



CEM Quarterly Report

(Jan - Jun 2003)

Table of Contents

1. Corporate Highlights	1
2. Electricity Sales by Classification	2
3. Monthly Peak Load	2
4. M-Index	3
5. SAIDI	3
6. SAIFI	4
7. Number of Work Accidents	4
8. WAFI	5
9. WAGI	5



CEM Quarterly Report

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1. Corporate Highlights

First Combined Cycle Generating Unit of the New Coloane-B Power Station

As part of our commitment to environmental protection, on 8 April 2003, CEM inaugurated its first Combined Cycle Generating Unit at the new Coloane-B Power Station, which is one of the most environmentally friendly power stations in the region. It employs Best Available Sustainable Technology (BAST), which provides long-term benefits for CEM operational efficiency, cost reduction, and overall environmental friendliness. This MOP\$1.2 billion new Coloane-B Power Station is one of the most significant of CEM investments and it demonstrates our commitment to develop a better place for all Macau citizens.

Special Support Programmes to lessen the effects of the SARS outbreak

The SARS outbreak in neighbouring areas has led to a significant negative impact on several segments of the Macau SAR economy. Although CEM activity has also been affected by the economic downturn, nevertheless as a responsible corporate citizen, CEM decided to join the Macau SAR Government initiative to ease the burden on the Macau community. To help lessen the SARS impacts, CEM has offered the government the introduction of short-term, special support programmes, for both residential and eligible commercial customers during the three billing months of May, June and July 2003. Around 170,000 residential customers and 12,500 commercial customers will benefit from these programmes. Both residential and eligible commercial customers will enjoy a 2% discount on their electricity consumption during the period mentioned above. Eligible commercial customers include: Wholesale; Retail; Hotels; Restaurants and Transport. In addition, eligible commercial customers will be provided with a special credit scheme whereby they will pay only 70% during the aforementioned period, with the remaining 30% being deferred into seven interest-free equal instalments to be paid from October 2003 to April 2004.

CSD/CMS/MEM awarded ISO 9001:2000 Certification

The Metering Equipment Management (MEM) of the Customer Services Department (CSD) has successfully upgraded its ISO 9002:1994 certification to the new version ISO 9001:2000 with zero non-conformity. The project was initiated in September 2002 and was completed in February 2003. The certification body Bureau Veritas Quality International (BVQI) performed the audit for the renewal of the certification. This project clearly shows the MEM team's continuing improvement in its conformity to the ISO 9001 Quality Management System, strong dedication and commitment to deliver the highest level of customer service.



CEM Quarterly Report

(Jan - Jun 2003)

2. Electricity Sales by Classification

	YTD2002			YTD2003			Change 2003/2002	
	Number of Contracts (0s)	Sales (MWh)	Market Share (%)	Number of Contracts (0s)	Sales (MWh)	Market Share (%)	Number	Sales
INDUSTRIAL	2,464	65,208	8.7%	2,429	64,424	8.1%	-1.4%	-1.2%
COMMERCIAL	17,593	305,660	40.7%	18,160	320,943	40.2%	+3.2%	5.0%
RESIDENTIAL	166,261	245,702	32.7%	168,593	262,192	32.8%	+1.4%	6.7%
PUBLIC ADMINISTRATION	3,233	135,014	18.0%	3,395	151,169	18.9%	+5.0%	12.0%
TOTAL	189,551	751,584	100%	192,577	798,728	100%	+1.6%	6.3%

Number of clients is increased by 1.62% while sales are grown by 6.32%. The SARS outbreak had little impact on CEM sales in volume.

3. Monthly Peak Load

MVA	2002	2003	Variance (%)
Jan	239.9	238.4	-0.63
Feb	240.4	249.6	3.83
Mar	259.7	264.3	1.77
Apr	306.8	300.9	-1.92
May	331.9	333.3	0.43
Jun	366.3	342.6	-6.46

The SARS outbreak had significant impact on demand growth.

CEM Quarterly Report

(Jan - Jun 2003)

4. M - Index

mm:ss	2002	2003	Variance (%)
Jan	00:09	01:32	922
Feb	05:25	00:14	-96
Mar	00:06	00:23	283
Apr	00:21	00:27	29
May	00:21	00:12	-43
Jun	03:13	02:04	-36
Average	09:35	04:52	-49

$$M\text{-index} = \Sigma i / \Sigma Pi$$

Σi = Total interruption power x interruption time

ΣPi = Sum of installed power (kVA) for all the 10/0.4kV customer substations

M-index represents the equivalent time of energy not supplied to the network. The figures indicated include planned interruption.

Consequently, the **network availability index (ASAI)** went up from 99.998% last year to 99.999% this year.

5. SAIDI - System Average Interruption Duration Index

	2002	2003	Variance (%)
Jan	0.08	0.13	62
Feb	5.65	0.12	-98
Mar	0.06	0.49	663
Apr	0.43	0.21	-50
May	0.17	0.17	0
Jun	0.99	0.88	-11
Average	7.38	2.01	-73

$$SAIDI = \Sigma (\text{Affected Customers} \times \text{Affected Hours}) / \text{Total Customers Served}$$

SAIDI represents the equivalent interruption time per customer (in minutes and cents).

CEM Quarterly Report

(Jan - Jun 2003)

6. SAIFI - System Average

	2002	2003	Variance (%)
Jan	0.00	0.02	301
Feb	0.07	0.00	-93
Mar	0.01	0.02	260
Apr	0.02	0.01	-59
May	0.02	0.01	-69
Jun	0.04	0.05	15
YTD	0.16	0.11	-32

SAIFI = Σ (Affected Customers) / Total Customers Served
 SAIFI represents the percentage of customers affected by an outage or more over the period.

7. Number of Work Accidents:

Month/Year	2002	2003
Jan	1	0
Feb	1	0
Mar	1	1
Apr	0	1
May	3	0
Jun	0	2
Total	6	4

The total number of accident in year 2003 decreased by 33.33%, when compared with year 2002.

CEM Quarterly Report

(Jan - Jun 2003)

8. WAFI - Work Accident Frequency Index

	2002	2003	Variance %
Jan	7.65	0.00	-100
Feb	8.84	0.00	-100
Mar	8.67	2.75	-68.28
Apr	6.39	4.04	-36.78
May	11.45	3.24	-71.92
Jun	9.59	5.39	-43.80

WAFI significantly improved over last year.

9. WAGI - Work Accident Gravity Index

	2002	2003	Variance %
Jan	0.19	0.00	-100
Feb	0.11	0.00	-100
Mar	0.08	0.02	-75
Apr	0.06	0.03	-50
May	0.13	0.03	-76.92
Jun	8.41	0.03	-99.64

WAGI significantly improved over last year.