CEM has been implementing mitigating actions, such as re-designing new and existing facilities. At the end of 2024, the advanced metering infrastructure (AMI) project has advanced to provide city-wide coverage, and the smart meters installed can provide accurate data that will enable CEM to manage proactively the assets, which will minimize energy interruptions in turn. Moreover, CEM's emergency procedures include the provision of deploying electricity suspension measures for customer substations in low-lying areas, for faster power restoration after the floods retreated. CEM continues to conduct regular drills to test and revise these emergency procedures.

Investment in Concessionary Assets



Macau is currently seeing an increase of electricity demand, due to several factors like uprising average temperatures and the steady recovery of the economy. In 2024, CEM continued to plan and build power infrastructure to be able to meet the forecasted electricity demand, which is expected to maintain an upward momentum.

The pace of investment in concessionary fixed assets should maintain a symmetric trajectory as with the outlook of business prospects in the medium to long run. Such idealized circumstances are less common given the nature of CEM's business, often critical infrastructures must be deployed ahead of any solid business growth to meet future demand and the upkeeping and improvement of power network security, especially when it comes to power infrastructures for developing districts. It is therefore essential to maintain the sustainability of the Tariff Stabilization Provision, which is designed as a provisional buffer to smoothen tariff fluctuations induced by the gap between capital investment and business growth in the short term. When disproportion persists, the risk of lack of funds becomes real, which may eventually exacerbate the need for financial leverage. If the pace of investment exceeded the pace of business growth for an extended period of time, the basic electricity tariffs may have to be adjusted accordingly, which may not be the most desirable outlook for CEM at this stage.

To mitigate the risk, CEM has been exercising scrutiny over the size and the composition of its investment portfolio, monitoring the pace of concessionary investment and the construction of large-scale projects strictly and continuously while controlling capital expenditure spending.

Failure of Critical Electric Vehicle Power Infrastructure Assets



In the past few years, CEM has been enlarging the Macau's electric vehicle (EV) charging stations' infrastructure. The failure of these stations is a major concern as the number of EV drivers in Macau has been increasing steadily in the past few years. Furthermore, the failure of the EV systems' servers and the CEM APP, needed by EV drivers when charging their vehicles, will incur delays in charging data updates and could even lead to the suspension of public EV charging services. CEM would then receive complaints from customers and their impact could be damaging to the company's image. CEM has implemented several measures to minimize this risk. The platform was upgraded to allow for operation in both Cloud and offline modes, which will be necessary in case of network instability. Furthermore, the company implemented a practice of software development lifecycle that is aligned with the best practices of cyber security.

Market Uncertainties



The current worldwide economic outlook remains precarious, even in the post-pandemic times. Challenges such as the scarring from the pandemic, stubborn inflation, weak growth in productivity and intensifying geopolitical conflicts persist. All these factors create an uncertainty that can impact electric utilities. In terms of primary energy prices, CEM must cope with the deviation between the planned and actual costs related to fuel purchases, energy importation, and others, that can at times be significant. According to the CEM Concession Contract, CEM is contractually obliged to design the daily dispatch pattern for the energy production to generate electricity at the optimal cost to the customer. As such, the energy mix must and will vary according to several factors including the price and quantity of natural gas and the exchange rate fluctuations. CEM deals with the former by negotiating yearly contracts with the natural gas supplier, fixing the price and quantity needed based on operational needs and constraints.

Although market risks are mostly non-diversifiable in nature, CEM will stay vigilant on market development, improvise accordingly and review its strategy where and when necessary.

Safety at CEM's Worksites



CEM has implemented a safety and health program based on the framework of ISO 45001 Occupational Health and Safety Management System to minimize as much as possible the hazards in the workplace. The objectives of this never-ending endeavor are to prevent workplace injuries and illnesses, improve compliance with laws and regulations and ultimately reduce costs.

Safety is part of the daily routine of the employees. Only activities that are deemed to be low risk are allowed to be performed. High-risk activities are subjected to control measures to minimize the risk as much as possible. CEM is continuously reviewing and updating the safety procedures and conducting regular inspections and visits to different CEM installations to ensure safety procedures and requirements are well implemented.

CEM conducts the "Employee Safety Culture Survey" every two years to gauge employees' perceptions and behaviors in what regards safety at work. After the survey results are analyzed and disclosed, the related departments propose and implement safety improvement actions following the findings from the survey.

Cyber-Attacks and Failure of IT Infrastructure



In today's digital world, businesses are devoting increasingly more resources to minimize as much as possible the ever-present threat of cyberattacks. Cyberattacks may trigger downtime, loss of important and/or private data, disruption of routine activities and financial losses. The risk of crimes in cyberspace is increasing at an accelerated rate; in the same line, so must the cybersecurity tools and strategies of the company.

CEM is improving steadily its IT security infrastructure - firewalls, encryption, etc. - and enforcing the cyber security management system directives and requirements. The company also deploys data governance tools that facilitate governance control and detect unauthorized data access. The access to private data is further protected by robust authentication mechanisms and protocols, such as multi-factor authentication. Network security is bolstered by controlling VPN access to the internal network from external connections, ensuring that only authorized users can access sensitive data remotely, and by the regular review of access logs, to promptly identify and respond to eventual abnormal data access attempts. Lastly, CEM spares no efforts in training and increasing the competence of the staff in this regard. This way, technical staff and regular users attend cyber security awareness sessions at their respective levels.

IT staff conducts regular drills to ensure that the developed response plans of critical IT/OT systems are well-known and can be implemented in case of an emergency or attack. CEM also performs consistent penetration tests on public-facing IT services. Finally, CEM conducts risk assessments which is part of the company's cyber security management system and any gaps identified are studied and action plans are developed to mitigate the corresponding risk.

Ethics

Businesses can be improved by establishing a clear and standardized ethical code of conduct, to be followed by employees of all levels of the company, as workplace ethics, when well implemented, will lead to positive outcomes in employee engagement and retention, company reputation, operational harmony, and relationships with business partners, among others. CEM understands this well. CEM's Code of Ethics was set up more than a decade ago and since then, a strong ethical framework ensures compliance with laws and regulations, reduction of the level of several risks, and improved employee morale. The Code of Ethics applies to all CEM stakeholders, including permanent and temporary employees, shareholders, customers, suppliers and

contractors, who may have legitimate interests in the transparency, dialogue and ethical behavior of CEM.

In 2024, a number of messages on ethics were distributed to the employees through the various communication channels, which included notices prepared by the Macau SAR Government's Commission Against Corruption, or CCAC. A few examples were the messages "Wish you all the Best" and "Value of Gifts?" that were published in February and August 2024 respectively, which were well received by the staff. Moreover, CEM communicated in written form our ethics standards to our business partners and suppliers, showing CEM's leadership in this regard, which will ultimately encourage our partners to follow suit.

Stakeholder Engagement

Stakeholders are internal or external parties that have an interest in CEM. Currently, we have identified eight groups. Their insights and views can influence the company's operations and even the strategic direction. We strive to establish

positive relationships, through regular and open communication, timely follow-up on feedback received, and understanding their needs and expectations.

Government and regulator	<p>Engagement Approach: Annual General Meeting, Quarterly Board of Directors Meeting, Monthly Supervisory Board Meeting</p> <p>Topics & Concerns: Extension of Concession Contract requirements; Legislations and regulations; CEM tariff, Management of the company, CEM services</p>
Shareholders and providers of capital	<p>Engagement Approach: Annual General Meeting; Quarterly Board of Directors Meeting; Monthly Supervisory Board Meeting</p> <p>Topics & Concerns: Company and financial performance; Strategic plan; Annual budgets</p>
Customers	<p>Engagement Approach: Quarterly Customer Liaison Committee Meetings; Media releases; Promotional leaflets and posters; Annual customer satisfaction survey</p> <p>Topics & Concerns: CEM activities and promotions; Environmental protection; Quality services; Reliable power supply; Tariffs; CEM services</p>
Local communities	<p>Engagement Approach: Regular social events; Visits; Safety checks and free repairs for elders, low-income families, and citizens with special needs; Education and awareness raising programs</p> <p>Topics & Concerns: Social affairs; Power supply quality</p>
Suppliers and contractors	<p>Engagement Approach: Contractor induction; "Safety, Health and Environmental" awards to contractors</p> <p>Topics & Concerns: CEM policies; Health / Safety / Environment requirements</p>
Associations* and non-governmental organizations	<p>Engagement Approach: Bi-annual Conference on Electric Power Supply Industry; Participating in meetings and other activities</p> <p>Topics & Concerns: Sustainable development of power supply business; CEM events</p>
Media	<p>Engagement Approach: Press conference whenever necessary; Media press releases; CEM events; Advertisements; Interviews</p> <p>Topics & Concerns: Power supply quality; Accidents / incidents reports; Public relations; Company activities; Company policies; CEM services</p>
Employees	<p>Engagement Approach: Regular company-wide communications such as staff newsletter, email, Intranet, posters, meetings, etc.</p> <p>Topics & Concerns: Company objectives and targets; Health and safety performance</p>

* Examples of the associations are Association of the Electricity Supply Industry of East Asia and the Western Pacific (AESIEAP), Macau Association of Environmental Protection Industry (MEPI), Energy Procurement Supply Association (EPSA), Asia-Oceania Regional Council (AORC) and International Council on Large Electric Systems (CIGRE).

4

Facilities and Infrastructure



Power Generation

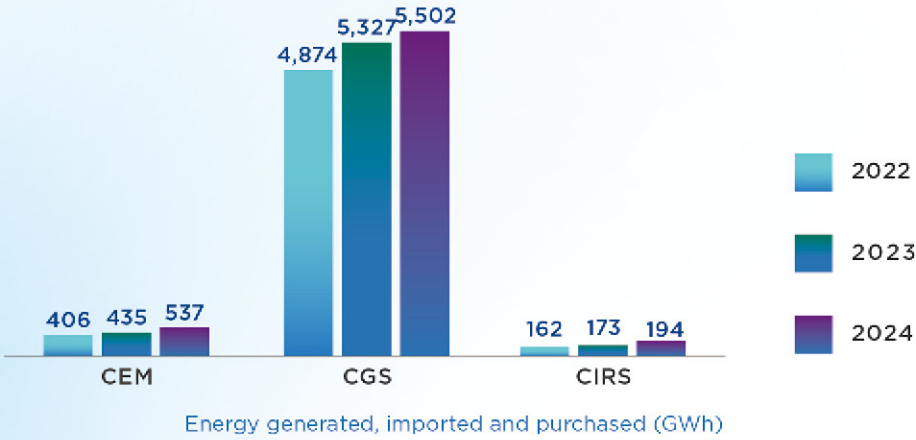
Coloane Power Station comprises two power plants, Coloane Power Station A (CCA) and Coloane Power Station B (CCB).

Power Station	Unit	Generator Type	Fuel	Installed Capacity (MW)
Coloane Power Station A (CCA)	G03	Low-Speed Diesel	Heavy Fuel Oil Diesel Oil	24.0
	G04			24.0
	G05			38.6
	G06			38.6
	G07			53.1
	G08			53.1
Subtotal				231.4
Coloane Power Station B (CCB)	GT1	Combined Cycle	Diesel Oil Natural Gas	45.1
	GT2			45.1
	ST1			46.2
Subtotal				136.4
Total				367.8

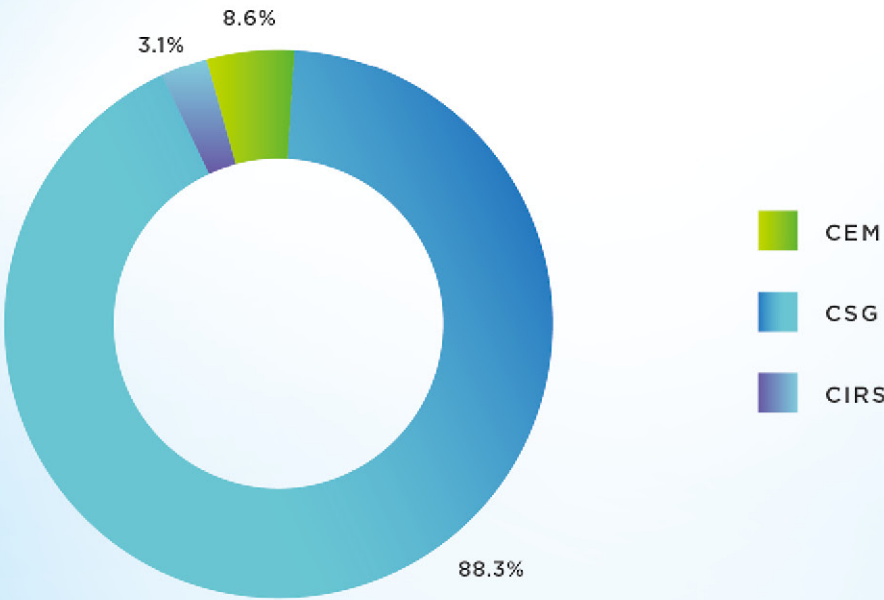
Capacity of the Coloane Power Station

2024 saw an increase in the total amount of energy generated/ purchased by CEM of around 5% when compared with the previous year. The local generation rose by 23.4%, producing 537 GWh of energy, while CEM imported and purchased 5,502 GWh and 194 GWh of electricity from the China

Southern Power Grid (CSG) and the Macau Refuse Incineration Plant (CIRS), respectively. CEM must energize its own installations and in 2024, this amount totaled 199,509 MWh (or 718,231,053 MJ), which corresponds to a 3.7% year-on-year increase.



Energy Mix 2024



CEM has in place a regularly reviewed network master plan, where we evaluate different sources of electricity to see whether the energy demand can be met. Currently and for the next few years, CEM's planned power supply capacity is sufficient to cope

with the estimated supply demand. Furthermore, CEM finalized the terms with the supplier and signed a supplementary agreement for natural gas for 2025.

Power Network

The power generated and purchased is passed onto customers through CEM's intricate power network, through transmission lines of high voltage (220kV, 110kV and 66kV) and medium voltage (22kV and 11kV) and then through the distribution network,

the lowest voltage lines, which move the power over smaller distances to the customers. Most of the power cables that comprise the power network are underground.

Civil Work Objects	2022	2023	2024
High-Voltage (HV) Objects			
Overall HV Cables (km)	1,060	1,074	1,084
Total Length of 220kV HV Cables (km)	122	123	123
Total Length of 110kV HV Cables (km)	353	366	376
Total Length of 66kV HV Cables (km)	585	585	585
Medium-Voltage (MV) Objects			
Total Length of MV Cables (km)	2,595	2,691	2,809
Low-Voltage (LV) Objects			
Total Length of LV Cables (km)	1,005	1,027	1,057
Underground LV Cables (km)	930	954	985
Overhead LV Cables (km)	75	73	72
Public Lighting (PL) Objects			
Number of PL Poles	11,660	12,010	12,957
Number of PL Wall-mounted	4,559	4,561	4,541
Total Length of PL Cables (km)	591	663	697
Underground PL Cables (km)	527	601	636
Overhead PL Cables (km)	64	62	61

CEM has ongoing or completed projects of development of the power network in 2024.

MV Network

CEM commissioned two new primary substations in 2024: the Nova CIRS (NSSS) and Oriental Pearl (OPSS) 110kV substations, in March and September 2024 respectively. Both these primary substations bring significant contributions to the company. NSSS can incorporate the energy produced by the Macau Refuse Incineration Plant into the power network and OPSS is responsible for the power in the Lot P of Macau's Areia Preta district, that includes the newly completed rental housing project for senior citizens. The operation of OPSS has the additional advantage of easing the load of the nearby Areia Preta substation.

Canal dos Patos substation's project of the 110kV interconnector feeder extension was concluded. Moreover, CEM proactively converted the 41-year-old 11kV outgoing relays of the Lisboa primary substation into digital protection relays with N-1 redundancy. This upgrade will prevent energy interruptions and increase reliability of the supply.

The MV network was enlarged by an extra 4% in number of transformers. This increase was implemented to respond to the demands of the new residential and commercial buildings in new spaces like the Zone A land reclamation area. 62 transformers and 31 RMU of the MV network were replaced in 2024, and moreover, a total of 125 sections of MV cables were diagnosed in 2024, with 57 sections of MV cables (equivalent to 2.6% of the MV network) ending being changed.

LV Network

The advanced metering infrastructure (AMI) continued to enlarge in 2024. Currently, CEM is able to retrieve successfully the data for more than 280,000 smart meters of all Macau. From these, over 800 customer substations are connected through the fiber communication network and other over 800 through 4G. CEM has also enhanced the communication support of EV charging station facilities. Currently, the EV charging stations of 12 public car parks have connections to the optical fiber network, and the same connections are at present being installed in further 17 car parks of Macau.

The upgrade of the distribution network to fiber communication continued in 2024, with the migration of more than 1,300 customer substations. CEM also launched several pilot projects to obtain successfully customer substations' telemetry data. The second data communication network project was finalized and more OT system services, such as AMI, are currently transitioning to the more advantageous optical transport network. CEM will continue to spare no efforts to reinforce the communication systems of network facilities.

New Technologies

CEM proceeded with the implementation of the measures necessary to fulfill all requirements of the Macau Cybersecurity Law. This comprised of infrastructure advancements like replacement of firewalls and backups, deployment of OT systems scans and penetration tests, fine-tuning of power data network contingency plans and of course more training on cyber security to all staff.

All these works showed good results. CEM took part in the "GuangMing - 2024" Cybersecurity Defense Drill successfully. Moreover, during the Macau Handover celebrations of December 2024, CEM deployed network security protection measures for OT systems, ensuring that CEM services were consistently kept at high levels and there were no interruptions of energy supply during the event.

CEM started using image recognition technology to evaluate unstructured data in the mobility system. This application of artificial intelligence in the maintenance of the power network equipment will improve the productivity and the efficiency of the works, and reduce the time needed for the maintenance. In the future, these AI models will guide CEM's daily maintenance tasks in the power network.

The works in the construction of the smart grid progressed in 2024. CEM is reinforcing the dispatching control capacity by implementing an information management system to the relay protection equipment. This will in turn stabilize further the running of the power grid.

CEM has introduced a new project under Macau's Smart Grid Development Roadmap in the Context of Carbon Neutrality. In this new project, the facilities of the power network will be evaluated to ascertain the best path for their decarbonization and digitalization. CEM will follow the international best practices to pinpoint critical issues of the smart grid that may need updates or improvements, in order to achieve subsequent progress of the existing smart grid.

Electric Vehicle (EV) Charging Stations Performance

CEM, in line with the Macau SAR Government's green policies, has enlarged considerably the infrastructure of EV charging stations in Macau, in just a few years. 2024 saw the continuation of this expansion. An additional 50 car parking spaces were installed in the car park of the Hong Kong-Zhuhai-Macao Bridge Border Checkpoint Building, and CEM plans to add 300 extra charging points in that location in the near future. Besides, taking into account the different needs of EV drivers of Macau's community, CEM decided to install fast and slow charging stations for both European and Chinese standards in 16 public car parks that previously only had available standard charging points. Finally, CEM launched a pilot project that reinforced the network communication between

the EV charging stations of 12 public car parks and CMS (the online platform used by CEM to monitor the EV charging stations' infrastructure), using fiber optic technology. This pilot project has shown successful results and as such, will be rolled out to other car parks as well.

In 2024, CEM deemed it important to assess customers' perception of the availability and reliability of the charging facilities, ease of use of the chargers and the CEM APP, convenience of the available payment channels, etc. As such, CEM performed surveys to EV users in Macau. The feedback was quite positive and a few recommendations for improvement were raised and implemented.



A large, light green number 5 is positioned on the left side of the image. The background is a vibrant green with a soft-focus image of dandelions. Several dandelion seeds are shown in mid-air, floating away from the main flower head, which is in sharp focus in the lower right. The overall aesthetic is clean and modern, with a natural theme.

Operations

Financial Performance

Economic viability is one of the three pillars of sustainability, and in the business setting, the economic health of an organization means that CEM has the necessary financial resources to ensure the successful and stable running of the business. Good financial management ensures job creation

and talent retention, as well as strong partnerships with suppliers, customers, and other stakeholders, among many other factors that impact a business.

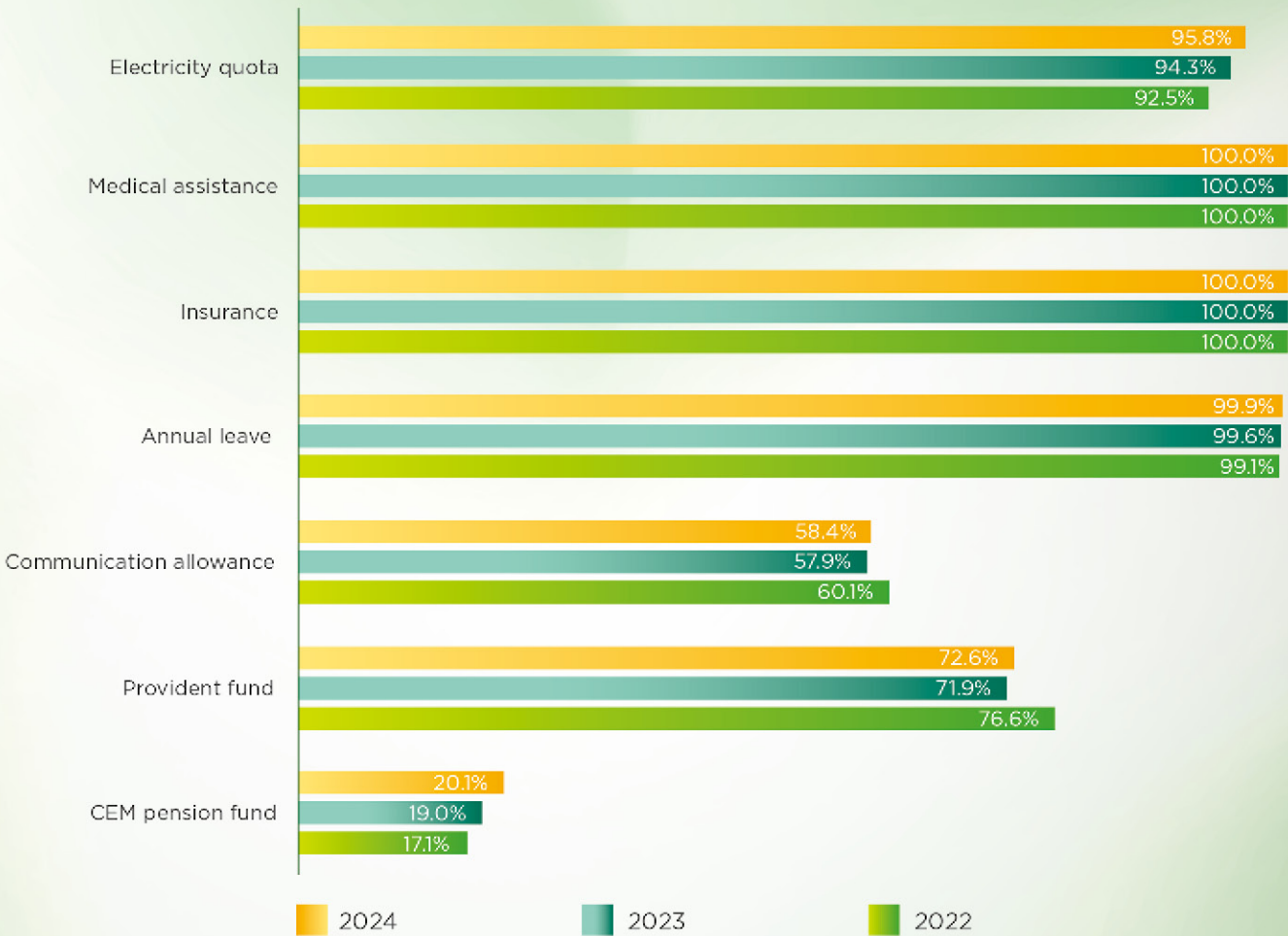
The next table shows an overview of CEM's financial performance.

	2022 (MMOP)	2023 (MMOP)	2024 (MMOP)
Revenues	8,273	8,981	9,165
Operating costs	5,845	6,324	6,561
Payments to providers of capital	701	731	710
Employee wages and benefits	484	427	477
Payments to government	193	184	162
Community investments	1	1	2.6
Economic value retained	2,429	2,658	2,604

Financial results

CEM's financial statement does not include other entities and in 2024, same as previous years, CEM did not receive any financial assistance from the Macau SAR Government. CEM was able to meet the benefit plan's liabilities, estimated to be at MOP 1,469 million in 2024. This figure was estimated during the financial audit performed every year, with the most recent one being completed in December 2024, and reported in the Actuarial Report. In 2024, the pension plan contribution rates are 4.5% and 76.6% for the employee and employer, respectively.

Employee benefits are important to attract and retain talent; they encourage personal and professional development and foster an environment that leads to achievements. We review regularly our packages of fringe benefits to ensure they remain competitive in Macau's market. The next graph shows the coverage of the benefit plans within the company.



Percentage of coverage of fringe benefits in CEM. Calculations only include permanent employees.

Business Continuity and Emergency Preparedness

Risk of Climate Change

The power network can be vulnerable to the dangers brought about by climate change. Macau's typhoon season is now considered to be from May to November, with July to September as its peak period. To address the hazards associated with typhoons, we have been working in conjunction with several entities from the Macau SAR Government. The Government has published the 10-year comprehensive disaster prevention and mitigation plan named "Macau Disaster Prevention and Reduction Plan (2019-2028)", and CEM has shown progress in the actions assigned to the company. CEM also disclosed the update for the data related to the power outage plan. Finally, the company also supports joint operations against typhoons by arranging and participating fully in drills to ensure that the emergency procedures implemented are sound.

There were seven typhoons in Macau in 2024, the most severe of which was Typhoon Yagi, a Typhoon Signal No. 8 storm with a Red Storm Surge Warning, that hit Macau on 5 and 6 September 2024. CEM triggered immediately the contingency measures designed for this scenario, by dispatching competent personnel and resources to maintain the energy supply at normal levels. Eventually, the power suspension measures, implemented when the flood levels reached a certain height, were unnecessary as the height threshold was not reached.

Business Continuity during Emergencies

CEM continues to invest resources in business continuity measures. We want to retain or restore the power supply when an emergency occurs, in the shortest time possible. To assist in this endeavor, CEM has purchased a mobile battery energy storage system. Mobile battery energy units allow the storage of energy and a later redistribution of that same energy to a site that needs power. However, one such system has been deemed insufficient. As such, in 2024, CEM decided to purchase two more mobile battery energy storage systems with a power supply capacity of 400 kW and a capacity of 800 kWh, and four additional ones with a power supply capacity of 40 kW and a capacity of 112 kWh, to add to the CEM's existing sole mobile battery energy storage system. Now, the whole fleet of seven units can provide an uninterrupted power supply with a full load output of 1,360 kW for two hours. The mobile battery energy storage systems have the additional advantage of being green, as they are an emergency power supply alternative that generates less air pollution and noise.

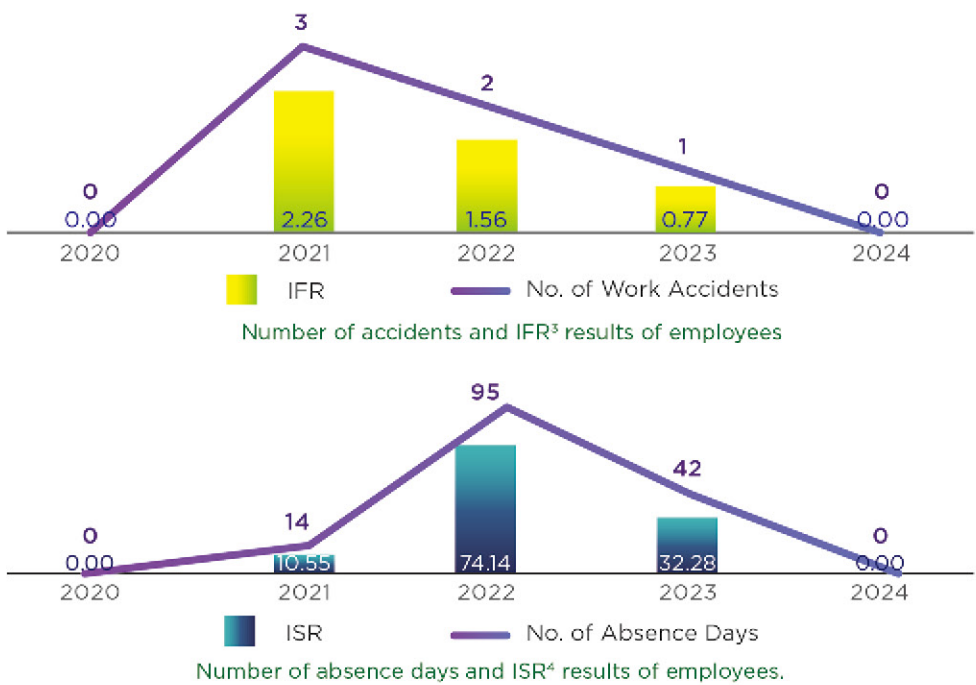
Business Continuity during Citywide Events of Macau

Macau organized several city-wide activities and events throughout 2024, for example, the Chinese New Year, Macau Grand Prix, the 75th anniversary of the founding of the People's Republic of China and the 25th anniversary of the establishment of the Macau SAR, among many others. CEM employed a few preventive measures and executed action plans to ensure no energy interruptions during the events. The preventive measures included joint drills between CEM and Guangdong Power Grid, to test the strength and safety of the interconnection and the internal power grid operations, even in extraordinary cases. Action plans also included enhancing power supply equipment and installing a second power supply box to the customer substation to minimize as much as possible the power recovery time, upgrading to a closed-loop power supply system to avoid cable failures; installing medium-voltage equipment to make the entire power supply system meet the N-1 power supply mode and improve power supply reliability and finally, organizing power system drills and full load tests at the event venues on the day before of the event to test and follow-up the energy supply problems that may arise.

Occupational Health and Safety (OHS)

CEM prioritizes safety over everything else. We strive to provide a workplace with as few potential risks and hazards as possible to the employees, and clear written guidelines for the routine activities are available for the staff, that include safety precautions covering risk assessment to injury prevention, workplace hazards, etc. In 2024, over 72% of the overall CEM staff participated in OHS training, totaling almost 4,500 hours, in different areas of safety including confined spaces, fire extinguisher usage, fire prevention, and chemical handling.

After 2012, 2013, and 2020, CEM is delighted and proud to announce that the objective of reaching zero work accidents in the whole calendar year was accomplished again in 2024. We will not be complacent, though, and several initiatives will continue to be organized, like safety training and awareness sessions, safety inspections, risk assessments, etc., all are to ensure that in the next years, achieving zero accidents will not be a significant event but instead a common achievement for CEM.



Areas with high noise levels that could be harmful to the employees have been marked and identified as "Hearing Protection Zones" using signs and notices. Employees working in these areas are regularly monitored by CEM Occupational Health

Services through audiometric tests and health seminars. Additionally, staff exposed to high noise levels are provided with appropriate PPE and receive induction training upon joining the department.

³ IFR = ($\frac{\text{Number of work accidents}}{\text{Total number of hours worked}}$) X 1,000,000

⁴ ISR = ($\frac{\text{Number of absence days}}{\text{Total number of hours worked}}$) X 1,000,000



Entrance to a "Hearing Protection Zone" in the power station

6

Environmental Impact






Greenhouse Gas (GHG) Emissions

Carbon pollution, a consequence of human progress and technology, is contributing to climate change, and in turn, climate change fuels extreme weather. Across the world, inclement weather events like wildfires, hurricanes or typhoons, heatwaves, storms, and others have become widespread. Policymakers around the world are taking action to mitigate the impact of the climate crisis, and business leaders are also doing their part to reduce the carbon emissions of their operations. Increasingly, we can see the strategy of sustainable companies of adapting its operations to new


environmental conditions and help mitigate climate change's harmful effects.

CEM is no stranger to this point of view. Almost 15 years ago, we implemented the framework of ISO 14064-1 Greenhouse Gases Management System. As part of the framework, and according to the guidelines specified in that Standard, CEM is able to quantify its yearly GHG emissions from its operations, namely carbon dioxide (CO₂), methane (CH₄), nitrous oxides (N₂O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulphur hexafluoride (SF₆).



DIRECT GHG EMISSIONS AND REMOVALS⁵

Source	GHG Emitted	Quantity Emitted
 Electricity Generated By Power Station	CO ₂ ; CH ₄ ; N ₂ O	315 ktCO ₂ -e
 Electrical Transmission and Distribution	SF ₆	2 ktCO ₂ -e
 CEM Owned Vehicles	CO ₂ ; CH ₄ ; N ₂ O	213 tCO ₂ -e
 Refrigerant and Fire Suppression Equipment Emissions	CO ₂ ; HFCs; R-22	398 tCO ₂ -e
 GHG Removals from Newly Planted Trees	CO ₂	0 tCO ₂ -e
 Non-Energy Processes	CO ₂ ; CH ₄ ; N ₂ O	0.12 tCO ₂ -e




INDIRECT GHG EMISSIONS FROM IMPORTED ENERGY

Source	GHG Emitted	Quantity Emitted
 CEM Installations' Electricity Consumption	CO ₂	3 ktCO ₂ -e
 Transmission and Distribution Losses	CO ₂	88 ktCO ₂ -e

INDIRECT GHG EMISSIONS FROM TRANSPORTATION

Source	GHG Emitted	Quantity Emitted
 Business Travel	CO ₂ ; CH ₄ ; N ₂ O	28 tCO ₂ -e
 CEM Personnel Owned Vehicles	CO ₂ ; CH ₄ ; N ₂ O	462 tCO ₂ -e

INDIRECT GHG EMISSIONS FROM PRODUCTS USED BY CEM

Source	GHG Emitted	Quantity Emitted
 Water Consumption	CO ₂	35 tCO ₂ -e
 Purchased Electricity from Mainland China	CO ₂	3 MtCO ₂ -e
 Purchased Electricity from Refuse Incineration Plant	CO ₂ ; CH ₄ ; N ₂ O	338 ktCO ₂ -e

INDIRECT GHG EMISSIONS ASSOCIATED WITH THE USE OF PRODUCTS FROM CEM

None

INDIRECT GHG EMISSIONS FROM OTHER SOURCES

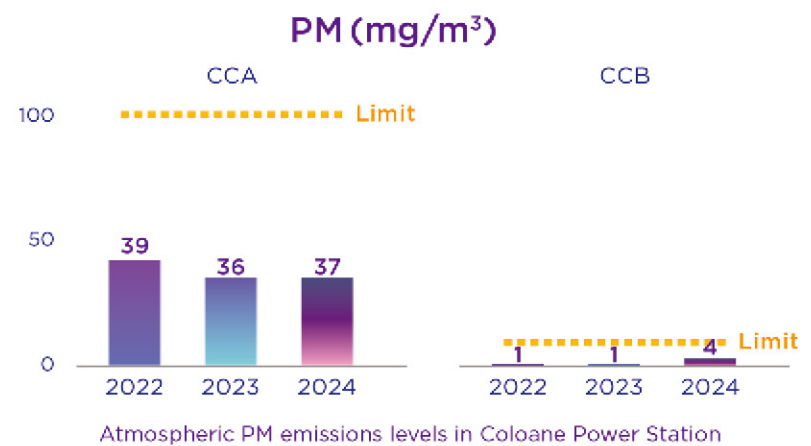
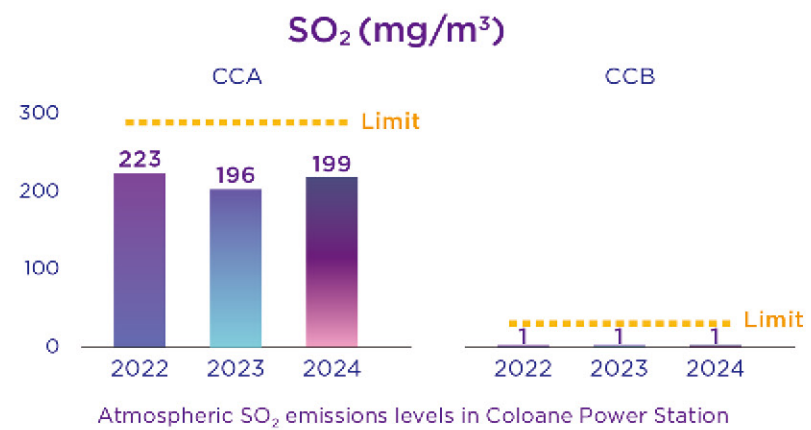
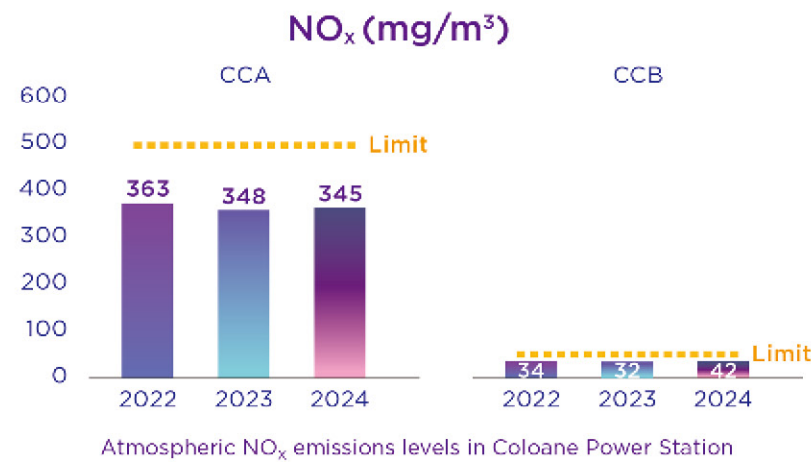
None

⁵ All Greenhouse Gas Global Warming Potentials (GWP) for a 100-year time horizon used in this calculation were published by the Intergovernmental Panel on Climate Change (IPCC) in their revised 2021 reporting guidelines (6th Edition) for national GHG gas inventories.

Atmospheric Emissions

In CEM, atmospheric emissions are emitted primarily by the stacks of the Coloane Power Station. The stacks are equipped with analysers that can measure every 15 minutes the quantities and concentrations of five air pollutants: nitrogen oxides (NO_x), sulphur dioxide (SO₂), particulate matter (PM), carbon monoxide (CO) and CO₂.

The figures are monitored in real time by the control room of the Power Station and then, in the following working day, competent personnel once again validate all values, to ensure the reliability of all data. Air emission data is reported to the Macau Environmental Protection Bureau (DSPB) every month.



CEM submitted Coloane Power Station to air pollutant emission tests from an accredited laboratory of CNAS⁶ in May and September 2024.

The results show that just like in previous years, all air emissions are below the legal limits.

Wastewater Discharges

CEM's routine activities produce three main types of liquid effluents: sanitary sewer from all installations, which is discharged to the public sewers, and chemical and oily wastewater effluents, which are produced solely in the Power Station. The wastewater is not discharged directly to the sea, as untreated wastewater will have extremely negative effects on the environment and the health of nearby communities. As such, CEM has two wastewater treatment plants in place, one each for CCA and CCB, that ensure that the resulting effluents are safe

to be discharged and returned to the water cycle.

Following Macau environmental laws and regulations, industrial wastewater must be treated for six parameters, namely: total suspended solids (TSS), detergent, chemical oxygen demand (COD), pH, biochemical oxygen demand (BOD) and oils and greases. The results of the analysis can be found in the next tables, which show full compliance with the legal limits established by the Macau SAR Government.

Parameter	Unit	Limit	2022		2023		2024	
Total Suspended Solids	mg/L	60	22.70	✓	30.50	✓	29.10	✓
Detergent	mg/L	2	1.00	✓	1.00	✓	1.00	✓
COD	mg/L	150	44.20	✓	42.80	✓	42.10	✓
pH	-	6 - 9	7.00	✓	7.20	✓	6.90	✓
BOD	mg/L	40	11.80	✓	13.70	✓	14.30	✓
Oils and Greases	mg/L	15	5.30	✓	2.80	✓	5.00	✓

Average levels of the wastewater parameters of CCA

Parameter	Unit	Limit	2022		2023		2024	
Total Suspended Solids	mg/L	60	15.30	✓	12.30	✓	10.70	✓
Detergent	mg/L	2	0.80	✓	1.00	✓	1.00	✓
COD	mg/L	150	19.80	✓	20.00	✓	20.00	✓
pH	-	6 - 9	7.40	✓	8.00	✓	7.40	✓
BOD	mg/L	40	16.10	✓	10.60	✓	10.00	✓
Oils and Greases	mg/L	15	4.90	✓	2.30	✓	5.00	✓

Average levels of the wastewater parameters of CCB

⁶ China National Accreditation Service for Conformity Assessment

Environmental Initiatives

As customary, CEM organized or join several environmental initiatives every year. The next paragraphs will describe the main ones.

Environmental Drill

The annual environmental drill was organized on 8 August 2024, and the scenario chosen was a natural gas leakage and consequent explosion affecting a nearby customer substation's operations and causing injury to two employees who were performing inspection to that customer substation. This complex scenario was chosen for the company to verify its emergency response procedures and involved several departments of the company.

The drill lasted for two hours and in the end, the results were positive. All staff shows close familiarity with the correct emergency procedures and few small recommendations for improvement were raised.



Greener Construction of CEM Substations

In 2024, CEM revamped the OP substation to optimize humidity control. Not only this is an energy saving measure, but also ensures a larger lifecycle of the substation equipment and a more comfortable workplace for the workers.

EV Charging Stations in CEM Premises

To cope with the increase of number of employees that have purchased EV, CEM installed more charging stations for e-motorcycles in CEM premises. This type of initiatives will promote green commuting, one of the directions of Macau SAR Government's, with the added benefit that will also affect positively in employee engagement.

Green Areas of New Substations

CEM is designing new HV and MV substations with larger green areas on the roofs and/or walls.



Green walls of Hospital S. Januario Substation.

Renewable Energy

CEM developed a project to use renewable energy to energize Coloane Power Station. In this project, a floating PV system will be installed on the surface of the reservoir of the Power Station, a first-time type of PV system in Macau. Furthermore, several PV panels will be mounted on the roofs of few of the buildings of that site. Preparation works started in 2024 and implementation of the project is planned for early 2025.

Using Ester Oil for Transformers' Insulation

CEM has begun the gradual replacement of the silicone oil used for insulation of the distribution transformers to ester oil. This change will have many technical advantages, as ester oil is more resistant to moisture than traditional mineral oils. Macau's humid season is long and this new oil enables the transformers to maintain their high reliability. Moreover, in 2021 there was a shortage of silicone oil that led to increased cost of this crucial component of the transformers; CEM at the time started trying to find solutions and ester oil was raised as a potential substitute with lower cost and higher performance. There are SHE benefits to changing to ester oil as well. The higher flash point of this oil when compared to the traditional isolation oils reduces the risk of fire, and moreover, these oils are sourced from renewable vegetable materials, is biodegradable and possess a low or negligible toxicity profile, which lowers the risk in an event of spill or leakage. Therefore, using ester oil for insulation goes in the direction of best practices in safety and environment. In 2024, 100 units of ester oil were installed in the transformers of the power network.

Recycling Efforts

CEM has participated in the recycling programs launched in DSPA since their inception in 2021. These programs include waste lamps and batteries, and electronic and electric scrap. In 2024, CEM collected over 700 pieces of metal cans, over 2.5 tons of paper and 17 kg of plastics. All this waste was delivered to the waste collect stations set up by DSPA for recycling.

Moreover, there is an additional recycling program that CEM joined only in 2023: food waste program. In 2024, almost 2.5 tons of food waste were collected from CEM canteens and followed up through this program.



Education in Sustainability

CEM endeavors to integrate sustainability in all processes of the company, creating and maintaining the conditions under which the employees, customers and all partners can co-exist harmoniously

and give mutual support for generations to come. A big part in the change in culture and behaviors needed to reach our sustainability goals comes from education.

Company Promoting Sustainability

Safety, Health and Environmental (SHE) Events

Several events focusing on SHE issues were organized throughout the year, on top of the ones described in this chapter. Every year, CEM holds the S.H.E.Q. Awards for employees, where employees can showcase their actions and projects implemented that year in the areas of safety, quality, environment and innovation. A judging panel evaluates all and the best ones receive awards. The S.H.E.Q. Awards are quite popular and shows the dedication of employees in sustainability and continual improvement. Finally, the Safety Quiz is held usually in safety month of April and teams formed by staff compete with each other in fun games and quizzes related to safety at work.

Vegetarian Options in CEM Canteens

Employees know that all must do their part to reduce the greenhouse gas emissions in our planet. As such, CEM has arranged for the CEM canteens to have vegetarian and meat-less options available for all to choose. To further promote this positive shift, CEM distributed a free vegetarian meal for all interested employees on 20 June 2024.

Visits to Internal and External Partners to Understand their Sustainability Practices

Visit to COTAI Ecological Zone

CEM arranged a tour-guided visit to the Cotai Ecological Zone for the staff and their families, on 30 November 2024. The Cotai Ecological zone is an artificial wetland that includes mangrove plantations and sugarcane fields as well as bird and animal habitats, created in the early 2000s. Not only were the staff that participated in this visit able to appreciate these green sites, but also had the chance to raise their awareness on ecological preservation.



Visit to CEM Green Facilities

On 14 May 2024, CEM employees had the opportunity to visit many green facilities when they joined the "Green Energizing Tour". The participants were able to learn first-hand from their own colleagues the various green facilities and equipment that the Power Station uses to abate the pollution produced of the routine activities.

Visit to CEM Partners in Environmental Sustainability

Staff were able to visit the Electronics & Electric Appliances Recycling Facilities, the operator of DSPA's electronic communication and telecommunication equipment recycling programs, on 26 November 2024. In these two visits the employees were able to see first-hand the way discarded items like used batteries, lamps, and electronic waste like landline phones, fax machines, etc., are recycled into components that later can be used and transformed into something else.

On 28 November 2024, there was another visit, this time to the Taipa Wastewater Treatment Plant. A guide showed our employees the inner workings of their plant, sharing their experience and the challenges they face. This staff were able to see the differences between that plant and our in-house wastewater treatment plants of Coloane Power Station.

Learning More In-Depth Sustainability Issues

2030 SDG Game in CEM

CEM organized the 2030 SDG Game on 4 December 2024. The 2030 SDGs Game is a multiplayer, facilitated card-based game inspired by the United Nations' 2030 Sustainable Development Goals that simulates taking the "real world" into 2030. Players form teams and create a sustainable world, while learning the complexities around sustainability issues application in the real world, and ultimately participants are motivated and encouraged to take action in their daily lives.



Power System Engineering Training Towards Carbon Neutrality

A total of 22 engineers attended this course that aimed to give detailed view of the aspects associated with the construction and maintenance of a zero-carbon power system, focusing on the importance of aspects like AMI, asset management, use of artificial intelligence, and modern generation within the space of power systems.

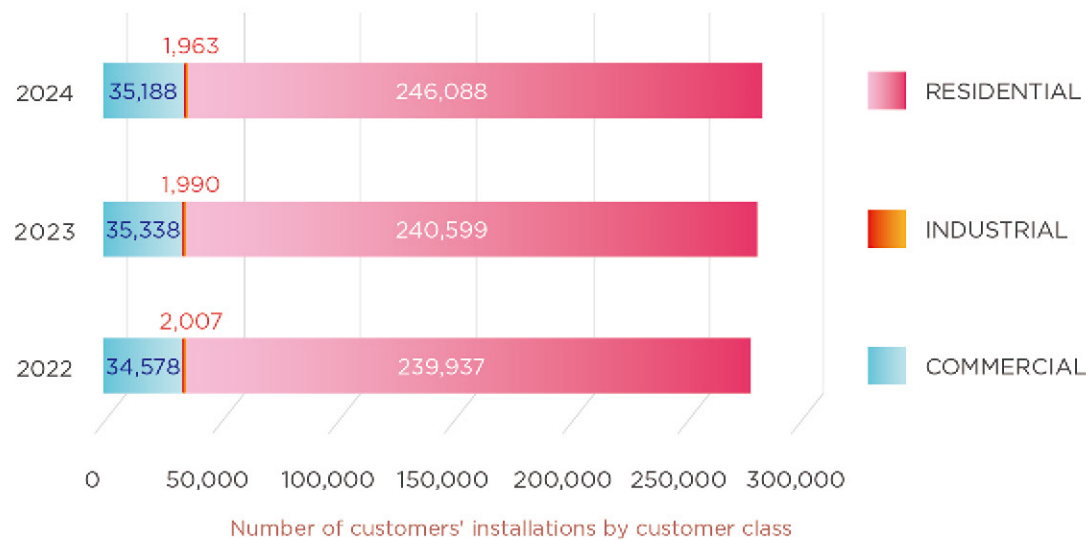


8

Customer Service and Care



The number of customers increased by 1.9% when compared with 2023.



Access to Electricity

Access to electricity promotes social and economic development, as businesses and even essential services like health care and schools need energy to operate smoothly. Macau possesses the infrastructure and the economic ability to provide electricity to the whole city, and the Macau SAR Government provides subsidies to support partially electricity bills for the citizens. CEM also set up some programs with the same objective.

Government Electricity Subsidy Program	A government funded subsidy program since April 2008 targeting all residential contracts. The current monthly subsidy amount amounts to MOP200 (from the initial MOP150) to subsidize electricity consumption related fees.
Senior Citizen Support Program	A CEM program targeting senior customers with residential contracts, in which an 11% reduction is granted on the first 88 units of electricity consumption.
Social Assistant Tariff	A special rate applicable to electricity contracts for Not-For-Profit usage. Any private or public entities with related documents from the Social Welfare Institute (IAS) and with electricity contracts under Tariff Group A can benefit from a special energy rate equivalent to an 8.2% reduction.
Social Assistant Tariff	Residential customers benefitting from social assistance support of IAS, and whose electricity contract with a subscribed demand up to 6.9 kVA and with a monthly consumption over the last six months which does not exceed 120 kWh, can benefit from a special energy rate equivalent to 55.5% reduction.
Social Assistance Aligned Bill Issuance	Electricity bills addressed at government public housing are issued on particular days so that tenants receiving Social Assistance Support from IAS may see their payment grace period aligned with the government subsidy funding timing.

Customer Satisfaction Survey (CSS)

The only way to understand customers' needs and expectations is to receive and act upon their feedback. CEM needs to gain customers' actual perspective on the company's services regularly and work on implementing improvements on service gaps that may exist.

For this effect, CEM has been performing the CSS since 1999. 2024 was no different. During the summer of 2024, a thousand customers were successfully interviewed, addressing ten main areas of CEM's service in the previous 12 months, as follows: stability of electrical power, reliability of power supply, technical assistance, price level, payment methods, corporate image, communications, billing services, assistance from customer service center assistance, and finally,

assistance from the information hotline. The customers' feedback was recorded for further analysis and the results were encouraging. Customers rated their satisfaction levels at 91.9%, an all-time high. They gave a special stamp of approval to CEM's reliability of power supply, noting the minimal number of energy interruptions, the convenience of all e-services and payment channels, and the knowledge and good attitude of the frontline staff. Few customers also highlighted the customer service and diversified bill payment methods, including online payments. All these areas were rated above 97% in satisfaction level. This feedback is humbling and encouraging to CEM, and we will strive to continue serving Macau at the highest level possible.



Customer Privacy

In today's digital world, technology has rendered data more accessible, and thus more vulnerable. Businesses worldwide maintain that one of the major risks is preserving data privacy. This is very important to CEM as well, since we hold databases of customer information that contain confidential and eventually sensitive data, namely, ID numbers, bank account numbers, and addresses, among many others. A breach in customer data would not only incur economic losses, but also cost the company the confidence of customers, a factor that cannot be re-earned easily.

As such, customer privacy is an important issue for CEM. The company established strict processes to protect against breaches of data. We implemented a solid cybersecurity policy and strategies, but these are not enough. CEM also has in place procedures like only collecting necessary data and only allowing staff that work directly with the customer to have access to the data. Furthermore, staff are trained to be diligent with customer data.

There were no complaints in 2024 regarding breaches of customer privacy, just like in previous years.

9

Employee Wellbeing

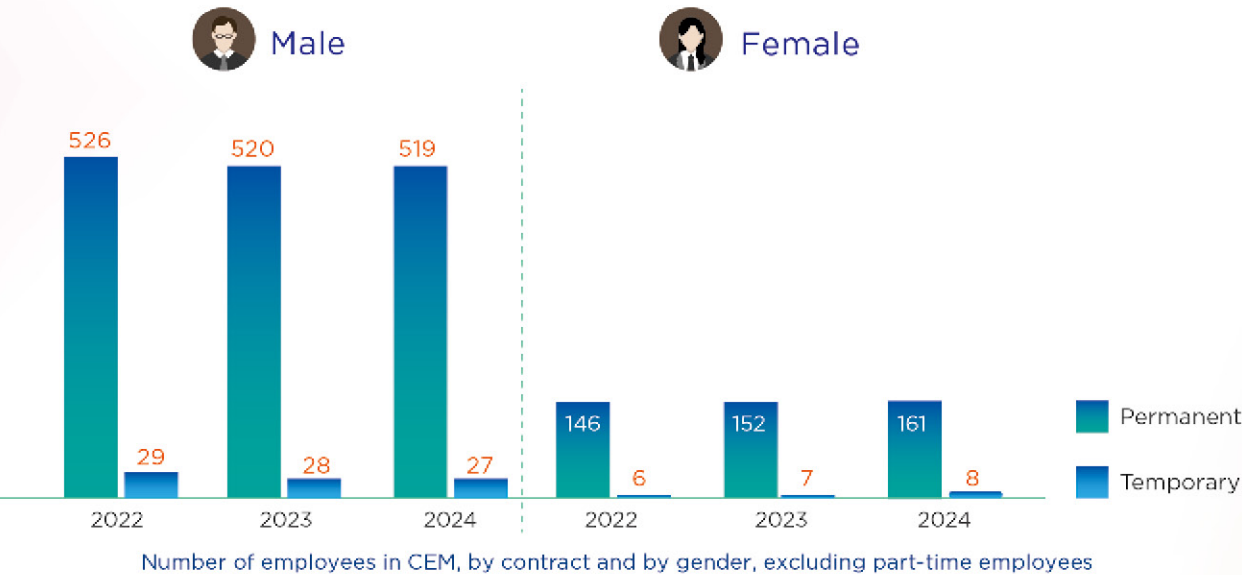


Company Personnel

CEM’s strategy to retain talent is crucial for business growth, as the knowledge and experience that top performers bring to the table are of immeasurable value. Talent management and retention, training and professional development,

and succession planning are critical to a successful and sustainable business.

In 2024, CEM counted 715 employees in the company’s ranks, among permanent and temporary employees.



CEM regularly reviews staff’s remuneration and benefits. It is important to keep talent within the company’s ranks, to stay competitive. Companies can retain their employees by developing a positive workplace culture within the company, offering competitive compensation and benefits, etc. In 2024, this exercise was performed once again. Not only the base salaries were raised for over 90% of

the staff, but also several benefits were extended, such as an improvement on meal allowance for staff on-duty and working overtime, the inclusion of staff’s parents and in-laws in the approved leave under “family assistance”, and enhancing the company’s contribution rates to provident funds schemes of staff as appropriate.

Workplace Wellness Programmes

Employees are considered the most important resource of the company, so CEM spares no efforts in employees wellness programs that aim to strengthen the physical and mental health of the employees. This will improve productivity and employee engagement, reduce absenteeism and even turnover. The most important one is the CEM Occupational Health Evaluation, where every three years the employees’ overall health is checked through blood and urine testing, electrocardiograms, chest x-rays, etc. In the last quarter of 2024, the health screening was organized once again for CEM staff. Our OHS doctors analyzed the results and notified the employees of the results as necessary. At the end of the activity, all staff received a health leaflet with more health information for their well-being.

As a side note, we aim to go as paperless as possible in this process. This way, all notifications for employees regarding blood and urine samples and other testing were sent through WeCom (the CEM app used for internal communication), as were the doctors’ follow-up requests and sending of the medical reports.

In 2024, CEM joined the “Healthy Enterprise Programme”, co-organized by the Macau Health Bureau (SSM) and Macau Healthy City Committee.

This program aims to have employees to adopt healthier lifestyles. As such, in 2024, CEM organized several initiatives, which included introducing the “All-day Healthy Menu” at all staff canteens, where low-calorie and low-fat food items are available at CEM canteens. We also organized the “Employee Sports Day”, where employees formed teams and competed for prizes in basketball tournaments and relay races, among other events. Employees were also encouraged to take their seasonal flu vaccines, as CEM invited SSM’s representatives to provide the vaccines in our CEM headquarters. Finally, health information was also disseminated in the company throughout 2024, by means of publication of health information, promotion of health self-checks and health seminars.

Lastly, employees’ mental health was not forgotten. In 2024, CEM, with the help of the Macau Federation of Trade Unions, arranged two comfortable spaces in the CEM headquarters and in the Dispatch Center to be available for staff, establishing the “CEM Reading Corner”. The “Reading Corners” are spaces aimed for relaxation and reading, they were completed with books of different interests. All staff are welcome to read during their breaktime, relax, or take the books home and return them after reading.



10

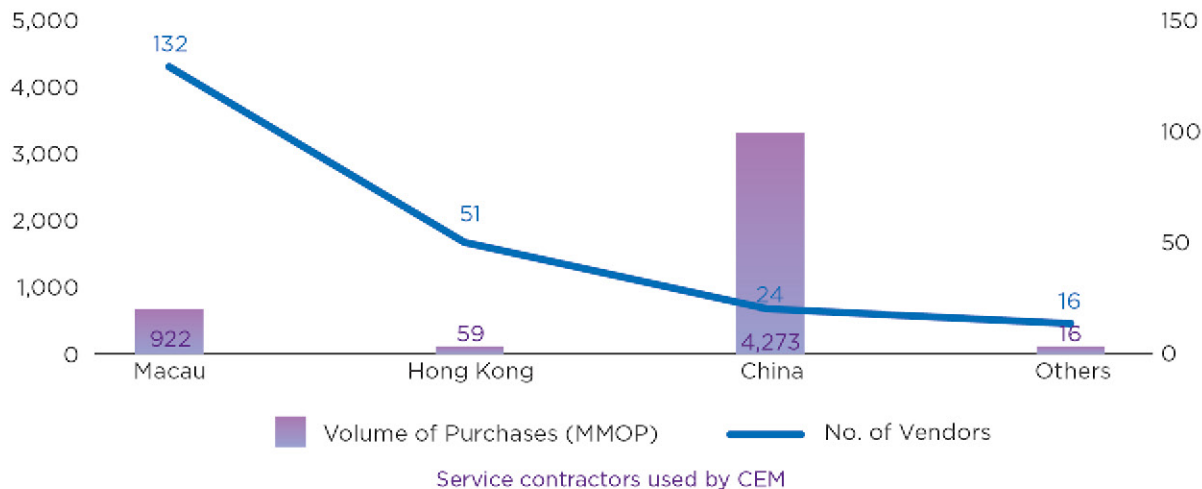
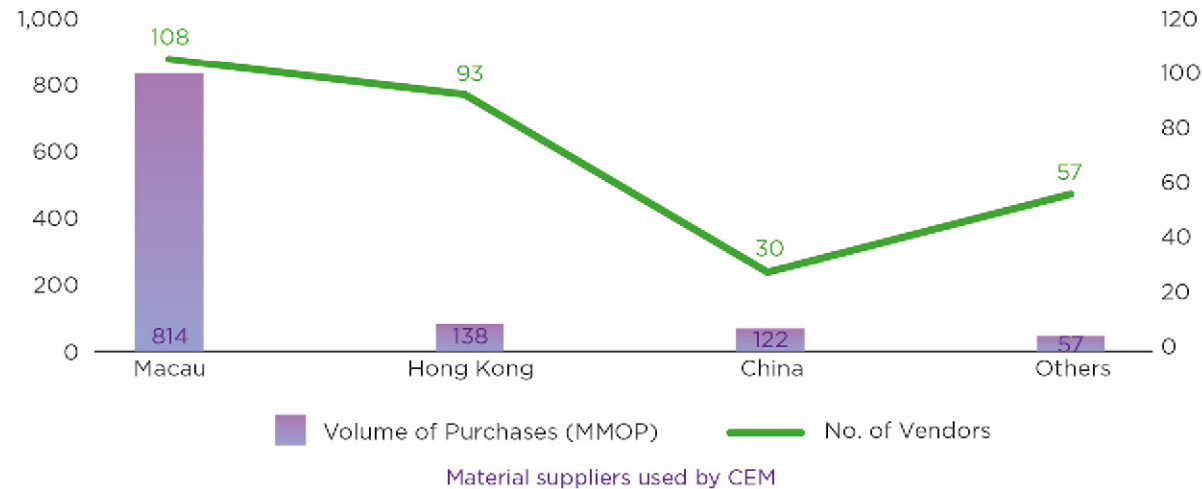
**Partnership with Suppliers
and Contractors**



Supply Chain

CEM takes its relationship with the suppliers and contractors very seriously, for they are one of the company's major partners and stakeholders. By the end of 2024, CEM purchased materials from 288 suppliers and requested services from 223

vendors. For the past few years, local partners have been taking precedence over others as this policy decreases our costs and carbon emissions. We are delighted to disclose that in 2024, 72% of our volume of spending were from Macau suppliers.



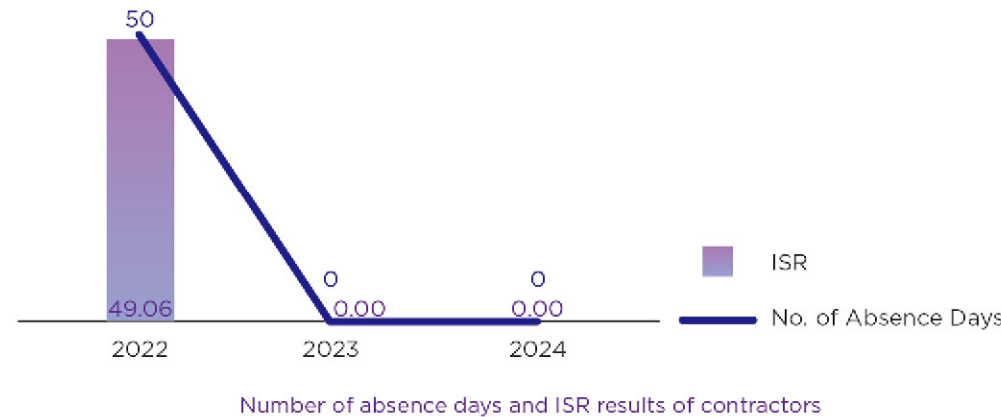
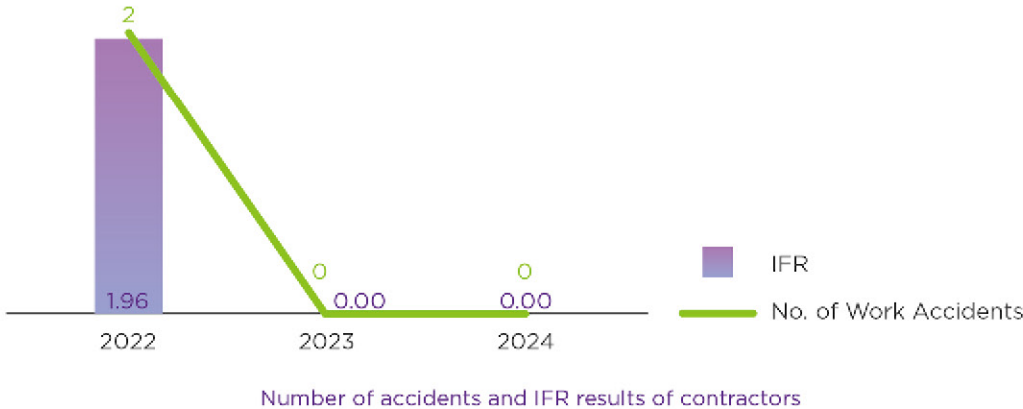
Given the supply chain risks, CEM's emphasis on Local- and Near-Sourcing will remain. This strategy promotes local community growth, reduces the carbon footprint in logistics, and builds stronger supply resilience while enhancing economic viability. CEM, alongside suppliers, has been studying their processes and practices to verify whether they align with our requirements. Additionally, we have also started exploring

with suppliers and learning from local recycling incumbents, so that CEM can go the extra mile to improve the end-of-life equipment's treatment and recycling, fueling a circular economy. These are all initiatives of sustainable procurement. Moving forward, CEM will explore the possibility of further implementing social procurement policies to help grow social enterprises and tiny businesses in the local community.

OHS Performance of Contractors

CEM contractors must follow the same strict SHE requirements as the employees. We are cautious when imposing these obligations in the contracts; non-compliance may lead to fines and eventually non-renewal of the contract. CEM contractors working in the Power Station must also pass the

induction training, developed by that installation, to ensure they know and follow the necessary SHE issues. For the past two consecutive years, there were no work accidents among the contractors of CEM.



Communication with Suppliers and Contractors

Once again in 2024, CEM organized the "Safety Training for Contractors". This activity has been in place for a decade and aims to be a platform where the company and the contractors can share their experiences and challenges, to improve working conditions and communication between both parties. This year, a representative from the Macau Labour Affairs Bureau was invited to give

a presentation on "Risk Assessment and Safety Management for Confined Spaces", while one of CEM's engineers made some sharing on the topic "General Management Rules for Trench Work in the Vicinity of Power Cables". Around 100 employees from different contractors' companies attended the event.

11

Sustainability Reporting



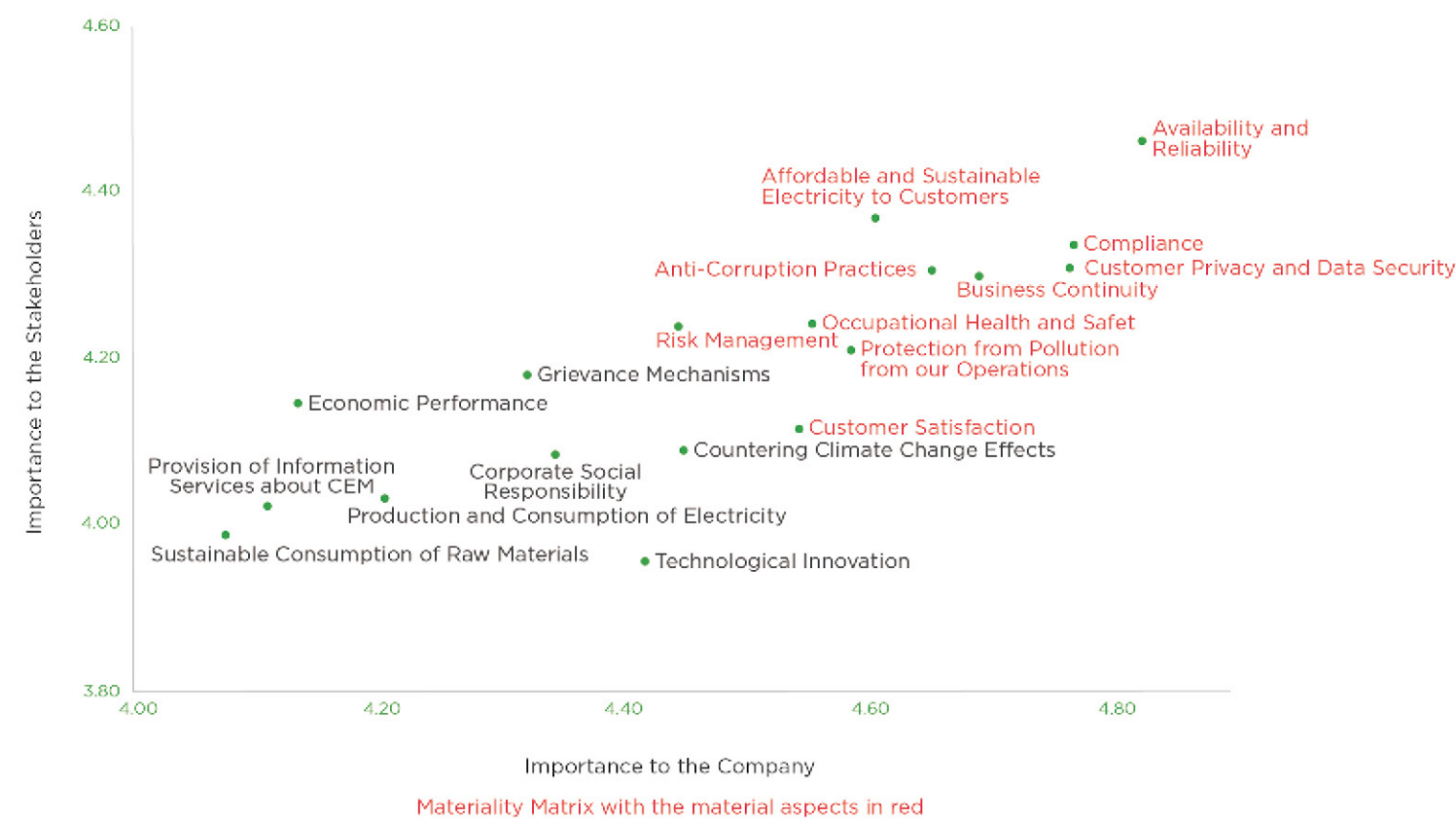
This is the yearly CEM Sustainability Report, developed following the guidelines of the Global Reporting Initiative's GRI Standards and the G4 Electric Utility Sector Supplement. It contains the performance of the company in the three main sustainability areas - environment, social and economic - from 1 January 2024 to 31 December 2024. When developing this report,

the main direction was to disclose the company's performance in sustainability areas of CEM's stakeholders' interest. As such, in 2023 we performed a materiality study to understand which areas of sustainability or ESG were more significant to each stakeholder, by launching an online survey. The results are shown in the next graph.

More information on the company's performance is available in the CEM Annual Report 2024. Same as this Sustainability Report, the CEM Annual Report is available to all interested parties on the company's website www.cem-macau.com.

Your views are important for our continual improvement. We encourage you to send your comments on the report to enable us to make improvements in our next issues of this report.

Materiality Matrix 2024



Your views and feedback are important for our continual improvement. Please send us any comments and suggestions you may have via the following channels.

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GRI Table Index



Statement of use	CEM has reported following the GRI Standards for the period from 1 January 2024 to 31 December 2024.
GRI 1 used	GRI 1: Foundation 2021

GRI STANDARD	DISCLOSURE	CHAPTER
GRI 2: General Disclosures 2021	2-1 Organizational details	Corporate Governance
	2-2 Entities included in the organization's sustainability reporting	Sustainability Reporting
	2-3 Reporting period, frequency and contact point	Sustainability Reporting
	2-4 Restatements of information	Sustainability Reporting
	2-5 External assurance	Sustainability Reporting
	2-6 Activities, value chain and other business relationships	Corporate Governance
	2-7 Employees	ESG Highlights Employee Wellbeing
	2-8 Workers who are not employees	-
	2-9 Governance structure and composition	Corporate Governance
	2-10 Nomination and selection of the highest governance body	-
	2-11 Chair of the highest governance body	Corporate Governance
	2-12 Role of the highest governance body in overseeing the management of impacts	Corporate Governance
	2-13 Delegation of responsibility for managing impacts	Corporate Governance
	2-14 Role of the highest governance body in sustainability reporting	Corporate Governance
	2-15 Conflicts of interest	-
	2-16 Communication of critical concerns	Corporate Governance
	2-17 Collective knowledge of the highest governance body	Corporate Governance
	2-18 Evaluation of the performance of the highest governance body	-
	2-19 Remuneration policies	-
	2-20 Process to determine remuneration	-
	2-21 Annual total compensation ratio	-
	2-22 Statement on sustainable development strategy	Chairman of the Executive Committee's Message
	2-23 Policy commitments	Corporate Governance
	2-24 Embedding policy commitments	Corporate Governance

GRI STANDARD	DISCLOSURE	CHAPTER
GRI 2: General Disclosures 2021	2-25 Processes to remediate negative impacts	Corporate Governance
	2-26 Mechanisms for seeking advice and raising concerns	Corporate Governance
	2-27 Compliance with laws and regulations	Corporate Governance
	2-28 Membership associations	Corporate Governance
	2-29 Approach to stakeholder engagement	Corporate Governance
	2-30 Collective bargaining agreements	-
EUSS General Disclosures	EU1 Installed Capacity	Facilities and Infrastructure
	EU2 Energy Output	Facilities and Infrastructure
	EU3 Customer Installations	Customer Service and Care
	EU4 Length of underground transmission and distribution lines	Facilities and Infrastructure
GRI 3: Material Topics 2021	3-1 Process to determine material topics	Sustainability Reporting
	3-2 List of material topics	Sustainability Reporting
	3-3 Management of material topics	Sustainability Reporting
GRI 201: Economic Performance 2016	201-1 Direct economic value generated and distributed	Operations
	201-3 Defined benefit plan obligations and other retirement plans	Operations
	201-4 Financial assistance received from government	Operations
GRI 204: Procurement Practices 2016	204-1 Proportion of spending on local suppliers	Partnership with Suppliers and Contractors
GRI 302: Energy 2016	302-1 Energy consumption within the organization	Operations
	302-2 Energy consumption outside of the organization	Operations
GRI 303: Water and Effluents 2018	303-2 Management of water discharge-related impacts	Environmental Impact
GRI 305: Emissions 2016	305-1 Direct (Scope 1) GHG emissions	Environmental Impact
	305-2 Energy indirect (Scope 2) GHG emissions	Environmental Impact
	305-3 Other indirect (Scope 3) GHG emissions	Environmental Impact
	305-5 Reduction of GHG emissions	Environmental Impact
	305-7 Nitrogen oxides (NOx), sulfur oxides (SOx), and other significant air emissions	Environmental Impact

GRI STANDARD	DISCLOSURE	CHAPTER
GRI 403: Occupational Health and Safety 2018	403-1 Occupational health and safety management system	Operations
	403-2 Hazard identification, risk assessment, and incident investigation	Operations
	403-3 Occupational health services	Operations
	403-4 Worker participation, consultation, and communication on occupational health and safety	Operations
	403-6 Promotion of worker health	Operations
	403-7 Prevention and mitigation of occupational health and safety impacts directly linked by business	Operations
	403-8 Workers covered by an occupational health and safety management system	Operations
	403-9 Work-related injuries	Operations
	403-10 Work-related ill health	Operations
GRI 418: Customer Privacy 2016	418-1 Substantiated complaints concerning breaches of customer privacy and losses of customer data	Customer Service and Care
EUSS Availability and Reliability	EU10 Planned capacity against projected electricity demand	Operations
EUSS Access	EU28 Power outage frequency	Corporate Governance
	EU29 Average power outage duration	Corporate Governance

We would like to thank the Macao Government Tourism Office for providing the "2024 A Symphony of Lights" photos*.

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