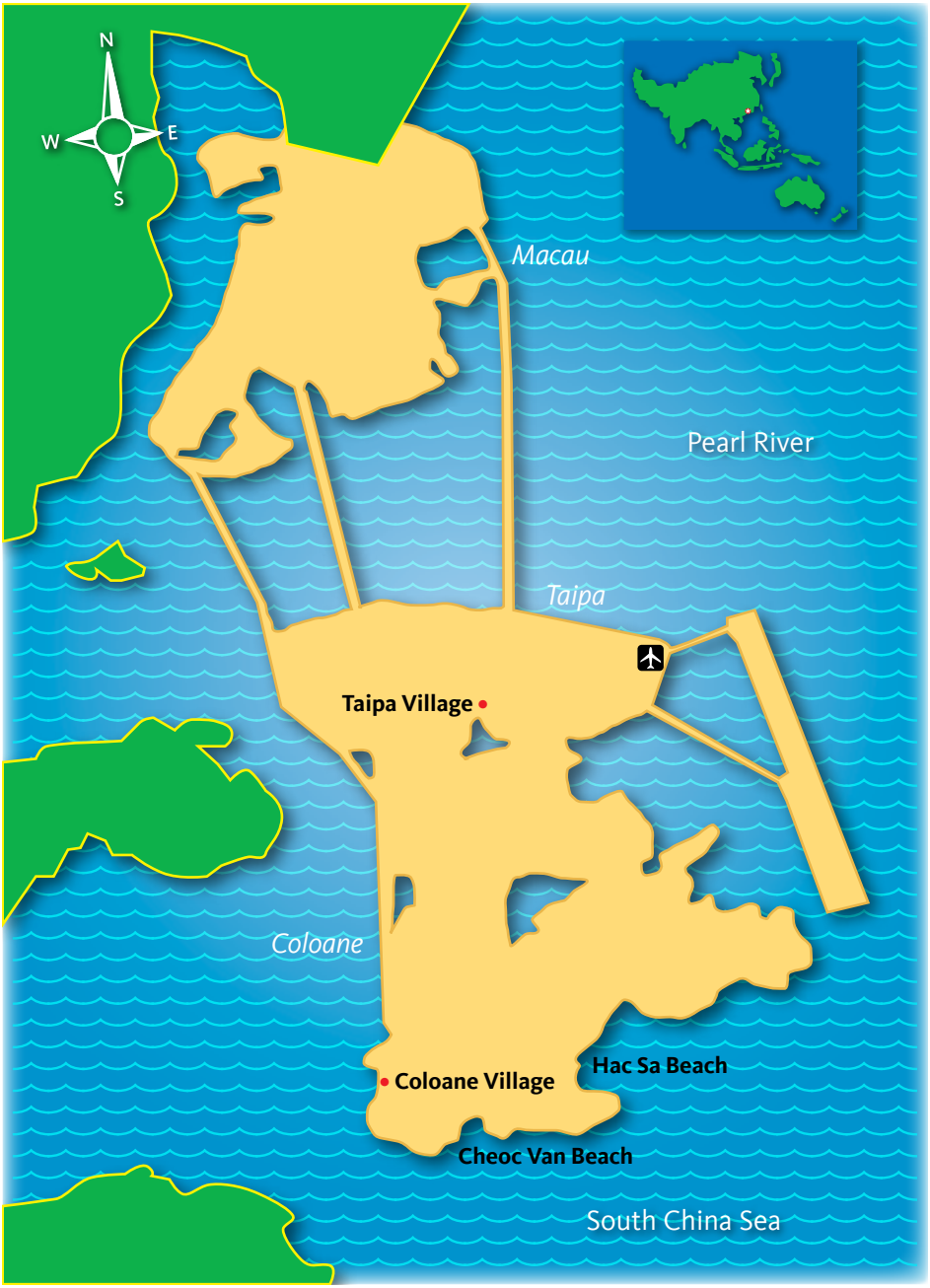
N
W
E
S
Macau
Pearl River
Taipa
Taipa Village
Coloane
Coloane Village
Hac Sa Beach
Cheoc Van Beach
South China Sea

Macau SAR

CEM is the only public utility company with a sole concession to generate, transport, distribute, sell, import and export electricity in Macau SAR.

Since 1987, the Government, previously the largest shareholder in CEM, has reduced its holding to just 8%. Currently, 84% of CEM's shares are owned by two main major shareholders. Of these, the Sino-French group formed by mainly of SUEZ and NWS Holdings Limited holds 42% and the Sino-Portuguese group with EDP - Electricidade de Portugal S.A. as its major shareholder holds 42%. China Power International Holding Ltd holds 6% and local shareholders own the remaining 2%.

The generation capacity at the end of 2007 was 472 MW, installed in three power stations, one located in the Macau peninsula, the Macau Power Station, the other two in the Coloane Island, namely Coloane A Power Station and Coloane B Power Station. CEM has three 110/66kV Interconnections with Mainland in a total importation ability of 375 MVA. With the operation of the 4th Interconnection, at 220kV level, which is in operation since June 2008, the total importation ability is increased up to 700MVA. By the end of 2007, CEM was providing services to 211,238 customers. Macau peninsula accounted for 75% of the total customer base, Taipa 21.9%, and Coloane 3.1%.

Summary of Activities

In 2007, Macau continued to face an impressive economic growth, which resulted in a new record in terms of gross electricity demand. The total growth represented an increase of over 21% as compared with 2006. To be able to cope with this growth CEM invested roughly MOP900 million in 2007, 74% of that with projects related to the transmission and distribution network.

High investments were also made to improve CEM environmental performance in line with the community expectations. Coloane B Power Station Combined Cycle Gas Turbines are being upgraded to use natural gas. Air Quality Monitoring Station (AQMS) equipments were also renewed in accordance with a protocol signed with the Meteorological and Geophysical Bureau of Macau SAR. A second Fresh Water Generator was also installed to produce the water necessary for industrial use in our generating facilities.

Apart from that, CEM completed in 2007 the expansion of Macau-Norte Substation, allowing a third interconnection of 110kV with Guangdong Power Grid (GPG). CEM also built a substation at COTAI in order to fulfill the future power demand of the new entertainment facilities that will be opening in this area, and signed an important contract for the design and erection of a 220kV substation at Canal dos Patos, which becomes the first interconnection at 220kV level between CEM and Guangdong Power Grid. This new substation is being erected to cope with the future needs of importing additional power from GPG to satisfy the increasing power demand in Macau, and ensure that the Territory can continue to enjoy an adequate and reliable power supply.

Growth in electricity consumption was again at double-digit rate in 2007, as a consequence of new development projects. The Company's sales for 2007 were 2,931 GWh, which represents 23.7%

PROFILE

Capital	City of Macau	Installed Capacity	472MW
Area	28.6 km²	Population Electrified	100%
Population	525, 500 (August 2007 estv.)	Main Voltages (kV)	110, 66, 11
GDP	$10 billion	Natural Resources	–
Currency	Macanese pataca (MOP)		

growth when comparing with 2006.

It is also important to mention that CEM System Reliability is among the top utilities in the world. In fact, CEM Average System Availability Index in 2007 was 99.9993%, which is higher than the ones being requested by the Hong Kong government to their power utilities.

As for the area of Customer Relationship, CEM fully implemented a new Customer Information and Billing System, in September 2007, further to six months stabilization period started in March 2007. It uses the SAP-ISU platform for billing, and it integrates and combines the Call Center in a large, integrated information system.

Guided by the vision to become one of the best energy suppliers in Asia, CEM has completed the development of its Quality Management System and obtained the international standard ISO 9001 certification in February 2007. Together with the ISO 14001 Environmental Management System and OHSAS 18001 Occupational Health and Safety Certifications attained in 2003 and 2006 respectively, CEM has now developed its Integrated Management System, guaranteeing a high level of operational quality projecting a modern company that wants to be at the very best international levels. In regards to the Health and Safety work conditions in CEM, with the combined commitment of both employees and management, the company has observed a noticeable reduction in the number and severity of work accidents. As at the end of 2007, the Company employed a total of 718 permanent employees.

Generation Facilities and Technologies

The generating system of CEM consists of three power stations: one located in the Macau Peninsula and the other two on the Coloane Island. Together, these three power stations are equipped with a total installed capacity of 472 MW. According to the composition of the generating system as at the year-end of 2007, the predominant type of generation technology deployed was the low speed diesel generator; this kind of generating units constituted almost 49% of total installed capacity and accounted for as much as 91% of total generation in 2007. The use of the steam turbines, gas turbines and the medium speed diesel generators remained low. Indeed, they made up of 22% of the total installed capacity. Their output summed up to 3%. By the same token, the Combined Cycle accounted for 5% of total generation, while its capacity was 29% of the total generating system. CEM generated 1,382 GWh of electricity in 2007. Electricity bought from the mainland amounted to 1,683 GWh, which represents 74% growth when comparing with 2006. Purchases from the Macau Refused Incineration Plant totaled 66 GWh.

Transmission and Distribution

The year was again characterized by the continuous increase on the power demand in line with the development of the gambling industry. In 2007, the system and network maximum demands have increased to 582 MW, which represented increases of 11.5% compared to 2006. Electricity is delivered through a transmission and distribution network consisting mostly of underground cables. The transmission system operates at 110 kV and 66 kV, while distribution is mainly at 11 kV and 400/230 V. The supply is 50 Hz alternating current, at 230 V single-phase or 400 V three-phase. By the end of 2007, CEM network consisted of 197 km of high voltage (110/66 kV) transmission cables, 552 km of medium voltage (11 kV) distribution cables and 735 km of low voltage distribution cables.

Due to new developments in Macao, CEM has launched several projects to prepare the network for the coming future consumptions and required quality of supply. Among them, the following should be addressed with special emphasis:

220/110kV Canal dos Patos Substation – The 1st interconnection with Guangdong Power Grid is put into operation in June 2008 and connected at a new 220/110kV Substation, located at Canal dos Patos. Retrofit of Macau Norte Substation The new 110kV GIS side of the Substation, including a new building, was completed and then energized on in June. This has allowed the connection of a third Interconnection at 110kV with Guangdong Power Grid, to the Macau grid. In addition, as part of the re-configuration of CEM grid and 66kV cable splitting, the retrofit of the 66kV GIS has started in 2007 and will be completed by 2008.COTAI Substation – This substation was

critical for the splitting of the 66kV network and was completed and energized in Jun 2007. As part of the 66kV grid re-configuration and to supply additional customers on that surrounding area, Phase 2 of the COTAI Substation project has been initiated in 2007, comprising the supply of 66/11kV transformers and associated 11kV equipment. Extension of NAPE Substation (66kV). The extension of this substation comprised the installation of one additional 66/11kV Transformer and three 66kV GIS panels. The purpose is to allow supplying more consumers and cope with the expected increased demand on that surrounding area.

Splitting of the 66kV network – In line with the Master Plan, the works related with the splitting of the 66kV grid have continued to be executed in order to implement the configurations originally defined. Assessment on CEM MV/LV Networks – With the objective of making CEM one of the best energy suppliers in Asia Pacific, improving its reliability indexes, a detailed study has been performed by KEMA on the Medium and Low Voltage Networks. Conclusions and recommendations for improvements have been made. As immediate consequence of the report, several improvement projects have been planned for implementation in 2008.

Environment

The increasing attention on global warming, the growing concern on environmental issues and demand for stricter compliance to emission limits had led to CEM's commitment to minimize the environmental impact of its activities and to be a proactive partner of the Macau community.

In the recent past, CEM has invested more than MOP450 million to improve CEM's environmental performance in line with community expectations, including investments in Selective Catalytic Reduction Systems, Natural Gas Conversion, Air Quality Monitoring Systems, Scrap Yard, Noise Control Facilities, etc.

The commissioning of natural gas generation has been completed and its use in the power generation process will better meet the expectations of the community as well as improve the environmental protection.

Environmental Highlights in 2007

Two combined cycle units at Coloane B Power Station were upgraded to operate with Natural Gas. Natural gas burns much cleaner than oil and produces much less particulates.A new solution for the treatment of waste oil was developed in coordination with the Macau Environmental Council. A new solution for the treatment of oily sludge was developed with the New Macau Hazardous Waste Treatment Plant. CEM participated in the Youth Educational Program to educate Macau students in the areas of environment and health and safety.

	Installed Capacity (MW)		Generation (GWh)	
Steam turbines	40	9%	0	0%
Gas turbines	30	6%	0	0%
Diesel generators:				
Medium Speed	34	7%	48	3%
Low Speed	231	49%	1261	91%
Combined Cycle	136	29%	73	5%
Total	**472**	**100%**	**1382**	**100%**