REPUBLIC OF TURKEY BAHCESEHİR UNIVERSITY

THE EUROPEAN UNION ENERGY LAW AND POLICY AND THE HARMONIZATION OF TURKISH LEGISLATION TO THOSE POLITICS

Master Thesis

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ABSTRACT

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The European Union's policies relating to energy are very important for several reasons: Energy policy not only affects its own sector or the region, but has a wider impact across the globe, due to the global impact of supply and wider impact on the economy and living standards. EU Energy policy aims to protect the proportion of coal used in energy consumption, to increase the share of natural gas, ensure full security is exercised over nuclear power plants and maximise the use of renewable energy resources. In order to achieve these aims, the EU has to balance issues of maintaining security of energy supply, enabling competitive power production and ensuring conservation of the environment.

Turkey has a key role relating to energy for the EU and other countries in its region. Besides being an extensive producer of hydro-electric power, it is also a major energy transportation route for energy between the Caucuses, Black Sea, Middle East which have energy resources, and the EU.

As Turkey moves towards its goal of full EU membership it will strive to address EU criteria on the economy, social life and energy policy. In support of these aims, Turkey has been making several legal arrangements and has been implementing these laws in relation to Energy. However Turkey is still falling below the standards set by the EU regarding legal arrangements and implementation of law. Although the EU has been working on Energy policy it has not yet been confirmed or ratified by member countries of the European Union, and the EU has not created a full competitive open energy market. The reasons for this are also explained in this thesis.

This thesis "The European Union Energy Law and Policy and the Harmonization of Turkish Legislation to those Politics" attempts to explain EU Energy Policy in all its aspects, using plain language to aid comprehension. In this thesis The European Union Energy Policy, its processes, results, future projects and goals are explained. Furthermore Turkey's projects regarding how it will meet EU energy policy requirements are explained from different angles.

Keywords: European Union, Energy, Competition, Turkey

ÖZET

AVRUPA BİRLİĞİ ENERJİ HUKUKU VE POLİTİKALARI İLE TÜRKİYE'NİN BU POLİTİKALARA UYUMU

Sökmen, Serhat

Avrupa Birliği Kamu Hukuku ve Entegrasyonu

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Avrupa Birliği'nin enerjiye ilişkin politikaları, hem enerjinin sadece yerel değil kürsel etkileri olan bir sektör olması, hem de yaşam koşulları açısından geleceği çok yakından ilgilendirdiği için çok önemlidir. Avrupa Birliği enerji politikası; enerji arzının güvenliği rekabet gücü ve çevrenin korunması arasında bir denge kurarak, enerji tüketiminde kömürün payını korumayı, doğal gazın payını artırmayı, nükleer enerji santralleri için azami güvenlik şartları tesis etmeyi ve yenilenebilir enerji kaynaklarının payını maksimum düzeye çıkarmayı hedeflemektedir.

Türkiye, jeopolitik konumu nedeniyle, enerji konusunda kilit bir role sahiptir. Geniş çaplı hidroelektrik üreticisi olmanın yanında, Kafkaslar Orta Doğu, Karadeniz gibi enerji kaynaklarının bulunduğu bölgeler ile Avrupa Birliği ülkeleri arasında geçiş ülkesi konumundadır. AB tam üyelik hedefi doğrultusunda kararlılıkla ilerleyen Türkiye bu süreçte, ekonomik ve sosyal hayatın bütün alanlarında olduğu gibi, enerji konusunda da Avrupa Birliği'ne uyum sağlamayı amaçlamaktadır. Bu doğrultuda enerji ile ilgili birçok alanda gerekli yasal düzenlemeler yapılmış ve uygulamaya geçilmiştir. Ancak Türkiye halen mevzuat düzenleme ve bunların uygulanması hususlarında Avrupa Birliği'nin istediği düzeye gelmiş değildir. Ancak şu da bir gerçektir ki Avrupa Birliği'nin kendisi de komisyon aracılığıyla kararlı çalışmalar yapmasına rağmen birlik nezdinde halen Enerji politikasını yeknesaklaştırmış değildir ve ilgili pazarda halen ülkeler nezdinde tam bir rekabetçi pazar yaratamamıştır. Bunun nedenleri bu tez de açıklanmaktadır.

"Avrupa Birliği Enerji Hukuku ve Politikaları ile Türkiye'nin Bu Politikalara Uyumu" baslıklı bu çalışma, AB'nin enerji politikasını farklı yönleriyle anlaşılır bir şekilde aktarmak üzere hazırlanmıştır. İşbu çalışmada; Avrupa Birliği'nin enerji politikasının yapısı, işleyişi, sonuçları, geleceğe yönelik uygulamaları ve hedefleri açıklanmış, ayrıca Türkiye'nin AB enerji politikasına uyum amacıyla sürdürdüğü çalışmalar değişik yönleriyle ele alınmıştır

Anahtar Kelimeler: Avrupa Birliği, Enerji, Rekabet, Türkiye

TABLE OF CONTENTS

LIST OF TABLES.	ix
LIST OF FIGURES	Sx
ABBREVIATIONS	xi
1.INTRODUCTION	N1
2. REGULATIONS	IN ENERGY SECTOR3
2.1 THE LE	GAL BASIS OF THE ENERGY POLICY3
2.1.1	Founding treaties
2.1.2	Secondary Legislations6
2.1.3	European Constitution6
2.1.4	Lisbon Treaty7
2.2 ANALOG	GY REGARDING ENERGY POLICIES IN SECTOREL BASE8
2.2.1	Coal Sector in EU and Turkey8
2.2.2	Electricity Sector in EU and Turkey10
	2.2.2.1 The Electricity Directive numbered 96/9210
	2.2.2.2 The Electricity Directive Numbered 2003/54 and its Reflexions
	to Turkish Law12
	2.2.2.3 The Differences between Directives Two Directives15
	2.2.2.4 Amendments Proposals on the Electricity Legislation and
	Directive Numbered 2009/7218
2.2.3	The Legal Framework in Natural Gas18
	2.2.3.1 Gas Directive 1998

	2.2.3.2 Gas Directive 200320
	2.2.3.3 The Reflections of the Gas Directives to the Turkish
	Legislation23
	2.2.3.4 Gas Directive 200925
2.2.4	The Legal Framework in Nuclear Energy26
2.2.5	The Legal Framework in Renewable Energy28
3. EUROPEAN ENE	CRGY POLICY30
3.1 ENERGY	EFFICIENCY30
3.1.1	Action Plan for Energy Efficiency30
3.1.2	Directive 2006/32/EC31
3.1.3	Save Program and Others Saving Measures33
3.2 SECURIT	TY OF ENERGY SUPPLY33
3.2.1	EU's Energy Dependencies
3.2.2	Strategies of European Union on Energy Issues36
3.2.3	Council Directive 2004/67/EC37
3.2.4	Directive 2005/89/EC38
3.3 PROMOT	TION OF RENEWABLE ENERGY SOURCES39
3.4 EMPOWI	ERING THE INTERNATIONAL COOPERATION IN ENERGY45
3.4.1	Energy Charter Treaty45
	3.4.1.1 General View
	3.4.1.2 Purposes and Principles
	3.4.1.3 Provisions regarding the trade48

	3.4.1.4 Provisions regarding the competition	49
	3.4.1.5 The Effects of the Treaty on the International Energy Investments	51
	3.4.1.6 Settlement of the disputes under the scope of the treaty	52
	3.4.1.7 Arbitration cases in accordance with the energy charter treaty	54
3.4.2	Energy community treaty	70
3.4.3	Energy Security Approach of NATO	72
4. TURKISH ENER	GY POLICY	73
4.1GENERA	L VIEW	73
4.2 FIGURE	S IN ENERGY	74
4.3THE NUC	CLEAR ENERGY IN TURKEY	76
4.3.1	The Nuclear Energy	76
4.3.2 I	Historical Development in Turkey	78
4.3.3	The Legislation Background	80
4.3.4.	Criteria of TAEK	82
4.4 EFFORT	S MADE BY TURKEY CONCERNING ENERGY EFFICIENY	84
4.5 ENERGY	EFFICIENY LAW	85
4.6 SAVING	POSSIBILITIES IN SECTOREL BASE	86
	RGY MARKET EXAMPLE IN TURKEY : NATURAL GAS	87
4.7.1	Introduction	87
4.7.2	Definition of Natural Gas Distribution	88

	4.7.3	Obligatory License	.88
	4.7.4	Bidding procedure of natural gas distribution license.	.88
	4.7.5	Partnership of the Municipality	.93
	4.7.6	Procedure Prior to License Issuance	.93
	4.7.7	The Contracts to be Entered Into by and between the Distribution Company and Third Persons	.94
	4.7.8	Insurance Obligation	.95
	4.7.9	Extension of License Term	.95
	4.7.10	Sale and Transfer of Network	.96
	4.7.11	Rights and Obligations of Distribution Licensees.	.97
	4.7.12	Supervision of EPDK and Obligation of Licensees to Provide Information	02
	4.7.13	Transfer of Company Shares1	105
	4.7.14	Regulations on competition1	08
5.	CONCLUSION.	1	09
	REFERENCES	1	.15
	CHRRICHI HM	VITAE 1	10

LIST OF TABLES

Table 2.1	:	Correlation Table, Directive 96/92/EC and 2003/54/EC	17
Table 3.1	:	Expected Increase in Use of Renewable Energy between years 2004-2010.	41
Table 3.2	:	The Wind Energy Capacity in Europe	42
Table 4.1	:	Figures in Energy between years 1996-2006	74

LIST OF FIGURES

Figure 4.1: Produced Primary Energy Balance 2006	75
Figure 4.2: Consumed Primary Energy Balance 2006	76

ABBREVIATIONS

Central and Eastern European Countries : CEEC Chamber of Mechanical Engineers Turkey : TMMOB Council of European Energy Regulators : CEER

European Atomic Energy Community : EAEC or EURATOM

European Coal and Steel Community : ECSC **European Community** · EC European Court of Justice : ECJ **European Economic Community** : EEC **European Economic Interest Grouping** : EEIG European Economic Area : EEA European Free Trade Association : EFTA **Energy Market Regulation Board** : EPDK European Regional Development Fund : ERDF European Regulators 'Group for electricity and gas : ERGEG European Union : EU **Gross Domestic Product** : GDP Industry gross product : IGP International Energy Regulation Network : IERN **Internet Enforcement Group** · IEG : LNG

Liquefied Natural Gas Ministry of Energy and Natural Resources : ETKB Not available : N/A North American Free Trade Agreement : NAFTA **Negotiated Third Party Access** ·NTPA Official Journal : OJ

Peer to Peer : P2P **Public Service Obligation** : PSO

Regulatory Authorities / Agencies : NRA or IRA

Renewable Energy Source · RES Romanian Energy Regulatory Authority : ANRE Small and medium sized companies : SME The Treaty on European Union : TEU The Treaty Establishing a constitution for Europe : TCE The Single European Act : SEA Third Party access : TPA The Union of Soviet Socialists : USSR The World Wide Web · WWW Turkey Atomic Energy Agency : TAEK

Trade related intellectual property rights : TRIPS Türkiye Elektrik Dağıtım Anonim Şirketi : TEDAŞ Union for the coordination of transmission of electricity : UCTE United Kingdom : UK Unites States of America : USA Uruguay Round of the General Agreement on Tariffs and Trade : GATT

World Trade Organization : WTO

1. INTRODUCTION

Energy is very important issue in the European Union as well as is the case for the whole world with regard to social and economic welfare. Energy demand has increased day by day as it is the most important requirement for industry. On the other hand, it is observed that there is an increase in the problems concerning security of energy supply in the Union. As the Union depends upon external resources in almost all energy requirements, this makes the problem more serious. It is a prominent reality that energy security is one of the issues that has captured a top priority in world agenda. It is estimated that European Union's dependence on external energy will reach at 70percent in between 2020-2030. There are many different measures to be taken to overcome this problem but if measures come into force without reasons being given they are groundless and without legal basis, it is hard to succeed. That's why energy law is crucial for European Union

One of the main reasons that makes EU Energy law important for Turkey is that Turkey has followed legal arrangements in the EU as a result of the harmonization with the acquis commentaries. For example; electricity market law number 4628 and natural market law number 4646 were prepared in the light of the EU directives. Consequently; examination of the past, present and future of EU energy law leads to presumption about the direction of the Turkish energy law.

The aim of this work is to examine the parts concerning energy of EU Law and to assess EU Energy policy. Furthermore, importance must be given to the liberalization period of energy market and its effects, as market liberalization and energy are two concepts which are very close to each other since 1990s.

For this purpose; first the brief historical account will be given about EU energy policies and after the acquis which constitutes EU Energy law will be come up. More importance will be given to the legal regulations in the different energy sectors such as coal, electricity, and natural gas. An analogy in those sectors will be carried out with the Turkish legislation.

In the second part; the common targets of the EU in the field of energy and whether the EU has managed to achieve these aims will be evaluated. In this part different topics will be assessed such as the active use of energy, the raising of security supply, the promotion of renewable energy resources, the taxation in field of energy and the promotion of international cooperation in field of energy. The arbitration cases in accordance with the energy charter treaty will be examined separately.

In the last chapter, the energy subject will be evaluated in terms of Turkish legislation. A short brief will be given about the Turkish energy policy and the efforts made by Turkey in the light of acquits commentaries will be examined. More importance will be given to the nuclear energy and natural gas sectors because of their touchiness.

2. REGULATIONS IN ENERGY SECTOR

2.1 THE LEGAL BASIS OF THE ENERGY POLICY

2.1.1 Founding Treaties

The European politicians, after the World War II, agreed that energy sector was one of the main targets of the common policies. This sector needed to be developed rapidly in the reconstruction of the Europe (Cross, E.D., Hancher, L. &Slot, P.J. 2001, p. 214). As a result of this approach; two of the three founding treaties of the European Communities; Treaty establishing the European Coal and Steel Community (1951) and Treaty establishing the European Atomic Energy Community (1957), have been directly related to the energy sector.

The ECSC Treaty was signed in Paris, on 1951 between France, Germany, Italy and the Benelux countries. It created a "community with the aim of organizing free movement of coal and steel and free access to sources of production". Furthermore, a common High Authority controlled the market, in order the members respect to the competition rules and to the transparency of the prices. The aim of the Treaty, as stated in Article 2, was "to contribute, through the common market for coal and steel, to economic expansion, growth of employment and a rising standard of living." In this respect, the institutions needed to guarantee regular supply to the common market by securing equal access to the sources of production, the installation of the lowest prices and better working conditions. Augmentation in international commerce and innovation in production had to accompany the aims mentioned here above. Together with the establishment of the common market, the Treaty brought out the free movement of products without customs duties or taxes. It banned inequitable measures or practices, states-given aids or any distinguished charges imposed by States and prohibitory practices. The establishment of the European Coal and Steel Community was the beginning of the great accomplishments at supranational level. The members of the organisation accepted to give up from a part of their national sovereignty, although in a limited field, to the Community, for the first time.

This first attempt moving to integration faltered with the failure of the European Defence

Community in 1954. This flap gave rise to some concerns regarding the future of the integration which started with European Coal and Steel Community. However, Messina Conference of June 1955 brought in a new momentum to the European Constitution. Following a series of meetings of ministers and experts, the famous "Treaties of Rome" were signed in March 1957 in order to create of a general common market and an atomic energy community. The first Treaty established the European Economic Community and the second the European Atomic Energy Community (hereafter referred as "EURATOM"). Those two Treaties entered into force on 1 January 1958, following their ratification at national level.

The main objective of the treaty establishing EURATOM was to pool of Europe's nuclear industries, in order all the Member States could benefit from the advancement of atomic energy. In the meantime, the Treaty ensured eminent security standards for the public and banned nuclear materials intended principally for civilian use from being diverted to military use. EURATOM Treaty was basically related to the Sues Crisis. After the said crisis, it was understood that, Europe had lost its leading power in the world and it had to solve the problem of energy dependence by itself. As result of this approach; EURATOM envisaged the use of the nuclear energy and focused to limit the energy purchase of the Europe from Middle East. Egenhofer indicated that "Another aim of the Treaty was to be able to be equipoise against USA and USRR which were super powers of that period." The articles numbered 40-67 (regarding investments and supply) and numbered 92-100 (regarding common nuclear market) of the treaty establishing EURATOM have designed the energy policies (Karluk 2005, p.491)

The treaty establishing European Economic Community envisaged the establishment of a custom union, common market and policies. In the treaty, it was stated that the Community's first mission was to create a common market and specify the measures that was needed to take in order to achieve this objective. Neither Treaty Establishing European Economic Community, nor Treaty establishing EURATOM gave place to a separate chapter related to the energy issue, as the members did not want to give up their sovereignty in this field.

The Single European Act was signed in Luxembourg on 17 February 1986 by the nine Member States and on 28 February 1986 by Denmark, Italy and Greece. It was the first considerable

alteration of the Treaty establishing the European Economic Community. It entered into force on 1 July 1987. The chief objective of the SEA was to "add new momentum to the process of the European construction so as to complete the internal market until 1992" (Andersen, SS., "EU Energy Policy: Interest Interaction and Supranational Authority" 2000). However; no separate place was given to the common energy policy. This was neither a coincidence nor negligence. The key factor of this problem was the member states. The field of energy was such a sensitive issue that States could not agree on common value (Ergün 2007, p.4).

The Treaty on European Union, signed in Maastricht on 7 February 1992, entered into force on 1 November 1993. In Maastricht treaty; the measures in the spheres of the energy have been included in the activities of the treaty. As stated in the commission green paper; *The provisions of this Treaty which impact on the energy sector essentially concerned the operation of the internal market, including rules on competition economic and social cohesion, the development of trans-European networks, commercial policy, cooperation with third countries, environmental protection and research and consumer policy (Commission Green Paper COM (94) 659, "For a European Union Energy Policy", 11.1.1995, p.10).*

As Egenhofer stated; during the preparation stages of the Maastricht Treaty, big discussions took place between member states whether a separated place for energy subject should be taken or not in the treaty. Although the commission draft text prepared in 1991 included an energy part separately, no separated place was given to the final text of the treaty (Egenhofer 1997, p.2).

Neither Amsterdam Treaty nor Nice Treaty included energy chapter separately. During the preparation period of the Amsterdam Treaty; the subject came up, but no separated chapter once again was given to the energy. The European Parliament held an important place as supporter of the subject. European Parliament referred to this subject in its many decisions and resolutions (Ergün 2007, p. 5). According to Egenhofer, Amsterdam Treaty is a lost opportunity so as to adapt a separate chapter for energy in a founding document.

As seen above, a separated chapter for energy did not take place in none of the founding treaties. On the other hand, there have been many provisions which refer to the energy policy in each of these treaties.

2.1.2 Secondary Legislation

There have been many regulations, directives, decisions and opinions about energy sector in European Union law. As there have not been detailed provisions in founding treaties, energy law in EU has taken shape mostly via the secondary legislation (Ergün 2007, p.7). Some of these legislations will be examined hereinafter.

2.1.3 European Constitution

The Treaty establishing a Constitution for Europe is an unachieved pending international document. It aimed to establish a constitution for the Union. Its main aims were to take place of the current founding treaties that compose the Union's present Constitution that is not formal, to unify the legislation, to codify fundamental human rights around EU and to facilitate the decision-making procedure which has become dysfunctional in the Union which is composed of 27 members after the last enlargements.

The Treaty establishing a Constitution for Europe was signed in Rome by representatives of the member states on 29 October 2004, and was in the process of ratification by the members when, French and Dutch voters rejected chronologically on 29 May 2005 and 1 June 2005, the treaty in referendums. The rejection in these two countries caused some other (non-ratified yet) countries, to postpone or stop their ratification procedures. Provided that it was ratified, the treaty would have come into force on 1st November 2006.

Although most of the Member States had already approved the Constitution mostly through parliamentary ratification, by the reason of the necessity of unanimity to alter the founding treaties, the constitution could not enter into force. This led to a hesitation for the future of European Union till 2007.

Basically, the constitution would have been the first document which has given a separate part for energy, if it was ratified. The second part of the constitution was bearing name of "The Policies and Functioning of the Union". The section 10 of this part, entitled energy was about "European Union Energy Policy". In this section, the primary matters of the energy policy have been deemed as follows;

- (a) Ensure the functioning of the energy market;
- (b) Ensure security of energy supply in the Union, and
- (c) Promote energy efficiency and energy saving and the development of new and renewable forms of energy.

2.1.4 Lisbon Treaty

In 2007, Germany took over the rotating presidency and tried to stop the layover period. On 21 June 2007, the European Council of heads of states got together in Belgium to deliberate regarding the establishment of a new treaty to replace the pending constitution.

As a result of the big debates and negotiations between member states, it has been unanimously resolved to sign a new treaty in Lisbon during the presidency of Portugal. The treaty was signed on 13 December 2007. Along the lines of the established tradition of EU treaties (such as Nice, Amsterdam...), this treaty was also named after the capital of the country holding the presidency at the end of negotiations: "Lisbon Treaty" which initially went under the name of "Reform Treat". However, as it was the case in the constitution; all member states must internally ratify the treaty in order that is to enter into force. As of 29 October 2009 all Member States, with the exception of the Czech Republic, have approved the Treaty. (European Union Official website)

In terms of the relevant articles of the Lisbon Treaty, Member States need to assist to each other provided that another member state is exposed to a terrorist attack or the victim of a natural or artificial disaster. In addition, several provisions of the treaties have been amended to include solidarity in matters of energy supply and changes to the energy policy within the European

Union. In this respect, this treaty shall be deemed as a success on the way through a common policy for energy.

2.2 ANALOGY REGARDING ENERGY POLICIES IN SECTOREL BASE

2.2.1 Coal Sector in EU and TURKEY

The promotion of the cool industry has always been one of the Europe's aims. The first action to move together in this sector took place in early 1950s with European Cool and Steal Community. However, the number of the state which generates cool, today, is inconsiderable. Before the last members joined to EU, there were only three states which manufactured cool; UK, Germany, Spain. Manufacturing percentage of the cool in the union decreased seriously between 60s-90s. As because the cost of the imported cool was cheaper, the manufacturing of the cool had lost its importance. However, as the threat of the supply has increased lately, the cool sector has regained importance and new measures has been started to be taken in EU. (Ergün 2007, p.9)

After the last members joined to EU, the coal manufacturing in the Unions has begun to increase again. The main reason of it is the membership of Poland. The latter is one of the biggest coal manufacturers in the Union. The output of coal of Poland has reached at 98 megatons in 2005. This amount is the 57percent of the total output in the Union. The most coal consuming members have been Poland (percent23), Denmark (percent18, 2) and England (percent17.7) in 2005 (Dahlströn 2006, p.54).

The economic development of EU has been faster than the consummation of the Energy. Nevertheless, the energy import dependency of EU has been rising as also the global demand for energy is increasing. The situation has been same for coal. Therefore, the need to boost the coal output in the local market has turned out on the basis of the import dependency from regions threatened by insecurity. The aim to encourage the coal output in the Union and to put a common policy in coal sector has come up to Paris Treaty. The article 3 of the said treaty that regulates the general common targets and the articles number 57 and 64 of the same related to the coal output and its prices were the first provisions which envisaged the first common energy policy target.

Besides, the Commission was entitled to encourage technical and economic research concerning the production and the development of consumption of coal and steel, as well as labor safety in these industries. (Ergün 2007, 11)

Pursuant to the terms of Article 55 of the European Coal and Steel Community (ECSC) Treaty, "the Commission shall promote technical and economic research relating to the production and increased use of coal and steel and to occupational safety in the coal and steel industries". In addition, the Treaty establishing the European Community states in article 130f, that "the Community shall have the objective of strengthening the scientific and technological bases of Community industry and encouraging it to become more competitive at international level."

In order to fulfil the objectives stated in the ECSC treaty, levies are raised on Community coal and steel products and uses part of these levies to finance coal and steel research programmes. Each of the research programmes receives a yearly budgetary allocation, and launches a yearly call for proposals. The best proposals are selected within the budgetary limits and receive a financial support from the Commission.

During its 40 years of existence, ECSC research has supported the efforts of the Coal and Steel industry by increasing overall research efficiency, enabling the Coal and Steel industries to tackle jointly large projects which could not have been carried out by individual companies, and creating throughout the Member States a network of researchers, through which there is an effective exchange of information related to the projects and their results. In this way, ECSC research has become an essential complement to the companies' own activities, promoting international cooperation through joint programming and execution of projects.

Although the Paris Treaty expired on 23 July 2003, researches on coal industry are still going on. Since 2003, research activities in the area of coal and steel have been financed by the interest accrued each year by the assets of the European Coal and Steel Community (1,600 M€) at the time of the Treaty's expiry. This annually accrued interest is used to finance the Research Fund for Coal and Steel research programme. For 2007, the budget allocated for financing coal and steel research amounts to 53,875 M€.

As Mr. Nejat Tamzok from the strategical researches centre of the chamber of mining engineers stated in its article; the total power of the thermal power plants based on the local coals in Turkey is 8.676 MW. Almost the half of these plants have been constructed in between years 1980-1990, by public sector except some small auto producers

According to Mr. Tamzok; the proportion of the plants using local coal has decreased from 29.2 percent to 20.9. One of the main reasons of this situation is not to build new plants based on the local coal. The state aid for promoting the using of the local coal is very limited. Furthermore, as a result of the high demand of the developing countries such as China, India regarding the building new plants from international investments has caused the building prices very expensive. In spite of the increased demand, due to the limited means of the engineering companies, the building prices have been advanced and this has rendered building of the power plants disadvantageous. Another reason is related to the environmental impact assessment. The high technology in order to get positive report for the environmental impact assessment requires high expenses.

For the development sector, General Directorate of Turkish Coal Enterprises has been established in 1957, by the law numbered 6974.As it is stated in its official website, it is a state owned economic enterprise whose aim is to increase the production, to improve the quality of the coal in Turkey and to minimize the production costs of the coal .The said enterprise has allocated the areas owned by him to the private sector on condition that the latter build new thermal plant.

However, the use of the local coal has been decreasing day by day, because of the high costs and other reasons mentioned above. The promotion works in Turkey for its use is very limited in comparison with the politics of European Union.

2.2.2. Electricity Sector in EU and Turkey

2.2.2.1 The Electricity Directive numbered 96/92

The works in Union on creating internal energy market have given rise to the adoption of two directives: electricity and natural gas. Those two directives are deemed as the most important steps towards the target of the internal energy market.(Cameron 2002, p.143) The main purpose

of those directives is the establishment of a competitive internal market and to secure energy supply (Commission Personnel Working Paper; *Completion of the internal energy market*, Bruxelle, 12.03.2001, SEC (2001) 438). (Ergün 2007, p. 17)

The electricity directive numbered 96/92 that was agreed on 19 December 1996 and which came into force on 19 February 1997, envisaged detailed rules regarding the licenses, tender procedures, entering into electricity market and the operation of the systems

The articles numbered 4 and 6 of the said directive were related to the generating. It was envisaged that the new generating capacity should have been designed completely consistent with the competition rules. Under this directive, for the construction of new generating capacity, Member State could choose between an authorization procedure and/or a tendering procedure. But in any case, authorization and tendering procedures had to be conducted in accordance with objective, transparent and non-discriminatory criteria as per the article 4 of the said directive.

The chapter IV of the directive was about transmission and distribution. Under the 7th Article of the said directive;

Member States would designate or would require undertakings which owned transmission systems to designate, for a period of time to be determined by Member States having regard to considerations of efficiency and economic balance, a system operator to be responsible for operating, ensuring the maintenance of, and, if necessary, developing the transmission system in a given area and its interconnectors with other systems, in order to guarantee security of supply.

Together with the electricity directive numbered 96/92, the member states were given right to choose concerning the access methods to the transmission and distribution networks. Member states could choose one of the following systems; - third party access -single buyer. (Ergün 2007, p. 18)

i. The Procedure of third party access

Under the article 17 of the said directive;

1. In the case of negotiated access to the system, Member States shall take the necessary measures for electricity producers and, where Member States authorize their existence, supply undertakings and eligible customers either inside or outside the territory covered by the system to be able to negotiate access to the system so as to conclude supply contracts with each other on the basis of voluntary commercial agreements.

- 2. Where an eligible customer is connected to the distribution system, access to the system must be the subject of negotiation with the relevant distribution system operator and, if necessary, with the transmission system operator concerned.
- 3. To promote transparency and facilitate negotiations for access to the system, system operators must publish, in the first year following implementation of this Directive, an indicative range of prices for use of the transmission and distribution systems. As far as possible, the indicative prices published for subsequent years should be based on the average price agreed in negotiations in the previous 12-month period.
- 4. Member States may also opt for a regulated system of access procedure, giving eligible customers a right of access, on the basis of published tariffs for the use of transmission and distribution systems

As seen above, the directive numbered 96/92 had envisaged that the procedure of third party access could be performed in two ways; - negotiated third party access (NTPA) and - regulated third party access. (RTPA)

The electricity generator and the consumer could directly conclude an agreement between them subject to NTPA. But, the consumer needed to conclude different separate agreements for the access to the transmission and distribution networks by bargaining-negotiation process. The electricity generator and the consumer were also free to sign an agreement in RTPA procedure. But the prices of using the transmission and distribution networks were not subject to the negotiation. Those prices were already designed by the authorities. (Ergün 2007, p.18)

ii. The Procedure of Single Buyer

Under the article 18 of the said directive; in the case of the single buyer procedure, Member States shall designate a legal person to be the single buyer within the territory covered by the system operator. In terms of this procedure; a non-discriminatory tariff for the use of the transmission and distribution shall be published by the relevant organisation of the member state. Member States shall take the necessary measures for. Eligible can freely conclude supply contracts in order to meet their own needs with producers or with supply undertakings outside the territory covered by the system.

2.2.2.2. The Electricity Directive numbered 2003/54 and Its Reflexions to Turkish Law

The desire of the completion of the internal market in both gas and electricity sectors were mentioned in Lisbon summit at the date of 23-24 March 2000. Hereupon, the Parliament, at its

decision dated 6 July 2000, asked to fix a calendar in order to ensure the completion of the internal competitive market gradually. (Ergün 2007, p. 19)

European Union Commission entered a proposal on 13 March 2001, regarding the amendment of the electricity directive numbered 96/92 (COM (2001)125). The main purpose of this proposal was to accelerate the completion of the fully competitive single energy market. The European Economic and Social Committee carried out his opinion concerning the proposal of the Commission on 17 October 2001(EU Official Journal C 36 08.02.2002) The parliament ratified the amendments proposals of the Commission with some alterations. Eventually, the effective electricity directive numbered 2003/54 which will be examined here below was adopted on 26 June 2003 and the electricity directive numbered 96/92 was abrogated. (Ergün 2007, p.20)

On the other hand, the electricity market law dated 4628 has been ratified on 20 February 2001 and has been enacted on 3 March 2001, in Turkey.

As mentioned in its first article, the purpose of the electricity directive is to establish common rules for the generation, transmission, distribution and supply of electricity. It lays down the rules relating to the organization and functioning of the electricity sector, access to the market, the criteria and procedures applicable to calls for tenders and the granting of authorizations and the operation of systems. Member States shall ensure, on the basis of their institutional organization and with due regard to the principle of subsidiarity, electricity undertakings are operated in accordance with the principles of this Directive with a view to achieving a competitive, secure and environmentally sustainable market in electricity, and shall not discriminate between these undertakings as regards either rights or obligations, in terms of third article of the said directive.

Moreover, the first two paragraphs of the article 1 of the Turkish electricity market law entitled purposes, scope and definitions are as follows;

The purpose of this Law is to ensure the development of a financially sound and transparent electricity market operating in a competitive environment under provisions of civil law and the delivery of sufficient, good quality, low cost and environment-friendly electricity to consumers and to ensure the autonomous regulation and supervision of this market.

The scope of this law covers generation, transmission, distribution, wholesale, retailing and retailing services, import, export of electricity; rights and obligations of all real persons and legal entities directly involved in these activities; establishment of Electricity Market

In this respect, as seen above, the purpose of the electrify market law and the EU electricity directive resemble each other. Under the article four of the directive, member states shall ensure the control of the security of supply via regulatory authorities. This task is given to the Energy Market Regulatory Authority in Turkey.

The current directive stipulates that the authorization procedure should be taken into account by member states for the generating capacity being built. Nevermore, the tendering procedure may be adopted by the Member States under some limited circumstances. Under the article 7 of the said directive, in the interests of security supply, in the interests of environmental protection and the promotion of infant new technologies, Member states may choose tendering procedures on the basis of published criteria. In a similar way, there is also authorization procedure in Turkey. In terms of the electricity market law, legal entities that may be engaged in electricity sector have to obtain licenses from EPDK.

In terms of the electricity directive numbered 2003/54, Member States shall designate, or shall require undertakings which own transmission systems to designate, one or more transmission system operators, as it is the case in the directive numbered 96/92. In Turkey, as per the law; the transmission system operator is a unique public enterprise called Turkish Electricity Transmission Co. Inc. (in Turkish: Türkiye Elektrik İletim Anonim Şirketi). As the legal counsel of TEİAŞ Mr. Süleyman Önel stated in its Article; it is impossible to establish a second transmission system operator.

The electricity directive has put some criteria in order to make clear the independency of the transmission system operators; in terms of article 10 of the directive; such as those persons responsible for the management of the transmission system operator may not participate in company structures of the integrated electricity undertaking responsible, directly or indirectly, for the day-to-day operation of the generation, distribution and supply of electricity. However, the article 2 of the law numbered 4682 has designated the tasks and duties of the Turkish Electricity Transmission Co. Inc. and the latter is the related foundation of the energy ministry. The

organization of TEİAŞ is on a public economic enterprise basis and although its decisions are taken by its board of members, it is not exactly independent (Önel 2009).

As the same was envisaged in the electricity directive numbered 96/92, the directive numbered 2003/54 envisaged that Member States shall designate one or more distribution system operators. The electricity distribution has been carried out by Turkish Electricity Distribution Co. Inc. (hereafter referred as "TEDAŞ") in Turkey. TEDAŞ has been divided into 21 different companies and it is aimed that those companies be liberalised till the end of the year 2009. As stated in the law numbered 4628; the electricity distribution activities will be performed by distribution companies in regions indicated in their respective licenses.

The electricity directive numbered 2003/54 has also envisaged some rules regarding the unbundling (separation) criteria of the transmission and distribution system operators. The conditions regarding the unbundling criteria are almost same for both transmission and distribution system operators. The companies involved in distribution or transmission of the electricity may not participate in other company structures. Therefore, an internal accounting separation is not enough but a legal separation (unbundling) is also required. As stated in the law numbered 4628; TEİAŞ which is the unique transmission system operator in Turkey cannot operate any activity other than transmission, as a result of this it can be said that the legal unbundling has been ensured in Turkey for transmission. On the other hand; the situation is not same for distribution system operators. The electricity distribution undertakings need to, in their internal accounting, keep separate accounts for their distribution activities in Turkey. A legal unbundling is not required, as Mr. Süleyman Önel stated in its article.

2.2.2.3. The Differences between Two Directives

One of the main differences between two directives is related to the independence structure of the transmission system operators. As mentioned here above, in terms of article 10 of the electricity directive numbered 2003/54 where the transmission system operator is part of a vertically integrated undertaking, it shall be independent at least in terms of its legal form, organization and decision making from other activities not relating to transmission. These rules shall not create an

obligation to separate the ownership of assets of the transmission system from the vertically integrated undertaking. Whereas, the previous electricity directive envisaged that the organization independence of the operator was sufficient. When the effective electricity directive compared with the previous electricity directive, the main differentiation is related to the unbundling of the undertakings having operation in electricity sectors. The aim of the unbundling in both directives is to avoid discrimination, cross-subsidization and distortion of competition. But the previous directive envisaged that, integrated electricity undertakings would, in their internal accounting, keep separate accounts for their generation, transmission and distribution activities. If they undertake other non-electricity activities these other activities must be accounted for separately just as if these were carried out by separate undertakings. As it is foreseen above, the unbundling in the previous directive is limited with the internal accounting. But, the effective electricity directive envisaged that a vertically integrated undertaking shall be independent at least in terms of its legal form, organization and decision making. (Ergün 2007, p.25)

The provisions in the directives regarding the access to the operator also differ from each other. In terms of the related articles of the previous electricity directives, Member States can choose between negotiated or regulated third party access or the single buyer procedure when organizing the access to the transmission and the distribution network. On the other hand, in terms of the article number 20 of the effective electricity directive; Member States shall ensure the implementation of a system of third party access to the transmission and distribution systems based on published tariffs, applicable to all eligible customers and applied objectively and without discrimination between system users. In consequence, it is impossible to implement the Negotiated Third Party Access in the member states as from the effective date of the new directive.

Table 2.1 : Correlation Table, Directive 96/92/EC and 2003/54/EC

ANNEX B

Correlation table

Directive 96/92/EC		This Directive
Article 1	Article 1	Scope
Article 2	Article 2	Definitions
Article 3 and 10(1)	Article 3	PSOs and Customer protection
_	Article 4	Monitoring of security of supply
Article 7(2)	Article 5	Technical rules
Article 4 and 5	Article 6	Authorisation procedure for new capacity
Article 4 and 6	Article 7	Tendering for new capacity
Article 7(1)	Article 8	Designation of TSOs
Article 7(3)-(5)	Article 9	Tasks of TSOs
Article 7(6)	Article 10	Unbundling of TSOs
Article 8	Article 11	Dispatching and balancing
Article 9	Article 12	Confidentiality for TSOs
Article 10(2) and (3)	Article 13	Designation of DSOs
Article 11	Article 14	Tasks of DSOs
_	Article 15	Unbundling of DSOs
Article 12	Article 16	Confidentiality for DSOs
_	Article 17	Combined operator
Article 13	Article 18	Right of access to accounts
Article 14	Article 19	Unbundling of accounts
Article 15-18	Article 20	Third Party Access
Article 19	Article 21	Market opening and reciprocity
Article 21	Article 22	Direct lines
Article 20(3)-(4) and 22	Article 23	Regulatory authorities
Article 23	Article 24	Safeguard measures
_	Article 25	Monitoring of imports of electricity
Article 24	Article 26	Derogations
_	Article 27	Review procedure
Article 25 and 26	Article 28	Reporting
_	Article 29	Repeals
Article 27	Article 30	Implementation
Article 28	Article 31	Entry into force
Article 29	Article 32	Addressees
	Annex A	Measures on consumer protection

Source: Effective Electricity Directive Annex B, Correlation table of two directives

2.2.2.4. Amendment Proposals on the electricity legislation and Directive Numbered 2009/72

The possible principles of Energy Policy for Europe were elaborated at the Commission's green paper A European Strategy for Sustainable, Competitive and Secure Energy on 8 March 2006. As a result of the decision to develop a common energy policy, the first proposals, Energy for a Changing World were published by the European Commission, following a consultation process, on 10 January 2007. After the legislative procedure on European Union; as a result of the third package; directive 2009/72/ec of the European parliament and of the council of 13 July 2009 concerning common rules for the internal market in electricity and repealing Directive 2003/54/EC has adopted.

The new amendments include basically:

- i. the limited strengthening of some rules ensuring effective unbundling of transmission system operator;
- ii. reinforced independence and powers of national regulators;
- iii. provisions creating stronger obligations for Member States as regards consumer protection, energy poverty and the implementation of smart metering.

2.2.3 The Legal Framework in Natural Gas

2.2.3.1. GAS DIRECTIVE 1998

The tasks envisaged in the Gas Directive 1998 have been based on the slow but sustainable establishment of the common internal market in natural gas, so as to enable the industry to set flexible and to take into account the various types of market structures in the Member States. Under the said directive the gas markets in the Member States need to ensure a minimum of 33percent market opening by 2008. The Gas Directive 1998 sets up the general rules for distribution, transmission, storage and supply of natural gas. The main characteristics of the directive covers; the removing of special rights related to the exporting and importing gas and operate gas facilities. Moreover, the directive establishes also the

principals regarding the market entrance, transparency and non-discrimination, separation of the system operators (unbundling), the determination of eligible customers, and the giving licenses for transmission, distribution, supply and storage of natural gas. (Hessen 2006, p. 55)

Regarding the liberalisation of the market, the issue whether and under which conditions, customers shall be able to connect to the network is frequently asked (Slot 2000, p. 59). The Gas Directive 1998 envisages two ways which can be used so as to establish access to the system: the first one is the negotiated access and the other one is regulated access. Under the article 14 of the said directive, all members can freely choose one of both systems or a mix of two under some circumstances. As envisaged in the article 15 of the directive, in terms of negotiated access, the natural gas undertakings and customers who are eligible can conclude supply contracts in between them following the negotiations to be performed. The undertakings performing in natural gas sector have to publish their main rules and conditions regarding the use of the system.

Under the article 16 of the Gas Directive 1998, Within the system of regulated access (Article 16 Gas Directive 1998), parties (eligible customers and gas undertakings) have a right of access to the system based on published tariffs together with the terms and obligations regarding the system. Each access system needs to operate in conformity with criteria that are transparent objective and non-discriminatory. On both types of access, the operator that is responsible of the access to the system has the right to refuse access provided that there is a lack of capacity. In terms of the Gas Directive 1998; the transmission, storage, LNG and distribution undertakings have to refrain from discriminating between different system users. The undertakings in question need to protect the confidential information that they obtained during their business. Under the said gas directive, as from 10 August 2000 eligible customers will freely choose their gas supplier. According to Article 18 of the Gas Directive eligible customers are the customers who are able to contract for, or to be sold, natural gas in accordance with Articles 15 and 16 of the Directive. Under the paragraph 2 of Article 18, the eligible customers need to include at least gas-fired power generators and other final customers consuming more than 25 million cubic metres of gas per year on a consumption site basis. Provided that the customers can choose their supplier, this will affect in a positive way the diverse suppliers' undertakings and as a result of this situation, they will improve their services by reducing the prices and by bringing high

standards in order to be able to be chosen by the customers. Furthermore, the Article 4 of the Gas Directive 1998 envisages an authorisation system regarding the licensing the construction or operation of natural gas plants. In any case, the procedure regarding the authorisation needs to be objective and non-discriminatory and this procedure should be publically announced. (Hessen 2006, p. 58). The said directive stipulates also some rules regarding the separation and transparency of the accounts of natural gas undertakings. The authority that will be determined by the member state shall have the right to enter into the accounts of natural gas undertakings. In general, integrated undertakings need to keep separate accounts (in their internal accounting) for their different activities, and where appropriate, consolidated accounts for non-gas activities, with the view to avoid discrimination, cross-subsidization and distortion of competition.

Under the article 21 and 22 of the Gas Directive 1998, Member States need to determine a competent authority so as to settle disputes. The main mission of this authority shall be settling the disputes notably on the refusal of the access to the system of the consumers. Moreover, member States need establish suitable measures and efficient mechanisms for regulation control and transparency

2.2.3.2 GAS DIRECTIVE 2003

Together with the inurnment of the Gas Directive 1998, an important step has been taken towards market opening. The Directive has envisaged provisions related the free movement of electricity and gas within the Community. However, the degree of liberalisation has not been found adequate by the authorities in the union and it has been observed that new amendments are required. In this respect, In Lisbon, in March 2000, the European Council called for duty the Commission so as to reorganise the directives on gas and electricity in order to accelerate the liberalisation process. Following this call, the Commission prepared a recommendation to amend the Gas Directive 1998.

On the 4th of August 2004, the new Directive 2003/55/EC of the European Parliament and the Council of 26 June 2003 concerning the common rules for the internal market in natural gas entered into force (Gas Directive 2003), repealing Gas Directive 1998.

Unlike the Gas Directive 1998, that permitted Member States to elect negotiated or regulated access or a combination of both, this directive envisages only regulated access regarding the transmission and distribution system of gas and LNG facilities. In this respect, member States have to guarantee access based on the publication of tariffs, applicable to all eligible customers (including supply undertakings) and applied objectively and without discrimination between system users (Article 18 Gas Directive 2003). Another point that shall be emphasised is related to the long terms contracts. Under this directive the member states may consent to the long-term supply contracts provided that they do not infringe the competition rules.

Member States have the right to choose between negotiated or regulated access or a combination of both regarding the access to storage facilities and line pack, when technically and/or economically necessary so as to provide access to the supply system as well as for the organisation of access to ancillary services, (Article 19 Gas Directive 2003).

Under the article 7 of the Gas Directive 2003; Member States have to determine or require natural gas companies that own transmission, storage or LNG facilities to designate one or more system operators. The duties of the transmission, storage and/or LNG operators include: the management, conservation and augmentation of sheltered, accurate and effective transmission, storage and/or LNG facilities; ensuring the equality between system users; procurements of another operator with appreciate information to guarantee that the competent authorities exercise the transport and storage of natural gas in a reliable way; provision of the information to system users which they need in order to access the system in an efficient way (Article 7, paragraph 1 Gas Directive 2003). It should be noted that, the measures taken by the said operators need to be objective, transparent and non-discriminatory

The appointment of Networks operators have been envisaged in Article 7 for the transmission and in Article 11 for distribution. The duties of both Networks are similar to each other. The

unbundling criterion which has been mentioned in Article 9 for the operators of the transmission system is comparable to the Article 13 that provides the conditions for unbundled network operators' distribution. But, in addition to this, Member States are able to decide not to apply to the both organizational and legal, unbundling, if it comes to business integrated natural gas serving less than 100.000 customers.

Furthermore, according to the Article 15 of Gas Directive of 2003; the provisions regarding the separation of transmission and distribution shall not impede operation of a combined transmission, LNG, storage and distribution that is independent from other non-related activities in terms of legal and organizational decision.

A difference between the gas directive 1998 and 2003 is related to the stage process. As envisaged here-above; the Gas Directive 1998 had put forward a three stage process for the liberalisation of the market. There is not a process like that in Gas Directive 2003. Gas Directive 2003 envisages that all non-household gas customers need to be eligible from July 1st 2004 onward, and from July 1st 2007, all wholesale and final customers of natural gas need to be free to elect their gas supplier (Article 23 Gas Directive 2003). Besides, Member States need to ensure that natural gas undertakings established within their territory supply eligible customers through a direct line (Article 24 Gas Directive 2003).

Similarly to the Gas Directive 1998, the one in 2003 enables Member States to promulgate public service obligations (Article 3 Gas directive 2003). As the Gas Directive 1998 envisaged, these obligations can be related to the security of supply or environmental protection. But in the new directive the two terms have been emphasised together with the environmental protection; energy efficiency and climate protection.

Both in the gas directive 1998 and 2003; the provision regarding the separation of the transparency of accounts can be compared with each other. This issue has been stipulated in the article 17 of the Gas Directive 2003. The said article envisaged that gas undertakings need to keep separate accounts, for other gas activities not relating to transmission, distribution,

LNG and storage. The natural gas undertakings need to hold separate accounts for the supply activities related to the no eligible customers.

One of the big differences between the two directives is related to the authority to be designed by the member state for natural gas sector. The 1998 provided for the designation of a dispute settlement authority, however, in Gas Directive 2003, the appointment by the Member State of a regulatory authority, which is not directly related to the gas industry has been provided. The said authority will be in charge of ensuring non-discrimination, effective competition and good functioning of the market. In the same time, it auditors the separation of accounts, the allotment of capacity, the publication of information by the different operators, the entry conditions and degree of transparency and competition. It will be accountable for agreeing or/and establishing the ways used so as to calculate or establish connection and access to national networks and the provision of making equal. These authorities, under the article 5 of the Gas Directive 2003, can be appointed with the task of monitoring the security of supply. (Hessen 2006, p. 64).

2.2.3.3 The Reflections of the Gas Directives to the Turkish Legislation

The acquaintance of Turkey with natural gas dates back to 1980s. Turkey has signed the first international gas agreement with Soviet Union in 1986. Natural Gas has started to be used in homes and for commercial purposes for the first time in Ankara in 1988. In 1990, *Boru Hatları ile Petrol Taşıma Anonim Şirketi* (BOTAŞ) is given the authority to transfer, sell and import of natural by the decree numbered 397 (Kazancı 2009, p. 65). Meanwhile, I would like to give some information related to BOTAŞ. As envisaged in its official website; BOTAŞ was established on August 15, 1974 by The Turkish Petroleum Corporation (TPAO) under Decree No 7/7871, for the purpose of transporting Iraqi crude oil to the Ceyhan (Yumurtalık) Marine Terminal, in accordance with the Iraq-Turkey Crude Oil Pipeline Agreement signed on August 27, 1973 between the Governments of the Republic of Turkey and the Republic of Iraq. BOTAŞ has enlarged its main aims and purposes of transporting crude oil through pipelines to cover natural gas transportation and commercial activities since 1987 as a direct consequence of Turkey's increasing need for diversified energy sources. Together with the last amendments,

BOTAŞ has become a trading company. BOTAŞ's cartel rights on natural gas import, distribution, sales and pricing that were given by the Decree of Natural Gas Utilization No. 397 dated February 9, 1990, were abolished by the Natural Gas Market Law. With the adoption of Natural Gas Market Law, the market becomes privatized in 2001. The reason why natural gas has been opened to private sector was due to the Natural Gas Market Law passed in 2001. While only five cities were using natural in 2005, it is sixty-three cities at the moment. One and a half million houses and numerous industrial and commercial establishments have been reached. In this respect, the private sector has installed two thousands kilometres of steel and fifteen thousand kilometres of polyethylene lines. (Kazancı 2009, p. 72).

As per the Article one of the Natural Gas Market Law, the latter concerns with liberalization of the natural gas market and thus formation of a financially sound, stable and transparent markets along with institution of an independent supervision and control mechanism over the same, so as to ensure supply of good-quality natural gas at competitive prices to consumers in a regular and environmentally sound manner under competitive conditions. However, since the adoption of the said law, natural gas market has not been duly liberalised, transparency and stability in the sector cannot be entirely ensured in Turkey. In fact Turkey has been appreciated by the European Union for its efforts related to the natural gas market in the beginning, although there are still a lot to do.

Before 2001, as mentioned here above, Turkey's natural gas market and infrastructure were entirely managed by the state-owned company BOTAS, which had the legal mandate to hold cartel on import, transmission, and sale and determination of natural gas prices. In 2001, Turkey enacted Natural Gas Market Law, so as to finish incrementally government control on the natural gas sector. The main purposes of this new law was to abolish inefficiencies, combine its energy tasks with that of the European Union, and have more investment in natural gas sector.

Basically, this law has intended to set up a legal framework for ensuring a legitimate, transparent and competitive natural gas market with the separation of the market activities such as transmission, production and distribution and waiving the cartel in the market. Furthermore, the law has envisaged ensuring the existence of an independent regulatory and supervisory system in the natural gas. As a direct consequence of this aim; The Electricity Market Regulatory Authority

had been established as per Law no. 4628 and it was later renamed as Energy Market Regulatory Authority as per the provisions of Natural Gas Market Law no. 4646. This authority is responsible of the application of Natural Gas Market Law. It is the only one regulatory authority in the natural gas market and it gives licenses for separate activities related to the natural gas market such as transmission, import, storage distribution. It should be noted that those licenses are given for a minimum of 10 years, and a maximum of 30 years. Another important task of this authority is to implement tariffs in the form of price ceilings to regulate connection transmission, wholesale and retail of natural gas.

Under the the temporary article 2 of the Natural Gas Market Law; BOTAS cannot execute a new natural gas purchase contract until its imports fall down to the twenty percent of the national consumption. Every year starting from the end of the preparation term and until the year 2009 at the latest and until the aggregate of annual import amount falls down to twenty percent of annual consumption amount, a tender shall be by BOTAS for the transfer, in held which other import license holder companies desiring the transfer in part or in whole together with all their rights and obligations of the existing natural gas purchase or sale contracts, shall participate. However,the current situation has showed that the percentage of Botaş will not fall down to the twnety percent until the end of this year.(TÜSİAD report 2008, p.2)

In spite of the legal reforms in the natural gas market, implementation and effectiveness of these reforms cannot be ensured for many reasons. One of the main reasons has been the deliberativeness of the state that is reluctant to lose its control over the natural gas market. As a matter of fact the ministry of energy proposed a bill reducing the share of contracts to be turned over to the private sector from 80% to 25% by 2009. This proposition of the ministry was cancelled with pressure made by internal and external oppositions.

2.2.3.4 The Gas Directive 2009

Directive 2003/55/EC of the European Parliament and of the Council of 26 June 2003 concerning common rules for the internal market in natural gas has made significant contribution towards the creation of the internal natural gas market in European Union. But, authorities agreed that there

are obstacles to the sale of gas on equal terms and without discrimination or disadvantages in the Community and in particular, non-discriminatory network access and an equally effective level of regulatory supervision in each Member State do not exist.

Consequently, the Commission has released a Proposal for a Directive of the European Parliament and of the Council amending Directive 2003/55/EC concerning common rules for the internal market in natural gas on 19.09.2007. Following this proposal, the procedure has been initiated, and after completing the necessary steps such as the taking opinion of the committee of regions and establishing common position, the new directive 2009/73/EC of the European Parliament and of the Council of 13 July 2009 concerning common rules for the internal market in natural gas and repealing Directive 2003/55/EC has been adopted.

The new amendments include basically:

- iv. the limited strengthening of some rules ensuring effective unbundling of transmission system operator;
- v. reinforced independence and powers of national regulators;
- vi. provisions creating stronger obligations for Member States as regards consumer protection, energy poverty and the implementation of smart metering.

2.2.4. The Legal Framework in Nuclear Energy

EURATOM, one of the founding treaties, is the oldest regulation on the nuclear energy in European Union. The main purpose of the said treaty is to ensure the fast and safe growth of the nuclear energy in the first six members and it specially contains provisions on the protection of the public regarding the radiologic issues and providing sufficient uranium for the sector and preventing the use of the uranium without permission for military purposes.

EURATOM was essentially signed in order to decrease the energy import from the Middle East after the Suez Canal Crisis. However, the execution of the treaty has been unsatisfactory because of the different opinions of the member states. No more progress has been achieved regarding the treaty because of the national attitudes of the states. The two important basis of the treaty is the constitution of a body which is entitled to control the need of suppliers and the exporters'

situation. However, the treaty has no provisions regarding the issues which are very important today such as the radioactive waste storage and the exploitation of the nuclear energy power stations as those issues were not that important at the time of the treaty's signature. (Ergün 2007, p. 45)

Following the signing of EURATOM treaty, regulations and directives have been initiated to be put into force. The main regulations and directives are;

- a. Council Directive 92/3/EURATOM of 3 February 1992 on the supervision and control of shipments of radioactive waste between Member States into and out of the Community
- b. Council Regulation (EURATOM) No1493/93 of 8 June 1993 on shipments of radioactive substances between Member States
- c. Council Directive 97/11/EC of 3 March 1997 amending Directive 85/337/EEC on the assessment of the effects of certain public and private projects on the environment

Other sources regarding the nuclear energy are decisions, recommendations, communiqués and opinions. Among these sources, only decisions are binding. However, they play an important role for the designation of the EU Nuclear Energy Policy.

The works on the construction and security controls of the power plants have been still continuing. Some member countries including Germany, U.K, Sweden and Finland have been objecting to these works. The main reasons of their objections are the concerns subject to the national policy.

According to the research conducted by Eurostat The number of the member that produce electricity from nuclear energy is thirteen. It has been ascertained that the use of nuclear energy has increased in ratio 24 percent between the years 1990 and 2004. However, the ratio of nuclear energy using in European Union degraded between the same years as the states has converged to the other energy resources due to the concerns regarding the safety. (Ergün 2007, p. 46)

In the recent times, nuclear energy has been considering as one of the solution so as to ensure the security of energy supply by European Union. It is agreed that nuclear has some features that could enhance supply security as it is a way of diversification. (Toth 2009, p. 40).

In this respect, The Community acceded to the Convention on Nuclear Safety that is an international convention which aims to improve nuclear safety worldwide on 30 January 2000.All Member States of the European Union (EU) are party to the Convention. The Community established by the Euratom Treaty shares jurisdiction with Member States in the fields governed by the Convention.

On 25 June 2009, European Union has established a common binding framework on nuclear safety and the Council Directive establishing a Community framework for the nuclear safety of nuclear installations was adopted. By this way European Union has become the first regional nuclear player to ensure a binding legal framework on safety related to the nuclear energy.

The nuclear energy policy and the related legislation have been assessed separately in the last chapter.

2.2.5 The Legal Framework in Renewable Energy

The generation of energy from renewable energy sources has been one of the top priorities of European Union for many reasons, such as the security and assortment of energy supply, the protection of the nature and cohesion regarding social and economic welfare.

A major part of the energy need in EU has still been met with petroleum, natural gas and coal which are fossil fuels. As these energy sources are consumable, EU try to find a different sort of energy sources. The European Commission adopted in November 2000 the Green Paper 'Towards a European Strategy for the Security of Energy Supply' and in December 1997 White Paper 'Energy for the Future: Renewable Sources of Energy'. Based on this background, the Commission has intended to encourage the market entrance of renewable energies by arranging regulatory measures, providing support and incentive programmes. In this respect, a directive has been enacted on Electricity Production from Renewable Energy Sources, on 2001 with number 2001/77/EC.

The target of the said directive basically is;

- a. To establish a framework to increase the share of green electricity from 14percent to 22percent Of gross electricity consumption by 2010
- b. To help to double the share of renewable energy from 6percent to 12percent of gross energy consumption in Europe by 2010
- c. To further compliance with the commitments made by the EU under the 1997 Kyoto Protocol on reducing greenhouse gas emissions.

In addition to the above-mentioned directive, another directive adopted regarding the biofuels. (2003/30/EC). This directive aimed to increase the share of biofuels in transport to 2percent by 2005 and 5.75 percent by 2010 in European Union.

Following those directives, on April 2009, DIRECTIVE 2009/28/EC OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL on the promotion of the use of energy from renewable sources and amending and subsequently repealing Directives 2001/77/EC and 2003/30/EC has been adopted. This time, it is aimed to increase the share of renewable energy in gross final energy consumption to 20 percent by 2020. This directive is a part of European Energy and Climate package adopted by the European Parliament in December 2008. The targets envisaged in this directive are deemed binding for member states. Member states need to submit National Renewable Energy Action Plans in which there shall be definitions of national targets and the envisaged measures to be taken so as to reach at these targets. Under this directive; member states may cooperate with third countries on all types of joint renewable energy projects. Electricity produced from renewable energy sources in a third country can count for the national target of the member state. Renewable energy still accounts for only a small fraction of the Community Energy mix. However, thanks to technical progress and legislative measures between 1989 and 1998, the wind power sector experienced more than 2000percent growth in ten years. Most of the member states have lagged behind their national targets related to share of renewable energy sources at the moment. It is expected that, the new directive will bring a deep breath for further growth of renewables until 2020. Member states have to make serious efforts to reach at their targets. (Klessmann 2009, p. 9) More detailed study on the promotion programs related to the renewable energy sources is given under chapter three

3. EUROPEAN ENERGY POLICY

3.1 ENERGY EFFICIENCY

In terms of 174th article of the Rome Treaty, the prudent and rational utilization of the natural sources is among the Community's objectives. Commission, in its "Action Plan to improve Energy Efficiency in the European Community", has identified the rational use of energy as follows; 'To reduce the energy consummation without reducing the use of plants and facilities consuming energy. As stated in the communication of the commission of 29 April 1998: "Energy Efficiency in the European Community - Towards a Strategy for the Rational Use of Energy", the economic potential for improving energy efficiency between 1998 and 2010 for all sectors is approximately 18percent of the total annual energy consumption. However, the said economic potential could not be fully filled because of the some barriers to investments in energy efficiency remain. The price factor is important, as energy efficiency will only fully penetrate the market if energy prices accurately reflect energy costs (In favour of an Energy-Efficient Society", Commission, Energy publications no: 4, Bruxelle, 1980, pp. 40-48). And this is only full possible together with the full liberalization of the energy market. There are also numerous institutional and legal obstacles to improving energy efficiency, such as: the continued practice of selling energy in the form of kWh instead of as energy services such as heating, lighting and power and the practice among builders and landlords of installing appliances with low initial costs but high running costs for energy, costs which are incurred by the home-buyer or tenant. Lack of information for consumers and manufacturers, technical barriers and financial obstacles also hamper investment in energy efficiency (Ergün 2007, p. 51).

3.1.1 Action Plan For Energy Efficiency

In principle, reducing energy consumption without reducing the use of energy-consuming plant and equipment is the shortest explication of the energy efficiency. The purpose is to make better use of energy. Energy efficiency means promoting behaviour, working methods and manufacturing techniques which are less energy-intensive.

The Action Plan is a follow-up to the Commission communication adopted in April 1998 on the rational use of energy and the Council resolution on energy efficiency here above mentioned. The action plan has mentioned that there are many obstacles to energy efficiency, such as inefficient use of energy in the commercial sector. Commercial barriers are also important boundaries to advancing energy efficiency, as they may obstruct access to technologies and the spread of efficient energy forms. These contain particularly: energy prices which do not directly reflect the real costs of energy as they do not include the externalities, the legal hitches, and the information pollution which hinders the use of cost-effective and energy-efficient technology.

According to the Communication dated 1998, the European Community's energy consumption may be abridged by 18percent compared with the current situation by advancing in energy efficiency. The Action Plan proposes a target of a 1percent decrease per year until 2010 over and above that currently envisaged. This means that two thirds of the overall objective should be achieved by 2010. (Ergün 2007, p. 52)

The Commission has envisaged detailed targets so as to reach at this overall objective such as developing action in the area of energy and environmental policy. Many instruments shall be used to put into action the plans at European Community and national level. Most of the envisaged actions such as voluntary agreements are not obligatory. The Policy of the European Community may strengthen and complements those of the Member States and the Community has a considerable adjusting role, with the SAVE programme particularly. The envisaged actions are as follows:

- a. measures to integrate energy efficiency into other Community policies;
- b. initiatives to strengthen and extend existing policies;
- c. new policies and measures.

3.1.2 Directive 2006/32/EC

As stipulated in its first article;

The purpose of this Directive is to enhance the cost-effective improvement of energy end-use efficiency in the Member States by:

(a) providing the necessary indicative targets as well as mechanisms, incentives and institutional, financial and legal frameworks to remove existing market barriers and imperfections that impede the efficient end use of energy;

(b) creating the conditions for the development and promotion of a market for energy services and for the delivery of other energy efficiency improvement measures to final consumers.

Under this directive, Member States may set themselves a target higher than 9 percent so as to reach at their national indicative targets. This Directive has envisaged detailed actions to be followed by the Member States. However, even if the targets are committed, the directive does not entail any legally binding obligation, therefore, it is up to the final consumers' behaviour in order to get a result form the directive.

According to the directive, all member states need to submit to the Commission plans related to the energy in the years of 2007, 2011 and 2014. Member States need to guarantee that the public sector plays an important role in the implementation of this Directive. Furthermore, under the article 11 of the directive; without prejudice to Articles 87 and 88 of the Rome treaty, Member States shall create special fund or funds to contribute so as to support energy efficiency improvement programmes and so as to ensure a developed market where energy efficiency is realised. As the second paragraph stipulated; if established, the funds could be used for grants, loans, financial guarantees and/or other types of financing that guarantee results.

All people including; independent energy advisors, energy distributors, distribution system operators, retail energy sales companies and installers who can provide with the energy efficiency improvements can profit from funds. In addition, opening of the funds to all final customers is in Member States' discretion. As it is always one of the priorities of the European Union, while granting these funds to beneficiaries, importance should be given to the transparency. To do so; tendering or similar methods that ensure full transparency must be performed in accordance with compliance to the public procurement regulations in question. One last point that must be emphasised is related to purpose of these funds. It shall be ensured by the member states that, these funds shall not compete with, commercially-financed energy efficiency improvement measures.

3.1.3 Other Saving Measures

Many measures have been taken by EU in order to achieve the target of the efficient energy use. They are of various kinds:

- a. technological programmes such as **JOULE-THERMIE** (Com(93)642,9 December 1993);
- b. the **SAVE** programmes with the drafting and adoption of legislation, e.g. on labelling the energy consumption of refrigerators;
- c. support for investments via the ERDF (Council Regulation (EC) No 1783/1999 of the European Parliament and of the Council of 12 June 1999 on the European Regional Development Fund) and the Cohesion Fund;
- d. International cooperation, notably through the **PHARE** (Council Regulation (EEC) No 3906/89 of 18 December 1989 on economic aid to the Republic of Hungary and the Polish People's Republic),
- e. TACIS and SYNERGIE (Council Decision 14 December 1998 1999/23/EC) programmes.

3.2. SECURITY OF ENERGY SUPPLY

3.2.1 EU's Energy Dependencies

The economic growth of the EU has been much faster than its energy consumption. Furthermore, as stated in the commission green paper numbered COM/2000/769; the energy insufficiency of the EU has been increasing day by day and its internal sources are not enough to meet its needs. For The EU, there are mainly three energy confrontations; import dependency, growth of energy costs, climate change.

First of all; the main challenge is related to the import dependency. The EU meets 50percent of its energy needs through imports and, if no action is taken, this will increase to 70percent by 2020 or 2030. The own resources of the European Union has declined. The gas in the north is being depleted (Piebalgs 2009, p.116). This external dependence involves economic, social, ecological and physical risks for the EU. Energy imports account for 6percent of total imports and, in

gas imports come from Russia. The EU does not yet have all the necessary means to change the international market. This weakness was highlighted by the sharp rise in oil prices at the end of 2000 (Commission Green Paper of 29 November 2000 Towards a European strategy for the security of energy supply [COM (2000) 769 final).

The European Union's (EU) external energy dependence is constantly increasing after the joint of the two new members, Bulgaria and Romania. EU has been met percent53.9 of its energy need through imports in 2004 and this percentage has increased in to percent56.2 in 2005. Almost all members of the EU are dependent on the external energy sources of a high percentage. According to the Commission the percentage of external energy dependency o the EU will be percent 65 in 2030 (EU Commission press release, 10 January 2007) The energy production in the member states has reduced in 2005 in comparison with 2004. The decrease percentage in the different sources is as follows; petrol percent4, natural gas percent5.8, coal percent5.7, nuclear energy percent1.3 (Gikas, and Keenan, R, Eurostat 13/2006, European Communities release) The situation has not changed after the membership of Bulgaria and Romania and it is same not only for EU members but for all 33 European countries. There is a big dependency regarding the energy. 9 of the 33 counties in Europe has met its energy need through import more than in ratio 95 percent and only 5 countries are able to meet its energy needs from their own sources; UK, Holland, Norway, Denmark, Albania. (Ergün 2007, p. 56)

The second challenge is related to the growing energy costs. Energy costs are quite substantial for industry. The third challenge comes from climate change. By business of usual scenario, it is possible to notice that even if energy intensity improves, carbon in intensity at the beginning slightly comes down and then goes up. So EU energy policy should address these three issues. (Piebalgs 2009, p. 117)

It is possible to examine the risks brought up together with the dependency in two chapters. The first risk is the security of supply. It is a well-known reality that energy security is one of the issues that has captured a top priority in world agenda. Energy has always been influential in international relations. However, due to the rapidly rising demand for energy and the emerging risks to energy security, this influence has taken on a rather overwhelming nature. (Aksay 2009,

p.6). Energy security is relatively a new term and , by the World Energy Agency, in 2004, it was defined as the production of sufficient energy in various forms and at feasible costs , without causing undesirable reverse effects and in a sustainable manner. There is not a unique definition of energy security consensually approved by international communities. Its definition is subject to variations stemming from national perceptions and accounts for both security of supply and demand. The percent90 of the natural gas import to EU has been realized through the countries where there are high risks of security. For example natural gas has been imported through Russia, Ukraine, Belarus, Algeria, Tunisia and Morocco. Russia plays an essential role, providing the Union with 42percent of its natural gas needs. However, there is also considerable potential for oil and gas production in the countries of the Caspian Sea basin. As a producer, Russia is the world's leading natural gas exporter. North African countries such as Algeria and Libya are also important producer countries for Europe. (Ergün 2007, p. 57)

Not only European Union but also other big consumers such as USA, Japan, China and India have increasingly become more and more dependent on a few OPEC countries in their oil imports. In this respect, energy issue has become a significant part of foreign policies and national security policies (Aksay 2009, p. 9). According to the data provided by International Energy Agency, it is estimated that the global demand for energy will increase by 50% by 2030 and will more than double by 2050 if current policies are maintained and it is also emphasized that this situation characterizes lack of sustainability.

The second risk is related to the facilities and equipments used in the energy transfer. The International Energy Agency has acknowledged as an important risk the possibility of the damages in the facilities and equipments used for the energy transfer such as pipes explosions. (International Energy Agency- IESA, World Energy Outlook).

As a result of the overhanging danger in the energy supply, EU has taken some measures. The first measure among them has been the execution of the Energy Charter Treaty. As second, Commission has prepared a green paper and has raised notice to the necessity of the local coal use (COM/2000/769). Two points have been emphasized in the Green paper; the external energy dependency of EU shall continue and increase and this case will not change even after the possible enlargements, the said green paper has established a correlation between the energy

security supply and the integration of the energy market, therefore it is important. The paper says that the energy supply will be safer provided that the integration could be achieved in the Union (Ergün 2007, p. 57).

3.2.2 Strategies of European Union on Energy Issues

The European Union is consuming more and more energy and importing more and more energy products. Community production is insufficient for the Union's energy requirements. As a result, external dependence for energy is constantly increasing. If no measures are ensured, in the next coming decades 70percent of the Union's energy requirements will be supplied by imported products. This dependence has been felt in all fields of the economy. For example transportation, the internal sector and the electricity industry depend on oil and gas energies. It should be noted that, the cost of the consequences of this dependence is very high and heavy. In geopolitical terms, a considerable amount of energy imports come from the Middle East and Russia. The European Union does not yet have all the means to change the international market. Since the first oil crisis, Europe's economy has grown faster than its energy consumption. However, despite this achievement, the Union's energy needs are still increasing, and internal resources are inadequate to meet them. The EU's demand for energy has been growing at a rate of between 1 and 2percent a year since 1986. While industrial demand has been relatively stable, as a result of the transition to a service-oriented economy, the increased demand for electricity, transport and heat from households and the tertiary sector has more than made up for this decline.

It has been determined by the Commission that there is a clear particularity in energy sector as works in this are required politically sensitive, long standing and incentive investments. The EU is a market with 500 million consumers but it has developed as 27 different energy markets which are powerful in diverse energy sorts. Some markets are very strong at nuclear energy, some with hydro, some having more experience with wind and some experience with bio-mass. But at the same time there are also weaknesses in the EU: Its different regulation or different political goal setting in different members. It is a reality also that there is not an enough physical interconnection between member states (Piebalgs 2009, p.117). Therefore, EU has focused on its attention to overcome the above-mentioned weaknesses. Consequently, the legislation has been harmonised by different directives and long –terms plans has been targeted with different instruments such as green or white papers or secondary legislation.

In this respect, many instruments has been carried out in order to keep import-dependency about 50percent by 2020 and to diversify the energy sources and routes by different ways such as the promotion the use of renewable energy and the increase the use of coal and lignite by execution of different treaties with the third countries and the establishments of different agencies and authorities to be performed in energy sector.

Furthermore, some researchers don't consider the dependency as a big problem. According to Chichester "Being energy importer is not that bad or not economically irresolvable, provided that energy sources and origins of supply are diversified." In my opinion, the import dependency on the energy has extraordinarily negative effects even if energy sources and origins of supply are diversified.

3.2.3 Council Directive 2004/67/EC

The said directive has set the measure which must be taken by the members to safeguard security of natural gas supply. The main obligation of the members is as follows;

In establishing their general policies with respect to ensuring adequate levels of security of gas supply, Member States shall define the roles and responsibilities of the different gas market players in achieving these policies, and specify adequate minimum security of supply standards that must be complied with by the players on the gas market of the Member State in question. The standards shall be implemented in a non-discriminatory and transparent way and shall be published

Member States shall ensure that supplies for household customers inside their territory are protected to an appropriate extent at least in the event of:

- (a) a partial disruption of national gas supplies during a period to be determined by Member States taking into account national circumstances;
- (b) extremely cold temperatures during a nationally determined peak period;
- (c) periods of exceptionally high gas demand during the coldest weather periods statistically occurring every 20 years,

Reporting to the commission regarding the competitive impact of the measures taken, the levels of storage capacity; the extent of long-term gas supply contracts concluded by companies established and registered on their territory, and in particular their remaining duration, based on information provided by the companies concerned, but excluding commercially sensitive information, and the degree of liquidity of the gas market

Member States shall prepare in advance and, if appropriate, update national emergency measures and shall communicate these to the Commission. Member States shall publish their national emergency measures. Member States' emergency measures shall ensure, where appropriate, that market players are given sufficient opportunity to provide an initial response to the emergency situation.

A list regarding non-exhaustive list of instruments to enhance the security of gas supply is attached at the end of the directive. It should be noted that, Member States shall take the appropriate steps to ensure that the measures referred to in this Directive do not place an unreasonable and disproportionate burden on gas market players and are compatible with the requirements of a competitive internal gas market. The said directive has established A Gas Coordination Group in order to facilitate the coordination of security of supply measure. The Group shall be composed of the representatives of Member States and representative bodies of the industry concerned and of relevant consumers, under the chairmanship of the Commission. The Group shall adopt its Rules of Procedure. (Ergün 2007, p. 62)

3.2.4 Directive 2005/89/EC

This Directive establishes measures aimed at safeguarding security of electricity supply so as to ensure the proper functioning of the internal market for electricity and to ensure, an adequate level of generation capacity, an adequate balance between supply and demand, an appropriate level of interconnection between Member States for the development of the internal market.

According to this directive the main obligations of the Member States are as follows;

Member States shall ensure a high level of security of electricity supply by taking the necessary measures to facilitate a stable investment climate and by defining the roles and responsibilities of competent authorities, including regulatory authorities where relevant, and all relevant market actors and publishing information thereon. The relevant market actors include, inter alia, transmission and distribution system operators, electricity generators, suppliers and final customers. Member States or the competent authorities shall ensure that transmission and, where appropriate, distribution system operators set and meet quality of supply and network security performance objectives. These objectives shall be subject to approval by the Member States or competent authorities and their implementation shall be monitored by them. They shall be objective, transparent and non-discriminatory and shall be published. Member States shall take appropriate measures to maintain a balance between the demand for electricity and the availability of generation capacity.

In implementing the measures, as envisaged in its articles; member States may also take account of ;the degree of diversity in electricity generation at national or relevant regional level; the importance of reducing the long-term effects of the growth of electricity demand; the importance of encouraging energy efficiency and the adoption of new technologies, in particular demand management technologies, renewable energy technologies and distributed generation and the

importance of removing administrative barriers to investments in infrastructure and generation capacity.

3.3 PROMOTION OF RENEWABLE ENERGY SOURCES

Fossil fuels -including coal, natural gas, and oil- are formed from the fossilized remains of prehistoric plants and animals, and they provide about 95percent of the world's total energy. On the other hand, there are also alternative fuels to the fossil fuels and it is deemed that alternative sources are better for the environmental protection. Many alternative sources are already widely used. Hydroelectric and nuclear energy plants produce a considerable amount of the world's power. Other sources, including solar energy, wind power, and biomass fuel are not widely used. Sources such as tidal power and geothermal heat are site-specific, and of use only in the right location. Some promising technologies, for example the hydrogen fuel cell, remain under development. (SEED, alternative to fossil fuels). It should be noted that most of the alternatives energy resources here above mentioned are everywhere, in essentially unlimited quantities. These energy sources should be used efficiently. European Union is very well aware of the energy supply problem and as mentioned here above, it supports to find alternatives to the fossil fuels. It is very well known issue that fossil fuels generate CO2, which adds to global warming. Contrary to the fossil fuels, energy from sunlight, wind, water, plants, and geothermal heat does not create extra carbon dioxide, and therefore it does not increase to global warming and these fuel sources are renewable and will never be exhausted. Therefore, it is possible to say that one day, they can fully prevail fossil fuels. These are advantages of the renewable energy sources. Besides, according to a report released by the Ireland Energy Centre, it is said that mining of the fossil fuels would be more expensive in the near future and the largest supplies areas would be sustainably jeopardized areas. Therefore renewable energy sources are more suitable for security of supply (Ergün 2007, p. 67).

On the other, there are also some important obstacles so as to use of renewable energy sources. First of all, it should be noted that; investments on renewable energy requires high capital costs with long payback periods. Especially solar and wind equipments cost significantly more than traditional energy equipment. It takes many years of use to see that investment pay off. Therefore one of the biggest obstacles for renewable energies is the price of the installation. Furthermore,

most of the states are not aware of the renewable energy potential of their countries .Another point is the general resistance to the innovations. People do not want to give up their traditions easily. In addition to this, another burden is the technical and economic problems affecting connection to centralized electricity grids. This situation requires also much money and change in infrastructure. Although most of these sources are exhaustless, it is impossible to foresee, notably for solar and wind energy, how much energy source will be generated.

Although the works on energy in Union terms has a long background, the regulations and directives on energy are not that old. The oldest arrangement on energy is the Council Recommendation of 8 November 1988 to promote cooperation between public utilities and autoproducers of electricity. As mentioned in many paper released by the Commission, European Union did not attach enough importance to increase the use of renewable energy as from the abovementioned regulation which is not binding until today. However, it is obvious to see that the use of renewable energy has been increasing as a result of the actions to be performed lately.

One of the main instruments related to the renewable energy sources in European Union is the White Paper Numbered COM (97) 599; "Energy for the Future: Renewable Sources of Energy"

The target of the Commission on this matter is to meet 12percent of the community's energy need from renewable energy sources by 2012 as it is mentioned in the said paper. Besides, the role of the renewable energy in energy production will be more important if and when Kyoto Protocol becomes fully effective (Ergün 2007, p.70).

In summary the White Paper: defines a strategy and action plan to promote the market penetration of renewable energy sources, with a target of doubling their use by 2010 (from 6percent of total consumption in 1996 to 12percent in 2010). The measures proposed in the action plan include the organisation of a campaign for the take-off of renewables. The investment needed to implement the strategy and action plan over the period is estimated at 951000 million ecu, with benefits in savings in oil imports, technical development, job creation and carbon dioxide avoidance.

According to the scenarios released from the Union for the Co-ordination of Transmission of Electricity (UCTE), the expected increase rate between years 2004-2010 is as follow;

Table 3.1 : Expected Increase in Use of Renewable Energy between years 2004-2010

		2004		2005		2006		2008		2010	
		3 rd		3 rd		3 rd		3 rd		3 rd	
Power data		Wednesda		Wedne		Wedne		Wedne		Wedne	
(net values in GW)		y		sday		sday		sday		sday	
		January	Ju	Januar	Ju	Januar	Ju	Januar	Ju	Januar	Ju
			ly	y	ly	y	ly	y	ly	y	ly
	National										
	generating										
	capacity:										
	hydro power stations		13		13		13		13		13
1		131,1	1,	132,0	2,	132,4	2,	133,6	3,	134,7	4,
			7		2		6		9		9
	nuclear power stations		11		11		11		11		11
2		112,6	2,	112,6	2,	112,4	2,	111,1	0,	109,5	0,
			6		6		2		2		5
	conventional		29		30		30		31		31
3	thermal power	294,1	5,	298,3	0,	303,3	6,	312,2	4,	316,2	7,
	stations		0		8		9		0		9
4	renewable	27,6	29	34,2	35	39.2	41	49,8	53	60,9	63
	energy sources		,8		,9		,9		,1		,9
	not clearly	2,3	2,	2,6	2, 6	2,7	2, 3,0		3,		3,
5	identifiable		4					0	3,3	3	
	energy sources										
6	National	567,8	57		58		59		61		63
	generating		1,	579,7	4,	590,0	6,	609,6	4,	624,6	0,
	capacity		6		1		3		3		4
	(6=1+2+3+4+5)		0.5		07		10		10		12
7	non-usable	79,4	95	81,4	97	84,8	10	102,4	12	109,9	13
	capacity		,3		,5		1,	5,		4,	

							3		4		1
8	overhauls (thermal power stations)	9,8	50 ,1	11,1	50 ,8	11,5	51 ,7	7,2	40 ,2	7,2	40 ,5
9	outages (thermal power stations)	24,4	23	24,6	23	25,4	24 ,7	15,6	15 ,0	16,1	15
10	system services reserve	33,4	31 ,9	34,2	32 ,3	34,2	32 ,5	35,1	33 ,1	35,6	33 ,8
	Guaranteed		37		37		38		40		40
11	capacity (11=6-	420,8	0,	428,4	9,	434,0	6,	449,4	0,	455,9	6,
	(7+8+9+10))		7		6		1		6		7
			31		32		32		34		35
12	Load	358,8	2,	366,1	0,	373,6	7,	388,7	1,	403,9	6,
			9		5		3		5		2
13	margin against the monthly peak load	21,9	14 ,7	22,6	15	23,5	15 ,4	23,4	15	23,7	15
14	Remaining capacity (14=11-12)	62,0	57 ,8	62,4	59 ,1	60,5	58 ,8	60,6	59 ,1	52,0	50 ,5
	Transportable										
	capacities		<u> </u>		70		72		5 0		0.0
15	importable	63,9	67	67,9	70	71,3	72	77,7	79	80,1	82
	capacity		,5		,5		,9		,6		,9
16	exportable	62,9	65	65,4	67	67,9	69	75,4	76	77,0	78
	capacity	, ,	,3		,2	,	,6	,	,9	,	,6

Source: UCTE Website http://www.ucte.org/

As you may see here above, the increase percentage in use of renewable energy from 2004 January to 2010 July will be much more than the use of nuclear energy. It is estimated that the increase in use of renewable energy at the said dates will be 36.3 GW and the use of nuclear energy will decrease from 112,6 GW to 110,5 GW.

On the other hand, it is necessary to give some information regarding UCTE. It is the association of all the Transmission System Operators of the operation of the synchronous interconnected power system of continental Europe. UCTE coordinates the operation and development of the electricity transmission grid from Portugal to Spain, from Netherlands to Greece. It aims to keep the quality and reliability of the UCTE system at high level. It is expected that the most used renewable energy will be the wind in the near future. According to the sources given by the European Wind Energy Association, the wind energy capacity in Europe is as follows;

Table 3.2 : The Wind Energy Capacity in Europe

COUNTRY	MW
Germany	12,836
Spain	5,060
Denmark	2,916
Holland	803
Italia	800
England	586
Sweden	364
Greece	354
France	220
Austria	219

Portugal	217
Ireland	137
Belgium	56
Finland	41
Luxembourg	16
TOTAL	26,626

Source: European Wind Energy Association web site http://www.ewea.org/

One last point regarding the renewable energy resources is related to the taxation in energy. Taxation is the one of the most important incomes of the States in EU as it is the case in the world. However, the only importance of the energy taxation is not its income profit, but also its close connection with the energy policy. (Ergün 2007, p. 74)

On 27 October 2003, the European Union's Council of Ministers adopted a directive restructuring the Community framework for the taxation of energy products and electricity.

In particular, the main purposes of the directive, as stated inside of it, are to reduce distortions of competition that currently exist between Member States as a result of divergent rates of tax on energy products; to increase incentives to use energy more efficiently so as to reduce dependency on imported energy and to cut carbon dioxide emissions. The Council Directive 2003/96/EC of 27 October 2003 "restructuring the Community framework for the taxation of energy products and electricity" authorizes Member States to apply total or partial exemptions or reductions in the level of taxation to taxable products used under fiscal control in the field of pilot projects for the technological development of more environmentally-friendly products or in relation to fuels from renewable resources. Its aim is therefore to improve the operation of the internal market by reducing distortions of competition between mineral oils and other energy products. In accordance with the Community's goals and the Kyoto Protocol, it boosts more effective use of energy in order to reduce the dependence on imported energy products and restrict dangerous gas emissions.

The European Directive 2003/96/EC is successively amended by European Directives 2004/74/EC and 2004/75/EC.

3.4. EMPOWERING THE INTERNATIONAL COOPERATION IN ENERGY

3.4.1 Energy Charter Treaty

3.4.1.1 General View

The relation towards third countries has increasingly become important in designing the Union's energy policy. Most of the problems have to be solved in an international area. The most important reasons of this situation are that EU members meet most of its energy need from the third countries. (Ergün 2007, p. 96) As we have already mentioned, the cold war and the other uncertainties in the Middle East have rendered the security of supply very important.

The Energy Charter is based on the end of Cold War. Cold War offered an important opportunity to cease the economical separation between east and west. It was determined that there was a recognised need to ensure that an association was established so as to develop energy cooperation between the west and east. This was the starting point the Energy Charter process. In a situation of rising interdependence among net exporters and net importers of energy, it is broadly approved that many-sided agreements may ensure a more harmonised and stabilised framework for international collaboration than is ensured by two-sided agreements alone or by non-legislative instruments. As a result of this situation, The Energy Charter Treaty has put on a crucial act in the international effort so as to establish a legal frame regarding security of energy supply, based on the principles of open, competitive markets and sustainable development. The Energy Charter Treaty and the Energy Charter Protocol on Energy Efficiency and Related Environmental Aspects were signed in December 1994 and entered into legal force in April 1998. To date, the Treaty has been signed or acceded to by more than fifty states.

The Treaty has followed the Energy Charter of 1991. Whereas the latter document was just a declaration of political intent to increase the cooperation in energy sector between member states, the Energy Charter Treaty is a legally-binding and many-sided document. The main purpose of the Energy Charter Treaty is to enhance the rule of law on energy matters, by establishing rules to

be controlled and ensured by all contracting parties, since therefore decreasing obstacles and risks related to the energy-related investment and trade. The Energy Charter treaty has displayed the main targets regarding the international investments, trade and transit passage. Moreover, it has also regulated some subjects regarding the competition, environment, entrance to the market, technology transfer and the settlement of the disputes (Bamberger and Walde 2001, p. 171).

Turkey is a part to the treaty. It has signed the treaty on 17 December 1994 in Lisbon and it has approved 1st February 2000 by the law number 4519 and cabinet decision number 2000/786. The approval certificate has been sent to Portugal which is the depositor country at that time. Turkey is the forty-second country which approved the said treaty. (Ergün 2007, p. 79)

3.4.1.2 Purposes and Principle

The Energy Charter Treaty has provided many-sided framework regarding energy cooperation which is unique under international law. It is aimed to advance security of energy supply by ensuring efficient and competitive energy markets, by taking into consideration the characteristics of feasible rise on the energy resources.

There are four main areas that Energy Charter Treaty refers to:

- a. the conservation of foreign investment;
- b. ensuring non-discriminatory conditions in energy sector;
- c. the settlement of problems between the states and investors and host states;
- d. the advancement in energy efficiency, and decreasing the environmental collisions of energy generation and use.

As mentioned here above, The Treaty was developed on the basis of the Energy Charter Declaration, but while this Declaration signalled the political intent to strengthen international energy ties, the 1994 Treaty is a legally binding multilateral agreement. This treaty is the sole treaty that deals with cooperation between states in the energy sector. It includes all energy value chain (from generation to the consummation) and all energy resources and energy-related equipment.

As envisaged in the article 2 of the Treaty, the purpose is to promote a long-term cooperation in the energy field. On the other hand it should be noted that; the reasons behind is to ensure the transmission of the energy in as secure way from east to west and to ensure the technology and investment flow from west to east.(Andrews-Speed, The Energy Charter Treaty and international

petroleum politics' the internet Journal of the Centre for Energy, Petroleum and mineral law and policy, number: 3, CEPMLP 1998) Therefore, the subject that is given most importance is to control and decrease the political risks in those new investment areas (Fremantle, S., 'Energy Charter Treaty: Investment Promotion and Protection', Walde, T. &Christie, M. (ed.), Energy Charter Treaty: Selected Topics, Petrol and Mining Law and Policy Centre, Dundee,1995.)

Energy Charter Treaty has two important purposes; on one hand to ensure the harmonization of the old soviet countries' policies to the liberal international policy and on the other hand to create and international trade and investment regime.

Energy Charter Treaty aims to create a transnational power on the energy sources. However, the latter approves the sovereignty of the states on their energy policy. Its targets are the protection of the investments and their promotion, freedom of the energy transit, the settlement of the international disputes and to develop international transparency.

The Charter has defined the 'investment' as follows; every kind of asset, owned or controlled directly or indirectly by an Investor and includes, and has given the following examples;

- (a) Tangible and intangible, and movable and immovable, property, and any property rights such as leases, mortgages, liens, and pledges;
- (b) A company or business enterprise, or shares, stock, or other forms of equity participation in a company or business enterprise, and bonds and other debt of a company or business enterprise;
- (c) claims to money and claims to performance pursuant to contract having an economic value and associated with an Investment;
- (d) Intellectual Property;
- (e) Returns;
- (f) any right conferred by law or contract or by virtue of any licences and permits granted pursuant to law to undertake any Economic Activity in the Energy Sector.

Energy Charter Treaty has envisaged a broad and widespread explication of the term "investment", which means: "every kind of asset, owned or controlled directly by an investor". This explication takes inside every kind of property such as stocks shares or other forms of equity participation in a company; bonds and other debt of a company; claims to money and claims to performance pursuant to a contract having an economic value associated with an

investment; rights related the intellectual property and returns. In addition, it enrols all rights granted by law or by an agreement or by virtue of any licenses and permissions given as per the law so as to undertake any Economic Activity in the Energy Sector. This shall include each case where a right, such as a concession to develop a gas filed, is revoked, but no action is taken against any physical assets. The borders are that such investments must be combined with an economic activity in the energy sector. Furthermore, the definition is relatively widespread. The investment need to ensure an economic activity pertaining to the generation, derivation, analysis, refining, storage, transportation, transmission, distribution, sailor marketing of energy materials and instruments.

3.4.1.3 Provisions regarding the trade

In the beginnings of the 1990s, nearly most of the states that were to become the Energy Charter constituency were not Contracting Parties to the GATT. Therefore the GATT 1947 (and later the WTO rules) has been made applicable in the Energy Charter Treaty in order to make involve non-WTO members in the trade relations. This gave way to the contracting parties that are not agreed on WTO members to profit from balanced, foreseeable and equal trade rules. In this respect5, the Treaty has ensured a good international base regarding trade reforms in the members of Energy Charter that are keen to become member of the WTO, by being a 'first phase' for these countries in their attempts to the their future membership for WTO. By the application of WTO rules, member states did not have to establish of any other framework for the management of trade in energy. Treaty has brought some limitations in the application of WTO rules, therefore it is limited. The Energy Charter Treaty does not provide for legally binding tariff commitments as WTO does. In addition to this, some of the WTO agreements such as Trade in Services (GATS) and Trade-Related Intellectual Property Rights (TRIPS) do not apply.

On the other hand, in some circumstances, it is possible to see that the scope of the Energy Tread is wider than WTO rules. First of all, the provisions regarding the protection of investment are very broad in Energy Charter. Secondly, the subjects related to the energy transit are detailed and a mechanism so as to settle of energy transit disputes is ensured in the Energy Charter. The provisions of the Energy Charter regarding trade were amended by the adoption in April 1998. Together with these amendments, Treaty's trade provisions has become into line with principles envisaged in the World Trade Organisation rules. The main common principles of both

WTO rules and the rules indicated in the Energy Charter Treaty; are non-discrimination, transparency and a commitment to the growing liberalization of international trade.

Under the fifth Article of the treaty; A Contracting Party shall not apply any trade-related investment measure that is inconsistent with the provisions of article III or XI of the GATT Such measures include any investment measure which is mandatory or enforceable under domestic law or under any administrative ruling, or compliance with which is necessary to obtain an advantage, and which requires:

- (a) the purchase or use by an enterprise of products of domestic origin or from any domestic source, whether specified in terms of particular products, in terms of volume or value of products, or in terms of a proportion of volume or value of its local production; or
- (b) that an enterprise's purchase or use of imported products be limited to an amount related to the volume or value of local products that it exports; or which restricts:
- (c) the importation by an enterprise of products used in or related to its local production, generally or to an amount related to the volume or value of local production that it exports;
- (d) the importation by an enterprise of products used in or related to its local production by restricting its access to foreign exchange to an amount related to the foreign exchange inflows attributable to the enterprise; or
- (e) the exportation or sale for export by an enterprise of products, whether specified in terms of particular products, in terms of volume or value of products, or in terms of a proportion of volume or value of its local production.

3.4.1.4 Provisions regarding the competition

The provisions regarding the competition have been stipulated in the Article 6 of the treaty. According to the said Article, the main obligations of the contracting parties are as follows;

- a. Each Contracting Party shall work to alleviate market distortions and barriers to competition in Economic Activity in the Energy Sector.
- b. Each Contracting Party shall ensure that within its jurisdiction it has and enforces such laws as are necessary and appropriate to address unilateral and concerted anti-competitive conduct in Economic Activity in the Energy Sector.
- c. Contracting Parties with experience in applying competition rules shall give full consideration to providing, upon request and within available resources, technical assistance on the development and implementation of competition rules to other Contracting Parties.
- d. Contracting Parties may co-operate in the enforcement of their competition rules by consulting and exchanging information.

If a Contracting Party considers that any specified anti-competitive conduct carried out within the Area of another Contracting Party is adversely affecting an important interest relevant to the purposes identified in this Article, the Contracting Party may notify the other Contracting Party and may request that its competition authorities initiate appropriate enforcement action. The notifying Contracting Party shall include in such notification sufficient information to permit the notified Contracting Party to identify the anticompetitive conduct that is the subject of the notifying Contracting Party is able to provide. The notified Contracting Party or, as the case may be, the relevant competition authorities may consult with the competition authorities of the notifying Contracting Party and shall accord full consideration to the request of the notifying Contracting Party in deciding whether or not to initiate enforcement action with respect to the alleged anticompetitive conduct identified in the notification. The notified Contracting Party shall inform the notifying Contracting Party of its decision or the decision of the relevant competition authorities and May if it wishes informs the notifying Contracting Party of the grounds for the decision. If enforcement action is initiated, the notified Contracting Party shall advise the

notifying Contracting Party of its outcome and, to the extent possible, of any significant interim development.

3.4.1.5 The effects of the Treaty on the international energy investments

The provisions of the Treaty regarding the investment are the corner stone of the treaty. Those provisions having direct effects have constituted one of the first multilateral treaties of the world. The difference of the said treaty from other multilateral treaties is the direct enforcement of its provisions by contracting parties' investor against third parties which breach any provision.

Under the article 10 of the Treaty, each contracting party shall encourage and create stable equitable, favourable and transparent conditions for Investors of other Contracting Parties to make Investments in its Area. Such conditions shall include a commitment to accord at all times to Investments of Investors of other Contracting Parties fair and equitable treatment. Such Investments shall also enjoy the most constant protection and security and no Contracting Party shall in any way impair by unreasonable or discriminatory measures their management, maintenance, use, enjoyment or disposal. In no case shall such Investments be accorded treatment less favourable than that required by international law, including treaty obligations. Each Contracting Party shall observe any obligations it has entered into with an Investor or an Investment of an Investor of any other Contracting Party.

The Energy Charter Treaty draws a distinction in between pre-investment and investment stages. Accordingly, pre-investment stage is the stage that the parties aim to make an investment and which is followed by the investment stage. Some provisions of the said treaty are applicable for both stages; however few provisions are applicable for only investment stage. For example the article ten of the said treaty envisaging promotion, protection and treatment of investments is applicable for only investment stage. According to Seck, the pre-investment stage includes the stage that the foreign investors make market research in the area, makes negotiations I am on the view that, the scope of the pre-investment stage should be construed strictly. Because, as mentioned here above, some provisions of the treaty are applicable for only investment stage. The time and money spent by the investors in the pre-investment stage may be without

recompense. Most of the foreign investors, today before their decisions to invest, they make market research to find a good target. The target may vary from an asset to a real property and sometimes a company. In order to determine the financial and legal situation of the target, investors make due diligence and ask from the local authorities legal and financial reports. At this stage, a vast of time and money is spent. Provided that the scope of the pre-investment stage is considered largely, most of the provisions are deemed as not applicable to the abovementioned transactions and this constitutes a contradiction to the spirit of the treaty.

It has been discussed lately, whether the treaty is enough to protect the investor's right or not. Some authors say that the treaty has not created investment opportunities; in consequence, it has not created an increase in the western investment world (Doré and Bauw 2001, p.65-68) Nevermore, some other authors allege that treaty is a corner stone in the promotion of the international investments. Firstly, they say that treaty has established a good correlation between the producers and investors, in addition to this it has ensured the legal stability (Salacuse, J. W., 2001p.364). Furthermore, some authors affirm that there is no need any more for the execution of bilateral investment treaties. This is because the treaty has been signed by most of the countries.

3.4.1.6 Settlement of the disputes under the scope of the Treaty

Under the article 26 of the Treaty Disputes between a Contracting Party and an Investor of another Contracting Party relating to an Investment of the latter in the Area of the former, if possible, be settled amicably. If such disputes can not be settled according to the provisions of paragraph within a period of three months from the date on which either party to the dispute requested amicable settlement, the Investor party to the dispute may choose to submit it for resolution:

- (a) to the courts or administrative tribunals of the Contracting Party to the dispute;
- (b) in accordance with any applicable, previously agreed dispute settlement procedure; or
- (c) to the arbitration or conciliation

However, The Contracting Parties listed in Annex ID including U.S.A, EU and Turkey do not give such unconditional consent where the Investor has previously submitted to the courts or administrative tribunals or, previously agreed dispute settlement procedure. The application of turkey for being the countries among the annex id has been approved in 7 December 1999 in the energy charter conference.

In the event that an Investor chooses to submit the dispute for resolution under arbitration or conciliation; the Investor shall further provide its consent in writing for the dispute to be submitted to:

- (a) (i) The International Centre for Settlement of Investment Disputes, established pursuant to the Convention on the Settlement of Investment Disputes between States and Nationals of other States opened for signature at Washington, 18 March 1965 (hereinafter referred to as the "ICSID Convention"), if the Contracting Party of the Investor and the Contracting Party to the dispute are both parties to the ICSID Convention; or
- (ii) The International Centre for Settlement of Investment Disputes, established pursuant to the Convention referred to in subparagraph
- (a)(i), under the rules governing the Additional Facility for the Administration of Proceedings by the Secretariat of the Centre (hereinafter referred to as the "Additional Facility Rules"), if the Contracting Party of the Investor or the Contracting Party to the dispute, but not both, is a party to the ICSID Convention;
- (b) a sole arbitrator or ad hoc arbitration tribunal established under the Arbitration Rules of the United Nations Commission on International Trade Law (hereinafter referred to as "UNCITRAL"); or
- (c) an arbitral proceeding under the Arbitration Institute of the Stockholm Chamber of Commerce.

3.4.1.7 Arbitration Cases in accordance with the Energy Charter Treaty

As mentioned above, the ECT was designed to create a legal framework which will promote long-term cooperation in the energy sector. As part of this investment promotion framework, the ECT includes rights for individual investors and provision for investor-state arbitration, giving investors that could not have access to bilateral investment treaty protection s an additional avenue of recourse to avoid having to attempt to bring a state or state entity to account before its domestic court. The article of the treaty regarding to the settlement of the disputes has not been enforced by the contracting parties for a long time. In consequence, it has been said that the treat is without effect. Although the number of publicly reported cases under ECT has been relatively limited to date, those numbers are slowly increasing and with each published award comes a growing recognition of the potential scope and width of the rights afforded under this treaty.

According to Mr. James L Loftis and Mark J Beeley (Mr. Loftis is a partner in the London Office of Vinson & Ekins and is chair of the firm's international dispute resolution practice. Solicitor-advocate Mark Beeley is an associate in that practice group); one reason for the slow uptake may be the little publicity it has received, particularly when compared to the currently in-vogue bilateral investment treaties. Another may be the drafting of the ECT itself, which as one leading commentator on the treaty has put it, is "everything but a model of clarity".

As we have mentioned above, in the event that an investor does decide to bring a claim then a range of options are available. Article 26 allows recourse to international arbitration after a three month negotiation period. Should such negotiations be unsuccessful, then the investor may apply to the arbitration. Of the cases known to have been commenced in respect of ECT violations (remembering that claims commenced outside the ICSID process may be confidential), there are 23 cases recorded on the website of the energy charter.(www.encharter.org)

They are as follows;

i. AES Summit Generation Ltd. (UK subsidiary of US-based AES Corporation) v. Hungary

<u>Counsel</u>: Allen & Overy (S. Jagusch & J. Gill) v. information not publicly available

<u>Case registered</u> : 25.04.2001

Forum & reference: ICSID Case n°. ARB/01/4

Arbitrators : Allan Philip (chair); Francisco Orrego Vicuña; Prosper Weil

<u>Subject matter</u>: Electricity sale agreement

Status of proceeding: Settlement agreed by the parties and proceeding discontinued at their request (3 January 2002).

Summary :

AES Summit Generation Limited -v- the Republic of Hungary was the first dispute brought under the ECT. The claimant was a British subsidiary of a US company. It elected to bring its claim before ICSID. AES claimed around US\$300 million in relation to a power purchase and sale agreement and a privatisation contract. The dispute ended in an amicable settlement in January 2002 (Gouiffes Laurent, Stothard Paul, *an introduction to Resolving disputes under the Energy Charter Treaty*)

ii. Nykomb Synergetics Technology Holding AB (Sweden) v. Latvia

<u>Counsel</u>: Hellström & Partners Adv. (J. Wetterfors & P. Winnberg) v. Setterwalls

Adv. (F. Wennerholm & P. Törnquist) Grunte & Cers, Riga (G. Cers)

Case registered : 11.12.2001

Forum & reference: Arbitration Institute of the SCC - Case n.° 118/2001

Arbitrators: Bjørn Haug (chair); Rolf A. Schütze; Johan Gernandt

<u>Subject matter</u>: Electricity sale agreement

Status of proceeding: Award rendered on 16.12.2003

Summary :

Nykomb's claims against Latvia concerned a co-generation facility that had been built on the basis of a promised tariff level, which was not only guaranteed by contract (with the state power company) but also by statute. The tariff was altered downwards once the contract was in force. Nykomb accordingly brought a claim on the grounds of expropriation and unreasonable or

discriminatory treatment (other companies in similar situations were still receiving the full tariff). The tribunal found that applying international law (as it was required to do under the ECT) attribution could be established without recourse to article 22 of the ECT. Although Nykomb failed to make out its case on expropriation, the tribunal did find that there had been sufficient discrimination to breach the ECT protections and awarded damages accordingly in the region of US\$3 million plus interest at 6 per cent. In addition Latvia was ordered to pay Nykomb's legal costs, although the costs of the tribunal were split between the parties.

iii. Plama Consortium Ltd. (Cyprus) v. Bulgaria

<u>Counsel</u>: Shearman & Sterling LLP (E. Gaillard & J. Savage); V. Colaiuta ("Avocat à la Cour" - for the phase on the merits up to May 2007); Nixon Peabody LLP (F.H. Penski - hearing on the merits) v. Bulgarian Ministry of Finance (I. Kondov); White & Case LLP (P. Friedland – New-York; C.B. Lamm; A. Cohen Smutny – Washington DC); Tomov & Tomov (L. Tomov)

Case registered: 19.08.2003

Forum & reference: ICSID Case n°. ARB/03/24

Arbitrators : Carl F. Salans (chair); Albert Jan van den Berg; V.V. Veeder

<u>Subject matter</u>: Oil refinery investment

Status of proceeding: Award on 27th August 2008

Summary:

The case is related to an oil refinery investment regarding purchase of a joint-stocked company (Nova Plama) which owned a oil refinery and which was a Bulgarian 100% state-owned company prior to its privatisation in 1996. The said company's shares have been later bought by the Claimant. Nova Plama ceased its operations in 1996 while it was still State-owned due to poor economic conditions. The refinery re-commenced operations in January 1999 shortly after its acquisition by Claimant, but shut down again in April. Following some bankruptcy and tribunal procedures; discussions ensued among the various interested parties to get the refinery back into operation all of which failed for different reasons. Claimant alleges that the Bulgarian Government, the national legislative and judicial authorities and other public authorities and agencies deliberately created numerous, grave problems for Nova Plama and/ or refused or

unreasonably delayed the adoption of adequate corrective measures. These actions and omissions, according to Claimant, caused material damage to the operations of the Refinery and have had a direct negative impact on the reputations and market values of the respective Plama Group Companies. Bulgaria's actions and omissions violate the ECT, to which Bulgaria and Cyprus are parties. It is Claimant's care that, in violation of its obligations under the ECT, Bulgaria has failed to create stable, equitable, favourable, and transparent conditions for Claimant's investment in Nova Plama; failed to provide Claimant's investment fair and equitable treatment; and failed to provide Claimant's investment the most constant protection and security. According to Claimant, Bulgaria's actions have deprived it of its chance to make its investment in Nova Plama successful and profitable. Respondent has denied Claimant's allegations. As a final decision, the Arbitral Tribunal concluded that what happened with respect to Claimant's investment in Nova Plama was that Plama Consortium Limited (Claimant) undertook a high risk project, without having the financial assets of their own to carry it out. It was based on an ambitious plan to borrow enough money to get the Refinery into operation, hoping thereby to generate sufficient revenues through sales of product to finance the continuing operation of the Refinery, to pay off Nova Plama's creditors over time, to pay wages to the Refinery's workers and to make a profit. However, for reasons which were not attributable to any unlawful actions of Bulgaria, Claimant's plan did not work and Nova Plama fell back into bankruptcy.

iv. Petrobart Ltd. (Gibraltar) v. Kyrgyzstan

<u>Counsel</u>: Setterwalls Adv. (F. Wennerholm & J. Sidklev) v. Leboeuf, Lamb, Green & McRae (E. Claes – Brussels; J.T. Corrigan & N. Aldashec – Bishkek)

Case registered : 01.09.2003

Forum & reference: Arbitration Institute of the SCC – Case n.° 126/2003

Arbitrators: former Justice Hans Danelius (chair), Jeroen Smets, Professor Ove Bring

<u>Subject matter</u>: Gas delivery contract

Status of proceeding: Award rendered on 29.03.2005

Summary :

In Petrobart v the Kyrgyz Republic, Petrobart had entered into a gas supply contract with the state energy company of the Kyrgyz Republic, which then failed to pay for the gas, principally as a result of certain governmental failures to allocate proper funds and by engaging in a series of restructurings that removed the state energy company's assets. Petrobart originally sued for a determination of its rights in the local courts, but the government repeatedly interfered with the court process, putting pressure on the court and then finally ensuring that a judgment against the state energy company's assets was stayed. Petrobart then launched UNCITRAL arbitration under the local investment law, but this claim failed as there was no qualifying investment for the purposes of that law. An ECT claim was then commenced. The tribunal ruled that the ECT took a very wide view of what constituted an investment and held that the gas supply contract, the debt claim and the local court rulings all fell within the definition. It further held that Petrobart succeeded on claims that: (i) the Kyrgyz Republic had failed to respect its rights as an investor; (ii) the Kyrgyz Republic had failed to afford Petrobart fair and equitable treatment; and that (iii) the Kyrgyz Republic had failed to ensure that there was an effective domestic law remedy available to Petrobart. The tribunal did however rule that the action complained of did not amount to expropriation. Damages were awarded accordingly. Of particular interest in this case was that the claim did not fall foul of the ECT's fork-in-the-road provision, on the grounds that at no time before either the domestic courts or under the abortive UNCITRAL arbitration was a violation of the ECT alleged. Accordingly the case serves as a useful reminder that in reality the fork-in-the-road provision is not an obstacle to the prosecution of investment treaty claims, even where the investor has brought earlier claims in the courts under municipal law and regulations. In effect, the fork-in-the-road rule simply grants res judicata effect to any earlier attempt to bring the treaty claims themselves.

v. Alstom Power Italia SpA, Alstom SpA (Italy) v. Mongolia

<u>Counsel</u>: Lovells (A.R. Marshall & J. Reynolds), James Crawford SC & Simon Olleson v. Milbank, Tweed, Hadley & McCloy LLP (M.D. Nolan & E. Baldwin)

Case registered : 18.03.2004

Forum & reference : ICSID Case n°. ARB/04/10

Arbitrators : Marc Lalonde (chair); Jan Paulsson; Sir Anthony Mason

<u>Subject matter</u>: Thermal energy project, dispute relating to boiler rehabilitation

Status of proceeding: Settlement agreed by the parties and proceeding discontinued at their request (Order taking note of the discontinuance pursuant to Arbitration Rule 43(1) issued by the Tribunal on 13.03.2006)

vi. Yukos Universal Ltd. (UK – Isle of Man) v. Russian Federation

<u>Counsel</u>: Shearman & Sterling (E. Gaillard, Y. Banifatemi, P. Pinsolle) v. Cleary Gottlieb (R.T. Greig, C. Annacker)

Case registered : 03.02.2005

Forum & reference : Ad hoc UNCITRAL Arbitration Rules; arbitration administered by the

Permanent Court of Arbitration (PCA) in The Hague

Arbitrators: L. Yves Fortier (chair); Charles Poncet (replacing Daniel Price); Stephen Schwebel

Subject matter: Discriminatory measures and expropriation of investments

Status of proceeding: Tribunal appointed; first hearing on jurisdiction scheduled for spring of 2008. Hearing on jurisdiction terminated; the decision on jurisdiction is awaited.

vii. Hulley Enterprises Ltd. (Cyprus) v. Russian Federation

<u>Counsel</u>: Shearman & Sterling (E. Gaillard, Y. Banifatemi, P. Pinsolle) v. Cleary Gottlieb (R.T. Greig, C. Annacker)

Case registered : 03.02.2005

<u>Forum & reference</u>: Ad hoc UNCITRAL Arbitration Rules; arbitration administered by the Permanent Court of Arbitration (PCA) in The Hague

<u>Arbitrators</u>: L. Yves Fortier (chair); Charles Poncet (replacing Daniel Price); Stephen Schwebel

Subject matter: Discriminatory measures and expropriation of investments

Status of proceeding: Tribunal appointed; first hearing on jurisdiction scheduled for spring of 2008, the decision on jurisdiction is awaited.

viii. Veteran Petroleum Trust (Cyprus) v. Russian Federation

<u>Counsel</u>: Shearman & Sterling (E. Gaillard, Y. Banifatemi, P. Pinsolle) v. Cleary Gottlieb (R.T. Greig, C. Annacker)

Case registered : 03.02.2005

Forum & reference: Ad hoc UNCITRAL Arbitration Rules; arbitration administered by the Permanent Court of Arbitration (PCA) in The Hague

<u>Arbitrators</u>: L. Yves Fortier (chair); Charles Poncet (replacing Daniel Price); Stephen Schwebel

<u>Subject matter</u>: Discriminatory measures and expropriation of investments <u>Status of proceeding:</u> Tribunal appointed; first hearing on jurisdiction scheduled for spring of 2008, the decision on jurisdiction is awaited.

ix. Ioannis Kardassopoulos (Greece) v. Georgia

<u>Counsel</u>: Skadden, Arps, Slate, Meagher & Flom (UK) LLP (K. Nairn & D. Herlihy) v. DLA Piper (C. Salomon & M. Saunders)

Case registered : 03.10.2005

Forum & reference: ICSID Case No. ARB/05/18

<u>Arbitrators</u>: L. Yves Fortier (chair); Francisco Orrego Vicuña; Vaughan Lowe (appointed following the passing away of Arthur Watts)

<u>Subject matter</u>: Oil and gas distribution enterprise

Status of proceeding: Pending

On 2 August 2005, Mr. Ioannis Kardassopoulos ("Mr. Kardassopoulos" or "Claimant"), a national of the Hellenic Republic ("Greece"), filed a request for arbitration (the "Request") with the International Centre for Settlement of Investment Disputes ("ICSID" or the "Centre").In

essence, the dispute among the parties to this proceeding concerns allegations by Claimant that the Republic of Georgia ("Georgia" or "Respondent") breached its obligations to Claimant under the Agreement between the Government of the Hellenic Republic and the Government of the Republic of Georgia on the Promotion and Reciprocal Protection of Investments (the "BIT") and the Energy Charter Treaty (the "ECT") in respect of Claimant's alleged interest in an oil and gas concession in Georgia. On 06.07.2007, Division on jurisdiction has been hold and the tribunal decided that the dispute submitted by Claimant is accordingly within the jurisdiction of the Centre and the competence of the Tribunal.

x. Amto (Latvia) v. Ukraine

<u>Counsel</u>: Mannheimer Swartling (K. Hóber) & Svahnström (S. Svahnström) v. Grischenko & Partners (S. Voitovich, D. Grischenko and D. Shemelin) and Proxen & Partners (A. Alekseyev and O. Shevchuk)

Case registered: November 2005

Forum & reference: Arbitration Institute of the Stockholm Chamber of Commerce

Arbitrators: Bernardo Cremades (chair), Per Runeland, Christer Söderlund

<u>Subject matter</u>: Nuclear power plant (dispute arising out of the bankruptcy of a nuclear power plant and default under contracts to provide services in relation to high voltage electrical equipment used in Zaporizhya power plant in Ukraine)

Status of proceeding: Award rendered on 26.03.2008

Summary:

The claim was brought against the Ukrainian Government in October of 2005 to the Arbitration Institute of the Stockholm Chamber of Commerce by a Latvian company "Limited Liability Company Amto" (Amto). In late 1999, Amto invested in a local Ukrainian company that provided various services – electrical installation, repairs, etc. – to Ukraine s largest nuclear power plant (Zaporozhskaya AES or ZAES). For its part, ZAES is a division of the National Nuclear Power Generating Company (Energoatom), which is itself owned by the Ukrainian state. Although AMTO obtained domestic judgments in its favour in relation to debts owed by ZAES/Energoatom, these were later stayed because of bankruptcy proceedings pending against

Energoatom. After being frustrated by developments in the local courts, AMTO turned to international arbitration, accusing Ukraine of having breached its legal obligations under the Energy Charter Treaty – particularly denying justice to the Latvian investor, and other forms of intimidation and interference.

At the end, the Arbitral Tribunal decided to dismiss the claims of the Claimant in their entirety and the counterclaims of the respondent and to hold each party liable for 50% of the Arbitration Costs.

xi. Hrvatska Elektropriveda d.d. (HEP) (Croatia) v. Republic of Slovenia

<u>Counsel</u>: Hunton & Williams (R.W. Hawkins & D.D. Cors, Washington, DC; S.M. Sayers & T.J. Cawley of McLean, Va.) v.Allen & Overy (S. Jagusch, M. Levy, A. Sinclair & M. Jain – London; L. Gouiffès – Paris)

Case registered : 28.12.2005

Forum & reference: ICSID Case No. ARB/05/24

Arbitrators: David A. R. Williams (chair); Judge Charles N. Brower; Jan Paulsson

<u>Subject matter</u>: Nuclear power plant

Status of proceeding: Pending

Summary:

The Claimant, Hrvatska elektroprivreda, d.d. ("HEP"), is the national electric company of Croatia. It was formed in July 1990 pursuant to the 1990 Electricity Act by the consolidation of 119 formerly independent electricity organisations. In 1994 REP's status changed from a state-owned company to a joint-stock company. From 1994 to the present 100% of the stock in HEP has been owned by the Government of Croatia.

The socialist republics of Slovenia and Croatia agreed in the 1970s to jointly construct and operate a nuclear power plant in Slovenia, the Krsko Nuclear Power Plant ("Krsko NPP"). The construction of the Krsko NPP commenced in 1974. The Krsko NPP has been in commercial operation since 1983. It is located just outside of the town of Krsko in south-eastern Slovenia, approximately 15 kilometres west of the border between Croatia and Slovenia.

Nuklearna elektrana Krsko ("NEK"), a limited liability company, is a "work organisation"; it was established as a joint venture by the national electricity companies of Croatia and Slovenia in 1974 to build and operate the Krsko NPP. NEK applied for and holds the licence to operate the Krsko NPP. Elektro-Slovenija, d.o.o. Ljubljana ("ELES-GEN") is a wholly-owned subsidiary of Elektro-Slovenija, d.o.o. ("ELES"), the national electric power transmission company of Slovenia.

This case arises out of a dispute between HEP and Slovenia concerning the ownership and operation of the Krsko NPP. The plant is a significant national power resource for both countries. The Krsko NPP was designed and constructed in the 1970s with funds contributed equally by the national power industries of the Socialist Republics of Slovenia and Croatia when they were both still part of the former Yugoslavia. The costs of design, development and construction totalled US \$1.2 billion. HEP is the successor-in interest of the original Croatian investors that contributed US \$600 million to design and construct the Plant. The Krsko NPP constituted the single largest foreign investment of any Croatian company at the time. The financing, construction, operation, management and use of the Krsko NPP was regulated by four interrelated agreements entered into by the Socialist Republics of Slovenia and Croatia, together with representatives of their national power industries, one each in 1970 and 1974 and two in 1982 (the "Governing Agreements"). The cornerstone of the Governing Agreements was the principle that the co-investors were to be 50:50 partners in all aspects of the plant construction, management, use and operations. Each co-owner, thus, had the right to receive 50 percent of the power output of the plant at prices to be determined in accordance with the Governing Agreements. This principle became known as the "parity principle." Slovenia and Croatia both declared their independence in 1991. During the next several years, the Slovenian Government adopted a series of measures that were viewed by HEP as inconsistent with the parity principle and the basic provisions of the Governing Agreements. On July 30, 1998, the Slovenians disconnected the electricity lines from the Krsko NPP to Croatia and tenanted all electricity deliveries to HEP, and issued a Governmental "Decree" which HEP claims affected its rights as a 50 percent owner and manager of the plant.

In this proceeding, HEP seeks compensation for the financial losses it alleges that it has suffered as a result of Slovenia's failure to resume deliveries of electricity from the Krsko NPP to HEP by the 30 June, 2002 date established in the 2001 Agreement. HEP advances two independent legal

bases for its claim. First, HEP alleges that Slovenia's termination of electricity deliveries to HEP on July 30, 1998, together with the issuance that same day of a Decree removing HEP's rights as a 50 percent owner of the Krsko NPP, violated HEP's right as an investor under Articles 10(1) and 13 of the Energy Charter Treaty (the "ECT Claims"). HEP contends that those violations continued until deliveries of electricity were restored to HEP on April 19, 2003. HEP says that in the 2001 Agreement, properly construed, it agreed to waive its ECT claims accruing up to June 30, 2002. HEP contends it did not, however, waive its ECT claims that accrued during the period July 1, 2002 to April 19, 2003. Separately, and independently, HEP asserts a claim against Slovenia for breach of its obligation under the 2001 Agreement to restore electricity deliveries to REP from the Krsko NPP by June 30, 2002.

The Action is still pending.

xii. Libananco Holdings Co. Limited (Cyprus) v. Republic of Turkey

<u>Counsel</u>: Crowell & Moring LLP (S.H. Newberger, D. Contratto) & A.L. Demetriades, Barrister (Cyprus) v. *Information not publicly available*

Case registered : 19.04.2006

Forum & reference: ICSID Case No. ARB/06/8

Arbitrators: Michael Hwang (chair), Henri C. Alvarez and Sir Franklin Berman Q.C.

Subject matter: Electricity generation and distribution concessions (expropriation)

Status of proceeding: Pending

Summary :

The Turkish Energy Ministry has expropriated to the Companies "Çukurova Elektrik Anonim Şirketi" and "Kepez Elektrik Anonim Şirketi" on 2003 upon request of the Energy Market Regulatory Authority. Following this expropriation, Libanonco which operates in Republic of Cyprus alleged that it suffered a substantive damage as it is the shareholders of the expropriated companies. The claim was brought against Turkey in ICSID with an amount of 10 Billion\$. The case is still pending. It is expected that the tribunal will give an award regarding the jurisdiction soon.

It should be noted that there are some allegations that the share purchases of those companies to the Libananco have been performed collusively by the big family group in Turkey called Uzan.

xiii. Azpetrol In	ternational Holdings B.V., Azpetrol Group B.V. and Azpetrol Oil
Services Gro	oup B.V. (the Netherlands) v. Azerbaijan
Counsel	: McDermott Will & Emery UK LLP (J. Blanch & A. Moody) v. Allen &
Overy (S. Jagusch, J	. Gill & A. Sinclair – London; L. Gouiffès – Paris)
Case registered	<u>:</u> 30.08.2006
Forum & reference	: ICSID Case No. ARB/06/15
	: Florentino P. Feliciano (chair - appointed following the passing away of ssor Christopher Greenwood QC CMG, Judge Charles N. Brower
Subject matter	: Oil and gas distribution, trade, storage and transportation enterprises
Status of proceedin	g: Pending
xiv. Cementowni	a "Nowa Huta" S.A. (Poland) v. Republic of Turkey
Counsel	: Mannheimer Swartling Advokatbyrå (K. Hóber, J. Ragnwaldh &
N. Eliasson) v. Fres	shfields Bruckhaus Deringer (J. Paulsson, L. Reed & B. King) and Cosar
Avukatlik Bürosu (A	aydin Cosar, U. Cosar & Arzu Cosar)
Case registered	<u>:</u> 16.11.2006
Forum & reference	: ICSID Case No. ARB(AF)/06/2
Arbitrators	: Pierre Tercier (Chair), Marc Lalonde, Christopher Thomas
Subject matter	: Electricity concessions
xv. Europe Cem	ent Investment and Trade S.A. (Poland) v. Republic of Turkey
Counsel	: Mannheimer Swartling Advokatbyrå (K. Hóber, J. Ragnwaldh &
N. Eliasson) v. Fres	shfields Bruckhaus Deringer (J. Paulsson, L. Reed & B. King) and Cosar
Avukatlik Bürosu (A	aydin Cosar, U. Cosar & Arzu Cosar)

Case registered : 06.03.2007

Forum & reference : ICSID Case n°. ARB(AF)/07/2

Arbitrators : Donald McRae (Chair); Julian D M Lew QC; Laurent Lévy

<u>Subject matter</u>: Electricity concessions

Summary :

On 6 March 2007, the Secretary-General of the International Centre for Settlement of Investment Disputes (ICSID) registered a request for arbitration under the Additional Facility Rules submitted by Europe Cement Investment and Trade S.A., a company incorporated under the laws of Poland (the Claimant or Europe Cement), against the Republic of Turkey (the Respondent or the Republic). The dispute concerned the Claimant's alleged shareholding in two electricity corporations, Cukurova Elektrik Anonim Sirketi (CEAS) and Kepez Elektrik T.A.S. (Kepez), established under the laws of Turkey. The claim arose out of the termination by the Respondent on 11 June 2003 of concession agreements granted to CEAS and Kepez in 1998 by the Turkish Ministry of Energy and relating to the generation, transmission, distribution and marketing of electricity in certain parts of Turkey (the Concession Agreements). The Claimant invoked Turkey's consent to arbitration under Article 26 of the Energy Charter Treaty. The request for arbitration had been submitted under Article 2(a) of the ICSID Additional Facility as Poland is not a Contracting State to the ICSID Convention. The basis for the Claimant's original assertion of jurisdiction was that as a joint stock company established under the laws of Poland, it had been the owner since May 2003 of shares in CEAS and Kepez, described as shareholding companies registered under the laws of the Republic of Turkey. The termination of the Concession Agreements held by these Turkish Corporations led to the Claimant's allegation of violation of the terms of the Energy Charter Treaty. In its Memorial on Jurisdiction, the Respondent claimed that the Claimant had failed to establish ownership of shares in CEAS and Kepez at the relevant time of 12 June 2003, the date on which the Concession Agreements were allegedly revoked. Indeed, the Respondent asserted that not only had Europe Cement failed to establish ownership, but that it could not prove that it owned CEAS and Kepez shares at the relevant time. In short, the Respondent's argument was that Europe Cement did not in fact own CEAS and Kepez shares on 12 June 2003. The Respondent asserted in its Memorial on Jurisdiction that the evidentiary record demonstrates that Europe Cement was never an owner of shares in CEAS and Kepez. In making this assertion the Respondent relied on the financial records of Europe Cement, the fact that Europe Cement had failed to produce any of the documents ordered by the Tribunal, the failure of Europe Cement to acquire the necessary permissions or make any of the notifications required by law to make the relevant share transfers valid, and the conflict between Europe Cement's claim and other "Uzan-initiated" claims. The tribunal examined the case deeply, and ordered from Claimant to submit original of the documents that shall prove its ownership. However, Claimant could not submit the relevant documents to the tribunal; Accordingly, the Tribunal concluded that since the Claimant has failed to establish that it had an investment in Turkey at the relevant time, the claim of Europe Cement has been dismissed for lack of jurisdiction.

xvi. Liman Caspian Oil B.V. (the Netherlands) and NCL Dutch Investment B.V. (the Netherlands) v. Republic of Kazakhstan

<u>Counsel</u>: Clifford Chance (A. Sheppard, A. Panayides & I. Suarez Anzorena) v. Reed Smith LLP (D. Warne & G. Bhattacharya) and 3 Verulam Buildings (A. Malek QC & C. Harris)

Case registered : 16.07.2007

Forum & reference: ICSID Case No. ARB/07/14

Arbitrators: Karl-Heinz Böckstiegel, Kaj Hóber and James R. Crawford

Subject matter : Exploration and extraction of hydocarbons

Status of proceeding: Pending

xvii. Electrabel S.A. v. Republic of Hungary

<u>Counsel</u>: Clifford Chance LLP (J. Beechey, A. Sheppard – London & Z. Faludi – Budapest) v. Arnold & Porter LLP (J. Engelmayer Kalicki – Washington, D.C., T. Frazer – London, L. Gyselen – Brussels & Dr. J. Katona – Budapest)

Case registered : 13.08.2007

Forum & reference: ICSID Case No.ARB/07/19

Arbitrators : V.V. Veeder (Chair); Gabrielle Kaufmann-Kohler; Brigitte Stern

<u>Subject matter</u>: Electricity generation

Status of proceeding: Pending

xviii. AES Summit Generation Limited and AES-Tisza Erőmű Kft. v. Republic of Hungary

<u>Counsel</u>: Allen & Overy (S. Jagusch, R. Farnhill & J. Sullivan) v. Arnold & Porter LLP (J. Engelmayer Kalicki – Washington, D.C., T. Frazer – London, L. Gyselen – Brussels and Dr. J. Katona – Budapest)

Case registered : 13.08.2007

Forum & reference: ICSID Case No.ARB/07/22

Arbitrators: Claus von Wobeser (Chair); J. William Rowley; Brigitte Stern

<u>Subject matter</u>: Electricity generation

Status of proceeding: Pending

xix. Mercuria Energy Group Ltd. v. Republic of Poland

<u>Counsel</u>: Shearman & Sterling LLP (P. Pinsolle & Y. Banifatemi) v. Clifford Chance LLP (A. Sheppard & B. Kruzewski) and Public Prosecutor's office (R. Zajdler)

Case registered : 24.07.2008

Forum & reference: Arbitration Institute of the SCC

Arbitrators: Chairman to be chosen by the SCC; Albert Jan van den Berg; Vaughan

Lowe QC

Subject matter: Mandatory fuel reserves

Status of proceeding: Pending

xx. Alapli Elektrik B.V. v. Republic of Turkey
<u>Counsel</u> : Latham & Watkins LLP (R. Volterra, S. Seelmann-Eggebert & S. Fietta
and Caknak Law Offices, Istanbul v. in-house Counsel
Case registered : 27.08.2008
Forum & reference: ICSID Case No. ARB/08/13
<u>Arbitrators</u> : Tribunal not yet constituted
Subject matter : Electricity concession
Status of proceeding: Pending
xxi. Vattenfall AB, Vattenfall Europe AG, Vattenfall Europe Generation AG & Co. KC v. Federal Republic of Germany
<u>Counsel</u> : Mannheimer Swartling LLP (K. Hobér) and Luthe
Rechtsanwaltsgesellschaft (R. Happ) v. In-house counsel
Case registered : 17.04.2009
Forum & reference: ICSID Case No. ARB/09/6
<u>Arbitrators</u> : Marc Lalonde QC (Chair); Sir Franklin Berman QC; Gabrielle Kaufmann-Kohler
<u>Subject matter</u> : Construction of a coal-fired power plant and environmental protection
measures (expropriation)
Status of proceeding: Pending
xxii. EVN AG v. The Former Yugoslav Republic of Macedonia
<u>Counsel</u> : Freshfields Bruckhaus Deringer LLP (W. Plesser, C. Konrad, N. Rubin
& J. Commission) v. information not publicly available

Case registered : 03.06.2009

Forum & reference: ICSID Case No. ARB/09/10

Subject matter: Electricity distribution (expropriation)

Status of proceeding: Pending

xxiii. EDF International S.A. v. Republic of Hungary

<u>Counsel</u>: Shearman & Sterling (P. Pinsolle & E. Gaillard) v. Mannheimer Swartling (K. Hobér, J. Ragnwaldh, M. Göransson and T. Pettersson) and BNT (L. Szabó and J. Burmeister)

Case registered : May 2009

Forum & reference: Ad hoc UNCITRAL Arbitration Rules

Arbitrators : Karl-Heinz Böckstiegel (chair); Pierre-Marie Dupuy; Albert Jan van der

Berg

Subject matter: Termination of long-term power purchase agreements

Status of proceeding: Pending

3.4.2. Energy Community Treaty

The Treaty establishing the Energy Community was signed on 25 October 2005 in Athens by the European Community and by the nine Contracting Parties from South East Europe. (The Republic of Albania, the Republic of Bulgaria, Bosnia and Herzegovina, the Republic of Croatia, the former Yugoslav Republic of Macedonia, the Republic of Montenegro, Romania, the Republic of Serbia and The United Nations Interim Administration Mission in Kosovo)

Together with its ratification, the Treaty entered into force on 1 July 2006. This treaty has referred to only one sector as it is the case in the European Steel and Coal Community: Energy. The Treaty aims to balance the commercial, political and social interests of all Parties on energy sector. To do so, it tries ensuring stable and continuous energy supply. According to Article 2 of the treaty, the task of the Energy Community is to organise the relations between the Parties and create a legal and economic framework in relation to Network Energy in order to:

70

- (a) create a stable regulatory and market framework capable of attracting investment in gas networks, power generation, and transmission and distribution networks.
- (b) create a single regulatory space for trade in Network Energy that is necessary to match the geographic extent of the concerned product markets
- (c) enhance the security of supply of the single regulatory space
- (d) improve the environmental situation in relation to Network Energy and related energy efficiency, foster the use of renewable energy, and set out the conditions for energy trade in the single regulatory space,
- (e) develop Network Energy market competition on a broader geographic scale and exploit economies of scale.

So as to make the process simple, the said treaty has defined new organisational mechanisms and equipped its signatories with different rights and duties. Regarding the duties of its stakeholders, Article 3 of the Treaty envisaged a three-dimensional structure. The first of those dimensions is the Title 2 of the treaty headed the extension of the acquis. Under the Treaty, contracting parties have accepted to execute the main parts of the EC acquis communitarian, both sector-specific and general. Title 2 has also given the duty to the Contracting Parties of implementing development projects in order to harmonise their energy sectors with the standards of European Union .The second dimension is related to the mechanism for operation of network energy markets. This provision covers the stakeholders of the treaty as well as seven European Union Member States related to the region, that are Austria, Bulgaria, Greece, Hungary, Italy, Romania and Slovenia. Title 3 includes rules on establishing means related to the transportation of Network Energy from long distances, implementing project which ensures security of supply. For the greater part, the provisions in Title 3 require implementation through Measures taken or to be taken by the competent Energy Community institutions. The third dimension is related to the "Creation of a Single Energy Market". This part also addresses the entire European Community as well as Contracting Parties. In general terms, it ensures for the independent circulation of network energy and provides for further rules to be implemented so as to establish a single energy market. Moreover, the same title creates an energy policy related to the external trade, and it ensures for means of reciprocal assistance between the Parties in case an energy disruption occurs.

The validity period of the Energy Community Treaty is ten years as from its effective date. The effective date of the treat is 1st July 2006. (Ergün 2007, p. 94)

3.4.3. Energy Security Approach of NATO

It is a very-well know subject that NATO is not only a military organization but a political and security one too. After the fall of wall, NATO has changed its aims. One of the new topics of NATO has become security of energy supply. According to the decision made by the NATO Heads of States and Government in Bucharest in April 2008, energy security is a relevant matter for NATO (Bouchez 2009, p.82).

As, the deputy assistant secretary-general for Regional, Economic and Multilateral Affairs of NATO, Ms. Aurelia Bouchez stated, there is also the impact of economic crisis on NATO agenda. NATO is not an economic organization, but economic issues can have obvious security implications and the energy area is a very sensitive one. Therefore, NATO feels that it has to closely follow the potentially destabilizing effects of the crisis in the different countries. Capital tightening, coupled with lower energy prices, could considerably delay energy diversification as well as interconnectivity of the energy networks.

NATO Heads of States and Government stated at the Strasburg/Kehl summit "issues of a stable and reliable energy supply, diversification of routes, suppliers and energy sources as well as the interconnectivity of energy networks remain of critical importance." NATO's competence in energy security is part of a broad security agenda agreed by the alliance in 2006 Riga. NATO's mandate reflects NATO's comparative advantages that allow it to add value to the existing national and international efforts regarding energy security. This makes NATO a relevant player to engage in the field of Energy Security through the following activities: - information and intelligence fusion and sharing – projecting stability – advancing international and regional cooperation – supporting consequence management and –supporting the protection of critical energy infrastructure. At this stage, NATO's activities in the Energy Security are about consultation, cooperation and support. But, it should be noted that, there may be some NATO deterring and preventive operations so as to ensure the energy security such as the operations conducted in Mediterranean Sea regarding the counter piracy operations. (Bouchez 2009, p.86).

4. TURKISH ENERGY POLICY

4.1. GENERAL VIEW

Turkey, with a population of 70 586 256 in 2007 and a surface area of 781 000 km2, lies in a sunny belt between 36°-42° north latitudes and is geographically well situated with respect to solar energy potential. Turkey is located in an energy corridor which is between the major oil and natural gas producing countries in the Middle East and Caspian Sea and the Western energy markets. According to official reports of The General Directorate of Electrical Power Resources Survey and Development Administration, annual sunshine duration of Turkey is two thousands six hundred forty hours and annual horizontal solar irradiation is thousand three hundreds eleven kWh/m2. (Turkey PV Technology Status and Prospects, Sıddık İcli, director, solar energy institute, Ege Universtiy, İzmir, Turkey, Mete Cubukcu research assistant, 2009).

In Turkey, electricity is mainly produced by thermal power plants, by consuming coal, lignite, natural gas, fuel-oil and geothermal energy, wind energy (recently) and hydropower plants (TEIAS webpage, 2008). The electricity requirement, which is called gross demand, was reported as 174 000 GWh in 2006 by TEIAS (Turkish Electricity Transmission Co.).

The electricity is mainly produced by thermal power plants and accounted for 74,82 percent of the total, while hydro power energy was 25,11 percent and the wind power energy was 0,07 percent. In the thermal electricity production, the lignite part was 18,37 percent and natural gas was 44 percent. Compared to other energy sources, PV systems don't have sufficient contributions to gross electricity demand. There are no sufficient governmental driving forces to support PV systems in Turkey yet. Turkey's annual solar energy potential is estimated to be 1015 kWh, which is more than 5 700 times of the present electricity consumption.

The Turkey's primary energy need has been increasing four-five percent per year as well as its electricity need has been increasing eight percent per year. The increase has been above of the estimated values in the last two years. Besides, the necessary investments has not been realised due to the deficits in the privatisation process and the lacks of the market mechanisms. It has

been envisaged that an energy deficit will occur at the end of 2009 provided that a decrease in energy demand cannot be ensured. The continuation of the energy losses in distribution, production and as well as the consummation stage has blocked the efficient use of energy. The money paid for energy import for the year 2006, has been 29 billion dollars which is equivalent to thirty four percent of the export incomes in the said year. The amount has increased to thirty three billions dollars in 2007. With oil prices around USD 110 per barrel in March 2008, the Turkey's annual energy import bill is causing a lot of trouble to the many citizen and economic sectors of Turkey as well as Europe. The percentage regarding the dependencies on energy import is 31.3percent for petroleum and 31.9percent for natural gas in Turkey (the energy report of the Chamber of Mechanical Engineers, April 2008). The concerns are not only composed of the high prices but also the security of supply towards the countries from which energy is imported. Considering the facts mentioned here above, Turkey needs to put forward a comprehensive energy policy. The policy must aim to transform Turkish' energy economy into one that is sustainable and competitive enjoys.

4.2. FIGURES IN ENERGY

The energy consumption has grown by over 100percent in sixteen years from 1990 to 2006, and it has attained 99.5 millions TEP. The scheme here below monitors the figures regarding the energy in between 1990 and 2006. It has been taken from the report of TMMOB.

Table 4.1 : Figures in Energy between years 1996-2006

1000 TEP

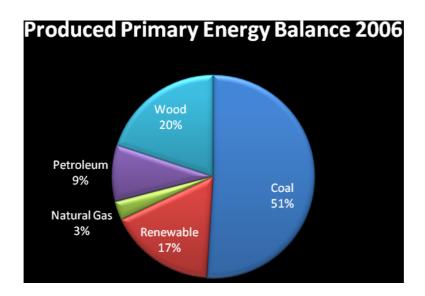
	1990	1995	2000	2001	2002	2003	2004	2005	2006
Demand	52987	63679	80501	75403	78354	83826	87818	91362	99590
Production	26656	26749	26156	24681	24324	23783	24332	24549	26802
Import	30936	39779	56342	52780	58629	65239	67885	73480	80514
Export	2104	1947	1584	2620	3162	4090	4022	5171	6572
Loss	355	464	467	624	1233	644	631	628	588
Net export	28477	37368	54291	49536	54234	60505	63232	67681	73354
PMFP(percent)	48.1	42	33.1	32.6	31	28.4	27.7	26.9	26.9

Source: TMMOB Report

The Turkey's dependence on imported energy has been increasing year by year. Only 25.5percent of the consumption has been assured from the production in 2007. The main imported energy sources are the petroleum and natural gas. It is expected that the coal demand will also increase in the forthcoming years.

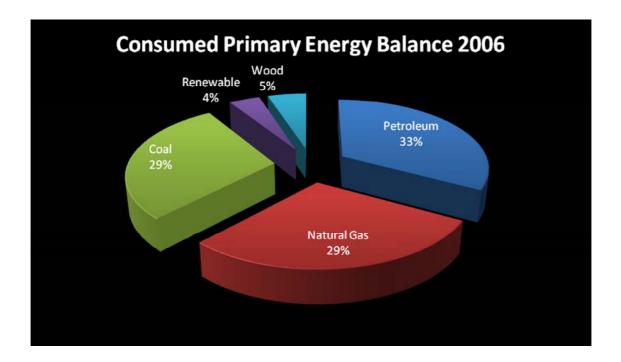
The widely produced energy source in Turkey is coal which causes serious air pollution. The dispersion of the produced energy sources are as follows;

Figure 4.1.: Produced Primary Energy Balance 2006



However, the widely used consumed energy source has been petroleum. One of the main reasons for that is the wide use of the private cars, and deficits in public transportation.

Figure 4.2 : Consumed Primary Energy Balance 2006



As it may bee seen above, the total percentage of the natural gas and petroleum in consumed energy balance is over 60percent. However, 90percent of these sources has been imported.

The total electricity production in Turkey has rise to 191 558 Gwh as well as the established power has increased to 40 836 MW by 2007. The hydroelectric and geothermal facilities constitute 32.8percent of the established power; however those facilities produced only the 18percent of the consumed electricity in 2007.

4.3. THE NUCLEAR ENERGY IN TURKEY

4.3.1. The Nuclear Energy

Nuclear Energy is a form of potential energy in the nuclei of atoms. It is released by "fission", the splitting of nuclei of radioactive elements or by "fusion", the combining of nuclei of light atoms

such as hydrogen and it generates heat. It is a classical energy technology that was explored at the end of 1930's but it has been used in commercial way since 1960's. The main raw material of Nuclear Energy is Uranium. Uranium was discovered in 1789 by Martin Heinrich Klaaproth.1 Kilogram of U-235 is made of 141 Kilograms of Uranium Source. 1 Kilogram Uranium is equal to 17 tones of coal, 11 tones of gas oil and 13 thousand m3 natural gas. The Uranium reserves in the world are mostly located in Australia, Kazakhstan, USA, and Canada and also in South Africa, like Nigeria and Namibia. The Nuclear Power Stations in the world are mostly located in the USA, France, Japan, Germany, Russia and Canada. These nuclear stations are producing 18 percent of the electric energy in the world. Early on, it was envisaged that the power of nuclear stations would achieve 2 million Mw, but today it has reached only 1/6 of the envisaged amount. The main cause of this low level is the high risk of accidents and radioactive wastes which influenced new investments. Uranium is available in many politically stable regions in the world. The resources are pretty widely spread across the continents and among the currently reported resources, as mentioned above; Canada, Australia and Kazakhstan, Russian Federation and Namibia have very long resources. Therefore, it is said that it is a low-risk fuel supply because resources are dispersed widely across the globe and mainly coming from stable regions.(Toth 2009, p.36)

On the other hand there also some concerns about nuclear power. One of these is the local regional air pollution, nuclear wastes and climate change. Until 1983, 100 thousand tones of nuclear wastes had been buried in the Atlantic Pacific and the North Polar Sea, based on the London Convention. Today there are no licensed solutions in place to bury and destroy radiation. However, it is said that together with hydro and wind, nuclear is the lowest CO2 emitter on a lifecycle basis counting all the CO2 emissions from fuel enrichment all the way to the commissioning per kilowatt/hour of electricity generated. (Toth 2009, p.38)

Another issue is the operational safety of the power plants. The many nuclear accidents have taken place and six of them were considered the biggest nuclear accidents in the world;1979 Three Mile Island (USA) ,1980 St. Laurent (France), 1986 Chernobyl(Ukraine),1989 Vandellos (Spain),1995 Monyu (Japan), 1997 Wind scale (England). The number of deaths in nuclear accidents is too small when it is compared with thermo/thermal accidents; but radiation has

damaged almost 135 thousand people only in Chernobyl alone and even today, experts are trying to determine the extent to which the disaster has affected its residents. According to research, those who live near nuclear stations have developed various types of cancer including children with gene mutation and leukaemia. Consequently, USA, Germany and England have suspended their nuclear investments in the 1990's. There are some improvements in technology to resolve the problem of radioactive wastes and the effect of nuclear energy on global warming. According to Ference TOTH, there is a good track record and gradually improving on this issue. However, those solutions that have been created are considered too expensive to put into practice. The comparison between natural gas, coal and nuclear energy demonstrates the large amount of power production. On the other hand, there is also the cost of the investment to build a nuclear power station.

To summarize, although the nuclear stations may have deleterious (or damaging) effects on health and they are an expensive investment, the nuclear has some features that could enhance supply security.

4.3.2. Historical Development in Turkey

Studies to build a nuclear power station in Turkey started in 1965. Later, between 1967 and 1970, a feasibility study was made by a foreign consultant company to build the station that would have been in operation in 1977. Due to the problems relating to the site selection and other political and economical issues, the project could not come to life. Site selection studies have continued in 1974 and 1975 and the Gülnar-Akkuyu location were found suitable for the construction of Turkey's first nuclear power plant. In 1976, the Atomic Energy Commission granted a site license for Akkuyu. In 1977, a bid was prepared and the contract negotiations continued until 1980. The following companies were the participants to the negotiations:

i. AECL Consortium AECL (Atomic Energy of Canada Ltd): Hitachi (Japan), Itochu (Japan), Gama Industry (Turkey), Güriş İnşaat Bayındır İnşaat (Turkey), Aansaldo (Italy), ve Daewoo (South Korea).

ii. NPI: Siemens (Germany), Framatome (France), Hochtief (Germany), Gec-Alsthom (France), Campenon Bernard (France), Garanti-Koza İnşaat (Turkey), Tekfen (Turkey)

iii. Westinghouse (USA), Mitsubishi Heavy Industries (Japan), Raytheon (USA), Duke (USA), Enka İnşaat (Turkey).

However, in September 1980, due to Swedish Government's decision to withdraw the loan guarantee, the project was cancelled.

The third attempt was made at the end of 1980. Three companies were awarded to build four nuclear power plants; but the Turkish government refused to give the guarantee and as a consequence the project was cancelled again. In 1992, the Ministry of Energy and Natural Resources stated in a report submitted to the Government that without the installation of new energy resources before 2010, the country would face an energy crisis, suggesting that nuclear energy generation should be considered as an option. In 1996, the bid process started again and three companies offered proposals in 1997: AECL, NPI and Westinghouse. After a series of delays, the Government decided to postpone the project in July 2000. Finally, following a cabinet meeting in Ankara on 25 July 2000, Turkish Prime Minister Bülent Ecevit announced the cancellation of the controversial nuclear power plant that was proposed to be built at Akkuyu. Ecevit said that the financial burden of the project should not be taken on at the present time given that a national economic reform project had yet to be completed. But the option of a nuclear power generation was kept open for the future. Consequently, the bid for Akkuyu Nuclear Plant has been cancelled six times in Turkey's nuclear energy history.

In April 2006, the head of Turkey's Atomic Energy Agency ("TAEK") confirmed that Turkish Prime Minister Recep Tayyip Erdogan had chosen the Black Sea port of Sinop to be the site of the country's first nuclear power plant. The site was one of eight identified areas by TAEK as a potential location for the power plant following a technical evaluation. On 4 December 2007, Turkey's President Abdullah Gul has signed the Law on nuclear energy which was passed early in November by the Turkish Parliament. Gul's predecessor Ahmet Necdet Sezer had vetoed the submitted legislation (by parliament) for nuclear power generation. After its publication the opposition parties CHP and DSP brought the law to the constitutional court for its annulation.

However, the constitutional court denied the requests of the opposition parties except one that is related to the Turkish Atomic Energy Authority's right of employment of local or foreign people with temporary contract regardless their experience.

To that end, there are no nuclear power plants in operation, under construction and decommissioned. The Turkish Electricity Transmission Company (TEIAS) prepared a report in 2004, entitled "Electricity Energy Generation Planning Study for Turkey (2005-2020)", and this report provides guidance for the decision makers, investors and market actors on the timing, composition and capacities of the additional electricity generation sources needed for the next 15 year period. According to this planning study, it is planned to add about 5000 MWe total nuclear capacity until 2015 with the consideration of high demand scenario, i.e. 7.9% increase per year.

4.3.3. The Legislation Background

The legislation of Atomic Energy begins with the Law of 1956 (No. 6821) which, among other provisions, establishes Atomic Energy Commission. The Commission changes its name by the Law of 1982 Act (No. 2690 published in Official Gazette on 13 July 1982) to the Turkish Atomic Energy Authority, TAEK. According to the regulations, TAEK is the authority, responsible for preparing the regulatory framework concerning radiation protection, and nuclear safety. TAEK is also a governmental body directly under the supervision of the Prime Ministry, responsible for the research and development studies in atomic energy and authorized to license and inspect facilities that use radioactive material and equipment and giving authorizations for site selection, construction and operating of nuclear facilities including nuclear power plants. TAEK is the main driving force for enhancing and broadening of all nuclear related activities in Turkey.

In addition to the law numbered 2690, another important legislation is the Law on Construction and Operation of Nuclear Power Plants and Energy Sale (Law No. 5710) which published in the Official Gazette dated November 21, 2007. This law stipulates the procedures and principles regarding the construction and operation of nuclear power plants for electricity production and energy sale in accordance with energy plan and policies. A competition for selling electricity generated by nuclear power plants will be held by the Turkish Electricity Trading and

Contracting Company (TETAS). The bids will be given until 24 September 2008 for constructing NPP units at Akkuyu Site. The bids will include an installed capacity of 3000–5000 MWe. The company who will give the most favourable bid with respect to energy sale unit price will sign a contract with the TETAS for a period of 15 years. The criteria setting the general principles that should be complied with by the investors were prepared and published by the Turkish Atomic Energy Authority (TAEK). All bidders should meet the TAEK criteria before their bids will be considered.

Under the law, the tendering company will be selected by TETAŞ which will be subject to the approval of the Counsel of Ministers. The selected company is obliged to set up a special purpose company to build and operate nuclear power plants and sell the generated energy to TETAŞ. The Law provides that legal entity chosen and approved by the government, will have to obtain a special permission by Energy Market Regulation Board ("EPDK"), which oversees the power sector and natural gas markets including the setting of tariffs, issuing licenses and assuring competition. TETAS and the company will sign the contract for a period of maximum up to fifteen years. The procedures and principles regarding the requirements to be met by the companies bidding for the competition, for the nuclear power plants to be constructed under this law, and selection of the company are defined in the regulation published in the Official Gazette dated 19 March 2008.

Following the execution of the aforementioned regulation, a tender procedure has been initiated for Mersin Akkuyu whose licence is ready, and the tender has been won by the sole bidder The Turkish-Russian joint venture Atomstroyexport-Inter Rao UES JSC-Park Teknik. The project has envisaged the construction of four nuclear reactors with a total capacity of 4,800-megawatts at Akkuyu, in the Mediterranean province of Mersin. However, The Council of State has suspended three articles in the regulations governing the tender process following the objection of the Union of Turkish Engineers' and Architects' Chambers, or TMMOB on November 2009. The tender process has been under fire since it emerged in September last year that only one consortium had bid for the project and offered an above-market price. (Hürriyet Daily News, November 2009).

Although Turkey has no nuclear power plant, many decrees and regulations regarding the licensing and safety of nuclear installations have been issued to date.

4.3.4. Criteria of TAEK

Turkish Atomic Energy Authority (TAEK) Criteria that are referred to in Article 3 of the Law on Construction and Operation of Nuclear Power Plants and Energy Sale (no. 5710), published in the Official Gazette dated November 21st, 2007, are given below. The TAEK Criteria were prepared within the frame of duties and responsibilities given by the TAEK Law, no. 2690. The Criteria set the general principles that should be performed by the investors.

Nuclear Safety: The Nuclear Power Plant should contain all actual technologies about nuclear safety and comply with all the norms of International Atomic Energy Agency and any other international rules adapted by Turkey. The plant should have a special design with precautions for "acute accidents" specified on "Safety Standard Series NS-R-1" of International Atomic Energy Agency. The documents and information about design of the plant should be given to TAEK.

License: The power plant should be designed in accordance with all the nuclear safety norms of the designer's country and this compliance will be demonstrated by supportive documents. The designer will be required to provide an active plant for reference. This reference power plant needs to have a license and the latest technology available in the market. If the reference plant does not exist with the most recent technology, then the available plant which has the design confirmation may be taken as a reference plant. TAEK is the last authority to decide on such licensing. The evaluation of the submission is done in accordance with national rules and later with the regulation of International Atomic Energy Agency.

Nuclear Reactor: The reactor needs to be the most common type of the reactor in the world which has been proved safe by the relevant entities. The reactor types that will be taken into consideration are pressurized heavy water reactors that utilize natural uranium and pressurized light water and boiling light water reactors that utilize enriched uranium. Other reactor types

(light water cooled and graphite moderated reactors, gas cooled reactors, fast breeder reactors etc.) will not be taken into consideration.

Duration: The power plant will have a minimum duration of 40 years of duration.

Proven technology: The reactor types that will be taken into consideration shall be technologically proven. Plants that are under development and requiring installation of a Prototype/demonstration plant shall not be permitted.

Fuel Technology: The reactors will use natural uranium, enriched uranium or Mixed Oxide.

The Experience of Participating Entities: The experience of the participating entities is a very crucial criterion. There are different parameters to measure the experience, such as the engagement in the sector, accomplished facilities and volume of the generation etc.

Electric Power: Each unit of power plant shall have a capacity no less than 600 Mw. However there is no upper limit of such power plant.

TETAS will buy the electric energy generated by the company and then TETAS will sell this energy to retail and wholesale customers which will be subject to the sale of electricity regulations. The Company should have all the required licenses, permissions and certificates and the company should have insurance to repair all the damages during the construction of the plant. In the event of an accident during the transportation of the nuclear materials or wastes, the Paris Agreement and other national rules will apply. The company is required to allocate 1 percent of its annual profit to the research and development activities. Turkey has uranium reserves totaling around 10,000 tons, according to the authorities, enough to last 50 years. Turkey must invest approximately \$128 billion in energy infrastructure by 2020 to keep pace with the rising demand and to move from dependence on foreign oil and natural gas. (Hilmi Güler, 2008).

4.4. EFFORTS MADE BY TURKEY CONCERNING ENERGY EFFICIENCY

The researches concluded have monitored that a high potential has existed in order to increase energy efficiency. Although the target aimed has not been clearly stated, it is estimated that the primary energy consumption can be reduced by 15percent. According to the research conducted by the ministry of energy and natural resources, the estimated primary energy consumption will be of 222 MTP, provided that no measure has taken. If the potential has been used in order to reduce the energy consumption, it is estimated that, 33 MTP (which is equivalent nearly 15percent of 222 MTP) will be economised. Another research made by again ETKB has shown that can be reduced by 20 TWh in houses and 34 TWh in industry. Research made by International Energy Agency has monitored that the energy density is higher than the average of the first fifteen members of EU.

The following steps should be taken in order to reduce the energy density;

- a. making rehabilitation investments
- b. increasing of the energy productivity
- c. reducing of the energy losses
- d. practising new technology which increase energy productivity

Turkey announced in the development plans, the main objectives of its energy policy are to ensure sufficient, reliable and economic energy supplies in order to maintain economic and social development, to provide the growing energy demand, to reform and to liberalize the energy sector to increase productivity and efficiency and to advance transparency. The main difficulties are the increasing demand and the import dependence. The events because of the global climate change caused to take into account the environmental concerns in all stages of energy chain. Turkey is taking steps to respond to the threat of climate change. Turkey acceded to the United

Nations Framework Convention on Climate Change, UNFCCC, in May 2004. The Turkish Grand National Assembly adopted a decision to set up a Research Commission on the causes and effects of global warming in the country in February 2007. However, Turkey has not yet signed the Kyoto Protocol. Turkey needs to consider some form of emissions reduction requirement in the foreseeable future. The new "Energy Efficiency Law (No.5627)" has enabled the utilization of the utility grid as an energy reserve until 200 kWp power for renewable energy sources without permission. Although there is not any feed in tariff, the law also has enabled to provoke some new PV applications as grid-connected systems.

4.5. ENERGY EFFICIENCY LAW

Turkey's Energy Efficiency Law (EEL) came into force in May 2007. It is expected that The EEL will transform energy policies implemented in the government and private sectors. The law and upcoming regulations will offer opportunities for the impending Energy Service Company (ESCO) market in Turkey. The purpose of this Law is to increase efficiency in using energy sources and energy in order to use energy effectively, avoid waste, ease the burden of energy costs on the economy and protect environment. This law covers principles and procedures applicable to increasing and promoting energy efficiency in energy generation, transmission, distribution and consumption phases at industrial establishments, buildings, power generation plants, transmission and distribution networks and transport, raising energy awareness in the general public, and utilizing renewable energy sources. Under the article 4 of the said law; An Energy Efficiency Coordination Board shall be established to carry out energy efficiency studies within all relevant organizations all over the country, monitor its results and coordinate efforts. The General Directorate shall monitor the implementation of decisions made by the Board, and secretariat services. The Board shall, under the chair of the assistant undersecretary in charge of the General Directorate, consist of senior representatives, one from each of the Ministries of Interior, Finance, National Education, Public Works and Housing, Transport, Industry and Commerce, Environment and Forests, the Ministry, the Under secretariat of the State Planning Organization, the Under secretariat of Treasury, the Energy Market Regulatory Authority, Turkish Standards Institute, Turkish Scientific and Technological Research Institution, Turkish

Union of Chambers and Commodity Markets, Turkish Union of Chambers of Engineers and Architects, and Turkish Association of Municipalities.

The Board shall have the following functions, authorities and responsibilities:

- a) Prepare national energy efficiency strategies, plans and programs, assess their effectiveness, coordinate their revision as necessary, taking and implementing new measures.
- b) Steer energy efficiency studies carried out by the General Directorate, approve the authorization certificates issued by General Directorate to chambers of profession and universities in promoting energy efficiency services.
- c) Establish ad hoc specialty commissions by the participation from the relevant public agencies and institutions, universities, private sector and civil society organizations, with expenses covered from the General Directorate's budget, under the functions assigned to the Board and where it deems necessary.
- d) Set the agenda of, and identify the participants in, the advisory committee meetings organized by the General Directorate every November by the participation of authorized institutions, companies, chambers of profession in the nature of public institutions and civil society organizations, and approve proposals for measures.
- e) Set and publish the fees for authorization certificates and energy manager certificates every January.

Pursuant to the article 10; Administrative sanctions within the framework of the following principles shall be applied to natural or legal persons as a result of fact finding and/or inspections conducted by the bodies authorized to impose administrative fines under this Law.

4.6. SAVING POSSIBILITIES IN SECTORAL BASE

The total length of the electricity distribution lines has become 880.000 KM by the end of 2006. The Turkish electricity distribution system is one of the biggest loss points of the energy due to the technical efficiencies and the illegal use. It is estimated that the technical loss use is over USD 2 billions considering the total net sale in 2007 amounting to TL 15 billions (14.8percent). Besides, as long as the distributor companies have direct contact to the transmission companies and to the consumers, no importance will be given to the technical standards and therefore those facts will have negative effects on the distribution transmission systems together with the consumers. According to a research conducted by TEDAS, the region where the losses take place the most is South-eastern Anatolia region. Those losses are composed of; illegal users which already concluded a subscription contract with TEDAS and illegal users without contract. Non-

technique commercial losses compose 10percent of the total loss. The interesting point is the Tedas's behavior in order to make up the losses regarding the illegal users. It passes the losses on the other user's bill for making up the amount. The purpose of the lightening of the public places such as highways, parks is to ensure the safety of lives and goods. The said public service uses 3.8 billion kWh of electricity per year. Therefore, considering the big amount of the used energy, the most advantageous technique of lightening should be implemented in order to assure this public service

4.7. AN ENERGY MARKET EXAMPLE IN TURKEY: NATURAL GAS MARKET

4.7.1 Introduction

When the laws and regulations of the country are scrutinized, it is seen that the legislation that frames the very basic principals specifically for the companies operating in the natural gas distribution market consists of 3 basic regulations; Natural Gas Market Law ("Law"), numbered 4646, the Natural Gas License Regulation ("License Regulation") numbered 24869, and the Natural Gas Distribution and Customer Services ("Distribution Regulation") numbered 24925.

When the legislation is examined overall, it could be seen that companies operating in natural gas market, in general, are strictly subject to the legislation from the very beginning of their entrance to the market to their company structure and their operating principles. Due to the public-interest-related nature and potential strategical/security vulnerability of the market, companies operating in the market are also under the intense supervision/inspection of the relevant official authorities. First of all, it should be noted that the highest administrative organ of supervision/authentication in the market is Enerji Piyasası Düzenleme Kurumu (Energy Market Regulatory Authority), EPDK. As an autonomous body, its regulations and resolutions are subject to the legal supervision of the Council of State ("Danıştay"). In other words, any dispute that might occur between EPDK and the players in the market is tried by the Council of State should any of parties to a dispute brings forward the dispute to the said court.

4.7.2 Definition of Natural Gas Distribution Companies

According to the legislation, a natural gas distribution company is a legal entity that is authorized to carry out natural gas distribution and transportation activities through local natural gas infrastructure/pipeline within a specified city. According to the article 4/1 of the Law, any kind of corporation that intends to operate in the natural gas market must obtain required license from EPDK in order to begin its operations in the market. Hundred per cent of the shares of joint-stock companies and limited liability companies that are to operate in the market must bear the registered stock characteristic.

4.7.3 Obligatory License

According to the article 4 of the law and article 5 of the Natural Gas License Regulation, numbered 24869, it is obligatory for the legal entities to obtain necessary licenses to engage in natural gas market activities under this Law. A company that wishes to operate in natural gas distribution market must be granted the distribution license, the conditions of which is regulated in the article 27 and consequent articles of the License Regulation. The license needed for natural gas distribution sector, Natural Gas Distribution License, is issued by EPDK to be in effect from 10 to 30 years for operating in a particular city.

4.7.4 Bidding Procedure of Natural Gas Distribution License

a. Explanation on General Principles

According to the rule of the article 27 of the License Regulation, along with the other regulations part of the legislation, companies, which will be entitled to receive natural gas distribution licenses, will be selected through biddings opened and conducted by EPDK. A distribution license will be granted to the company entitled to receive the license upon completion of the procedures defined in the relevant regulations and the bidding file. The article 27 states that principles and procedures related to distribution licenses and above-mentioned biddings will be set forth in the Distribution Regulation and in other relevant regulations. According to the article

5 of the License Regulation, distribution license bidding shall be conducted upon a decision of the Board of EPDK (hereinafter will be referred to as the "board"). The city subject to the bidding, license term, eligible consumer threshold, non-eligible consumer connection charge applicable throughout the license period, bid bond and performance bond amounts and other bidding related issues pertaining to the city in question shall be stated in the relevant Board Decision. The bidding to be opened by the EPDK shall be announced in the Official Gazette. The bidding announcement shall state the application period, application place, question-answer method and duration, which information and documents are required and other issues. Distribution license shall be issued and the ownership of the distribution network shall be transferred to the company which wins in the bidding, taking into account issues such as the level of development and consumption capacity of and the number of users in the city, for the duration of the license term determined by the EPDK in the bidding announcement. The Board may break the city into more than one distribution regions with defined boundaries. According to the regulation of the article 27, the companies where real persons, who hold shares equal to or above ten percent in the capital of the legal entity, have been sentenced to heavy imprisonment or imprisonment longer than five years for infamous crimes such as simple or aggravated embezzlement; forming an organization in order to commit a crime; extortion; bribery; robbery; fraud; falsification; breach of trust; fraudulent bankruptcy or for smuggling other than smuggling of goods; manipulation of public biddings and procurements; money laundering or disclosure of State secrets or fiscal evasion, companies shall not be allowed to bid in the biddings.

b. Prequalification evaluation

Due to the regulation in article 9 of the Distribution Regulation companies who wish to apply for the prequalification shall apply to the EPDK in accordance with the principles and procedures and within the period specified in the bidding announcement. Bidding commission shall evaluate the prequalification applications based on the adequacy of the applicants. The adequacy of the companies shall be evaluated taking into consideration their financial status and experience of the company and/or its shareholders, with respect to the network investment and performance of the operation activity required in the city subject to the bidding.

c. Prequalification applications shall be evaluated, based on the following:

With respect to financial viability; equity, balance sheets and income statements and documents and letters of intent showing how the investment shall be financed,

With respect to experience; experience of the bidder or the firms which will provide design, construction and operation services to the bidder, in the natural gas sector and other sectors.

The report to be prepared by the bidding commission at the end of the evaluation shall be submitted to the Board. Those companies which are not deemed adequate by the Board shall be informed thereof and such companies shall not be allowed to bid in the bidding. Those companies which are deemed adequate shall be invited to obtain the bidding documents from the Authority prepare their bids in accordance with the terms set forth in the bidding documents and submit the same to the EPDK in the time specified.

d. Content of the bidding documents

According to the regulation of article 10 of the Distribution Regulation bidding file shall include the terms of reference setting forth the principles and procedures applicable at all stages of the bidding process, including:

- 1. the preparation, submission, opening, evaluation, finalization of the bids,
- 2. the currency unit in which the bidders shall bid,
- 3. eligible consumer threshold in the city subject to the bidding,
- 4. license term, non-eligible consumer connection charge to be applied throughout the license term,
- 5. bid bond and performance bond amounts,
- 6. the period during which unit service and depreciation charge shall be applied as a fixed amount,
- 7. commencement date of the investment, principles and procedures pertaining to issuing a distribution license to the company which wins in the bidding,

- 8. all principles and procedures applicable to the design, construction and material required for the construction of the distribution network, and
- Commissioning of the completed network and the basic technical criteria.
 Terms of reference shall be prepared in accordance with the characteristics of the city subject to the bidding, and the relevant legislation is an integral part of the bidding documents.

e. <u>Evaluation of the bids</u>

Due to article 12 of the Distribution Regulation the bids shall be evaluated based on the unit service and depreciation charge, which shall be proposed as a single charge for supplying one kWh natural gas to consumers.

The bids shall be ranked based on the unit service and depreciation charges offered, the three lowest bids shall be determined and the relevant bidders shall make discounts off their bids. The Board shall either determine, as a result of the discount process, the bidder with the lowest bid, who shall be the company which acquires the right to be granted a distribution license and the companies ranking in second and third places; or cancel the bidding if it does not deem the bids appropriate. The unit service and depreciation charge, which shall be set in the bidding process, shall be in effect throughout the period set forth in the relevant bidding documents. Following the completion of such period, the unit service and depreciation charge to be determined by the Board in accordance with the price cap method shall be used.

f. Invitation notification

The article 13 of the Distribution Regulation rules that the Bidders shall be informed of the Board Decision in compliance with the terms and conditions of the Law on Notifications and the company who ranks first shall be invited to obtain the distribution license.

In the invitation notification, the company shall be required to apply to the EPDK and submit the performance bond, upon completing the actions to be performed prior to obtaining a license,

within the period stated in the notification. Should the relevant company apply for extension of time for application and should such request be accepted by EPDK, the time for application may be extended.

g. Submission of the performance bond and returning of the bid bond

Following the final determination of the first three bids by the Board, bid bonds of the other bidders shall be returned, composes the article 17 of the Distribution Regulation. The company which acquires the right to obtain a distribution license upon the approval of the Board shall submit the EPDK a performance bond at the amount stated in the terms of reference and such company's bid bond shall be returned in accordance with the procedure explained below. The bid bonds of the other two companies shall be returned following the issuance of the distribution license.

Parts of the performance bond associated with the appropriately completed and accepted portions of the distribution network shall be returned in accordance with the principles and procedures set forth in the terms of reference as stated in the article 19 of the Distribution Regulation. In the following cases, in accordance with the article 20 of the Distribution Regulation, bid bond or performance bond submitted by the company shall be registered as revenue in favor of EPDK:

- a. withdrawal of the company from the bidding after submitting a bid but prior to announcement of the company which has acquired the right to obtain a distribution license
- b. Failure to timely complete the necessary procedure for obtaining a license upon acquiring the right to do so or refraining from obtaining the license or returning of the license upon the approval of the Board.
- c. Bankruptcy of the distribution licensee.

d. Cancellation of the license upon implementation of sanctions set forth in Article 9 of the Law.

4.7.5 Partnership of the Municipality

According to the article 21 of the Distribution Regulation, the company, which acquires the right to be issued a distribution license, shall first invite the municipality or the municipal company of the city in question to become a shareholder of the company, at the ratio set forth in the Law, without requiring it to deposit any capital.

According to the article 4/4-g of the said law, the distribution company obtaining the distribution license must offer a partnership at a rate of 10percent to the municipality or the municipal company in question without the need to provide any capital. Such capital rate may be increased at a rate of maximum 10percent provided that the equivalence has been paid. However such increase may be made only if there is no debt to the Treasury and additional credit is not requested or after the discharging of credit debts to the Treasury, loans under the Treasury guarantee are not provided for this purpose.

In cases where the municipality or the municipal company does not obtain shares or does not obtain sufficient number of shares to acquire the right to have one representative in the board of directors, the company shall inform EPDK. EPDK may request from the company to put in place arrangements to enable the municipality to be represented in the board of directors and board of auditors of the company, in conformity with Article 275 of Turkish Commercial Law (Article 4/4-g of the Law).

4.7.6 Procedure prior to License Issuance

The company that acquires the right to obtain a distribution license shall be obligated to make the following amendments in its articles of association in accordance with the relevant legislation, in order to be issued the distribution license (Article 22 of Distribution Regulation).

- The company shall finalize the procedure associated with the municipality or the municipal company in the city in question, in accordance with Article 21 hereof and Article 4-4-g of the Law.
- ii. In cases where the company is a joint stock company established under the provisions of Turkish Commercial Law, all shares shall be registered to name if not already so.
- iii. Since the distribution licensee shall not be able to engage in any activity other than in city distribution of natural gas, the relevant part of the articles of association of the company shall be amended accordingly.
- iv. Provisions stating acceptance that the EPDK shall have the right to temporarily replace some or all of the members of the board of directors or those in charge of the management of the legal entity; in cases where the legal entity is a joint stock company, some or all of the members of the shareholders general assembly or those in charge of management of the company by making new appointments to replace them, in cases where it becomes necessary to cancel a license, in order to protect the consumers and not to cause interruption in services and to ensure performance of activities within the scope of the license and operation of the distribution network, in line with the Board decision to be issued prior to such cancellation.

4.7.7 The Contracts to be Entered into by and between the Distribution Company and Third Persons

Distribution Company shall hire construction and service certificate holding third persons to perform construction works associated with the distribution network, under contracts to be entered into with such persons, if it does not perform such work itself (Article 25 of the Distribution Regulation).

In the contracts to be entered into by and between the distribution company and third persons in relation with activities within the scope of the license of the distribution company, there shall be no provisions in contradiction with the relevant legislation and no provisions that may have adverse affects on system security or system operation.

Distribution Company shall be responsible for proper and timely completion of the works and shall be liable for any default or negligence of the design or construction contractors in relation with the works.

Distribution Company shall take all measures to prevent any harm or disturbance to the environment and people and shall adhere to the provisions of legislation related to environment and other legislation during the investment related activities.

4.7.8 Insurance Obligation

Distribution companies, according to the article 27 of the Distribution Regulation, are obligated to provide insurance coverage for their assets associated with the activities they perform in order to protect them against possible risks.

In this framework, distribution companies shall provide "all risk insurance" coverage for their distribution networks against risks such as natural disasters, fire or accidents.

4.7.9 Extension of License Term

Although the term of licenses are determined and limited in the license itself, the Board may issue a distribution license for the second time, taking into account the economic and technical status of the company, the quality of service, consumer satisfaction and the other issues set forth in the relevant legislation in case the distribution company requests from the EPDK the extension of its distribution license in question one year prior to expiry thereof, according to the article 31 of the Distribution Regulation. In such case the unit service and depreciation charge and non-eligible consumer connection charge to be determined by the Board shall be applicable throughout the new license term.

4.7.10 Sale and Transfer of Network

According to the regulations in legislation, specifically in the article 32 of the Distribution Regulation, Distribution Company may sell the distribution network under its ownership to another legal entity prior to expiration of its license term, upon the approval of the Board.

The Board shall approve such sale provided that:

- i. the network is sold as a whole,
- the legal entity buying the network conforms to all conditions required for obtaining a distribution license,
- iii. if a distribution license application of the entity in question has been rejected before, the reasons for rejection are removed,
- iv. the sale in question does not result in implementations that are not in favor of the customers,
- v. the unit service and depreciation charge is not exceeded.

The legal entity which buys the distribution network shall apply to the EPDK to obtain a distribution license in accordance with the relevant legislation. In cases where it becomes obligatory to cancel a license, or where the licensee returns the license upon the relevant Board decision, before it expires, sale of the network shall be possible through a bidding to be conducted by the Board. License shall be issued to the legal entity offering the highest price for the transfer of ownership and possessing the qualifications required for obtaining a distribution license, for a period to be determined by the Board, provided that:

- a. the new unit service and depreciation charge and non-eligible consumer connection charge do not exceed those applied by the previous licensee,
- b. and the rest of the terms and conditions remain unchanged.

The price for the network shall be collected from the new licensee and paid to the previous.

In cases where the term of the distribution license is not extended, bidding shall be conducted for the operation and ownership of the distribution network. Distribution license shall be issued to the legal entity offering the highest price for the transfer of operation and ownership of the network and possessing the qualifications required for obtaining a distribution license, on the condition that the new licensee applies the unit service and depreciation charge and non-eligible consumer connection charge determined by the Board, throughout the term of the license. The price for the network shall be collected from the new licensee and paid to the previous. In the cases set out in this article, distribution licensee transfers to the new licensee the existing network and all of the related facilities, all mobile and immobile assets together with any rights associated with them, all liabilities and obligations being removed, well maintained apart from normal wear, as a whole and in working condition. Distribution licensee shall continue to provide service, subject to the same terms and conditions, until the new licensee takes over the operation and ownership of the network.

4.7.11 Rights and Obligations of Distribution Licensees

The article 28 of the Distribution Regulation composes the rights and obligations of distribution licensees. It states that:

- i. Distribution companies will be responsible for planning, designing, construction, expansion and operation of the distribution network in accordance with the principles, procedures and standards set forth in the legislation.
- ii. Distribution companies will ensure that the non-eligible and eligible consumers in their respective areas access the distribution network in accordance with the principles and procedures set forth in the relevant regulations and communiqués issued by EPDK and provide services related to sale and delivery of natural gas to such consumers.
- iii. Distribution companies will, if requested by the consumers in the areas under their responsibility, connect such consumers to the system. However, the obligation to

connect such consumers to the system will depend on availability of capacity of the system and will be subject to completion by the consumer of actions set forth in the Distribution and Customer Services Regulation and will be based on technical and economic feasibility of such connection in accordance with the principles and procedures set forth in the applicable legislation. In the event of a dispute in that regard, the Board of EPDK will decide whether the proposed connection is technically and economically feasible. Any user, whose request for connection is rejected, will inform EPDK thereof. If the Board of EPDK, after receiving the relevant distribution company's defence in respect of the dispute, concludes that the provisions of this Article have been violated, then the company will comply with the decision made by the Board of EPDK.

- iv. Any legal entity, which has received a distribution license, may sell the distribution network in its possession to another legal entity prior to expiry of its license, in accordance with the principles and procedures set forth in the Distribution and Customer Services Regulation. Such sale will be subject to the approval of the Board of EPDK.
- v. Distribution companies will offer natural gas transportation and ancillary services to eligible consumers and suppliers selected by such consumers, upon their request.
- vi. Distribution licensee will perform scheduling and system balancing in order to ensure system reliability and to meet demands of users fed from the city distribution network and ensure natural gas supply security.
- vii. Distribution companies will establish a dispatch control center for distribution networks under their responsibility. However, this condition will not be applicable in respect of cities where consumption capacity is deemed insufficient by EPDK.
- viii. Distribution companies will issue certificates to real persons and legal entities in respect of internal installations and service lines under the authorization they will

obtain from EPDK in accordance with the applicable legislation. They will carry out financial and technical audits of such real persons and legal entities which have been issued such certificates.

- ix. Distribution companies will submit to EPDK information and documents substantiating that natural gas supplied to non-eligible consumers have been purchased from the most economical source.
- x. The licensee may purchase maximum fifty percent of natural gas it will distribute within a calendar year from the same legal entity, unless otherwise decided by the Board of EPDK.
- xi. The licensee will not add any substance to the natural gas delivered to the distribution network, other than odorizing substance to be added for safety purposes.
- xii. The licensee will substantiate to EPDK that it is carrying out an effective and reliable operation.
- xiii. Distribution companies will provide all required information to non-eligible consumers, who have acquired the right to become eligible consumers according to eligible consumer limits to be determined by the Board of EPDK on an annual basis, they may need for changing their suppliers.
- xiv. EPDK will guide, supervise and monitor distribution activities of Distribution Company, which owns the respective distribution system, and when required, will purchase such services from real persons and legal entities at the distribution company's cost.
- xv. Each distribution company may hold licenses only for two cities within the country. However, this number may be increased by a Board decision of EPDK, based on criteria such as the level of development of the cities, consumption level and the number of users. The Board of EPDK may divide a city into more than one

distribution area depending on population density and may conduct a separate bidding for each area.

xvi. Other rights and obligations of the licensees selected through a bidding process will be specified in their licenses by taking into consideration the bidding file and their proposals.

Other rights and obligations of the licensees, in addition to those set forth in the applicable legislation, are as follows, pursuant to the article 31 of the License Regulation:

- i. If any dispute related to access to the system is referred to the Authority, the parties shall comply with the decisions of the Board.
- ii. Licensees may not create an encumbrance, mortgage or pledge on transmission, distribution and storage facilities without the Authority's approval.
- iii. Licensees may not make any changes related to their market activity as defined in their articles of association without the Authority's approval.
- iv. If the authorized representatives named in the application form are replaced, then the licensee shall furnish the Authority with certificates of authorization, approved by the notary and the list of authorized signatories within ten days.
- v. Any licensee, which provides storage and transmission services, may request the system users to provide natural gas in a quantity to be used for maintaining minimum stock and operation of the transmission and storage facilities. System users shall provide such natural gas requested in a minimum quantity determined by reference to the quantity of natural gas they deliver to the system against payment of its price.
- vi. Licensees may not engage in any activity outside the market, other than those stated in their respective licenses as activities that may be carried out without prior approval

of the Board. In issuing such approval, the Board takes into consideration the type of the license requested, the nature of the non-market activity and its relation with the energy market. Legal entities shall be obligated to keep separate accounts for each activity stated in their respective licenses and cross subsidy shall be prohibited.

- vii. Legal entities may engage in more than one market activity upon obtaining a separate license for each market activity and for each facility where such activities shall be carried out. However, legal entities engaged in natural gas wholesale activity may not perform transmission nor distribution activities.
- viii. Provisions related to freedom of competition, prevention of abuse of dominant position and mergers and acquisitions as set forth in the Law No. 4054 dated 7.12.1994 on Protection of Competition shall also be applicable to legal entities engaged in the natural gas market activities.
 - ix. Licensees shall carry out market activities as reasonable and prudent merchants.
 - x. With the exception of expiry of a distribution, transmission or storage license at the end of its term, the Authority shall take all measures related to the facilities in order to prevent any interruption in operation of the system until the new licensee starts its operations. All related costs and revenues shall be assumed by the former licensee.
 - xi. In case of expiry, termination or cancellation of a license; the relevant licensee shall return the license to the Authority within fifteen days as of the date of expiry of the license or receipt of a notice of cancellation. Commercial titles of the legal entities, whose licenses have expired or been cancelled and the types of the licenses in question shall be published in the Official Gazette and announced on the Authority's website.
- xii. Legal entities which obtain licenses from the Authority shall be obligated to comply with applicable legislation and, based on the types of their activities, other legislation.

4.7.12 Supervision of EPDK and Obligation of Licensees to Provide Information

The law clearly regulates the responsibility of the companies operating in natural gas market to provide constant and regular information in concern with the operations they practice within the market. Those companies also are responsible to keep confidential information secured fulfilling the general rules of non-disclosure of confidential information effective in the country, along with the rules brought by the legislation on natural gas market.

The Legislation rules that EPDK shall guide, audit, and monitor the activities of distribution companies and, when necessary, may procure these services from certificate holders, at the cost of distribution companies. A distribution company shall do all that is required to facilitate the audit and monitoring activities of the Authority, according to the article 31 of the Distribution Regulation and the relevant articles of the law.

Distribution Company shall submit brief information about the progress achieved in the construction of the distribution network to the EPDK in the form of regular reports to be prepared every six months. Such reports shall be submitted by the fifteenth day of the following month.

In addition to the above-mentioned responsibilities, a distribution company shall maintain certificates obtained from Turkish Standards Institution, certifying that the equipment and material used in the infrastructure are in compliance with the relevant legislation, test and control records, incident reports, expropriation, establishment of real rights other than ownership and leasing records and other information, documentation, records and reports to be required by EPDK, in order to submit to the EPDK upon request.

Every year, distribution companies shall, by the end of March of the succeeding year, submit EPDK their annual balance sheets, income statements and other additional financial statements deemed necessary, prepared in accordance with the relevant legislation during their investment processes, regulates the article 29 of the Distribution License.

The Law brings pecuniary sanctions and penalties to be exercised or imposed on distribution companies for breaches of the Law and its related regulations. Pursuant to the article 9 of the law EPDK shall impose on the legal entities performing activities in the natural gas market following sanctions and penalties, as continue to breach the regulations despite written warning by the EPDK:

- i. In cases where information or examination at the premises is requested by the Authority, if it has been determined that the information provided upon request is incorrect, incomplete or misleading or if no information has been provided, or an examination at the premises has not been made available, a fine of TRY 350.000,00 shall be imposed and a notification shall be issued for the submission of correct information and/or making available an examination at the premises within seven days. It shall be requested from the relevant real persons or legal entities that the documents shall be submitted accurately and/or an opportunity of examination shall be provided with respect to the default situations which can be easily corrected.
- ii. In case it has been determined that a failure in complying with the provisions of this Law or enacted regulations, instructions, and communiques, has occurred a fine of TRY 350.000,00 shall be imposed and a notification shall be issued for the payment of such fine within thirty days.
- In case it has been determined that a failure in performing any of the general principles and obligations under a license or certificate has occured, a fine of TRY 350.000,00 shall be imposed and a notification shall be issued to correct the situation within thirty days.
- iv. In case any misleading document or misleading information is given or the Board has not been notified of any change in the conditions based on which a license or certificate has been issued with respect to the requirements for a license or certificate application and granting of such license or certificate, a fine of TRY

500.000,00 shall be imposed and a notification shall be issued for the correction of such incompliance within thirty days.

- v. In case misleading information is given with regard to an affiliate relation during the license application or a failure to comply with the prohibition regarding affiliate relations during the term of activities has occurred, a fine of 500.000,00 shall be imposed and a notification shall be issued to correct such affiliate relation within thirty days.
- vi. In case it has been determined that an activity is being performed in the market outside the scope of a license, a fine of TRY 600.000,00 shall be imposed and a notification shall be issued to stop such activity which is outside the scope of the license or any contrary activity within fifteen days.
- vii. In case it has been determined that the conditions which form the basis for granting a license or certificate have ceased to exist during the performance of the activities, the license or certificate shall be cancelled.

In case actions requiring above fines are not corrected or such actions are repeated, the fines shall apply as double the amount of the previous fine each time. The previous fines shall not be taken into consideration for the purpose of increasing the fines if the same action that necessitates administrative fines are not repeated within two years as from the date of the imposition of such fines. However, in case the same action has been repeated within two years, the total amount of fines so doubled may not exceed twenty percent of the net sale revenue of the relevant legal entity as shown in its balance sheet of the previous financial year. The Board may cancel the license or certificate if the fines reach such level.

In case of cancellation of a license or certificate, the Board shall take the necessary measures to prevent the interruption of the service until a new license or certificate will have been issued. In case the cancellation of a license for urban natural gas distribution has become compulsory, the

Board shall cancel the license provided that it has taken the necessary measures so that the service shall not be interrupted.

A bidding shall be held on behalf of the license holder that owns such distribution facility for the sale of the said facility and determination of the new license holder within one hundred and twenty days. The procedures and principles in relation to the implementation shall be determined by regulations. Administrative fines set forth in this Article shall never be stated as a cost item in the tariffs to be prepared by the legal entity that pays the relevant fine.

A fine shall be imposed separately on each party breaching the provisions of this Law. Right of preliminary investigation, inquiry and legal action The Board may decide, either ex officio or upon complaints or notices served to that effect, to initiate an inquiry directly or a preliminary investigation in order to determine whether or not it is necessary to initiate an inquiry. The procedures and principles to be followed during the preliminary investigation and the inquiry shall be governed by a regulation to be enacted. Legal actions against the decisions of the Board shall be directly heard in the Council of State. The Council of State shall treat such applications against the decisions as urgent matters.

4.7.13 Transfer of Company Shares

The direct or indirect acquisition, by a real person or legal entity, of shares that amount to more than ten percent of the capital of a licensee (five percent for publicly traded companies), and share acquisitions that result in the increase in a partner's shares to above ten percent of the licensee's capital or a transfer of shares that leads to the fall of a partner's share to below the above-mentioned rate, are subject to approval of Board of EPDK. This provision is also applicable for acquisition of right to vote and pledging the shares.

Board approval shall be given on condition that the real or legal entity to whom the share has been transferred, has the necessary qualifications required for the legal entity's partners during the license application. That provision of this article shall be applied to the real person's partner or partners in case the management and audit of the capital shares of the partner belong to another

legal entity. Even if there is no transfer of shares, allocation of the privilege on existing shares, termination of a privilege and issuance of a dividend right certificate are subject to approval of Board of EPDK regardless of the ratios stated in the first paragraph. During the application of a real person or legal entity holding directly or indirectly, ten percent or more (five percent for publicly traded companies) of the capital of a licensee, or even if it is below that ratio, has the shares providing the privilege of appointing members for the Management or Audit Boards, or those who have acquired usufruct on these shares, are required to have the necessary qualifications required for the legal entity's partners while applying for a license.

For the applications of share transfer the following information and document shall be demanded: In case the entity that the shares are transferred to is a legal entity;

- a. The copy of the registration document proving that the legal entity has been registered in the commercial records and the copy of the Commercial Record Gazette in which the registration is announced,
- b. The main charters of the partners,
- c. A copy of the share transfer agreement,
- d. The information and documents indicated in the 10^{th} line of Annex 3 showing the financial status of the legal person and partners,
- e. The names and addresses of the real persons holding ten percent or more of the legal entity shares directly or indirectly and their criminal records issued within last six months proving that they have not been charged with the offences indicated in line 5 of Annex 3.
- f. In case the capital shares determining the management or audit of the legal entity are possessed by another legal entity, the information and documents regarding the partnership structure, including real person partner or partners.

In case the entity that the shares are transferred to is a real person;

- a. A copy of the share transfer agreement,
- b. Information and documents showing the financial status of the real person,

- c. Criminal records of the real person issued within last six months proving that he/she has not been charged with the offences indicated in line 5 of Annex 3,
- d. A declaration showing that the real person does not directly or indirectly hold ten percent or more of the shares of a legal entity whose license has been cancelled in accordance with the provisions of the law.

The obligations set forth in this article shall be included in the related licenses and main charters of the licensees. The EPDK may request additional information and documents that can be required during review and evaluation necessary for Board approval, from the real persons or legal entities who are the parties in the share transfer. Provisions of this article shall be applied comparatively for the citizens of a foreign country as well.

As stated in the article 44 of the License Regulation, the licensees shall be obliged to perform their market activities within the framework of the market share limitations as indicated in the applicable legislation. In case it is determined that the market share limitations indicated in the applicable legislation have been exceeded, the provisions of Article 9 of the Law, which regulates the sanctions and penalties for breach of legislation, shall be applied.

It is designated in the legislation that a legal entity engaged in a natural gas market activity may enter into affiliate relationship with only one other legal entity engaged in any of the different market activities. However such legal entity may not set up a separate company, or could not hold (i) more than 50percent of the capital or the assets or voting rights of that company, (ii) the right to appoint more than 50percent of the members of supervisory/directors/representative board of that company. A legal entity may not enter into affiliate relationship with any other legal entity engaged in the same market activity as itself and it may not set up a new company in the same field of activity. For companies founded in order to engage in international project this regulation is not applicable.

4.7.14 Regulations on Competition

As regulated in the Law by the article 7, players operating in the natural gas market are subject to the Competition Law and its related regulations. In addition to those completion-related regulations, the article 7 of the Law brings some extra rules in an afford to maintain and secure a competing environment in the natural gas market. The article states that

- i. the quantity of natural gas sales of a company could not exceeds the 20percent of the approximate national consumption of natural gas of a random year.
- ii. any company that operates in natural gas market could participate in only one enterprise that operates in another sector, but it could not hold more than 50percent of the shares or 50percent of the voting rights of that enterprise, or the right to assign more than 50percent of the members of board of directors or supervisory board or 50percent of any other organ that is authorized to represent that enterprise. It could not have the right to administer that enterprise, either.
- iii. any company that operates in natural gas market could not participate in a company that also operates in the natural gas sector, neither could it found a company to operate in the market.
- iv. any company that operates in the natural gas market could not purchase more than50percent of its annual natural gas purchases from a one other company, althoughEPDK is entitled to permit otherwise.

5. CONCLUSION

It is a well-known reality that energy security is one the issues that has captured a top priority in world agenda. Energy has always been influential in international relations. However, due to the rapidly rising demand for energy and the emerging risks to energy security, this influence has taken on a rather overwhelming nature. The world is facing complicated energy problems that have economic, ecological, geo-political and technological dimensions. With its vital role in economic and social development, energy has a huge impact on countries national securities as well. Independence in terms of energy in industrial nations has become the most important goal of energy policies since the first oil crisis. With the recognition of the risks created by energy-related environmental problems, with global warming at the top, the economic factors have come to be known as vital issues influencing energy policies since 1990s. The concept of sustainable development introduced along this period and the issue of energy security has become even more complicated due to the limitations imposed upon energy alternatives by environmental security. Apparently, the world is moving into a new era in terms of energy. The world needs a secure and sustainable energy flow at feasible costs. For this, there is no single solution. The strategies and plans on a national and international level are very important.

In this respect, Energy law has grown significantly in importance in EU law in recent years. It frequently overlaps with competition and environmental law and has often been a controversial and complex subject, but this work examines the relevant law and regulation in an integrated and objective manner. EU Energy Policy Objectives include the improvement of competitiveness, security of energy supplies and protection of environment mostly by encouraging the use of renewable energy resources. The energy acquis consist of rules and policies, notably regarding competition and state aids (including in coal sector), the internal energy market, energy efficiency and nuclear energy. The targets of EU in field of energy has sometimes intersected with the other targets in the different fields, therefore it has always been hard to balance the situation and to put into effect the necessary regulations. In such situation, the conflicting policies have accrued and the latter has brought forth some defects.

For example, the idea of using fossil fuels in order to ensure the security of supply shall be in contradiction with the targets of reducing air pollution. Similarly, as a result of the target of ensuring security of supply, The Commission has approved some long-term energy agreements. Such long-termed agreements contribute to the development of the energy sector, owing to the stability and regularity they have ensured. However, in substance, such agreements shall have a negative effect on the energy markets in terms of competition such as the provisions of exclusive supply and outline or the blocking of marketing entrance. Likewise, although the state aids made by the members of EU to the energy sector shall be consistent with the energy policy, sometimes it would be in contradiction with the competition law. One of the main missions of the Commission is to arrange the balance between those differences.

In addition to the conflicts in sectoral base, the policies at EU level shall not get along with the policies at member states level. Although the subject of the energy has been a corner stone of the constitution of EU (ECSC, EURATOM), the determination of the policies in energy field have always been under member states' authority. However, the said situation has notably changed together with the effect of the electricity and natural gas directives mentioned here above. The efforts made in order to establish a common EU policy have steadily met with obstacles because of the differences of the energy markets in the member states and because the restraints related to the protection of the national monopolies.

As a result of this conflict between the EU common energy policy and the energy policies of the member states, it has been impossible to add a separate chapter regarding the founding treaties. Efforts in that way have constituted one of the important points during the drafting period of the founding treaties. However; a separate energy chapter has never taken place in the concluding documents because of the hard opposition of member states that are reluctant to transferring a part of their sovereignty in field of energy. However, the powers of the Commission have increased and this increase has notably showed itself during the crisis of energy supply.

Consequently, it is appropriate to say that a consensus could not have been precisely ensured at EU level, because of the conflicts arising from the interests of the member states. It is impossible to affirm that a healthy infrastructure has been ensured in order to constitute a commons EU

energy policy, following the increase in the powers of the Commission on this matter and the coming into effect of the concerned legislation such as natural gas and electricity regulations, as the latter's are not enough to ensure such correlation.

Furthermore, it is also impossible to say that EU has achieved its liberalisation aim completely in the energy markets. The biggest problem on this matter is the integration. Although big efforts have been made therein, the energy markets for different members could not be precisely integrated with each other. The exiguity of the commerce on cross-border exchanges and the big price differences of energy in the member states are the main indicators of this integration problem. The complexities in the entrance to the energy markets, the insufficiency of the existing infrastructure and of the interconnection between the member states are the basic obstacles in front of the liberalisation. Moreover, it is observed a high concentration in the European energy markets and this situation prevents the competition. Furthermore, a consumer choosing its supplier from other states is still a very exceptional case.

Therefore, although the target of EU in field of energy is to create a fully integrated, liberalised single market, the national energy markets carry on their effectiveness. Member states should adapt and integrate the legislation stipulated by Commission in their internal legislation as soon as possible, in order to overcome this problem and to create a liberalised single energy market. It is observed that most of legislation at EU level including the last electricity and natural gas directives has not been duly executed by most of the member states.

In the following decades, the EU nations and several developed countries are planning to increase their use of alternative energy sources. However, it is known that this attempt will not be able to meet the increase in global demand and that short and medium range dependence on oil and gas will continue to great extent. By 2050, 50% of the demand for energy will have still been met by fossil fuel energy resources. Thus, import dependence in terms of energy still means dependence on oil and gas today. Short-term and medium-terms security of supply necessitates an uninterrupted flow of oil and gas. To avoid the risks as regards import dependence, diversity is essential. Diversity is a broad term that encompasses the diversification of the kinds of energy, fuel resources, types of technology and technological resources.

Several factors lead to an increase in uncertainty and concerns as regards energy security: the rapid increase in the dependence on insecure energy import from unstable regions; price fluctuations in some supplying countries due to the unstable political climate; large-extent consumption of the additional energy supply by nations with rising economies such as China and India; inefficiency in new energy investments albeit decrease in oil and gas resources, and limitations caused by global warming. The world is facing serious energy security problems.

Through different in content, both sides – regarding continuity of energy supply on demand side and of energy demand on suppliers' side-are known to be experiencing grave strategic concerns. Within the last few years, big consumer communities such as the EU, the USA, Japan, China and India have increasingly become more and more dependent on a few OPEC countries in their oil imports. Next to the competition between producing and transit countries, the increase in dependence on the import of a unique source with limited quantities in reserves has gradually given way to a competition between those with highest import levels. This situation has a considerable impact on the way nations interact with each other. This is another reason that energy issue has become a significant part of foreign policies and national security policies.

The situation is the same for Turkey. With its unique geographical location and political influence in the region, Turkey stands in the centre of both problems and resolutions. Turkey's part in Energy is tendering for Europe, because it's geopolitical position. It is an important producer of hydroelectric energy. In addition to this, it is the crossing points of the energy lines which tie up Europe and the Middle East, Black sea and caucus where there are important energy resources. As a candidate state, Turkey has been making efforts in order to adapt its legislation to the EU legislation in field of energy. Thermal power plants based on the coal have lost their importance because of their lack of productivity in terms of cost-benefit.

The Turkey-EU relations in energy sector are very crucial. Turkey is a candidate country. It is very close and very supportive of establishing energy community. But also Turkey is important for the EU for there is diversification of supply. There are many attempts to use Turkey so as to put Russia out in the energy ways. Nabucco project is just one simple example. In this respect,

EU gives an additional importance so as to make Turkish energy market consistent with the European Union to transport the gas in a safe way to the Europe.

In the conclusion of the chapter 14 of 2004 regular report on Turkey's progress towards accession, it was stated that;

although Turkey has made progress with respect to adopting the Community acquis and is trying to accelerate its effective implementation, its overall alignment remains limited and uneven across the different areas of energy policy. Further efforts are necessary, throughout the sector, to align with the acquis and to ensure effective implementation and enforcement of the legislation. Sector restructuring including privatisation and the elimination of price distortions, should continue with a view ultimately to achieving competitive energy markets, in line with the acquis. Turkey will play a pivotal role in diversifying resources and routes for oil and gas transit from neighbouring countries to the EU. Further efforts are needed to ensure completion of alignment, effective implementation, and enforcement of the national legislation and strengthening of administrative capacities in the nuclear field.

As seen above, EU has put accurate and apparent goals to Turkey in field of Energy to the end of 2004. However, when Turkey's 2008 progress report released by the EU is studied, it is observed that efforts on that chapter made by Turkey have remained inadequate: *There has been some, but uneven, progress in the area of energy.*

Several years after adoption of the Framework Laws on the electricity and natural gas markets, competition remains limited and transparent and cost-based pricing has yet to be achieved. National targets for energy efficiency and renewable energy have yet to be set.

In the light of the above, for both Turkey and EU, there is one truth, indeed; the Energy challenges is one of the greatest challenges that is faced today: its various aspect such as geopolitical uncertainty, the growing demand and climate change are issues which cannot effectively be faced by countries acting alone, especially within the current economic and Financial crisis.

The countries shall put sustainable strategies to overcome this problem. The problem is same for Turkey. Turkey needs to determine long-termed strategies included but not limited to such points; improving the reliability of the energy resources through diversification of resources and supply routes to prevent choke points, increasing domestic production where economically feasible and

environmentally acceptable, developing systems for obtaining energy resources from other countries in emergencies, building in the capability to utilize alternate sources of energy into the facilities and into its modes of transportation, so that should a single field be unavailable, ensuring that there are adequate fuel storage systems and developing the appropriate policies for utilization of strategic reserves.

Not only private sector or non governmental organizations' efforts are enough to handle the energy issue. The governmental bodies as well need to give hand in order overcome this problem. The state needs to develop public-private partnerships for research, development and demonstration, to encourage transparent and competitive markets that promote private investment, to implement policies that encourage consumers in order to adopt new technologies through things like tax incentives for buying fuel-efficient cars and energy efficiency rebates; to set standards that encourage the adoption of more efficient technologies, to provide government funding programs that stimulate private investments in those very costly or unusually challenging energy projects that the private sector can't tackle alone. The states shall ensure alliances in order to share resources in case of disruptions. In that way, interconnected grids between the countries are needed to be built.

Energy is of vital importance for achieving growth, prosperity and high competitiveness Energy security is an international challenge. Therefore, energy is an issue which requires the promotion of dialogue and international cooperation. Furthermore, long-term plans and strategies should be ensured so as to guarantee our future without being late upward.

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