

NATIONAL REPORT

CYPRUS ENERGY REGULATORY AUTHORITY (C.E.R.A)



**Report to the European Commission in line with the Electricity and Gas
Directives for the period July 2009 to July 2010**

July 2010



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1. FOREWORD

Cyprus Energy Regulatory Authority (CERA) was established by virtue of the Law on Regulating the Electricity Market of 2003 N.122(I)/2003, which was enacted by the House of Representatives on 25 July 2003, for harmonisation purposes with the Acquis Communautaire. Also, this Law establishes CERA as the Authority responsible for Regulating the Natural Gas Market. The relevant EU Directive was transposed into national Legislation by Law 183(I)/2004.

The Members of the current board of CERA were appointed on 22 January 2010 and took up their duties on 3 February 2010 after giving the prescribed affirmation for the faithful execution of their duties, to the President of the Republic of Cyprus.

The present Report covers the period from July 2009 to July 2010 and is the sixth one to be issued.

In reading this Report one should bear in mind that Cyprus operates under the provisions of the Directive, for "Small Isolated Systems".

The establishment of CERA and the appointment of the Transmission System Operator (TSO) during 2004 constitute two very important events in the field of Energy, a field that prior to the entry of Cyprus into the European Union (EU), had purely a monopolistic character. It was and still is among the basic priorities of Cyprus to get fully harmonised with the Acquis Communautaire in the field of Energy. This process passes through a series of actions, the most important being the one that aims at a healthy competition with the abolition of monopolistic attitudes and conduct.

One of the urgent priorities of CERA was the opening of the Electricity Market. This was achieved and the Electricity Market was liberalised by 35% with effect from 1st May 2004. Also, with effect from 1st of January 2009 the market was further liberalised including all "non domestic" consumers which are free to select their Supplier. However, there are no other Suppliers at the moment. As from 1st of January 2014 the market will be liberalised by 100%, as the ultimate target is for all consumers of electrical energy to be able to choose their Supplier.

In the year under review important events took place as well as actions taken by CERA in the sectors of electrical energy, the development of a natural gas market, the materialisation of wind farms investments and the simplification of the processes for issuing licenses and other procedures.

All CERA's efforts aimed at first and foremost to ensure healthy competition, security and reliability of supply and protection of the environment in the electrical energy sectors and also the development of natural gas sectors.

CERA attaches special importance to the task of overseeing the correct operation of the energy market so that it operates in a really liberalized environment where there should be no monopolies.

The Law on Regulating the Natural Gas Market, L.199(I)/2007, provides for the construction of a land based terminal as well as for the assignment of import and supply of Natural Gas to the Republic of Cyprus to only one company. It has to be noted that the intention of the

Government of Cyprus to declare the Natural Gas market emergent established a monopoly model and this will eventually affect competition in electricity market as well.

In 2008 further pending issues related to the Natural Gas legal framework, for which CERA has prepared draft bills amending the Laws in order to fully transpose the Directives 2003/55/EC (Article 22- New Infrastructure) and 2004/67/EC (Security of Supply by Natural Gas) into the national Laws, having been forwarded to the Council of Ministers for approval and for onward submission to Parliament for its approval by the Minister of Commerce, due to the provisions of Law 199(I)/2007, the draft bills had not been approved. In fact, in 2009, the bill regarding the transposition of the Directive 2004/67/EC, regarding the security of supply by natural gas, which was submitted to Parliament in 2007, and was being discussed in 2008, was withdrawn from the agenda of the Parliamentary Committee by the Ministry of Commerce having obtained our agreement, so that a new bill could be drafted having in mind the declared in the Second Strategic Energy Review of the Commission's intention to review the said Directive within 2009.

Furthermore, the Council of Ministers in June 2008 decided to assign the import and supply of the Natural Gas in the Republic of Cyprus in only one company. This company has already been established and is a company called "DEFA" (Shareholding: 56% by Government with option to relieve 5% to 3rd parties and the other 44% by Electricity Authority of Cyprus).

DEFA's Board of Directors was appointed by the Government in October 2009 and in November 2009 issued a request for an Expression of Interest by potential LNG Suppliers in order to purchase and import the LNG pursuant to a LNG Sale and Purchase Agreement (SPA), preferably on a delivered ex-ship (DES) basis. DEFA is anticipating that by the end of summer 2010 it will be in a position to sign a Heads of Agreement with the preferred supplier. DEFA will also enter into an agreement with a second corporation, which is to be established, (the LNG Terminal Company Ltd), for the provision of LNG receiving, storage and re-gasification services at its terminal pursuant to a Terminal Use Agreement (the TUA).

The Council of Ministers has decided the creation of a land based Energy Centre as the exclusive Receiving Terminal, with storage facilities and installation for Regasification of Liquefied Natural Gas (LNG). In March 2009, the Electricity Authority of Cyprus (EAC) received a mandate from the Government of the Republic of Cyprus (GoC) to proceed with the formation of a Joint Venture Company that will be responsible for the development, financing, operation and management of the onshore liquefied natural gas (LNG) import and re-gasification terminal (LNG Terminal) to be located at Vasilikos on the South coast of Cyprus. It is anticipated that by the end of summer 2010, EAC will conclude the selection process and will be in a position to sign a development and shareholders agreement with the preferred strategic partner for the development of the LNG Terminal.

As a consequence of the provisions of the above mentioned Law, L.199(I)/2007, and the Council of Ministers decisions of June 2008, CERA's authority to provide any licenses related to Natural Gas, has been suspended. However, CERA in accordance to its duties and responsibilities included in the Laws on Regulating the Natural Gas Market of 2004 - 2007, is preparing a list of terms relevant to security and reliability of supply, transparency, protection of consumers etc, that will be included in an authorisation document to be issued to the undertakings that were given the mandate by the GoC to develop the LNG Project.

Another fundamental priority of CERA during 2009, it was the encouragement of production of electrical energy from Renewable Energy Sources in co-operation with the Ministry of Commerce, Industry & Tourism. The new Support Schemes have been approved by the Government and the relevant programs are in effect from the beginning of 2009 until the end of 2013. According to the provisions of the New Energy Policy, 13% of the total energy consumption in Cyprus should be produced by RES by the year 2020, whilst the general target set by the European Union for all Member States is 20% by the year 2020.

Between April and June of 2010 CERA, established a technical team with participation of various Ministries, which undertook a study having a major task to develop an optimum strategic plan in order to integrate the necessary renewable energy sources for electricity production (RES-E) in the existing Cyprus power generation system. A detailed plan covering the period 2010 – 2020 was prepared, incorporating a mixture of all technologies, and it was included in the National Action Plan submitted to the European Union. The ambitious target for the electricity sector is to achieve a penetration of 16% of renewables (RES –E) by 2020. The study has estimated in detail, the unavoidable increase in the cost of electricity of Cyprus generation system by the integration of the RES-E technologies required to achieve the national RES energy target. Also, the study has enabled to estimate an adequate (or eligible) level of feed-in-tariff that can be offered for the development of future RES-E systems in Cyprus. A copy of the study will be uploaded at CERA's web page.

Mention should also be made that to the efforts of CERA for the simplification of the procedures for obtaining the necessary licences of renewables was successful and the first large wind farm with a capacity of 82 MW was constructed and commissioning started in July 2010. The first wind turbine was synchronised with the system on the 21st of July 2010. Another two licencees of wind farms have signed Connection Agreements to the network system with the TSO.

One of the basic missions of CERA, as same is defined in the provisions of the existing legislation in sectors of Electricity and Natural Gas is, among others, to protect the interests of the consumers and to take into consideration the needs of the consumers who are in a disadvantageous position, such as multimember families, vulnerable consumers etc. The bills of this consumer category were exempted from the obligation to pay the cost of CO2 emissions. CERA following an instruction given by the Government issued in July 2010 a Regulatory Decision declaring these costs as Public Service Obligations to be shared by all electricity consumers.

At the same time, CERA does everything feasible to introduce competition in the sectors of generation and supply of electrical energy. It should be noted that this targeted effort is required by the provision of the Law and its obligations and it will continue with the same intensity during the current year.

Following the finalization and approval of the Electricity Trading and Settlement Rules (Market Rules) in January 2009, CERA focused its efforts in resolving all pending issues related to the market operation. Deliberations on the following issues having been carried out for some time, they are currently at their final stages with CERA's proposed decisions published on the 23rd of July 2010, inviting comments by any interested party within 30 days from the publication date. The Decisions will be finalised thereafter:

- ❖ The charge for the use of the Transmission and Distribution System, the relevant operating cost of the TSO, as well as the charge of the ancillary services.
- ❖ Methodologies related to the calculation of the capacity reserves and ancillary services.

The above decisions will also facilitate the further unbundling of the EAC accounts in order to establish the actual cost of all the services rendered by EAC, the vertically integrated electricity undertaking, minimising the possibility of cross subsidization between its activities and resulting in eventually in lowering of the prices of electricity.

Equally important for CERA is the price at which electrical energy reaches the different categories of consumers. During the year under review, CERA examined thoroughly the subject of methodology for the tariffs of electricity and their structure regarding the electrical energy tariffs of EAC. After several discussions and studies, CERA has finally approved new EAC's tariffs and as from 1st of January 2010 a 1,5% increase in all tariffs was applied.

The average selling price of electricity per kWh in all categories decreased from 16,178 € cent in 2008 to 13,473 € cent in 2009, an average decrease of 16,72%, as a result of the decreased fuel costs in 2009 compared to 2008.

It would be an omission not to thank all those who helped CERA in its first years by offering their cooperation and assistance. These definitely include ERGEG and CEER. The bridges of communication built and the cooperation and common understanding between everybody involved help greatly the work of CERA.

GEORGIOS SHAMMAS
Chairman
Cyprus Energy Regulatory Authority

2. MAIN DEVELOPMENTS IN THE GAS AND ELECTRICITY MARKETS

2.1 Wholesale Electricity Market

2.1.1 *Development of Wholesale Electricity Market*

One of the most important events for the Cyprus Electricity Market is that with effect from 1st of January 2009 the market has been further liberalised, to include all “non domestic” consumers, which are now able to select their Supplier according to what is in their best interest. However, there is no other Supplier in Cyprus apart from the Electricity Authority of Cyprus (EAC).

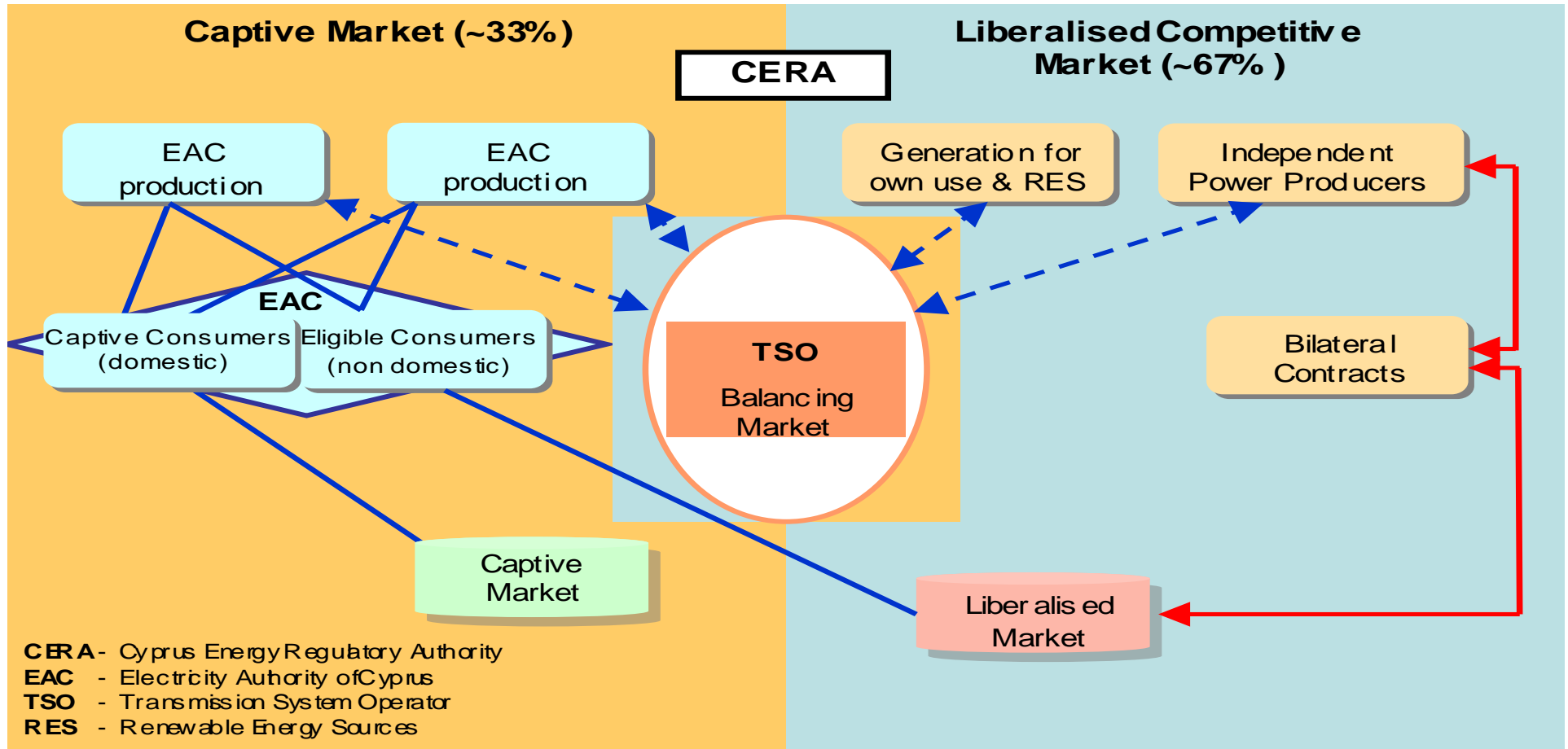
The essence of the set legal framework is that any enterprise, which is interested in generating and supplying electricity, may submit an application to CERA and obtain the relevant Licence if it fulfils the criteria set. The enterprises that will obtain such a Licence have the right to use the existing electricity transmission and distribution network. Although these networks remain the property of EAC, a Transmission System Operator (TSO) has been appointed and functions independently in terms of organisation and decision making from EAC and from its activities of production, distribution and supply, in order to safeguard third party access onto the transmission network and equal treatment of all users of the said network. The Owner of the distribution system has also been nominated as the Distribution System Operator (DSO) and although it is not independent in the sense that the Transmission System Operator is, it has the same duty of safeguarding third party access to the distribution network and the equal treatment of all users of the said network.

Furthermore, in accordance with the new Directive 2009/72/EC on the common rules for the internal electricity market and the repealing of Directive 2003/54/EC, Cyprus has secured derogation from article 9 on the unbundling of transmission systems and transmission system operators.

In accordance with the diagram below it can be seen that the market is characterised by the following:

- ❖ Market Regulation: CERA (with almost full authority).
- ❖ System & Market Operation: Manager TSO (independent in legal and management terms).
- ❖ Basic Trading Arrangement: Bilateral Agreements.
- ❖ Balancing Market: 2% to 3% of energy traded through TSO.
- ❖ Captive Market: EAC, ~33% (domestic consumers only).
- ❖ Eligible Market: ~67% (all non domestic consumers).
- ❖ Competition in generation: EAC, IPPs, RES and Producers for Own Use.

2.1.1 Development of Electricity Market - Electricity Market Model



As far as the “Trading and Settlement Rules” (Market Rules) are concerned, they are based on the operating model of the liberalised electrical energy market.

The Electricity Market was liberalised by 35% on 1st May 2004. As mentioned above with effect from 1st of January 2009 the market has been further liberalised for all “non domestic” consumers and with effect from 1st of January 2014 all consumers of electrical energy will be able to select their Supplier according to what is in their best interest. It is worth to note that, a public consultation was held at the end of 2008 with all market players including eligible consumers, in order to discuss the further opening of the electricity market.

2.1.2 Market Integration

Market integration results in decreasing electricity bill for consumers in countries enjoying large power generation capacities at low cost. Generally, the rationale for opening-up the market makes sense if enough freedom of choice exists so that considerable effects of production reallocation can be expected. When there are too many restrictions in the system, market opening leads to redistribution without any reallocation. In case of Cyprus where currently there is only one Supplier of electricity, the Regulator secures that the electricity prices of the “dominant” enterprise reflect the actual cost of the services offered with a reasonable profit.

Eventhough, CERA has provided an investment friendly framework, involving stable regulatory system and fair incentives for investments on a transparent and non-discriminatory basis. Market integration has still not developed to a sufficient extent and this is due to the fact that several licenced (by conventional units) projects are delaying their materialization awaiting Natural Gas to be introduced to the island. In other words the main bottleneck in the development and integration of the electricity market is the absence of Natural Gas.

It is worth to note that Natural Gas was defined by a Ministerial Direction as the basic fuel for the production of electricity with regards to future installations of sizeable capacity. CERA has decided that sizeable capacity has to be over 50MW.

2.2 Retail Electricity Market

2.2.1 Development of Retail Electricity Market

Number of electricity suppliers to final customers:

Total number of electricity suppliers to final customers	ONE
Number of electricity suppliers selling <u>at least 5%</u> of total electricity consumed by final customers	ONE

2.2.2 Development of Switching

With regards to final customers switching, their supplier or renegotiating contracts, two groups of figures can be established as shown below:

- ❖ Percentage of final customers switching from one supplier to another during the year 2009 and volume of consumption represented by those customers (in GWh).
- ❖ Percentage of final customers renegotiating contracts with their supplier during the year 2009 and volume of consumption represented by those customers (in GWh).

	Eligible Customers (non-domestic customers)		Non-Eligible Customers (domestic customers)	
	Percentage (%)	Volume (GWh)	Percentage (%)	Volume (GWh)
Customer switching	n/a	n/a	n/a	n/a
Customer renegotiating	n/a	n/a	n/a	n/a

Table 2.2.2 – Development of Customer Switching and Renegotiating

As a consequence of the absence of any other Supplier apart from EAC, customer switching as well as customer renegotiations cannot in fact take place in the electricity market in Cyprus as yet.



Distribution System

2.2.3 Price Development

The average selling price of electricity in €cent / kWh for all categories is given below:

AVERAGE SELLING PRICE OF ELECTRICITY (€cent / kWh)						
Year Category	2004	2005	2006	2007	2008	2009
Domestic	9,693	11,009	12,492	12,746	15,988	13,321
Commercial	10,388	11,748	13,009	13,328	16,982	14,196
Industrial	8,268	9,594	11,111	11,458	14,955	12,325
Agricultural	8,637	10,106	11,434	11,675	15,296	12,697
Public Lighting	8,437	9,298	10,981	11,233	14,554	12,129
Average Selling Price (€cent / kWh)	9,647	10,988	12,408	12,719	16,178	13,473

Table 2.2.3 - Average Selling Price

2.3 Wholesale and Retail Gas Market

Unlike the electricity sector, which is characterised by ownership differentiation, the gas sector according to the last amendment of the Law regulating the Natural Gas market as well as the relevant Ministerial Decision, shall be monopolistic.

Cyprus will establish its gas industry by granting a supply permit to a single legal entity, which will be controlled by the state (Shareholding: 56% by Government with option to release 5% to 3rd parties, 44% by EAC), called 'DEFA'. In general DEFA would have the sole right to import gas into Cyprus and to sell gas to all gas consumers. Aggregating gas demand through DEFA could also facilitate Cyprus' ability to acquire a relatively small quantity of gas on the best terms to satisfy demand. In addition the Council of Ministers has decided the creation of a land based Energy Center as the exclusive receiving terminal, with storage facilities and installations for regasification of Liquefied Natural Gas (LNG).

Natural Gas is still not available on the island. In spite of this, Natural Gas was defined by a Ministerial Direction as the basic fuel for the production of electricity with regards to future installations of sizeable capacity.

Nevertheless, the Natural Gas sector has been put in line with the relevant EU Directive 2003/55/EC, relating to the common rules of the internal Natural Gas market.

Furthermore, Cyprus Government after numerous discussions and meetings with all the competent authorities, stated its intention to declare the Cyprus Natural Gas market as emergent according to the articles 28(1)(2) of the relevant European Directive, 2003/55/EC. In relation to the above, a Law was passed and published on 31/12/07 in Cyprus Government Gazette, Law 199(I) / 2007, amending the Laws of 2004 – 2006 on “Regulating the Natural Gas Market”.

This Law states that in the event that the Council of Ministers decides to assign the import and supply of Natural Gas to the Republic of Cyprus to only one company and the creation of one land terminal as the exclusive station for the delivery, storage and regasification of Liquefied Natural Gas to the Republic of Cyprus, the application of the following articles of the basic Law is suspended: Articles 8-14, 16(1)(2) and (3), 18, 21, 22 (5) and (6), 23, 27, 28, 31,32 and 33. In addition, it states that until such time as the Council of Ministers takes that decision, CERA should act deviating from the above articles by not issuing licences in order not to endanger achieving that goal.

It should be noted that the Council of Ministers have already decided (Decision on 18.6.2008), to assign the import and supply of Natural Gas to the Republic of Cyprus to only one company, called ‘DEFA’. DEFA Board of Directors was appointed by the Government in October 2009 and in November 2009 issued a request for an Expression of Interest by potential LNG Suppliers in order to purchase and import the LNG pursuant to a LNG Sale and Purchase Agreement (SPA), preferably on a delivered ex-ship (DES) basis. DEFA is anticipating that by the end of summer 2010 it will be in a position to sign a Heads of Agreement with the preferred supplier. DEFA will also enter into an agreement with a second corporation, which is to be established, (the LNG Terminal Company Ltd), for the provision of LNG receiving, storage and re-gasification services at its terminal pursuant to a Terminal Use Agreement (the TUA).

The Council of Ministers has decided the creation of a land based Energy Centre as the exclusive Receiving Terminal, with storage facilities and installation for Regasification of Liquefied Natural Gas (LNG). In March 2009, the Electricity Authority of Cyprus (EAC) received a mandate from the Government of the Republic of Cyprus (GoC) to proceed with the formation of a Joint Venture Company that will be responsible for the development, financing, operation and management of the onshore liquefied natural gas (LNG) import and re-gasification terminal (LNG Terminal) to be located at Vasilikos on the South coast of Cyprus. It is anticipated that by the end of summer 2010, EAC will conclude the selection process and will be in a position to sign a development and shareholders agreement with the preferred strategic partner for the development of the LNG Terminal.

At the same time investors that have submitted applications to CERA in order to proceed to the construction and operation of off-shore Floating Storage Station and Regasification of Liquefied Natural Gas, have been informed by CERA for the intention of the Government to declare Cyprus market as emergent market and the last amendment of the Law Regulating Natural Market has been forwarded to them. In accordance with the last amendment of the Law Regulating Natural Gas Market CERA cannot grant any licenses in Natural Gas field.

2.4 Public Service Obligations and Consumer Protection

2.4.1 Transparency

The Trading and Settlement Rules have been drafted by TSO and approved by the Minister and CERA in accordance with section 79 of the Law.

The main objectives of the Rules are to:

- ❖ Enable the Transmission System Operator to fulfil its obligations under the Law.
- ❖ Regulate the means by which Participants may trade Energy.
- ❖ Allow the calculation and settlement of payments in respect of Energy and Ancillary Services.
- ❖ Specify the way in which settlement and billing shall be carried out and
- ❖ Deliver the Electricity Trading Rules as envisaged in the Law.

Also, TSO shall in accordance with section 81 of the Law establish the Trading and Settlement Rules Committee which shall be a standing body constituted to:

- ❖ Generally review and discuss the Trading and Settlement Rules and its workings.
- ❖ Review and discuss suggestions for amendments to the Trading and Settlement Rules which the TSO, the Regulator or any Party may wish to submit for consideration by the Trading and Settlement Rules Committee from time to time, and
- ❖ Publish recommendations and encourage Parties to discuss such recommendations.

The Trading and Settlement Rules, as described above, constitute, inter alia, one of the major factors to achieve transparency between licensed electricity producers/suppliers and to ensure consumer protection.

2.4.2 Complaints

CERA has the power to issue Regulations concerning the protection of the interests of the consumers of electricity requiring that any Supplier of electricity and the Distribution System Owner (DSO), within a prescribed time period, propose and implement procedures for the submission of complaints by consumers, which procedures allow consumers to register complaints and prescribing how any Supplier and the DSO shall respond to complaints received by consumers.

The Regulations may impose requirements on suppliers and the DSO relating but not limited to:

- ❖ Procedures for the submission and, where appropriate, re-submission of proposed complaints procedures for approval.

- ❖ The timetable for the implementation of the complaints procedures.
- ❖ Penalties for failure to comply with the consumer complaints Regulations relating to the preparation or implementation or review of complaint procedures.
- ❖ A requirement that suppliers and the DSO review their complaints procedures at intervals of not more than five years.
- ❖ Establishing procedures to deal with complaints from consumers that are not settled through complaint procedures to the satisfaction of consumers.

Specifically, the following Regulations relevant to the above mentioned were enacted:

- ❖ Regulations on Regulating the Electricity Market (Procedure for Submitting Complaints) of 2005.
- ❖ Regulations on Regulating the Electricity Market (Performance Indicators) of 2005.

The first of the above mentioned Regulations determine the procedure for submission of complaints by consumers in cases where suppliers of electricity and/or the Owner of the Distribution System, or both, are in breach of their obligations or duties and/or are acting outside the scope of their prescribed by the Law jurisdiction.

Specifically, the above mentioned Regulations provide for the following, inter alia;

- ❖ Consumers' right to submit complaints to the Suppliers and/or the Owner of the Distribution System.
- ❖ The obligation of the Supplier and/or Owner of the Distribution System to respond to the complaints.
- ❖ The right to submit complaints to CERA and the procedure for examining complaints by CERA.
- ❖ The omission of the Supplier and Owner of the Distribution System to comply with CERA's' decisions.
- ❖ The penalties provided for in the Regulations.

The second of the Regulations mentioned above, sets the minimum level of performance in relation to the performance indicators of the Supplier of electricity, which must be achieved by the Supplier and the Owner of the Distribution System.

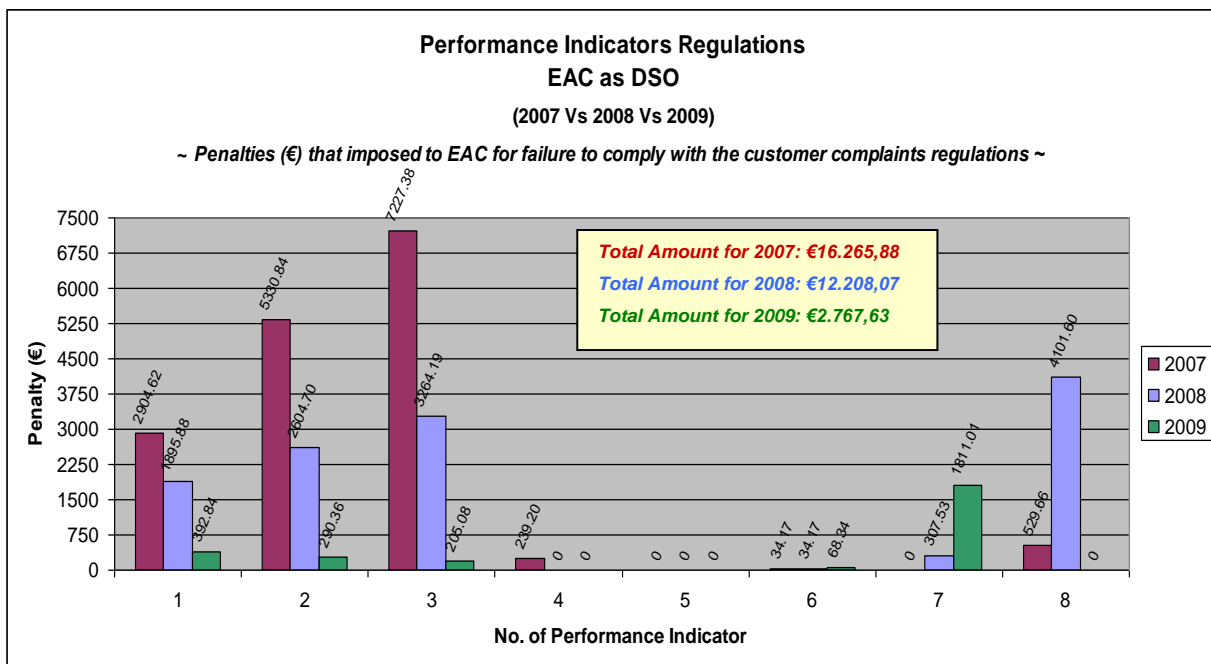
Furthermore, this Regulation provides for a Charter of Consumer Rights and sets the time limit within which a Supplier and the Owner of the Distribution System must respond, determines the fines, the procedure of payment and the time at which the fines are to be paid in cases where a Supplier or the Owner of the Distribution System fails to comply with the performance indicators set out therein.

By the implementation of these Regulations the rights of the consumers are safeguarded, their protection is secured, the procedure for the submission of consumer complaints is

regulated in the event that Suppliers of Electrical Energy and/or the Owner of the Distribution System or both are in breach of their obligations, competences and duties, the end result being the improvement of the services offered to consumers.

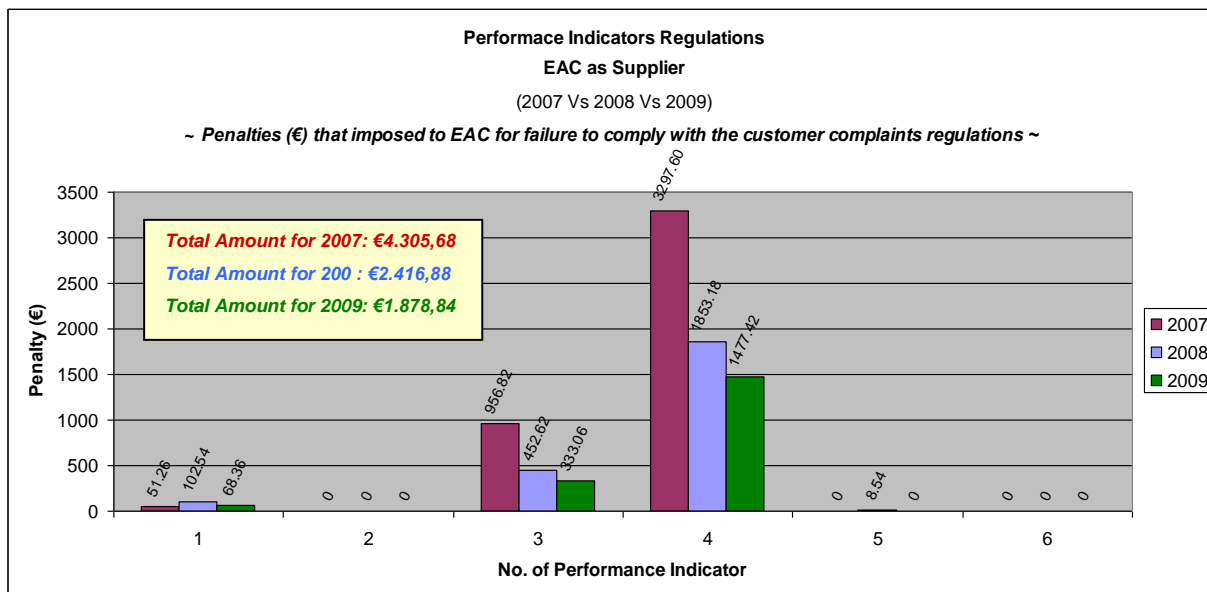
The following tables show the results for the years 2007, 2008 and 2009 of the penalties (€) imposed to EAC as DSO and as a Supplier for failure to comply with the customer complaints regulation relating to the preparation or implementation or review of complaints procedures.

It can be observed that the performance of EAC both as DSO and as a Supplier regarding the treatment of the complaints of its customers has been satisfactory improved.



No. of Performance Indicator:	Time to response:
6. Repair of EAC main fuse after failure	4 hrs
7. Installation and connection of LV meter	3 days
8. Construction of an overhead service line from existing LV mains	6 days
9. Estimation of charges for electricity supply (preliminary terms)	30 days
10. Notification of planned supply interruption	2 days
11. Investigation of voltage complaint	30 days
12. Investigation of meter accuracy complaint	30 days
13. Replying to complaints, applications, letters or giving information	20 days

Table 4.2.4(a) – Performance Indicators Regulations of EAC as DSO



No. of Performance Indicator:	Time to response:
1. Replying to complaints regarding electricity bills	3 days
2. Arrangement of appointments	2 days
3. Meter reconnection requested by customer	1 day
4. Meter disconnection requested by customer	1 day
5. Reading the meter	2 day
*6. Replying to complaints, applications, letters or giving information	20 days

* This Indicator is included in the Indicator No. (8) of EAC as DSO

Table 4.2.4(b) – Performance Indicators Regulations of EAC as a Supplier

Regarding consumer complaints, which have been presented or formally submitted to CERA, it could be said that they were maintained within acceptable levels. Registered consumer complaints are shown in the table below:

2006		2007		2008		2009	
Enquiries / advice	Formal complaints	Enquiries / advice	Formal complaints	Enquiries / advice	Formal complaints	Enquiries / advice	Formal complaints
---	5	---	7	10	3	2	8

Table 4.2.4(c) – Customer enquiries / advice or complaints presented or submitted to CERA


The majority of the above complaints were based on bill issues, prices and tariffs. Some other complaints were referred to destructions (electrical appliances, etc) that occurred due to electric faults. CERA handled with care the above complaints, with the collaboration of EAC and TSO, leaving the consumers in most cases satisfied.

With regards to consumer complaints there are basically four (4) types of complaints, as given in the table below:

Type of Complaint	Number of complaints received in 2009
High Consumption	<u>914</u>
Entangled tree brunches with overhead conductors	<u>3595</u>
Blown Street Lighting	<u>4964</u>
Blown fuses	<u>19398</u>
Total (4basic types) Complaints of 2009	<u>28871</u>

Table 2.4.2 – Customers Complaints 2009

Furthermore, CERA, in addition to the mechanisms (through events and seminars) at its disposal for informing the public, in recent years participates in the “Informing the Public Campaigns” conducted at European Level and organized with the initiative of CEER and ERGEG as, for example, the following campaigns:

- ❖ Consumer Information Campaign
(http://ec.europa.eu/energy/energy_policy/consumers/index_en.htm)
- ❖ You Choose Campaign
(www.agathepower.eu) 
- ❖ Individual Consumer Information supplied to Eligible Consumers either electronically or by mail.

It should be noted that in all cases, printed information material was distributed to the public.

2.5 Infrastructure

2.5.1 Development in Tariffs

During the year under review, CERA examined thoroughly the subject of methodology for the tariffs of electricity and their structure regarding the electrical energy tariffs of EAC. After several discussions and studies, CERA had finally approved new EAC's tariffs.

Also, CERA members at a meeting on 27/10/2009 decided to approve the following gradual increases on the revenues of the EAC incurred each time by the basic part of the tariffs *1 on the sale of electricity (with a corresponding distribution on partial tariffs) and tax obligations as they have been formulated.

	Application Date	Revenue Increase (%) (on total unit price at current fuel price of €309,78/MT)
1	01/01/2010	1,5%
2	01/01/2011	1,5%
3	01/01/2012	1,5%

Table 2.5.1 – EAC (%) Revenue Increase approved by CERA

For the above calculations the EAC statistical data in respect of the various tariffs were taken into account. More specifically, total revenue from the basic tariffs of €378.729.060 (with basic fuel price of €85,43/MT), which were allocated to kWhs = 4.565.176.671 sold. The average price of fuel for the month of August was taken into account as current fuel price. This price was applied at the stage of CERA's decision by the EAC in the monthly bills of September and the bi-monthly bills of October. Adjustments were made with a fuel charge index of 0,0014.

**1 The basic part of tariffs contains price charges of KWh at a fuel price of €85,43, reduced to €309,78 with 0,0014 fuel charge index, price of maximum demand unit and fixed charge.*

On the basis of this decision, the EAC was called upon to formulate its new tariffs which would be in force on the specified dates of application with a rounded fuel price of €200/MT in order to facilitate consumers check the adjusted fuel price.-

As mentioned in the Foreword of this Report, the average selling price of electricity per kWh in all categories decreased from 16,178 € cent in 2008 to 13,473 € cent in 2009, a decrease of 16,72% as a result of the decreased fuel costs comparing with the remarkable high value of 2008.

2.5.2 Investment and Allocation of Capacity

Article 7 of Directive 2003/54/EC - Tendering Procedure for New Generating Capacity

If, at any time, CERA is satisfied, that the electricity generating capacity being built is not sufficient to ensure security of supply of electricity in the Republic, it shall notify the Minister of Commerce, Industry and Tourism.

The Minister, following consultation with CERA and the TSO, shall issue a Decree to be published in the Official Gazette of the Republic by which he shall establish the procedure for submitting tenders, the necessary generation, as well as the manner and terms for making this new capacity available and shall require CERA to monitor and secure the carrying out of the procedure for the construction of new generating capacity.

As soon as possible, following the publication of the Decree referred to above, CERA shall prescribe by a Decision which will be published in the Official Gazette of the Republic, the terms, conditions and criteria that applicants to the tendering procedure shall have to meet.

CERA shall open the tendering procedure and invite applications for the construction of new generating capacity in the Republic in accordance with the procedures specified in the Decree.

Article 22 of Directive 2003/54/EC – Direct Lines

As far as article 22 of the Directive 2003/54/EC is concerned according to the Law on Regulating the Electricity Market of 2003 and 2008 and as per Article 86:

- ❖ Where access to the transmission system or distribution system for holders of authorisations or permits or eligible consumers is refused by the Transmission System Operator or the Distribution System Owner respectively due to lack of capacity, CERA may authorise the electricity undertaking to whom such refusal is made to construct a direct line or an eligible consumer to connect with an existing direct line.
- ❖ An authorisation to construct a direct line granted by CERA under this subsection shall require the person to whom the permission was granted to comply with such technical and other conditions specified in the authorisation issued by CERA.
- ❖ Where there is a connection made between a direct line and the transmission or distribution systems, on the application of the Transmission System Operator and the Distribution System Owner respectively, CERA shall direct the owner of a direct line constructed under subsection (1) to transfer the ownership of the direct line to the Transmission System Owner or Distribution System Owner on such terms, including terms as to compensation, as may be agreed between the Transmission System Operator and the Distribution System Owner and the owner of the direct line.
- ❖ In default of agreement between the Transmission System Operator or the Distribution System Owner and the owner of the direct line as to compensation, such compensation shall be assessed under the provisions of the Expropriation of Property Laws of 1962 to 1999.

It should be noted that in practice such an incident whereby the TSO or the Owner of the Distribution System has refused access to the respective system due to non availability of capacity on the systems and whereby undertaking has been authorized by CERA to construct a direct line has not arisen as yet.

Article 22 of Directive 2003/55/EC – New Infrastructure

Article 22 of the Directive 2003/55/EC is not transposed to National Law, until now. However, CERA has prepared draft bill amending the Law on Regulating the Natural Gas Market in order to fully transpose the Directive 2003/55/EC (Article 22–New Infrastructure) into the national Laws. The said draft bill had been forwarded to the Office of the Attorney General to check their conformity to the legal, technical aspects, before they are forwarded to the Council of Ministers and the Parliament for approval.

2.6 Security of Supply

For the purpose of harmonisation with the directive of the European Union entitled as “Directive 2005/89/EC of the European Parliament and of the Council of 18 January 2006, concerning measures to safeguard security of electricity supply and infrastructure investments”, all necessary amendments were effected to our National Laws on Regulating the Electricity Market.

2.7 Regulation / Unbundling

2.7.1 Competences of NRAs

The main statutory objectives of CERA are set out below:

- ❖ To encourage, promote and safeguard the healthy and essential competition in the Electricity and Natural Gas Markets.
- ❖ To protect Consumers’ interests.
- ❖ To promote the development of economically viable and efficient Electricity and Natural Gas Markets.
- ❖ To ensure the Security, Continuation, Quality and Reliability of Electricity and Natural Gas Supply.
- ❖ To ensure the security of supply.
- ❖ To take into consideration the Protection of the Environment.
- ❖ To encourage the efficient generation and use of Electricity.
- ❖ To promote the use of Renewable Energy Sources (RES).

CERA is an independent authority of the Republic of Cyprus and has executive powers and competences in the Energy Field.

Among others, CERA has the following powers and competences:

(A) Electricity Market

- ❖ Issues, controls, enforces, amends and revokes Licences to Generate and Supply of Electricity.
- ❖ Advises the Minister of Commerce, Industry and Tourism in all subjects relating to electricity.
- ❖ Ensures that the Rules for the Transmission and Distribution and the Rules for the Electricity Market are prepared and approved in accordance with the Law.

- ❖ Safeguards the adequacy in electrical energy for the satisfaction of all reasonable needs and demands for electricity.
- ❖ Regulates tariffs, charges and other conditions and presuppositions which are imposed on the Licence Holders for any services offered in accordance with the conditions of their Licences.
- ❖ Determines, publicises and enforces quality standards with which the Licence Holders must comply.
- ❖ Determines the rules and the procedures according to which complaints are examined which relate to services offered by the Licence Holders including, when it considers it appropriate, the carrying out of investigations and the taking of decisions for such complaints.
- ❖ Encourages and facilitates competition with the ultimate target of lowering of prices.
- ❖ Protects the interests of the consumers.
- ❖ Ensures the Continuation, Quality, Reliability and Security of Electricity Supply.
- ❖ Protects the Environment.
- ❖ Encourages the use of Renewable Energy Sources (RES).
- ❖ Encourages Research and Development in the field.
- ❖ Ensures that the Licence Holders operate efficiently and have the ability to finance the business activities for which they are licenced.
- ❖ Promotes the development of an economically viable and efficient electricity market.
- ❖ Takes into consideration the needs of the consumers of rural areas, the consumers who are in a disadvantageous position and the elderly.

(B) Natural Gas Market

- ❖ Protects the interests of natural gas consumers.
- ❖ Safeguards the satisfaction of the demand for natural gas.
- ❖ Promotes the development of an economically strong and effective natural gas market.
- ❖ Safeguards the Safety, Continuity, Quality and Effectiveness in the supply of natural gas.
- ❖ Protects the environment.
- ❖ Encourages the research and development regarding the transmission, distribution, storage, supply and use of natural gas.

It is also the duty of CERA to:

- ❖ Safeguard and publicise measures which may be taken in case of unforeseeable crisis in the energy field, or when there is a danger to the safety of people, works, installations or the integrity of the networks, and
- ❖ Follow up the issues of security of the supply, and especially the balance of supply and demand in the market, the level of the expected future demand and the available plant.

During the execution of its duties, CERA takes the necessary measures to comply with the Public Service Obligations. The ultimate aim of CERA is to protect in the best possible way the interests of Energy Consumers but at the same time to protect the public interest.

2.7.2 Sanctions imposed by NRAs

CERA may on its own initiative or after receiving a complaint to investigate whether a licence holder is infringing or omitting to comply with any condition of the licence or any Regulatory Decision or Decision.

After carrying out such an investigation, CERA shall notify a notice to the aforementioned persons by which it shall determine:

- ❖ The term of the license or exemption or the regulatory decision or decision which, in CERA's opinion may be infringed at first sight or which is likely to be infringed by the licensee.
- ❖ The acts or omissions which in CERA's opinion may or are likely to constitute an infringement of the relevant term, decision or regulatory decision of CERA.
- ❖ The deadline within which the licensee may submit objections in writing, which deadline shall not exceed the 30 day time limit from the date that the notice is notified.

CERA shall examine any objections submitted. In examining any objection, CERA may issue a decision by which, it shall order the licensee to take such measures as may be necessary for remedying the infringement or preventing future infringements.

In the event that the licensee fails to remedy the infringement within one month from being notified of the decision of CERA, or within a reasonable period of time as CERA may prescribe by its decision, CERA may:

- ❖ Impose an administrative fine on the licensee depending on the nature, seriousness and duration of the infringement or omission as may be prescribed by Regulations issued under the relevant Law; and/or,
- ❖ Decide that an administrative fine depending on the seriousness of the case, shall be owed for each day on which the infringement or omission is continuing as referred to above; and/or,
- ❖ Revoke an authorisation, exemption, order or prior permit in accordance with the procedure prescribed by Regulations issued by CERA.

CERA's decision to impose an administrative fine or to revoke a license must be in writing and duly reasoned.

CERA's reasoned decision to impose an administrative fine shall be notified to the person who has been considered to be responsible for the infringement or omission. Such person may, after being notified of the decision, make written representations to CERA which must be lodged within 30 days of the notification of the decision. CERA shall collect the administrative fine if the 75 day time limit for filing a recourse before the Supreme Court of Justice has passed without any action being taken from the date of notification of the decision to impose such administrative fine, or, in the event that the recourse has been filed, following the issuing of a court decision which does not annul the fine.

If a fine imposed by CERA in accordance with the Law and the Regulations issued under it is not paid, CERA shall initiate court proceedings and shall collect the sum as a civil debt due to the Fund of the Office of CERA.

2.7.3 Role of TSO in the Electricity Market

Cyprus has established a single TSO, independent in legal terms (the Manager of TSO's Office being appointed by the Council of Ministers), in management terms (organisation and decision making) as per Law L.122 (I)/2003.

The main functions and responsibilities of the TSO are to secure the operation of the Electricity Transmission System and to manage the electricity market on an objective, non-discriminatory basis in a competitive environment, while at the same time supporting and promoting electricity generation from renewable energy sources. The TSO ensures access to the Transmission System of all producers and suppliers of electricity. The TSO also coordinates the actions taken for the repair and clearing of faults occurring in the Generation or Transmission Systems, in order for them to operate in an efficient co-ordinated, secure, reliable, and economical way, ensuring unhindered and uninterrupted supply of electricity to all consumers.

The two principal documents that the Transmission System Operator manages within the legal framework are the Transmission and Distribution Rules that primarily govern the technical aspects of planning and operating the transmission and distribution systems and the Trading and Settlement Rules (Market Rules) that primarily govern the commercial interactions of all parties using the transmission and distribution systems.

In general, the responsibilities of the TSO are:

- ❖ The efficient operation of the Transmission System.
- ❖ To ensure, on a day-to-day basis, the availability of generation resources and ancillary services.
- ❖ To ensure that the Transmission System is developed and maintained so that it sustains safety, reliability, security of supply, economic viability and efficiency.
- ❖ To prepare and annually revise a ten-year development and investment plan of the Transmission System.
- ❖ To operate the electricity market.

- ❖ To ensure the co-ordinated operation of the Transmission and Distribution Systems by arriving to all necessary agreements with the DSO, which in the case of Cyprus is EAC.
- ❖ To prepare, revise, as necessary, and submit to CERA for approval the Transmission and Distribution Rules as well the Market Rules.
- ❖ To determine the connection and use of system charges and arrange for the charging of all those who use or intend to use the Transmission System for transferring the energy they produce to their Consumers.
- ❖ To keep all necessary system records regarding the use of the Transmission System.
- ❖ To prepare all necessary monthly accounts according to the exact operation of each Producer with respect to the energy used by his Consumers.

2.7.4 Development of TSO and DSO unbundling

The function of the single DSO has remained within the Network Business Unit of EAC in agreement with the relevant clauses of the Electricity Directive (see Article 15) and the approval of the Government of Cyprus.

Neither the TSO nor DSO is ownership unbundled and according to the 3rd Energy Package (amendments on the Directives for gas and electricity) Cyprus is exempted from this provision due to the small and isolated characteristics.

Although the DSO has no legal independence, the accounts of this activity are unbundled and all medium and low voltage installations of the Distribution System are among the assets allocated as own.

As it has been mentioned before, in accordance with the new Directive 2009/72/EC on the common rules for the internal electricity market and the repealing of Directive 2003/54/EC, Cyprus has secured derogation from article 9 on the unbundling of transmission systems and transmission system operators.

2.8 General Conclusions

2.8.1 Conclusions Related to 3rd Package

The energy package adopted by the EU emphasizes the objective of a single competitive energy market. It is indeed, a proper functioning and competitive market with adequate infrastructure, including storage, gas pipelines and a developed electricity grid, that is required.

In general we support the Commission's decision concerning the measures proposed for strengthening the powers and independence of National Regulators which are substantial in harmonising and leveling up the powers of National Regulators.

However, it is believed that since the NRAs are particularly and specifically vested with the powers of regulating the energy market in competition issues as well, it is believed that it is not advisable to introduce a new provision in which monitoring of competition issues should be done in cooperation with the national competition authorities. Therefore, it is believed that it should be left to NRAs alone to monitor the competition issues in the energy market as the Authority has the expertise in this field. This way, the NRAs shall be the one and only responsible authority monitoring the level of market opening and competition at wholesale

and retail levels. It may include electricity exchanges, household prices, switching rates, disconnection rates and household complaints in an agreed format, as well as any distortion or restriction of competition. Also, it may be the only authority responsible to carry out investigations of the functioning of the electricity markets and to decide, in the absence of violations of competition rules, of any appropriate measures necessary and proportionate to promote effective competition and ensure the proper functioning of the market, including virtual power plants.

Furthermore, we support in general the spirit of the decision for the establishment of an Agency for the Cooperation of Energy Regulators (ACER). We support however that ACER should not intervene with or substitute the NRAs in the execution of their powers and competences already established by Law.

CERA strongly supports the focus that the package gives to the development of investments, the diversification of sources and routes as well as the determination and implementation of measures towards safeguarding security of supply. But as the Green Paper entitled 'A European Strategy for Sustainable, Competitive and Secure Energy' quite rightly states, there can be no truly competitive and single European energy market, when islands such as Cyprus, is totally dependent remain 'energy islands' isolated from the rest of the Community. This poses a challenge for Cyprus whose isolated energy network and small market make it difficult to achieve the objective of a secure and competitive energy supply. This is even more so given that our limited market is not conducive to economies of scale or scope.

Having said that, we do not want to detract from the importance of a sustainable energy policy which not only aims to ensure a secure, competitively priced and environmentally sound energy supply, but also seeks to reduce dependence on imported energy and to replace it by indigenous renewable energy sources.

Initiatives to reduce energy demand coupled with investment in clean and more eco-efficient technology also contribute to this objective, as well as, to reduce green-house gas emissions.

3. REGULATION AND PERFORMANCE OF THE ELECTRICITY MARKET

3.1 Regulatory Issues [Article 23(1) except “h”]

3.1.1 *Management and Allocation of interconnection capacity and mechanisms to deal with congestion*

As already mentioned, one of the urgent priorities of CERA was the opening of the Electricity Market. This was achieved at the beginning when the Electricity Market was liberalised by 35% on 1st May 2004. Furthermore, with effect from 1st of January 2009 the electricity market has been further liberalised for all “non domestic” consumers (approximately ~67% of the market). Cyprus has obtained a derogation with effect from 1st of January 2014 all consumers of electrical energy will be able to select their Supplier according to what is in their best interest.

Year	Market Opening (%)
1995	0
1997	0
2003	0
2004	35
2005	35
2006	35
2007	35
2008	35
2009	67
2010	67

Table 3.1.1- Electricity Market Opening Table

At present, Cyprus, as an island, operates without cross-border links. Thus, cross-border congestion management rules are not applicable. In the primary legislation, there is a clear definition of the role of the TSO to observe and record on an annual basis an assessment regarding expected flows and other conditions related to transmission capacity and ensuring that measures are taken to avoid breaching security of supply standards. According to the primary legislation, the TSO is obliged to publish a ten-year development plan which is approved by CERA and is available to all market participants. The above mentioned development plant is revised at least once a year.

3.1.2 *The regulation of the tasks of transmission and distribution companies*

Cyprus, being a small isolated system, has opted through the Law of 2003 on Regulating the Electricity Market, L.122(I)/2003, (further down referred to as the Law) for,

- (a) A single TSO unbundled in legal and management terms from the System Owner.
- (b) A common, bundled distribution network, Owner & DSO, as part of the Electricity Authority of Cyprus (EAC) which is the vertically integrated utility of Cyprus involved in all the functions of the electricity market.

Network Tariffs

For the network tariffs, in close cooperation with the TSO and EAC, reports have been prepared using external consultants (from Greece, UK, Ireland, and Netherlands) which have already been approved. The methodology developed in the reports is based on the following principles:

- ❖ Unbundling of EAC accounts under the following broad categories:
 - Generation.
 - Transmission Network.
 - Transmission System Operator (EAC related costs).
 - Distribution.
 - Supply.
 - Other business.
- ❖ Re-evaluation of generation and network assets.
- ❖ Identification of ancillary services and cost valuation of each one separately.
- ❖ Identification of Public Service Obligations.
- ❖ Benchmarking of various activities with reference to published performance indices of European Utilities.

These will facilitate the formulation of network tariffs that will guarantee the following pre-requisites:

- ❖ Economic Efficiency/cost reflectivity.
- ❖ Cost recovery.
- ❖ Efficient Regulation.
- ❖ Simplicity, transparency and stability.
- ❖ Non-discrimination.
- ❖ Facilitation of competition.

CERA has been vested through the Law with the responsibility of approving tariff methodologies and actual tariffs and charges of the Monopoly Sectors of the industry and all activities of EAC who is the dominant participant in the Electricity Market.

What is important to mention is that the philosophy behind the structuring of the tariffs for which CERA has the final word, is to protect the consumers against monopolistic prices.

The goal of CERA is also to encourage, via the tariffs structure, the efficiency and the quality of services, which need to be provided to the consumers by the licence holders for generation and supply of electrical energy.

The regulation of the Electricity Tariffs is applied with the aim of maximising the long term benefit of competitiveness in the Cyprus economy, the protection of the consumers, the performance of the Obligations of Public Service and the securing of continuous and normal energy supply.

Within this framework the regulation of Electricity Tariffs seeks to achieve the following main goals:

- ❖ Tariffs to reflect the real cost plus reasonable profit for every sector of the electrical energy.
- ❖ Unnecessary consumption not to be encouraged, but, on the contrary, energy savings should be encouraged.
- ❖ Sufficient incentives to exist for the participants in the Electrical Energy Market, so that they improve the cost of the services they provide.
- ❖ The competitiveness of the services provided to be secured.
- ❖ Not to create discrimination between consumers.
- ❖ Not to distort competition.
- ❖ Electricity bills to show in a transparent and clear way the consequences that application of other Policy decisions (e.g. Renewable Sources of Energy) may have on electricity tariffs.
- ❖ The structure of the bills and the items comprising them to be as clear and understandable as possible.
- ❖ Changes in prices to be anticipated so as to avoid up rapid changes which may cause uncertainty to investors and consumers.

The Electricity Market Law of 2003 covers adequately the requirements of the Electricity Directive under Article 3 for consumer protection and performance standards that affect the quality of supply to all consumers with particular emphasis to vulnerable consumers. Regulations were enacted pursuant to Article 88 of the Law laying down demanding obligations on the network owner and on suppliers to meet such quality standards that will safeguard the quality and continuity of electricity supply to all consumers.

The TSO in close cooperation with EAC has drafted proposals for the Use of Transmission System Charges.

The proposal for the Use of System Charges was under consideration by CERA for the final approval. Finally, after a lot of efforts, calculations, meetings and study, CERA has preliminary approved the tariffs to be used for the purpose of Use of System Charges.

Particularly, on 23rd of July 2010, CERA issued for public consultation, as obliged by the Law, a preliminary draft of the Decision as for the charges for Use of the Transmission and Distribution Network, including the expenses of TSO, ancillary services and reserve margins. With this draft, all interested parties are able within 30 days from the above mentioned date, to submit any Objections or Proposals on this preliminary Decision.

Balancing

As mentioned in the beginning in this report, an important itemized and very complicated issue that CERA had to carry out was the finalization of the document of the “Trading and Settlement Rules” (Market Rules). The above document was proposed by the TSO to CERA on 15 October 2008. CERA approved it and submit it to the Minister on 23 December 2008. Afterwards, the Minister gave his approval on 22 January 2009 where the Trading and Settlement Rules were officially published and placed into force on 30 January 2009.

Furthermore, the Trading and Settlement Rules:

- ❖ Enable the TSO to fulfill its obligations under the Law.
- ❖ Regulate the means by which Participants may trade Energy.
- ❖ Allow the calculation and settlement of payments in respect of Energy and Ancillary Services.
- ❖ Specify the way in which settlement and billing shall be carried out.
- ❖ Deliver the Electricity Trading Rules as envisaged in the Law.

The Trading and Settlement Rules provide all necessary information concerning operation of the electricity market in the country. The balancing arrangements are also described in the Transmission and Distribution Rules.

The system applied in Cyprus is based on Bilateral Agreements between producers and their customers, who must nominate their productions to the TSO 24hrs ahead of their planned production. Their production must balance within $\pm 10\%$ of their customers demand. The difference between total supply and total demand is settled through the balancing market. Gate closure is applied at midnight – as provided by Market Rules. Settlement of imbalances will be arranged on a monthly basis. It should be noted that the balancing interval is 30min.

Participants acknowledge the following principles governing Energy Balance:

- ❖ As a bilaterally contracted market, primary Energy Balance is achieved by Participants contracting for delivery of Energy for expected Customer offtakes. Energy Contracts are for delivery of defined amounts of Energy in a Settlement Period.
- ❖ Generators will nominate physical positions to the Transmission System Operator representing their intentions to deliver the physical Energy for which they have made Energy Contracts.
- ❖ When the Transmission System Operator believes that the net generation does not equate to net demand (adjusted for losses), then it will contract to buy or sell residual Energy to bring the two into balance.

Participants acknowledge the following principles governing System Balance:

- ❖ Energy Contracts are for delivery of total Energy over a Settlement Period. However, for particular minutes within a Settlement Period, the system may be long or short of Energy even when, in aggregate for the Settlement Period, the system is in balance.

The Transmission System Operator will need to contract to buy and sell Energy to achieve minute-by-minute Energy Balance within the Settlement Period.

- ❖ In addition to achieving Energy Balance, the Transmission System Operator will contract for other services to manage system constraints, voltage control and frequency control.

The market is not yet operating in practise since there is only one Power Producer and Supplier, namely the EAC.

3.1.3 *Effective unbundling*

- ❖ Cyprus has established a single TSO, independent in legal terms (the Manager of TSO's Office being appointed by the Council of Ministers), in management terms (organization and decision making) as per Law L.122 (I)/2003.
- ❖ The function of the single DSO has remained within the Network Business Unit of EAC in agreement with the relevant clauses of the Electricity Directive (see Article 15) and the approval of the Government of Cyprus.
- ❖ Neither the TSO nor DSO is ownership unbundled, and according to the 3rd Energy Package (amendments on the Directives for gas and electricity) Cyprus is exempted from this provision due to the small and isolated system's characteristics.
- ❖ Although the DSO has no legal independence, the accounts of this activity are unbundled and all medium and low voltage installations of the Distribution System are among the assets allocated as own.

GENERATION SUPPLY AND TRANSMISSION ACTIVITIES	TSO	DSO
Separate Headquarters (Y/N)	Yes	No
Separate corporate presentation (Y/N)	Yes	No
Unbundled regulatory accounts as per guidelines (Y/N)	Yes	Yes
Audit of unbundled accounts (Y/N)	No	No
Publication of unbundled accounts (Y/N)	No	No
Separate board of Directors without Directors from other group companies? (Y/N)	No	No

Table 3.1.3 - Summary Information on TSO & TSO Unbundling (Electricity)

On the basis of the above the following are adhered to:

- ❖ Unbundled corporate accounts of EAC will include separate accounts for Transmission as Owner, Transmission as Operator and Distribution as Owner and Operator.

- ❖ The unbundling methodology of EAC has been prepared by reputable consultants (ESBI Ireland) and the Board of EAC has given its preliminary approval. The methodology has been submitted to CERA together with historic accounts and these are currently in the final stages of clarifications and approval.
- ❖ It was agreed with EAC that unified accounts should be acceptable for the time being. In the future however, its intended that unbundled accounts will be issued and separately audited by external auditors.
- ❖ In accordance with article 27 of Law 122(I)/2003, sanctions available to the Regulator for Companies failing to comply with management or accounts unbundling vary in accordance with the seriousness of the breach, from fines of a minimum of €1,710 up to 10% of the gross annual income of the enterprise.

In the event that the breach continues, in spite of the fine imposed, CERA may additionally impose an administrative fine of €85.50 to €8,550 for each day that the breach continues taking into consideration the seriousness of the breach.

In the event that the person/legal entity responsible for the breach has obtained illegal gain due to the breach, CERA has the power to impose a fine which may reach a sum double that of the proven sum illegally gained.

Also, it should be noted that CERA may revoke the License.

TSO is located separately from EAC. The TSO presents himself to customers as a separate entity with his own name, logo and website.

Employees directly employed by network operators (TSO's & DSO's) as share of employees of the total electricity sector approximates to 39,6%.

Employees also providing services to other parts of the group as percentage of the total employees in the network business (the denominator includes the shared employees & the exclusive network employees) approximates to 96,8%.

TSO and DSO are provided with all of their employees by the single vertically integrated utility, namely the EAC.

Share of shared services adds up to 100% and shared employees likewise.

3.2 Competition Issues [Article 23(8) and 23(1)(h)]

3.2.1 Description of the wholesale market

Cyprus has opened the electricity market by 35% of the annual consumption as from 1st May 2004 and for all "non domestic" consumers (approximately by 67%) as from 1st January 2009. Up to now only one generator (EAC) is operating in Cyprus covering all the needs of the country. Furthermore and as mentioned before, the Trading and Settlement Rules (Market Rules) have been officially published and placed into force on 30 January 2009. The Law allows a retail market to operate for participants that own and operate enough generation for the needs of their customers.

In this respect no wholesale market is envisaged to function in Cyprus in the near future.

A brief description of the generation structure of Cyprus is as given below:

The installed generating capacity is 1438 MW (July 2010) by the generating plants of EAC plus 26,63 MW by the independent producers for own use and 8,42 MW from RES (Photovoltaics and Biomass) with a recorder maximum demand of 907 MW in July 2006, 1056 MW in July 2007, 1010 MW in August 2008 and 1103 MW in July 2009. It is expected that the maximum demand for 2010 will reach 1105 MW.

The annual consumption was 4650 GWh for 2006, 4850 GWh for 2007, 5049 GWh for 2008 and 5133 GWh for 2009. For 2010 it is expected the consumption to reach 5380 GWh.

More details regarding the above it is presented on Section 5 – Security of Supply.

Cyprus is currently operating a national electricity market that is totally (100%) dominated by EAC who is the provider of ancillary services as well. In the future, market participants, with generating capacity exceeding 50MW can participate in the market for ancillary services.

Although demand side management is covered in the approved Transmission and Distribution Rules there is not yet any active participation in demand side management.

Since there is no wholesale market in Cyprus the Table 3.2.1 is not applicable. Furthermore, there is only one supplier the Electricity Authority of Cyprus (EAC) and trading is carried out only through bilateral agreements (by choice of available tariffs). Hence Table 3.2.1(a) is not applicable.

Year	Demand		Installed Capacity (GW)	No. of companies with >5% generation	Share of largest three generation companies	HHI (where available)	
	Total (TWh)	Peak (GW)				All plant, by capacity	All plant, by volume
2002	n/a	n/a	n/a	n/a	n/a	n/a	n/a
2003	n/a	n/a	n/a	n/a	n/a	n/a	n/a
2004	n/a	n/a	n/a	n/a	n/a	n/a	n/a
2005	n/a	n/a	n/a	n/a	n/a	n/a	n/a
2006	n/a	n/a	n/a	n/a	n/a	n/a	n/a
2007	n/a	n/a	n/a	n/a	n/a	n/a	n/a
2008	n/a	n/a	n/a	n/a	n/a	n/a	n/a
2009	n/a	n/a	n/a	n/a	n/a	n/a	n/a
2010	n/a	n/a	n/a	n/a	n/a	n/a	n/a

Table 3.2.1(a) - Development of wholesale market – Not Applicable

Year	Total Consumption	Traded in spot PX market	Traded in forward PX market	Bilateral OTC trading
2003	n/a	n/a	n/a	n/a
2004	n/a	n/a	n/a	n/a
2005	n/a	n/a	n/a	n/a
2006	n/a	n/a	n/a	n/a
2007	n/a	n/a	n/a	n/a
2008	n/a	n/a	n/a	n/a
2009	n/a	n/a	n/a	n/a
2010	n/a	n/a	n/a	n/a

Table 3.2.1(b) - Volume of electricity traded (TWh) – Not Applicable

Concerning the degree of integration of the market with neighbouring Member States, it is repeated that Cyprus constitutes a small isolated system.

3.2.2 Description of the retail market

As already pointed out, Cyprus has opened the Electricity Market on the 1st May 2004 for the 35% of the annual consumption and on 1st January 2009 extended up to 67%. Before May 2004, EAC was the sole licensee to produce and sell electricity in Cyprus and the situation remains the same up until today, as no new players already being licensed have been put into operation.

EAC is currently supplying the following groups of consumers:

- ❖ Households and small commercial sector: 516.585 consumers (less 50 kW) - 100% share.
- ❖ Medium sized industrial and commercial sector: 2.898 consumers (above 50 kW, LV metering) – 100% share.
- ❖ Large and very large industrial customers: 547 consumers (MV and HV metering) – 100% share.

The total consumption of customers and consumption by sector is given below:

CONSUMERS, TOTAL & AVERAGE SALES & AVERAGE PRICES

As at 31 December	2006	2007	2008	2009
NUMBER OF CONSUMERS				
Domestic	348 394	366 799	386 489	402 671
Commercial	76 272	78 294	80 913	83 160
Industrial	11 198	11 299	11 792	11 618
Agricultural	11 597	12 117	12 796	13 546
Public Lighting	7 581	7 991	8 499	9 035
TOTAL	455 042	476 500	500 489	520 030
SALES TO CONSUMERS (thousands kWh)				
Domestic	1 500 511	1 607 048	1 682 327	1 720 777
Commercial	1 713 921	1 783 885	1 881 173	1 918 932
Industrial	723 038	699 746	757 803	791 640
Agricultural	128 701	137 339	156 930	143 971
Public Lighting	68 851	70 301	77 596	80 426
TOTAL	4 135 022	4 298 319	4 555 829	4 655 746
AVERAGE SALES PER END YEAR CONSUMER (kWh)				
Domestic	4 307	4 381	4 353	4 273
Commercial	22 471	22 784	23 249	23 075
Industrial	64 568	61 930	64 264	68 139
Agricultural	11 098	11 334	12 264	10 628
Public Lighting	9 082	8 798	9 130	8 902
AVERAGE REVENUE PER UNIT BILLED kWh (€cent)				
Domestic	12,492	12,746	15,988	13,321
Commercial	13,009	13,328	16,982	14,196
Industrial	11,111	11,458	14,955	12,325
Agricultural	11,434	11,675	15,296	12,697
Public Lighting	10,981	11,233	14,554	12,129
ALL CONSUMERS	12,408	12,719	16,178	13,473

All tariffs and charges are regulated and they are currently under a process of re-adjustment to gradually overcome any remaining cross subsidies.

During the year under review, CERA examined thoroughly the subject of methodology for the tariffs of electricity and their structure regarding the electrical energy tariffs of EAC. After several discussions and studies, CERA had finally approved new EAC' s tariffs, where from 1st of June 2009 new tariffs regarding "Commercial" and "Industrial" consumers have been applied.

As mentioned above, CERA, on 27/10/2009, decided the approval of new tariffs of Electricity Authority of Cyprus, resulting in an increase of 1.5% applicable for three consecutive years, starting from 1 January 2010. EAC constitutes the main dominant participant in Cyprus electricity market. For the time being no other producer-supplier presents. It should be noted that according to the Law, suppliers should own at least adequate generating capacity to satisfy the needs of their consumers' aggregate demand, thus integrating producers with supply activities. .

No switching procedures are as yet into force for customers to change suppliers, since there are no other suppliers. Regarding the average (typical) contract duration for households, this for the time being is not applicable in Cyprus. Domestic consumers constitute non-eligible electricity customers. However, domestic customers will continue to be supplied only by EAC until the 1st of January 2014 where the 100% opening of the market is expected and all consumers will be able to choose their producer-supplier according to their interest. As a general assessment to whether the market is seen to be active or dormant, it could be said that the market seems to become active. By considering the above conditions under which Cyprus has to act, i.e. small isolated system, the progressively opening of the electricity market where it constitutes a contemporary activity for the island, the above position can be justified.

Year				Market share of three largest companies (Producers)			Cumulative % customers having changed supplier (by volume)		
	Total consumption (TWh)	No. of companies with >5% retail market	Number of <u>fully</u> independent suppliers (1)	Large and very large industrial	Small-medium industrial and business	Very small business and household	Large and very large industrial	Small-medium industrial and business	Very small business and household
2001	3,13	1	0	n/a	n/a	n/a	0	0	0
2002	3,40	1	0	n/a	n/a	n/a	0	0	0
2003	3,66	1	0	n/a	n/a	n/a	0	0	0
2004	3,74	1	0	n/a	n/a	n/a	0	0	0
2005	3,93	1	0	n/a	n/a	n/a	0	0	0
2006	4,14	1	0	n/a	n/a	n/a	0	0	0
2007	4,30	1	0	n/a	n/a	n/a	0	0	0
2008	4,56	1	0	n/a	n/a	n/a	0	0	0
2009	4,66	1	0	n/a	n/a	n/a	0	0	0

(1) i.e. fully independent from Production companies

Table 3.2.2 - Development of Retail Market

3.2.3 Measures to avoid abuses of dominance

All information regarding generation, planned and actual, together with all the necessary transmission system developments is published on CERA' s and TSO' s websites.

Furthermore, the current vertically integrated utility (EAC) is going to be totally regulated both for the network activities, but also for generation and supply with fully unbundled accounts to the requirements of the Directive and its tariffs and other charges will be approved by CERA. This situation will continue until competitive conditions are established after new entrance come into operation.

In addition, as already pointed out in other sections of the report:

- ❖ The TSO is independent from the vertically integrated Utility (EAC) in management (organisation and decision making) terms and is totally responsible for the operation of the electricity transmission system and the market as far as generation, supply, the balancing market and the provision of ancillary services.
- ❖ Performance quality indices are already in effect for all critical factors of the electricity network with penalties on the provider so that actual service to electricity consumers is closely monitored.
- ❖ All applications for connection to the Transmission network shall be totally the responsibility of the TSO as far as the issuing of terms for connection to the network and furthermore to oversee that the system owner (EAC) shall take all the necessary steps to construct the necessary network without delay.
- ❖ The TSO is vested with the responsibility of submitting the Transmission Use of System Charge to CERA for approval.
- ❖ CERA is the responsible Authority to regulate and monitor conditions of the market, so that abuses of dominance as well as other breaches of the Rules of the free Market are avoided. To this effect CERA takes appropriate and effective measures through the approvals of the above itemised issues for control and transparency, so as to avoid possible misuse of dominant positions and in particular of those misuses to the detriment of consumers.

4. REGULATION AND PERFORMANCE OF THE NATURAL GAS MARKET [Article 25(1)]

4.1 Regulatory Issues [Article 25 (1)]

Natural Gas is still not available on the island; nevertheless, the Natural Gas Sector has been put in line with the relevant EU Directive 2003/55/EC, relating to the common rules of the internal natural gas market. The provisions of the Directive have been incorporated into the Laws on Regulating the Natural Gas Market of 2004-2007.

Unlike the electricity sector which is characterised by ownership differentiation, the gas sector according to the last amendment of the law regulating the Natural Gas Market as well as the relevant Ministerial Decision will be fully monopolistic.

Furthermore, having taken into consideration the Decisions of the Council of Ministers regarding the importation and transportation of Natural Gas for the needs of Cyprus for generation of electricity and the construction of an LNG Terminal at the Vasilikos area, the Minister of Commerce, Industry and Tourism determined (Ministerial Direction dated 17/3/2006) natural gas as the primary source of energy for all sizeable capacity electricity generating Power Plants which will be licenced by CERA. The Directive is in effect from the date of its publication on 17th of March 2006. In accordance with the said Directive, CERA decided that any Power Producing Unit over 50MW should be fuelled with Natural Gas.

Furthermore, on the 18th of June 2008 the Government of Cyprus has decided to establish a new Public Gas Company that will undertake exclusively the import of LNG, and the supply of natural gas to the market, with the Government holding 100% of the issued shares and with the option for Electricity Authority of Cyprus (EAC) to participate in its share capital with 44%. EAC is in the process of exercising its option to acquire the 44% of the share capital.

Additionally, the corporate structure of the entity responsible for the establishment (ownership, financing, operation and management) of the Vasilikos Energy Centre onshore LNG terminal will be in the form of a Joint Venture with the significant participation of EAC and other interested strategic investors.

The onshore LNG terminal shall be the exclusive terminal for the importation, storage and regasification of LNG in Cyprus. Based upon current projections, the natural gas consumption for Power Generation will range from 0,68mtpa in 2014 and will gradually increase to 1,47mtpa by 2035. It is expected, according to estimations, that the LNG Terminal will be commissioned by the end of 2014.

DEFA is a private corporation which will purchase and import the LNG pursuant to a LNG Sale and Purchase Agreement ("SPA"), preferably on a delivered ex-ship ("DES") basis. DEFA will enter into an agreement with a second corporation, which is to be established, (the "LNG Terminal Company"), for the provision of LNG receiving, storage and re-gasification services at its terminal pursuant to a Terminal Use Agreement (the "TUA").

The LNG Terminal Company will be responsible for the development, construction and operation of the LNG Terminal and will provide LNG regasification services to DEFA pursuant to a "TUA".

The LNG Terminal Company will not take ownership of the LNG, which will remain the property of DEFA throughout the supply chain, but will own, finance, manage and operate the assets of the LNG Terminal through a Joint Venture to be established, with the significant participation of EAC and other interested strategic investors.

It is evident that the authority and competence of CERA as well as the model of the natural gas market in Cyprus are drastically transformed setting in real terms a monopoly model in gas market which will eventually affect competition in electricity market as well.

In case all the necessary procedures and steps are materialised in the planned time schedule, it is expected that Natural Gas will be available in the island by 2014. Based on current projections, the natural gas consumption for Power Generation will range from 0,68mtpa in 2014, 1,054mtpa in 2015 and will gradually increase to 1,47mtpa by 2035 with an annual increase of approximately 2%. It is expected, according to GoC estimations, that the LNG Terminal will be commissioned by mid 2014.

The natural gas requirement for power generation in April of 2015 is estimated at 0,068mtpa, which is approximately 64 % of the peak requirement in July and August of 2015, estimated at 0,108 mtpa. Respectively the natural gas requirement in April of 2025 is estimated at 0,083 mtpa, approximately 68% of the peak requirement in July and August of 2025, estimated at 0,122 mtpa.

The above forecasts are indicative, it is expected that the numbers (total LNG demand) will change due to the fact that Natural Gas will be used mainly for electricity generation. In this respect if the electricity demand increases so as the LNG demand.

The table below gives the type of gas usage, distinguishing among industrial, residential, power generation and commercial. For each kind of usage also provides the level and percentages of total levels of consumption for the next 8 years.

Natural gas consumption by sector (MSmc)											
Year	Industry		Residential		Commercial		Power Generation		Others		Total
		%		%		%		%		%	
2008		0		0		0		0		0	0
2009		0		0		0		0		0	0
2010		0		0		0		0		0	0
2011		0		0		0		0		0	
2014		0		0		0		100		0	100
2015		0		0		0		100		0	100
2017		0		0		0		100		0	100

Furthermore, the seasonality of natural gas demand it is expected to be affected by the seasonality of electricity demand (maximum demand in summer time- usually July).

It is worth to note that CERA in order to ensure security and continuity of supply as well as to assess the market demand for market capacity in the island has decided to proceed with an Open Season procedure.

An Open Season procedure involving consultations between the National Regulatory Authority (NRA) and End-Users would help decision makers estimate the exact volume and kind of any new capacity required, while ensuring that this capacity is allocated on a transparent and nondiscriminatory basis.

It is a two-phase process which allows an Investor (in case of Cyprus the LNG Terminal and DEFA) to efficiently consult the market about the infrastructure required, and the terms it would like this infrastructure to be marketed and allocates the resulting new capacity on a transparent and non-discriminatory basis.

This Request for Expressions of Interest is to solicit non-binding interest of End-Users to buy regasified LNG from DEFA. The objective is to identify potential End-Users and their demand for regasified LNG, which will facilitate DEFA in contacting the interested End-User for further negotiations and to plan its LNG procurement.

❖ **Open Season 1st Step –Request for Expression of Interest to buy regasified LNG**

CERA, in the context of its duties and competences and in order to ensure the meeting of reasonable demand for natural gas, on 3rd of September 2009 proceeded to an “Open Season” process. This particular process concerns the Expression of Interest to buy regasified natural gas by End Users, so to make the necessary estimate of demand and by extension the market capacity. The process ended on 31st of December 2009 and three companies in all (EAC, GOLAR ENERGY LTD, VOUIROS POWER INDUSTRIES) expressed interest to buy natural gas for electricity generation.

❖ **Derogations secured by the Republic of Cyprus**

In accordance with the new Directive 2009/73/EC in connection with the common rules for the internal market of natural gas and the repealing of Directive 2003/55/EC, Cyprus secured derogation from article 9 on the new Directive on the unbundling of transmission systems and transmission systems operators.

Furthermore, Cyprus may deviate from the application of articles 4 (Authorization Procedure), 9 (Unbundling of transmission systems and transmission system operators), 37 (Market opening and reciprocity) or/and 38 (Direct lines). The deviation will end from the moment Cyprus will cease to be regarded as an isolated market.

Also Cyprus may deviate from the application of Articles 4 (Authorization Procedure) and 9 (Unbundling of transmission systems and transmission systems operators), article 13 (Tasks of transmission, storage and/or LNG system operators), paragraphs 1 and 3, articles 14 (Independent system operators), 24 (Designation of distribution system operators), 25 (Tasks of distribution system operators) paragraph 5, 26 (Unbundling of distribution system operators) 31 (Unbundling of accounts), 32 (Third party access), 37 (Market opening and reciprocity) paragraph 1 and/or article 38 (Direct lines). This derogation will end the moment Cyprus will cease to be described as an emerging market.

❖ **Preparation of Legislative Measures – Bill on Security of Natural Gas Supply**

This Bill was prepared by CERA and discussed with the Ministry during 2007 and tabled in the House of Representatives for approval. The House postponed debate on this subject until the more general question of Natural Gas supplies to Cyprus is solved. During 2008 CERA, the Ministry and the EAC discussed the provisions of the Bill once again in the light of Law 199 (I) 2007 amending the Laws of 2004-2006 “On Regulating the Natural Gas Market”.

During the year 2009, the said Bill was discussed a new in the framework of the Third Energy Package and more specifically of the proposed Regulation on the security of natural gas supplies. On the basis of the revised Directive 2004/67/EC, the aforementioned proposed Regulation and also the conclusions of the study by CERA’s Consultants, LDK Consultants, all parties involved decided that this Bill should be withdrawn. It was decided that the reactivation of the Study Committee of the said Bill, should continue with the issuing of the new Regulation on measures to ensure the security of Natural Gas supply.

4.1.1 Management and allocation of interconnection capacity and mechanism to deal with congestion & the regulations of the tasks of transmission and distribution companies

Cyprus, as an island, will operate without any cross-border links. Thus, cross-border congestion management rules are not applicable.

In view of the fact that the gas market is still non-existent in Cyprus the following Tables are not applicable.

Year	Threshold GWh / Year	Market Open (%)
1999	n/a	n/a
2001	n/a	n/a
2003	n/a	n/a
2005	n/a	n/a
2006	n/a	n/a
2007	n/a	n/a
2008	n/a	n/a
2009	n/a	n/a

Table 4.1.1.(a) – Gas market opening table. Not Applicable

	Number of regulated companies	Approx. network access charge €/ m3			Interruptions minutes lost per customer per year
		I4	I1	D3	
Transmission	n/a	n/a	n/a	n/a	n/a
Distribution	n/a	n/a	n/a	n/a	n/a

Table 4.1.(b) – Regulation of Network Companies. Not Applicable

	Transmission	Distribution
Separate Headquarters (Y/N)	n/a	n/a
Separate corporate presentation (Y/N)	n/a	n/a
Unbundled regulatory accounts with guidelines (Y/N)	n/a	n/a
Audit of unbundled accounts (Y/N)	n/a	n/a
Publication of unbundled accounts (Y/N)	n/a	n/a
Separate board of Directors without Directors from other group companies? (Y/N)	n/a	n/a

Table 4.1.1.(c) – Summary Information on Unbundling (Gas). Not Applicable

4.2 Competition Issues [Article 25(1)(h)]

4.2.1 Description of the Wholesale and Retail Market

Unlike the electricity sector which is characterised by ownership differentiation, the gas sector according to the last amendment of the law regulating the Natural Gas Market as well as the relevant Ministerial Decision shall be monopolistic.

As mentioned in previous paragraphs, Cyprus has established its gas industry by granting a supply permit to a single legal entity, which will be controlled by the state (Shareholding: 56% by Government with option to release 5% to 3rd parties, 44% by Electricity Authority of Cyprus), called 'DEFA'.

The Council of Ministers have already decided (Decision on 18.6.2008), to assign the import and supply of natural gas to the Republic of Cyprus to only one company, called 'DEFA'. In

addition the Council of Ministers has decided the creation of a land based Energy Center as the exclusive Receiving Terminal, with Storage facilities and installations for Regasification of Liquefied Natural Gas (LNG).

In general 'DEFA' would have the sole right to import gas into Cyprus and to sell gas to all gas consumers. Aggregating gas demand through DEFA could also facilitate Cyprus' ability to acquire a relatively small quantity of gas on the best terms to satisfy demand. In addition the Council of Ministers has decided the creation of a land based Energy Center as the exclusive Receiving Terminal, with Storage facilities and installations for Regasification of Liquefied Natural Gas (LNG).

In accordance with the last amendment of the Law on Regulating the Natural Gas Market as well as the above Ministerial Decision (18.6.2008), CERA cannot grant any licenses in natural gas field.

The tables below are prescribing the development of the wholesale and retail market as well as specific parameters regarding the volume of gas traded (bcm) till 2009 and the breakdown of currently prevailing price levels (which is not applicable).

Year	Demand		Production	Import capacity (bcm/year)				No. of companies with >5% production and import capacity	No. of companies with >5% available gas	Share of largest three gas wholesalers
	Total (bcm)	Peak (bcm/year)	bcm	Total	Reserved transit	Reserved other LT	Unreserved			
2002	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
2003	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
2004	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
2005	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
2006	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
2009	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a

Table 4.2.1(a) – Development of Wholesale Market - Not Applicable

	Total consumption	Traded in spot hub market	Traded in forward hub market	Bilateral OTC trading
2003	n/a	n/a	n/a	n/a
2004	n/a	n/a	n/a	n/a
2005	n/a	n/a	n/a	n/a
2006	n/a	n/a	n/a	n/a
2009	n/a	n/a	n/a	n/a

Table 4.2.1(b) – Volume of Gas Traded (bcm) - Not Applicable

Year	Total consumption (bcm)	No. of companies with >5% retail market	Number of fully independent suppliers (1)	Market share of three largest companies				Cumulative % customers having changed supplier (by volume)			
				Power plants	Large and very large industrial	Small-medium industrial and business	Very small business and household	Power plants	Large and very large industrial	Small-medium industrial and business	Very small business and household
2002	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
2003	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
2004	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
2005	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
2006	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
2009	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a

(1) i.e. fully independent from network companies

Table 4.2.2 (a) – Development of Retail Market - Not Applicable

	I4	I1	D3
Network charges (excl. levies)	n/a	n/a	n/a
Levies included in network charges	n/a	n/a	n/a
Energy costs and supply margin	n/a	n/a	n/a
Taxes	n/a	n/a	n/a
Total (including all taxes)	n/a	n/a	n/a

Table 4.2.2 (b) – Breakdown of currently prevailing price levels - Not Applicable

5. SECURITY OF SUPPLY

5.1 Electricity [Article 4 and 2005/89/EC Article 7]

For the purpose of harmonisation with the directive of the European Union entitled as “Directive 2005/89/EC of the European Parliament and of the Council of 18 January 2006, concerning measures to safeguard security of electricity supply and infrastructure investments”, all necessary amendments were effected to our National Law on Regulating the Electricity Market. On 29 October 2008 the new amending Law 92(I)/2008 has been published and placed into force.

In 2009 the Power Maximum Demand recorded was on the 28th of July 2009 and reached a level of 1103 MW, (vis -à-vis a Demand Forecast of 1095MW), 5 MW of which were derived from “OWN USE” installations. The total Energy generated for the whole of the year was of the order of 5178 GWh (vis-à-vis a forecast of 5380 GWh). The load factor for the year was of the order of 0.536.

Until July 2010 the Power Maximum Demand recorded was on the 22nd of July 2009 and reached a level of 1051MW (1046MW produced from EAC and 5MW from a generator for own-use).

In recent years the average annual rate of increase in Power Maximum Demand was of the order of 7.09% and the average annual rate of increase in generated energy was of the order of 3.65%.

The levels of annual maximum demand as well as the annual energy generated are expected to continue a similar increasing trend.

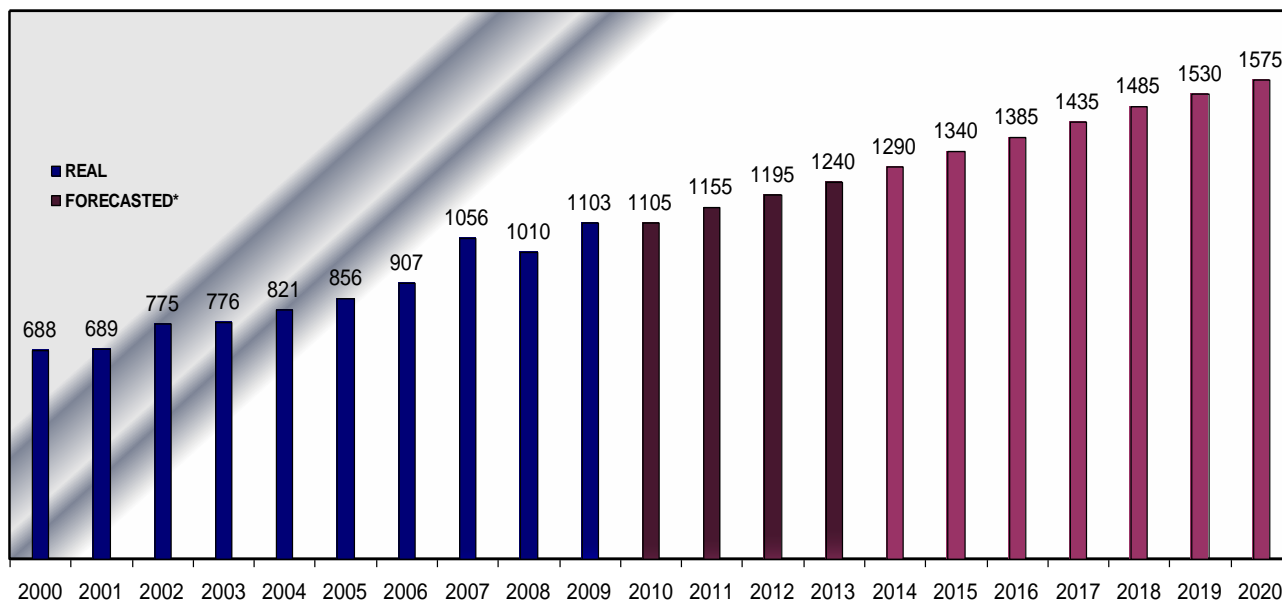
The forecasted maximum demand for electricity is as follows:

⇒ 2010 (forecasted)	1105 MW
⇒ 2011 (forecasted)	1155 MW
⇒ 2012 (forecasted)	1195 MW
⇒ 2013 (forecasted)	1240 MW
⇒ 2014 (forecasted)	1290 MW
⇒ 2015 (forecasted)	1340 MW
⇒ 2016 (forecasted)	1385 MW
⇒ 2017 (forecasted)	1435 MW
⇒ 2018 (forecasted)	1485 MW
⇒ 2019 (forecasted)	1530 MW
⇒ 2020 (forecasted)	1575 MW

The installed generating capacity is 1438 MW (July 2010) by the generating plants of EAC plus 26,63 MW by the independent producers for own use and 8,42 MW from RES (Photovoltaics and Biomass) with a recorder maximum demand of 907 MW in July 2006, 1056 MW in July 2007, 1010 MW in August 2008 and 1103 MW in July 2009. It is expected that the maximum demand for 2010 will reach 1105 MW.

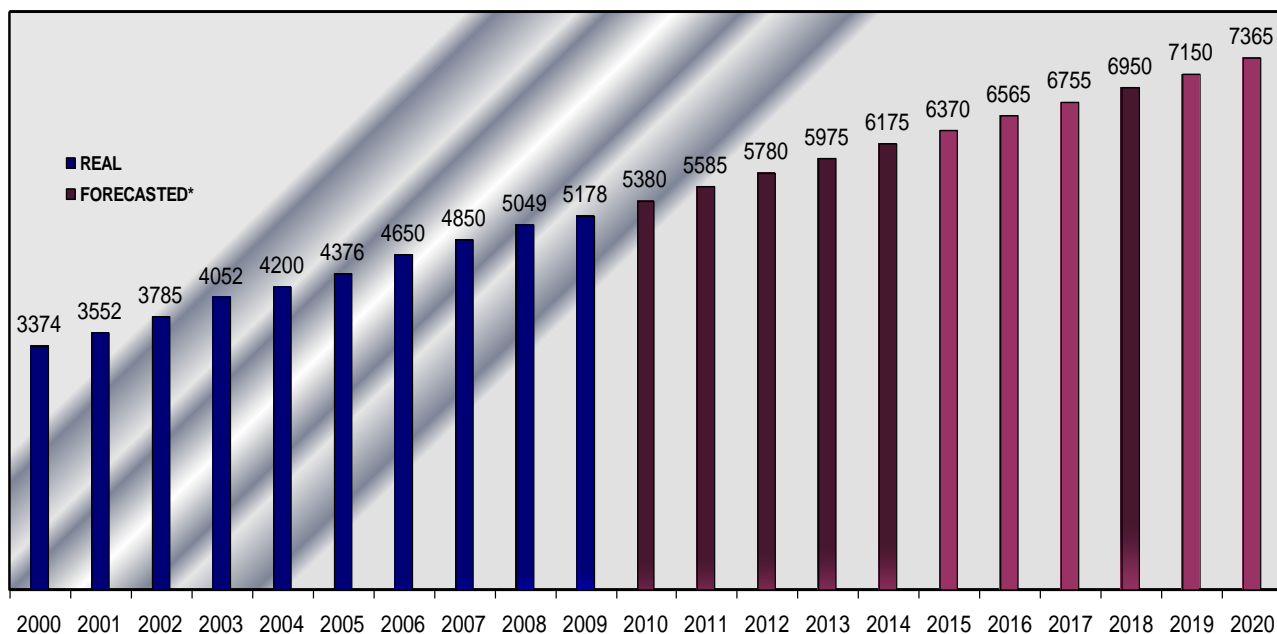
The graphs below present historical data for the period 2000 - 2008 and the forecasted quantities for the period 2010 – 2020:

(A) ANNUAL MAXIMUM DEMAND IN (MW) UNTIL THE YEAR 2020



* With a Variation of $\pm 3.0\%$ for the year 2010 up to $\pm 5.0\%$ for the year 2020

(B) TOTAL ANNUAL GENERATION OF ELECTRICAL ENERGY IN (GWh) UNTIL THE YEAR 2020



* With a Variation of $\pm 1,5\%$ for the year 2010 up to $\pm 2.5\%$ for the year 2020

GENERATION LICENCES ISSUED:

(a) Conventional Units

Until July 2010, CERA issued Licences for existing and new Electrical Energy Generating Stations (Conventional Units of Generation) as follows:

S/N	COMPANY NAME	TYPE OF LICENCE	MW
1	EAC (Heavy Fuel Oil & Diesel)	Operation of Power Plant at Vasilikos (Existing Units)	298
2	EAC (Heavy Fuel Oil)	Construction and Operation of Power Plant at Vasilikos (Unit No.3)	130
3	EAC (Heavy Fuel Oil)	Operation of Power Plant at Dhekelia (Existing Units)	360
4	EAC (Heavy Fuel Oil & Diesel)	Operation of Power Plant at Moni (Existing Units)	330
	EAC (HFO& DIESEL)	Construction & Operation of Power Plant at Vasilikos, Unit 3	130
5	Vasilikos Cement Works Ltd	Operation of Power Plant (Existing Unit – own use generation)	6
6	Vouros Power Industries Ltd (Heavy Fuel Oil)	Construction and Operation of Power Plant (ICE)	49,9
7	EAC	Construction and Operation of Power Plant at Vasilikos – Unit No.4 (CCGT)	220
8	EAC	Construction and Operation – Unit No.5 at Vasilikos (CCGT)	220
9	EAC	Construction and Operation – Unit No.6 at Vasilikos (CCGT)	220
10	Vasilikos Cement Works Ltd	Construction and Operation (ICE – own use generation)	5
11	Elmeni Quarries Ltd	Construction and Operation (ICE – own use generation)	1,6
12	Golar Energy Ltd	Construction and Operation of a Floating Power Plant- Vassilikos (CCGT)-Natural Gas	240
13	Latomia Farmakas Ltd	Operation & Generation of Electrical Energy (Existing Unit-own use generation)	2
14	Hellenic Copper Mines Ltd	Operation & Generation of Electrical Energy (ICE-for own use generation)	3,8
15	Sewerage Board of Limassol-Amathus	Operation & Generation of Electrical Energy – for own use generation	1,2
16	Sewerage Board of Limassol-Amathus	Operation & Generation of Electrical Energy – for own use generation	1,2
17	EAC (Diesel)	Construction & Operation of Electrical Energy - Dekhelia	50
18	M.S.Scyra Vasas Ltd	Operation and Generation of Electrical Energy (ICE – for own use generation)	3,192
19	CYTA	Construction and Operation of Electrical Energy (ICE – for own use)	1,36

		generation)	
20	JCC Payment System Ltd	Construction and Operation of Electrical Energy (ICE – for own use generation)	1,28
21	PEC Powerenergy Cyprus Ltd	Construction and Operation (CCGT)	230
22	EAC – Dhekelia Power Station	Construction and Operation (ICE)	50
TOTAL LICENCED CAPACITY (100%)			2424,50
EAC (77,45%)			1878,00
OTHERS (22,55%)			546,50

- EAC - Electricity Authority of Cyprus
 RES - Renewable Energy Sources
 IPPs - Independent Power Producers
 CCGT - Combined Cycle Gas Turbine
 ICE - Internal Combustion Engine

During the period July 2009 – July 2010 no any applications for the purpose of authorising new generation investments regarding conventional units of generation had been applied

(b) RES Systems

Until July 2010, CERA issued Licences for new Electrical Energy Generating Stations (Electricity Production from RES) as follows:

(i) By Renewable Energy Sources 506,254MW which include:

- ✓ Wind Parks: 490,94 MW (96,97%)
- ✓ Biomass: 9,62 MW (1,9%)
- ✓ PV Systems: 5,694 MW (1,13%)

In this report, we are very proud to announce that after a lot of efforts, on 19 July 2009 a contract for the connection to the system of the first Wind Park (82 MW) was signed. All the necessary licenses have been successfully arranged and the construction work of the Wind Park has already started, which it is expected to be completed by the end of 2010. More details are given next.

Also, on 4th and 10th of December 2009 another two new contracts of Wind Parks for the connection to the system (10 MW and 31,5 MW respectively) have been signed. It is expected that both Wind Parks will be fully operated at the beginning of 2011 and thereafter the total installed capacity by wind energy will become up to 133,5 MW.

Having in mind the already licensed electricity generation installations from RES and the prospective investments as well as the submitted timetables of the investors, it is believed that more projects will materialise and operate in the following years, if of course the time

consuming other bureaucratic procedures with respect to obtaining all the necessary approvals for the operation of the said installations are limited or abolished.

Please note that, a small number of investments (biomass and small PV systems) have been materialized. The relevant details are given below:

(ii) Installed RES Units of a total capacity of 8,147 MW

✓ Wind Parks:	0 MW (0%)
✓ Biomass:	4,535 MW (55,66%)
✓ PV Systems (grid connected):	2,98 MW (36,57%)
✓ PV Systems (autonomous):	0,631 MW (7,77%)

CERA is examining the following applications for the purpose of authorising new generation investments (electricity generation from RES).

(iii) RES Applications under review of a total capacity of 237.87 MW

✓ Wind Parks:	153,40 MW (64,49%)
✓ Biomass:	7,15 MW (3,00%)
✓ PV Systems (grid connected):	16,99 MW (7,14%)
✓ Hydroelectric Systems:	0,33 MW (0,14%)
✓ Solar thermal Systems:	60 MW (25,23%)

Currently Cyprus is totally dependent on Heavy Fuel Oil and Diesel, which are 100% imported. As mentioned above, by the end of 2010 the first Wind Park (82 MW) is expected to be completed and there will be a better generation mix that will include renewable generation sources (wind, solar, animal waist etc) and natural gas.

The TSO, in close cooperation with EAC, (the Transmission network owner) has the legal responsibility of preparing a ten year plan for the network requirements to satisfy the secure flow of energy from the generators to the distribution network and customers connected to the transmission network.

The ten-year plan has already been submitted to CERA and has been approved. Same will be under annual review.

❖ **The first Wind Farms under construction**

The start of the construction of the first Wind Farms in Cyprus is now a reality. CERA always remaining faithful to its goals concerning the promotion of RES and the protection of the environment had proceeded to granting a number of licences for the Construction and Operation of Wind Farms. In this way it made its own contribution to the fulfillment of Cyprus commitments towards the EU to cover 6% of our electricity needs by RES until 2010.

The first Wind Farm expected to be constructed is the Wind Farm at Orites locality, which has been described as one of the biggest such projects in the Eastern Mediterranean, having 82MW installed capacity and consisting of 41 wind generators of 2,0MW installed capacity each. The construction of the project started in August 2009, following enormous efforts, and is expected to be completed at the end of 2010. Expenditure for the project is expected to amount to 200 million Euros. Furthermore, another three (3) Wind Farms are at the final stage of the licence procedure by the remaining services.



Photos from the construction of the first Wind Farm at Orites locality in the area of the villages of Pano Archimandrita, Kouklia and Alektora in the districts of Paphos and Limassol.

With the operation of these Units for the Generation of Electrical Power (Wind Farms) as well as other Units for the Generation of Electricity from RES for which licences have been granted (Biomass, Photovoltaic Parks, Solar-Thermal power station) it is expected that the target set by the EU to cover by 2010 6% of our needs from RES will be largely attained.

❖ New Directive 2009/28/EC on RES and National Mandatory Targets for 2020

On the basis of the positions of the European Parliament, the Council and the Commission, it is advisable that national mandatory targets be set which are consistent with the 20% target for the overall share of energy from renewable energy sources and the 10 % target for energy from renewable sources in transport by 2020. The main purpose of the national mandatory targets is to provide security to investors and encourage the continuous development of technologies generating energy from all forms of renewable energy sources. Postponing the taking of a decision as to whether a target is mandatory, until a future event, is therefore not expedient.

On 23 April 2009, the new Directive 2009/28/EC on the promotion of the use of RES was finalized and published and on 30 June 2009 came into force.

Directive 2009/28/EC establishes a common framework for the promotion of energy from renewable sources. It sets mandatory national targets for the overall share of energy from renewable sources in gross final consumption of energy and for the share of energy from renewable sources in transport. Cyprus national RES energy target has been set to 13%. It lays down rules relating to statistical transfers between Member States, joint projects between Member States and with third countries, guarantees of origin, administrative procedures, information and training, and access to the electricity grid for energy from renewable sources. It establishes sustainability criteria for biofuels and bioliquids.

Directive 2009/28/EC requires each Member State to adopt a national renewable energy action plan. These plans are to set out Member States' national targets for the share of energy from renewable sources consumed in transport, electricity and heating and cooling in 2020, taking into account the effects of other policy measures relating to energy efficiency on final consumption of energy, and adequate measures to be taken to achieve those national overall targets, including cooperation between local, regional and national authorities, planned statistical transfers or joint projects, national policies to develop existing biomass resources and mobilize new biomass resources for different uses, and the measures to be taken to fulfill the requirements of Articles 13 to 19 of Directive 2009/28/EC (2). In accordance with Directive 2009/28/EC, the Commission had to adopt by 30 June 2009 a template for the national renewable energy action plans comprising the minimum requirements set out in Annex VI to that Directive,

Regarding the above issue, CERA has convened a special technical advisory committee, which is composed by representatives from different Ministries, Authorities and Organisations of Cyprus. The main target of the committee is to investigate an optimum strategic plan for the integration of the necessary renewable energy sources for electricity production (RES-E) technologies mixture in the existing Cyprus power generation system, which will be used for the completion of the above mentioned template.

The committee within a shortly timetable, manage to complete its study and to submit end of June 2010 to the Minister of Commerce, Industry and Tourism an analysis of a proposed strategic plan for the promotion of renewable energy sources in the Cyprus electricity generation system.

The main purpose of the analysis was to assess the unavoidable increase in the cost of electricity of the Cyprus generation system by the integration of the necessary RES-E technologies for Cyprus to achieve its national RES energy target. The optimization model developed uses a genetic algorithm (GA) technique for the calculation of both the additional cost of electricity due to the penetration of RES-E technologies as well as the required RES-E levy in the electricity bills in order to fund this RES-E penetration. Also, the procedure enables the estimation of the level of the adequate (or eligible) feed-in-tariff to be offered to future RES-E systems in Cyprus.

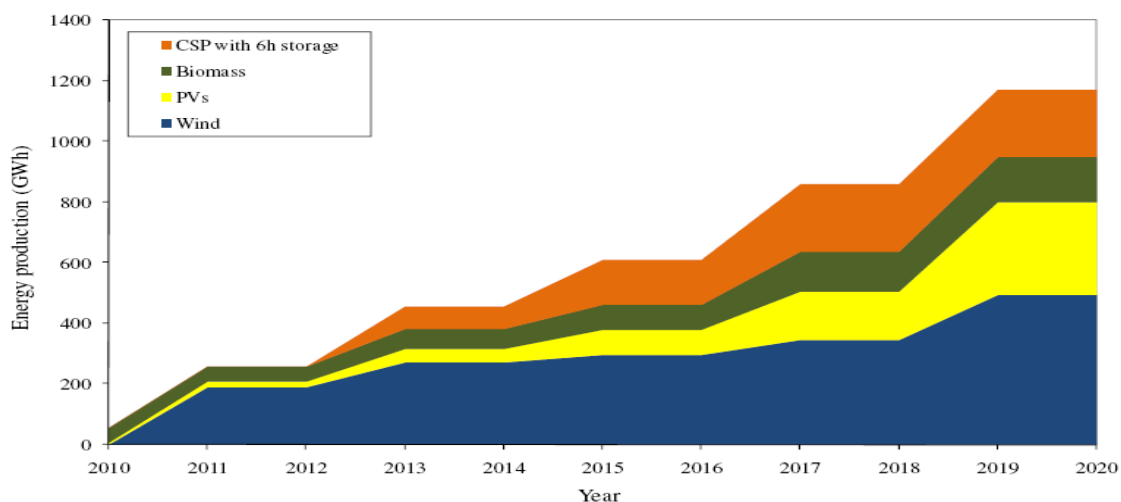
In the absence of national projections concerning the final energy consumption for the period 2010 - 2020, in order to assess the increase in the cost of electricity for the promotion of RES-E technologies and to calculate the required RES-E levy in the electricity bills, 8 scenarios were investigated during the simulations.

Based on the analysis carried out in this investigation and regarding the optimum strategic plan for the integration of the necessary RES-E technologies mixture in the existing Cyprus power generation system drawn in this study, the committee has recommended the following:

- ❖ In addition to the suggested RES-E penetration scenario (16% RES-E penetration with 300MWe wind contribution) which relies solely on domestic RES-E production for the achievement of Cyprus national RES energy target, the possibility of using one of the measures of cooperation between Member States or with third countries, such as, (a) statistical transfers between Member States, (b) joint projects between Member States, (c) joint projects between Member States and third countries and (d) joint support schemes, should be investigated.
- ❖ The RES fund income from CO2 trading auctioning is beneficial to the financials of the fund. Thus, after 2013, in which CO2 trading auctioning mechanism will be materialized, an appropriate scheme should be designed in order the resulting amounts to be included as income to the RES fund.
- ❖ The integration of RES-E electricity market operation in the activities of the Transmission System Operator, under the supervision of Cyprus Energy Regulatory Authority, as is the case for most of European countries, should be investigated.
- ❖ Based on the analysis carried out, EAC RES-E purchasing tariff formula provides prices higher by approximately 10% than the actual avoidance costs. This will be become more severe with the introduction of natural gas for power generation in which the difference will reach approximately 35%. Thus, the need for revision of EAC RES-E purchasing tariff formula in order to reflect the actual avoidance costs should be investigated.

- ❖ In this analysis, the biomass technology capacity factor was assumed to be 80%. However, this needs to be investigated further and appropriate measures need to be set-up in order to prevent potential RES-E producers to install biomass power generation units with a rated capacity much higher than can be provided by the available biomass feedstock.
- ❖ RES-E technologies such as solar dishes, thin film PVs and CPVs which under the current feed-in tariffs scheme are considered as CSP and PV technologies respectively should be investigated further in order to examine the possibility of separate feed-in tariffs.
- ❖ The EU structural fund contributions allocated to Cyprus for the installation of RES-E technologies (CSP and PVs) should be allocated and the relevant RES-E installations implemented at priority. With this action, the additional cost for the promotion of RES-E technologies will be further reduced.
- ❖ The stability and the security of supply of the power system with increased penetration of RES-E technologies (mainly wind and PVs) should be investigated, in order to provide the relevant information for the estimation of the maximum allowed technical penetration limits of RES-E technologies.
- ❖ The available residential, industrial and commercial space available for PV systems installation should be investigated.
- ❖ The available Governmental land for the installation of RES-E technologies should be investigated.
- ❖ The adoption of various RES-E promotion campaigns should be investigated, such as a target on a number of PV roofs and/or PV factories, inform potential RES-E producers via TV spots and flyers upon the various RES-E technologies technical and economic characteristics as well as environmental benefits, etc.
- ❖ The limit of 150kW PV systems installation should be revised in order to allow for the installation of PV parks with capacities at approximately 1-2MW.

In the following graph, the proposal of the committee is presented.



Graph 5.1 – RES-E energy mix with the suggested RES-E promotion scenario

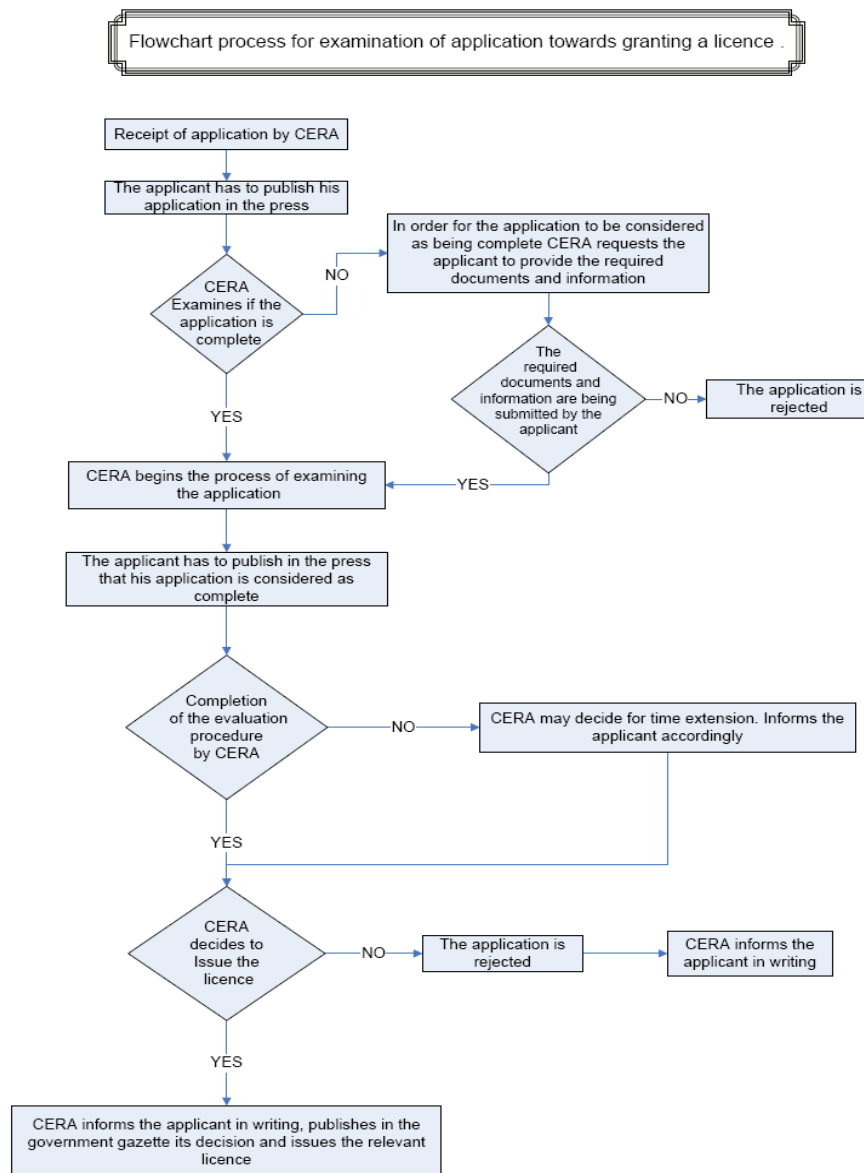
❖ **The authorisation procedure and criteria for new generation investments are as follows**

1. For the purpose of acquiring a License for the Construction and Operation of Electricity Generating Units for the purpose of Supplying Electricity to Eligible Consumers, or for generation for Own Use, a specific Application should be submitted, in accordance with Law No. 112(I)/2003 and the Relevant Regulations. The Application must be accompanied by the prescribed Fees and all necessary supporting documents that would allow CERA to complete a detailed examination of the Application and reach a decision.
2. The original “Form of Application of Licence” Part I of the relevant Regulation in accordance to Article 97(2)(d) of the Law of 2003 on Regulating the Electricity Market accompanied with all documents as required by Part II of the same Regulation must be filled in and submitted.
3. The Application Fee covers the registration, examination, evaluation and decision taking process regarding the Application and is not refundable.
4. In addition to other issues, the following are considered important and integral parts of the application:
 - ☐ Designation of the specific proposed erection location (plot of land) which must be accompanied with the written and binding consent of the owner, referring to memos on the title deed, if it is the case.
 - ☐ General site planning drawings for the installation of the Units.
 - ☐ Environmental Study, carried out by an independent specialist, in which it should be clearly concluded that all criteria for the protection of the Environment will be met and an explicit written undertaking, by the Applicant, of fulfilling these criteria during the Construction and Operation of the Units if the requested licence is granted.
 - ☐ Comprehensive and binding time schedule indicating monthly progress of the Project.
 - ☐ Financial and/or other Guarantees for the Completion of the Project.
5. Applications are examined according to the order of receipt once they are considered as being COMPLETE (i.e. all required documents and information have been submitted).
6. In its decision regarding the issue of Licences and the size of the new Units that will be licensed, CERA seriously takes into consideration, among other criteria, the following:
 - ☑ The Adequacy, Reliability and Security of Supply for the following years
 - ☑ The Safety of the electricity system, installations and associated equipment
 - ☑ The Protection of the Environment
 - ☑ The Protection of public Health and Safety
 - ☑ Energy Efficiency
 - ☑ The introduction and continuation of a healthy Competition for the best interest of the Consumers
 - ☑ The Viability of the Project

- ☑ The Fuel to be used
- ☑ The repercussions in the Price of the kilowatt-hour (kWh)
- ☑ The Time Schedule for the completion of the Project
- ☑ Guarantees for the Completion of the Project

7. CERA has the right to cancel the issued Licence in case the agreed timetable, for the completion of the Project, is unduly delayed at any stage beyond three (3) months.
8. In accordance to Law N.122(I)/2003, Article 34(3), the issue of a Licence for the Construction and Operation of a Power Station does not exempt the holder of such licence from the obligation of obtaining other approvals and authorizations (e.g. a Building Permit and a Planning Permit) as required by any other Law.
9. The relevant Law provides, that the Applicant, in the case of an Individual, must be a citizen of the European Union and be resident in a Member State, and in the case of a Legal Entity must be based and have a Registered Company in a Member State of the European Union.

The flowchart below shows the process for the examination of application towards granting a licence.



Year	Peak electricity demand (GW)	Available capacity (GW)	For next three (3) years Forthcoming new plant (GW)		Plant completed minus plant closed in the year (GW)				
			Authorised	Under construction	Coal and Oil	Gas	RES	CHP	Nuclear
2000	0,688	0,988			0,988	0	0	0	0
2001	0,689	0,988			0,988	0	0	0	0
2002	0,775	0,988			0,988	0	0	0	0
2003	0,776	0,988		0,130	0,988	0	0	0	0
2004	0,821	0,988	0,310	0,130	0,988	0	0	0	0
2005	0,856	1,118	0,246	0,180	1,118	0	0	0	0
2006	0,910	1,118	-	-	1,118	0	0.0008	0	0
2008	1,010	1,187.68	2,610.6	1,207.647	1,182.2	0	0.00548	0	0
2009	1,103	1,421.50 ¹	2,424.5		1,388.00	0	0.00687	0	0

¹ Includes 6,87MW from RES & 26,63MW from own use generation units

Table 5.1 – Security of Supply Evolution

❖ **Major Infrastructure Projects – Transmission Network**

With regards to major infrastructure projects in the Transmission Network as we have already mentioned there are no interconnection projects, however the construction work in national transmission network projects during the last twelve (12) months (July 2009 - July 2010) is described below:

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

Development works respond to the ever-increasing demand for electricity and, at the same time, increase transmission system reliability.

- New substations / Completed substations

Amathus 132/22-11kV substation:

By July 2009, installation work had been completed on the 80MVA Amathus 132/22-11kV GIS substation in Limassol. The substation, which features two 40MVA transformers and a 22kV 21-panel switchboard, is due to operate in autumn 2010, fed by underground cables which will be installed during the undergrounding of the 132kV Moni-Polemídia overhead power line.

- New substations / Under development

Lakatamia 132/22-11kV substation:

The Lakatamia 132/22-11kV GIS substation, with two 40MVA 132/23-11.5kV transformers and a 22kV medium voltage 30-panel switchboard, is nearing the final stages of commissioning. Pre-testing and energisation of the substation is due in October 2010.

New Paphos 132/22-11kV substation:

It is a closed-type substation incorporated into the new Paphos Area Office building complex. It features three 40MVA transformers and GIS equipment. The protection panels and fully automated monitoring system use tried and tested advanced technology. The project is due for completion in spring 2011.

Trimiklini 132/66/22-11kV substation:

Construction work is due to be completed in July 2010. This open-type substation will feature a 45MVA 132/66kV auto-transformer, two line circuits, two 16MVA 66/23-11.5kV transformers, a capacitor divider circuit and a 22kV 14-panel switchboard. EAC personnel will install the equipment with the aim of completing the substation by autumn 2011.

Alexigros and Psevdas 132/11kV substations:

The Alexigros and Psevdas 132/11kV substations are being established for connection to the Wind Park Transmission Network, the first with an installed capacity of 31.5MW in the Alexigros area and the second with an installed capacity of 20MW in the Psevdas area. For each of the projects separately, the Transmission System Operator has appointed a private company to construct both the substation and the Wind Park.

On both projects the Transmission System Operator has appointed the EAC as Project Engineer to ensure that the projects are constructed to the same standard of quality and reliability as those constructed by the EAC.

Oreites 132kV substation:

The Oreites open-type substation using conventional equipment is being constructed on state-owned land in the Oreites forest in the Paphos district to connect the licensed Oreites 82MW Wind Park to the Transmission System. The new substation will be connected via the existing 132kV Polemidia-Anatoliko overhead power line.

The project is at an advanced stage and is due to be completed in July 2010.

Stroumbi 132/22-11kV substation:

The Stroumbi 132/22-11kV substation, which is being constructed in the Stroumbi area in the Paphos district, has a capacity of 32MVA and metal enclosed switchgear for outdoor installation. The contract for the electrical equipment is being prepared and tenders for construction work will be published shortly. The new substation will be connected to the Anatoliko and Polis substations.

Athienou 132/22-11kV substation:

Procedures are under way for the establishment of this new open-type substation. It will contain two line circuits, two 16MVA 132/22-11kV transformers, a capacitor divider circuit and a 22kV 12-panel switchboard. To feed the substation, a new 132kV double circuit overhead power line will be erected between the Dhekelia and Free Industrial Zone substations.

- Upgrades to existing substations / Completed upgrades

Hadjipaschalis 132/22-11kV substation:

On 27 May 2009, the upgrade to the 132/22-11kV Hadjipaschalis substation in Paphos was completed. Closed-type switchgear was installed, together with an upgraded control system, and the medium voltage switchboard was replaced. A third 40MVA transformer was also installed, increasing the installed capacity of the substation from 80MVA to 120MVA.

Xeropotamos 66/11kV substation:

On 20 July 2009, a fourth 10MVA 66/11kV transformer was energised at the substation.

- Upgrades to existing substations / Ongoing upgrades

Dhekelia 132/11kV substation:

The substation building was delivered in November 2009 and installation of the equipment began, over an expected duration of 10 months. It consists of a high voltage 28-panel switchboard, two 40 MVA 132/23-11.5kV transformers, a medium voltage 11-panel switchboard and high voltage cabling. Pre-testing and energisation of the substation are expected to take place in October 2010.

Episkopi, Pissouri and Xeropotamos 132/22-11kV substations:

Upgrades to the Episkopi and Pissouri substations, which are being carried out in accordance with the completed-contract method, are proceeding on schedule. On 28 July 2009, stage 2 of work on the Episkopi substation was completed with the energisation of the second 16MVA transformer circuit (T1). In November 2009, the stage 1 equipment was energised at the Pissouri substation. Full energisation of the two substations is due in autumn 2010.

At the same time, work is progressing on the new 132/22-11kV Xeropotamos substation which is being constructed in a new location and will replace the existing substation.

Kolossi 132/22-11kV substation:

In the framework of the substation upgrade, work on stage 2 was completed in November 2009 and the 40MVA T2 transformer was energised. The upgraded open-type substation is due to come into full operation in September 2010.

- Upgrades / Relocations of existing overhead power lines

New route for the Anatoliko-Paphos overhead power line:

This new connection of approximately 7.72km has overhead and underground sections. This ongoing project is due to be completed in May 2010. The existing line will be dismantled.

Stroumbi-Polis 132kV overhead power line:

The contract has been awarded. The contractor is due to start work in September 2010 and to complete the project in 9 months. The 32kV double circuit line, on a new 22km route, will replace the old 66kV single circuit line.

- Undergrounding of existing power lines

Athalassa-Strovolos and Athalassa-Dasoupolis transmission lines:

In the framework of the undergrounding of the overhead sections of the Athalassa-Strovolos and Athalassa-Dasoupolis circuits, the new 7.79km Athalassa-Strovolos underground circuit was energised on 29 June 2009 and the two new 5.5km Athalassa-Dasoupolis circuits were energised on 7 November 2009.

The list of completed projects for 2009 also includes the 4.40km Dasoupolis-Strovolos circuit which is currently undergoing pre-testing. The swift dismantling of the two overhead power lines, covering a total of 8.54km, is under way.

Transmission lines in the Limassol area – Undergrounding of the Moni-Yermasoyia-Ayia Phyla-Polemida 132KV transmission line:

Final plans and specifications were drawn up, a tender was issued and the contract was awarded on a turn-key basis. Work on this extremely important project is due to begin in March 2010 and will take 18 months to complete. During the first stage, around the end of 2011, the incoming and outgoing lines at the Yermasoyia and Ayia Phyla substations will be dismantled and, at a second stage, around the middle of 2012, the backbone of the line will be dismantled.

❖ Transmission System Development Studies

In 2009 the Studies and Pre-planning Section prepared the following studies in collaboration with the Transmission System Operator (TSO):

- Nicosia Area

The following studies were prepared and approved for Nicosia and the surrounding area:

- Upgrading of the Latsia transmission substation.
- Establishment and powering of the new 2x40 MVA 132/22-11KV Dhali Industrial Area open-type GIS substation (revised study).
- Undergrounding of the section of the Athalassa-Orounta overhead power line which traverses the residential area of Lakatamia.
- Interconnection of the Tseri and Strovolos transmission substations via a third underground transmission cable.
- Interconnection of the Seminary and Strovolos transmission substations via a third underground transmission cable.

The following studies are planned:

- Powering of the new 3x40 MVA 132/22-11KV Engomi closed-type GIS transmission substation.
- Dasoupolis-District Office connection (revised).
- Installation of power transformers and a medium voltage automatic switchboard in the Tseri transmission substation.
- Karvounas-Tembria 132kV Double Circuit overhead power line.

- Limassol Area

The following studies were prepared and approved for Limassol and the surrounding area:

- Installation of 22/11kV power transformers in the Pyrgos transmission substation.
- Connecting the EAC's Thermal Power Station at Akrotiri to the transmission system (preliminary study).

The following studies are planned:

- Ypsonas Industrial Area nodal transmission substation.
- Limassol Marina primary substation.
- Upgrading of Moni transmission substation from 66kV open-type to 132kV GIS closed-type.
- Establishment of a new transmission substation between Polemidia and the 3rd Limassol Industrial Area.
- New Vasilikos-Moni overhead power line (rbus twin).
- New Vasilikos-Alambra overhead power line.

- Famagusta-Larnaca Area

The following studies were prepared and approved for Famagusta-Larnaca and the surrounding area:

- Development of the Transmission System at Vasilikos power station.
- Dismantling of part of the 132kV Dhekelia-Larnaca overhead power line.
- Pyla substation (revised study).
- Undergrounding of the section of the Dhekelia-Larnaca-Free Industrial Zone overhead power line that traverses the residential areas of Pyla and Voroklini (preliminary study).
- Upgrading of the International Airport transmission substation.
- Upgrading of the Free Industrial Zone transmission substation.
- Upgrading of the Commercial Centre transmission substation to 3 X 31.5 MVA.
- Replacement of 11kV equipment with 22/11kV SF6 equipment at the Protaras transmission substation.

The following studies are planned:

- Powering of the desalination plant at Vasilikos power station.
- Interconnection of the Pyla and Commercial Centre transmission substations via a double circuit underground transmission cable.
- Establishment of the new Psevdas transmission substation.
- Establishment of the new Alexigros transmission substation.
- Establishment of the new Vasilopotamos transmission substation.
- Establishment of the new Klavdia transmission substation.
- Vasilikos Cement Factory temporary connection.

- Paphos Area

The following studies were prepared and approved for Paphos and the surrounding area:

- Powering of the desalination plant at Kouklia (revised study).

- Partial undergrounding of the Anatoliko-Hadjipaschalis overhead power line.

The following studies are planned:

- Establishment of the new Oreites transmission substation.
- Connecting the new Ikaria substation to the New Paphos and Hadjipaschalis substations.
- Upgrading of the Akoursos transmission substation.

- Other studies

The following studies have also been completed:

- Startup of desalination turbines.
- Installation of automatic fire systems in EAC substations and other buildings.
- Installation of an air-conditioning system in the District Office substation.
- Transmission System Project Costing Manual.
- Transmission System Power Transformer Management.
- Transmission System Reliability in summer 2009.

The following studies are planned:

- Transmission System Power Factor Improvement.
- Continuous Modeling of the Transmission System and Equipment and System Analysis.
- Transmission substation load prediction for 2010-2030.
- Transmission System Reliability in summer 2009.
- Transmission System Project Costing Manual.

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

5.2 Gas [Article 5] and 2004/67/EC [Article 5]

Natural Gas is still not available in Cyprus. In spite of this, Natural Gas was defined by a Ministerial Decision as the basic fuel for the production of electricity by future installations of sizeable capacity.

CERA has already proceeded with harmonisation of the Cyprus legislation with EU Directive 2003/55/EC, relating to the common rules of the internal Natural Gas market. The provisions of the Directive have been incorporated into the Law on Regulating the Natural Gas Market of 2004 as amended in 2007.

After a review of security of supply measures adopted by other EU member states CERA has identified a number of themes to address the security of supply issue:

- ❖ The production of some form of National Emergency Plan to address roles, responsibilities and actions to be taken by participants in the gas market.
- ❖ Interruption / curtailment of gas supplies to specific customer groups to protect more vulnerable end-users.

- ❖ Requirement, typically on suppliers, to keep a number of days of typical gas demand in gas storage facilities.
- ❖ Requirement, typically on large end-users or suppliers to large end-users, to have, or make, available quantities of an alternative fuel to gas, usually gas oil or fuel oil, in the event that gas supply is curtailed.
- ❖ Requirement, typically on gas suppliers or a policy for the country as a whole to ensure, through gas contracts, a diversity of supply sources.

The measures adopted by some EU member states will not be applicable to Cyprus, since Cyprus is not connected to the EU gas transmission network. The situation Cyprus is in, therefore, is similar only to some of the outlying EU member states where there is effectively only one source of gas supply. These would include member states such as Finland, the Baltic states of Estonia, Latvia and Lithuania and Ireland.

CERA is currently under an ongoing process of adopting measures to safeguard Natural Gas security of supply and determine corresponding emergency plans and actions. CERA has already prepared and submitted a draft bill amending the basic Law on Regulating the Natural Gas Market in order to incorporate the provisions of the Directive 2004/67/EC into National Law. The said draft bill is under consideration and deliberation is being conducted with other interested bodies taking into account the New Energy Policy and the 3rd Package.

In this respect, it must be noted that the primary parameter to be taken into consideration when assessing security of Natural Gas supply in Cyprus is the fact that Cyprus is an island, isolated from the Natural Gas networks of any other EU or non- EU country.

This unique parameter implies that in Cyprus, both in the long-term and in the short-term, Natural Gas supply issues should always be considered in relation to any other primary energy source utilised in the country (i.e. oil and LPG).

In Cyprus natural gas is envisaged to be used exclusively for power production, at least for the first 10 years from the date it is delivered for the first time to the island. Later, and upon development of the corresponding networks, Natural Gas will become available for use, first by the industrial sector, then the commercial sector, and finally households in case this option is economically feasible.

In view of the above, a condition should be adopted to protect security of electricity supply by providing alternative arrangements for electricity generation in the event of Natural Gas supply interruption in the island. Generators should have the capability and relevant infrastructure on-site, in order to be able to utilise an alternative fuel for power generation, as well as store the required quantities of secondary fuel for that purpose. In the event of a disruption or shortage of supply of the primary fuel, i.e. Natural Gas, the Cyprus TSO can then call on generators to run on the secondary fuel, at short notice, for a specified period of time.

Furthermore, in view of the gas market development in Cyprus for the next decade (2011-2020) a specific number of measures is under consideration taking into account the following important parameters:

- ❖ No indigenous gas resources.
- ❖ No interconnections with other gas systems.

- ❖ No underground or undersea gas storage.
- ❖ Supply only by LNG because of Cyprus being an isolated island.
- ❖ Brand new and small market which will be based on the power generation (90% of total gas consumption).
- ❖ The gas demand growth is expected to reach “the plateau” within 10 years because of the political decision to convert almost all existing oil fired power plants to gas fired.
- ❖ The other gas consumption sectors (industrial and residential/commercial) are very small compared to the power generation sector (0,23 bcm to 2,0 bcm at “the plateau”) and these will probably be developed much later.
- ❖ No big linepack because the main city-capital (Nicosia) is in the center of the island and the Power Generation is in the south.
- ❖ Significant diesel oil storage quantities in existing reservoirs which will not be dismantled.
- ❖ Gas Market model: A Gas Company is the sole importer and supplier of all natural gas quantities in Cyprus, also undertaking the transmission system operation. A different company will invest for an LNG terminal, possibly undertaking as well the terminal’s operation.

The following measures have been identified but not finalised, in view of enhancing security of supply:

- ❖ Interruptible contracts.
- ❖ Interruption under a priority list.
- ❖ Temporary storage kept by the Network Operator.
- ❖ Supply sources diversification.
- ❖ Long term supply contracts.
- ❖ Reserve fuel arrangements for gas fired power plants.
- ❖ Elaboration of an Emergency Plan.
- ❖ Security of supply being responsibility of the Regulator.
- ❖ SoS monitoring performed by the Regulator.
- ❖ Monetary penalties (e.g. for cases of non-delivery by the producer or in cases of non-delivery by the shipper or in cases of LNG terminal operator failure).

It was also noted that the measures adopted by some EU member states would not be applicable to Cyprus, since Cyprus is not connected to the EU gas transmission network. The situation Cyprus is, therefore, similar only to some of the outlying EU member states (e.g. Finland, the Baltic states of Estonia, Latvia, Lithuania and Ireland) where there is effectively only one source of gas supply.

In order to ensure an adequate level of security of supply, the measures would fall into the following broad categories:

- ❖ The strategy for purchasing LNG for delivery to the Cyprus terminal, including supply sources diversification and long term supply contracts.
- ❖ The policy on sales contracts to end users, including the use of interruptible contracts and the requirement for alternative fuel arrangements at key customers such as gas-fired power plants.
- ❖ The implementation of a National Emergency Plan incorporating the relevant roles, responsibilities and procedures.

As far as infrastructure development is concerned the Government of the Republic of Cyprus is proposing an Energy Centre at Vasilikos that will include facilities for the importation, storage, pumping and vaporisation of liquefied natural gas (LNG), and the export of that natural gas to power plant users. It's really import to mention that both storage facilities and LNG terminal project are in a preliminary stage; however details are given below in order to provide some indicative information.

Storage Facilities - Loading - Unloading - Regasification:

The LNG Storage Facility will be based around the sizing of commonly available LNG Carriers in order to ensure that Government of Cyprus has flexibility of supply and can cope with future demand growth. It is hence envisaged that initially LNG carriers around 75,000m³ P would supply the facility with carriers increasing to around 135,000m³ P in future years. The vessels would be unloaded through three unloading arms with a vapor return, through a cryogenically insulated unloading line. This is maintained at -160°C by recirculation of product through a smaller recirculation line, except during unloading when it provides additional unloading capacity. The vessel would typically be unloaded in no more than 14 hours to allow a 24 hour turnaround time commonly used in LNG shipping.

Year	Total gas demand (bcm)	Production capacity * (bcm)	Pipeline import capacity (bcm)	LNG import capacity (bcm)	Forthcoming new capacity (bcm)	
					Authorised	Under construction
2007	n/a	n/a	n/a	n/a	n/a	n/a
2008	n/a	n/a	n/a	n/a	n/a	n/a
2009	n/a	n/a	n/a	n/a	n/a	n/a
2010	n/a	n/a	n/a	n/a	n/a	n/a
2011	n/a	n/a	n/a	n/a	n/a	n/a
2012	n/a	n/a	n/a	n/a	n/a	n/a
2013	n/a	n/a	n/a	n/a	n/a	n/a

* Annual Capability of Supply Gasified and Depressurised Natural Gas under Usual Conditions ISO m³ x 10⁶

Table 5.2 – Security of Supply Evolution (Gas)

In order to estimate the needs in Natural Gas, which at least at first will only be used for the generation of electricity, the EAC's Development Plan was taken into consideration as well as the assumptions that the Independent Producers of Electricity will contribute by 10% at least to the needs of the Electricity Market and that the Natural Gas will be available by the year 2014.

6. PUBLIC SERVICE ISSUES [Article 3(9) for Electricity and 3(6) for Gas]

As already pointed out, legislation both primary and secondary has been enacted covering all the requirements of the Electricity Directive regarding consumer protection complaints procedure, treatment of vulnerable consumers and performance indices that are intended to safeguard quality of service and supply to all consumers.

All Public Service Obligations (PSO) that EAC had before liberalization are still in force such as universal electricity service provider and the supplier of last resort, by virtue of the Law 122(I)/2003 and EAC, the Ministry and CERA are currently discussing the PSO regime that will be applicable in the future. Already a PSO regarding energy produced by RES has been imposed by the Law, L.33(I)/2003 on EAC whereby EAC or any other supplier shall buy from RES Producers all energy produced at a price defined by CERA.

A decree regarding relief from the price of electricity for multimember families over six (6) members and for disadvantaged families has been issued in April 2006.

Further to the above, during September 2008, CERA in co-operation with the Minister of Commerce, Industry & Tourism, had prepared and placed into effect a new legislation, which foresees to assist in a very satisfactorily way the consumers that belongs in the above disadvantageous position like multimember families, vulnerable consumers etc. Also, this legislation provides to all consumers incentives in the field of energy saving. These incentives are provided in the form of an overall of a 20% discount to the consumer's electric bill, provided that his consumption has not exceeded 500 kWh / bimonthly. This incentive has been remained active for the next 12 months from the day the above legislation was published.

Also, on 28th of May 2010, a new Decision by the Minister of Commerce, Industry & Tourism was published, asking CERA to impose to all licensees suppliers of electricity to reduce by 0,21 €cent / kWh the bills of the consumers that belongs in the above disadvantageous position like multimember families, vulnerable consumers etc.

CERA after the above Decision has followed all necessary by the Law procedures and on the 2nd of July 2010 a new Regulatory Decision was published.

Regarding labeling, at present Electricity bills, apart from basic information, only identify the "extra" amount billed for funding an ongoing "RES Incentive Plan". Future bills will give details for primary energy sources, etc.

EAC is the only licensed supplier in Cyprus supplying the following categories of consumers (April 2010):

- Domestic 405.535
- Commercial 83.637
- Industrial 11.437
- Agricultural 13.694
- Public lighting 9.151

TOTAL 523.454

	Electricity			Gas			
	large and very large	medium industrial and commercial	small commercial and household	power plants	large and very large	medium industrial and commercial	small commercial and household
Existence of regulated tariff (Y/N)	Y	Y	Y				
% customers still on tariff possibility to switch back to regulated tariff (Y/N)	100	100	100	NOT APPLICABLE			
Number of suppliers covered by the obligation to supply at tariff (could be all suppliers)	1	1	1				

Table 6 – Regulation of end user prices

EAC as the dominant supplier in the electricity market of Cyprus has been nominated as the Supplier of Last Resort in line with the requirements of the Electricity Directive.

