

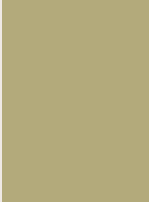






individual
actions,
individual
talents,
individual
identities.

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 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...

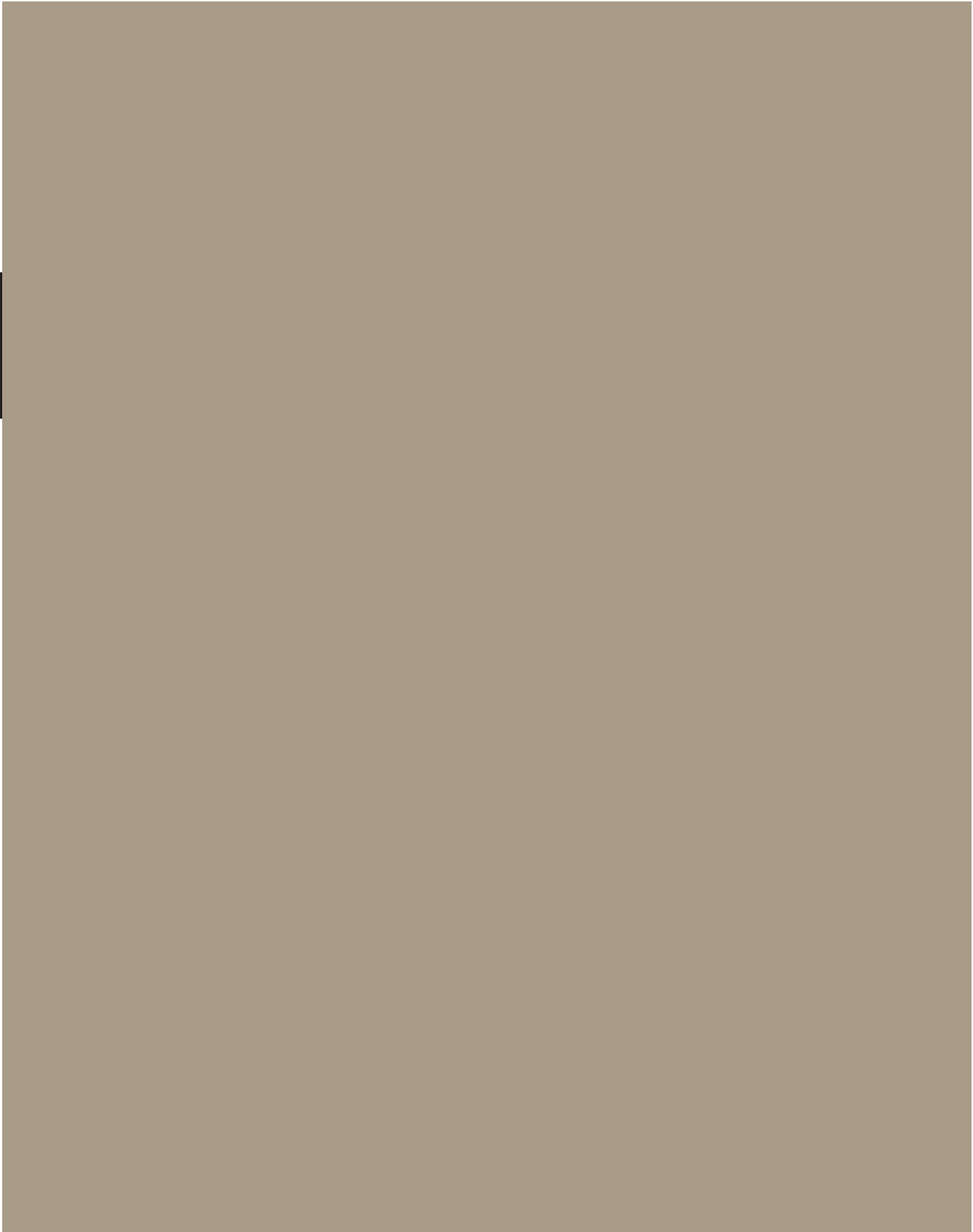
To provide our customers with the highest quality of safe and reliable services in the energy sector and in other activities at competitive prices, respecting society, the environment and our people and contributing to the development of our country.





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The Year in Brief

| | | 2010 | 2009 | % Increase (Decrease) |
|---|-------------|-----------|-----------|-----------------------------|
| GENERATION | | | | |
| Total units generated | million kWh | 5 204,9 | 5 133,3 | 1,4 |
| Maximum output capacity of power stations | MW | 1 438 | 1 388 | 3,6 |
| Maximum demand met | MW | 1 148 | 1 098 | 4,6 |
| Thermal efficiency of generation | % | 36,1 | 33,7 | 7,1 |
| SALES OF ELECTRICITY | | | | |
| Sales | million kWh | 4 782,0 | 4 655,7 | 2,7 |
| Consumption in the turkish occupied area | million kWh | 7,8 | 8,4 | (7,1) |
| Average charge per kWh sold | cents | 16,232 | 13,473 | 20,5 |
| Consumers at 31 December | thousand | 535,1 | 520,0 | 2,9 |
| FINANCE | | | | |
| Total income | € thousand | 810.159 | 651.131 | 24,4 |
| Operating costs | € thousand | 698.062 | 595.095 | 17,3 |
| Operating profit | € thousand | 112.097 | 56.036 | 100,0 |
| Finance costs | € thousand | 10.243 | 10.757 | (4,8) |
| Tax | € thousand | 10.440 | (58.305) | 117,9 |
| Provision as a result of Tax Council Decision | € thousand | 18.239 | - | 100,0 |
| Net profit for the year | € thousand | 73.175 | 103.584 | (29,4) |
| Capital expenditure | € thousand | 281.976 | 269.212 | 4,7 |
| Average net assets employed | € thousand | 1.683.627 | 1.550.758 | 8,6 |
| Return on average net assets employed | % | 6,7 | 3,6 | 86,1 |
| EMPLOYEES | | | | |
| Permanent employees in service at 31 December | | 2 465 | 2 466 | (0,1) |
| Sales per employee | million kWh | 1,94 | 1,89 | 2,6 |
| Consumers per employee | | 217 | 211 | 2,8 |

Board of Directors and Management

THE AUTHORITY

CHAIRMAN

H. Thrassou Civil Engineer, MSc,
ex Minister of Communications & Works

VICE CHAIRMAN

G. Pistentis Businessman - Computers

MEMBERS

Filitsa Ioannou Economist of National Kapodistriako University,
Athens, Bank Employee

P. Chadjicharalambous Mathematics University of Leipzig, Germany

Y. Valanides Managing Director, Laiko Group, Mechanical
Engineering of National Metsovio University
(until 10/2/2010)

Y. Ioannou Business Management - Economics - Greece

C. Enotiades Businessman - Economist

S. Shialaros Greek Literature Teacher

A. Tzitzos Economist

A. Oratis Mechanical Engineer - Teacher
(since 23/2/2010)



H. Thrassou
Chairman



G. Pistentis
Vice Chairman



F. Ioannou
Board Member



Y. Ioannou
Board Member



P. Hadjicharalambous
Board Member



C. Enotiades
Board Member



S. Shialaros
Board Member



A. Tzitzos
Board Member



A. Oratis
Board Member



S. Stylianou
General Manager

LEGAL ADVISERS

Ioannides Demetriou, Lefkosia

AUDITORS

Auditor General of the Republic
PricewaterhouseCoopers, Lefkosia

EXECUTIVE

GENERAL MANAGER

S. Stylianou
BSc (Eng), PhD, MBA, MIMechE, CEng
(since 15/6/2010)

Vacant
(until 14/6/2010)

EXECUTIVE MANAGER FINANCE

H. Hadjiyerou
FCA, MBA

EXECUTIVE MANAGER CUSTOMER SERVICE

G. Petoussis
Dip. Eng. CEng, MIET

EXECUTIVE MANAGER NETWORKS

A. Avraamides
BSc (Eng), CEng, MIET

EXECUTIVE MANAGER GENERATION

A. Patsalis
BSc (Eng), MIOSH
(since 1/4/2010)

Vacant
(until 31/3/2010)

EXECUTIVE MANAGER COMMON SERVICES

A. Valanides
BSc Computer Science
Member of Cyprus Computer Society
(since 1/5/2010)

Vacant
(1/2/2010 until 30/4/2010)

C. Eliopoulos
Dipl Eng, Dipl Eng Mgt, CEng, MIMechE
(until 31/1/2010)

EXECUTIVE MANAGER CORPORATE DEVELOPMENT

N. Papadopoulos
BSc (Eng), CEng, MIET, CDipAF

Chairman's Message



Once again, the Annual Report of the Electricity Authority of Cyprus is here to put the past twelve months under scrutiny and review. 2010 can be considered a successful year for the EAC. Its contribution and its work have helped to reinforce its image as a reliable Public Benefit Organisation, one which has made a long-term contribution to the development of the economy and to the country's progress during its almost 60 years of existence.

In 2010, despite the fact that it was a difficult and somewhat peculiar year, the EAC continued its far from easy task of providing a dependable, uninterrupted supply of electricity throughout Cyprus and we are satisfied with what we have achieved.

Our efforts will continue with the unwavering aim of maintaining a healthy, robust Organisation which is dedicated to providing willing service to all its customers.

Financial situation

Our Organisation's financial situation is reflected in the statistics contained in this Annual Report. Fuel costs for 2010 represented 63% of the EAC's total expenses. This percentage reveals the long-term dependence of the EAC and the country as a whole on oil and the need to adopt alternative energy sources for electricity generation.

The average return on assets rose from 3,6% in 2009 to 6,7% in 2010.

The EAC Board and Management are aware of the difficulties that the Organisation is going to face in the future. The results of the past year reflect, on the one hand, the long-term result of the hard teamwork carried out by our human resources and, on the other, the need to increase productivity and to reduce the EAC's operating costs. Our every decision and action is taken in this framework and we have a duty to ensure that the EAC retains its leading role in the future. I am sure that our personnel's efficiency and productivity will increase even further so that they are the Organisation's most important asset in dealing with the demands imposed by the new competitive environment in the electricity market.

This significant observation of our human resources' all-encompassing efforts and total faith in the need to adapt to this new environment is something that makes us optimistic about our Organisation's new vision, a vision that sees us as leaders in the energy and services sectors.



Bringing natural gas to Cyprus

During the year under review, work continued on procedures relating to the advent of natural gas in Cyprus. The arrival of natural gas is of tremendous significance since it will determine important developments in the state's energy policy with considerable financial consequences. For the EAC, the advent of natural gas means losing our dependence on oil and its by-products for electricity generation, with positive repercussions on generating costs and environmental protection.

Continuous negotiations and close cooperation with the Ministry of Commerce, Industry & Tourism, the Cyprus Energy Regulatory Authority (CERA) and the Natural Gas Public Company Ltd (DEFA) are key elements in achieving our objective of ending our dependence on oil and its by-products as quickly as possible. At this point, it is up to the State to take its decisions immediately since the delays that have already occurred regarding this matter have already cost the citizens of Cyprus a great deal and any further delays will only make the situation worse.

Development of the Generation System

Regarding development works on the Generation System, in 2010 work continued at Vasilikos Power Station on the 220 MW combined cycle Unit No. 5. Delivery is due on 1 July 2011 for open cycle operation and on 1 January 2012 for a commercial combined cycle operation.

On 4 May 2010, the EAC Board of Directors authorized the Generation Business Unit to start negotiations (with no prior commitment) with the Unit No. 5 contractor for the awarding of a contract for Unit No. 6, as provided for in the relevant Tender for Unit No. 5, and its delivery for commercial operation in 2014.

During 2010 and specifically on 1 June 2010 the second array of 50 MW Internal Combustion Units (ICU 2) came into operation at Dhekelia Power Station in accordance with a CERA decision to raise the long-term backup system margin from 11% to 20%. The unit operates on mazut with the possibility of switching to natural gas at a later stage.

Chairman's Message

Development of the Transmission and Distribution Systems

During the year under review, a number of projects were undertaken on the Transmission and Distribution Systems.

The transmission network is the backbone of the EAC's system, connecting the power stations with the load centres. Development works respond to the ever-increasing demand for electricity and, at the same time, increase transmission system reliability. During the year under review, the installed capacity of the transmission substations increased by 29MVA to 3 158,5MVA.

In 2010 and specifically in July, the Oreites 132kV open-type substation in the Pafos district was energized. It is a connecting substation linking the 82MW Oreites Wind Park to the Transmission System.

Furthermore, during 2010, work continued on the Lakatamia, Amathus, Dhekelia, Psevdas, Alexigros, Stroumbi, Athienou, Trimiklini, Xeropotamos and New Pafos substations. The total cost of the above projects was €45,9 million. Also, the Vasilikos South 132kV substation was partially energized on 17 December 2010 in order to monitor Generation Unit No. 5.

With the aim of expanding and developing the distribution system, some 7 431 studies were completed in 2010 compared with 7 554 in 2009. The cost of construction work for the expansion and development of the distribution system in 2010 amounted to €65,1 million compared to €64,2 in 2009.

Renewable Energy Sources

As the main producer and supplier of electricity in Cyprus, the EAC could not but contribute actively to the overall effort 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.

In this regard the EAC, in collaboration with the Lemesos Bishopric, is studying the possibility of establishing a solar power plant station on land owned by the Bishopric in the Akrotiri area of Lemesos. For Cyprus, this technology is the most promising for electricity generation using RES. Moreover, the EAC is examining a proposal by Bouygues Batiment International (Cyprus) for the joint submission by the EAC and Hermes Airports of a proposal to the Ministry of Communications & Works for the establishment of a 4 500kW photovoltaic park in the vehicle parking area at Larnaka International Airport.

Proposals are also being studied for partnerships for electricity generation from biogas and wind power.

Customer Service

In May 2010, the first service of the Contact Centre - the Meter Reading service - came into operation. This service enables customers whose meters have not been read to call and give the reading themselves. It has worked with extremely satisfactory results.

Moreover in August 2010, the Billing service of the Contact Centre was activated. The service provides customers with automated information about the amount of their bill and other billing information and clarifications on issues such as methods of settlement, connections/reconnections/disconnections, details of domestic tariffs and more.

Corporate Social Responsibility

Health, environmental protection, sport, visual arts, dance, music, the promotion of cultural monuments and support for families enclaved in the occupied part of Cyprus are the main pillars of the Electricity Authority's Corporate Social Responsibility (CSR) programme. In recent years, the EAC has helped hundreds of Associations and Organisations involved in the above sectors through this programme.

The "Light up a Life" event jointly organised every December by the Cyprus Anti-Cancer Society and the Electricity Authority of Cyprus has become a firmly established institution, providing financial support and helping the Society to achieve its aims. For the 10th consecutive year, Christmas events were held in all the island's towns, during which the EAC/CACS Christmas tree lights were switched on. In addition to these established events, a special day for children was held at the EAC's Head Offices, offering activities, items for sale and an entertainment programme. All the proceeds from these events, amounting to around €12.000, were donated to the Cyprus Anti-Cancer Society.

For the second time, the EAC hosted the World Press Photo exhibition at its Head Offices. The 2010 exhibition was held in collaboration with the Embassy of the Netherlands and the Cyprus Union of Journalists.

Thanks

To end this brief review of the past year, I would like to express particular thanks to all the services, individuals and bodies with whom the EAC and I personally cooperated in 2010.

I wish to thank the Minister of Commerce, Industry & Tourism, Antonis Paschalides, for his personal interest, his efforts and collaboration in promoting the work of the EAC, and all those working in his ministry. I also thank the Government, the House of Representatives, the President and Members of CERA, the Director of the Transmission System Operator, the Auditor-General, all the Government departments and Local Authorities with whom the EAC collaborated, and also the representatives of the media for their promotion of the EAC's work.

Finally, I would like to thank all my colleagues on the EAC Board, the General Manager Dr. Stelios Stylianou, the members of the Organisation's Management Team, the Unions and every member of our personnel for the superb cooperation that we had in 2010.

Haris Thrassou
Chairman

General Manager's Message



Fully aware of the rapid changes that are taking place in the electricity sector, of our important objectives and of the challenges that we shall be obliged to face in the future, the Electricity Authority of Cyprus achieved the difficult task of providing an uninterrupted supply of electricity in 2010, while completing several of its Development Plan projects. The Plan will enable the EAC to continue providing its services across Cyprus for many years to come, thereby benefiting the national economy and, at the same time, strengthening the Organisation's public image.

The EAC continued to flourish in 2010 and this is reflected in the progress achieved in its Development Plan projects as well as in the Organisation's financial results. Our endeavours throughout the year were unceasing and they touched on many parameters. Increased productivity, improved and upgraded services and a 12% reduction in our operating costs have filled us with optimism for the future. In the efforts we made in 2010 to provide the best possible service to customers and to carry out our mission to provide electricity in a responsible and safe manner, everyone made his/her contribution, irrespective of their position and rank within the Organisation. The role and work of all members of our personnel were more than crucial to our progress and I would like to take this opportunity to express my personal thanks to each and every EAC employee.

In summer 2010 we were able to provide an uninterrupted power supply under extremely difficult circumstances and this was a major success for the Organisation. Despite the fact that the demand for electricity is increasing significantly every year, we succeeded - thanks to our personnel's coordinated actions - in experiencing very few power cuts. In the isolated cases where the power supply was interrupted due to faults in the distribution system, the response of the EAC's technical crews was immediate, indicating once again that correct planning, of the kind that has taken place over the years in relation to the generation, transmission and distribution systems, always pays off in the end.

During the year under review, one of the main issues occupying the EAC was that of the arrival of natural gas (LNG) in Cyprus and its soonest possible deployment by the new Generation Units at Vasilikos Power Station. I am convinced that the close cooperation that exists between the EAC and other involved parties such as the Ministry of Commerce, Industry & Tourism, the Cyprus Energy Regulatory Authority (CERA) and the Natural Gas Public Company Ltd (DEFA) will bear fruit and thereby give the country the option of generating electricity with a more environmentally-friendly fuel and reaping all the benefits that this entails.

The effort that the EAC needs to make, in the light of the challenges arising in the new competitive environment that is being created in the electricity sector, requires hard work, greater productivity and respect for the customer. Our unwavering aim and duty towards future generations is to create a modern, strong and financially robust Organisation which is in a position to provide its own customers and consumers in general with an excellent, streamlined service. We are fully aware of the difficulties that lie ahead but I am sure that the zeal and obliging nature of our personnel will provide us with the wherewithal to continue the work that the EAC has carried out for almost 60 years.

Based on the load forecast by CERA in 2008, it was evident that in summer 2010 the long-term backup system margin would reach 11%. This percentage was below the 20% margin determined by CERA, rendering it imperative to reinforce the installed capacity in Cyprus. Taking the above position into account, the EAC decided to install a second array of internal combustion engines (ICU2) with a total capacity of 50MW at Dhekelia power station. These came into operation on 1 June 2010. The unit will operate on diesel fuel with the possibility of switching at a later stage to natural gas.

Work on Unit No. 5 intensified in 2010. Progress so far has been satisfactory. The Unit No. 5 work schedule confirms that the main deadlines in the contract will be met, i.e. open cycle operation on 1 July 2011 and combined cycle operation on 1 January 2012.

In the generation sector, on 4 May 2010, the EAC Board of Directors authorized the Generation Business Unit to start negotiations (with no prior commitment) with the Unit No. 5 contractor for the awarding of a contract for Unit No. 6, as provided for in the relevant Tender for Unit No. 5, and its delivery for commercial operation in 2014.

In July 2010 the Oreites 132kV open-type Substation in the Pafos district was energized. It is a connecting Substation linking the 82MW Oreites Wind Park to the Transmission System. A small section (0,18km) of a 132kV double circuit overhead power line was constructed to connect the Substation to the Polemidia and Anatoliko Substations.

Work continued in 2010 on a number of transmission Substations, including the Vasilikos South, Lakatamia, Amathus, Dhekelia, Psevdas, Alexigros, Stroumbi, Athienou, Trimiklini, Xeropotamos and New Pafos Substations.

On the issue of Renewable Energy Sources (RES) the EAC has already reached agreement with the Lemesos Bishopric to study the possibility of establishing a solar power plant station on land owned by the Bishopric in the Akrotiri area of Lemesos. Moreover, the EAC has signed a memorandum of cooperation with Bouygues Batiment International (Cyprus) and Hermes Airports for the establishment of a 4 500kW photovoltaic park in the vehicle parking area at Larnaka International Airport.

All the relevant procedures relating to the rebalancing of tariffs took place in 2010. Following CERA's public consultation, a draft of which was published on 26 November 2010 in issue 4653 of the Official Gazette of the Republic, CERA approved by decision 539/2011 the rebalancing of the EAC's tariffs which involves increases and reductions in various customer categories. The purpose of these is the gradual removal of cross-subsidies among consumer categories. They do not provide any financial benefit to the EAC.

General Manager's Message

In the realm of customer service, particular mention must be made of the Meter Reading and Billing services of the Customer Contact Centre which came into operation in 2010. The Meter Reading service enables customers whose meters have not been read to call and give the reading themselves while the Billing service provides automated information about the amount of their bill, as well as other billing issues, connections and tariffs.

Work continued at an intensified pace on the New Area Offices in Pafos in 2010. The project, which includes a closed type 132kV transmission Substation, is located at the roundabout at the entrance to Pafos and will thus become a point of reference for the town. The transmission Substation has been completed and energized while the building remains under construction and is due to be completed at the end of 2011.

The EAC continued its social contribution throughout 2010. Health, environmental protection, sport, visual arts, dance, music, the promotion of cultural monuments and support for families enclaved in the occupied part of Cyprus are the main pillars of the Electricity Authority's Corporate Social Responsibility (CSR) programme. In recent years, the EAC has helped hundreds of Associations and Organisations involved in the above sectors through this programme. The "Light up a Life" event, jointly organised every December by the Cyprus Anti-Cancer Society and the Electricity Authority of Cyprus, has become a firmly-established institution, providing financial support and helping the Society to achieve its aims. In 2010 the EAC co-organised with the Cyprus Anti-Cancer Society its first-ever special day for children at its Head Offices.

A major cultural event in 2010 was the World Press Photo exhibition, hosted by the EAC for the second time in Cyprus in collaboration with the Embassy of the Netherlands and the Cyprus Union of Journalists.

At this point I would like to express my particular thanks to the Chairman of the EAC Board, Mr Haris Thrassou, and to the other Board Members for their collaboration and to assure them that this collaboration will continue with the sole aim of bringing progress to our Organisation and looking after the welfare of our personnel.

To end this brief message, I would like to express my warm thanks to all my associates and in particular to the Executive Managers of the Business and Management Units for their superb collaboration, as well as to all the Staff Unions for the high level of responsibility that they have shown during the ongoing negotiations aimed at achieving business process improvement at the EAC.



I am certain that, by continuously upgrading the service it provides to the public but mainly thanks to the experience it has gained over all these many years of service to Cyprus, our Organisation will continue to be the leader in the new electricity market environment that has already begun to emerge.

Dr. Stelios Stylianou
General Manager

business and management units



Generation Business Unit

GENERATION OF ELECTRIC POWER

During the year 2010, 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 648 MW (3 X 130 MW Steam Units, 220 MW CCGT Unit and 38 MW Gas Turbine Unit) generated in 2010, 3 162 958 MWh, which corresponds to 60,77% of the total electricity generated from the Authority's Power Stations. During the same period the Station exported, 2 999 616 MWh, which corresponds to 60,78% of the total electricity exported from the Authority's Power Stations.

The thermal coefficient of efficiency of the Steam Units, for units generated, reached 38,46%, for the CCGT Unit 47,95% whereas the corresponding thermal coefficient of efficiency for the Gas Turbine reached 22,73%.

Moreover, the thermal coefficient of efficiency of the Steam Units, for units exported, reached 36,04%, for the CCGT Unit 46,89%, whereas the corresponding thermal coefficient of efficiency for the Gas Turbine reached 19,64%.

Maintenance

During the period January-December 2010, Units No. 2 and 3 were taken out of service for a scheduled annual maintenance of the Steam Turbines and of the Steam Boilers.

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

All scheduled maintenance for the combustion systems of Gas Turbines No. 41 and 42, according to their number of operating hours, were carried out.

An external Contractor carried out the annual inspection and maintenance of the single mooring and all the heavy fuel oil unloading pipes were replaced. A new certificate was issued.

Works for the upgrading of the Human-System Interface Hardware and Software of the control system of Units No. 1, 2 and 3 were completed and the system has been put in service.

Generation Business Unit

DHEKELIA POWER STATION

Dhekelia Power Station, with an installed capacity of 460 MW (6 x 60 MW Steam Units and 100 MW for Internal Combustion Engines (ICE 1 & ICE 2) Plants), generated in 2010, 1 782 692 MWh which corresponds to 34,25% of the total electricity generated from the Authority's Power Stations. During the same period, Dhekelia Power Station exported, 1 695 224 MWh which corresponds to 34,35% of the total electricity exported from the Authority's Power Stations.

The thermal coefficient of efficiency of the Steam Units, for units generated, reached 30,27% whereas the corresponding thermal coefficient of efficiency for the Internal Combustion Plants reached 41,75%.

The thermal coefficient of efficiency of the Steam Units, for units exported, reached 28,64% whereas the corresponding thermal coefficient of efficiency for the Internal Combustion Plants reached 40,70%.

Maintenance

During the period January-December 2010 the annual maintenance of Units No. 2, 5 and 6 was completed. During the same period the annual maintenance of Unit No. 3, which began in 2009, was also completed whereas the annual maintenance of Unit No. 4 began and is expected to be completed by February 2011.

The annual maintenance of the Units included all the mechanical and electrical equipment, transformers, auxiliary equipment and repairs of various defects. Moreover in Units No. 5 and 6 the generator and exciter air cooler pipes were replaced with new ones.

For Units No. 5 and 6, life assessment studies for the remaining life of No.3 superheaters, carried out in 2009, showed that both superheaters need a replacement. The replacement of the two superheaters was completed successfully during 2010.

For the fire protection system, a replacement of various water pipes with a total length of 200m was carried out.

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

The performance tests for the ICE 2 Plant were completed successfully and the Engines were put on commercial use on the 1st of June 2010 as per Contract agreement.

A severe defect on the turbocharger of engine 1 of the ICE1 led to its replacement. The manufacturers are currently examining a change on the design of the flue gas filters of the turbocharger. It is expected that this change will be completed during 2011.



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 2010, 259 247 MWh which corresponds to 4,98% of the total electricity generated from the EAC's Power Stations. During the same period the Station exported 240 675 MWh, which corresponds to 4,87% of the total electricity exported from the Authority's Power Stations.

The thermal coefficient of efficiency of the Steam Units for units generated reached 24,56% whereas the thermal coefficient of efficiency for the Gas Turbines was 22,56%.

Moreover, the thermal coefficient of efficiency of the Steam Units for units exported reached 22,77% whereas the corresponding thermal coefficient of efficiency for the Gas Turbines reached 21,61%.

Maintenance

During the period January-December 2010, the annual maintenance of Steam Boilers No. 1, 5 and 6 was completed whereas the annual overhaul of Steam Boiler No. 4 began and continued through 2011. The yearly maintenance of the Boilers included visual checks and cleaning of all parts, various repairs inside the boiler, 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.

For Boiler No. 1 the elements of the hot and cold side of the air pre-heaters were replaced with new ones.

For Boilers No. 1, 4 and 5 the elements of the hot and cold side of the air pre-heaters were replaced with new ones.

During the same period the annual overhaul of Steam Turbines No. 1 and 2 was completed whereas the annual overhaul of Steam Turbines No. 5 and 6 began and continued through 2011.

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

The Station moorings were inspected and maintained by an external Contractor whereas the tanker mooring buoys chains were all replaced.

Generation Business Unit

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_x), sulphur dioxide (SO₂), carbon dioxide (CO) and ozone (O₃). 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

- The Contract for the updating of the previous Development Program of the Operational Generation Unit was awarded to Lahmeyer International GmbH of Germany. For the preparation of the study the EAC took part with its own team of officers from various Operational Units. The study was completed at the beginning of 2010.
- Officers of the Operational Generation Unit 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 Generation Unit prepared the verification report with calculations of the carbon dioxide CO₂ emissions for the period January-December 2009 based on 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.

PURCHASES

By the end of 2010, a total of 267 purchase orders were fulfilled out of which 208 were completed by the Operational Generation Unit (percentage 78%). Since the 1st of May 2010, after modification of the Technical Instruction YA/1/2009 all purchases from selective tenderers up to the amount of €100.000, are fulfilled by the Station personnel.

VASILIKOS POWER STATION DEVELOPMENT WORKS

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 220 MW each (Units No. 5 and 6).
- For this Project 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 liberalized electricity market. The report was submitted in November 2006 and thereafter, the Business Unit Generation, after considering the best applicable scenario as well as other parameters analyzed 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 was regarded as a definite Unit and should have been delivered for commercial operation in 2011 whereas Unit. No. 6 was regarded as an optional Unit and in case this option was materialized then the Unit should have been delivered for commercial operation either in 2011 (together with Unit No. 5), or in 2012 or in 2013.

In May 2009 the Consultants Lahmeyer International GmbH of Germany were asked to update the previous development program of 2006. Upon completion of the new program, the Board of Directors decided on the 4th of May 2010 to authorize the Generation Operational Unit to begin, without any commitment, the process of negotiations with the Contractor of Unit No. 5 for the award of a new Contract for Unit No. 6 with the prospect of delivering the Unit for commercial operation in 2014.

Generation Business Unit

Unit No. 5

- The EAC Board of Directors decided on the 30th of June 2009 to award the Contract to the joint venture J&P Avax / Hitachi Power Europe for a total price of €225.081.500.

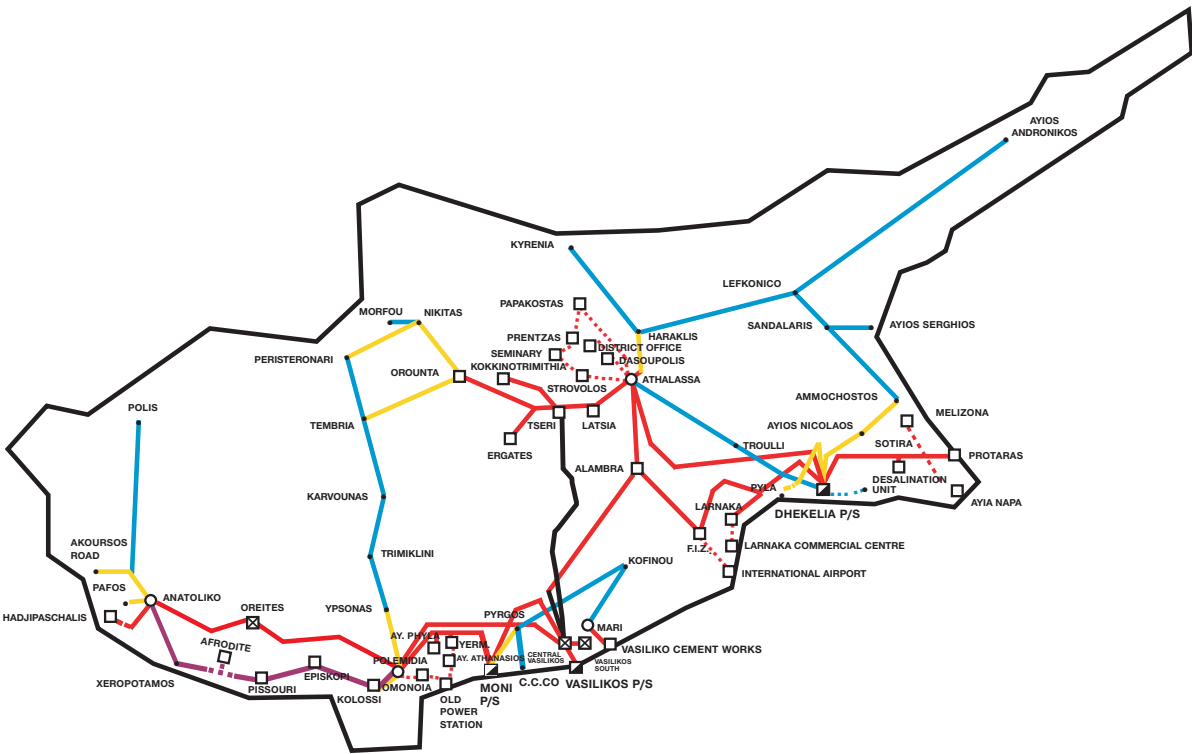
A separate Contract was awarded for the maintenance of the Gas Turbines for a period of six (6) years from the date of commercial delivery of the Turbines. The Contract was awarded to General Electric USA which is the manufacturer of the Gas Turbines. The Contract price is €29.961.000. The Contract covers the planned maintenance of the Gas Turbines as well as the provision of spare parts. At the same time a strategic stock of spare parts will be kept on site in order to avoid delays in case of unexpected defects.

- In the meantime the submission of technical documents and designs from the Contractor concerning the detailed design of the Plant continued. The documents are examined by the consultants and the EAC project team and various comments are submitted to the Contractor. The design of the Project has been almost completed.
- The works at the site are currently carried out intensively and the equipment as well as the Contractor's personnel are increased according to the progress of the Project. The last update of the works program was done in August 2010. According to this program the Unit is expected to operate in an open cycle commercial mode on the 1st of July 2011 and in a combined cycle commercial mode on the 1st of January 2012.

Unit No. 6

- EAC and the Consultants Lahmeyer International GmbH of Germany have signed an agreement for consultancy services concerning Unit. No. 6 and the respective date of commencement of works was the 27th of September 2010.

- ☑ Generation Stations
- Substations 132/66/11kV
- Substations 132/11kV
- ⊠ Substations 132kV
- Substations 66/11kV
- 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
- Overhead Lines 220kV operated at 132kV



Generation Business Unit

DHEKELIA POWER STATION DEVELOPMENT WORKS

Internal Combustion Engines (ICE 2) with a total capacity of 50 MW

- The electricity demand forecast for 2008 of the Cyprus Energy Regulatory Authority (CERA), indicated that the capacity reserve margin for the summer of 2010 would be of the order of 11%. This amount was below the limit of 20% and CERA's position was that it considered the value of 11% as not satisfactory and that the installed capacity in Cyprus should have been increased. The Electricity Authority of Cyprus, taking into account the above position decided to proceed with the installation of another three Internal Combustion Engines (ICE 2) with a total capacity of 50 MW which were put in operation on the 1st of June 2010. The Plant burns heavy fuel oil with the possibility of converting it in such a way so as to burn liquefied natural gas in the future.

SYSTEM OPERATION

Electricity supplied

In 2010 the total number of units generated by the EAC's three Power Stations was 5 204 897 000 kWh, compared with 5 133 330 000 kWh in 2009, representing an increase of about 1,39% over the previous year.

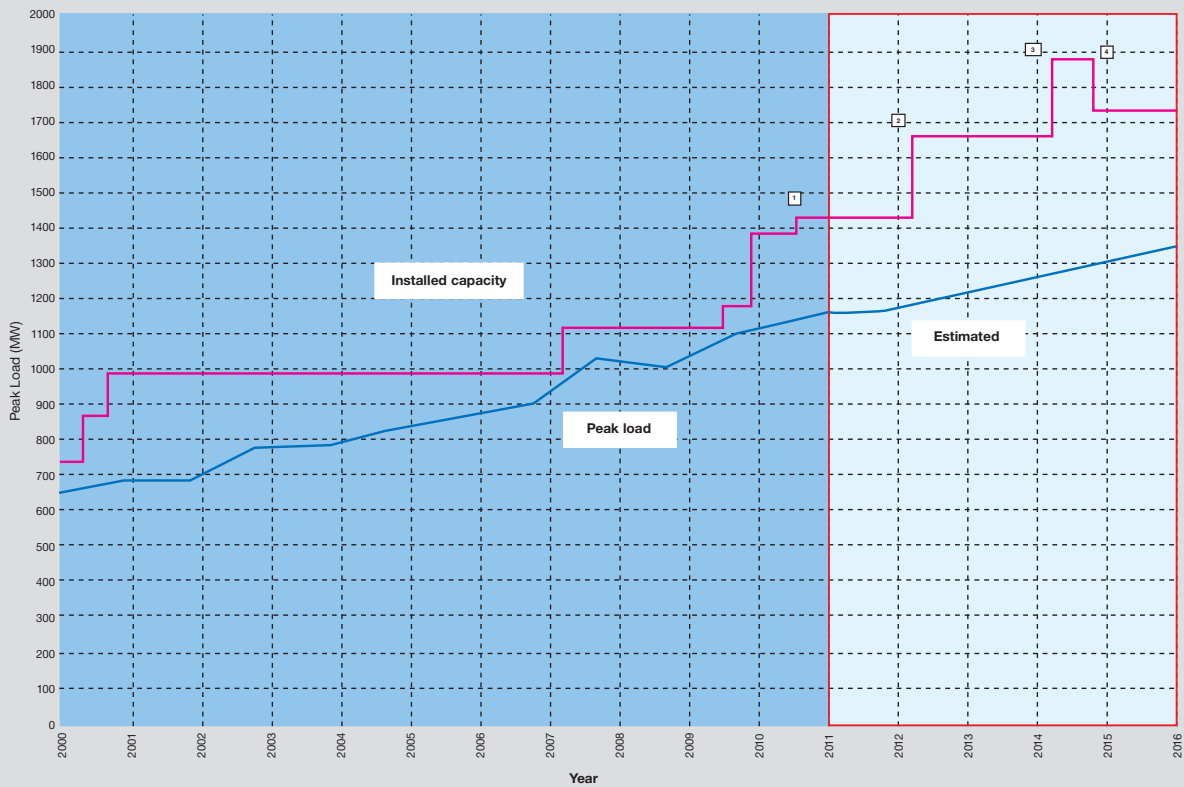
Figure 2 (page 32) shows the total number of units generated annually from 2003 to 2010. The predicted generation for the period 2011- 2018 is also shown.

Generation, Transmission and Distribution Losses

Electricity consumption at the power stations amounted to about 5,2% of the total generation, compared with 5,5% the previous year.

Figure 3 (page 32) shows electricity generation and sales distribution of sales to the various consumer categories.

Figure 1



DEVELOPMENT PLAN OF EAC

- (1) COMMISSIONING OF INTERNAL COMBUSTION ENGINES (ICE 2) PLANT 50 MW (June 2010)
- (2) COMMISSIONING 1 x 220 MW (COMBINED CYCLE UNIT No. 5, VASILIKOS) - 2012 (beginning)
- (3) COMMISSIONING 1 x 220 MW (COMBINED CYCLE UNIT) - 2014 (beginning)
- (4) DE-COMMISSIONING 6 x 30MW = 180MW (STEAM UNITS, MONI) - 2014 (end)

It is estimated that the steam units at Moni P/S will be taken out of service at the end of 2014.

Generation Business Unit

Fuel Consumption

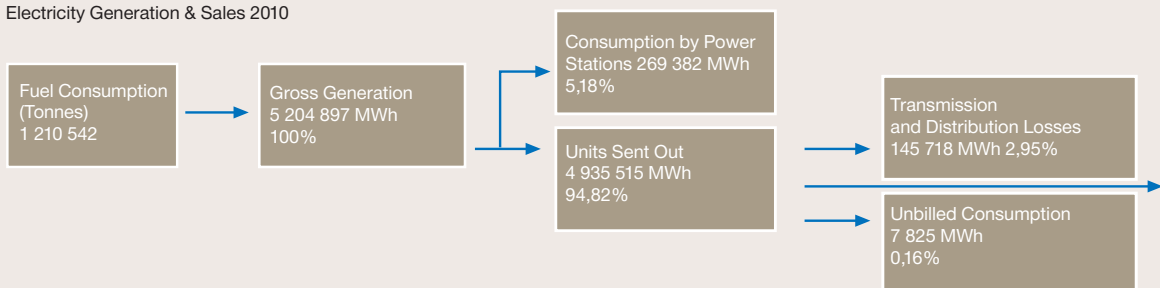
The amount of heavy fuel oil consumed by the power stations totalled 1 053 038 metric tonnes, compared to 1 163 081 metric tonnes the previous year, representing a decrease of 9,46%.

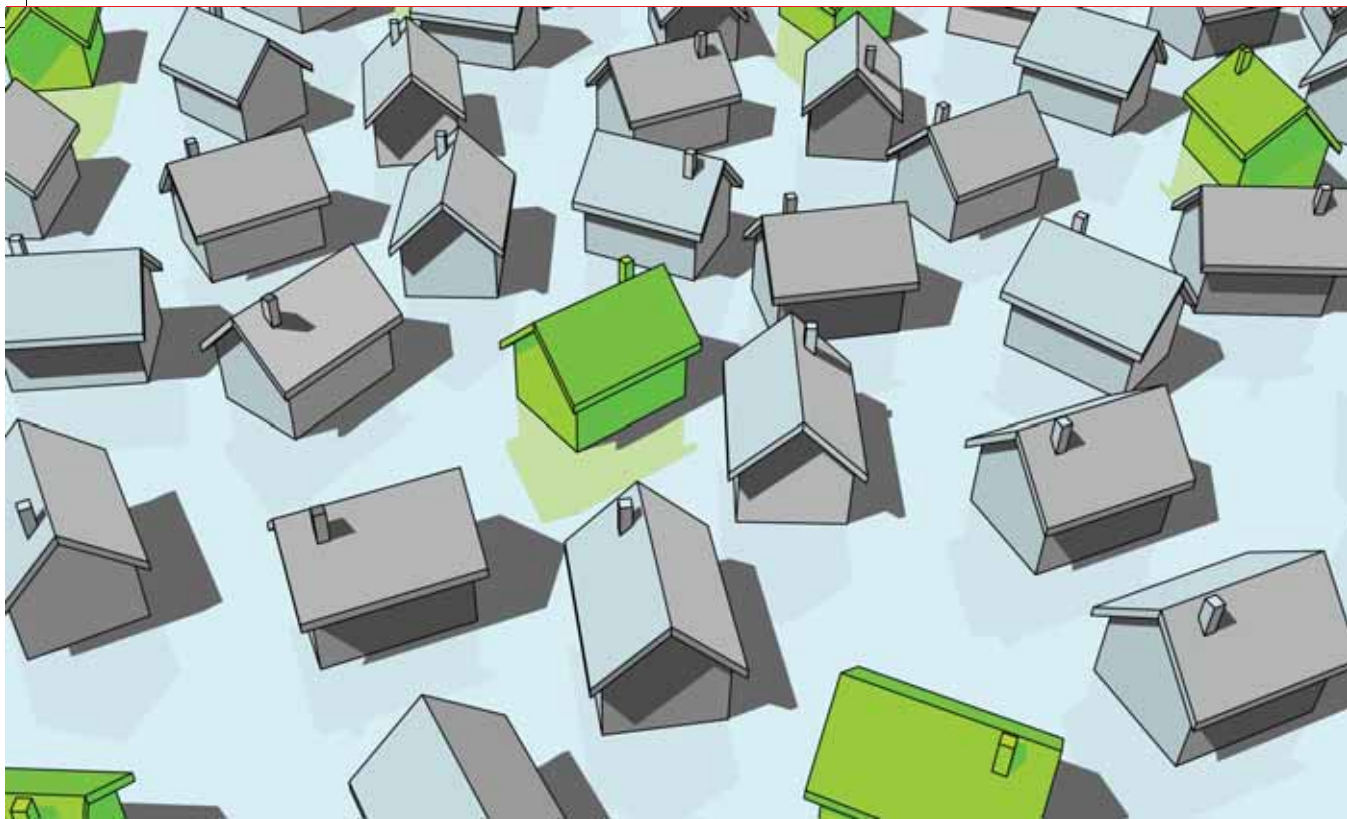
Figure 2

TOTAL GENERATION (Million kWh)



Figure 3
Electricity Generation & Sales 2010



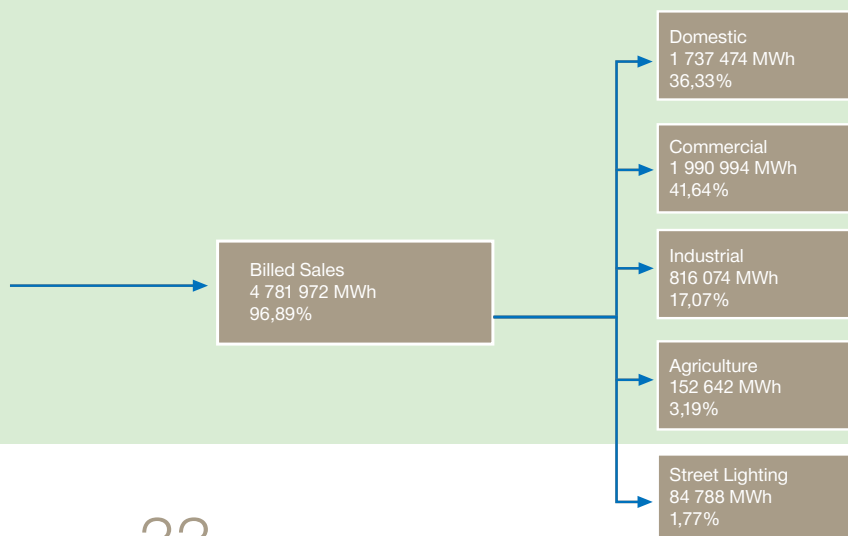


The total quantity of diesel fuel consumed by the power stations was 157 504 metric tonnes, compared to 91 918 metric tonnes consumed during 2009.

The average calorific value of the fuel oil used was 42 906 kJ/kg compared to 42 908 kJ/kg in 2009.

Plant Efficiency

Average generating system efficiency in 2010, based on the total units generated by the EAC's three power stations, was 36,08% compared with 34,32% in 2009. The heat rate per kWh generated was 9 979 kJ/kWh compared to 10 490 kJ/kWh in 2009. 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.



Networks Business Unit

TRANSMISSION NETWORK

INTRODUCTION

The transmission network is the backbone of the EAC's system, connecting the power stations with the load centres.

Development works respond to the ever-increasing demand for electricity and, at the same time, increase transmission system reliability. During the year under review, the installed capacity of the transmission substations increased by 29MVA, from 3 129,5MVA to 3 158,5MVA.

CONSTRUCTION PROJECTS

New substations

Completed substations

Oreites 132kV substation

The Oreites 132kV open-type substation in the Pafos district was energized in July 2010. It is a connecting substation linking the 82MW Oreites Wind Park to the Transmission System. A small section (0,18km) of a 132kV double circuit overhead power line was constructed to connect the substation to the Polemidia and Anatoliko substations.

New substations under development

Vasilikos South 132kV substation

The Vasilikos South 132kV substation (Vasilikos South No. 1 Circuit) was partially energized on 17 December 2010 in order to monitor Generation Unit No. 5. Moreover, in the Vasilikos Central substation, the 132kV panel was extended by one gate.

Lakatamia 132/22-11kV substation

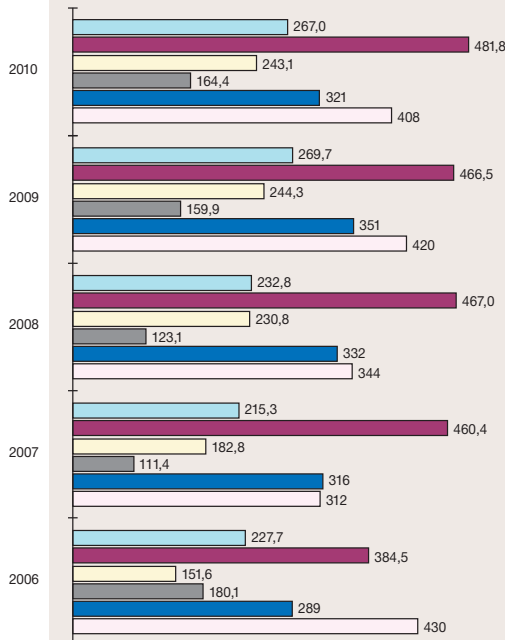
Electrical installation work on the Lakatamia 132/22-11kV substation has been completed. Pre-testing and energization of the substation is due in the middle of February 2011.

Amathus 132/22-11kV substation

Installation of the 6,1km 132kV Moni-Amathus underground circuit will be completed at the beginning of February 2011. It forms part of the broader Lemesos overhead power line undergrounding project with which the Amathus 132/22-11kV GIS 80MVA substation will be energized. The electrical installation work has already been finished.

Figure 4

NEW DISTRIBUTION PROJECTS EXECUTED
IN THE LAST FIVE YEARS



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

Dhekelia 132/11kV substation

Electrical installation work is at an advanced stage and energization of the upgraded Dhekelia 132/11kV substation is scheduled for the beginning of May 2011.

Psevdas 132/11kV substation

Work on the Psevdas 132/11kV substation has begun and the substation is due to be completed and energized at the end of May 2011.

Alexigros 132/11kV substation

Work on the Alexigros substation is ongoing and is due to be completed in June 2011.

Stroumbi 132/22-11kV substation

Construction work on the Stroumbi 132/22-11kV 32MVA substation has begun. Delivery of the civil engineering work is expected in October 2011. Energization of the substation, which will be equipped with metal enclosed switchgear for outdoor installation, is expected to take place in March 2012.

Athienou 132/22-11kV substation

Work is progressing on the new Athienou 132/22-11kV 32MVA substation containing conventional outdoor installation circuit breaker equipment. Construction and equipment tenders have been awarded and the project is scheduled for completion by summer 2012.

Trimiklini 132/66/22-11kV substation

Electrical equipment has been delivered to the substation and it is currently being installed by EAC personnel. Completion and energization of the substation are scheduled for July 2011.

Xeropotamos 132/22-11kV substation

Outdoor equipment, control and protection panels have been installed in the new Xeropotamos 132/22-11kV substation and installation of the remaining equipment continues. Commissioning and pre-testing will follow while energization of the substation is due at the end of April 2011.

New Pafos 132/22-11kV substation

Electrical installation work on the substation is at an advanced stage and is due to be completed in the middle of February 2011.

In June 2010, the new Anatoliko-Pafos 66kV circuits 1 and 2, constructed at 132kV and operating at 66kV, were energized via a new overhead power line and an underground cable stretching approximately 7,14km (overhead line 3,19km, cable 3,95km). Following energization, the existing 66kV overhead power lines were dismantled.

In order to connect the New Pafos 132/22-11kV substation to the transmission system, minor modifications will be made to both the overhead and underground sections of the present 66kV Anatoliko-Pafos circuits 1 and 2. This work is also due to be completed by mid-February 2011.

Networks Business Unit

Upgrades to existing substations

Ongoing upgrades

Kolossi 132/22-11kV substation

The upgraded Kolossi 132/22-11kV substation is due to come into full operation in March 2011 following installation of a second 31,5/40MVA transformer circuit (Circuit No. 1).

Pissouri 132/22-11kV substation

Electrical installation work (phase 2) on the Pissouri 132/22-11kV substation is due to be completed by the end of 2011. On 16 December 2010 the Polemidia-Episkopi-Pissouri overhead power line circuit operated at 132kV. Work was also finished on the T1, 10/16MVA transformer circuit but the transformer was not energized.

Free Industrial Zone 132/11kV substation

The T2, 16MVA 132/11kV transformer in the Free Industrial Zone 132/11kV substation was replaced by a 31/40MVA transformer, thereby increasing the substation's installed capacity to 56MVA.

Tembria 66/11kV substation

Work to replace the T1, 5MVA transformer in the Tembria 66/11kV substation with a 10MVA transformer was completed.

Overhead Power Lines

New Constructions

Ypsonas-Trimiklini 132kV overhead power line

Construction work has begun on the new Ypsonas-Trimiklini 132kV double circuit overhead power line, approximately 17km in length as far as the new location of the Trimiklini substation.

The new line will replace the old 66kV single circuit line between the 132/11kV Ypsonas substation and the old 66/11kV Trimiklini substation. The project is due for completion in May 2011.

132kV interconnection for the Psevdas substation

Work is under way on this project which will interconnect the new Psevdas substation with the Free Industrial Zone and Alambra substations. It is due to be completed in May 2011.

Upgrades/Relocations of existing overhead power lines

Stroumbi-Polis 132kV overhead power line

The new 132kV double circuit power line, some 22km in length, will start at connection tower 43 on the existing Anatoliko-Stroumbi-Akoursos Road line and terminate at the Polis substation. Once the project is completed, the present 66kV single circuit line will be dismantled.

Powering of the 132kV Vasilikos Cement Factory substation

On September 20, 2010 and October 29, 2010 respectively, work was completed on the Mari-Vasilikos 132kV underground circuits 1 & 2 which power the Vasilikos Cement Factory substation. A short (0,12km) double circuit underground cable was installed.

TRANSMISSION SYSTEM DEVELOPMENT STUDIES

In 2010 the Studies and Pre-planning Section prepared the following studies:

Lefkosia Area

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

- Revised study on connecting the Dasoupolis and District Office transmission substations via an 800mm² xlpe underground transmission cable instead of oil-insulated cables.

The following studies are planned:

- Powering of the new 3x40 MVA 132/22-11KV closed-type GIS Engomi transmission substation.
- Installation of power transformers and a medium voltage automatic switchboard in the Tseri transmission substation.
- Undergrounding of the Athalassa-Latsia line.
- Establishment of the new Archangelos transmission substation.
- Karvounas-Tembria 132kV double circuit overhead power line.

Lemesos Area

The following studies were completed and approved for Lemesos and the surrounding area:

- Lemesos Marina 11kV primary substation.

The following studies are planned:

- Ypsonas Industrial Area nodal transmission substation.
- Upgrading of the Moni transmission substation from 66kV open-type to 132kV GIS closed-type.
- New Vasilikos-Moni overhead power line (rubeus twin).
- Development of the transmission system in the greater Lemesos area.

Ammochostos-Larnaka Area

The following studies were completed and approved for Ammochostos-Larnaka and the surrounding area:

- Powering of the desalination plant at Vasilikos power station.
- Establishment of the new Alexigros substation and connection to the transmission system.
- Temporary connection of the Vasilikos Cement Factory with the Authority's transmission network.
- Installation of transformers in the Vasilikos South substation.
- Upgrading of the Kophinou transmission substation from 66kV to 132kV.
- Establishment of the new Psevdas transmission substation and its connection to the 20MW Agia Anna Wind Park belonging to Rokas (Aeoliki) Cyprus Ltd.

Networks Business Unit

The following studies are planned:

- Interconnection of the Pyla and Commercial Centre transmission substations via a double circuit underground transmission cable.
- Establishment of the new Klavdia transmission substation.
- Establishment of the new Vasilopotamos transmission substation.
- Connecting the new Vasilopotamos transmission substation to the Vasilikos Power Station.

Pafos Area

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

- Establishment of the new Oreites transmission substation.
- Replacement of the 10MVA transformer at the Akoursos transmission substation.
- Development of a new photovoltaic park in the Saouris area near the village of Agios Ioannis.

The following studies are planned:

- Connecting the new Ikaria transmission substation to the New Pafos and Hadjipaschalis substations.
- Upgrading of the 66kV Akoursos substation to a GIS 132kV open-type substation.

Other studies:

The following studies have also been completed:

- Action plans dealing with safety and security issues, emergencies and environmental consequences for closed-type, open-type and compact/open-type transmission substations.
- Transmission System Project Costing Manual.
- Transmission System Reliability in summer 2010.
- Upgrading of the Ripple Control system 2010-2020.

The following studies are planned:

- Introduction of Capacitors on the Transmission System.
- Continuous Modelling of the Transmission System and Equipment and System Analysis.
- Transmission substation load prediction for 2010-2030.
- Transmission System Reliability in summer 2011.
- Replacement of fire detection systems in transmission substations.



All Transmission System studies are carried out in collaboration with the Transmission System Operator (TSO) which is directly responsible for the operation and development of the Transmission System.

DISTRIBUTION NETWORK

INTRODUCTION

The Distribution Network is the link between the EAC's transmission system and its customers.

DEVELOPMENT PROJECTS

Technical Specifications

The Networks Business Unit is responsible for the drawing up of technical specifications for all Distribution Network equipment and materials. These technical specifications are under constant revision due to changes to international standards, improvements in technology and/or alterations in the use of materials. There are, in total, 256 approved technical specifications concerning 1 872 materials. In 2010, 13 new technical specifications were drawn up while 20 were revised.

Code of Practice

The correct and uniform application of distribution network construction work requires the existence of a detailed Code of Construction Practice. Revision of the code for overhead power lines has been completed and revisions take place at regular intervals to cover new applications and improved construction practices aimed at raising productivity and increasing personnel and public safety.

Network construction standards

In order to carry out studies that include distribution networks, Distribution Network Specifications have been drawn up for all types of construction. Distribution Network Standards are maintained and reviewed by the Networks Business Unit to ensure the proper use of materials and the correct costing of studies.

Networks Business Unit

Evaluation of Tenders - Materials Supply and Service Provision Contract Management

The role of the Networks Business Unit in the evaluation of tenders and the subsequent management of contracts for the supply of materials and the provision of services is of crucial importance.

Safety issues and the uninterrupted supply of electricity to customers require the implementation of strict quality criteria in the choice and manufacture of equipment and materials.

In 2010 the Unit's distribution section participated in the evaluation of 29 international tenders. At the same time it was responsible for the technical management of 52 materials supply and service provision contracts.

Smart Meters and Smart Grids

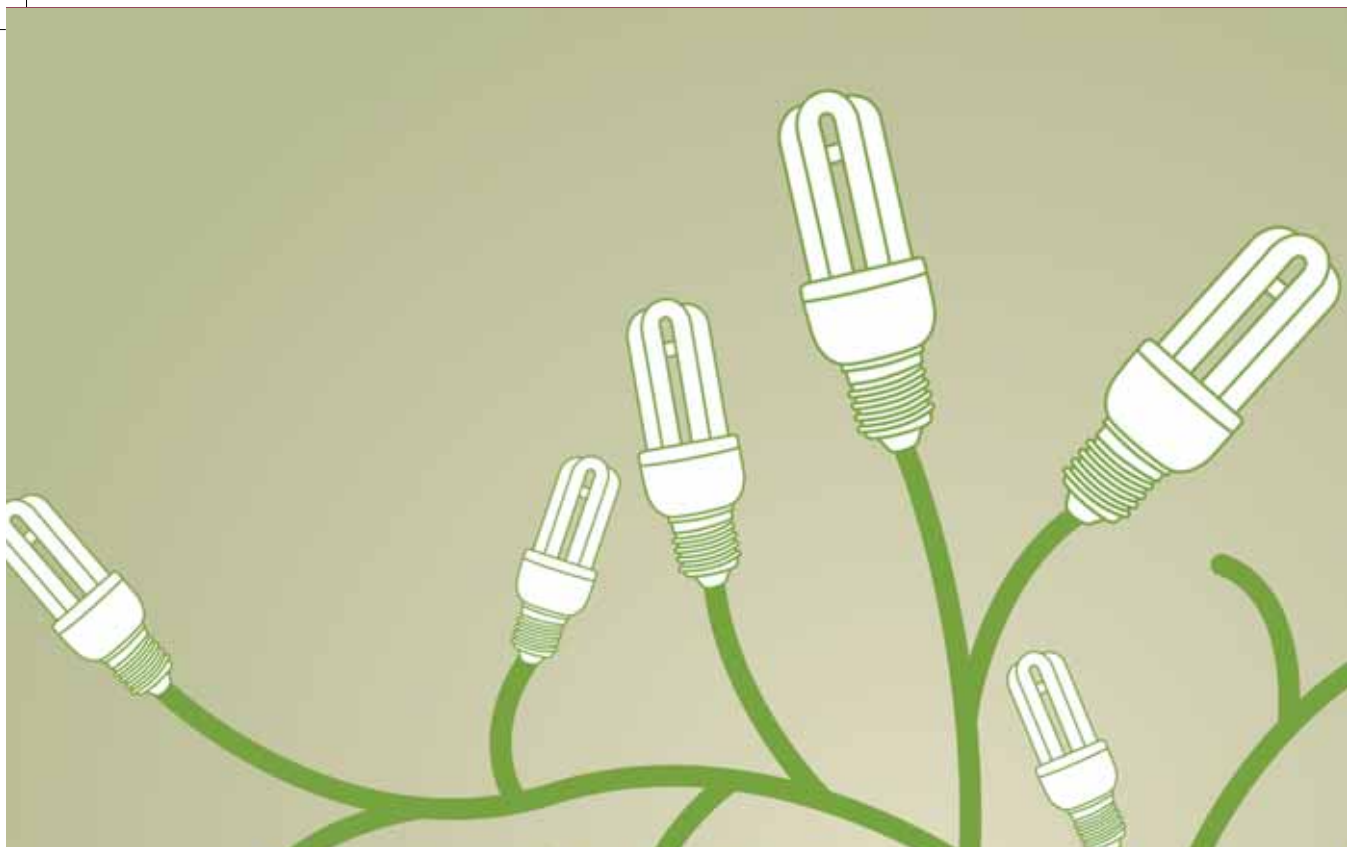
In recent years there have been significant developments in power electronics, electronic metering systems and telecommunications systems and these have resulted in the implementation of distributed management, interactive movement of electricity and data as well as smart metering systems which have enabled electricity companies to offer their customers a broader and higher-quality range of services.

Following ratification of the EU Directive 2009/72/EK, member states are obliged to install smart meters on 80% of customer premises by 2020.

The EAC has taken the strategic decision to implement, initially a trial basis, an Automatic Meter Management (AMM) system which supports the following functionality:

- Automatic gathering, processing, transmission, management and use of the data gathered by the meters.
- Automatic meter management - connection/disconnection.
- Interactive communication with meters.
- Availability at the right time of targeted information on consumption to all involved parties and their systems, including consumers.
- Support of services that can improve energy saving, both regarding consumption by customers and that lost within the system (generation, transmission, distribution).
- Capability for expansion/upgrading so as to support Smart Grid operations.

All of the above lead to increased productivity and a drastic reduction in operating costs.



In 2010 the Authority appointed the Dutch consultancy firm KEMA to draw up the technical specifications for a tender or the procurement of the above system. Work is already at an advanced stage and the tender is due to be published in 2011.

Aerial Bundled Conductors

The Networks Business Unit has decided to introduce aerial bundled conductors throughout the low voltage overhead network and covered conductors across the medium voltage overhead network in wooded areas and others where deemed necessary.

The relevant specifications have been drawn up and a tender will be published for the introduction of the above technologies to the Authority's Transmission Network.

At the initial stage the tender will include the replacement by an external contractor of part of the existing low and medium voltage networks through the use of twisted and covered conductors respectively, the supply of materials (conductors and spares), personnel training, drawing up of a code of practice or the use of twisted and covered conductors, the supply of the required network construction tools and submission of deflection and stress calculations.

The Authority will then carry out such work on the low and medium voltage overhead networks using its own personnel.

DISTRIBUTION SYSTEM DEVELOPMENT STUDIES

In order to expand and develop the distribution system, 7 431 studies were completed by the Area study sections in 2010 compared with 7 554 in 2009. The cost of construction work for the expansion and development of the distribution system in 2010 amounted to €65,1 million, compared with €64,2 million in 2009.

Moreover, the following studies have also been completed and approved by the Networks Business Unit:

- Starting up high voltage desalination generators.
- Procurement of buildings for overground 11 000V transmission stations.
- Electromagnetic Fields at Transmission Substations.

Networks Business Unit

TELECOMMUNICATIONS AND ELECTRONIC SYSTEMS

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

Optical Fibre Telecommunications System

The Authority's Optical Fibre Telecommunications System uses SDH/PDH digital multiplexers to interconnect transmission stations, power stations and the Authority's offices with the objective of catering for the requirements of Telecontrol and Energy Management systems, Transmission Line Teleprotection, Telephony, Load Management (Ripple Control), IT and other services.

In 2010 the system's digital multiplexers were upgraded at four points and upgrading work began on the Network Management Unit (NMS). It is expected to be completed in March 2011.

Furthermore, in 2010 new optical fibre telecommunications equipment was installed at seven points to cover the needs of the Protective Security and Information systems.

Optical Fibre Network

The Authority has an extensive overhead and underground optical fibre network along the length of the Transmission Network. In 2010 the optical fibre network was extended to connect five additional transmission substations and the new Lemesos stores.

Also, in 2010 additional optical fibre circuits were made available to the EAC's two strategic partners in telecommunications, PrimeTel and Cablenet.

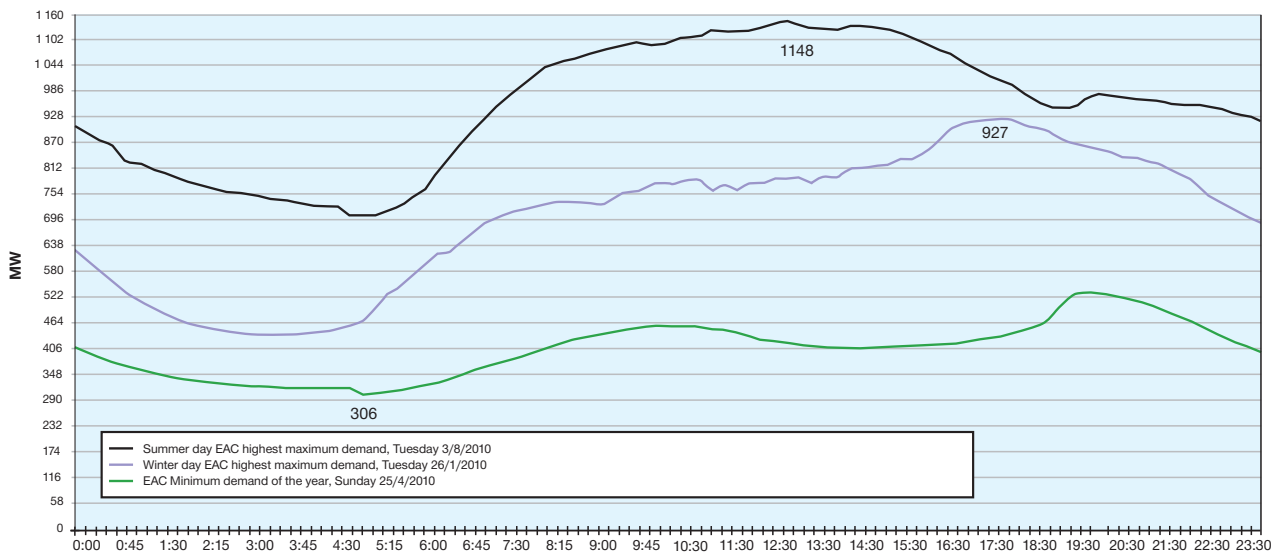
Supervisory Control and Data Acquisition and Energy Management System (SCADA/EMS)

The computerised real time Supervisory Control and Data Acquisition and Energy Management System (SCADA/EMS) was first implemented in 1997. Via the Energy Control Centre (ECC) and the Area Control Centres, it controls the Generation, Transmission and Primary Distribution Network systems. A Backup Energy Control Centre has also been in operation since 2006.

SCADA/EMS implementation was extended in 2010 to control three additional transmission substations while control equipment was upgraded in another five substations. Moreover, 45 SCADA/EMS faults were repaired together with 16 faults in auxiliary equipment (battery power adaptors/chargers, telephone systems, etc.)

All the above were carried out in collaboration with the TSO.

Figure 5



Note: As shown in T.S.O. 2010 Annual Report

Load Management System (Ripple Control)

This system for controlled load management on customer premises (solar heaters, centralised climate control systems, water pumps, street lighting, etc.) uses the Transmission and Distribution Networks as a telecommunications tool.

In 2010, upgrading work began on the equipment installed in the Anatoliko substation. It is expected to be completed in mid-2011. Additionally, repairs were carried out to 14 faults in the Load Management System.

The Authority intends to expand and upgrade the Load Management System during 2011-2013.

Protective Security

Systems were installed to monitor (a) unauthorised access and (b) the protection via cameras of EAC stores, offices and customer service centres. It was decided to install security systems in all new substations and in a large number of important existing substations.

The Section provided technical support for the Authority's installed security systems as well as support for those responsible for protective security at power stations.

Regular contacts continued with the Crime Prevention Office at Police Headquarters for coordination of efforts to deal with the growing instances of theft from the Authority's premises. Work also began on ensuring the Authority's compliance with the Law governing the protection of Personal Data linked to security systems.

Networks Business Unit

Access Monitoring Systems

Expansion of the monitored access system at the Head Offices was completed. We have now begun studying the possibility of installing or upgrading access monitoring systems at all the Authority's Area Offices.

Telephone Network and Systems

Expansion of the telephone system in the Lefkosia-Kyrenia-Morfou area office was completed. The telephone system in the Lemesos Stores was transferred from the old to the new buildings. All telephone systems were upgraded while the study of and work on the expansion of the internal networking of the Authority's telephone systems continued. This includes the replacement of leased circuits used for internal telephony which will be covered by the Authority's existing optical fibre network. These leased circuits are used for connections between Area Offices, Stores, Customer Service Centres and Power Stations.

Two links were made between the existing telephone network and systems with the Authority's Customer Contact Centre.

Customer Contact Centre (CCC)

The Meter Reading and Billing services of the CCC were activated. Planning and monitoring work continued with the aim of activating the New Applications service too. Technical assistance on telecommunications issues is still provided to the CCC by the Electronics and Telecommunications section.

Wireless Communication

In 2010 the first Free Space Optical (FSO) link operated between the EAC's Head Offices and the Lefkosia Stores.

Tender 214/2008 for the purchase, installation and maintenance of radio telephones for the Authority's islandwide needs is now being implemented. All the mobile radio telephones have been programmed and delivered and work continues on installing the phone bases in vehicles and substations. Also, a relay station was installed at Dhekelia power station.

CIVIL AND BUILDING WORKS SECTION

INTRODUCTION

The Civil and Building Works Section deals with the EAC's construction projects.



Power Stations

Construction work on Phase IV of Vasilikos Power Station continued while Tender documents are being drawn up for Unit No. 6 at Vasilikos.

In 2010 detailed planning began on civil engineering projects for the Desalination Plant at Vasilikos and work intensified during summer 2010.

Also in 2010, construction work continued and was completed on the installation of Internal Combustion Engine No. 2 at Dhekelia Power Station.

During the third quarter of the year a geotechnical survey was carried out on the land-based area in which the LNG Terminal is due to be built at Vasilikos.

Transmission/Distribution systems projects

Work was completed on the 132kV Dhekelia, Xeropotamos, Trimiklini, Pissouri, Episkopi substations while it continues on the 132kV Lakatamia and New Pafos substations and has begun on the 132kV Stroumbi and Athienou substations. The 132kV Psevdas, Agia Anna and Alexigros substations for the Wind Park are being constructed under the supervision of the Civil and Building Works Section.

Stores and Technical Staff Offices

Construction work on the Lemesos Stores was completed in July 2010.

Area Offices

In March 2009 construction work began on the new Pafos Area Offices which are expected to be ready at the beginning of 2012. Cost-cutting modifications have been made to the architectural plans for the new Ammochostos-Larnaka Area Offices and the relevant tender is due to be published in 2011 when work should also begin.

Customer Service Business Unit

CONSUMERS

At the end of 2010, the total number of consumers in the government-controlled areas of Cyprus stood at 535 050, a net increase of 15 020 or 2,9%.

Table 1 (page 51) shows the number of consumers by category as well as the percentage increase over the previous year.

BILLED SALES OF ELECTRICITY

Billed sales of electricity in the government-controlled areas increased to 4 782,0 GWh, compared to 4 655,8 GWh the previous year, representing an increase of 2,7%.

- Table 2 (page 51) shows the allocation of billed sales of electricity by consumer category, as well as the percentage increase over the previous year.
- Sales for the years 2008, 2009 και 2010 are shown in Fig. 6 (page 49). Sales and revenue for 2010 are shown by consumer category and as a percentage of the EAC's total sales and revenue in Fig. 7 (page 57).

OFF-PEAK SUPPLIES

Off-peak sales (tariff Code 55) totalled 80 698 MWh representing a reduction of 18 429 MWh or 18,6% compared to 2009. This reduction is attributed mainly to the mild weather. The average per kWh charge rose from 8,67 cents in 2009 to 10,42 cents in 2010, while the number of consumers increased by 586.

- Consumers opting for the off-peak tariff totalled 21 430, of whom 21 051 (98,2%) were domestic consumers with an average consumption of 3 735 kWh compared to 4 725 kWh in 2009.

TARIFFS

- The EAC Tariffs Group continued to work with its external consultants on the introduction of new marginal cost tariffs in the context of Cyprus' liberalised electricity market. In collaboration with its consultants, the Group prepared an initial proposal for the introduction of new tariffs which was submitted to the Cyprus Energy Regulatory Authority (CERA) for negotiation on 30 November 2006.

The study was finally approved by CERA regarding a total increase of 6,1%, to be implemented in three equal annual increases to the current tariffs from 1.1.2010 with full implementation from 1.1.2012 rather than 1.1.2007 as proposed in the study. This translates into a loss of revenue over the 5-year period 2007-2011 of around €120 million. The first increase was implemented as per the original decision from 1.1.2010.

CERA then decided that a gradual rebalancing of tariffs should start with the objective of removing cross-subsidies among the various tariffs.

To this end, on 8 June 2010 the EAC submitted a revised Tariffs study to CERA based on the new ten-year development plan for 2008-2017. The proposal provides for new tariffs for corporate customers receiving medium voltage supply. In formulating the new tariffs, commercial criteria and practices were taken into consideration according to which corporate customers are given priority of supply by the network, in which case the cost/supply ratio differs from that of other consumers.

After a series of negotiations with CERA, the EAC proposed a number of different scenarios for the rebalancing of tariffs.

Following CERA's public consultation, a draft of which was published on 26 November 2010 in issue 4653 of the Official Gazette of the Republic, CERA approved by decision 539/2011 the rebalancing of the EAC's tariffs which involves increases and reductions in various customer categories. The purpose of these is the gradual removal of cross-subsidies among consumer categories. They do not provide any financial benefit to the EAC.

In accordance with CERA's decision, the EAC revised its existing tariffs and introduced new charges based on a basic fuel cost of €300 per metric tonne in compliance with the above decision. The new tariffs are expected to be approved by CERA and to be published in the official Gazette of the Republic at the beginning of January 2011.

The above decision resulted in a further loss of income for the EAC, estimated at €5 million for 2011 and 2012.

- In the context of the upgrading of the EAC's services and its efforts aimed at energy conservation, we once again sent out an annual statistical report to all our monthly billed customers. This report includes information on monthly consumption and peak demand for their premises, as well as monthly voltage and load indicators, which are directly linked to correct energy use and conservation.
- In the framework of the special domestic tariff (code 08) for large and needy families, by the end of December 2010 some 23 902 customers were benefiting from this. The total benefit to customers in 2010 and, consequently, the reduction in revenue to the EAC as a result of this special tariff, was €5.193.828 compared to what it would have been if these customers had remained on tariff codes 05, 06 and 07.
- On 23 June 2010, the Cyprus Energy Regulatory Authority (CERA), by its decision 1/2010, approved the reimbursement to the EAC of costs imposed as Public Benefit Obligations, specifically the additional cost borne by the EAC due to the implementation of Special Tariff 08 for large and needy families.

The reimbursement of these costs has been made possible by the imposition of a charge of €0.00134/ kWh on electricity bills. It is part of the tariff and is subject to VAT. The charge appears on electricity bills issued from 1 August 2010.

Additionally, on all electricity bills issued from 1 August 2010 the charge for Renewable Energy Sources increased from €0,0022/kWh to €0,0044/kWh, in accordance with the relevant decision of the Ministry of Commerce, Industry & Tourism and the approval of the House of Representatives on 8 July 2010.

- The average selling price of electricity per kWh in all categories rose from 13,472 cents in 2009 to 16,232 cents in 2010, an increase of 20,5%, as a result of higher tariffs, the reimbursement of emission costs, the Public Benefit Obligations charge, increased fuel costs and the automatic fuel cost adjustment.

Customer Service Business Unit

LOAD RESEARCH AND CONTROL

Since 2000, in the context of its efforts to upgrade its Load Research, the EAC has been using a software package by which meter data is retrieved automatically. This programme enables direct monitoring of customer loads, the automatic retrieval of data and the timely preparation of Load Research reports.

During 2010 the EAC continued to implement this Load Research method for all its corporate customers who are supplied at high and medium voltage. The data obtained was analysed, processed and subsequently used in the drawing up of the relevant load research reports. The conclusions of these studies are used for new tariff structuring and for load forecasting and management.

CUSTOMER SERVICE AND BILLING SYSTEM

In order to provide the best possible service and information to the Organisation's customers, in May 2008 the EAC adopted a new, modern customer service and billing system, which has responded satisfactorily to the demands of the new competitive environment created by the liberalisation of the electricity market.

Since the implementation of this new system, the standard of EAC customer service and information has improved significantly. Moreover, the system facilitates and speeds up the day-to-day work of the EAC's Customer Service department to a considerable degree.

The entire system will become the main tool and source of information for the EAC Contact Centre.

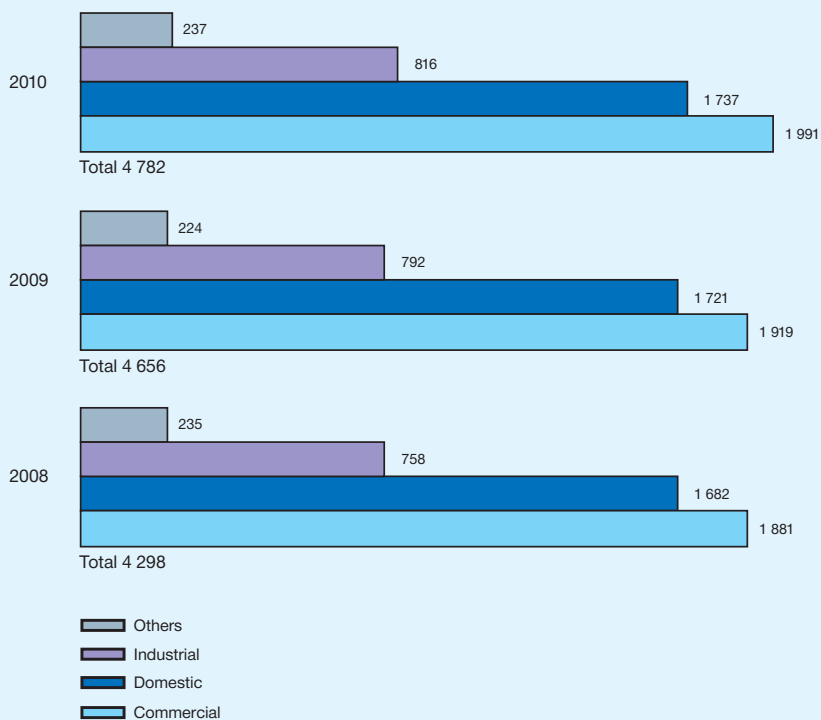
Since 1 December 2008, the EAC has enabled customers to settle their electricity bills at no additional charge by credit card at all EAC Customer Service Offices and via the EAC website (www.eac.com.cy) or the JCC website (www.jccsmart.com). In 2009, customers were also able to settle their bills online via the websites of the commercial banks. Since September 2010 customers have also had the option of receiving their bills by e-mail if they request this.

EAC CONTACT CENTRE

The EAC's decision to set up a Customer Contact Centre (CCC) is of strategic importance since the Organisation already finds itself in a competitive environment following the liberalisation of the energy market.

Figure 6

SALES OF ELECTRICITY
(millions kWh)



The CCC 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.

In May 2010, the first CCC service, that of Meter Reading, came into operation. This service enables customers whose meters have not been read to call the freephone number 80006000 at any time. On request, customers key in the "Premises Number" that appears on the card left by the responsible EAC official. They then key in the meter reading which, if correct, is automatically accepted. If for some reason the customer cannot give the correct reading, the call is redirected to member of staff at the Contact Centre. The results of the operation of this service are extremely satisfactory.

The Contact Centre's Billing Service came into operation in August 2010. Our customers can now call the islandwide four-digit number 1801 and be informed of the amount of their bill by keying in their bill number. They may also receive information and clarifications about bills, methods of settlement, connections, reconnections, disconnections, transfers, domestic tariffs, how to become a first-time customer, etc.

Customer Service Business Unit

From March 2011 we expect to provide a Faults Reporting and Complaints service via the Customer Contact Centre. It will also provide services that are currently the responsibility of the Islandwide Faults Reporting Centre (IFRC) which was set up in the framework of the EAC's efforts to improve its customer service in the area of faults reporting.

Moreover, during the first half of 2011 the New Applications service is due to become available via the Customer Contact Centre. Customers will be informed either automatically or by a Contact Centre officer about the documentation required to accompany an application for electricity supply and about what stage their application has reached.

RENEWABLE ENERGY SOURCES

In accordance with the provisions of European Directive 2001/77/EC issued during Cyprus' accession process and its compliance with the directives, legislation and regulations of the European Union, the Government has proceeded with, among other things, 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.

The EAC enjoys good cooperation with the Institute of Energy of the Ministry of Commerce, Industry & Tourism, with the Cyprus Energy Regulatory Authority (CERA) and the Transmission System Operator regarding joint action on the subject of RES. Interested applicants/producers are given all possible technical assistance and priority in the 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 an avoidance cost 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 (a 20-year agreement according to the proposed new scheme). In addition to the purchase price paid to the producer by the EAC, the producer receives a subsidy for the generated kilowatts of electricity from the Special Fund for Grants/Subsidies, having been approved/registered with the Special Fund for Grants/Subsidies and having signed the Subsidy Agreement with the Special Fund Management Committee.

Table 1

NUMBER OF CONSUMERS

| CONSUMER CATEGORY | AS AT 31.12.2010 | AS AT 31.12.2009 | INCREASE % |
|-------------------|------------------|------------------|------------|
| Domestic | 415 150 | 402 671 | 3,1 |
| Commercial | 84 800 | 83 160 | 2,0 |
| Industrial | 11 391 | 11 618 | (2,0) |
| Agricultural | 14 209 | 13 546 | 4,9 |
| Street Lighting | 9 500 | 9 035 | 5,1 |
| TOTAL | 535 050 | 520 030 | 2,9 |

Tabel 2

BILLED SALES OF ELECTRICITY (MWh)

| CONSUMER CATEGORY | 2010 | 2009 | INCREASE % |
|-------------------|------------------|------------------|------------|
| Domestic | 1 737 474 | 1 720 777 | 1,0 |
| Commercial | 1 990 994 | 1 918 932 | 3,8 |
| Industrial | 816 074 | 791 640 | 3,1 |
| Agricultural | 152 642 | 143 971 | 6,0 |
| Street Lighting | 84 788 | 80 426 | 5,4 |
| TOTAL | 4 781 972 | 4 655 746 | 2,7 |

By the end of 2010, a total of 647 photovoltaic systems had been installed and were producing up to 150 kW (compared to 469 photovoltaic systems at the end of 2009, i.e. an increase of 38%), with a total installed voltage of 5 564,8 kW (2 694,79 kW at the end of 2009, i.e. an increase of 106,5%) and a total production of 4 839 445 kWh (compared to 2 908 511 kWh in 2008, i.e. an increase of 66,4%). It should also be noted that by the end of 2010, ten Generation Units using biomass/biogas were in operation with a total installed capacity of 7 214 kW and total production of 24 801 956 kWh. Furthermore, on 27 July 2010, the Oreites Wind Park in Pafos was connected and by the end of 2010 it had produced 31 370 230 kWh. Considerable interest has been shown in new photovoltaic systems, despite the relatively high capital outlay required for the installation of such systems, and in Biomass/Biogas Generation Units and wind parks.

Customer Service Business Unit

TECHNICAL ISSUES

During 2010 the department of the Customer Service Business Unit responsible for Technical Issues dealt with issues pertaining to:

- The metering system.
- Street lighting.
- Energy conservation.
- Wiring regulations for electrical installations.
- Electricity generation via Renewable Energy Sources.
- EAC revenue protection from electricity theft.
- Monitoring of the quality of electricity supply.
- Testing of the reliability of gloves for high-voltage work.

Specifically, during the year under review, the Meter and Relay Testing Centre (MRTC) received 545 101 new meters. A total of 56 861 new single-phase and three-phase meters of all types were checked and calibrated. Additionally, 1 212 Ripple Control Receivers were programmed and tested, 1 429 were sent to the Area Offices and 177 were repaired.

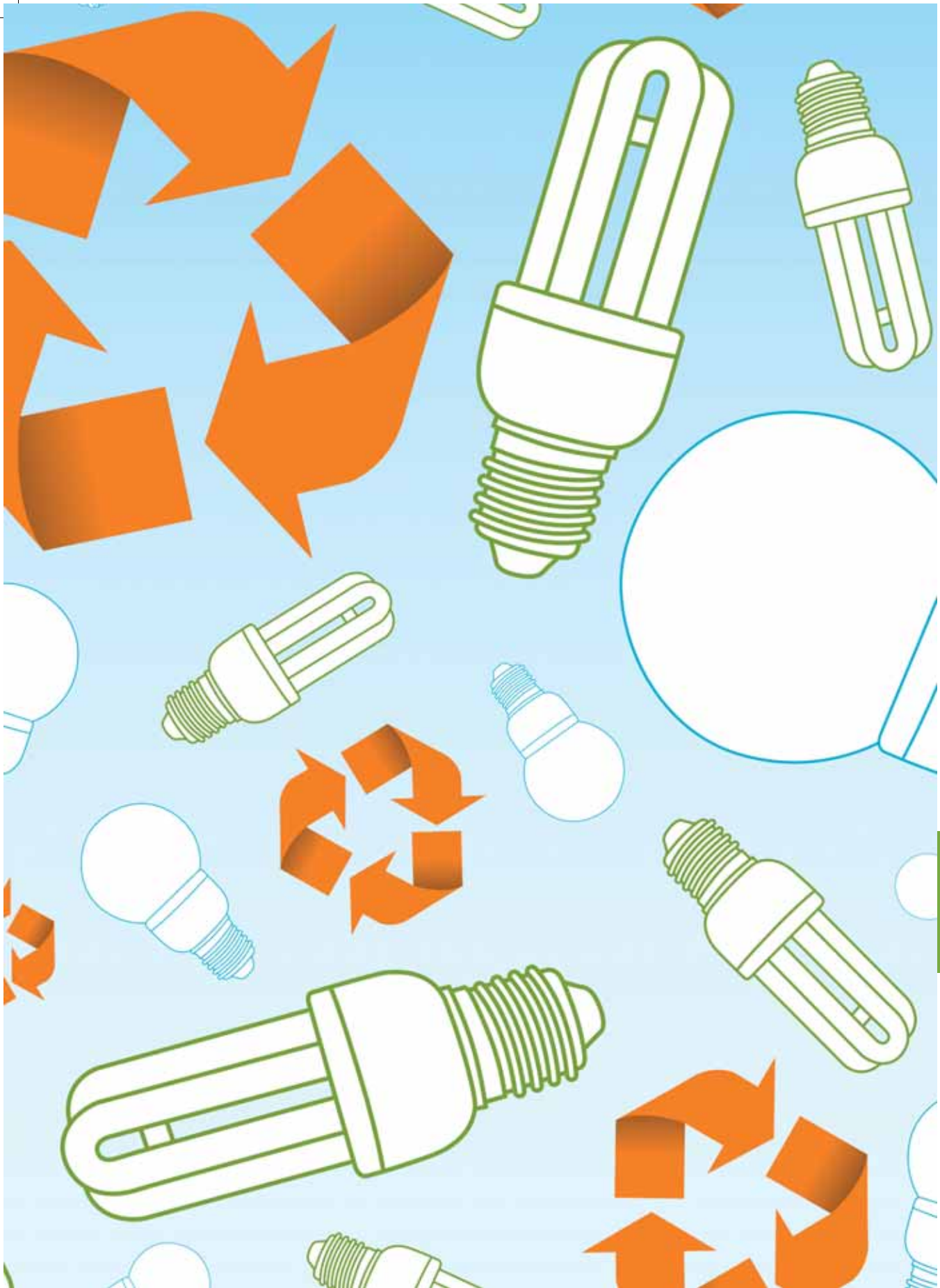
During 2010, the EAC Area office inspection department carried out 23 560 inspections of electrical installations throughout Cyprus.

Additionally, specifications were drawn up, Calls for Tenders were issued and the subsequent tenders were assessed for the purchase of materials and equipment used in the Meter and Relay Testing Centre (MRTC) and the Area Offices relevant to the metering system, street lighting and electrical installation inspection.

Regarding the monitoring of the quality of supply, the Exploitation Department installs special power disruption analysers and, wherever it is considered necessary, corrective measures are taken.

EAC REVENUE PROTECTION

In 2010, personnel dealing with EAC revenue protection from electricity theft checked 4 634 meters on the premises of high-risk customers. Of these, 1 552 were found to be intact, while 2 694 had been tampered with, though they showed no sign of electricity theft. In 338 instances, meters were found to have been tampered with and there were signs of electricity theft. In relation to these, a total of €1.597.590 was recovered in costs for investigating the cases, damage to meters/equipment, additional load/exceeding the approved load, disconnection of supply due to non-payment of bills and unrecorded consumption due to unauthorised tampering with meters.



Customer Service Business Unit

Investigations that began in 2001 into 168 cases of electricity theft (the Masouras case) continued during 2010. The total value of unrecorded consumption has been estimated at €4,95 million and, up to now, payment of approximately €2,7 has been arranged. The EAC has taken legal action against those involved in order to recover the outstanding amount. It should be noted that, in addition to the Masouras case, the EAC has also secured payment of €335.065 relating to other cases of electricity theft.

ACCREDITATION OF THE METER AND RELAY TESTING CENTRE

In the context of its stated policy of upgrading the quality of its operations and its customer services, the EAC took the strategic decision to seek ISO 17025 accreditation of its workshop in the Meter and Relay Testing Centre (MRTC). Certification work has now been completed and in July 2010 the relevant applications for accreditation of the workshop were submitted to the Hellenic Accreditation System and the Cyprus Organization for the Promotion of Quality. The evaluations of these bodies are being awaited for the awarding of the Accreditation Certificate.

The Accreditation Certificate will officially 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.

The Public Relations Department is responsible for planning integrated PR campaigns aimed at upgrading the EAC's image, consolidating its corporate identity, improving its relations with all sections of the public, involving it in society and ensuring that people are fully aware of the EAC's activities and services.

In this context, the EAC continued to provide advisory services to all its customers on matters of interest to them in 2010. The general terms governing the provision of electricity, the EAC's charging policy on electrification, tariffs and general information are topics that are always of interest. As happens every year, during 2010 lectures were given to organised groups and to EAC customer groups on issues concerning the conservation and safe use of electricity, new tariffs and electromagnetic fields.



In the framework of improving relations among personnel, the Organisation publishes the quarterly magazine EAC News which is distributed not only to EAC personnel but also to various other groups, individuals and services outside the Organisation. During 2010, issues 100-102 were published.

Health, environmental protection, sport, visual arts, dance, music, the promotion of cultural monuments and support for families enclaved in the occupied part of Cyprus are the main pillars of the Electricity Authority's Corporate Social Responsibility (CSR) programme. In recent years, the EAC has helped hundreds of Associations and Organisations involved in the above sectors through this programme.

The "Light up a Life" event jointly organised every December by the Cyprus Anti-Cancer Society and the Electricity Authority of Cyprus has become a firmly established institution, providing financial support and helping the Society to achieve its aims. Every year Christmas events are held in all the island's towns, during which the Society's Christmas tree lights are switched on.

In addition to these established events, a special day for children was held at the EAC's Head Offices in Lefkosia, offering many and varied activities as well as food, drinks, handicrafts, cards, wines, candles and other items for sale. Throughout the day there was an entertainment programme featuring choirs, dance groups, puppet theatre and gym displays. All the proceeds from these events, amounting to around €12.000, were donated to the Cyprus Anti-Cancer Society.

For the second time, the EAC hosted World Press Photo exhibition at its Head Offices. The exhibition, held in collaboration with the Embassy of the Netherlands and the Cyprus Union of Journalists, is the result of a competition to which more than 5 000 photographers from 125 countries submit pictures taken during the course of their journalistic duties. Every year the exhibition travels to more than 50 countries (100 cities) and is seen by more than 2 million visitors.

Customer Service Business Unit

Another event that has become an institution is the Save Energy exhibition, organised jointly with the Employers and Industrialists Federation with the aim of promoting products that contribute to energy conservation as well as to raising public awareness of environmental protection issues. Moreover, the EAC sponsors the biannual scientific conference on Renewable Energy Sources organised by the Cyprus Chamber of Commerce & Industry.

In the framework of its efforts to contribute to the provision of a rounded education to our young people, the Electricity Authority has always funded sport. In 2010, for the seventh consecutive year, the EAC was the main sponsor of the Cyprus National Basketball Team which has enjoyed considerable success, including winning the Gold Medal at the Games of the Small States of Europe which took place in Cyprus in 2009.

Furthermore, for the three-year period 2010-2012, the EAC has become a sponsor of the Cyprus Olympic Committee to support the preparations of the island's team for the 2012 Olympic Games.

We consider it a duty and a privilege to support the efforts of our heroic enclaved fellow-citizens to remain in the place of their birth in the occupied part of Cyprus. Our support will continue. At the beginning of every year, the Board and Management visit occupied villages and schools and financial assistance is offered to the children of enclaved families.

The EAC participated in various conferences, seminars and specialist exhibitions and fairs (CCCI, CHA) in 2010, enabling the public to obtain first-hand information on all aspects of its activities and its major development projects. As every year the EAC also participated in the Cyprus International Fair.

Every year the Public Relations Department undertakes the presentation of the EAC's Annual Report. Representatives of the commerce and industry sector as well as Government Ministers, Members of Parliament, officials of other semi-government organisations, government departments and professional associations were invited to the presentation of the 2009 Annual Report at which a full audiovisual account of the Organisation's financial results and its Development Plan was given.

In 2010 in collaboration with the Ministry of Commerce, Industry & Tourism, the free distribution of energy-saving Compact Fluorescent Lamps (CFLs) to consumers was completed. The aim of the campaign was energy conservation and the development of energy awareness. The Public Relations Department undertook all the work required for the implementation of an integrated public information campaign.

Each year various campaigns and schemes are implemented in the context of the EAC's policy of developing energy awareness among the Cypriot public. In 2010 an islandwide media campaign was carried out with the aim of raising consumer awareness on the issue of saving electricity and, by extension, protecting the environment.

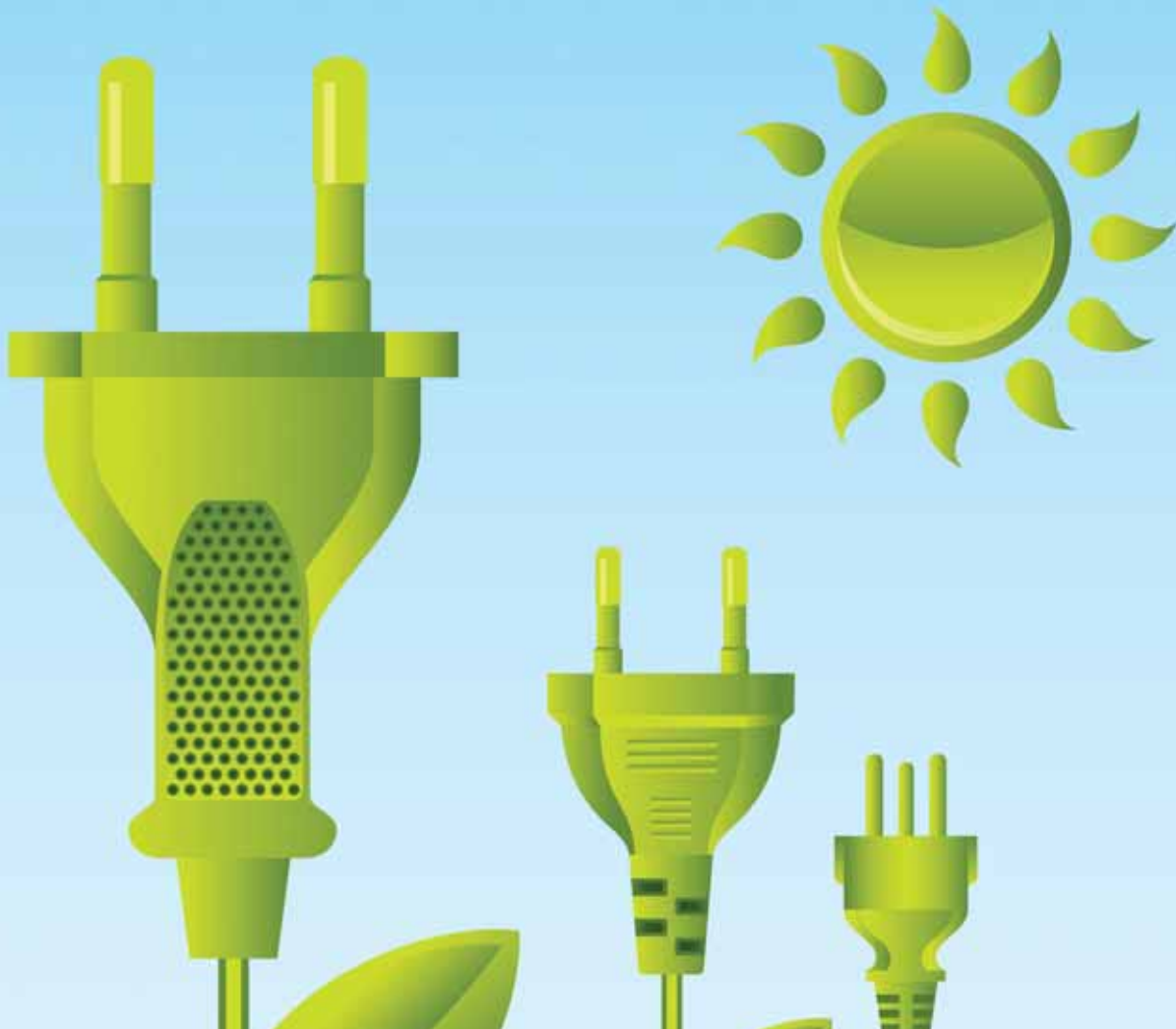


Figure 7

ELECTRICITY SALES & REVENUE BY CONSUMER CLASS

