



Electricity  
Authority  
of Cyprus



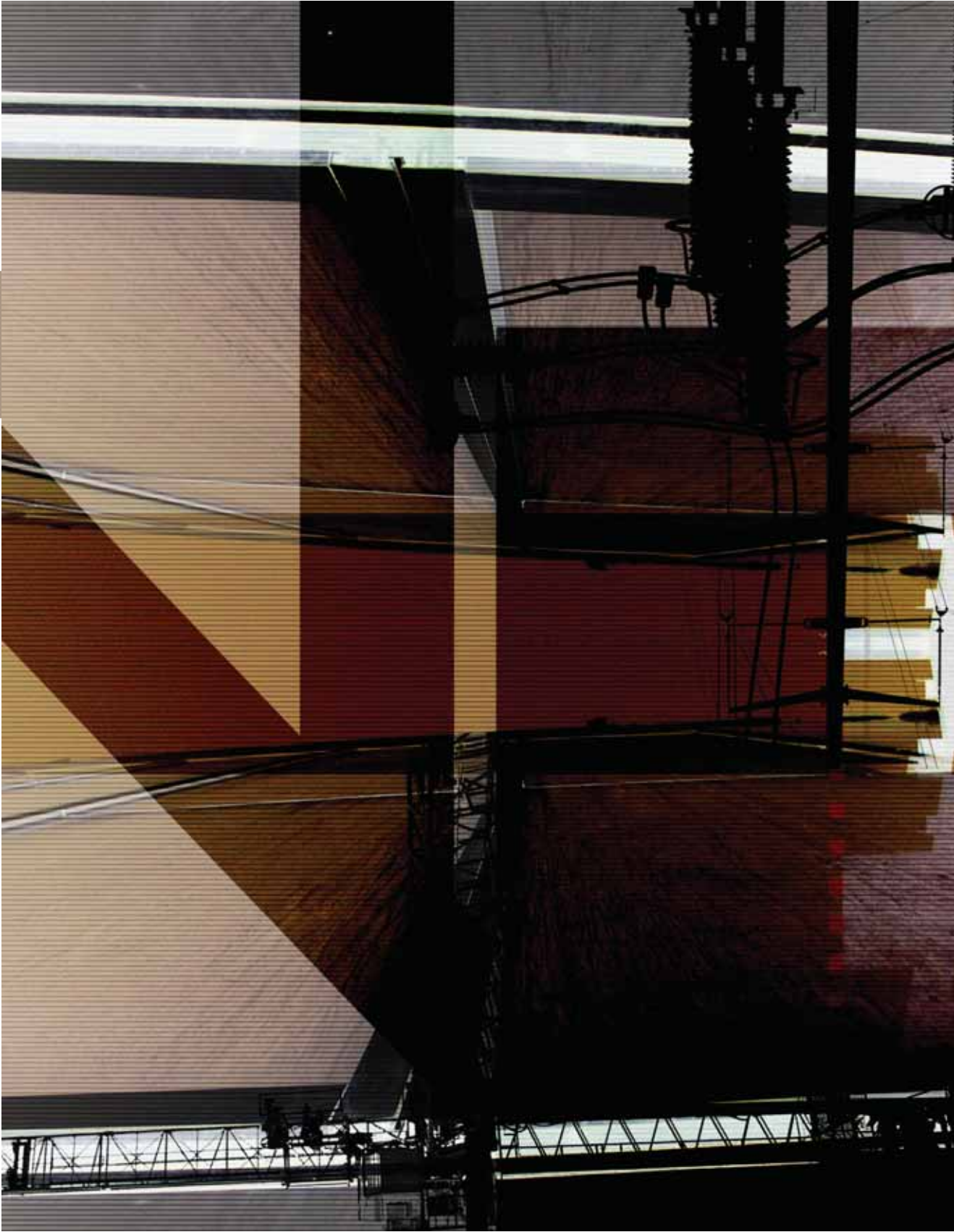
# Annual Report **2006**





individual  
actions,  
individual  
talents,  
individual  
identities.

we all however,  
share the same  
desire to offer  
a life filled with light  
and an everyday  
reality filled  
with energy.



# The Electricity Authority of Cyprus

The Electricity Authority of Cyprus is an independent, semi government corporation established under the Electricity Development Law Cap.171 of 1952 in order to exercise and perform functions relating to the generation and supply of electric energy in Cyprus.

The above definition is used in Cyprus for corporations which are independent and which were established in accordance with the relevant Law, in order to render services in the utility field. Such corporations are governed by Authorities, the members of which are appointed by the Council of Ministers.

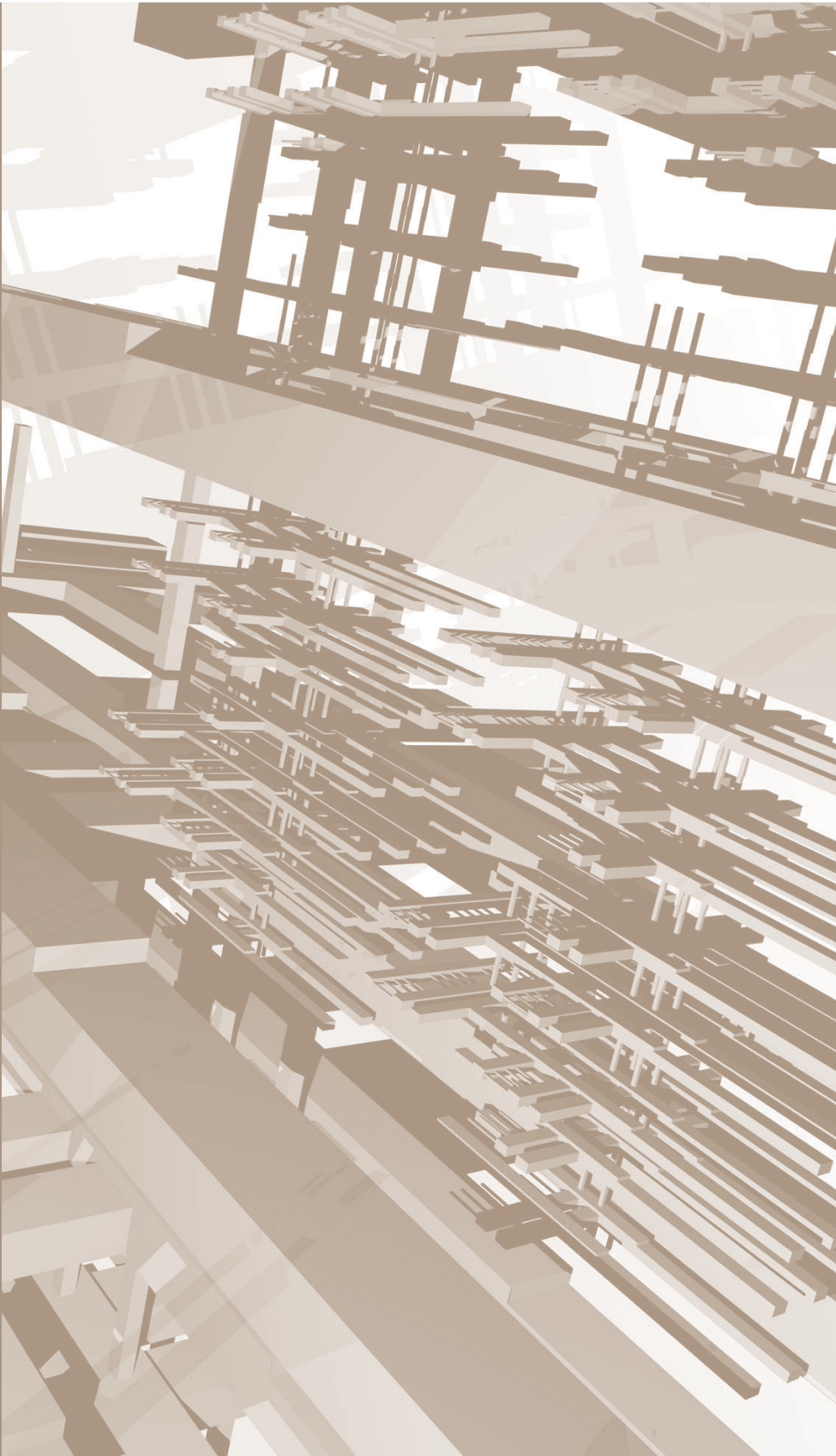
In the case of the Electricity Authority of Cyprus, the government, through the Minister of Commerce, Industry and Tourism, is empowered to give directives to the Authority on matters appertaining to the general interest of the Republic.

## Our Mission is ...

To provide our customers with the highest quality of safe and reliable services in the energy sector and in other activities at competitive prices, respecting society, the environment and our people and contributing to the development of our country.







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His Excellency  
The Minister of Commerce, Industry & Tourism  
Mr Antonis Michaelides  
Ministry of Commerce,  
Industry & Tourism  
1421 Lefkosia

27<sup>th</sup> July 2007

Your Excellency

I have the honour to submit to you the 55th Annual Report and Accounts of the Electricity Authority of Cyprus for the year ended 31 December 2006 incorporating a copy of the Auditors Report.

These Reports and Accounts are submitted to you in compliance with the requirements of the Electricity Regulation Law of the Internal market 2003 (as amended by N. 81 (I) 2004 – Section 9 (a)), and also of Sections 24(3) and 26 of the Electricity Development Law, CAP. 171.

Yours faithfully

A handwritten signature in black ink, consisting of a series of loops and a long horizontal stroke, representing the name Charilaos Stavrakis.

Charilaos Stavrakis  
Chairman





# The Year in Brief

		2006	2005	% Increase (Decrease)
<b>GENERATION</b>				
Total units generated	million kWh	4 618,0	4 347,9	6,2
Maximum output capacity of power stations	MW	988	988	-
Maximum demand met	MW	904	856	5,6
Thermal efficiency of generation	%	33,8	32,8	3,0
<b>SALES OF ELECTRICITY</b>				
Total sales	million kWh	4 135,0	3 932,9	5,1
Consumption in the turkish occupied area	million kWh	7,3	6,7	9,0
Average charge per kWh sold	cent	7,262	6,431	12,9
Consumers at 31 December	thousand	455,0	436,3	4,3
<b>FINANCE</b>				
Total income	C£ thousand	316.107	267.706	18,1
Operating costs	C£ thousand	276.274	228.799	20,7
Operating profit	C£ thousand	39.833	38.907	2,4
Finance costs	C£ thousand	7.715	5.005	54,1
Exceptional item	C£ thousand	-	693	(100,0)
Tax	C£ thousand	9.511	9.757	(2,5)
Profit for the year	C£ thousand	22.607	23.452	(3,6)
Dividends	C£ thousand	15.000	-	100,0
Capital expenditure	C£ thousand	70.769	56.248	25,8
Average net assets employed	C£ thousand	776.605	757.333	2,5
Return on average net assets employed	%	5,1	5,1	-
<b>EMPLOYEES</b>				
Permanent employees in service at 31 December		2 095	2 032	3,1
Sales per employee	million kWh	1,97	1,94	1,5
Consumers per employee		217	215	0,9

# Board of Directors and Management

## THE AUTHORITY

### Chairman

Ch. Stavrakis BA (Cantab), MBA (Harvard), ACIB

### Vice Chairman

Y. Valanides Mechanical Engineering of National Metsovio University  
(since 22/6/2006)

Ch. Charalambous Master of Science in Engineering  
(until 10/6/2006)

### MEMBERS

I. Constantinides BA in Philosophy, Politics and Economics  
Oxford University  
MBA in Business Administration

Filitsa Ioannou Economist of National Kapodistriako University,  
Athens

M. Miltiades BSc (Hons) Psychology & Sociology

G. Pistentis H.T.I. Diploma in Computer Science

Y. Valanides Mechanical Engineering of National Metsovio University  
(until 21/6/2006)

Ch. Rotsas BA (Hons) Economics & Finance FCA

D. Psiloyenis BSc Electronic Engineering

P. Hadjicharalambous Mathematics, University of Leipzig, Germany  
(since 22/6/2006)





Ch. Stavrakis  
Chairman



Y. Valanides  
Vice Chairman



I. Constantinides  
Board Member



F. Ioannou  
Board Member



M. Miltiades  
Board Member



G. Pistentis  
Board Member



P. Hadjicharalambous  
Board Member



Ch. Rotsas  
Board Member



D. Psiloyenis  
Board Member



M. Stavrou  
General Manager

#### LEGAL ADVISERS

Cacoyiannis & Demetriou, Lemesos - Lefkosia

#### AUDITORS

Auditor General of the Republic  
PricewaterhouseCoopers, Lefkosia

#### EXECUTIVE

##### GENERAL MANAGER

M. Stavrou  
FCCA, ACMA

##### EXECUTIVE MANAGER FINANCE

H. Hadjijerou  
FCA, MBA

##### EXECUTIVE MANAGER CUSTOMER SERVICE

G. Petoussis  
Dip. Eng. CEng, MIEE

#### EXECUTIVE MANAGER NETWORKS

A. Avraamides  
BSc (Eng), CEng, MIEE  
(since 1/2/2006)

Vacant  
(until 31/1/2006)

#### EXECUTIVE MANAGER GENERATION

A. Papadopoulos  
BSc (Eng), CEng, MIEE, MIMechE, CdipAF

#### EXECUTIVE MANAGER COMMON SERVICES

C. Eliopoulos  
Dipl Eng, Dipl Eng Mgt, CEng, MIEE, MIMechE  
(since 1/2/2006)

Vacant  
(until 31/1/2006)

#### EXECUTIVE MANAGER CORPORATE DEVELOPMENT

N. Papadopoulos  
BSc (Eng), CEng, MIEE, CdipAF

# Board of Directors and Management

## POWER STATIONS

### **POWER STATION MANAGER** **Moni Power Station**

M. Voskou  
Dipl Eng  
(since 1/6/2006)

Vacant  
(until 31/5/2006)

### **POWER STATION MANAGER** **Dhekelia Power Station**

S. Savvides  
BSc (Eng), MSc, CEng, MIEE, MIMechE, MI Petroleum

### **POWER STATION MANAGER** **Vasilikos Power Station**

A. Ioannou  
BA (Eng), MA. Eur Ing, CEng, MIEE

## AREAS

### **AREA MANAGER** **Lefkosia - Keryneia - Morfou area**

P. Sardos  
BSc, MSc, DIC, ACCI, MIEE, MIEEE

### **AREA MANAGER** **Lemesos area**

A. Malialis  
Dipl in Physics, MSc, CEng, MIEE  
(since 1/6/2006)

Vacant  
(until 31/5/2006)

### **AREA MANAGER** **Ammochostos - Larnaka area**

Y. Siekkersavvas  
BSc (Eng), MIEE



**AREA MANAGER**  
**Pafos area**

Vacant  
(since 1/9/2006)

L. Papasavvas  
Dipl. Eng. CEng, MIEE  
(until 31/8/2006)

**INTERNAL AUDIT MANAGER**

I. Koumeras  
FCCA, CIA

**SECRETARY / MANAGER OF LEGAL SERVICES**

Vacant

**GENERAL MANAGER'S OFFICE MANAGER**

A. Christou  
BSc (Eng), HND, MIEE, CEng

**HUMAN RECOURCES MANAGER**

A. Patsalis  
BSc (Eng), MIOSH

# Chairman's Message



It is the time of the year when, once again, we look back over another successful twelve months for the purposes of the Annual Report. 2006 was a year in which the EAC's overall contribution and work played a major part in consolidating its image as a trustworthy Organisation that has made a great contribution to our country's economy and progress during its 55 years of existence.

During 2006, we continued to implement the Organisation's modernisation project so as to prepare it for action in the new competitive electricity environment as well as in other sectors of the economy into which it will expand.

## **Robust Finances**

The statistics in this report reveal our Organisation's financial situation. This robust picture has not come about by chance. It is a reflection of, on the one hand, the hard team work of all the Organisation's personnel and, on the other, our efforts to keep electricity costs as low as possible. Most significantly, the efficiency and productivity of our personnel have increased and have thus become the Organisation's most important asset in facing the demands of the new competitive environment that has already been created in the electricity market.

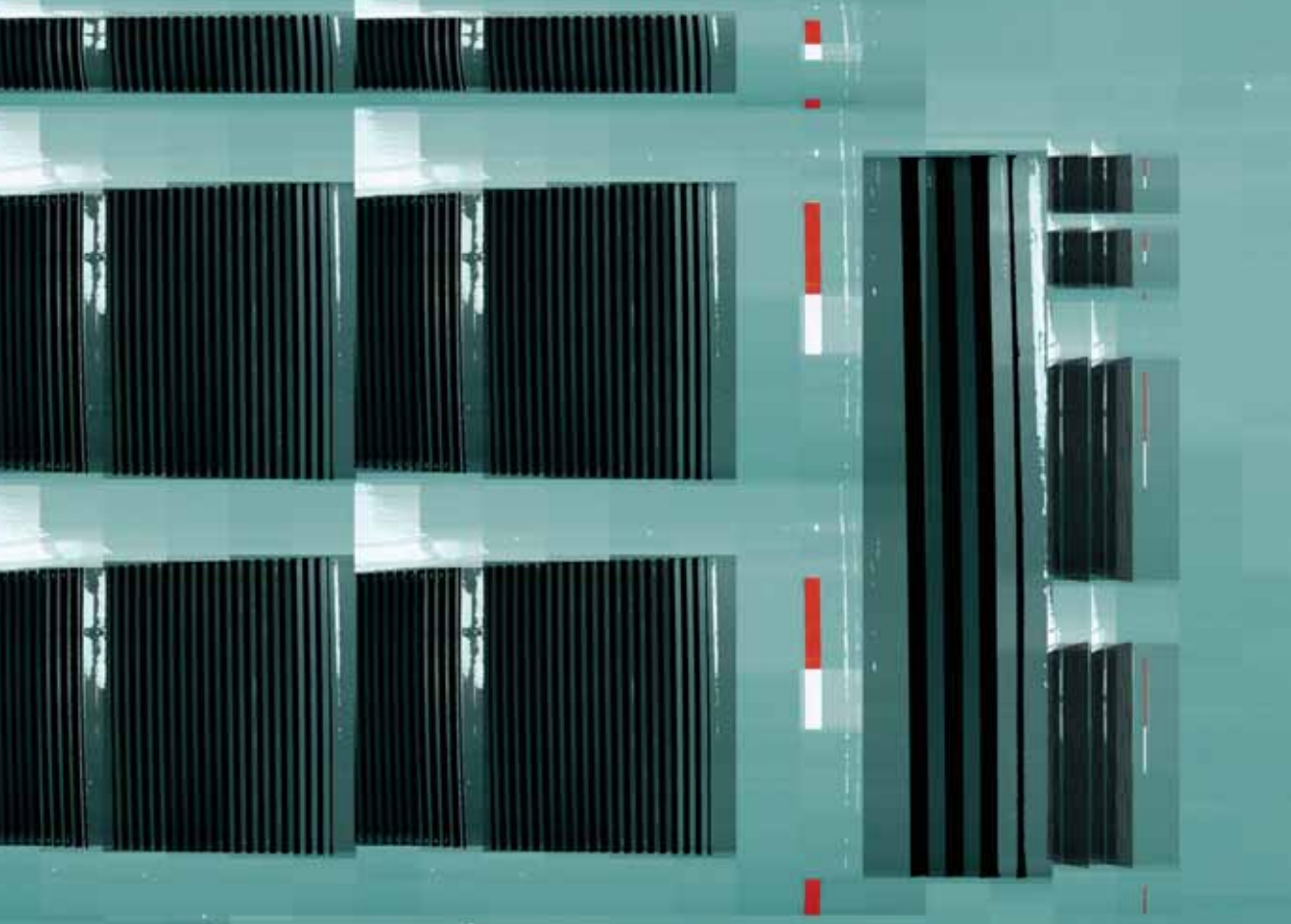
This significant observation, regarding our human resources' overall effort and faith in the need to adapt to the new working environment, is certainly one that makes us optimistic about the Organisation's new vision – one that sees us as leaders in the energy and services sectors.

## **A customer-oriented outlook**

Here at the Electricity Authority of Cyprus we place particular emphasis on the essentially customer-oriented image that should characterise us. The proof of this can be seen in the new plans, projects and customer service methods that we introduced in 2006 – for the benefit of our customers, of course. One example is the Thursday afternoon opening (in addition to Tuesday afternoon) of our four Customer Service Centres (CSCs) which operate from our Area Offices and the CSC at Paralimni. I would also mention our recent plan to enable customers to settle their electricity bills by Standing Order, the operation of the islandwide Faults Reporting Centre and the introduction of a Customer Charter. Customer care has become a distinct and especially sensitive issue for the Electricity Authority, around which many of our planned activities will revolve.

## **Natural Gas**

Preparations continued during 2006 for the arrival of natural gas in Cyprus. This is of tremendous importance since it will determine major developments in the state's energy policy with great economic repercussions. For the EAC, the arrival of natural gas means the end of our dependence on oil and its by-products for the generation of electricity, with positive consequences for production costs and the environment and, ultimately, for the actual per kilowatt price of electricity.



### **Development Plan**

During the year under review, the EAC continued to implement its development plan, though not without obstacles. Nonetheless, we proceeded to complete several important electricity generation and transmission/distribution infrastructure projects. Specifically, regarding Generation, the EAC's most important achievement in 2006 was taking delivery from the contractor of Vasilikos Power Station Unit No. 3 and the start of its commercial operation.

The third phase of Vasilikos Power Station, which is due to come into commercial operation at the beginning of 2009, includes a 220MW combined cycle unit (Unit No. 4). During its first years of operation it will use diesel oil until the arrival of liquified natural gas (LNG) in Cyprus after which this will be used for fuel.

The fourth phase of Vasilikos Power Station provides for two 180MW combined cycle units operating on natural gas and diesel (Units 5 and 6). For this project, as with Phase Three, the Turnkey contract (completed contract) method will be implemented. The Business Generation Unit submitted a specific proposal to the Board and it was approved on 6 December 2006. According to this proposal, Unit No. 5 will definitely go ahead and will come into operation in 2011 while Unit No. 6 is considered an option which, if a decision to go ahead is taken, will come into commercial operation either in 2011 (with Unit No. 5) or in 2012-2013.

# Chairman's Message

In the Transmission/Distribution sector, three important Transmission Substations were commissioned: The "District Office" Substation in Lefkosia city centre, the "Larnaka Commercial Centre" Substation and the Aphrodite Substation in the Pafos district. Additionally, the EAC received the very important final approval for work to start on the site of the Tseri Transmission Substation. The issue of this particular Substation has vexed our Organisation for more than ten years and the long delay in reaching a final decision on the start of work was the reason why, especially during the summer months, the city and district of Lefkosia faced the strong likelihood of a major power cut and why the EAC would have been unable to provide customers with an alternative supply. According to the specific timetable, the project is due to be completed in summer 2008 when the EAC will be in a position to commission the Substation, thus resolving a major problem that greater Lefkosia has faced almost every year.

Another important issue of concern to the EAC during the first half of 2006 was a request by the Turkish Cypriot authorities for the supply of electricity to the occupied areas following a technical fault in their Generation Units. In full collaboration with the Government, the EAC supplied the Turkish Cypriot community in the occupied areas with electricity worth a total of £2,6 million on four different occasions.

## **Energy Awareness**

One of the EAC's firm objectives has long been the cultivation of awareness of the need to save energy and to protect and respect the environment. We spend a considerable amount on environmental protection and this policy will continue. The EAC's policy on protecting and respecting the environment has been developed over many years and is a familiar part of our existence. The introduction of state-of-the-art technology to Power Stations, the monitoring of pollution by special modern technological units, industrial waste processing units, the construction of Substations styled to fit in with the surroundings of each area and tree planting are only some of measures taken by the Electricity Authority to protect the environment.

## **Personnel Safety**

The EAC shows the same interest in the safety of its personnel. By upgrading safety installations and providing constant training, the EAC aims to eliminate every possible work hazard, mainly for its technical staff. We want to give as much as we can to our personnel so that they are willing and able to offer everything we ask for in our endeavours in the new competitive environment that has been created.

## **Social Contribution**

Together with its main task, the EAC's other top priority is its social contribution. Its most important campaign in 2006 in the context of this contribution (over and above its support of events concerning education, sport, etc.) was against childhood obesity which received very positive comments from teachers and parents.



### **Thanks**

To conclude this brief review of the past year, I would like to express special thanks to all the government departments and services, individuals and authorities with whom the EAC and I personally collaborated.

I wish to thank the Minister of Commerce, Industry and Tourism, Antonis Michaelides, for his cooperation, as well as all the staff in his Ministry. I also thank the Government, the House of Representatives, the Auditor-General of the Republic, all those Government agencies and the Local Government authorities with which the EAC has worked, and representatives of the Media for promoting the work of the EAC.

Finally I would like to thank all my associates on the EAC Board of Directors, General Manager Moysis Stavrou and the Organisation's management, the Unions and every member of our personnel for their superb cooperation during 2006.

**Charilaos Stavrakis**  
**Chairman**

# Development Plan

Every modern Organisation, as part of its efforts to respond to the continually increasing demands of customers, implements its own Development Plan. The EAC, maintaining its policy which aims at high standards of safety and reliability in the provision of electricity, bearing in mind the predicted increase in load demand, continues to implement its Development Plan at a rapid pace. The Development Plan was drawn up after various studies and its basic aims are the following:

- The expansion and upgrading of customer services.
- Improved efficiency in all the EAC's areas of activity.
- Upgrading of IT Systems which will assist the EAC in achieving its business aims.
- The proper use of electricity with the aim of energy conservation and load management and control, particularly at peak times.
- Protection of the natural environment.

The Development Plan covers both the medium and long-term requirements of the EAC. Some parts that have already been implemented, such as the introduction of new IT systems, significantly upgraded Substations and new links to the Transmission System, are of such importance that they will assist the EAC to successfully carry out its mission for a long period in the new century.

In the Generation sector, the main and most important project is the completion of Phase 2 and Phase 3 of the new Vasilikos Power Station which will contribute to fulfilling the country's electricity needs for a long time. In 2006 the No. 3 130MW Steam Unit at Vasilikos Power Station came into commercial operation. Although this Unit operates and contributes to the generation system, it has not yet been officially handed over due to outstanding differences concerning the Boiler Contract.

Phase 3 consists of one combined cycle Unit between 170 and 220 MW, (Unit No. 4), which is expected to come into commercial operation in 2009. During the unit's first years of operation, diesel oil will be used until the arrival of liquefied natural gas (LNG) in Cyprus. Thereafter it will use liquefied natural gas as its main fuel.

For this Project, the turnkey completed contract method will be followed, to include the planning, supply, manufacture, construction, testing, delivery and maintenance of the Unit for a specified period. This is normal practice, applied internationally to Combined Cycle Units.

Meanwhile, negotiations and contacts are ongoing with the relevant Ministry and other associated bodies regarding the arrival of Natural Gas in Cyprus.





During the year under review, three new Transmission Substations were commissioned, thus upgrading the EAC Network even further. Specifically, these were the upgraded “District Office” Substation in the parking area of the Lefkosia - Keryneia - Morfou Area Office, the new “Aphrodite” Substation in Pafos and the new “Larnaka Commercial Centre” Substation in Larnaka.

Various projects for expanding and upgrading the Distribution Network continued all over Cyprus throughout the year.

# General Manager's Message




Fully aware of the rapid pace at which everything in the energy sector changes, the Electricity Authority of Cyprus proceeded in 2006 with the difficult tasks of providing the country with an uninterrupted supply of electricity and bringing to completion various parts of its development plan – a plan that will enable the EAC to continue providing its services throughout Cyprus for many years to come, thereby reinforcing the Organisation's positive image with consumers.

During 2006 we saw constant progress from the EAC. This is reflected in the progress achieved in projects of the development plan and can be clearly gauged by an examination of the Organisation's financial results. The contribution and overall endeavour by every member of our Personnel to the Organisation's progress has been more than crucial and I would like to take this opportunity to express my personal thanks to each and every EAC employee.

Given the new situation that has been created in the electricity market and the major effort that the EAC intends to make to expand its activities into other sectors, we have set our sights on making the EAC a leader in the fields of energy and services. We shall achieve this but only through hard work, increased productivity and respect for our customers. Our unwavering aim and our obligation to the coming generations is to create a modern, strong and robust Organisation that will be in a position to provide impeccable, uninterrupted service to its customers and the general public.

In the electricity generation sector, the No. 3 130MW Steam Unit at Vasilikos Power Station came into commercial operation in 2006. Although this Unit operates and contributes to the generation system, it has not yet been officially handed over due to outstanding differences concerning the Boiler Contract. During the year, three new Transmission Substations were commissioned, thus upgrading the EAC Network even further. Specifically, these were the upgraded District Office Substation in the parking area of the Lefkosia - Keryneia - Morfou Area Office which will mainly serve Lefkosia city centre, the new Aphrodite Substation in Pafos and the new Larnaka Commercial Centre Substation in Larnaka. Both Substations use the very latest technology and will respond to the continuously increasing demand for electricity in the specific areas.

Significant progress was achieved in 2006 on the issue of the Tseri Transmission Substation for which final approvals were obtained and on-site work began in October. The EAC makes a constant effort to supply sufficient electricity and provide good service throughout Cyprus, despite several instances of organised groups and even communities placing obstacles in the way of projects aimed at supplying electricity to various areas. Everyone – communities, organised groups, the state and the public – needs to realise that the EAC's aim is to serve the country and that every effort is made to cause the least possible inconvenience. We also have to understand that there is no other method of providing electricity except by the establishment of Transmission and Distribution Substations and via transmission lines.



One important issue that the Organisation's Board and Management had to deal with from January until the summer of 2006 was the request by the Turkish Cypriot community for the supply of electricity to cover the needs of the occupied areas caused by technical problems. The EAC, in close collaboration with the Ministry of Commerce, Industry and Tourism, decided to supply the occupied areas with some 40,6 MWh of electricity, which brought revenue of around CY£2,6 million.

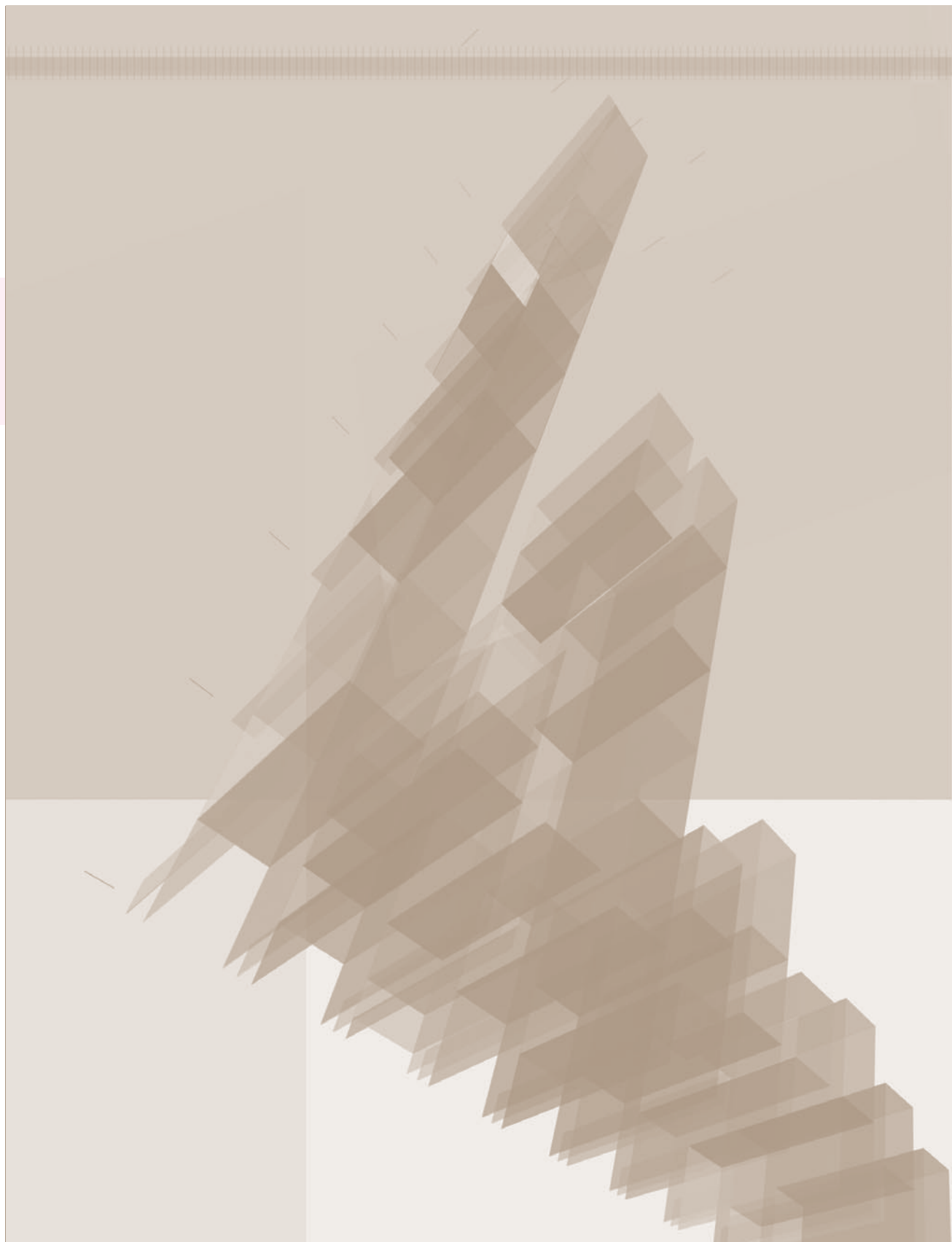
During 2006, work was completed on moving the Ammochostos - Larnaka and Pafos Area Office Stores, to more functional and ergonomic premises and providing the area technical staff with better working conditions. The EAC's objective is to provide comfortable and secure workplaces for the staff so that they are able to give their best for the progress and welfare of the Organisation.

At this point I would like to express my particular thanks to the Chairman of the EAC Board, Mr Charilaos Stavrakis and the other Members of the Board for their cooperation and to assure them that this excellent cooperation will continue unchanged with the sole aim of securing our Organisation's progress and our Staff's wellbeing.

To end this brief message, I would like to express warm thanks to all my colleagues and, in particular, to the Executive Directors of the Business and Development Units for their excellent cooperation.

Thanks not only to the continuously improving services that our Organisation provides to the public, but more importantly, with the experience that it has gained throughout all the years that it has served Cyprus, plus increased productivity by each and every one of us, I am convinced that the Electricity Authority of Cyprus will continue to play its leading role in the new competitive environment.

**Moysis Stavrou**  
General Manager



# business and management units

# Generation Business Unit

## GENERATION OF ELECTRIC POWER

During the year 2006, the Electricity Authority of Cyprus continued the implementation of its operational and development program, which provides for the full utilisation, maintenance and extension of the existing Vasilikos, Dhekelia and Moni Power Stations.

## VASILIKOS POWER STATION

Vasilikos Power Station, with an installed capacity of 298 MW (2 x 130 MW Steam Units and 38 MW Gas Turbine Unit) generated in 2006, 2 293 410 MWh, which corresponds to 49,66% of the total electricity generated from the Authority's Power Stations. During the same period the Station exported, 2 160 237 MWh, which corresponds to 49,52% of the total electricity exported from the Authority's Power Stations.

It should be noted that the new steam unit, with a capacity of 130MW, is under reliability operation since June 2005 and consequently part of the above generated units were generated by this unit. The new unit will be commissioned in 2007 at which time the new overall capacity of Vasilikos Power Station will be increased to 428MW.

The thermal coefficient of efficiency of the Steam Units for units generated reached 39,22% whereas the corresponding thermal coefficient of efficiency for the Gas Turbines reached 23,45%.

Moreover, the thermal coefficient of efficiency of the Steam Units, for units exported, reached 36,95% whereas the corresponding thermal coefficient of efficiency for the Gas Turbine reached 20,49%.

## Maintenance

During the period January-December 2006, Units No. 1, 2 and 3 were taken out of service for a scheduled general maintenance of the Steam Turbines and of the Steam Boilers.

The yearly general maintenance of the two Units included all the electrical equipment, transformers and auxiliary equipment as well as repairs of various defects.

An external Contractor carried out the annual inspection and maintenance of the single mooring and the heavy fuel oil underwater unloading pipes.



### DHEKELIA POWER STATION

Dhekelia Power Station, with an installed capacity of 360 MW (6 x 60 MW Steam Units), generated in 2006, 1 860 781 MWh which corresponds to 40,29% of the total electricity generated from the Authority's Power Stations. During the same period, Dhekelia Power Station exported, 1 768 290 MWh which corresponds to 40,53% of the total electricity exported from the Authority's Power Stations.

The thermal coefficient of efficiency of the Power Station for units generated reached 31,26% whereas the respective coefficient of efficiency for units exported reached 29,70%.

#### Maintenance

During the period January-December 2006 the yearly maintenance of Units No. 3, 4 and 6 was completed whereas the maintenance of Unit No. 1 began and continued during 2007.

The yearly general maintenance of the two Units included all the electrical equipment, transformers, auxiliary equipment as well as repairs of various defects.

The superheater coils of Units No. 3 and 4 were replaced by an external contractor.

The Station moorings were inspected and maintained by an external Contractor and a new certificate was issued.

#### New Equipment

- New flue gas dust monitors were installed on Units No. 3, 4, 5 and 6.
- Auxiliary cooling water pumps suction strainers on Units No. 5 and 6 were replaced by autoclean ones.

### MONI POWER STATION

Moni Power Station, with an installed capacity of 330 MW (6 x 30 MW Steam Units and 4 x 37,5 MW Gas Turbine Units), generated in 2006, 463 888 MWh which corresponds to 10,05% of the total electricity generated from the EAC's Power Stations. During the same period the Station exported 434 180 MWh, which corresponds to 9,95% of the total electricity exported from the Authority's Power Stations.

The thermal coefficient of efficiency of the Steam Units for units generated reached 25,04% whereas the corresponding thermal coefficient of efficiency for the Gas Turbines reached 23,42%.

Moreover, the thermal coefficient of efficiency of the Steam Units for units exported reached 23,42% whereas the corresponding thermal coefficient of efficiency for the Gas Turbines reached 21,39%.

# Generation Business Unit

## **Maintenance**

During the period January-December 2006, the annual maintenance of Steam Boilers No. 4, 5 and 6 was completed. The yearly maintenance of the above Boilers included visual checks and cleaning of all parts, various repairs inside the boilers, replacement of superheater tubes, which have reached their design limits, with other better quality material tubes and repairs in the air and flue gas ducts in order to avoid leakages.

During the same period the annual overhaul of Steam Turbines No. 2, 3 and 6 was completed.

The yearly general maintenance of the above Turbines included all the electrical equipment, transformers and auxiliary equipment.

Gas Turbine No. 2 was stripped for inspection and maintenance of the hot flue gas path by an external contractor.

## **ENVIRONMENTAL ISSUES**

For the protection of the environment and the continuous monitoring of the air quality, six mobile air quality units, two for each Power Station, are in continuous operation at selected sites in the vicinity of the Power Stations. These fully equipped units are capable of monitoring the ground level concentrations of dust, nitrogen oxides (NO<sub>x</sub>), sulphur dioxide (SO<sub>2</sub>), carbon dioxide (CO) and ozone (O<sub>3</sub>). The units are also capable of measuring other meteorological data such as the wind speed and direction, the air temperature and the relative humidity.





## STUDIES

- Officers of the Generation Department were involved in the procedures required for the Accession of Cyprus in the European Union and the effects these will have on EAC operation and more specifically in matters involving the environment and the generation of electricity.
- The Operational Unit of Generation prepared a Report with calculations of the carbon dioxide CO<sub>2</sub> emissions for the period January-December 2005 as per new National Law for the greenhouse gas Emissions Trading Directive. This report was subsequently verified by an external consultant and submitted to the Ministry of Agriculture, Natural Resources and Environment.
- A combustion study for the improvement of flue gas emissions from Units No. 1 and 2 was carried out by an external consultant.

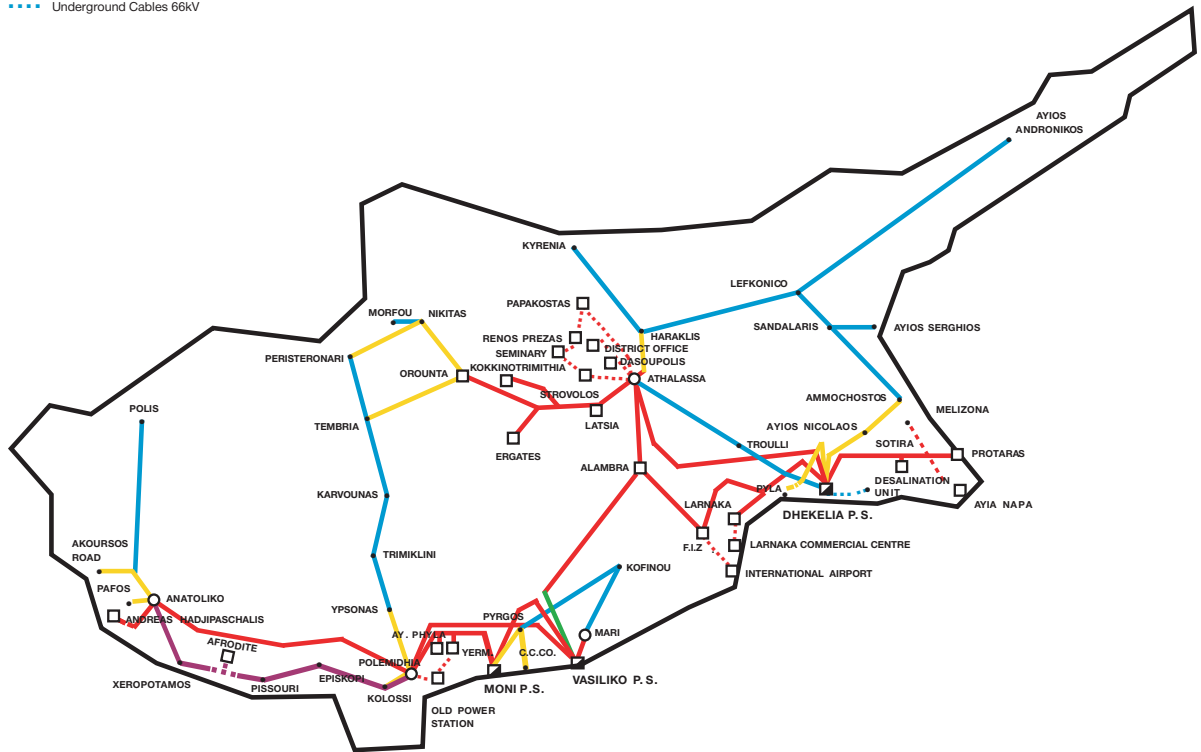
# Generation Business Unit

## VASILIKOS POWER STATION DEVELOPMENT WORKS

### Second Phase of Vasilikos Power Station

- According to the initial plan the date of commercial operation of the Unit of the second phase of Vasilikos Power Station (Unit No. 3, Steam Turbine 130 MW) was the 08.06.2005.
- The new commercial date of operation of the Unit is transferred to 2007. It should be noted that the Unit is currently under reliability operation and generating units.
- The Boiler Contractor continues with the implementation of the erection program; however its program shows a 20-month delay. The delay is due to the inability of the Contractor to organise properly the project and also due to the delay of delivering the necessary equipment on site.

- ☑ Generating Stations
- Substations 132/66/11kV
- Substations 132/11kV
- Substations 66/11kV
- Overhead Lines 220kV operated at 132kV
- Overhead Lines 132kV
- ⋯ Underground Cables 132kV
- Overhead Lines 132kV operated at 132/66kV
- ⋯ Underground Cables 132kV operated at 132/66kV
- Overhead Lines 132kV operated at 66kV
- ⋯ Underground Cables 132kV operated at 66kV
- Overhead Lines 66kV
- ⋯ Underground Cables 66kV



# Generation Business Unit

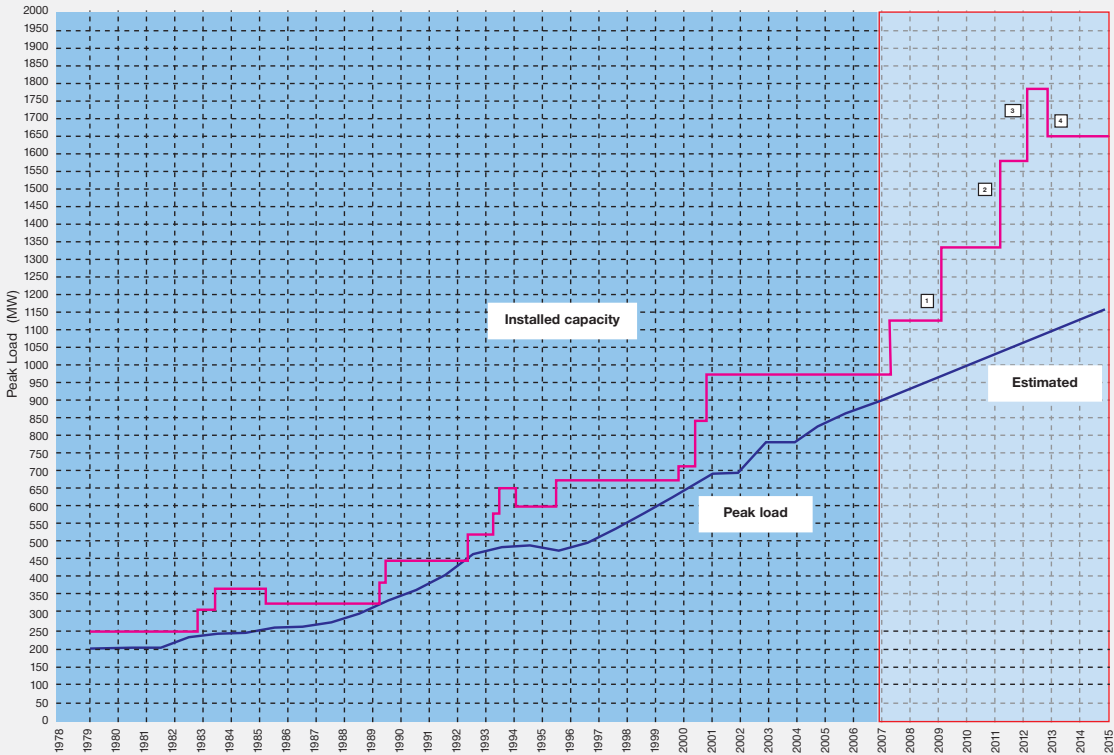
## Third Phase of Vasilikos Power Station

- Phase III consists of one combined cycle Unit with a capacity of 220 MW, (Unit No. 4), which is expected to be put in commercial operation at the beginning of 2009. In the Contract there is a provision for the operation of two open cycle gas turbines in May 2008. During the first years of operation of the unit, diesel oil will be used as fuel until the arrival of liquefied natural gas (LNG) in Cyprus. Thereafter it will use liquefied natural gas as the main fuel.
- For this Project, the method of a completed contract (Turn Key) will be followed that will include the planning, the supply, the manufacture, the construction, the tests, the delivery and the maintenance of the Unit for a specified time period. This is the usual practice that is applied internationally for Combined Cycle Units.
- The Contract for the construction of phase III has been awarded to the joint venture Hitachi Power Europe/Itochu Corporation & J&P Avax.
- For the maintenance of the two gas turbines a Contract has been awarded to General Electric International Inc. The Contract provides for the maintenance of the gas turbines for a period of 9 years.

## Fourth Phase of Vasilikos Power Station

- Phase IV consists of two dual firing (liquefied natural gas and diesel) combined cycle Units with a capacity of 180 MW each (Units No. 5 and 6).
- For this Project, as in the case of Phase III, the method of a completed contract (Turn Key) will be followed.
- The Consultants of the project, Lahmeyer International GmbH of Germany, have submitted to the Electricity Authority of Cyprus their final report which refers to the total review of the Generation Development Program and its formation so that it will be successfully implemented in the liberalised electricity market.
- The report was submitted in November 2006 and thereafter, the Generation Business Unit, after considering the best applicable scenario as well as other parameters analysed in the report, prepared and submitted a specific proposal to the Board of Directors which was eventually approved on the 6th of December 2006. According to the approved proposal, Unit No. 5 will be regarded as a definite Unit and will be delivered for commercial operation in 2011 whereas Unit. No. 6 will be regarded as an optional Unit and in case this option is materialised then the Unit will be delivered for commercial operation either in 2011 (together with Unit No. 5), or in 2012 or in 2013.

(Figure 1)



#### DEVELOPMENT PLAN OF EAC BASED ON THE EAC ASSUMPTIONS

- (1) COMMISSIONING 1 x 220 MW (COMBINED CYCLE UNIT, VASILIKOS) - 2009 (beginning)
- (2) COMMISSIONING 1 x 220 MW (COMBINED CYCLE UNIT, VASILIKOS) - 2011
- (3) COMMISSIONING 1 x 220 MW (COMBINED CYCLE UNIT, VASILIKOS) - 2012
- (4) DE-COMMISSIONING 6 x 30 MW=180 MW (STEAM UNITS, MONI) - 2012

It is estimated that the steam units at Moni Power Station will be taken out of service gradually, this process being completed in 2012.

# Networks Business Unit

## TRANSMISSION NETWORK

### INTRODUCTION

The transmission network is the backbone of the Authority's System, interconnecting the Power Stations with the load centres.

In the framework of the continuous reinforcement and expansion of the transmission system, the installed capacity of the transmission Substations was increased by 310MVA in 2006.

### CONSTRUCTION WORK

#### Commissioning of new Substations

During the year under review, work was completed and three new Substations were commissioned:

- The 132/11kV Larnaka Commercial Centre Substation with a capacity of 63MVA
- The 132/11kV Aphrodite Substation in Pafos with a capacity of 32MVA
- The 132/11 kV District Office Substation in Lefkosia with a capacity of 120MVA

#### New projects under development

##### New 220/132/11kV Tseri Substation

Construction work began in October 2006 and is due to be completed within 10 months. The installation of electrical equipment will follow. The new Substation will be supplied via the Vasilikos-Tseri overhead line which is currently under construction and will be connected to the overhead transmission network of the interconnecting Athalassa-Orounta Stations. Work is expected to reach completion by the summer of 2008. The project is considered to be of paramount importance for the uninterrupted supply of electricity to Lefkosia and the surrounding district.

##### Vasilikos-Tseri 220/132kV overhead transmission line

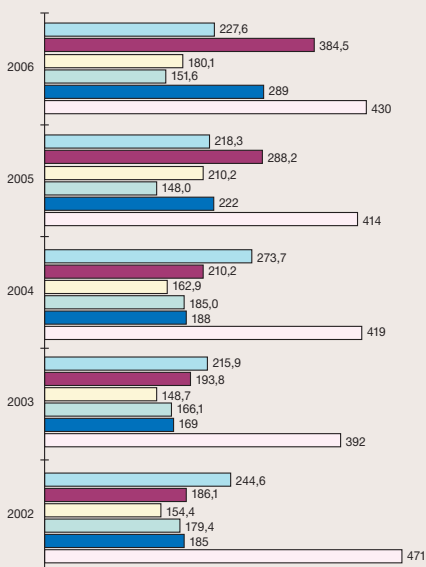
This new double circuit 220kV overhead transmission line, some 45km in length, is under construction. During 2006 the major part of the foundations were laid and a large number of pylons built. Ducting work will start soon and the whole project is expected to be completed by the end of 2007.

##### 132/11kV Omonia Substation

Construction work was completed in December 2006 and the installation of GIS 132kV equipment, two 32/22-11kV transformers, each with a capacity of 40MVA, the 22kV-11kV switchgear and a fully automated monitoring system, is due to start. Commissioning is expected by the end of 2007.

(Figure 2)

NEW DISTRIBUTION PROJECTS EXECUTED  
IN THE LAST FIVE YEARS



■ L.V. O/H LINES (km)  
 ■ L.V. U/G CABLES (km)  
 □ MV U/G CABLES (km)  
 □ MV O/H LINES (km)  
 ■ G.M. TRANSFORMERS  
 □ P.M. TRANSFORMERS

### **132/22-11kV Ayios Athanasios Substation**

Construction work was completed at the beginning of January 2007. The installation of electrical equipment will follow. This includes GIS 132kV equipment with two 132/22-11kV transformers with a capacity of 40MVA each, 22kV-11kV switchgear and a fully automated monitoring system. Commissioning is due around the end of 2007.

### **Upgrades to Substations**

#### **Polemidthia 132/11kV Substation**

Two new 40MVA power transformers were installed to replace three older 66/11kV transformers, each with a capacity of 16MVA.

#### **Kophinou 66/11kV Substation**

The Substation is being totally renovated.

#### **Episkopi and Pissouri Substations**

The existing 66/11kV Substations are being completely upgraded to operate at 132/22-11kV.

#### **Alambra 132/11kV Substation**

Four new circuits are being constructed for the Dhekelia-Athalassa overhead transmission line, a new circuit and a 16MVA transformer circuit.

### **Undergrounding of existing transmission lines**

Planning work is under way on the undergrounding of the Moni-Germasogeia-Ayia Phyla-Polemidthia double circuit line in the Lemesos district. Construction work is due to begin at the end of 2007.

For the undergrounding of the transmission lines on the Athalassa - Dhasoupolis and Athalassa - Strovolos interconnections in the Lefkosia district, a call for tenders has already been made and work is expected to begin in September 2007.

### **Transmission Network Stores**

In September 2006 construction work began on Transmission Network Stores on the Aradippou Industrial Estate. These stores are expected to cover the Authority's storage requirements for Transmission Network material and equipment. The stores will serve the needs of all districts for Transmission equipment and for storage space for large-scale construction equipment used on projects such as Transmission Substations, overhead and underground cables.

### **Other Transmission Network projects under development**

Work is at a preliminary stage on the following:

- Establishment of the new Amathus 132/11kV Substation
- Establishment of the new Pafos 132/11kV Substation
- Establishment of the new Lakatamia 132/11kV Substation
- Interconnecting the Germasogeia, Ayios Athanasios and Old Engine Room Substations with a 132kV underground cable for commissioning of the Ayios Athanasios Substation.

## TRANSMISSION SYSTEM DEVELOPMENT STUDIES

The following transmission development studies were undertaken during 2006 in cooperation with Transmission System Operator:

### Lefkosia Area:

The following studies were approved for Lefkosia and the surrounding area:

- Transmission System development for the Greater Lefkosia area
- A new Engomi GIS 132/22-11kV transmission Substation with a total capacity of 3 x 40MVA
- The Aluminium Tower 132/22-11kV GIS type Transmission Substation
- Undergrounding of the Athalassa-Dhasoupolis and Athalassa-Strovolos interconnections

The following studies are being planned:

- A transmission cable interconnection for the Tseri and Lakatamia Substations
- A new Dhali Industrial Estate 2 x 40MVA GIS 132/22-11KV transmission Substation
- A third transmission cable interconnection for the Strovolos and Seminary Substations
- Interconnection of the Dhasoupolis and Strovolos Substations
- Undergrounding of the Athalassa-Latsia interconnection

### Lemesos Area:

The following study was approved for Lemesos and the surrounding area:

- Expansion of the Omonia Substation with the establishment of a third 132/22-11kV transformer with a capacity of 40MVA

The following studies are being planned:

- A switching transmission Substation on the Ypsonas Industrial Estate
- An overhead 132/66 kV double circuit line for Trimiklini-Karvounas-Tempria
- A new overhead double circuit line Vasilikos-Ypsonas Industrial Estate
- Dismantling of the Ayia Phyla Substation and the establishment of a new GIS type Substation
- A GIS type Substation for Moni Power Station



### Ammochostos - Larnaka Area:

The following studies were approved for Ammochostos and Larnaka and the surrounding areas:

- A new Athienou 132/11kV, 2 x 16MVA Substation
- Dismantling of the Dhekelia-Troulli overhead line within the British Sovereign Bases
- An Action Plan for the restoration of supply to Ammochostos in case the town is returned to its Greek Cypriot residents and opened up for resettlement

The following studies are being planned:

- Interconnection of the Pyla and Commercial Centre Substations via a double circuit underground cable
- Dismantling of part of the 132/11kV Dhekelia-Larnaka transmission line in the Aradippou area
- Upgrading of the Larnaka Substation to a GIS type

### Pafos Area:

The following studies were approved for Pafos and the surrounding area:

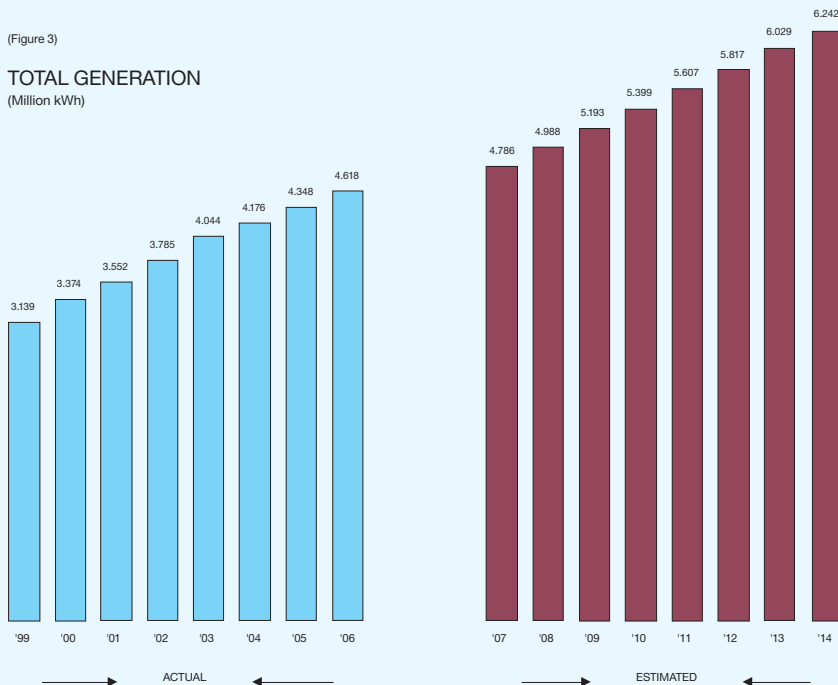
- Upgrading of the A. Hadjipaschalis Substation to a GIS type and the establishment of a third transformer with a capacity of 40 MVA
- The establishment of the new Ikaria primary Substation with the potential for upgrading to a Transmission Substation

The following study is being planned:

- The transfer and undergrounding of the Anatoliko and New Pafos transmission Substations interconnection

(Figure 3)

### TOTAL GENERATION (Million kWh)



# Networks Business Unit

Other studies:

The following studies have also been completed and approved:

- Load forecasting for all Transmission Substations for the period 2004-2024
- Ten-year Transmission System Development Programme 2006-2015
- Startup for Dhekelia Desalination turbines
- Transformer power management on the Transmission System
- Introduction of a Geographical Information System (GIS).
- Levels of short-circuit error by consumers in the context of adopting the 16th version of the IET regulations

The following studies are also being planned:

- Transmission System Reactive Power Compensation
- Transmission System power factor improvement
- Load Management System (Ripple Control)
- Connecting distributed renewable energy sources to the Distribution System
- Calculation of electromagnetic fields strength in distribution Substations
- Calculation of maximum electromagnetic field strength along the route under transmission lines

## DISTRIBUTION NETWORK

The Distribution Network is the link between the EAC Transmission system and the Authority's customers.

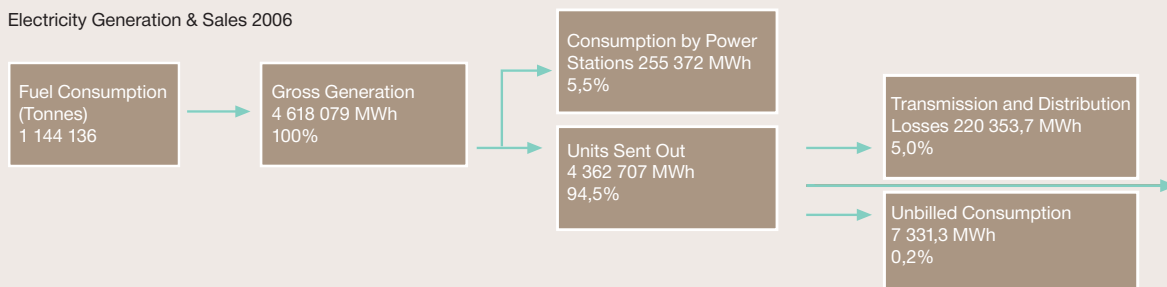
In the context of our efforts to expand and develop the Distribution system, 6 910 studies were completed in 2006 (compared with 7 123 in 2005) for supplying electricity, upgrading the network and installing new equipment. Expenditure on the 2006 programme amounted to £28,7 million, compared with £27,5 million in 2005.

### New 22kV Overhead Line: Polis Chrysochous-Nea Dimmata

Construction work on the 22kV overhead line between Polis Chrysochous and Nea Dimmata began in September 2006 and due to be completed by the end of April 2007.

(Figure 4)

Electricity Generation & Sales 2006





The double circuit line has a total length of 14,5km and the project includes wooden poles and pylons.

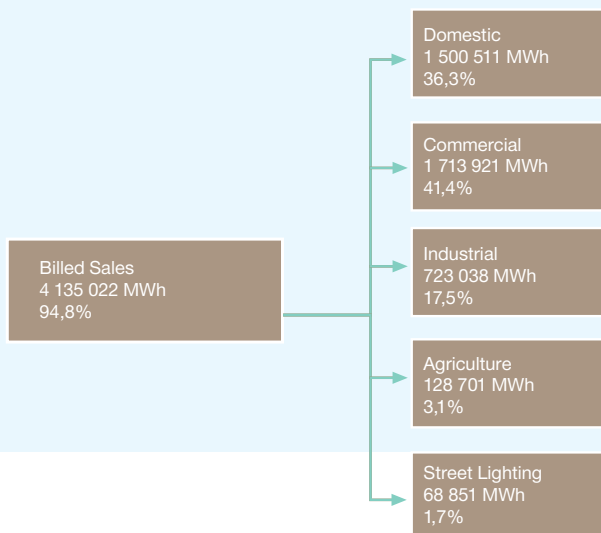
Pylons have been used to overcome many construction problems caused by the peculiarities of the terrain (wooded, deep ravines, inaccessible areas, lack of access roads, etc.).

Construction of this line will upgrade the area's Distribution Network due to the increased load demand.

#### Supervisory Control and Data Acquisition (SCADA) on the Distribution Network

Following the positive experience gained by the trial operation of the pilot Supervisory Control and Data Acquisition system (SCADA/EMS) on the Distribution Network in the Lefkosia - Keryneia - Morfou area, a decision was taken to extend the system to the whole island. The implementation of such an advanced system is a project that will have a positive effect on the smooth operation and development of the distribution network by enabling the remote operation of medium voltage circuit breakers, thereby facilitating the functionality of the network, the timely detection and isolation of faults and reductions in the duration of power outages for consumers in case of faults.

It also enables the acquisition of data for improving network development and operation indicators. The Distribution Network SCADA will also enable links with the Authority's Islandwide Faults Reporting Centre (IFRC) and the Customer Call Centre.



# Networks Business Unit

## **Ensuring Electricity Supply Quality**

The supply of high quality electricity to consumers is a matter of primary importance and the EAC carries out regular monitoring of the quality of electricity supplied in accordance with international standards. To this end, a Working Group was set up in conjunction with the University of Cyprus to research the quality of electricity supply from the EAC network. The research covers the following areas:

- Unwanted harmonic frequencies
- Voltage Fluctuations/jittering
- Voltage reduction
- Unequal load distribution between phases
- Temporary power surges

The study examines the effect of each of the above on supply quality and looks at possible solutions of any problems. Upon completion of the research, a report of the results and proposed action will be published.

## **Electromagnetic Fields**

A research project has been initiated in cooperation with the University of Cyprus on "Acceptable limits of exposure in the low frequency electromagnetic fields - Measurement and database set-up in Cyprus". A number of measurements have already been carried out in areas adjacent to both the EAC's overhead and underground Distribution network. At the same time a website has been set up to present the project to the general public (<http://www.ucy.ac.cy/emflab/emfmap/>).

## **TELECOMMUNICATIONS AND ELECTRONIC SYSTEMS**

The Electronic Systems and Telecommunications section deals mainly with the development and support of the EAC's electronic, telecommunications and security systems.

### **Optical Telecommunications Network**

The EAC's Optical Telecommunications Network, which was established in 2000, links 21 Substations, Power Stations and Area Offices. This network provides the communication facilities for the SCADA/EMS, Teleprotection, Telephone, Ripple Control, IT and other services.

During 2006, eleven of the system's digital multiplexers were upgraded to meet increased internal telecommunications requirements.



#### **Fibre Optic Network**

The Authority utilises an extensive overhead and underground fibre optic network. In 2006, three new fibre optic cables with a total length of 10km were installed. Also, two additional fibre optic circuits were made available to the EAC's two Strategic Partners in Telecommunications.

#### **Telephone Network**

The networking of the EAC telephone systems into a single unified telephone network is in its final stages and is expected to reach completion at the start of 2007. The major part of this network will be utilised by the EAC's fibre optic telephone system. A unified numbering system to the Authority's Head Offices, Area Offices and Power Stations has now been introduced.

# Networks Business Unit

## **Supervisory Control and Data Acquisition and Energy Management System (SCADA/EMS)**

The on-line and real-time Supervisory Control and Data Acquisition and Energy Management System (SCADA/EMS) has been in service since 1997. It provides facilities for the monitoring and controlling of the Generation, Transmission and Primary Distribution Systems through the Energy Control Centre (ECC) and the Distribution Control Centres.

In 2006, the Systems Upgrading project continued in collaboration with the TSO and an Emergency Energy Control Centre came into service.

Implementation of the SCADA/EMS system was expanded during 2006 to include the monitoring of three additional Transmission Substations, while the monitoring and control system was further exploited to cover eight more Substations.

All the above projects were carried out in full cooperation with the TSO that is fully responsible for the operation of the ECC and the transmission system network.

## **Load Management System (Ripple Control)**

During 2006 the system's Central Monitoring and Programming Unit was upgraded.

This system is used for the load management of controllable loads at the consumer premises (storage heaters, water heaters, water pumps, street lighting etc.) using power lines as a communication medium.

## **Security Systems**

The installation of a Security System (CCTV and Intrusion Alarm) for the new Larnaka and Pafos area stores was completed. Technical Specifications are under preparation for the supply and installation of a Security Alarm and Surveillance System for the Lefkosia Area Offices.

## **Islandwide Faults Reporting Centre (IFRC)**

With the expansion of the IFRC to the Faults Reporting Centres (FRC) in all districts of Cyprus, telecommunications circuits have been installed to link the IFRC with the IRCs.

## **Customer Call Centre**

A study on the establishment of a Customer Call Centre that will provide telephone support to the EAC's customers has now been completed.

## **CIVIL AND BUILDING WORKS SECTION**

The Civil and Building Works Section is involved in all the EAC's major construction projects but its activities extend to many other smaller projects.



#### **Power Stations**

In 2006 a three-year civil engineering works maintenance contract for the Authority's Power Stations was approved.

Following the completion of the tendering process for Phase III development of Vasilikos Power Station, work began on drawing up construction plans for the civil engineering works. Additionally, preliminary planning work started on Phase IV for the same Station with the provision of specifications to the consultant engineers.

#### **Transmission Substations**

In 2006 the Civil and Building Works Section continues to provide technical support for the design and the supervision of the works.

#### **Stores and Technical Staff Offices**

In addition to the Development Projects for the Generation and Transmission Systems, the Civil and Building Works Section dealt with the construction of new Area Stores in Larnaka, Pafos and Polis Chrysochous and the new Transmission Network Store in Larnaka. The Larnaka and Pafos stores were completed in 2006, while those at Polis Chrysochous are under construction and are expected to be finished by May 2007. Architectural plans have been prepared for new Area Stores in Lemesos.

# Networks Business Unit

## **Area Offices**

Architectural planning and other work on the Authority's new Area Offices in Pafos and Larnaka continued throughout 2006.

## **SYSTEM OPERATION**

### **Electricity supplied**

In 2006 the total number of units generated by the EAC's three Power Stations was 4 618 079 000 kWh, compared with 4 347 943 000 kWh in 2005, representing an increase of some 6,2% over the previous year.

Figure 3 (page 39) shows the total number of units generated annually from 1999 to 2006. The predicted generation for the period 2007-2014 is also shown.

### **Generation, Transmission and Distribution Losses**

Electricity consumption at the Power Stations amounted to 5,5% of the total generation, compared with 5,6% the previous year.

Figure 4 (page 40) shows electricity generation and sales distribution of sales to the various consumer categories.

### **Fuel Consumption**

The amount of heavy fuel oil consumed by the Power Stations totalled 1 137 274 metric tonnes, compared to 1 102 621 metric tonnes the previous year, representing an increase of 3,14%.

The total quantity of diesel fuel consumed by the Power Stations was 6 862 metric tonnes, compared to 15 993 metric tonnes the previous year, a decrease of 57,1%.

The average calorific value of the fuel oil used was 42 989 kJ/kg compared to 42 696 kJ/kg in 2005.

### **Plant Efficiency**

Average generating system efficiency in 2006, based on the total units generated by the EAC's three Power Stations, was 33,8% compared with 32,77% in 2005. The heat rate per kWh generated was 10 651 kJ/kWh compared to 10 985 kJ/kWh in 2005. The main aim was to utilise the higher efficiency units of the Vasilikos and Dhekelia Power Stations to cover the basic load to the maximum possible extent, taking maintenance and load demand into account.



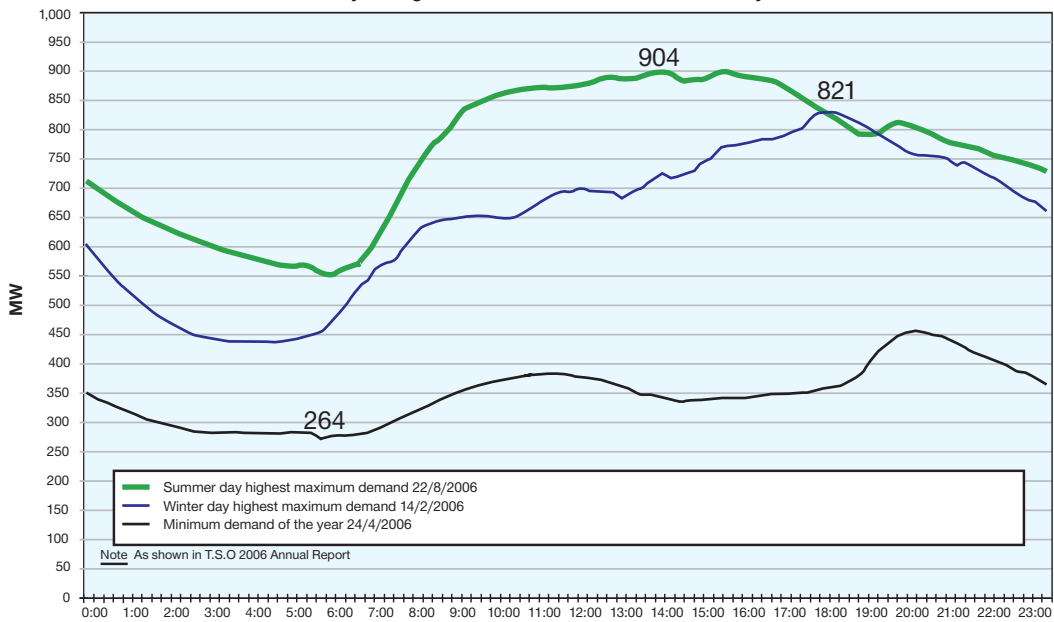


### System Reliability

During 2006 a total of 37 faults occurred on the transmission system compared with 20 faults in 2005. These faults occurred mainly as a result of bad weather conditions.

(Fig. 5)

Variation in demand on the days of highest & lowest maximum demand of the year 2006



# Customer Service Business Unit

## CONSUMERS

At the end of 2006, the total number of consumers in the government-controlled areas of Cyprus stood at 455 042, a net increase of 18 763 or 4,3%.

Table 1 (page 53) shows the number of consumers by category as well as the percentage increase over the previous year.

## BILLED SALES

Billed sales in the government-controlled areas increased to 4 135,0 GWh, compared to 3 932.9 GWh the previous year, representing an increase of 5,1%.

- Table 2 (page 53) shows the allocation of billed sales to the various categories of consumers, as well as the percentage increase over the previous year.
- Electricity sales for the years 2004, 2005 and 2006 are shown in Fig. 6 (page 51). Electricity sales and revenue for 2006 are shown by consumer category and as a percentage of total sales and revenue in Fig. 7 (page 59).

## OFF-PEAK SUPPLIES

Off-peak electricity sales (tariff Code 55) fell by 12 628 kWh or 10,04% compared to 2005. This reduction is attributed mainly to the mild weather conditions. The number of consumers increased by 748.

- Consumers opting for the off-peak tariff totalled 18 149, of whom 17 754 (97,8%) were domestic consumers with an average annual consumption of 6 193 kWh, compared to 7 205 kWh in 2005.
- Statistics for billed off-peak sales of electricity over the last five years are shown in Fig. 8 (page 59).

## TARIFFS

- When it was deemed essential that the EAC should create a total internal infrastructure on tariff-related issues, we set up a Tariffs Group comprising members of staff of various specialisations from the Organisation's Business and Management units. At the same time we obtained Consultancy Services from external Consultants for the preparation of a complete study and the introduction of new marginal cost tariffs in the context of Cyprus' liberalised electricity market.

Part of the Consultancy Services concerned the training of the Tariffs Group whose members attended a seminar at the University of Piraeus in March 2006 on the subject "Methodology for setting electricity tariffs and other charges in a liberalised market."

The training included technical, costing and regulatory issues in relation to tariffs in the environment of a liberalised electricity market in Cyprus. During the training, the same software was used as that for the development of the tariffs and the experiences of European and other countries in this sector was analysed.

The Tariffs Group prepared, in collaboration with its Consultants, an initial proposal on the introduction of new tariffs which it submitted to Cyprus Energy Regulatory Authority (CERA) for further negotiations.

- In the context of the upgrading of the EAC's services and its efforts aimed at energy conservation, we again sent out an annual statistical report to all our monthly billed customers. This report includes information on monthly consumption and Peak Demand regarding their premises, as well as monthly voltage and load indicators, which are directly linked to correct energy use and conservation.

- The Regulation of the Electricity Market Law of 2003, N.122(I)/2003 authorises the Minister of Commerce, Industry & Tourism to instruct the Cyprus Energy Regulatory Authority (CERA) to impose upon any holder of a License for the Provision of Electricity certain Public Interest Obligations which, among others, concern the price for supplying electricity. Following the Minister's issuance of the relevant instructions, the EAC adopted a special tariff for large and needy families which came into force on 1st March 2006.

According to the most recent statistics, since the introduction of this special domestic tariff, i.e. from 1st May until December 2006, some 7 392 customers consuming a total of 23 450 777 kWh have benefited. Revenue from these customers amounted to £1.458.576,28, compared to £1.809.366,21 which would have been the EAC's income if they had remained on tariff codes 05, 06 and 07.

The EAC's reduced revenue for 2006 as a result of this special tariff thus amounted to £350.789,93 for the period in question.

- The average selling price of electricity per kWh in all categories increased from 6,431 cent in 2005 to 7,262 cent, an increase of 12,9% as a result of increased fuel costs and the automatic fuel cost adjustment applied to the market price.

The above selling price does not include Value Added Tax. With VAT included, the average selling price per kWh rose from 7,3956 cent in 2005 to 8,3513 cent.

# Customer Service Business Unit

## **CUSTOMER SERVICE AND BILLING SYSTEM**

In order to provide the best possible service and information to the Organisation's customers, the EAC decided to adopt a new, modern Customer Service and Billing System in place of the previous system which can no longer respond satisfactorily in the new environment created by liberalisation of the electricity market.

After the preparation of specifications and the publication/evaluation of tenders, the project was won by SPL World Group Ltd. Work began on 4th July, 2005 and is due to start operating on a trial basis during the first half of 2007.

With the implementation of this new system, the standard of EAC customer service and information will improve considerably. Moreover, the new system will facilitate and speed up the day-to-day work of our Customer Service Officers.

The system will be the main tool and source of information for the EAC Call Centre.

## **ISLANDWIDE FAULTS REPORTING CENTRE (IFRC)**

Within the framework of the EAC's continuous upgrading of the services it offers to customers, the Authority set up an Islandwide Faults Reporting Centre (IFRC). The aim of the IFRC is to provide a full, first-rate telephone service during major faults which lead to extensive power cuts so that EAC customers receive adequate information about the areas affected by power failures and the time required to restore service. It also covers daily routine work, providing for a good quality response on the part of the EAC about isolated daily faults to customer premises and street lighting.

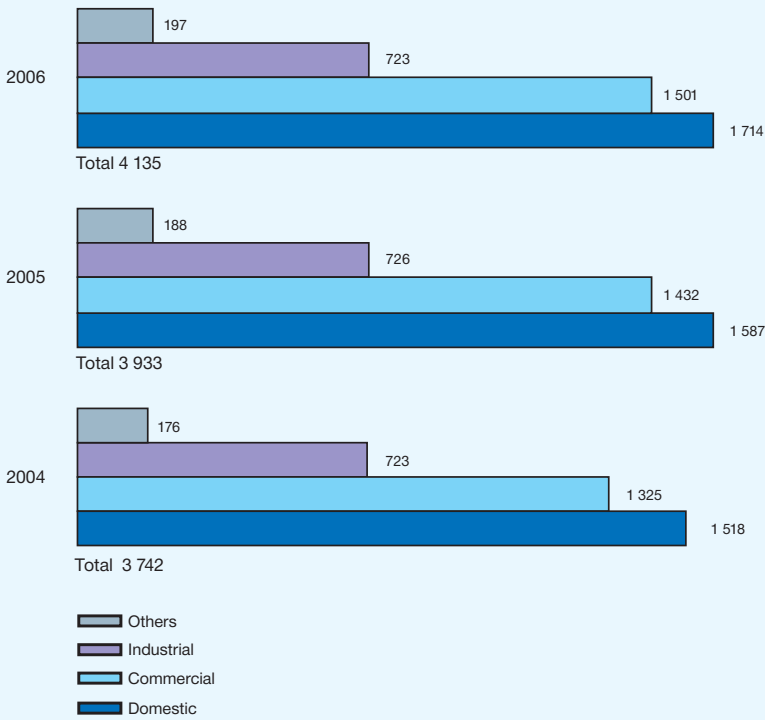
The IFRC, which is currently located on the second floor of the old Head Office building and is manned by ten Customer Service Officers, has been successfully providing service to all the government-controlled areas of Cyprus. Faults Reporting Centre services continue to be provided by the company EVRESIS, with which our collaboration to date has been extremely satisfactory and constructive.

Customer calls are distributed via the islandwide telephone number 1800 to the IFRC, where the faults are registered electronically before being reported to the Regional emergency/faults crews for corrective action.

The EAC is constantly striving to improve the telephone service to its demanding customers. During 2006 the IFRC received 335 000 calls, of which 91% were dealt with satisfactorily. In the future, the IFRC will be one of the main features of the EAC Call Centre.

(Fig. 6)

SALES OF ELECTRICITY  
(millions kWh)



## CALL CENTRE

The EAC's decision to set up a Call Centre is of strategic importance since it has already entered a competitive environment following the liberalisation of the energy market.

The Call Centre will enable the EAC to provide good quality service and information to consumers/customers quickly and efficiently, to promote the image of a progressive and dynamic Organisation and, in general, to respond to the expectations of consumers/customers.

The EAC Working Group that was set up to oversee the establishment of the Call Centre has been cooperating fully with the Irish firm ESB International, whose tender for Consultancy Services was selected.

The whole project is progressing on schedule and will be completed towards the end of 2008. Technical specifications have been drawn up and on 22nd December, 2006, the EAC issued a Call for Tenders for the purchase of the necessary infrastructure (technical equipment, software, etc.) in collaboration with the Consultants.

# Customer Service Business Unit

## RENEWABLE ENERGY SOURCES

In accordance with the provisions of the relevant European Directive 2001/77/EC during our accession process and our compliance with the Directives, Legislation and Regulations of the European Union, the Government has taken legislative, regulatory and administrative measures for the promotion of the use of Renewable Energy Sources (RES) and, more generally, of energy conservation with the ultimate goal of increasing the contribution of RES to the country's energy balance. As the main producer and supplier of electricity in Cyprus, the EAC could not but contribute actively to this effort, so as to satisfy the demands of the European Union regarding RES, while acting within the strict framework of Cyprus' appropriately adapted and amended Laws and Regulations. Within these frameworks, the EAC realises various researches and studies for discovering spaces or methods for the use of Renewable Energy Sources.

The EAC cooperates well with the Energy Service of the Ministry of Commerce, Industry & Tourism for joint action on the subject of RES. Interested applicants/producers are given all possible technical assistance and priority examination of their applications to install units for generating electricity from RES.

In accordance with existing Legislation and the relevant decisions of the Council of Ministers, the EAC is obliged to purchase electricity produced from Renewable Energy Sources and to distribute it on its grid at a price determined by the Cyprus Energy Regulatory Authority (CERA). To this end, a 15-year purchase agreement is signed between the Producer and the EAC. In addition to the purchase price paid to the Producer by the EAC, the Producer receives a subsidy from the Special Fund for Finance/Subsidies once approved and part of the Subsidy Scheme and having signed the Subsidy Agreement with the Special Fund Management Committee.

By the end of 2006, 109 Photovoltaic Systems were connected to the EAC Grid, producing up to 5kW with a total voltage of 474,34 kW and a total production of 388 160 kWh. Great interest has been expressed in connecting other new systems, despite the high installation costs of such systems at present. Several applications have also been received for the installation of Wind Farms but these are currently at the stage of obtaining the necessary approvals.

Table 1

## NUMBER OF CONSUMERS

	AS AT 31.12.2006	AS AT 31.12.2005	INCREASE %
CONSUMER CATEGORY			
Domestic	348 394	332 338	4,8
Commercial	76 272	74 916	1,8
Industrial	11 198	10 956	2,2
Agricultural	11 597	10 931	6,1
Street Lighting	7 581	7 138	6,2
<b>TOTAL</b>	<b>455 042</b>	<b>436 279</b>	<b>4,3</b>

Table 2

## BILLED SALES OF ELECTRICITY (MWh)

CONSUMER CATEGORY	2006	2005	INCREASE %
Domestic	1 500 511	1 431 792	4,8
Commercial *	1 713 921	1 587 196	8,0
Industrial	723 038	726 059	(0,4)
Agricultural	128 701	120 062	7,2
Street Lighting	68 851	67 793	1,6
<b>TOTAL</b>	<b>4 135 022</b>	<b>3 932 902</b>	<b>5,1</b>

\* Includes electricity consumed in the occupied areas (January - May 2006) amounting to sales of 40 598 MWh.

## LOAD RESEARCH AND CONTROL

In the context of its efforts to upgrade its load research, the EAC has been using since 2000 a software package by which data is retrieved via the telephone network. This program enables direct monitoring of customer loads, the automatic retrieval of data and the timely preparation of load research reports.

During 2006 the EAC began to implement this method of load research for all its corporate customers who are supplied at medium and high voltage. Organisation of the project is still at an early stage but it is expected that during 2007 all the necessary procedures and basic requirements will be in place, enabling a continuous flow of information about these categories of customer.

The data obtained for domestic customers and monthly Peak Demand commercial customers was analysed, processed and subsequently used in the drawing up of the relevant load research reports. Their conclusions are used for new tariff structuring and for load forecasting and management.

# Customer Service Business Unit

## **SUPPLY OF ELECTRICITY TO THE OCCUPIED AREAS**

From 18th January until 20th May 2006, electricity was supplied to the occupied areas in response to a request by the Turkish Cypriot community following faults in the Power Stations in the areas under Turkish occupation. A special tariff for the supply of electricity to the occupied areas was approved by the Cyprus Energy Regulatory Authority on 19th January 2006 after the submission of a proposal by the EAC.

The total amount of electricity supplied to the Turkish-occupied areas during the period mentioned above was 40 598 101 kWh and it was valued at £2.610.357,49, including VAT and renewable energy charges. The cost of the electricity was paid by the Turkish Cypriot community.

## **TECHNICAL ISSUES**

During 2006, the department of the Customer Service Business Unit responsible for Technical Issues dealt mainly with the following issues pertaining to:

- The Metering system
- Street Lighting
- Energy Conservation
- Wiring Regulations for electrical installations in buildings
- Electricity Generation via Renewable Energy Sources
- Revenue protection from electricity theft
- Monitoring of the quality of electricity supply.

Specifically, during the year under review, the Meter and Relay Testing Centre (MRTC) received 48 500 new meters. A total of 39 461 new meters were checked and calibrated, 7 231 second-hand meters were repaired and recalibrated, about 1 698 Ripple Control Receivers were programmed and tested and 998 street lamps were repaired and tested.

In 2006 the AMR system was expanded and all personnel involved in its use were given the relevant training. Some 419 meters have been disconnected and measurements are now recorded automatically. Moreover, specifications were drawn up and tenders awarded for the equipment used in the MRTC and Area Offices relevant to the Metering system and Street Lighting.

Regarding the monitoring of the quality of supply to customer premises, the Executive Section installs Power Disruption Analysers and, wherever it is considered necessary, corrective measures are taken.





## EAC REVENUE PROTECTION

In 2006, personnel dealing with EAC revenue protection from theft of electricity checked 4 672 meters on the premises of high-risk customers. Of these, 3 014 were found to be intact, while 1 428 meters had been tampered with, though they showed no sign of electricity theft. In 230 instances, meters were found to have been tampered with and there were signs of electricity theft. In relation to these, a total of £550.053 was recovered in respect of unrecorded consumption, damage to EAC equipment and the cost of investigating the cases.

Investigations that began in 2001 into 168 cases of electricity theft (the Masoura case) continued during 2006. The total value of unrecorded consumption has been estimated at £2,9 million and payment of £1.064.448,60 has been arranged. The EAC has taken legal action against those involved in order to recover the remainder.

# Customer Service Business Unit

## **QUALITY CERTIFICATION OF THE METER AND RELAY TESTING CENTRE**

In the context of the EAC's declared policy of upgrading the quality of its operations and its customer services, the Organisation took the strategic decision for Quality Certification/ Accreditation of its workshop in the Meter and Relay Testing Centre (MRTC). Certification work is now at an advanced stage and it is planned that ISO 9001:2000 Certification of the workshop will be obtained during 2007. The relevant Accreditation work is due to be completed by December 2007.

Certification of the workshop will be in accordance with ISO 9001:2000 while Accreditation will be ISO/IEC17025.


The relevant Quality certification will essentially give the Centre a written guarantee that monitoring and testing procedures at the MRTC comply with required specifications. The Accreditation Certificate will recognise the technical capability of the MRTC to carry out the relevant testing and calibration work on meters and the results of these tests will be accepted anywhere.

## **PUBLIC RELATIONS**

The continuously growing demands of its customers and rapid developments in technology oblige the EAC to plan Public Relations campaigns aimed at letting customers know about all issues pertaining to energy and the Authority's work.

It falls to the Public Relations Department to plan total PR campaigns aimed at upgrading the image of the EAC, establishing a single corporate identity, improving the Organisation's relations with the general public, involving it in society and ensuring that the public is fully aware of the EAC's activities and services.

In this context, the EAC continued in 2006 to provide advisory services to all its customers on matters of interest to them. The General Terms governing the provision of electricity, EAC policy on electrification, tariffs and general information are among the topics that are always of interest. As it happens every year, during 2006 lectures were given to organised groups and to groups of EAC customers on issues concerning the conservation and safe use of electricity, the new tariffs and electromagnetic fields.



In the framework of improving internal communications among EAC personnel, the Authority publishes the magazine EAC News. This magazine is distributed not only to EAC personnel but also to various other organised groups, individuals and services outside the Organisation. In 2006 the Department was also responsible for sending regular e-mails to all the staff for better briefing on issues or events of interest. In the context of activities for improving the distribution of information to the public, a general review took place of all the information available via the EAC website and a timetable was adopted for the regular updating of this information.

Theatre, music, art and other cultural events, sport, education, the environment and, in general, projects and events related to our deep cultural roots, are areas to which the EAC gives emphasis in its sponsorships which it has been providing since 2002. The Organisation's aim is to leave its mark on endeavours to raise cultural standards on the island. In 2006, the EAC continued to support a variety of first-rate theatre, music and dance performances, art events such as the Permanent Collections of the Nicosia Municipal Arts Centre ('The Power House'). It also supported the work of several charitable organisations, such as an event of the Cyprus Anti-Cancer Society held at the Fassouri Waterpark. In the same context as these sponsorships are the sponsoring of seminars and lectures on the subject of energy conservation and the promotion of Renewable Energy Resources.

# Customer Service Business Unit

Broadening its social contribution and knowing the charitable feelings of the staff, the EAC Management again accepted a request from UNICEF to organise fundraising events at the various EAC offices. The coordination of these events, which were extremely successful, was undertaken by the Public Relations Department. The Authority was once again involved in sport as one of the major sponsors of the country's national basketball team and of various other sport events.

The EAC participated in various conferences, seminars and specialist exhibitions and fairs, enabling the public to obtain first-hand information on all aspects of the Authority's activities and its development projects. It is worth noting the EAC's participation in the 31st Cyprus International Fair and the 2nd Savenergy Exhibition, where people had an opportunity to learn about EAC services and to ask questions. At the same time, the EAC had a chance to assess and evaluate complaints and problems facing its customers and to take remedial action to resolve them.

Each year the Public Relations Department undertakes the presentation of the EAC's Annual Report. On 21st November 2006, representatives of the commerce and industry sector, government Ministers, Members of Parliament, officials of other semi-government organisations, government departments and professional associations were invited to the presentation of the 2005 Annual Report at which a full audiovisual account of the Organisation's financial results and development programme was given.

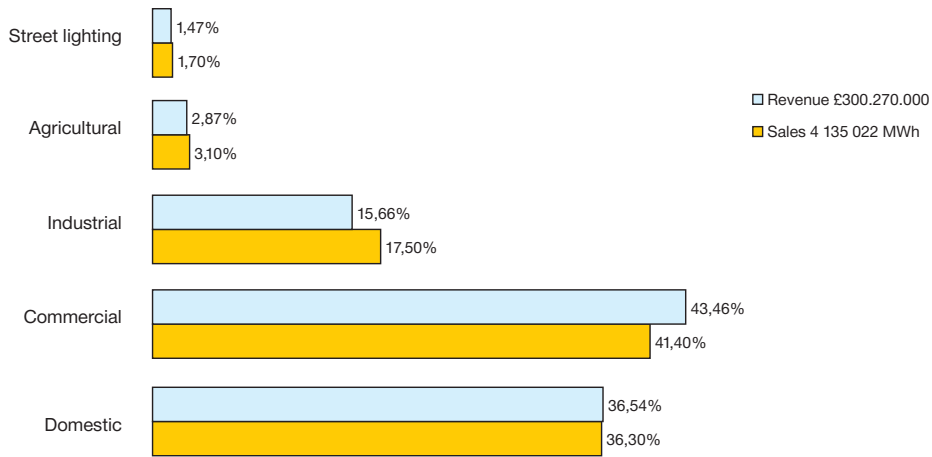
Various other events were held which gave the Board and Management of the Organisation the opportunity to brief Political Party spokespersons, former Chairmen of the Authority, etc., about the EAC's work.

## **MARKET RESEARCH INTO THE EAC'S IMAGE**

In 2006 RAI Consultants completed a market research project concerning the EAC's public image with a fourth survey, this time on Personnel issues.

(Fig. 7)

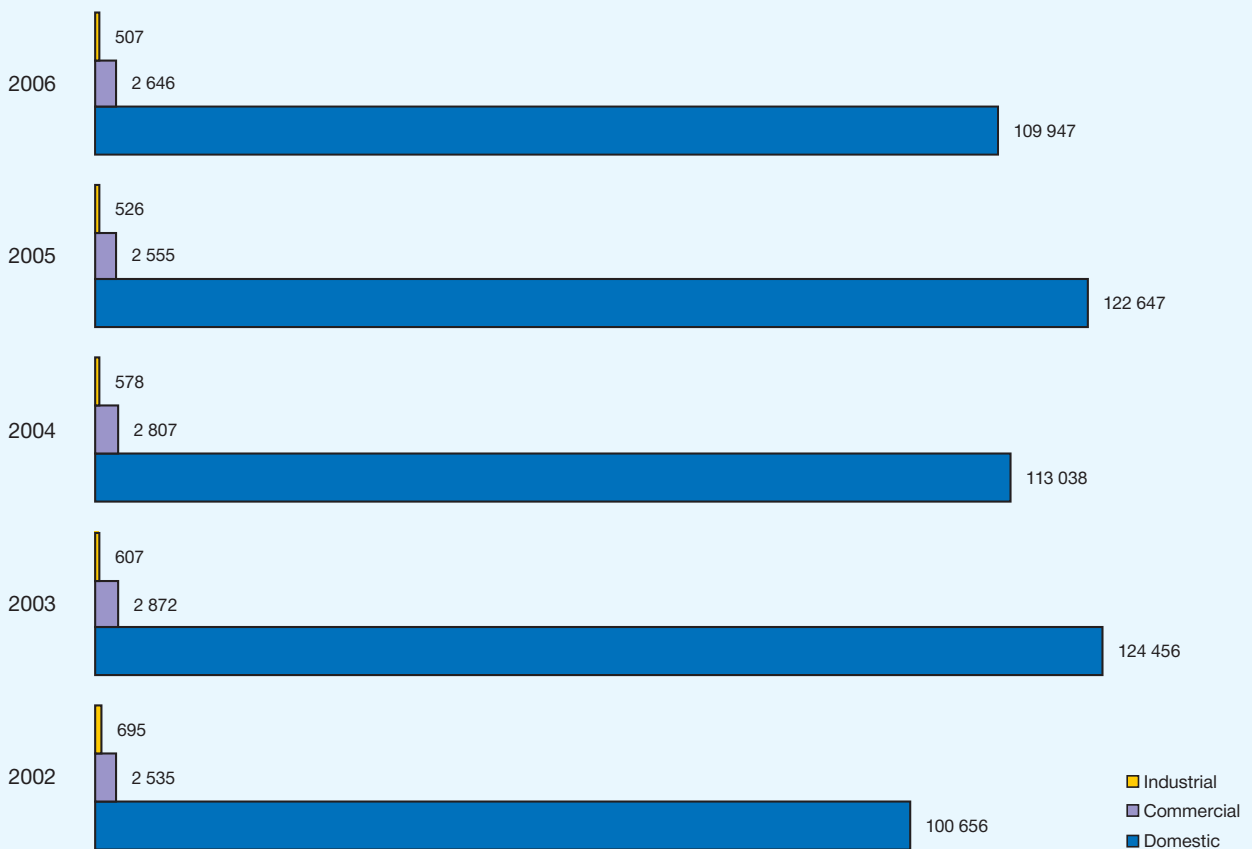
### ELECTRICITY SALES & REVENUE BY CONSUMER CLASS



(Fig. 8)

### OFF PEAK ELECTRICITY SALES

Tariff Code 55 - Thousand kWh



# Common Services Business Unit

## **ADMINISTRATION**

### **Administrative Department**

During the period January-December 2006 the Administrative Department which is divided into three sub-departments, the Administration Services Department, the Registry Department, and the Stationery /Printing Department dealt with the following activities:

### **ADMINISTRATION SERVICES DEPARTMENT**

#### **Various Agreements**

48 agreements concerning the lease of offices for covering the needs of housing the EAC personnel staff have either been concluded or renewed, the lease of canteens, window cleaning, repair and maintenance of the A/C systems, photocopier machines, telefaxes, telephone systems etc.

#### **Announcements/Publications**

721 announcements concerning tenders, interruptions of supply, vacancies etc have been handed over to the Press and Information Office, the Local Press and the Government Printing Office.

The announcements concerning the interruptions of supply have also been handed over to CBC for radio broadcasting.

#### **Maintenance of Office Buildings**

The Administration Service Department dealt with 183 cases concerning the maintenance of office buildings as well as the office equipment.

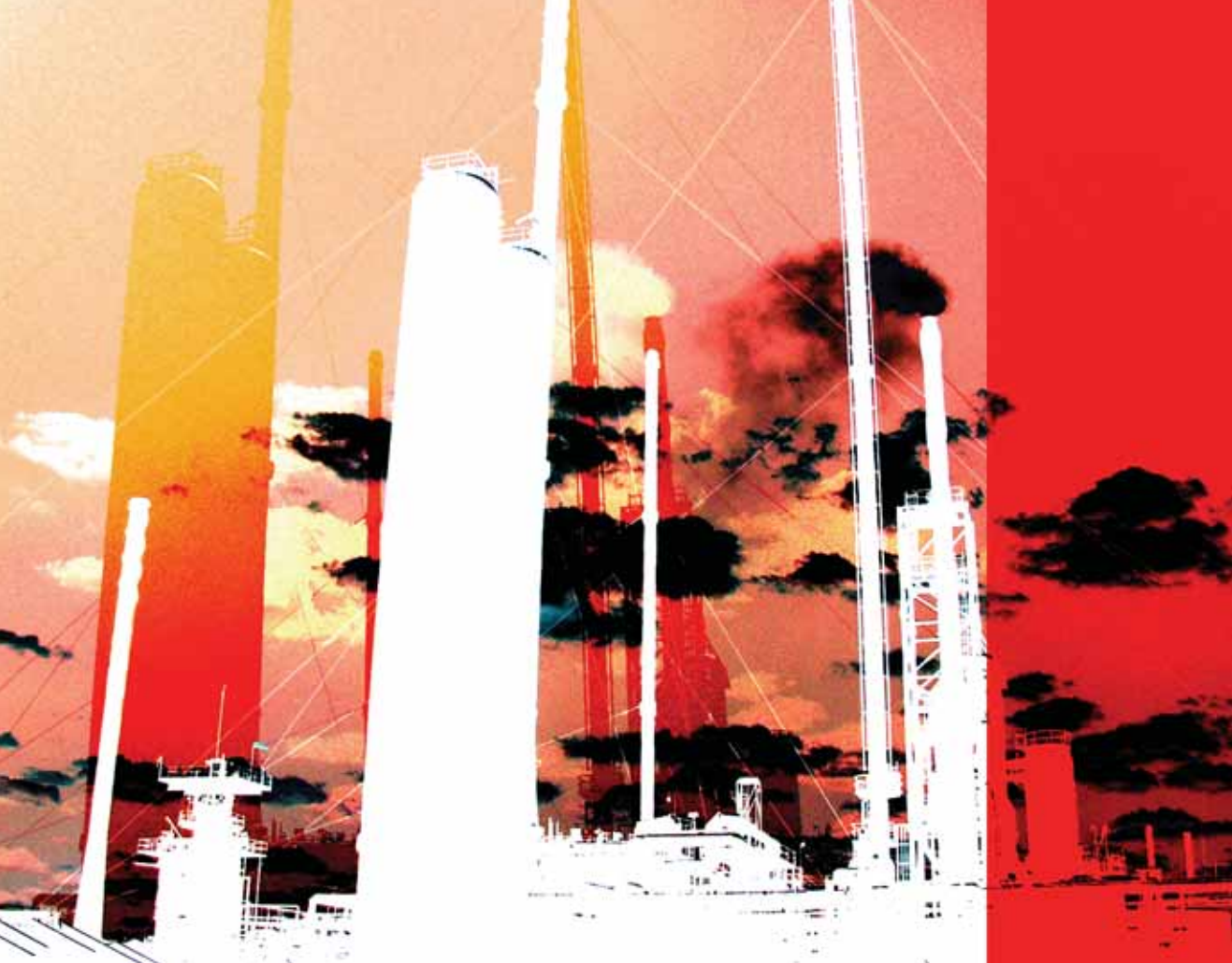
#### **Telephone Procedures**

The Administration Service Department dealt with all the cases concerning the auditing and payment of the telephone bills.

During the same period 73 applications have been submitted to CYTA.

#### **Invoices**

117 Purchase Orders have been created in the SAP system concerning invoices, apart from the other invoices which have been checked and sent to the Financial Department concerning announcements in the local press/Official Gazette, purchasing of materials, petty cash etc.



#### IT DEPARTMENT

During 2006, the I.T. Department carried out the following tasks:

- The SAP upgrading project and MRP processes have been completed.
- The parameterisation of the Billing & Customer Service package has been completed and the testing has started. It is expected that in May 2007 the System will be operational.
- The evaluation of the Tender for the Hardware Infrastructure has been completed. The new Hardware was delivered, installed and is operating successfully.
- The specifications of the Tender for the purchasing, installation and implementation of a Customer Contact Centre have been completed and the corresponding Tender was issued.
- The project for the conversion of the SAP package so as to be compatible with the introduction of Euro has started, and it is expected to be completed by June 2007.

#### PURCHASING SECTION

During the period of January – December 2006, 28 Contracts were issued for Tenders of high expenditure at the total amount of C£133.547.000.

In the same period 234 Tenders of low expenditure for the procurement of materials and equipment were issued at the total cost of C£15.486.000.

# Human Resources Management

## HUMAN RESOURCES MANAGEMENT

### The Authority's staff

The number of employees in post and their distribution by category is shown in the table below.

	2006	2005
Professional	279	275
Clerical	376	380
Technical	1 440	1 377
<b>TOTAL</b>	<b>2 095</b>	<b>2 032</b>

Four employees who have been missing since the Turkish Invasion of 1974 are included in the above figures. The employees in active service at the end of the year were, therefore 2 091.

### The Authority's pensioners

The total number of pensioners at the end of the year who received pension was 996 (including six missing persons since the Turkish invasion of 1974) compared to 942 at the end of the previous year. In addition 215 pensions were paid to widows and orphans of deceased pensioners/employees compared to 207 at the end of the previous year.

### Manpower indicators and Productivity

Variations in productivity are shown in Figure 9 (page 64) which indicates the relationship between the Authority's manpower, the total units billed and the number of consumers during the ten year period 1997-2006.

Absenteeism due to sickness and/or industrial accidents was 3,3% or 11,8 days per EAC employee compared to 3,4% or 12,3 days per employee at the end of the previous year.





## INDUSTRIAL RELATIONS

The negotiations for finalising a new Collective Agreement between EAC and the four Trade Unions representing EAC's employees were concluded by June and an agreement was signed covering the period between 1.1.2004-31.12.2006. The specific agreement is of particular importance, since it provides among other things the reorganisation of the Clerical & Technical Staff structure.

The need for the above mentioned reorganisation resulted from the common intentions framework, a document signed in the year 2002 between EAC's Board, Management and Trade Unions representatives.

Also, the reorganisation of the Clerical and Technical Staff structure is a provision of the previous collective agreement and it's a sequel to the already completed reorganisation of EAC's Management Structure.

The new structure provided in the reorganisation minimizes the functional and administrative costs, by providing flexibility in all the organisational levels contributing in that way to an increase in the Organisation's productivity.

The current reorganisation among other things aims to achieve the following goals:

1. Reduction in the hierarchy levels by grouping various personnel posts and by introducing the concept of multi-skilling.
2. Abolishing the current practice of employing casual workers.
3. The creation of the post of "Technical Engineer".
4. Productivity increase through the operation of the EAC's Training School.

# Human Resources Management

Furthermore, the new collective agreement provides for certain pay increases and increases in the EAC contributions to the medical fund and to the employee and pensioners insurance scheme, as well as it provides for a reduction in car loans granted to traveling officers.

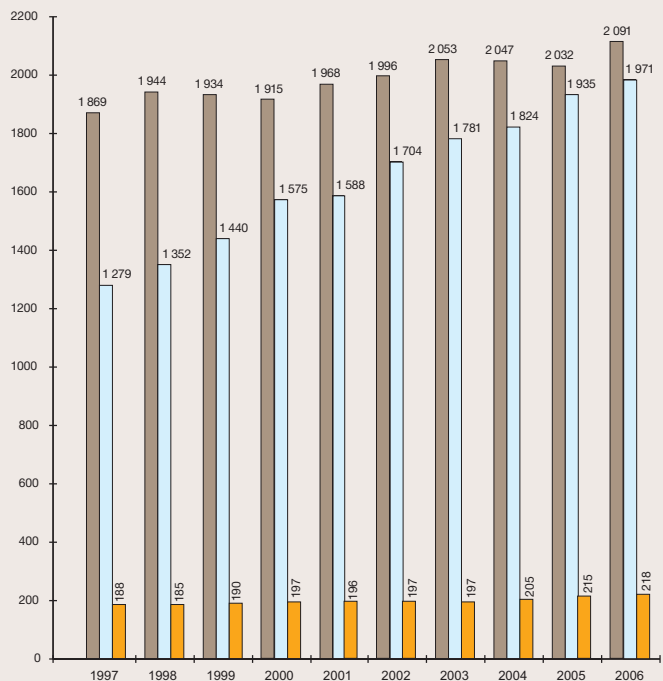
It is also worth noting that during the year the EAC and one of the four Trade Unions had reached an agreement for extending the retirement age. The EAC's General Manager forwarded to the Ministry of Commerce, Industry and Tourism the required pension law changes seeking the approval of the Government and the House of Representatives. It is also important to mention that within the year an agreement was signed between the EAC and the Transmission System Operator providing among other things for the TSO's personnel matters.

Regarding the settlement of various personnel matters, the Human Resources Management and the Unions met several times during the year maintaining that way, good industrial relations within the EAC.

(Fig. 9)

## MANPOWER INDICATORS

- EMPLOYEES IN SERVICE
- SALES (thousand kWh) PER EMPLOYEE
- CONSUMERS PER EMPLOYEE



## **HUMAN RECOURSES DEVELOPMENT**

### **Education and Training**

The EAC in striving to transform into a flexible, more efficient and competitive organisation, especially now with the accession to the European Union, is paying particular attention to the role of Education and Training. Aiming at training its human resource on an organised and systematic basis and after a relevant study by external Consultants, the EAC Training School has commenced its operation with a view to offer certified training for each class of employees.

During 2006, 1 976 members of the staff attended 96 in-house courses and seminars, organised by the Authority's Training School, which covered a wide range of topics. Participations in courses on the upgraded SAP IT System were 245. We had 319 more participations from employees in various open educational programmes and training courses, organised by local educational institutions and organisations, whilst 74 members of the professional staff attended training courses or participated in conferences and seminars abroad. In total 2 369 employees attended training courses at an overall cost of £107,47 per participation. The in-house training courses were subsidised by the HRDA with the amount of £63.600.

Within its corporate social responsibility initiative the EAC offered industrial training to 20 final-year students of the Higher Technical Institute (HTI) and summer vacation training to 26 University and HTI students. Moreover the EAC participated in the programme of the International Association for the Exchange of Students for Technical Experience (IAESTE) offering technical experience to four international students.

### **Promotions**

During 2006 the procedure for promoting 121 employees was completed.

### **Recruitment/Retirements/Termination of Employment**

During the year, staff vacancies for several posts were announced and 51 new employees were recruited to fill various vacant posts. It should be noted that during the year, 33 employees retired due to age, 35 employees took advantage of the early retirement scheme, 9 employees terminated their services, 2 employees passed away and 1 employee was dismissed.

### **Scholarships**

During the year, the EAC offered 45 scholarships to children of employees attending University courses abroad and 18 scholarships to children of employees attending courses in Cyprus.

# Human Resources Management

## **SAFETY, HEALTH AND WELFARE**

### **Medical Care**

During the year the EAC contributed C£2.435.142 (C£2.260.876 in 2005) to EAC Employees Medical Fund, as well as C£60.000 (C£100.000 in 2005) to the Special Medical Fund set up to cover expenses incurred in the treatment of serious cases, in Cyprus and abroad. The beneficiaries of the Fund, as at 31 December 2006 were 8 595 (2 047 employee-members, 997 pensioners, 203 widows and 5 348 dependants).

### **Benevolent Funds**

The EAC's Employees Benevolent Fund continued to function satisfactorily during the year. The financial relief offered to needy members, pensioners or members of their families, exceeded C£201.000. This sum includes the monthly financial assistance offered by the EAC to ex-employees who retired prior to 1978 with Provident Fund benefits, as well as to their widows. It also includes the financial assistance to other ex-employees due to the recognition of their previous service with the ex-private Electric Companies after being undertaken by the EAC. The members of the Funds, as at 31 December 2006 were 1 853.

### **Welfare Funds**

The EAC Employees' Welfare Funds continued to function satisfactorily during the year offering several facilities to the members and their families.

### **Long Service Certificates and Awards**

The following Awards were presented:

- The EAC's Long Service Certificates were awarded to 51 employees, who retired during 2006 and had completed more than 20 years of service.
- The EAC's Gold Plated Plaques were awarded to 2 employees, who had completed during 2006, 40 years of service.

### **Occupational Health and Safety**

#### **Inspections**

The Safety Officers visited/inspected regularly during the year the following EAC departments:

- Area Overhead Construction departments
- Area Underground Construction departments
- Substations' maintenance departments
- Area offices and other premises
- Transmission and Distribution substations
- Power Stations
- Construction works in the Vasilikos Power Station
- Construction works for the new Area Stores in Larnaka and Pafos.

### **Medical Examinations**

The routine medical examinations (radiography of thorax and audiograms), which the Power Stations employees are subjected to each year for preventive reasons have been successfully completed.

The personnel that work with materials containing asbestos in the Moni Power Station had additional medical examinations and a relevant medical Certificate was issued.

### **Environmental auditing**

The environment in the Power Stations was monitored in accordance with the Directive ΔΑΔ3/3/04 of the Human Resources Department.

Measurements for noise level, asbestos fibers in the air, SO<sub>2</sub> leakages and environmental dust, were carried out regularly during the year.

### **Central and Local Safety Committees**

The Central and Local Safety committees held regular meetings and examined various problems relating to the occupational health and safety.

### **Safety and Health Week**

The Safety and Health week was organised in the period 14-18 November. During this period various events and lectures were organised on subjects of Occupational Safety and Health in Power Stations and Area Offices of the EAC such as:

- Evacuation exercises in cases of fire or earthquake
- Safe use of Chemical Substances
- Lectures on the Safety Regulations and on other related subjects
- First Aid training

### **Training**

The technical personnel (supervisors, technicians and workers) of the underground department have attended a three-day course on health and safety matters related to their work.

The technical personnel (supervisors, technicians and workers) of the transmission / distribution substations maintenance department and the electrical departments of the Power Stations have attended a three-day course on health and safety matters related to their work.

### **Other activities**

The Safety Officers prepared the specification for the Health and Safety Management Contract.

The Central Safety Committee adopted and submitted to the Human Resources Manager the report on the upgrading of the First Aid training in the EAC, which had been prepared by an assigned Working Group.

Regarding the Cyprus Legislation for «SEVESO II» and the relevant EU Directive a Safety Plan was prepared and the Ministry of Labour and Social Insurance was notified accordingly.

# Corporate Development Management Unit

## **NEW BUSINESS DEVELOPMENT**

### **Telecommunications**

In 2006, the Organisation continued to provide infrastructure to its Strategic Partners for the commercial exploitation of its Optical Fibre Network and other EAC infrastructure for telecommunications purposes.

During the year, various technical and financial issues that had arisen with the Authority's two Strategic Partners, Primetel and NV Cable Communication Systems, were resolved.

In August 2006, NV Cable Communication Systems, under new management, settled all its outstanding financial obligations to the EAC and the Contract was resurrected. Under its new ownership, the company was renamed Cablenet Communications Systems Ltd.

The EAC has appointed Consultants to study the telecommunications environment in Cyprus and to examine the strategy that the EAC should adopt, in view of the listing of one of the two strategic partners on an approved Stock Exchange.

Furthermore, the EAC is looking into the development of other activities and the use of new technology in order to earn additional income to act as a counterbalance for the predicted reduction in its share of the liberalised energy market.

### **Natural Gas**

The Electricity Authority formulated a strategy for the import of Natural Gas into Cyprus for the requirements of the new Combined Cycle Units that will be installed by the EAC. More specifically, with the cooperation of Consultants, various scenarios have been studied in detail to determine the type of terminal (onshore or offshore) for the delivery, storage and regasification of Liquefied Natural Gas (LNG). The degree of the EAC's participation in the Project was also examined.

The Consultants have prepared and submitted their report in which they examine the above issues related to natural gas.

The Electricity Authority has already submitted to the Ministry of Commerce, Industry and Tourism its views on its participation in the project to install a terminal for the delivery, storage and regasification of Liquefied Natural Gas and a decision on this is expected from the Government.

### **Consultancy Services**

In accordance with the EAC's policy of expansion into new activities, contacts were made with similar electricity companies abroad for possible cooperation in the Consultancy Services sector.



## RESEARCH AND TECHNOLOGICAL DEVELOPMENT

During 2006, the EAC continued its participation in five research projects: EU-DEEP, CACHET, HYDRONox, HYDROGEN/FUEL CELLS and CORONA. EU-DEEP and CACHET are two of the most important European research projects and are funded under the Sixth Framework Programme of Research and Development of the European Union, while the other three projects are funded by the Research Promotion Foundation of Cyprus.

Below is a brief description of the five research programmes:

\* EU-DEEP: The aim of the research programme is the study of technical and financial parameters for the introduction of Distributed Energy Resources (DER) to the EU. A market survey will be carried out to determine factors preventing the competitiveness of distributed generation at present. The programme also aims at creating partnerships among electricity companies for the future promotion of DER in the EU member states. The EAC has undertaken to gather information on the development of mathematical and financial models for the study of various DER technologies such as typical annual voltage curves for various types of consumer and to carry out cost-benefit studies of various DER technologies.

# Corporate Development Management Unit

\* CACHET: The aim of the research programme is the development of technology for capturing carbon dioxide (CO<sub>2</sub>) in power station units and the parallel production of clean hydrogen for storage or for use in fuel cells. The EAC has undertaken to carry out cost-benefit studies for the modification of the EAC's future Combined Cycle units to use hydrogen and to examine the possibility of using technology that will be developed in Cyprus.

\* ΥΔΡΟΓΟΝΟΞ: The aim of the research programme is the development of an industrial Lean H<sub>2</sub> DeNO<sub>x</sub> technology, the creation of the necessary know-how for the planning and installation of a pilot unit using the proposed new technology and the transfer of new anti-pollution technologies to Cypriot enterprises. The EAC is the end user of the research work.

\* HYDROGEN-FUEL CELL DISTRIBUTED GENERATION TECHNOLOGY (H<sub>2</sub>/ΚΥΨΕΛΕΣ): The aim of the research programme is the development of Distributed Generation Technology through renewable energy sources and hydrogen. A small pilot unit will be installed and the necessary checks carried out on its operations and reliability. The EAC has undertaken the general coordination of the project.

\* CORONA: The aim of the research programme will be the development of an innovative methodology for the detection of possible faults and flaws in high and medium voltage cables in constant operation. The methodology will be based on constant monitoring of the cables and the identification of electrical discharges.

Just before the end of 2006, negotiations were successfully concluded for the DISTRES research programme which had been submitted by the EAC which coordinates the project. The contract for the DISTRES programme (which focuses on the use of Distributed Generation Technology in the Mediterranean countries) will be signed on January 1, 2007.

In 2006, another research programme in which the EAC is participating was successfully assessed for funding under the Sixth Framework Programme of Research and Development of the European Union. The GROW-DERS programme, which is currently being negotiated, aims at the trial use of various flexible and portable electricity storage systems. The results of this pioneering programme will provide data on the efficiency of such systems and whether they might be used on European distribution networks in the future.

The EAC has created a website concerning its activities in research and development which can be accessed via the Organisation's homepage ([www.eac.com.cy](http://www.eac.com.cy)). Moreover, a number of articles have been published in international journals and conference presentations made in connection with these activities.





## **STRATEGIC PLANNING MANAGEMENT**

With the aim of ensuring the Organisation's efficient operation in an environment that has seen business equilibrium going through a transitional yet decisive period due to the partial liberalisation of the Energy Market, and taking the matter of forthcoming competition into account, the Electricity Authority of Cyprus proceeded to draw up a systematic development process for Strategic, Policy and Annual Business Planning. The new process focuses on the alignment of efforts and the optimum use of resources by all the Organisation's Units, for the achievement of the EAC's Strategic Aims and the realisation of its Vision.

The Strategy development process has already been implemented and during the first Strategy workshop in May, Management set out the Organisation's New Vision, New Mission, Values and Strategic Pillars for 2007-2009. Furthermore, they decided on a number of crucial works that have been fast-tracked in order to realise the New Vision.

## **QUALITY ASSURANCE & BUSINESS EXCELLENCE**

During 2006, the Department dealt mainly with the following:

### **Certifications - Upgrades of Quality Systems**

Work continued on obtaining Quality Certification/Accreditation (ISO9001:2000 and ISO17025 respectively) for the Meter and Relay Testing Centre (MRTC). The aim is to gain Certification by February 2007 and Accreditation by the end of the year. This Quality Certification and Accreditation are part of the Quality Strategy for the eventual certification of the entire Organisation, thereby fulfilling the EAC's commitments to the Cyprus Energy Regulatory Authority and the Transmission Systems Manager in this sector.

# Corporate Development Management Unit

Work that began in 2005, in collaboration with the IT department for the preparation of a computer system aimed at the full traceability of meter counting and movements and of customer equipment, was completed.

## **Drawing up of notifications of Vasilikos Power Station operations (SEVESO II)**

Following the Authority's decision to construct two additional diesel storage tanks with a total capacity of 60 000 tonnes for supplying Vasilikos Power Station, this Station is now classed as a "High power unit" in accordance with the provisions of the SEVESO II directive (507/2001). As a result, and in order for Vasilikos Power Station to comply with this directive, work has begun in collaboration with External Consultants on a new Safety Report for the Station. This report will focus on the new diesel storage tanks and areas where dangerous substances are present, in accordance with SEVESO II. Work is due to be completed during the first half of 2007.

## **Internal Audits**

In April 2006 an internal audit of all the ISO9001:2000 Quality System Processes was carried out by the internal auditors and Area Quality Assurance Officers.

Additionally, in January 2006, a first internal audit of MRTC procedures was carried out.

## **External Quality Systems Inspection**

From June 19-22, 2006, an external Quality Systems inspection was successfully carried out by the Cyprus Organisation for Standardisation. The results of the inspection were presented to senior management with the aim of making constant improvements to the Systems.

## **Critical Indicators and Action Plans**

At the beginning of 2006, the Management Council proceeded with determining the EAC's Key Performance Indicator objectives, after taking into account proposals from Area Management and the Quality Assurance Department. The Area offices also began preparing Action Plans for each of the Critical Indicators with the ultimate aim of reaching all the set targets.

## **Reports to Management**

The annual Management Review regarding Quality Assurance was prepared and presented to the Management Council in June. During the review, a detailed report was made regarding the Authority's results and, in particular, the key performance indicators regarding customers, personnel and Critical Business Results.

### **Monthly review of Key Performance Indicators and special Indicators**

A system has been designed to monitor monthly area performance indicators and forward them systematically to local management. Information received will include Continuous Improvement management indicators, personnel suggestions, customer complaints, etc.

### **Consumer Protection – CERA**

Work has now been completed on the planning, drawing up of specifications and the installation of software for a system for measuring all Key Performance Indicators as determined by CERA and the recording of the relevant processes for regular monitoring. It forms part of a total Monitoring System of all customer contact points with the aim of upgrading customer services.

### **Systems Automation**

The automated System for Monitoring Personnel Suggestions and Innovative Ideas was upgraded while monitoring continued of the Complaints, Faults and Information systems as well as those dealing with Quality Circle management and Response Times by the EAC's External Partners.

Improvements were made to the existing Indicators and Quality Circle Monitoring System and the Area Continuous Improvement Management system was upgraded.

### **International Conferences – Presentations**

In September, international conferences on Environmental and Quality Management took place in Cyprus. The EAC was directly involved in their organisation and in the submission of proposals. The Conferences were attended by a large number of staff and managers. A presentation was made to the Environmental Management conference by a member of the unit's staff in collaboration with a colleague from the Generation Business Unit.

### **European Recognition**

The EAC was chosen by the Ministry of Finance to represent Cyprus in Best Practices in Quality Management at the Fourth European Conference on Quality in Public Administrations held in Finland. The Best Practices presentation was entitled "An excellent quality service solution for the Electricity Authority of Cyprus" and was given in the presence of the Finance Ministers of the 25 EU member states.

# Finance Management Unit

## FINANCIAL STATEMENTS

The financial statements of the EAC for the year 2006 together with the supporting statements are set out in pages 86 to 111. The principal financial statistics for the ten-year period 1997-2006 are summarised on page 78.

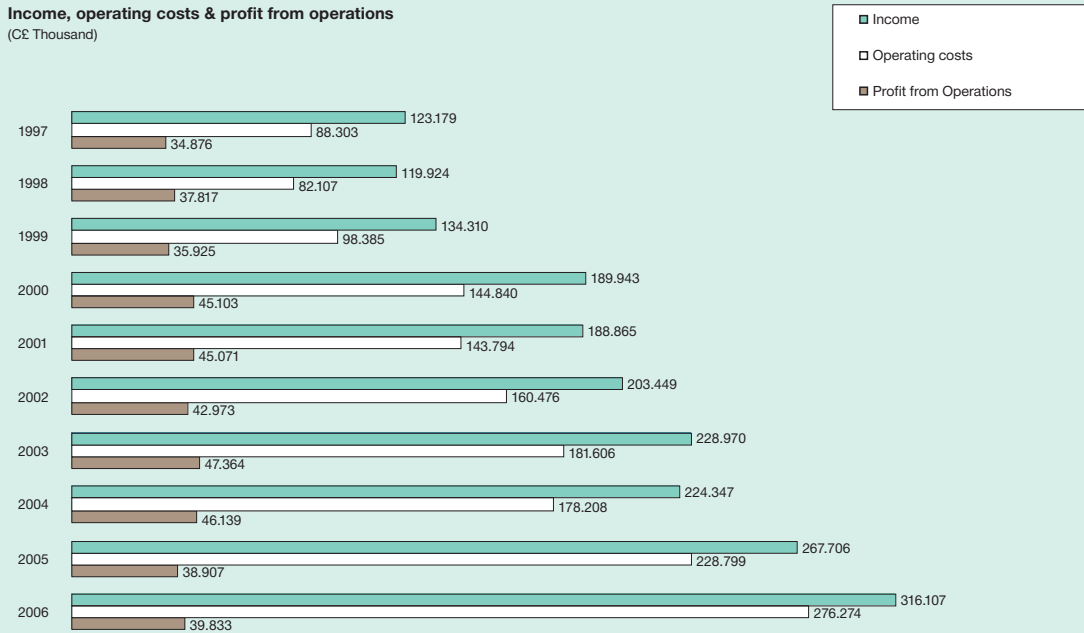
**Table 3**

**Consolidated income statement for the year ended 31 December 2006 and changes from previous year**

	CY£000	
	2006	Increase (Decrease)
<b>INCOME</b>		
Sales of electricity	300.307	47.365
Consumer's capital contribution	7.658	597
Other operating income	5.333	1.713
Finance income	2.809	(1.274)
	316.107	48.401
<b>OPERATING COSTS</b>	(276.274)	(47.475)
Operating profit	39.833	926
Finance costs	(7.715)	(2.710)
Profit before tax and exceptional item	32.118	(1.784)
Exceptional item	-	693
Profit before tax	32.118	(1.091)
Tax	(9.511)	246
Profit for the year	22.607	(845)
Units sold (million kWh)	4 135,0	202,1

(Figure 10)

### Income, operating costs & profit from operations (C£ Thousand)



## FINANCIAL RESULTS

The financial results for the year and the changes from the previous year are shown in Table No. 3 (page. 74). The income from sales of electricity for the year, totalled to C£300.307.000 (an amount of £37.000 relates to charges arising from unrecorded consumption) showing an increase of C£47.365.000 or 18,7%. The total operating costs were C£276.274.000 showing an increase of C£47.475.000 or 20,7%. After accounting for finance cost amounting to C£7.715.000 there was a profit before tax of C£32.118.000 compared to a profit of C£33.209.000 in the previous year. After the deduction of tax amounting to C£9.511.000 the net profit was C£22.607.000 (2005:C£23.452.000).

## ANALYSIS OF OPERATING EXPENSES

Table 4 (page 76) gives an analysis of the operating costs according to each category. The principal factors underlying the changes are reviewed below.

The average cost of fuel oil used by the EAC power stations increased by 31,3% to C£142,60 per metric tonne. The consumption increased by 2,3 % to 1 144,1 thousand metric tonnes. As a result of the above the fuel oil bill increased by C£41.626.000 to C£163.149.000.

The total salaries and related costs amounted to C£65.052.000 out of which C£6.880.000 was capitalised in fixed assets and work in progress. The amounts capitalised relate to expenditure for development projects executed by the Authority's employees during the year. An amount of C£58.172.000 or 89,4% was charged to the revenue account. The increase of C£2.727.000 or 4,4% to the total salaries and related costs charge is due mainly to the increase of cost of living allowance.

The deficiency contribution to pension schemes was C£10.499.000 (2005: C£11.103.000). This contribution was the result of the latest actuarial valuation carried out as of 31 December 2006.

Materials services and other expenditure were C£22.983.000 (decrease of C£526.000 or 2,2%). The depreciation charge was C£32.042.000 (increase of C£664.000 or 2,1%).

# Finance Management Unit

## CAPITAL REQUIREMENTS AND SOURCES OF FINANCE

Capital expenditure during the year amounted to C£70.769.000 compared with C£56.248.000 in 2005 (increase of C£14.521.000).

The amount paid for taxation during the year amounted to C£6.063.000 (2005:C£6.086.000).

Loan repayments amounted to C£20.436.000 (2005: C£19.562.000).

The total financing requirements of C£97.268.000 were covered by internal sources and consumers contributions. Table 5 (page 77) shows the financing requirements during the year and the sources of finance.

**Table 4**

### Analysis of Operating costs

	2006		Increase (Decrease) over 2005		
	C£000	%	Cents per kWh sold	CY£000	%
Fuel oil	163.149	59,1	3,945	41.626	34,3
Salaries and related costs	47.601	17,2	1,151	6.315	15,3
Deficiency contribution to pension schemes	10.499	3,8	0,254	(604)	(5,4)
Materials, services and other expenditure	22.983	8,3	0,556	(526)	(2,2)
Depreciation	32.042	11,6	0,775	664	2,1
<b>TOTAL</b>	<b>276.274</b>	<b>100,0</b>	<b>6,681</b>	<b>47.475</b>	<b>20,7</b>

**Table 5**

**Financing Requirements and Sources of Finance**

	2006		2005	
	£000	%	£000	%
<b>FINANCING REQUIREMENTS</b>				
Tax	6.063	6,2	6.086	7,4
Capital expenditure	70.769	72,8	56.248	68,7
Loan repayments	20.436	21,0	19.562	23,9
	97.268	100,0	81.896	100,0
<b>SOURCES OF FINANCE</b>				
Profit before tax	32.118	33,0	33.209	40,5
Depreciation less consumers' contributions	24.384	25,1	24.317	29,7
Proceeds from disposal of fixed assets	4.275	4,4	3	0,0
Unrealised foreign exchange loss/(gain)	1.400	1,4	(2.070)	(2,5)
Consumers' contributions	23.127	23,8	20.449	25,0
Working Capital changes	11.964	12,3	(8.587)	(10,5)
	97.268	100,0	67.321	82,2
Loans	-	-	14.575	17,8
	97.268	100,0	81.896	100,0

**FINANCIAL POSITION AT END OF YEAR**

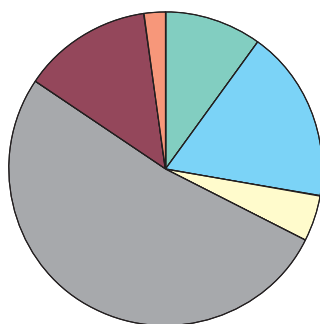
The historical cost of the assets employed at 31 December 2006 was C£1.012.110.000 and total provision for depreciation was C£318.516.000. As a result the written down value was 68,5% of the original cost. The total net assets at 31 December 2006 were C£779.872.000. Finance derived from loans (C£142.453.000 or 18,3 %) other long term liabilities (C£252.302.000 or 32,3 %) and the balance (C£385.117.000 or 49,4%) from own sources.

C. STAVRAKIS  
CHAIRMAN

M. STAVROU  
GENERAL MANAGER

(Figure 11)

**Expenditure**  
(C£ Thousand)  
Expenditure as a percentage  
of total revenue



- Materials, services & other expenditure  
£22.983 (8,09%)
- Salaries & related expenses  
£47.601 (16,76%)
- Deficiency contribution to pension schemes  
£10.499 (3,70%)
- Fuel oil £163.149 (57,45%)
- Depreciation £32.042 (11,28%)
- Finance cost £7.715 (2,72%)

# Finance Management Unit

**Table 6**  
**Principal financial statistics 1997-2006**  
**During the financial year to 31 December**

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Units sold (million kWh)	2 391	2 629	2 785	3 011	3 125	3 423	3 696	3 742	3 933	4 135
Consumption in the turkish occupied area (million kWh)	12	6	5	6	6	6	7	8	7	7
Total units (million kWh)	2 403	2 635	2 790	3 017	3 131	3 429	3 703	3 750	3 940	4 142
<b>Installed capacity (MW)</b>	690	690	728	988	988	988	988	988	988	988
<b>INCOME (C£ THOUSAND)</b>										
Sales of electricity	115.372	111.491	128.358	182.701	179.865	193.617	218.579	211.308	252.942	300.307
Consumers capital contributions	3.437	3.820	4.134	4.592	5.099	5.591	6.020	6.519	7.061	7.658
Other operating income	617	537	702	786	749	638	507	1.417	3.620	5.333
Finance income	3.753	4.076	1.116	1.864	3.152	3.603	3.864	5.103	4.083	2.809
Total Income	123.179	119.924	134.310	189.943	188.865	203.449	228.970	224.347	267.706	316.107
<b>COSTS (C£ THOUSAND)</b>										
Operating costs	76.164	69.227	84.016	126.634	121.904	137.121	154.840	151.207	197.421	244.232
Depreciation	12.139	12.880	14.369	18.206	21.890	23.355	26.766	27.001	31.378	32.042
Total operating costs	88.303	82.107	98.385	144.840	143.794	160.476	181.606	178.208	228.799	276.274
Operating profit	34.876	37.817	35.925	45.103	45.071	42.973	47.364	46.139	38.907	39.833
Finance costs	(6.217)	(3.543)	(6.333)	(6.699)	(6.849)	(5.523)	(8.536)	(7.236)	(5.005)	(7.715)
Profit before tax and exceptional item	28.659	34.274	29.592	38.404	38.222	37.450	38.828	38.903	33.902	32.118
Exceptional item	-	-	-	-	-	(20.000)	(25.000)	(15.000)	(693)	-
Profit before tax	28.659	34.274	29.592	38.404	38.222	17.450	13.828	23.903	33.209	32.118
Tax	(7.824)	(10.075)	(8.142)	(7.937)	(10.576)	(4.960)	(4.655)	(9.502)	(9.757)	(9.511)
Profit for the year	20.835	24.199	21.450	30.467	27.646	12.490	9.173	14.401	23.452	22.607
<b>RATIOS TO TOTAL INCOME</b>										
Profit from operations (%)	28,3	31,5	26,7	23,7	23,9	21,1	20,7	20,6	14,5	12,6
Profit before tax (%)	23,3	28,6	22,0	20,2	20,2	8,6	6,0	10,7	12,4	10,2

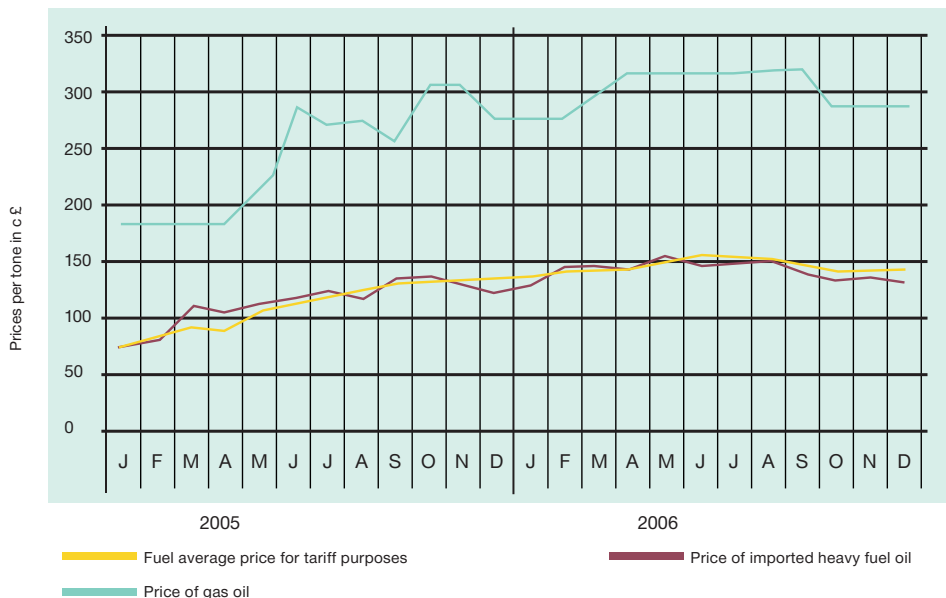


## Consolidated Balance Sheet at 31 December

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
<b>ASSETS (C£THOUSAND)</b>										
<b>Non Current assets</b>										
Property, plant and equipment	323.509	397.535	468.082	483.085	504.811	525.336	571.846	633.294	658.156	693.594
Trade and other receivables	1.676	1.515	5.159	4.279	4.230	3.468	2.974	2.742	2.231	1.674
	325.185	399.050	473.241	487.364	509.041	528.804	574.820	636.036	660.387	695.268
<b>Current assets</b>	106.843	98.057	69.140	125.416	135.338	210.014	220.754	168.763	176.809	172.293
<b>Total assets</b>	432.028	497.107	542.381	612.780	644.379	738.818	795.574	804.799	837.196	867.561
<b>RESERVES AND LIABILITIES (C£THOUSAND)</b>										
<b>Reserves</b>										
Revenue reserve	205.129	229.328	250.777	281.245	308.890	321.380	330.553	344.954	368.406	376.013
Government grant	9.104	9.104	9.104	9.104	9.104	9.104	9.104	9.104	9.104	9.104
	214.233	238.432	259.881	290.349	317.994	330.484	339.657	354.058	377.510	385.117
<b>Non – current liabilities</b>										
Borrowings	59.151	71.040	77.426	96.682	96.193	133.580	173.212	170.241	161.806	142.453
Deferred tax liabilities	24.373	25.910	29.826	33.261	36.905	40.847	43.308	42.769	46.372	49.184
Deferred Income	100.551	107.295	118.555	130.946	142.481	151.465	162.350	174.261	187.649	203.118
	184.075	204.245	225.807	260.889	275.579	325.892	378.870	387.271	395.827	394.755
<b>Current Liabilities</b>	33.720	54.430	56.693	61.542	50.806	82.442	77.047	63.470	63.859	87.689
<b>Total Liabilities</b>	217.795	258.675	282.500	322.431	326.385	408.334	455.917	450.741	459.686	482.444
<b>Total reserves and liabilities</b>	432.028	497.107	542.381	612.780	644.379	738.818	795.574	804.799	837.196	867.561

(Figure 12)

Prices paid for fuel oil & average prices used for tariff purposes  
(fuel adjustment clause)



# Auditor's Report and Financial Statements

# Report and consolidated financial statements 31 December 2006

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## **Report of the Board of Directors**

1. The Board of Directors presents its report together with the audited consolidated financial statements of the Authority and its subsidiary Elektriki Ltd (together the "Group") for the year ended 31 December 2006.

## **Principal activities**

2. The principal activities of the Authority, which have not changed since last year, is the generation, transmission, distribution and supply of electricity in Cyprus. Following an amendment in the Law on 24 November 2000 the Authority has been empowered to engage in activities that are relevant with the exploitation and development of its assets, technical capabilities, installations, services and knowhow.

## **Review of business developments, current situation and the results of the activities of the Authority**

3. The financial position of the Group as presented in the consolidated financial statements is considered satisfactory. The Board of Directors is not anticipating any significant changes in the activities of the Authority in the foreseeable future.

## **Results**

4. The results of the Group for the year are presented on page 86. The net profit for the year is transferred to reserves.

## **Board of Directors**

5. The members of the Board of Directors at 31 December 2006 and at the date of this report are presented on page 14. All of them were members of the Board of Directors for the whole year 2006 except Mr. Panayiotis Hadjicharalambous who was appointed as director on 22 June 2006 and Mr Charis Charalambous who was director as at 1 January 2006 and resigned on 10 June 2006.
6. There were no significant changes in the assignment of responsibilities and remuneration of the Board of Directors.

## **Events after the balance sheet date**

7. Except from the matter discussed in Note 26 of the consolidated financial statements, there were no other material events which occurred after the end of the financial year.



#### **Dividend**

8. The House of Representatives on 28.7.2006 enacted an amendment to the Electricity Development Law which provides for the payment by the Authority to the Republic of Cyprus part of its surplus of the previous financial year and additional amount (up to 10%) from its accumulated surpluses. Based on the above Law and the Letter of the Minister of Finance dated 23.11.2006 the Authority deposited to the Government Consolidated Fund the amount of £7,5 million for the financial year 2005 and £7,5 million for the year 2006.

#### **Auditors**

9. The auditors, PricewaterhouseCoopers Limited, have expressed their willingness to continue in office.

#### **By order of the Board of Directors**

**Charilaos Stavrakis**  
Chairman

Nicosia  
29 May 2007

# Independent Auditors' Report To the Members of Electricity Authority of Cyprus

## **Report on the consolidated Financial Statements**

We have audited the consolidated financial statements of Electricity Authority of Cyprus (the "Authority") and its subsidiary Elektriki Limited (together "the Group"), on pages 6 to 27, which comprise the consolidated balance sheet as at 31 December 2006, the consolidated income statement, the consolidated statement of changes in equity and the consolidated cash flow statement for the year then ended, and a summary of significant accounting policies and other explanatory notes.

## **Board of Directors' Responsibility for the Financial Statements**

The Authority's Board of Directors is responsible for the preparation and fair presentation of these financial statements in accordance with International Financial Reporting Standards as adopted by the European Union (EU) and International Financial Reporting Standards as issued by the International Accounting Standards Board (IASB) and the requirements of the Electricity Development Law Cap. 171, the Public Corporate Bodies (Audit of Accounts) Laws of 1983-2007, the Laws Regulating the Electricity Market of 2003-2006 and the provisions of Section 156 of the Cyprus Companies Law, Cap. 113. This responsibility includes: designing, implementing and maintaining internal control relevant to the preparation and fair presentation of financial statements that are free from material misstatement, whether due to fraud or error; selecting and applying appropriate accounting policies; and making accounting estimates that are reasonable in the circumstances.

## **Auditors' Responsibility**

Our responsibility is to express an opinion on these consolidated financial statements based on our audit. We conducted our audit in accordance with International Standards on Auditing. Those Standards require that we comply with ethical requirements and plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the entity's preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of accounting estimates made by the Board of Directors, as well as evaluating the overall presentation of the financial statements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a reasonable basis for our opinion.

### **Opinion**

In our opinion, the consolidated financial statements give a true and fair view of the financial position of the Group as of 31 December 2006, and of its financial performance and its cash flows for the year then ended in accordance with International Financial Reporting Standards as adopted by the EU and International Financial Reporting Standards as issued by the IASB and the requirements of the Electricity Development Law Cap. 171, the requirements of the Public Corporate Bodies (Audit of Accounts) Laws of 1983-2007, the requirements of the Laws regulating the Electricity Market of 2003-2006 and the requirements of the Cyprus Companies Law, Cap. 113.

### **Report on Other Legal Requirements**

Pursuant to the requirements of the Companies Law, Cap. 113, we report the following:

- We have obtained all the information and explanations we considered necessary for the purposes of our audit.
- In our opinion, proper books of account have been kept by the Authority.
- The Authority's financial statements are in agreement with the books of account.
- In our opinion and to the best of our information and according to the explanations given to us, the financial statements give the information required by the Companies Law, Cap. 113, in the manner so required.
- In our opinion, the information given in the report of the Board of Directors on pages 2 and 3 is consistent with the financial statements.

### **Other Matter**

This report, including the opinion, has been prepared for and only for the Electricity Authority of Cyprus, the Minister of Commerce, Industry & Tourism, the House of Representatives and the Auditor General of the Republic in accordance with the Electricity Development Law Cap. 171, the Public Corporate Bodies (Audit of Accounts) Laws of 1983-2007, the Laws Regulating the Electricity Market of 2003-2006 and the provisions of Section 156 of the Cyprus companies Law Cap. 113. We do not, in giving this opinion, accept or assume responsibility for any other purpose or to any other person to whose knowledge this report may come to.

PricewaterhouseCoopers Limited  
Chartered Accountants

Nicosia, 29 May 2007

### **Report of the Auditor General of the Republic to the Electricity Authority of Cyprus**

I have examined the foregoing report on the consolidated financial statements on pages 6 to 27 of the Electricity Authority of Cyprus for the year ended 31 December 2006, submitted by the appointed auditors in accordance with section 3(1) of the Public Corporate Bodies (Audit of Accounts) Law and I am satisfied that it is appropriate.

Chrystalla Georghadji  
Auditor General of the Republic

Nicosia, 29 May 2007

# Consolidated Financial Statements

## Consolidated income statement for the year ended 31 December 2006

	Notes	2006 £000	2005 £000
Sales	6	300.307	252.942
Other operating income - net	7	15.800	14.764
Operating costs	8	(276.274)	(228.799)
Operating profit		39.833	38.907
Finance costs	10	(7.715)	(5.005)
Profit before tax and exceptional item		32.118	33.902
Exceptional item	11	-	(693)
Profit before tax		32.118	33.209
Tax	12	(9.511)	(9.757)
Profit for the year		22.607	23.452

The notes on pages 90 to 111 are an integral part of these financial statements.



Consolidated balance sheet  
at 31 December 2006

	Notes	2006 £000	2005 £000
<b>Assets</b>			
<b>Non-current assets</b>			
Property, plant and equipment	13	693.594	658.156
Trade and other receivables	14	1.674	2.231
		695.268	660.387
<b>Current assets</b>			
Inventories	15	57.044	52.742
Trade and other receivables	14	52.633	52.552
Tax refundable		3.634	4.270
Short-term deposits	16	24.748	26.191
Cash and cash equivalents	17	34.234	41.054
		172.293	176.809
<b>Total assets</b>		<b>867.561</b>	<b>837.196</b>
<b>Reserves and liabilities</b>			
<b>Reserves</b>			
		385.117	377.510
<b>Non-current liabilities</b>			
Borrowings	18	142.453	161.806
Deferred tax liabilities	19	49.184	46.372
Deferred Income	20	203.118	187.649
		394.755	395.827
<b>Current liabilities</b>			
Trade and other payables	21	67.086	43.573
Borrowings	18	20.603	20.286
		87.689	63.859
<b>Total liabilities</b>		<b>482.444</b>	<b>459.686</b>
<b>Total reserves and liabilities</b>		<b>867.561</b>	<b>837.196</b>

On 29 May 2007 the Board of Directors of the Electricity Authority of Cyprus authorised these financial statements for issue.

<b>C. STAVRAKIS</b>	<b>M. STAVROU</b>	<b>H. HADJIYEROU</b>
Chairman	General Manager	Executive Manager Finance

The notes on pages 90 to 111 are an integral part of these financial statements.

# Consolidated Financial Statements

## Consolidated statement of changes in equity for the year ended 31 December 2006

	Notes	Capital Reserve (1) £000	Revenue Reserve £000	Total £000
Balance at 1 January 2005		9.104	344.954	354.058
Net profit for the year		-	23.452	23.452
Balance at 31 December 2005		9.104	368.406	377.510
Balance at 1 January 2006		9.104	368.406	377.510
Net profit for the year		-	22.607	22.607
Dividend	22	-	(15.000)	(15.000)
Balance at 31 December 2006		9.104	376.013	385.117

(1) The Capital Reserve represents a government grant.

The notes on pages 90 to 111 are an integral part of these financial statements.

**Consolidated cash flow statement  
for the year ended 31 December 2006**

	Notes	2006 £000	2005 £000
<b>Cash flows from operating activities</b>			
Profit before tax and after exceptional item		32,118	33,209
Adjustments for:			
Depreciation of property, plant and equipment	13	32,042	31,378
Amortisation of deferred income	20	(7,658)	(7,061)
(Profit)/Loss on sale of property, plant and equipment		(986)	5
Interest expense	10	6,612	6,800
Unrealised exchange loss/(gain)		1,400	(2,070)
Interest income	7	(2,809)	(4,083)
		60,719	58,178
Changes in working capital:			
- Inventories		(4,302)	(13,136)
- Trade and other receivables		476	(11,458)
- Trade and other payables		16,159	(843)
<b>Cash generated from operations</b>		<b>73,052</b>	<b>32,741</b>
Tax paid		(6,063)	(6,086)
<b>Net cash from operating activities</b>		<b>66,989</b>	<b>26,655</b>
<b>Cash flows from investing activities</b>			
Short-term deposits		1,443	7,264
Purchase of property, plant and equipment	13	(70,769)	(56,248)
Proceeds from sale of property, plant and equipment		4,275	3
Additions to consumers' capital contributions	20	23,127	20,449
Interest received		2,809	4,093
<b>Net cash used in investing activities</b>		<b>(39,115)</b>	<b>(24,439)</b>
<b>Cash flows from financing activities</b>			
Proceeds from borrowings		-	14,575
Repayments of borrowings		(20,436)	(19,562)
Dividend paid		(7,500)	-
Interest paid		(6,758)	(6,947)
<b>Net cash used in financing activities</b>		<b>(34,694)</b>	<b>(11,934)</b>
<b>Net decrease in cash and cash equivalents</b>		<b>(6,820)</b>	<b>(9,718)</b>
<b>Cash and cash equivalents at beginning of year</b>		<b>41,054</b>	<b>50,772</b>
<b>Cash and cash equivalents at end of year</b>	17	<b>34,234</b>	<b>41,054</b>

The notes on pages 90 to 111 are an integral part of these financial statements.

# Consolidated Financial Statements

## Notes to the consolidated financial statements

### 1. General Information

The Electricity Authority of Cyprus is a Public Corporate Body which was established in Cyprus under the Electricity Development Law Cap.171 of 1952. It is managed by a Board of Directors, consisting of a Chairman, Vice-Chairman and seven members, who are appointed by the Council of Ministers.

The address of the Authority's Head Office is at 11 Amfipoleos Street, Strovolos, P.O.Box 24506, CY-1399 Nicosia, Cyprus.

The Electricity Authority of Cyprus pursuant to the above Law is engaged in the generation, transmission, distribution and supply of electricity in Cyprus. Following an amendment in the Law on 24 November 2000 the Authority has been empowered to engage in activities that are relevant with the exploitation and development of its assets, technical capabilities, installations, services and knowhow.

With the accession of Cyprus to the European Union and the opening up of the electricity market to competition, the Electricity Authority of Cyprus in preparing for its harmonisation with the European Union has taken all the necessary steps in order to conform with Directive 2003/54/EC of the European Parliament and of the Council of 19th December 1996 concerning common rules for the internal market in electricity.

### 2. Summary of significant accounting policies

The principal accounting policies applied in the preparation of these consolidated financial statements are set out below. These policies have been consistently applied to all years presented in these financial statements unless otherwise stated.

#### Basis of preparation

The consolidated financial statements of the Electricity Authority of Cyprus have been prepared in accordance with International Financial Reporting Standards (IFRSs) as adopted by the European Union (EU) and International Financial Reporting Standards (IFRSs) as issued by the International Accounting Standards Board (IASB). The financial statements comply with both these reporting frameworks because at the time of their preparation all applicable IFRSs issued by the IASB have been adopted by the EU through the endorsement procedure established by the European Commission. In addition the financial statements have been prepared in accordance with the requirements of the Electricity Development Law, Cap. 171 of Cyprus and the Laws regulating the Electricity Market of 2003-2006. The financial statements have been prepared under the historical cost convention.

The preparation of financial statements in conformity with IFRS requires the use of certain critical accounting estimates and requires management to exercise its judgment in the process of applying the Authority's accounting policies. The areas involving a higher degree of judgment or complexity, or areas where assumptions and estimates are significant to the Financial Statements are disclosed in Note 4.

## **Adoption of new and revised IFRS**

In the current year the Authority adopted all new and revised IFRS that are relevant to its operations and are effective for accounting periods beginning on 1 January 2006. This adoption did not result in substantial changes to the Authority's accounting policies.

## **Consolidation**

### **Subsidiary undertaking**

Subsidiary undertaking, is that entity in which the Group has an interest of more than 50% of the voting rights or otherwise has the power to exercise control over its operations. The subsidiary undertaking is consolidated from the date on which control is transferred to the Group and is no longer consolidated from the date that control ceases. All intercompany transactions, balances and unrealised gains on transactions between group companies are eliminated as is also the case with unrealised losses unless cost cannot be recovered.

## **Revenue recognition**

Revenues earned by the Authority are recognised on the following bases:

### **(a) Sales of electricity**

Sales of electricity represent amounts receivable, based on consumption recorded by meters, net of V.A.T. Sales also include an estimate of the value of units supplied to consumers between the date of the last meter reading and the year end, and this estimate is included in receivables in the balance sheet.

### **(b) Interest income**

Interest income is recognised on a time proportion basis, taking into account the principal outstanding and the effective rate over the period to maturity when it is determined that such income will accrue to the Authority.

### **(c) Consumers' capital contributions**

Consumers' contributions towards capital expenditure are treated as deferred income and released to the income statement over the average estimated economic lives of the related assets (33 1/3 years). This period is regarded as a reasonable approximation of the estimated period of the customer relationship. Subsidies granted by the Authority against such capital contributions are deducted from the amounts receivable and charged to the revenue account in the year in which they are granted.

## **Foreign currency translation**

### **(a) Functional and presentation currency**

Items included in the Authority's financial statements are measured using the currency of the primary economic environment in which the entity operates ("the functional currency"). The financial statements are presented in Cyprus pounds (C£), which is the Authority's functional and presentation currency.

### **(b) Transactions and balances**

Foreign currency transactions are translated into the functional currency using the exchange rates prevailing at the dates of the transactions. Foreign exchange gains and losses resulting from the settlement of such transactions and from the translation at year-end exchange rates of monetary assets and liabilities denominated in foreign currencies are recognised in the consolidated income statement.

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## **Employee benefits**

The Authority operates two defined benefit plans and various other defined contribution plans the assets of which are held in separate trustee-administered funds. These plans are mainly funded by the Authority.

Retirement benefit costs relating to the defined benefit plan are assessed using the projected unit credit method. Under this method, the cost of providing defined pensions is charged to the income statement so as to spread the regular cost over the service lives of employees in accordance with the advice of professionally qualified actuaries who value the plan at least once every three years.

The portion of actuarial gains and losses to be recognised is the excess, over and above the greatest of the 10% corridor of the present obligation of the defined benefit plan and the 10% of the present value of the assets at the previous reporting period, divided by the expected average remaining working lives of the employees.

The Authority's contributions to the defined contribution plans are charged to the income statement in the year to which they relate.

## **Tax**

Current tax liabilities and assets for the current and prior periods are measured at the amount expected to be paid to or recovered from the taxation authorities using the tax rates and laws that have been enacted or substantively enacted by the balance sheet date. Deferred tax is provided in full, using the liability method, on temporary differences arising between the tax bases of assets and liabilities and their carrying amounts in the financial statements. Deferred tax is determined using tax rates and laws that have been enacted or substantially enacted by the balance sheet date and are expected to apply when the related deferred tax asset is realised or the deferred tax liability is settled. Deferred tax assets are recognised to the extent that it is probable that future taxable profit will be available against which the temporary differences can be utilised.

### Property, plant and equipment

All property, plant and equipment are stated at historical cost less depreciation. For projects carried out by outside contractors, cost is based on the value of work executed and certified by engineering consultants. For projects carried out by the Authority's own staff, cost comprises materials, labour and related overheads.

Major spare parts and stand-by equipment are accounted for as property, plant and equipment when the Authority expects to use them during more than one period.

Depreciation is calculated using the straight-line method to allocate the cost of property, plant and equipment to their residual values, over their estimated useful lives. The principal asset life periods used for this purpose are as follows:

	Years
Freehold land	Indefinite
Power station buildings	30
Other buildings	35
Power station plant and machinery	25
Other plant and machinery	25 - 30
Lines and cables	35 - 40
Meters	15
Motor vehicles	5
Furniture, fittings and office equipment	10
Tools and instruments	10
Hardware	5
Software	3

Expenditure for repairs and maintenance of property, plant and equipment is charged to the income statement of the year in which they were incurred. The cost of major renovations and other subsequent expenditure are included in the carrying amount of the asset or recognised as a separate asset, as appropriate, only when it is probable that future economic benefits associated with the item will flow to the Authority and the cost of the item can be measured reliably.

Gains and losses on disposal of property, plant and equipment are determined by comparing proceeds with carrying amount and these are included in the income statement.

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## **Emission Rights**

Based on the Cyprus Law for the Scheme of Greenhouse Gas Emission Allowance Trading, N.132(I)/2004, greenhouse gas emission allowances are allocated to the various operators (companies) with the objective of reducing the level of pollution in the atmosphere.

Each operator, whose annual emissions exceed the number of emission allowances for the specific year, is obliged to buy as many emission allowances as required to cover the shortage and in addition to pay a penalty fee for each tonne of excess emission as well as to sell any surplus. Granted CO<sub>2</sub> emission allowances are initially recognised at nominal value (nil value) when the Group is able to exercise control. Purchased CO<sub>2</sub> emission allowances are initially recognised at cost (purchased price) within intangible assets. A liability is recognised when the level of emissions exceeds the level of allowances granted. The liability is measured at the cost of purchased allowances and then at the market price of allowances ruling at the balance sheet date, with movements in the liability recognised in the income statement.

The intangible asset is surrendered at the end of the compliance period reflecting the consumption of economic benefit. Surplus emission allowances can be carried forward and off-set future shortages (up to the end of the compliance period) or to be sold. Proceeds from the sale of surplus emission allowances are recognised upon the sale of these rights.

## **Leases**

Leases in which a significant portion of the risks and rewards of ownership are retained by the lessor are classified as operating leases. Payments made under operating leases (net of any incentives received from the lessor) are charged to the income statement on a straight-line basis over the period of the lease.

## **Inventories**

Inventories are stated at the lower of cost and net realisable value. Cost is determined using the weighted average cost method. In general, cost includes purchase cost, transport and handling costs but excludes borrowing costs. Net realizable value is the estimated selling price in the ordinary course of business less applicable variable selling expenses. Provision is made for damaged, deteriorated, obsolete and unusable items where appropriate.

## **Trade receivables**

Trade receivables are recognised initially at fair value and subsequently measured at amortised cost using the effective interest method, less provision for impairment. A provision for impairment of trade receivables is established when there is objective evidence that the Authority will not be able to collect all amounts due according to the original terms of receivables. The amount of the provision is the difference between the carrying amount and the recoverable amount, being the present value of estimated future cash flows, discounted at the effective interest rate. The amount of the provision is recognised in the income statement.



## Provisions

Provisions are recognised when the Group has a present legal or constructive obligation as a result of past events, it is more likely that an outflow of resources will be required to settle the obligation, and the amount has been reliably estimated.

## Cash and cash equivalents

Cash and cash equivalents include cash in hand, deposits held at call with banks and bank overdrafts. In the balance sheet bank overdrafts are shown within borrowings in current liabilities.

## Borrowings

Borrowings are recognised initially at fair value, net of transaction costs incurred. Borrowings are subsequently stated at amortised cost. Any difference between the proceeds (net of transaction costs) and the redemption value is recognised in the income statement over the period of the borrowings using the effective interest method.

Borrowings are classified as current liabilities unless the Authority has an unconditional right to defer settlement of the liability for at least twelve months after the balance sheet date.

## Segmental reporting

The financial statements are also presented in separate statements per business and geographical segment. A business segment is a group of assets and operations engaged in providing products or services that are subject to risks and returns that are different from those of other business segments. A geographical segment is engaged in providing products or services within a particular economic environment that are subject to risks and returns that are different from those of segments operating in other economic environments. The analysis per business segment is prepared for the activities of generation, transmission, distribution and supply which also complies with the requirements of the Laws regulating the Electricity Market of 2003-2006.

## Comparative information

Where necessary comparative figures have been adjusted to conform with changes in presentation in the current year.

## 3. Financial risk management

### Financial risk factors

The Group's activities expose it to interest rate risk, currency risk and credit risk arising from the financial instruments it holds. The risk management policies employed by the Group to manage these risks are discussed below:

#### a) Interest rate risk

Interest rate risk is the risk that the value of financial instruments will fluctuate due to changes in market interest rates. The Authority's income and operating cash flows are dependent on changes in market interest rates. The Authority is exposed to interest rate risk in relation to its long-term borrowings. Borrowings entered into at variable rates expose the Authority to fair value interest rate risk. The Authority's management monitors the interest rate fluctuations on a continuous basis and acts accordingly.

#### b) Currency risk

Currency risk is the risk that the value of financial instruments will fluctuate due to changes in foreign exchange rates. Currency risk arises when future commercial transactions and recognised assets and liabilities are denominated in a currency that is not the Authority's functional currency. The Authority is exposed to foreign exchange risk arising from various currency exposures primarily with respect to the US Dollar, Euro, Swiss Franks and Pound Sterlings. The Authority's management monitors the exchange rate fluctuations on a continuous basis and acts accordingly.

The net foreign exchange difference debited to the income statement amounts to C£1.103.000 (2005: C£1.795.000 credit) which relates to financing activities (Note 10).

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## **c) Credit risk**

Credit risk arises when a failure by counterparties to discharge their obligations could reduce the amount of future cash inflows from financial assets on hand at the balance sheet date. The Authority has no significant concentrations of credit risk. The Authority monitors on a continuous basis the ageing profile of its receivables. Cash balances are held with high credit quality financial institutions and the Authority has policies to limit the amount of credit exposure to any financial institution.

## **Fair value estimation**

The fair values of the Group's financial assets and liabilities approximate their carrying amounts at the balance sheet date.

## **4. Critical accounting estimates and judgments**

Estimates and judgments are continually evaluated and are based on historical experience and other factors, including expectations of future events that are believed to be reasonable under the circumstances.

## **Critical accounting estimates and assumptions**

The Authority makes estimates and assumptions concerning the future. The resulting accounting estimates will, by definition, seldom equal the actual results. The estimates and assumptions that have a significant risk of causing a material adjustment to the carrying amounts of assets and liabilities within the next financial year are discussed below.

### **(i) Deferred income**

Deferred income is recognised through the Authority's income statement over a period of 33 1/3 years, which represents the estimated useful economic life of the Authority's distribution network which is regarded as a reasonable approximation of the estimated duration of the customer relationship between the Authority and its customers.

### **(ii) Tax**

Significant judgement is required in determining the provision for income taxes. For certain transactions and calculations the ultimate tax determination is uncertain. The Authority recognises liabilities for anticipated tax based on estimates of whether additional taxes will be due. Where the final tax outcome of these matters is different from the amounts that were initially recorded, such differences will impact the income tax and deferred tax provisions in the period in which such determination is made.

## 5. Segmental reporting

The Authority prepared separate accounts for expenditure and assets and liabilities for the activities of generation, transmission, distribution, supply and others.

The total revenue expenditure of the Authority per activity is shown below:

	2006 £000	2005 £000
Generation	209.783	166.809
Transmission	10.786	8.104
Transmission System Operator	1.987	1.700
Distribution	48.228	47.608
Supply	5.489	4.577
Other Activities	1	1
	<b>276.274</b>	<b>228.799</b>

No separate income accounts for each activity have been prepared due to the fact that up to date there are no approved tariffs for the separate activities by the Regulatory Authority of Cyprus.

The total assets/liabilities of each activity of the Authority for the years 2006 and 2005 are analysed below:

	Generation 2006 £000	Transmission 2006 £000	Transmission System Operator 2006 £000	Distribution 2006 £000	Supply 2006 £000	Other Activities 2006 £000	Unallocated amounts 2006 £000	Total 2006 £000
Non current assets	244.724	132.531		317.803	-	210	-	695.268
Current assets	38.026	4.397	413	17.272	43.385	706	68.094	172.293
Total Assets	282.750	136.928	413	335.075	43.385	916	68.094	867.561
Current liabilities	18.879	5.400	366	9.619	19.374	-	34.051	87.689
Non current liabilities	-	10.156		192.962	-	-	191.637	394.755
Reserves	-	-		-	-	-	385.117	385.117
Allocated Capital	263.871	121.372	47	132.494	24.011	916	(542.711)	-
	<b>282.750</b>	<b>136.928</b>	<b>413</b>	<b>335.075</b>	<b>43.385</b>	<b>916</b>	<b>68.094</b>	<b>867.561</b>

No analysis per geographical segment has been prepared due to the fact that all group activities are carried out in Cyprus.

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The total assets/liabilities of each activity of the Authority for the years 2006 and 2005 are analysed below:

	Generation	Transmission	Transmission System Operator	Distribution	Supply	Other Activities	Unallocated amounts	Total
	2005 £000	2005 £000	2005 £000	2005 £000	2005 £000	2005 £000	2005 £000	2005 £000
Non current assets	244.579	122.850		292.801	-	157		660.387
Current assets	36.676	5.660	16	12.718	42.179	151	79.409	176.809
<b>Total Assets</b>	<b>281.255</b>	<b>128.510</b>	<b>16</b>	<b>305.519</b>	<b>42.179</b>	<b>308</b>	<b>79.409</b>	<b>837.196</b>
Current liabilities	10.473	1.970		7.725	17.932	-	25.759	63.859
Non current liabilities	-	9.382		178.267	-	-	208.178	395.827
Reserves	-	-		-	-	-	377.510	377.510
Allocated Capital	270.782	117.158	16	119.527	24.247	308	(532.038)	-
	<b>281.255</b>	<b>128.510</b>	<b>16</b>	<b>305.519</b>	<b>42.179</b>	<b>308</b>	<b>79.409</b>	<b>837.196</b>

No analysis per geographical segment has been prepared due to the fact that all group activities are carried out in Cyprus.

## 6. Sales of electricity

Sales of electricity include an amount of C£37.000 (2005: C£2.000) arising from non-recorded electricity consumption at a number of premises at which illegal tampering at the Group's meters was observed. The amount of recognised charges arising from non-recorded electricity consumption has been restricted to the total of the amounts agreed with the consumers as payable.

Sales of electricity do not include all of the consumption in the Turkish occupied area where the Group has no access due to the prevailing conditions. The unbilled electrical energy, calculated at a special rate, amounts to C£473.000 (2005: C£366.000).

## 7. Other operating income - net

	2006 £000	2005 £000
Income from damages to property of the Authority	118	105
Net Income from maintenance of public lighting and sale of materials	136	136
Net income from fees for telecommunication usage of optical fibres	988	10
Consumers' capital contributions	7,658	7,061
Storage and other fees from the Cyprus Organisation for Storage and Management of Oil stocks (COSMOS)	3,184	3,090
Sundry Income	907	279
Interest income:		
Bank balances	2,636	3,540
Other	173	543
	<b>15,800</b>	<b>14,764</b>

## 8. Analysis of operating costs by nature

	2006 £000	2005 £000
Fuel Oil	163,149	121,523
Salaries and related costs (Note 9)	58,100	52,389
Depreciation (Note 13)	32,042	31,378
Repairs and maintenance	4,633	6,294
Other expenses	18,350	17,215
	<b>276,274</b>	<b>228,799</b>

## 9. Staff costs

	2006 £000	2005 £000
Wages and salaries	39,651	37,585
Social insurance and other costs (Note 9)	3,947	3,709
Social cohesion fund (Note 13)	792	733
Pension costs - defined benefit retirement plan		
- Current contribution	8,258	7,758
- Deficiency contribution to pension schemes	10,499	11,103
Other defined contribution plans	1,905	1,437
	<b>65,052</b>	<b>62,325</b>

The staff costs were allocated as follows:

	2006 £000	2005 £000
Income statement (Note 8)	58,172	52,548
Capitalized in fixed assets and work in progress	6,880	9,777
	<b>65,052</b>	<b>62,325</b>

# Consolidated Financial Statements

## Defined Benefit Plan

The latest actuarial valuation was carried out as at 31 December 2006. The assets used for the purposes of the actuarial valuation were as extracted from the draft accounts of the Pension Fund for the year 2006 and therefore the actuarial valuation is presented as draft.

The amounts recognised in the consolidated balance sheet of the Group and which are in accordance with the draft actuarial valuation as at 31 December 2006, for the defined benefit plan are as follows:

	2006 £000	2005 £000
Present value of funded defined benefit obligations	311.573	288.786
Fair value of plan assets	(268.991)	(244.099)
	42.582	44.687
Unrecognised transitional obligation	(9.293)	(18.584)
Unrecognised actuarial loss	33.289	26.103

The amounts recognised in the consolidated income statement of the Group and which are in accordance with the draft actuarial valuation as at 31 December 2006 for the defined benefit plan are as follows:

Current service cost	7.735	6.135
Interest on obligations of the plan	14.199	14.021
Expected return on plan assets	(12.437)	(8.813)
Amortisation of net asset at transition	9.291	9.291
	18.788	20.634

## Movement in net assets not recognised in balance sheet

Net liability/(asset) in balance sheet at the beginning of the year	975	(811)
Actual contributions paid by the Authority	(18.713)	(18.848)
Total expense recognised in the income statement	18.788	20.634
Net liability not recognised in balance sheet at the end of the year	1.050	975
<b>Actual return on plan assets</b>	<b>18.159</b>	<b>5.919</b>

	2006 £000	2005 £000
<b>Reconciliation of benefit obligation</b>		
Defined benefit obligations at start of year	288.786	248.537
Service cost	7.735	6.135
Interest cost	14.199	14.021
Employee contributions	232	219
Benefits paid by the Fund	(12.211)	(11.391)
Actuarial loss	12.832	31.265
<b>Defined benefit obligations at end of year</b>	<b>311.573</b>	<b>288.786</b>

	2006 £000	2005 £000
<b>Reconciliation of plan assets</b>		
Market value at the beginning of the year	244.099	230.504
Expected return	12.437	8.813
Employer contributions	18.713	18.848
Employee contributions	232	219
Fund benefits	(12.211)	(11.391)
Actuarial gain/(loss)	5.721	(2.894)
<b>Fair value of plan assets at end of year</b>	<b>268.991</b>	<b>244.099</b>

The principal actuarial assumptions used for the actuarial valuation were:

	2006 %	2005 %
Discount rate	5,0	5,0
Average expected return on plan assets	5,0	3,75
Average rate of salary increases (including increases due to age and promotions)	5,75	5,75
Average increase in basic insurable earnings	3,5	3,5
Average rate of pension increases	3,0	3,0
Average rate of SIS pension plan increases	2,5	2,5

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## 10. Finance costs

	2006 £000	2005 £000
Interest expense:		
Bank borrowings	(6.562)	(6.439)
Overdue taxation	(13)	(130)
Other	(37)	(231)
	(6.612)	(6.800)
Net foreign exchange transaction (losses)/gains	(1.103)	1.795
	(7.715)	(5.005)

## 11. Exceptional item

This amount refers to a penalty imposed by the Commission for the Protection of Competition (CPC). CPC following an ex – officio investigation against the Authority for likely infringement of article 6 of the relative Law, judged that the Authority committed infringement with regard to cross-subsidies, that resulted or had as a potential result the creation of unfair prices and preferential treatment of consumer categories as infringement of the institutional framework.

## 12. Tax

	2006 £000	2005 £000
Current tax:		
Corporation tax	5.777	4.301
Defence contribution	872	798
Deferred tax (Note 19)	2.812	3.603
Tax prior years:		
Corporation tax	40	885
Defence Contribution	10	170
	9.511	9.757



The tax on the Group's profit before tax differs from the theoretical amount that would arise using the applicable tax rates as follows:

	2006 £000	2005 £000
Profit before tax	32,118	33,209
Tax at the applicable corporation and defence tax rates	9,160	9,558
Tax effect of expenses not deductible for tax purposes	600	255
Tax effect of allowances and income not assessable to tax	(299)	(1,111)
Tax for prior years	50	1,055
<b>Tax charge</b>	<b>9,511</b>	<b>9,757</b>

The Authority is subject to corporation tax on taxable profits at the rate of 25%. Electriki Limited is subject to corporation tax on taxable profits at the rate of 10%. The Authority is also subject to special contribution for defence at the rate of 3% on taxable profits.

Under certain conditions interest may be subject to defence contribution at the rate of 10%. In such cases 50% of the same interest will be exempt from corporation tax thus having an effective tax rate burden of approximately 22,5%.

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## 13. Property Plant and Equipment

	Freehold land	Buildings	Plant and Machinery	Lines, cables & meters	Motor vehicles	Furniture, fittings & Office equipment	Tools & instruments	Hardware & software	Work in progress	Total
	C £000	C £000	C £000	C £000	C £000	C £000	C £000	C £000	C £000	C £000
At 1 January 2005										
Cost	11,215	76,445	360,102	305,375	7,143	2,493	3,096	7,070	117,143	890,082
Accumulated depreciation		(21,028)	(133,091)	(89,458)	(5,305)	(1,433)	(1,684)	(4,789)		(256,788)
Net book value	11,215	55,417	227,011	215,917	1,838	1,060	1,412	2,281	117,143	633,294
Year ended 31 December 2005										
Opening net book value	11,215	55,417	227,011	215,917	1,838	1,060	1,412	2,281	117,143	633,294
Additions	270	1,449	274	796	711	480	140	556	51,572	56,248
Disposals				(1)		(2)		(5)		(8)
Depreciation charge		(3,508)	(16,446)	(8,579)	(814)	(223)	(240)	(1,568)		(31,378)
Transfers		24,343	84,516	20,806				1,303	(130,968)	
Closing net book value	11,485	77,701	295,355	228,939	1,735	1,315	1,312	2,567	37,747	658,156
At 31 December 2005										
Cost	11,485	102,237	444,892	326,950	7,854	2,916	3,235	8,414	37,747	945,730
Accumulated depreciation		(24,536)	(149,537)	(98,011)	(6,119)	(1,601)	(1,923)	(5,847)		(287,574)
Net book value	11,485	77,701	295,355	228,939	1,735	1,315	1,312	2,567	37,747	658,156
Year ended 31 December 2006										
Opening net book value	11,485	77,701	295,355	228,939	1,735	1,315	1,312	2,567	37,747	658,156
Additions	110	2,285	255	875	1,064	307	124	443	65,306	70,769
Disposals	(2)	(4)	(3,283)	-	-	-	-	-	-	(3,289)
Depreciation charge	-	(3,880)	(16,420)	(9,101)	(748)	(238)	(245)	(1,410)	-	(32,042)
Transfers	-	9,981	4,285	20,807	-	-	-	51	(35,124)	-
Closing net book value	11,593	86,083	280,192	241,520	2,051	1,384	1,191	1,651	67,929	693,594
At 31 December 2006										
Cost	11,593	114,499	445,164	348,534	8,918	3,211	3,359	8,903	67,929	1,012,110
Accumulated depreciation	-	(28,416)	(164,972)	(107,014)	(6,867)	(1,827)	(2,168)	(7,252)	-	(318,516)
Net book value	11,593	86,083	280,192	241,520	2,051	1,384	1,191	1,651	67,929	693,594

### 13. Property, plant and equipment (continued)

#### Land and equipment located in Turkish occupied area.

The total fixed assets shown in the balance sheet include land and equipment located in the area occupied by the Turkish invasion force, whose cost approximates C£7,596,000. The depreciation provision for the year in respect of these assets was NIL (2005: NIL) bringing the accumulated provision at 31 December 2006 to C£7,281,000 (2005: C£7,281,000) and leaving a written down value of C£315,000 (2005: C£315,000) which represents the cost of land. The consequences of the Turkish occupation on the value of this land and equipment is unknown.

### 14. Trade and other receivables

	2006 £000	2005 £000
Trade receivables	44,284	43,078
Less: provision for impairment of receivables	(909)	(911)
Trade receivables - net	43,375	42,167
Capital contributions receivable by installments	1,762	1,856
Advance payments to contractors	4,752	5,445
Government of Cyprus	325	325
Other receivables net of provision for impairment	3,864	4,820
Prepayments	229	170
	54,307	54,783
Less: non-current portion of receivables and prepayments	(1,674)	(2,231)
	52,633	52,552
The maturity of non-current receivables and prepayments is as follows:		
Between 1 and 2 years	971	839
Between 2 and 5 years	703	1,274
Over 5 years	-	118
	1,674	2,231

The fair values of trade and other receivables approximate their values at the balance sheet date.

Concentrations of credit risk with respect to trade receivables are limited due to the Group's large number of customers who have a variety of end markets in which they sell. The Group's historical experience in collection of trade receivables falls within the recorded allowances. Due to these factors, management believes that no additional credit risk beyond amounts provided for collection losses is inherent in the Group's trade receivables.

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15. Inventories	2006 £000	2005 £000
Fuel	22.272	20.647
Spares and consumables	34.772	32.095
	<b>57.044</b>	52.742

The cost of inventories recognised as expense and included in "operating costs" amounted to £166.276.000 (2005: £125.705.000).

All stock items are stated at cost.

16. Short-term deposits	2006 £000	2005 £000
Short-term deposits	24.748	26.191

The effective interest rate on these short term bank deposits was 3,95% - 5,00% (2005: 3,75% - 6,00%) and these deposits had a maturity of 12 months (2005: 12 months).

## 17. Cash and cash equivalents

Cash and cash equivalents included in the consolidated cash flow statement represent the balance sheet amounts of cash at bank and in hand and are analysed as follows:

	2006 £000	2005 £000
Cash at bank and in hand	7.609	9.277
Short-term deposits	26.625	31.777
	<b>34.234</b>	41.054

The effective interest rate on short term bank deposits was 2,50% - 4,50% (2005: 3,75% - 5,60%) and these deposits had an average maturity of 83 days (2005: 72 days).

18. Borrowings	2006 £000	2005 £000
Current		
Bank loans	18.025	17.728
Suppliers' credits	2.578	2.558
	<b>20.603</b>	20.286
Non-current		
Bank loans	133.411	150.281
Suppliers' credits	9.042	11.525
	<b>142.453</b>	161.806
<b>Total borrowings</b>	<b>163.056</b>	182.092

The maturity of non-current borrowings is as follows:	2006 £000	2005 £000
Between 1 and 2 years	17.615	20.447
Between 2 and 5 years	62.022	54.754
Over 5 years	62.816	86.605
	<b>142.453</b>	161.806

The loans are payable in various currencies and with various interest rates stipulated in the loan agreements. Loans are guaranteed as to the repayment of principal and interest by the Government of Cyprus.

The weighted average effective interest rates at the balance sheet date were as follows:

	2006 %	2005 %
Bank loans	4,2	3,5

The carrying amounts of short-term borrowings approximate their fair value.

The carrying amounts of the Group's borrowings are denominated in the following currencies:

	2006 £000	2005 £000
Euro	157.430	175.702
Swiss Frank	3.867	4.470
Pound Sterling	1.759	1.920
	<b>163.056</b>	182.092

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## 19. Deferred tax liabilities

Deferred taxation is calculated in full on all temporary differences under the liability method using the applicable tax rates (Note 12). Deferred tax assets and liabilities are offset when there is a legally enforceable right to set off current tax assets against current tax liabilities and when the deferred taxes relate to the same fiscal authority. The movement of the deferred taxation account which arises from the difference between depreciation and wear and tear allowance is as follows:

	2006 £000	2005 £000
At 1 January	46.372	42.769
Charged to income statement (Note 12)		
- Current year	2.812	3.603
At 31 December	49.184	46.372

## 20. Deferred income

	2006 £000	2005 £000
Consumers' capital contributions:		
Balance at 1 January	187.649	174.261
Additions	23.127	20.449
Transferred to income statement	(7.658)	(7.061)
Balance at 31 December	203.118	187.649

## 21. Trade and other payables

	2006 £000	2005 £000
Fuel oil suppliers	9.463	5.175
Other Suppliers	17.164	13.542
Value Added Tax payable	8.243	3.528
Pay As You Earn payable	537	459
Retention on capital contracts	5.153	4.575
Consumers' deposits	4.719	4.409
Payments received in advance	86	324
Government of Cyprus	7.500	-
Interest payable	874	1.020
Accrued charges	7.732	5.457
Creditors for purchase of land and substations	4.193	3.256
Deferred Income	311	-
Other creditors	1.111	1.828
	<b>67.086</b>	<b>43.573</b>

The fair values of trade and other payables approximate their values at the balance sheet date.

## 22. Dividend

The House of Representatives on 28.7.2006 enacted an amendment to the Electricity Development Law which provides for the payment by the Authority to the Republic of Cyprus part of its surplus of the previous financial year and additional amount (up to 10%) from its accumulated surpluses. Based on the above Law and the Letter of the Minister of Finance dated 23.11.2006 the Authority deposited to the Government Consolidated Fund the amount of £7,5 million for the financial year 2005 and £7,5 million for the year 2006.

## 23. Subsidiary undertaking

	% Holding	Country of incorporation	Principal activities
Electriki Limited	100	Cyprus	Dormant

The accounts of Electriki Limited were consolidated in the Group accounts of Electricity Authority of Cyprus. The company remained dormant during 2006.

# Consolidated Financial Statements

## 24. Contingent liabilities

(a) The Tax Authorities have issued final assessments for the tax years 1995 - 2002. All the liabilities have been agreed and accounted for in these financial statements except for the ones relating to consumers' capital contributions. The Tax Authorities have questioned the accounting treatment applied by the Authority in relation to consumers' capital contributions. The Tax Authorities are of the opinion that the amounts received by the Authority as capital contributions should be taxed in the year of receipt. In such a case there will be additional current tax, interest and other charges of £36.444.000, for which there is a provision in the account of deferred tax for the amount of £18.378.000. The Authority, based on independent professional advice, believes that the current accounting treatment of capital contributions is correct. As a result no provision has been made in these financial statements.

(b) At 31 December 2006 the Group had contingent liabilities in respect of pending litigation amounting to C£942.177 (2005: £1.075.355). The Group believes that adequate defence exists against all claims and does not expect to suffer significant loss. Accordingly no provision has been made in these financial statements in respect of this matter.



## 25. Commitments

### Capital commitments

	2006 £000	2005 £000
Commitments in respect of contracts	138.769	49.591
Approved but not contracted	154.915	125.003
Approved expenditure outstanding	293.684	174.594

These will be financed mainly by long-term borrowings. Contractual commitments are mainly in foreign currencies which have been translated into Cyprus pounds at year-end exchange rates.

### Operating lease commitments.

The future minimum lease payments under non-cancelable operating leases are as follows:

	2006 £000	2005 £000
Not later than one year	193	227
Later than one year and not later than 5 years	494	52
Over 5 years	-	-
	687	279

## 26. Events after the balance sheet date

Based on the National Allocation Plan for greenhouse gas emission allowances for the years 2005 to 2007, the Authority, for the year 2006, has been allocated 3.866.217 CO<sub>2</sub> allowances (2005: 3.752.240). The verified yearly emission report for 2006, verifies that the Authority's emissions had been 3.653.380 tonnes leading to a surplus of 212.837 allowances (2005: surplus 280.396 allowances). Early 2007, from the total of 493.233 surplus allowances of 2005 and 2006, 490.000 allowances were sold in parts. The proceeds to the Authority from this sale which have been recognised in the 2007 income statement amounted to £303.820.

There were no other material post balance sheet events, which have a bearing on the understanding of the financial statements.

Independent Auditor's report pages 84 and 85.

# Appendices

## APPENDIX 1 CONSUMERS, TOTAL AND AVERAGE SALES AND AVERAGE PRICES

AS AT 31 DECEMBER	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
<b>NUMBER OF CONSUMERS</b>										
Domestic	266 435	272 591	278 521	284 486	291 476	298 277	307 206	318 640	332 338	348 394
Commercial	65 700	66 897	68 269	69 512	70 250	70 867	71 589	72 941	74 916	76 272
Industrial	9 504	9 566	9 578	9 662	9 712	9 829	10 107	10 595	10 956	11 198
Agricultural	5 590	6 100	6 702	7 414	8 294	9 084	9 779	10 400	10 931	11 597
Public lighting	4 363	4 711	5 095	5 421	5 720	6 099	6 428	6 771	7 138	7 581
<b>TOTALS</b>	<b>351 592</b>	<b>359 865</b>	<b>368 165</b>	<b>376 495</b>	<b>385 452</b>	<b>394 156</b>	<b>405 109</b>	<b>419 347</b>	<b>436 279</b>	<b>455 042</b>
<b>SALES TO CONSUMERS (Thousand kWh)</b>										
Domestic	834 487	904 348	951 682	1 054 942	1 041 826	1 170 386	1 321 677	1 324 774	1 431 792	1 500 511
Commercial	948 951	1 050 001	1 129 167	1 214 937	1 290 171	1 387 729	1 478 441	1 518 582	1 587 196	1 713 921
Industrial	487 760	544 161	567 039	593 824	647 632	708 232	722 806	722 850	726 059	723 038
Agricultural	75 837	85 075	88 708	94 888	92 567	101 515	113 761	117 478	120 062	128 701
Public lighting	43 970	45 439	48 818	52 640	52 557	54 670	59 386	58 146	67 793	68 851
<b>TOTAL</b>	<b>2 391 005</b>	<b>2 629 024</b>	<b>2 785 414</b>	<b>3 011 231</b>	<b>3 124 753</b>	<b>3 422 532</b>	<b>3 696 071</b>	<b>3 741 830</b>	<b>3 932 902</b>	<b>4 135 022</b>
<b>AVERAGE SALES PER END YEAR CONSUMER (kWh)</b>										
Domestic	3 132	3 318	3 417	3 708	3 574	3 924	4 302	4 158	4 308	4 307
Commercial	14 444	15 696	16 540	17 478	18 365	19 582	20 652	20 819	21 186	22 471
Industrial	51 322	56 885	59 202	61 460	66 684	72 055	71 515	68 226	66 270	64 568
Agricultural	13 567	13 947	13 236	12 798	11 161	11 175	11 633	11 296	10 984	11 098
Public lighting	10 078	9 645	9 582	9 710	9 188	8 964	9 239	8 589	9 497	9 082
<b>AVERAGE REVENUE PER UNIT BILLED (cents)</b>										
Domestic	4,499	4,054	4,090	5,718	5,634	5,429	5,758	5,673	6,443	7,311
Commercial	5,421	4,854	5,130	6,719	6,328	6,225	6,440	6,080	6,876	7,614
Industrial	4,281	3,744	4,002	5,391	5,097	4,979	5,224	4,839	5,615	6,503
Agricultural	4,053	3,539	3,895	5,407	5,168	5,135	5,263	5,055	5,915	6,692
Public lighting	4,169	3,710	3,802	5,278	5,139	4,975	5,124	4,938	5,442	6,427
<b>ALL CONSUMERS</b>	<b>4,800</b>	<b>4,287</b>	<b>4,482</b>	<b>6,040</b>	<b>5,787</b>	<b>5,643</b>	<b>5,901</b>	<b>5,646</b>	<b>6,431</b>	<b>7,262</b>

## APPENDIX 2

## GENERATION, TRANSMISSION &amp; DISTRIBUTION EQUIPMENT

Description	Unit	In Commission 31.12.2005	Commissioned in 2006	Taken out of Commission in 2006	In Commission 31.12.2006
<b>GENERATION PLANT:</b>					
Dhekelia "B" Power Station:					
Steam Turbines	No.	6	-	-	6
Capacity	MW	360	-	-	360
Moni Power Station:					
Steam Turbines	No.	6	-	-	6
Capacity	MW	180	-	-	180
Gas Turbines	No.	4	-	-	4
Capacity	MW	150	-	-	150
Vasilikos Power Station:					
Gas Turbines	No.	1	-	-	1
Capacity	MW	38	-	-	38
Steam Turbines	No.	2	-	-	2
Capacity	MW	260	-	-	260
<b>TRANSMISSION EQUIPMENT:</b>					
220kV Transmission Lines operated at 132kV					
Route Length	km	1,40	-	-	1,40
Circuit Length	km	2,80	-	-	2,80
132kV Transmission Lines					
Route Length	km	358,38	49,77	-	408,15
Circuit Length	km	711,74	49,77	-	761,51
132kV Underground Cables					
Route Length	km	61,54	3,13	1,14	63,53
Circuit Length	km	87,62	6,26	2,28	91,60
132kV U/G Cables-Operated at 66kV					
Route Length	km	3,94	4,39	-	8,33
Circuit Length	km	3,94	4,39	-	8,33
66kV Underground Cables					
Route Length	km	1,68	-	-	1,68
Circuit Length	km	1,68	-	-	1,68
132kV Transmission Lines operated at 66kV					
Route Length	km	151,97	28,57	11,73	168,81
Circuit Length	km	262,06	28,57	23,28	267,35
66kV Transmission Lines					
Route Length	km	324,54	0,89	33,65	291,78
Circuit Length	km	324,54	0,89	33,65	291,78

Description	Unit	In Commission 31.12.2005	Commissioned In 2006	Taken out of Commission in 2006	In Commission 31.12.2006
132/66kV Interbus Transformers	No.	12	-	-	12
	MVA	603	-	-	603
132/11kV Step Down Transformers	No.	58	9	-	67
	MVA	1 824	295	-	2 119
132/6,6kV Step Down Transformers	No.	2	-	-	2
	MVA	58	-	-	58
132/3,3kV Step Down Transformers	No.	2	-	-	2
	MVA	20	-	-	20
66/11kV Step Down Transformers	No.	69	1	2	68
	MVA	663,5	15	10	668,5
66/3,3kV Step Down Transformers	No.	2	-	-	2
	MVA	5	-	-	5
15,75/132kV Step Up Transformers	No.	2	-	-	2
	MVA	330	-	-	330
11/132kV Step Up Transformers	No.	13	-	-	13
	MVA	741	-	-	741
11/66kV Step Up Transformers	No.	4	-	-	4
	MVA	150	-	-	150
Substations	No.	47	3	-	50
Substations: Energisation of "Larnaka Commercial Centre", "Afrodite" and "Lefkosia District Office" Substations (No De-energisation)					
<b>DISTRIBUTION EQUIPMENT:</b>					
MV Overhead Lines	km	4 936,50	151,61	29,04	5 059,07
MV Underground Cables	km	2 345,24	180,10	25,53	2 499,81
LV Overhead Lines	km	8 161,02	227,65	26,62	8 362,05
LV Underground Cables	km	2 176,06	384,54	0,92	2 559,68
22000-11000/433/250V P.M. Transformers	No.	7 847	430	87	8 190
	kVA	700 399	69 609	29 881	740 127
22000-11000/433V G.M. Transformers	No.	3 922	289	3	4 208
	kVA	2 070 290	234 300	51 085	2 253 505

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