



Meeting the New Challenges

A Social Democratic Approach to Turkey's Future Energy Policy

NECDET PAMİR
July 2012

- Today, energy issues affect all sectors of society: the economy, employment, transportation, housing, the environment, foreign policy, peace and security, only to name a few. The goal of a strategic modern energy policy must therefore be to connect all these areas with an integrated approach. The challenges of the 21st century are to render countries more independent from increasingly scarce resources and to contribute to the international solution of the climate and energy crises. For Turkey, the important challenges to meet are the diversification of energy sources and energy production based on correct demand estimates. Local and renewable energy sources should be used to the maximum extent possible within the total energy consumption profile. This is not only a necessity for energy independence but also a prerequisite for a cleaner mode of life and a responsible approach towards the world and future generations.
- Turkey's local energy resources have enormous potential, and most of them are renewables. To add to this positive picture, it is worth attracting attention to the additional 58 billion kWh that Turkey could potentially save by improving energy efficiency in buildings and industry over the next eight years. Rehabilitating existing power plants could increase the amount of electricity generated over the same time period by another 19 billion kWh per year. If we add these values together, the potential additional electricity that Turkey could generate in the next eight years rises to a significant value of 840 billion kWh.
- A social democratic energy policy has to focus not only on the economic, environmental and security dimensions but also on the social dimension. Therefore, it has to focus on benefiting citizens and society in general. The exploitation and waste of limited resources, such as nuclear or fossil fuel energy sources, will not ultimately promote citizens' well-being and security. Economic welfare, peace and environmental preservation can only be secured with a more effective and intelligent use of energy, mainly through the development of renewable energy sources. Using less energy entails harming the environment less and saving money at the same time.



CONTENTS

Introduction	3
1. Turkey's Current Energy Situation – Defining the Challenges	3
The Import of Fossil Energy Sources	4
Turkey's Electricity Generation	5
Natural Gas Distribution and Electricity Grid	8
Energy Efficiency and CO2 Emissions.	10
Turkey's Local and Unused Energy Resources	10
2. Seven Principles of a Social Democratic Approach to Turkey's Future Energy Policy	11
1. A secure supply of energy for all citizens must be guaranteed by the government and independent regulating authorities.	12
2. Energy security entails reducing Turkey's import dependency and developing its local and renewable energy sources.	12
3. Reducing CO2 emissions is essential for an ecologically and economically sustainable energy policy.	14
4. Using energy more efficiently is the best way to reduce Turkey's energy bill and its dependency on imports.	14
5. Promoting renewable energy resources through higher incentives creates new green jobs, but renewable energy technologies require significant R&D and local manufacturing efforts.	15
6. Nuclear power has proven to be a highly dangerous and unsustainable technology that Turkey should not pursue.	17
7. An integrated foreign energy policy must be designed in a way that contributes to the gradual improvement of Turkey's relations with its neighbors, as well as the opening of the EU energy chapter.	17
To Conclude	19
Literature	20

Introduction

Ensuring access to an affordable, uninterrupted, reliable and modern energy supply is essential for sustainable development, and, moreover, is a human right.

Today, energy issues affect all sectors of society: the economy, employment, transportation, housing, the environment, foreign policy, peace and security, only to name a few. The goal of a strategic modern energy policy must therefore be to connect all these areas with an integrated approach. The challenges of the 21st century are to render countries ultimately more independent from increasingly scarce resources and to contribute to the international solution of the climate and energy crises.

For Turkey, the important challenges to meet are the diversification of energy sources and energy production based on correct demand estimates. Local and renewable energy sources should be used to the maximum extent possible within the total energy consumption profile. This is not only a necessity for energy independence but also a prerequisite for a cleaner mode of life and a responsible approach towards the world and future generations.

Social democratic energy policies focus primarily on the benefits and welfare of citizens. Energy must therefore be provided to all consumers in an adequate, timely, affordable, uninterrupted, clean and socially equitable way. In the long run, energy is an essential prerequisite for the sustainable development and welfare of the whole society.

In the first part of this paper, Turkey's current energy situation will be introduced in a broad manner and analyzed according to the newest available statistical data. The goal is to present the challenges that every Turkish government has to accept nowadays. The second part offers a social democratic approach for meeting these challenges and shows the ways that Turkey can achieve a truly sustainable energy future.

1. Turkey's Current Energy Situation – Defining the Challenges

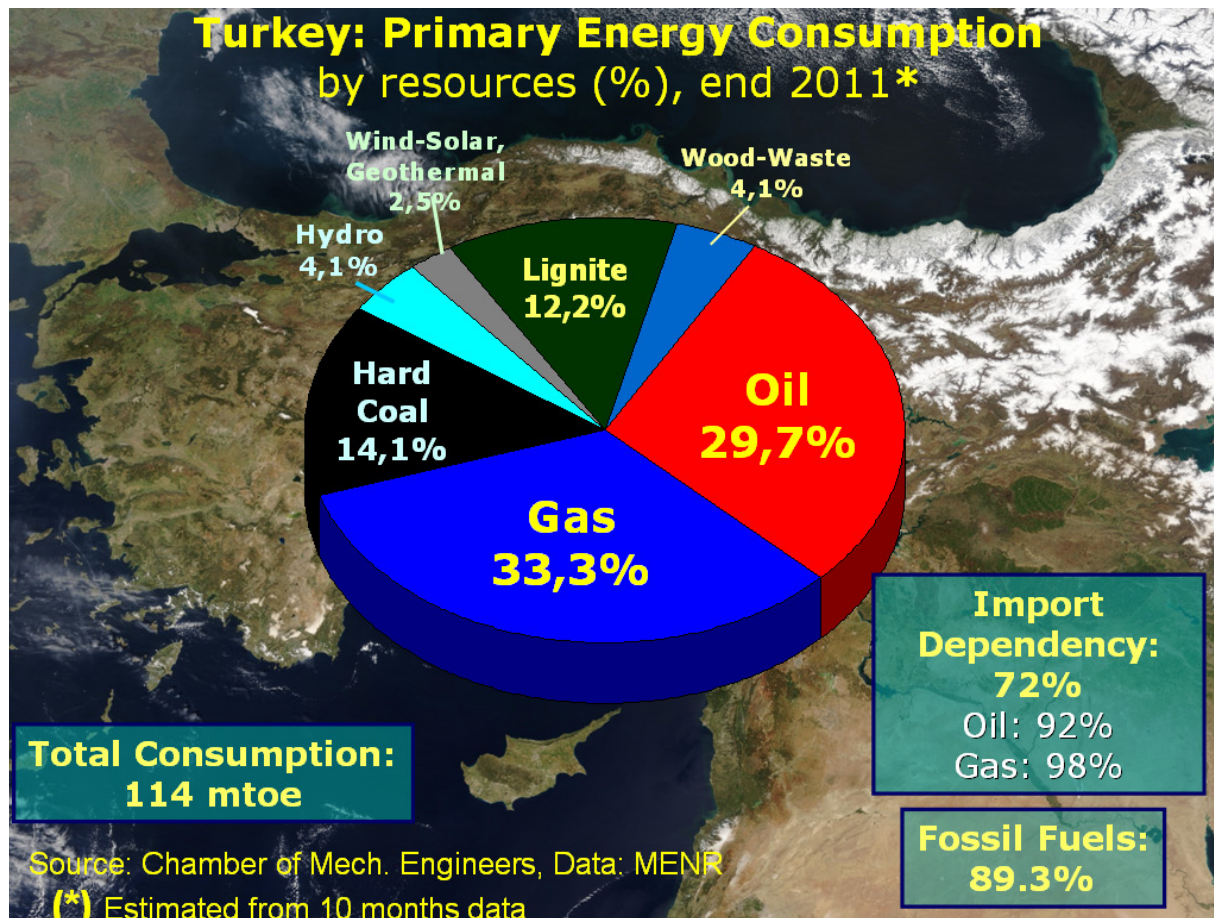
Turkey consumed 114 million tons of oil equivalent (mtoe)¹ from primary energy sources in 2011.

In the same year, electricity consumption reached 229 billion kWh, marking a significant rise (9.9%) from the previous year. **Dependency on energy imports** is rising and reached 72% in 2011, while the percentage was 52% in 1990 and 67% in 2000.²

1 Estimated. The official data had not been released as of March 1, 2012.

2 The Chamber of Mechanical Engineers of Turkey, Presentation: "Türkiye'nin Enerji Görünümü, Nisan (April) 2012"

Diagram 1: Turkey's Primary Energy Consumption by Resources 2011



Turkey's energy mix (primary energy by source) in 2011 (estimated from 10 months of data) is shown in Diagram 1. As can be seen, the share of fossil fuels in total is as high as 89.3%, and, despite claims to the contrary, dependencies on both fossil fuels and imports tend to continue or even rise when new gas and coal fired plant licences issued by the Energy Market Regulatory Authority (EMRA) are taken into account.

The total share of oil and gas within Turkey's total energy consumption reached 62% in 2011. Almost all of these fossil fuels are imported. Turkey imports 92% of its oil and 98% of its gas, which causes **significant vulnerability** in both economic and geopolitical terms. Turkey spent U.S. \$54 billion on oil and gas imports in 2011.³ This figure is almost 22% of our total import expenditures. Such a large burden on the budget is not sustainable.

The high taxes on energy sales in Turkey are seri-

³ Includes crude oil, oil products, natural gas and LPG (liquified petroleum gas) imports.

ously problematic, and constitute a heavy economic load on the consumers. Residential electricity prices increased 88.8% between December 2007 and October 2011. In April 2011, unleaded gasoline prices in Turkey rose to 1.92 EUR/liter,⁴ making Turkey the country with the most expensive unleaded gasoline in Europe.

The Import of Fossil Energy Sources

Turkey imported 18.1 million tons of crude oil from eight countries in 2011. The biggest exporter to Turkey was Iran, with 51% of the total (9.3 million tons). The other suppliers were Iraq (17%), Russia (12%), Saudi Arabia (11%), Kazakhstan (7%), Syria and Italy (1% each) and Azerbaijan, which contributed just 81,000 tons. Turkey also imports oil products (unleaded gasoline, fuel oil, diesel, off-road diesel and jet fuel) which totalled approximately 8.6 million tons in 2010.

⁴ "Thanks" to the highest tax rate (1.13 EUR/liter) in Europe.

Natural gas is imported from five different countries and also from spot markets (in the form of LNG) in minor volumes. Natural gas consumption in Turkey reached 44.5 billion cubic meters (bcm) in 2011. Of the **43.68 billion cubic meters (bcm)** imported, Russia supplied 57% (**25.38 bcm**), Iran supplied 18% (**8.19 bcm**), Algeria and Azerbaijan supplied 9% and Nigeria supplied 3%. Local production made a minor 2% contribution to the total amount of gas consumed in 2011, and spot LNG had a similar stake. Turkey also exported 710 million cubic meters (mcm) of gas to Greece.

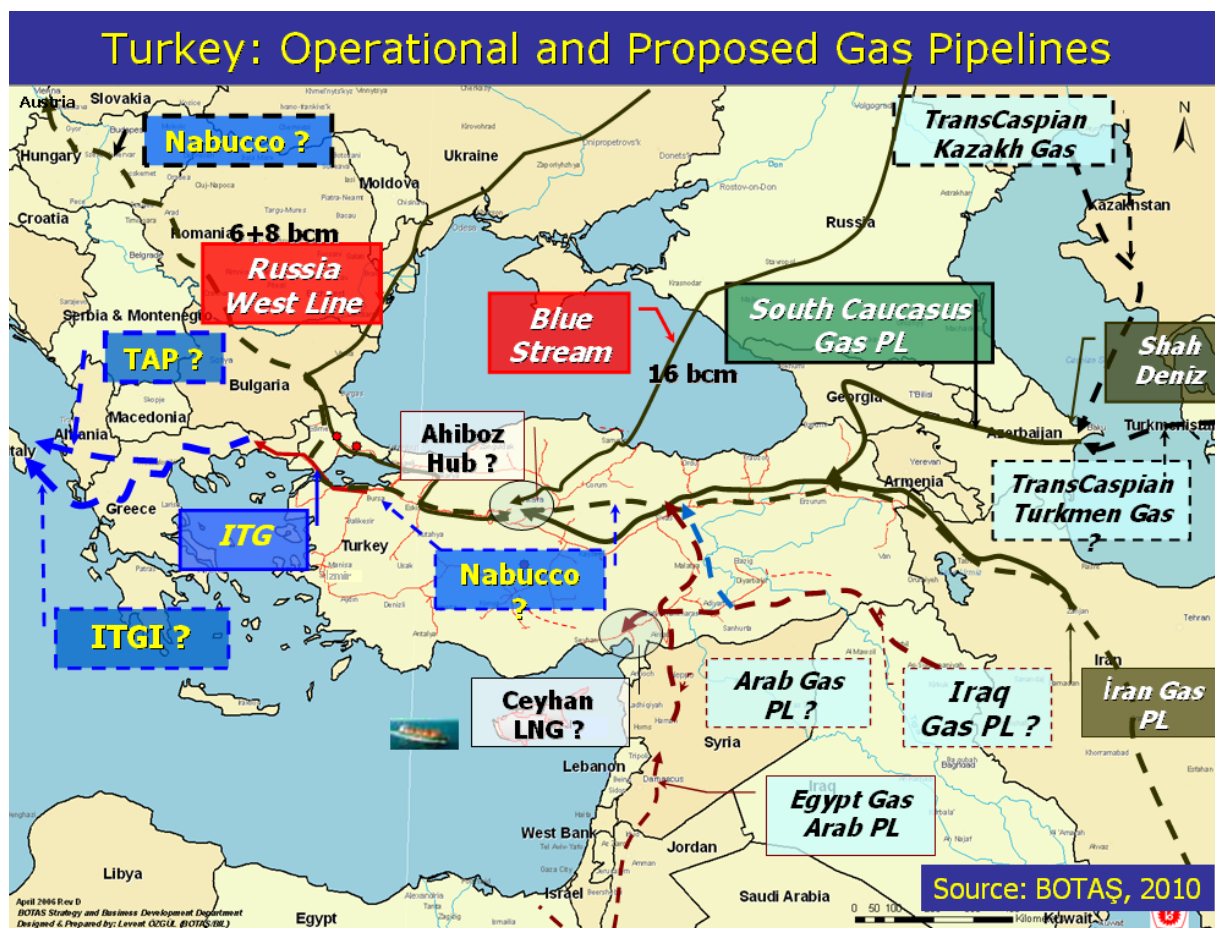
The gas imports from Iran, Azerbaijan and Russia are via two pipelines, while Algerian and Nigerian supplies arrive in the form of LNG. The **operational and proposed pipelines** of the country are shown in Map 1 to better demonstrate the supply routes and the gas network. The existing op-

erational pipelines are shown in solid lines, while proposed ones are shown in dashed lines. A question mark is added for those projects which seem unlikely to be realized due to either a lack of adequate gas supplies or economic and/or geopolitical constraints (as in the case of the Nabucco project).

Turkey's Electricity Generation

Turkey consumed **229 billion kWh** (gross consumption⁵) of electricity in 2011. The share of resources used to generate electricity in 2011 is as follows: natural gas 44.7%, hydro 22.8%, lignite (brown coal) 17.3%, hard coal 11%⁶, fuel oil 1.7%, geothermal and wind 2.4%, biogas and waste 0.2%. Total installed capacity reached 53,050 MW at the end of 2011. Of this capacity, 30.6% was from

Map 1: Operational and Proposed Gas Pipelines in and around Turkey



5 Including losses and nonpayments.

6 The share of local coal is 18.23%, while imported coal contributes a 10.03% share.

gas-fired plants, 32.2% from hydropower, 15.4% from local coal-fired plants, 7.9% from imported coal-fired plants and 2.6% from fuel oil-fired plants. The installed capacity from wind power plants was only 3.2%,⁷ while the installed capacity from all other sources added up to 8.1%.

The electricity sector has a rather “patchwork” structure consisting of state-run plants (EUAS⁸ and affiliates), independent power producers, build-own-operate (BOO) plants, build-operate-transfer (BOT) plants, auto-producers and transfer-of-operation-rights plants. Some of these companies (BOOs and BOTs) have electricity purchase guarantees, while others do not. The sector is run under Law No. 4628 (the Electricity Market Law), which limits new state-run plant installations and leaves the responsibility for constructing new plants totally to the private sector. The distribution of installed capacity and electricity generation between the aforementioned different types of companies, as of 2011, is shown in Table 1.

more imbalanced. The Nuclear Law⁹ gives a U.S. ¢ 12.35¹⁰ per kWh purchase guarantee to nuclear electricity generated by the Russians from a nuclear plant that is in its pre-construction period.

However, a long-awaited law governing the generation of **electricity from renewable resources** has passed through the Turkish Grand National Assembly. Unfortunately, the law has frustrated champions of renewable energy. After a long period of resistance by the World Bank and the World Trade Organization, who were claiming that the law’s draft incentives gave local Turkish investors an unfair advantage, the law was ratified with lower incentives than had been originally indicated. The law (Law No. 6094) was ratified and finally came into force on January 8, 2011, with very modest and discouraging incentives.

According to the law, renewable energy electricity plants are subject to feed-in-tariff prices ranging between US ¢7.3 and US ¢13.3 per kWh depend-

Table 1: Installed Capacity and Generation of Electricity in Turkey in 2011

Turkey-2011 : Electricity Installed Capacity & Generation				
Companies	Installed Capacity, MW	%	Electricity Generation, GWh	%
Electricity Generation Company (EUAS)	20,330	38.32	92,333	40.42
EUAS Subsidiaries	3,870	7.29		
TOTAL STATE RUN	24,200	45.62		
Independent Power Producers	16,603	31.30	62,077	27.18
Build Own Operate	6,102	11.50	44,934	19.67
Build Operate Transfer	2,430	4.58	12,810	5.61
Autoproducers	3,028	5.71	11,708	5.13
Transfer of Operating Rights	688	1.30	4,566	2.00
TURKEY TOTAL	53,051	100	228,431	100

Source: EUAS and TEIAS, 2012

It is hard to defend such a chaotic sectoral structure, which limits fair competition by allowing some companies (e.g. BOOs and BOTs) to have electricity purchase guarantees while “newcomers” may not. New laws are making this existing structure even

ing on the type of resource used. A hydroelectric plant or wind farm can sell electricity for US ¢7.3/kWh, while geothermal energy suppliers can sell at the higher price of US ¢10.5/kWh. Companies that use biomass and solar power are subsidized

⁷ The total installable wind capacity is estimated by the Energy Ministry to be 48,000 MW, but only 1,600 MW has been installed so far.

⁸ EUAS = Electrical Generation Inc.

⁹ Law No. 5710: “Law on Construction and Operation of Nuclear Power Plants and Energy Sale”

¹⁰ Within the agreement, there is an article stating that the purchase guarantee may be increased to 15.5 per kWh under specific conditions.

the most, at a rate of US $\text{¢}13.3/\text{kWh}$. While Turkey has the potential to generate 380 billion kWh a year from its solar resource, such a low incentive does not encourage investments in solar plants. The law also features very modest additional support for companies with facilities that use locally produced components. Such values are far below the incentives given to renewables in Western countries. There is still a need for a master plan regarding renewables.

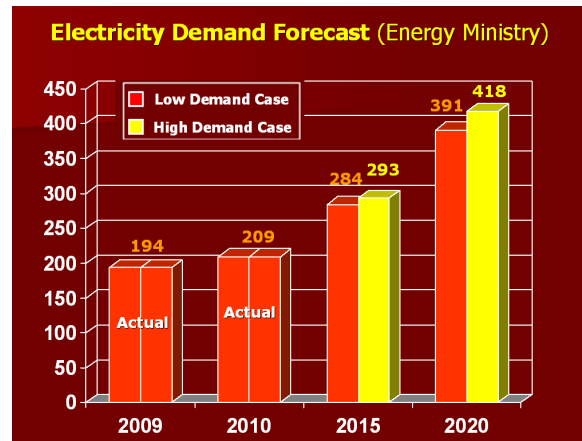
Turkey does not have any **nuclear power** plants yet. However, the government is pushing strongly for the construction of three nuclear power plants. One of them has already turned into an international agreement with the Russian Federation, and **has been ratified in the Turkish Parliament** despite opposition party deputies' votes against it. In addition to its significant and numerous problems, if constructed, the Russian nuclear plant will increase Turkey's **over-dependency on Russia for energy**.

To be more specific, it is worth underlining the huge imbalance in Turkey's overall trading patterns with Russia. Total trade volume between the two countries reached U.S. \$38 billion in 2008. Turkey's exports to Russia comprised only U.S. \$6.5 billion of that, whereas Russian exports totaled U.S. \$31.5 billion. The lion's share of this imbalance consists of oil and gas imports from Russia, and if the nuclear plant is ever constructed by Russia, Turkey's already over-dependent and vulnerable position will be exacerbated. According to the agreement, 100% of the project – meaning everything from construction to operation, from nuclear fuel supply to waste management and removal – is owned by the Russian Federation. In addition to this first nuclear power plant project, additional ones are being negotiated with Japan, China and South Korea. Canada, France and Spain are other countries that have shown recent interest.

The Ministry of Energy and Natural Resources (MENR) foresees that Turkey's 114 mtoe energy consumption in 2011 will rise to 222 mtoe in 2020. The **ministry's forecasts** estimate that local energy production will total 66 mtoe in the same year, which indicates that Turkey will be 70% dependent on energy imports. Such dependence is already creating a heavy burden on Turkey's economy and is not sustainable. Therefore, a radical move towards using more renewable and local energy sources is urgently needed. The country's over-dependence on a single supplier, especially in natu-

ral gas, is a vital risk factor and deserves significant attention.

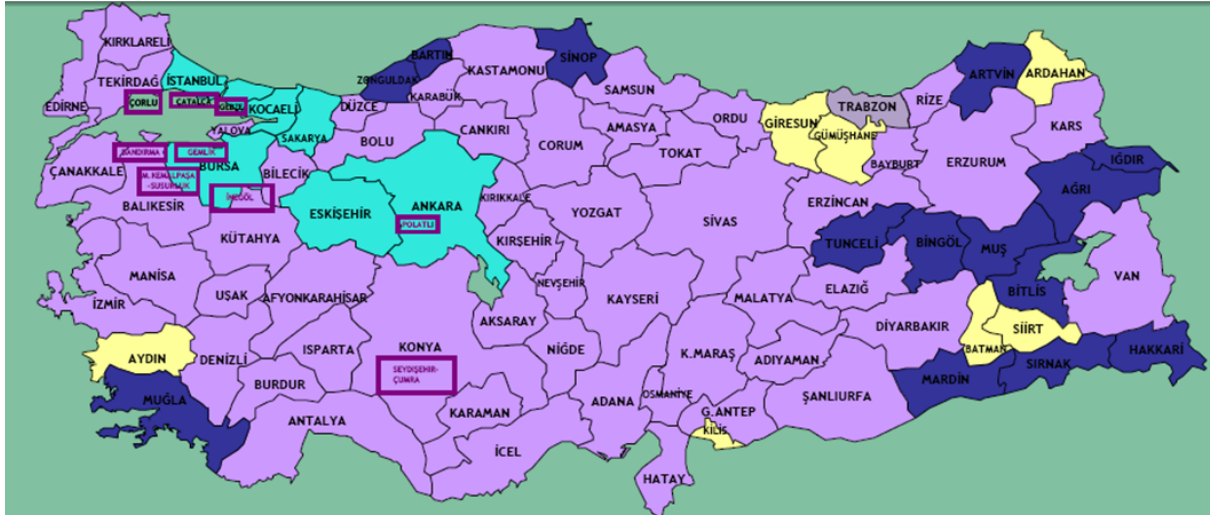
Diagram 2: Electricity Demand Forecast for Turkey by the MENR



The MENR's **electricity demand forecasts** can be seen in Diagram 2. However, the CHP foresees a higher GDP growth rate (7%) to satisfy the job requirements of Turkey's rapidly growing young population, which would then lead to even greater energy demand in 2020.

Natural Gas Distribution and Electricity Grid

Map 2: Natural Gas Distribution License Bids 2010



- Cities having access to gas before Law no: 4646
- Cities where bidding process is completed. Access to gas achieved
- Cities where bidding process is completed; Access to gas not achieved yet
- No bidding yet

Source: Energy Market Regulatory Authority, Gas Market Report 2010

The Natural Gas Market Law (Law No. 4646), which was ratified in 2001, pledges to reduce the market share of the state pipeline corporation (BOTAS) from 100% to 20%, and then unbundle it. BOTAS is expected to be divided into different legal entities and privatized. Between 2001 and 2010, **natural gas distribution licenses** were awarded to private entities in 60 regions. Out of Turkey's 81 biggest cities, 70 have access to natural gas already, as shown on Map 2. The existing gas purchase agreements with "take or pay" commitments are creating the pressure to further increase natural gas consumption in the country. However, in the long run, such a situation will limit Turkey's opportunities for using its local energy sources, such as geothermal, hydro and others.

Turkey is trying to join the interconnected natural gas distribution system of Eastern Europe. In line with this, TEİAŞ¹¹ applied on March 21,

11 Türkiye Electricity Transmission Company

2000 for synchronous parallel connection to the UCTE¹², which was founded in 1950 but has been known as ENTSO-E¹³ since July 1, 2009, with the hope of organizing a synchronous zone across the European Network.¹⁴ In line with this, the Turkish Electricity System has been connected to the Bulgarian Electricity System by two 400 kV transmission lines, and to the Greek Electricity System by one 400kV transmission line.¹⁵ In total, 753.21 GWh energy was supplied through these lines in 2010.¹⁶ Depending on the seasonal demand fluctuations, in 2010, Turkey supplied 753 GW electricity to Greece and Bulgaria and also has imported a similar amount (734 GW) from these 2 countries. Minor amounts of two-way electricity trade had also been realised in 2010 between Turkey

12 Union for the Coordination of the Transmission of Electricity

13 European Network of Transmission System Operators for Electricity

14 EMRA: Electricity Market Report 2010

15 Both Bulgaria and Greece are members of ENTSO E

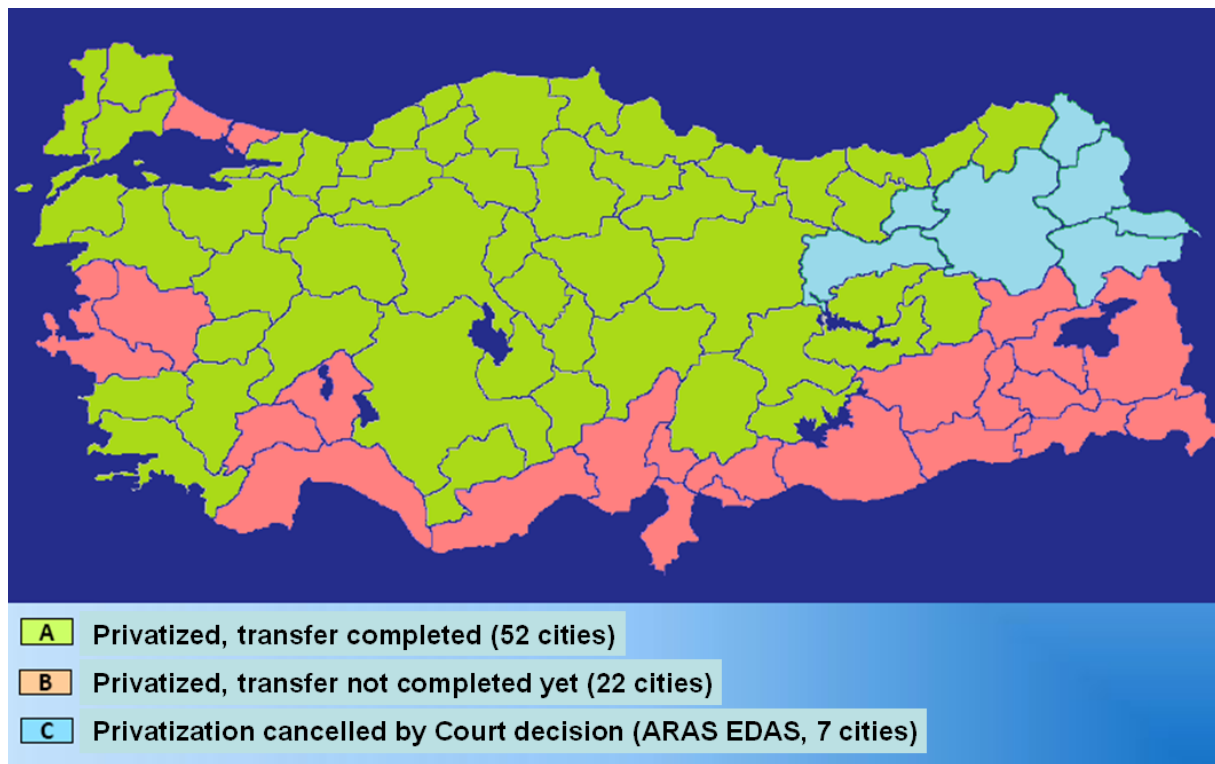
16 734.24 GWh in the form of non commercial energy via Bulgaria and Greece

and Azerbaijan, Georgia, Syria, Iraq and Iran.

The only license holder for electricity transmission activities in Turkey is TEİAŞ. With this natural monopoly, TEİAŞ serves as the electricity market and system operator of Turkey. All generation and distribution companies licensed by EMRA are able to connect to the Turkish transmission system and use the system without any discrimination after they draw up agreements about their connection and use of the system with TEİAŞ. All such activities are regulated by Electricity Market Law No. 4628 and other related legislations.¹⁷

Transfer of operating rights (TOOR) was preferred as a privatization method within the framework of Law No. 4046. In this method, the job of distributing assets remains with TEDAŞ, and all shares of the distribution companies are sold as a whole on the basis of their operating rights. The distribution companies are subject to a tariff methodology, which includes components such as a loss & theft ratio, operating and investment costs and consumption targets that are determined by EMRA. Investors recover their approved network investments through these tariffs. The latest condition in the privatization process, which is operated by the Turkish Privatization Administration, is shown on Map 3.

Map 3: Privatization Transfers of Electricity Distribution Regions



Source: Chamber of Mechanical Engineers of Turkey, 2012

¹⁷ EMRA: Electricity Market Report 2010

The government has privatized 12 out of Turkey's 20 electricity distribution companies. For the remaining 8, the bidding companies offering the highest prices failed to fulfill their payment commitments. Their assurances were turned into cash. The same failure occurred with the second-best proposals. Now, third-row companies are being requested to pay their offered amounts. If they also fail, the bidding process might be canceled. The state power plants are also on the privatization list of the government. Eighteen thermal, 27 hydraulic (dam-based) and 56 river type hydraulic plants, with a total installed capacity of 16,349 MW, are scheduled to be privatized in the next three years.

Energy Efficiency and CO2 Emissions

Turkey has enormous potential for improving its energy efficiency. The state-run General Directorate of Electrical Power Resources Survey and Development Administration (EİEİ) released a report in November 2009 on the energy efficiency situation in Turkey. According to this report, Turkey has a conservation potential of 15% in the industrial sector, 35% in the large-scale construction sector and 15% in the transportation sector. The report further states that the total energy demand for 2020 could be decreased by 45 mtoe. The Chamber of Mechanical Engineers of Turkey forecasts that until 2020, just from improvements in the construction and industrial sectors, we can consume 54 billion kWh less while keeping GDP at the same level.

Energy efficiency is one of the most important areas that a social democratic energy policy must focus on. First, improving our energy efficiency means we will be using energy in a more responsible and rational way. Second, we will spend less on energy imports. Third, we will create new job opportunities. And last but not least, we will pollute less and contribute less to global warming.

Turkey's energy-related environmental data for 2009 is as follows :

- CO2 emissions: 256 million tons
- CO2/Population: 3.57 tons/capita
- CO2/Total Primary Energy Supply: 2.62 tons/toe
- CO2/GDP: 0.72 kg CO2/U.S. \$2,000
- Turkey still has low emission levels compared to

OECD countries, both in total and on a per capita basis. However, the share of fossil fuels in the amount of energy and electricity consumed is high, and, as previously mentioned, is not decreasing under current policies. To reduce our over-dependence (currently 72%) on energy imports, better use our local energy sources, pollute less and create more local job opportunities, Turkey should significantly increase the share of renewables in its energy consumption profile. Turkey has very significant renewable energy potential. However, these resources are sitting idle due to the wrongheaded energy policies that currently prevail. There is a vital need for radical political change in this sector and for a greater understanding of how to use our renewable and local resources.

Turkey's Local and Unused Energy Resources

As previously stated, within Turkey's primary energy consumption profile, the lion's share consists of oil (29%) and gas (33%). However, 92% of oil and 98% of gas are supplied by imports. Although offshore locations in the three seas surrounding Turkey and within the country's deep Paleozoic formations offer a big "speculative" oil and gas potential, these reserves have not been deeply explored. However, Turkey's current oil and gas reserves are totally insufficient and a rational energy policy can not be based on such reserves. Needless to say, under its current energy policies, Turkey's energy and electricity consumption profiles should immediately be redesigned to radically decrease the amount of oil and gas consumed.

Contrary to the common perception, Turkey has significant local energy resources, most of them renewable. Turkey's local energy resources and potential for generating electricity are summarized in Table 2. Oil and gas reserves in the table refer to the remaining recoverable reserves. It should be noted that some of this potential and some of these reserves have already been diverted to production. However, very significant portions of Turkey's renewable resources and lignite are waiting to be developed.

Table 2: Local Resource Potential and Recoverable Reserves

Turkey's Indigenous Resource Recoverable Reserves & Resource Potential	
Resource	Reserve or Potential
Lignite (Brown coal)	11,45 billion tons (<i>low calorific value: 1200 k/kg, high ash content</i>)
Hard coal	1,34 billion tons
Asphaltite	82 million tons
Crude Oil (remaining)	44.7 million tons (<i>end 2009</i>)
N. Gas (remaining)	6.2 billion cubic meters (<i>end 2009</i>)
Hydraulic	140.000 GWh/year (<i>40% had been developed</i>)
Wind	48.000 MW; <i>1600 MW installed, 2500 MW being constructed</i>
Geothermal	31.500 MWt (<i>600 MWe suitable for electricity generation</i>); <i>99,6MWe installed. 127,5 MWe on construction. 66,9 MWe waiting for license.</i>
Biomass	8.6 MTOE; 15,6MW operational
Solar	35 MTEP or 380 billion kwh/year

Source: MENR, Chamber of Mechanical Engineers, 2012

Turkey's lignite and hydraulic potentials offer particularly significant electricity generation capacity with higher capacity utilization rates. However, we have to note that Turkey's lignite generally has low calorific value and high sulfur content. While this potential is still vital for reducing Turkey's dependency on imports and creating new jobs, the implementation of clean coal technologies and carbon capture and storage facilities will also be critically important to the development of this valuable resource.

As previously stated, Turkey consumed 229 billion kWh of electricity in 2011. Listing the potential electricity that could yearly be generated from the country's still underutilized local resources may demonstrate the country's local potential and why there is a vital need for a paradigm change¹⁸:

- Hydroelectricity: 100 billion kWh (31,000 MW)¹⁹
- Lignite: 116 billion kWh (16,280 MW)

¹⁸ The source for these figures is the Chamber of Mechanical Engineers of Turkey, 2012.

¹⁹ The installable capacity figures are taken from the report "Türkiye'nin Enerji Görünümü-2012" (Turkey's Energy Outlook-2012), published by the Chamber of Mechanical Engineers, April 2012.

- Wind: 120 billion kWh (48,000 MW)²⁰
- Geothermal: 16 billion kWh (600 MWe)
- Solar: 380 billion kWh (290,000 MW)
- Biogas: 35 billion kWh (4,000 MW)

As can be seen, Turkey's local energy resources have an enormous potential, and most of them are renewable. To add to this positive picture, it is worth remembering the additional 58 billion kWh of potential electricity that would accrue if energy efficiency were improved in Turkey's industrial and construction sectors between now and 2020. Rehabilitating existing power plants could allow Turkey to generate an additional 19 billion kWh each year. If we add these values together, the extra **electricity that could be generated in Turkey rises to a significant approximate value of 840 billion kWh** a year.

2. Seven Principles of a Social Democratic Approach to Turkey's Future Energy Policy

A social democratic energy policy has to focus not only on economic, environmental and securi-

²⁰ Based on wind speed between 7 and 9 meters/ second

ty dimensions, but also on the **social dimension**. Therefore, it has to focus on the welfare of citizens and of society in general. The exploitation and waste of limited resources like nuclear or fossil fuels will not maximize the well-being and security of citizens. Economic welfare, peace and preservation of the environment can only be secured with a more effective and intelligent use of energy, especially through the development of renewable energy sources. Using less energy entails harming the environment less and saving money at the same time. The use of renewable energy resources on the other side guarantees a higher security of supply and independence from imports.

A truly social democratic energy policy must be based on the **principle of sustainability** in all its dimensions: ecological, economic and social. An **ecologically** sustainable and responsible energy policy must attempt to stop the global climate change caused by rising emissions of carbon dioxide and other greenhouse gases, which threatens all of mankind and is the most pressing challenge the world faces today. Also, it should focus on the **economic opportunities** that this global challenge offers. If functioning markets are combined with appropriate state regulations, the sectors of construction, heating, transportation and energy technology offer great potential for sustainable growth and green jobs.

Finally, guaranteeing a secure and available energy supply is a central social responsibility of the government. In the same manner, consumer interests and a **socially just** system for distributing energy must be ensured so that poor households in particular do not get hit too hard by high fuel and electricity prices. Therefore, Turkey should decrease its fossil fuel dependence and diversify its energy mix in coming years. Social policies should be developed to protect people who are too poor to pay high energy bills.

It is high time for a **long-term strategy and immediate political action**. This chapter will lay down seven general principles of a social democratic energy policy for Turkey and formulate concrete policy propositions to swiftly tackle the current energy challenges. A social democratic energy policy such as this, relying mainly on renewable and local energy sources as well as on improved energy efficiency, will not only lead to the more sustainable development of the country, but also safely satisfy Turkey's growing energy demand and de-

crease its over-dependencies in the energy sector.

1. A secure supply of energy for all citizens must be guaranteed by the government and independent regulating authorities.

Ensuring access to affordable, uninterrupted, reliable, clean, diversified and modern sources of energy is essential for sustainable development, and, moreover, is a human right. These are the basics of what we should understand by "energy security". To this end, it is the responsibility of a social democratic government to provide energy security and modern energy services to all citizens, without any exception and at affordable prices. Therefore the state should plan, control and regulate the sector and not leave it exclusively in the control of the private sector. The current Electricity Market Law No. 4628 limits the state's investment ability and leaves the development of the electricity sector exclusively in the realm of the private sector. Under the current policies, if the private sector decides that investing in a particular resource is not highly profitable and declines to invest, the sector will suffer from the lack of investment. Therefore, state-run companies should not be further privatized but should instead be reorganized around a vertically integrated structure.

The regulatory and competition authorities (the Energy Market Regulatory Authority and the Turkish Competition Authority) should be reorganized as autonomous entities. Given their current structures, in which the management teams are all assigned by the government, it is hard to expect them to independently regulate the market. Consumers' organizations, relevant trade unions and representatives from the Chamber of Engineers should also be represented on the boards of these "independent" authorities and state-run energy corporations.

2. Energy security entails reducing Turkey's import dependency and developing its local and renewable energy sources.

Turkey's dependency on energy imports places a heavy burden on the economy and limits the country's rational mobility on foreign policy issues. Sixty-two percent of Turkey's energy consumption comprises oil and gas, and 92% of oil and 98% of gas is imported. Such dependency should gradually be decreased by increasing the share of renewables

in the energy mix, diversifying the mix with other sources and improving the current low level of energy efficiency. This should be done in the quickest way possible, because the burden of energy imports on the economy is not sustainable. That dependency has the potential to make Turkey more vulnerable on other foreign policy issues as well.

As mentioned before, Turkey has significant domestic energy resources, most of them of renewable. It is not enough to list and sum up the potentials, however. A unique strategy must be designed for each resource in order to produce the most efficient, clean and affordable output possible. The current policies do not serve these purposes. Most of the time, due to irresponsible policies that consider neither environmental hazards nor the social dimension, people resist any kind of plant construction in their locality.

To develop our hydropower resources, a new and entirely different strategy should be designed and implemented. As a principal step, the state-run General Directorate of State Hydraulic Works (DSİ) should be transformed into an autonomous corporation. DSİ should then prepare a basin management plan for developing the potential of our rivers. Under the current framework, anyone is allowed to construct a hydroelectric plant on any river without a basin management plan. Most of the time, an environmental impact assessment is declared unnecessary by the relevant ministries. The current policy allows so-called "investors" to freely construct dozens of small dams on a single river, which irreversibly damages the ecosystem. Such policies not only harm the environment but also inevitably provoke local people to react indiscriminately against any type of hydraulic plant. This clean and rich local resource is vital for the country, both for cleaner energy consumption and for decreasing our dependency on imports. Basin management is one of the most important prerequisites to the scientific and decent development of this rich and renewable resource, which could allow Turkey to generate an additional 100 billion kWh a year from a yet un-installed hydraulic capacity of 31,000 MW.

Another vital element of a social democratic policy, which is omitted from the current irresponsible policy, is that environmental impact assessment reports should be a prerequisite for all proposed hydro projects, with no exceptions. The current applications are usually copy-and-pasted reports pre-

pared under the control of the investors, and local people are almost totally left out of the planning and consulting process. EU Directive 85/337/EEC, known as the "Environmental Impact Assessment" (EIA) Directive, or Directive 2001/42/EC, known as the "Strategic Environmental Assessment" (SEA) Directive, can be taken as reference documents. The relevant ministries currently side exclusively with investors, creating situations where security forces physically confront local people who are trying to defend the ecosystem in which they live. To prevent these types of altercations, the minimum amount of water necessary for the local ecosystem to sustain life should scientifically and objectively be calculated by the State Hydraulic Works. Through careful inspections and deterrent measures, the state should ensure that the requisite amount stays in the ecosystem at all times.

For oil and gas exploration, the state-run Turkish Petroleum Corporation (TPAO) should be reorganized so that it also has an autonomous management committee and a vertically integrated organizational structure. The current organizational structure includes exploration and production, and a very limited number of gasoline stations. However, functions such as transportation, refining and distribution are excluded. The company should then develop a master plan giving priority to offshore and Paleozoic onshore potential basins. While increasing the share of local oil and gas production to decrease Turkey's import dependency is a preferable policy, our main aim in the long run should be decreasing the overall percentage of these sources in our primary energy consumption. A social democratic oil and gas policy will strive to reduce the percentage of imported energy we consume to less than 30%.

Turkey should explore its offshore hydrocarbon potential with TPAO leadership. The exclusive economic zone issue has been resolved in the Black Sea. The same should be done for the Aegean and Mediterranean Seas. Greece and the Greek Cypriots should see that unless there is an end to the current conflicts with Turkey, no party will benefit from the vast hydrocarbon potential these seas offer. The social democratic parties of these countries can collaborate to explore and develop those hydrocarbon reserves with joint projects. Financial assets should be diverted toward exploration efforts, not toward military expenses.

Turkey has 11.45 billion tons of lignite, but it is a

variety low in calorific value and high in sulfur content. The state-run Turkish Coal Enterprise company (TKİ) should develop and produce these coal mines, since it has 55 years of experience and expertise in the field. However, most mine development rights are transferred to private companies with little or no experience. This is not just alarming from an economic point of view but also sometimes a reason for serious occupational safety and health problems. To avoid such problems, the TKİ should be in charge of developing these mines. For coal-fired plants, clean coal, carbon-capture and carbon-storage technologies should be required. Maximizing the amount of local engineering used in the design, construction and operation phases along with the hiring of local workers is another aspect of our coal development policy. Recently, the EMRA has been providing more and more licenses for imported coal-fired plants. In principle, we reject such plants because they increase our dependency on imports and limit hiring opportunities for the local working force. A Chamber of Mining Engineers report states that for a local coal-fired plant, the number of local workers needed to carry out the whole process (producing and processing the coal, constructing and operating the plant) is three times that required for an imported coal-fired plant. Therefore, developing our domestic lignite carries benefits for society overall as well.

Coal, and Turkish lignite in particular, has the potential to significantly pollute the environment if clean coal technologies are not used. Therefore, our social democratic energy policy dictates that clean coal technologies are required for the construction and operation of coal-fired plants.

When it comes to selecting the site for a power plant, the current method involves irresponsible decisions that enable plant construction on agricultural lands, forests and protected historical areas. Similarly, for hydroelectric plants, local people rightly mount fierce resistance movements against coal-fired plants, mainly due to these irresponsible policies. Power plants should never be constructed on farm lands, forests or protected areas. Imported coal-fired plants pose another problem, because they cause further dependence on imports. Our social democratic policy opposes the use of imported energy sources and “cheap” imported foreign workers. We strongly encourage the use of Turkey’s local work force, as well as its local engineers and designers.

Last but not least, diversification is a requisite for a rational energy policy that is focused on a secure supply. The energy sources, supplier countries and transportation routes should all be diversified. Of all the energy Turkey currently consumes, natural gas accounts for 33% and oil for 29%. Since almost all of these supplies are imported, our reliance on them is a vital problem which needs immediate attention. In total, more than 70% of these sources are imported from Russia and Iran, which is another critical over-dependency issue. The amount of oil and gas we import from these countries should gradually be decreased.

3. Reducing CO₂ emissions is essential for an ecologically and economically sustainable energy policy.

Global warming is a real concern for the world. This is another reason to decrease the preponderance of fossil fuels in Turkey’s energy mix. With every minute that passes without a dedicated policy promoting renewables, it becomes harder and more expensive to meet our energy security needs and ensure a cleaner future for coming generations. As stated in the executive summary of the IEA’s World Energy Outlook 2011, “...if stringent new action is not forthcoming by 2017, the energy-related infrastructure then in place will generate all the CO₂ emissions allowed in the 450 Scenario up to 2035, leaving no room for additional power plants, factories and other infrastructure unless they are zero-carbon, which would be extremely costly. Delaying action is a false economy: for every \$1 of investment avoided in the power sector before 2020, an additional \$4.3 would need to be spent after 2020 to compensate for the increased emissions.”

Our policy, which aims to radically increase energy efficiency and the use of renewables, guarantees a cleaner, more independent and more efficient future. By the year 2023, we propose accomplishing the following goals:

- Starting with public buildings, energy consumption will be significantly reduced. A 20% reduction in primary energy use compared to projected levels will be achieved by improving energy efficiency.
- Electricity transmission losses will be reduced to 8%.
- Nonpayments will be reduced by social poli-

cies. Such policies will include subsidies for poor families in the form of appropriate adjustments to their electricity bills. The amount corresponding to 200 kwh per month will be subsidized²¹.

- Forty percent of Turkey's energy mix will be supplied by renewables.
- Greenhouse emissions will be reduced by 20% compared to 2000 levels.
- Starting from 2017, at least 20% of new buildings' annual energy demand will be supplied from renewable energy resources.
- Strict measures will be applied to ensure that such targets do not remain purely theoretical but are actually put into practice.

4. Using energy more efficiently is the best way to reduce Turkey's energy bill and its dependency on imports.

Energy efficiency is the best policy tool for reducing energy consumption since it reduces our import dependency and decreases our expenditures on imported oil and gas while simultaneously diminishing greenhouse gas emissions. Turkey's energy efficiency is currently 0.27 toe/U.S. \$1000. This is quite high compared to the OECD average, 0.18 toe/U.S. \$1000. There is a significant potential for improvement in Turkey. The EU foresees a 20% improvement in energy efficiency by 2020. Turkey should aim for an ambitious energy efficiency increasing target of 25% from today's level) until 2023, the 100th anniversary of the establishment of our republic. The potential savings amount to approximately 25 mtoe.

The industrial and building construction sectors have the highest potentials for improvement in this area. Buildings constructed before 2000 consume twice as much energy compared to the buildings permitted under current by-laws. Tax exemptions or reductions are critical for a successful energy efficiency strategy. The improvement should be initiated by state-run entities, which can set the pace for other sectors. These improvements should target the car fleets, buildings, machinery and industrial processes used by those state-run companies. In addition, the energy efficiency initiatives will create many new job opportunities. The EU estimates that 2,000 full-time job opportunities open up for

²¹ The Chamber of Electrical Engineers made a study in 2011 which indicated that a family with 4 members consumes 230 kwh per month for their basic electricity needs.

every 1 mtoe reduction in energy consumption based on energy efficiency improvements. Thus, a dedicated energy efficiency improvement program has the potential to create approximately 50,000 new jobs. Therefore, energy efficiency is a priority of our social democratic energy policy not only for decreasing dependency on imports and greenhouse gas emissions but also for lowering unemployment rates.

Overestimating gas demand in Turkey is another serious problem that has eaten up billions of dollars in payments under "take-or-pay" commitments. In the late 1990s, in an effort to justify the construction of several gas-fired plants, Turkey's gas demand estimates were exaggerated. As a concrete example, consider the disparity between the estimated and actual gas consumption figures for the year 2010. Turkey's estimated gas demand for 2010 amounted to 55 bcm, but only 38 bcm were consumed. Turkey paid \$4.6 billion to Iran, Russia and Azerbaijan during 2009, 2010 and 2011 because of its take-or-pay obligations. While some of this amount may be deducted in coming years (if Turkey purchases more than the amount to which it has committed), a significant volume will likely never be deducted. Since Turkey has a very limited gas storage capacity (2.6 bcm), solving this critical issue will not be easy. Developing an adequate gas storage capacity is vitally important, and requires a strategic and immediate solution. While a new storage facility with a capacity of approximately 1 bcm is finally under construction beneath Turkey's Salt Lake, after being delayed ten years, it is not expected to be fully operational for another eight years.

5. Promoting renewable energy resources through higher incentives creates new green jobs, but renewable energy technologies require significant R&D and local manufacturing efforts.

The share of renewables in Turkey's energy mix should swiftly be increased through rational incentive policies. Such incentives should not be confined to electricity generated from renewables. Purchase guarantees should also go to local manufacturers of turbines for wind and hydroelectric plants and PV panels. Such an integrated approach will also create a significant potential for employment. While current incentives barely encourage investment and the rapid development of Turkey's

renewable, clean and local sources, even the delayed Law No. 6094 is a positive step, albeit an insufficient one. The incentives provided for companies with facilities that use locally produced equipment and components are also insufficient. The incentives should be revised and increased. But those revisions should occur in parallel with a strategy that will promote local manufacturing of hydroelectric turbines, wind turbines and solar panels in Turkey.

The percentage of renewables in Turkey's total energy consumption mix should be significantly increased in the coming decades under such a strategy. Such a strategy should also include the construction of new transmission lines, which will enable wind and solar installations in remote areas to be included in the overall system.

Turkey has an installable wind generating capacity of 48,000 MW, but only 1,600 MW is currently in operation. The total amount of electricity that could be generated from wind is calculated to be 120 billion kWh. The incentives provided in Law No. 6094 are insufficient and should be reviewed and revised upward. The law foresees that these incentives will be revised after the end of 2015. These revisions may drive the incentives downward, however, cooling interest in investment. The incentives should be increased and the terms should be openly defined, so that no space is left ambiguous or possibly discouraging to investors.

The implementing regulations should be prepared in close coordination with sector players, not with speculators who only hold licenses for speculative purposes, to develop Turkey's local manufacturing and investment capacity in a realistic way. The current licenses were given away in a one-day "bidding" round for 48,000 MW of wind capacity, while the submitted applications amounted to the much higher value of 78,000 MW. This chaotic environment is a real obstacle, and inhibits serious investors. This speculative environment should be improved by any means, including legal measures.

Environmental sensitivities should be addressed in a responsible way and turbines should not be placed in agricultural lands and protected areas. Currently, the responsibility for connecting a new installation to the electricity network falls on the shoulders of the investor, which further dampens the investment environment. A lump-sum incentive approach should be developed to encourage investments in wind energy.

Turkey has a very significant solar potential. If fully utilized, Turkey's solar resource could contribute an estimated 380 billion kWh to the amount of electricity generated in Turkey. Photovoltaic solar plants require 10,000 - 30,000 square meters per 1 MW of installed capacity. Turkey's southern half has 12,000 square kilometers of poor-quality land that is available for the installment of PV panels. Therefore, there is no need to use agricultural lands for such installations, as has unfortunately been common practice for thermal and hydroelectric plant constructions in recent years. The vast area of land available for PV panels could provide as much as 500 billion kWh of new electricity. However, 380,000 billion kWh is the safer estimate.

Today, for a 5–10 MW capacity solar PV plant, a turnkey price of U.S. \$2.5 million– 2.7 million is given. With these prices and the purchase prices (U.S. \$13.3/kWh) guaranteed by Law No. 6094, a payback period of 13–16 years is needed. However, technology is developing rapidly, and prices are exponentially declining for this sector. Turkey's most potent local resource is solar energy, since it is rich, clean and renewable. And if local manufacturing capacity is developed simultaneously, the benefits will be multi-dimensional. New job opportunities will open, and Turkey can begin exporting locally manufactured PV panels and other related equipment to neighboring countries. Turkey's universities and private sector have great interest in this sector, and have already initiated efforts for the large-scale production of PV panels. These efforts will be coordinated with and promoted by the state, and a rational roadmap with a realistic target will be set. In 30 years, a total solar capacity of 380,000 MW is estimated to be fully installable.

Biogas (from municipal waste, energy plant waste and industrial waste) is another important local resource that can provide 4,000 MW of installable electrical capacity. The corresponding amount of electricity that could be generated is roughly 35 billion kWh. The expected incentive (purchase guarantee) before the World Bank (WB) and World Trade Organization (WTO) interfered with Law No. 6094 was 14 eurocents/kWh²². However, Law No. 6094, under the pressure by the WB and WTO, ultimately offered a significantly lower purchase guarantee of U.S. \$13.3/kWh. The biogas sector should

²² Before such interference in 2009, the dollar - euro parity was around 1.5. Therefore 14 eurocents/kWh was approximately \$21/kWh which was far attractive compared to the current price of \$13.3/kWh.

receive better encouragement than this, because it is not only limited to providing additional electricity generating capacity but also produces heat and fuel, reduces pollution and brings significant socioeconomic benefits to rural areas.

Located in a tectonically active region, Turkey also has a significant geothermal potential. So far, 198 geothermal areas have been discovered and 550 wells have been drilled. Most of those fields are located in the western part of Anatolia. While some fields are only suitable for producing heat, the 12 fields with reservoir temperatures higher than 130 degrees Centigrade are available for electricity generation. To efficiently develop Turkey's geothermal potential, the current complicated legal infrastructure should be simplified and the unwieldy number of actors in the sector should be reduced. The General Management of Mining Affairs (under the Energy Ministry), the General Directorate of Mineral Research and Exploration, EMRA and special provincial administrations of cities are the major players in this sector.

Turkey needs to develop a rational and ambitious policy for developing a national energy technology and innovation program for the energy sector. Universities and the private sector have the potential to develop significant R&D programs. The state should pave the way by providing incentives (tax exemptions, funds, etc.) and coordinating the programs. Turkey's significant renewable resources could then be more rapidly developed, radically improving the country's current, fossil fuel-dominant energy mix to give it a greener profile.

6. Nuclear power has proven to be a highly dangerous and unsustainable technology that Turkey should not pursue.

Nuclear power requires new examination and a much more responsible approach after the Fukushima disaster. Nuclear energy has significant problems that should be solved before Turkey decides to include nuclear energy in its energy mix. Some of these problems are globally acknowledged, such as high initial investment costs, unreliable operational safety, the unsolved permanent waste issue and the risk of nuclear feedstock falling into the hands of terrorists. As social democrats, we are responsible not only for our nation and our generation but also for future generations. To that end, the role of nuclear energy in our society should be responsibly and scientifically reviewed.

Another prerequisite should be a satisfactory answer to the still-unresolved problem of permanent waste removal. It is commonly perceived that increasing the share of nuclear in the total amount of primary energy used to generate electricity would reduce greenhouse emissions. However, the hazards created by the operation and waste burial of nuclear plants pose an equally significant threat. Furthermore, they create a problem for future generations to deal with. Financial concerns are, of course, important. However, operational safety and the risks created by nuclear waste are also vital problems that need serious attention. We cannot risk the lives and health of anyone, including future generations. If these serious problems cannot be solved, Turkey should not use nuclear energy in its energy mix.

If it adopts one at all, Turkey should develop a nuclear policy that is integrated with those of developed countries and the IAEA, with a focus on fourth-generation nuclear plants. Such plants are claimed to be cheaper and safer than their predecessors. However, until they are backed up by satisfactory operational data, these claims are nothing more than wishful thinking. While the IEA forecasted that 360 GW of additional nuclear capacity would come online before 2035 in its World Energy Outlook (WEO) 2010 report, the IEA reduced this additional capacity by half in its WEO 2011 report, after the disaster at Fukushima.

The nuclear power plant agreement that Turkey has signed with the Russian government threatens to increase Turkey's dependency on Russia for energy imports. According to the agreement that was ratified in Turkish Parliament after passing with the support of the ruling AK Party, the construction, operation, fuel supply and waste management of the plant will be 100% overseen by Russians. The proposed VVER-1200 model has no operational record yet. The list of risks goes on even further. In conclusion, this deal is unacceptable and poses significant risks to Turkey.

Despite this, the government is irrationally trying to expand its risky nuclear adventure even further, at sites in Sinop, near the Black Sea, and İğneada, in Thrace. Although the public are excluded from the negotiating process, the details of the deals are immaterial. Given Turkey's aforementioned promising renewable and local energy resources, neither

Akkuyu²³ nor any other location should be planning to host a nuclear plant.

7. An integrated foreign energy policy must be designed in a way that contributes to the gradual improvement of Turkey's relations with its neighbors, as well as the opening of the EU energy chapter.

Foreign policy is one of the most important areas that directly relates to Turkey's energy policy. Turkey has a strategic geographic location. It can be classified as a Middle Eastern, Caucasian, European or Balkan country. It is a natural bridge between countries that have rich hydrocarbon resources and countries with energy thirsty markets. It is a relatively stable country in the region, and has a relatively advanced legal framework. Nevertheless, Turkey's strategic position also makes it vulnerable to potential geopolitical and economic risks. Turkey has common borders and history with many unstable countries in the region, such as Iran, Syria and Iraq. It is over-dependent on Russia for energy imports, mainly gas. Iran is the next most important supplier of energy to Turkey. In 2011, 58% of Turkey's gas imports and 12% of its oil imports came from Russia, while 51% of the oil and 18% of the gas it consumed came from Iran. Turkey imported 43.68 bcm in 2011. Out of this total, 25.38 bcm was imported from Russia, 8.19 bcm from Iran, 4.16 bcm from Algeria (LNG), 3.80 bcm from Azerbaijan, 1.25 bcm from Nigeria (LNG) and 0.9 bcm from spot markets (LNG).

In 2011, Turkey's crude oil and condensate imports are shown in the following table:

Country	Amount (tons)	Percent
Iran	9.287.092	%51
Iraq	3.071.477	%17
Russian Federation	2.131.003	%12
Saudi Arabia	1.965.299	%11
Kazakhstan	1.185.556	%7
Syria	254.655	%1
Italy	116.405	%1
Azerbaijan	80.719	%0
Total	18.092.206	%100

²³ Akkuyu is the location where the government decided to construct Turkey's first nuclear plant of 4800 MW capacity with the Russians. The location is close to city of Mersin located in Mediterranean coast of Turkey. The selected site is reported to be 25 km distance to an active fault plane called Ecemiş.

Such dependency on Iran and Russia makes Turkey extremely vulnerable, especially since some of its recent foreign policy orientations have not been positively received by these countries. Turkey's unnecessarily aggressive policy towards Syria and the construction of a NATO missile shield in Kürecik, in the province of Malatya, have been perceived as direct threats by these two countries.

In addition, Turkey's current policies force confrontations with Greece and the Greek Cypriots, preventing safe and efficient exploration activities of the oil and gas reserves in the Mediterranean and the Aegean Seas. The recent crisis with Israel has further stirred up conflict and a negative investment environment in the Mediterranean Sea. Even relations with Azerbaijan, a brotherly country, have not yet settled since Azerbaijan strongly and negatively reacted to the ruling party's so-called "Armenian Opening"²⁴, which set back our cooperative efforts over international pipeline projects such as Nabucco. Since the principal source of gas flows expected for Nabucco would be from Azerbaijan's Shah Deniz field, Azerbaijan's reaction to AKP's unilateral "opening" before Armenia withdrew from Azerbaijani illegally occupied territory was in the form of sending their gas to Russia and not to Nabucco. While the export volumes to Russia were of symbolic nature (2 bcm a year) it directly demonstrated Azerbaijan's frustration and reaction towards Turkish government.

All these examples clearly show that Turkey needs a new foreign policy approach: one that integrates its energy policies with its overall interests. Such an integrated social democratic energy and foreign policy can gradually end the current conflicts and damages that, ironically, have been caused by the government's "zero problems with neighbors" policy.

On the other side of the bridge, Turkey has a fluctuating and unstable relationship with the EU. The screening of Turkey's energy legislation against the Energy Acquis has been completed. The introductory screening meeting of the Energy Chapter (15th chapter) took place in May 2006, and was followed by a detailed screening meeting in June

²⁴ Turkey halted diplomatic relations with Armenia in 1993 since this state did not recognize Turkey's current territorial integrity and claimed rights on Turkish territorial land. Turkey also closed its borders with Armenia as a reaction to Armenian illegal occupation of 20 percent of the Azerbaijani territory. However, the AKP government initiated an initiative to restore the diplomatic relations and to open the border although Armenia neither officially declared to recognize Turkey's territory nor withdrawn from Azerbaijani land.

2006. Although the screening report is still being discussed in the European Council, it is known that no progress has yet been achieved due to the opposition of the Greek Administration of Southern Cyprus (GASC). Moreover, GASC has stalled progress on the energy chapter by drawing attention to Turkey's controversial exploration for oil in the Mediterranean Sea. Given that the Energy Chapter has not yet been opened with the blockage of GASC, it is estimated that negotiations about the energy chapter will be able to proceed unimpeded once the political GASC factor is overcome. The Energy Chapter is the chapter for which Turkey is the most ready if you focus on technical details rather than political disputes and prejudice²⁵.

Following screening meetings about the "Energy" and "Trans-European Networks" chapters, the "End of Screening Reports" prepared by the European Council and presented to the EC in March 2007 indicated that Turkish national legislation was in accordance with the EU Energy Acquis. Turkey was then acknowledged by the EU Commission as "eligible to start actual negotiations without any set opening criteria." On December 19, 2007, negotiations regarding the trans-European networks chapter opened. The energy chapter is still being evaluated in the European Council. In February 2009, meetings were held with the European Commission to analyze the impact of Turkey's accession to the EU energy market, opening the energy chapter. Detailed studies, mainly focused on the electricity and gas sectors, have since been completed.

The prompt opening of energy chapter negotiations would help implement our energy security policies in close collaboration with the EU.²⁶ Negotiations over Turkey's membership in the European Energy Community were initiated with the support of the EC in September 2009, in Vienna, to ensure a regional energy market in Southeast Europe. Turkey has an observer status in these negotiations. The opening of the energy chapter will also have a positive impact on Turkey's Energy Community Treaty membership process.²⁷

²⁵ "EU divided on opening energy chapter with Turkey", *Hürriyet Daily News*, 2/12/2010.

²⁶ "Turkey-EU Energy Relations"; Tuncay BABALI, Ph.D., MFA of Turkey, Presentation at "Turkey & The EU: Problems & Prospects" Seminar organized by Hungarian Europe Society, IKV & CENS, Budapest, Hungary, April 14, 2011

²⁷ The information cited here reflects "semi-official" views, since they were taken from Foreign Ministry diplomats during private communications.

The so-called Southern Gas Corridor and the projects within this framework constitute another area of energy cooperation between the EU and Turkey. However, as was observed during negotiations before the intergovernmental agreement for Nabucco had been signed, the two sides have both converging and diverging interests. None of the benefits that Turkey expected to reap from the deal, including competitive pricing, transit and trade opportunities, becoming a regional hub and a larger volume of gas purchases, were fulfilled by the Nabucco agreement. If a similar approach is followed during the development of the Southern Corridor projects, both sides may likewise come out no better than before. Therefore a more responsible approach by both parties is needed for a win-win outcome.

To Conclude

Turkey has a great potential of local energy and human resources.

It is eminently possible and straightforward to significantly decrease Turkey's high and risky dependency on energy imports. However, a radical paradigm change and shift in Turkey's energy policies is urgently needed.

The aforesaid seven social democratic principles can provide an independent, environmentally friendly and prosperous energy future for Turkey.

What we need is a social democratic government in Turkey.

Literature

- 1. The Chamber of Mechanical Engineers of Turkey, Presentation: "Türkiye'nin Enerji Görünümü, Ocak 2012"** (Turkey's Energy Outlook, April 2012)
- 2. Enerji Raporu 2011 (Energy Report 2011), Dünya Enerji Konseyi Türk Milli Komitesi (World Energy Council Turkish National Committee),** December 2011, ISSN 1301-6318
- 3. Energy Market Regulatory Authority (EMRA): Electricity Market Report 2010**
- 4. "Turkey-EU Energy Relations"; Tuncay BABALI, Ph.D., MFA of Turkey,** Presentation at "Turkey & The EU: Problems & Prospects" Seminar organized by Hungarian Europe Society , IKV & CENS, Budapest, Hungary, April 14, 2011
- 5. PETDER (Petroleum Industry Association),** Oil Sector Report 2011
- 6. Speech of the Energy Minister in the Turkish National Assembly on the 2012 Budget of the Energy Ministry**
- 7. Türkiye Enerji Politikalarımız (Our Energy Policies for Turkey),** Presentation by Taner Yıldız, the Energy Minister, November 2011
- 8. Enerji ve Tabii Kaynaklar Bakanlığı Stratejik Planı 2011 – 2014 (Ministry of Energy and Natural Resources, Strategic Plan 2011 – 2014)**
- 9. Lecture Notes (Power Point Presentations),** World Energy Politics IR 495, Bilkent University, Necdet Pamir, 2012 Spring Semester



About the Author

Necdet Pamir: Chairman of the Energy Commission of the Republican People's Party (CHP), Instructor at Bilkent, Başkent, Middle East Technical and Istanbul Kültür Universities Chairman in the Committee on Energy Policies, Chamber of Petroleum Engineers, Chief Editor of the website enerjienergy.com, Senior Energy Advisor at StratejiCo. Previous Positions: Member of the Board, World Energy Council Turkish National Committee, Deputy General Manager in the Turkish Petroleum Corp. Chairman in the Chamber of Petroleum Engineers of Turkey, General Coordinator of the Center for Eurasian Strategic Studies.

Imprint

Friedrich-Ebert-Stiftung Turkey Office
Cihannüma Mahallesi Mehmet Ali Bey Sk. 12/D5
34353 Beşiktaş-Istanbul
Turkey

Tel: +90 212 310 82 37
contact@festr.org
www.festr.org

Responsible : Michael Meier
© FES Türkiye, 2012

The views expressed in this publication are not necessarily those of the Friedrich-Ebert-Stiftung or the organizations for which the author works.