

TURKEY'S ENERGY ECONOMY AND FUTURE ENERGY VISION

Turkey will rapidly continue its endeavors towards transportation of the Caspian, Middle Eastern and Middle Asian energy resources to Europe and the world market. Moreover, Turkey will put forth its whole effort for the development of new projects through bilateral cooperation to increase prosperity and enhance the peace of the region.

Taner Yıldız*



* Taner Yıldız is the Minister of Energy and Natural Resources of the Republic of Turkey.

Energy has a pivotal role in every society, touching upon all aspects of life and creating, in particular, an accelerated sustainable economic and social development, which in turn enhances the welfare of people and consolidates the country's standing in the world. The new concepts of world energy require a shift of position in mind and strategic orientation. We are at the edge of a new energy revolution, driven by the world's need for affordable energy and by the real threat of climate change. The coming decades are likely to bring about huge changes in the world's energy system. Future energy policy will be driven by the triple challenge of achieving substantial reductions in emissions of greenhouse gases while ensuring a secure supply of energy, all at reasonable cost to economies.

In order to cope with this challenge, we must change the way we use energy. Increasing the energy efficiency of our economies is an absolute necessity. Also, all of us must move rapidly towards a more diverse, sustainable set of energy resources. This move depends on the aggressive development and deployment of more sustainable energy sources and alternative fuels.

Renewable energy and smart grids will play key roles in order to achieve substantial emission reductions, to recover from global crisis via creation of millions of clean energy jobs, and to achieve sustainable growth. In light of the magnitude of the global problem Europe has since last year been discussing a possible increase of the target of generating 20 percent of energy from renewable sources by 2020 to 30 percent.

Last year, 19.56 percent of primary electricity was generated by renewable assets in Turkey. That figure, according to Eurostat, was 17 percent in EU-27. Turkey's five-year clean energy investment growth rate in the 2004-2009 period is the highest in the G-20. Its 1.6 billion dollar investment in 2009 earned it the 12th place in the G-20 according to Bloomberg New Energy Finance.

Turkey is rich in terms of renewable resources. In geothermal energy resources, for instance, Turkey ranks first in Europe and seventh in the world. Regarding wind energy, a rapid increase in terms of installed capacity—from 20 MW in 2002 to 1000 MW today—has taken place. With the projects ongoing and in the pipeline, wind energy capacity will most likely demonstrate further rapid and sharp increase. With a 132 percent increase from 2008 to 2009 in installed wind capacity, Turkey ranked second after Mexico according to the World Wind Industry Association. And in terms of solar energy potential, Turkey corresponds with Spain and Las Vegas, Denver, and Sacramento in the U.S. (All have more or less the same incoming solar radiation). Turkey has a minimum of 248 TWh per year of solar electricity potential.

We have published our Strategic Plan for the period 2010-2014. The main target is to increase the share of renewable resources by 2023 to at least 30 percent. Other targets are: 10,000 MW installed capacity for wind, 300 MWe installed capacity for geothermal and an additional installed capacity of 5,000 MW for small hydro.

In addition, an improvement of ten percent in energy intensity will be achieved by the year 2015. Demand side energy efficiency investments create three to four times more jobs than new energy supply investments. Another simple fact that reflects the importance of energy efficiency is the fact that investing a single dollar for more efficient electrical equipment saves 3.5 dollars of energy supply investment. An average family can easily consume twice more energy than their neighbor, so changing behavior patterns while fortifying the foundations of an energy efficient lifestyle by integrating some tools, like providing easy access to finance, is also vital.

The main incentive for investing in energy projects in Turkey is the increasing trend in demand. The increase in energy demand has consistently been above the average rate of seven percent annual GDP growth witnessed since 2002, except for the last two years where the impact of the global financial crisis were considerable.

Recent forecasts indicate that this trend will prevail in the forthcoming decades. Some 56 GW of new capacity in addition to our 45 GW existing total installed capacity will be required until 2020. The investment need for the power sector is estimated at about 125 billion dollars until 2020. This high growth rate of primary electricity demand as well as a harmonized legal framework with that of the EU's incentivize investment in this sector in Turkey.

To expand and accelerate the renewable energy business in Turkey, a new, comprehensive renewable energy law which increases and differentiates the existing feed-in tariff and other incentives, while covering other major aspects of energy policy as well, is going to come into effect as soon as possible. By offering incentives we provide for renewable energy, we aim for Turkey to become a key destination for clean energy investments in the future.

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Integration of nuclear energy into the Turkish energy mix is also going to be one of the main tools in responding to the growing electricity demand while avoiding increasing dependence on imported fuels. We look at the nuclear energy issue from technological perspectives. This technology-oriented approach includes supply diversification in the power generation mix, increased efficiency of power generation and maintenance of the competitive structure of power generation.

It is important to note that in mitigating climate change and transforming our economies to a low carbon scale and achieving competitiveness, nuclear energy plays a key role. It is an inherent fact that nuclear energy greatly contributes to the reduction of carbon emissions.

The Turkish government is ready and willing to take on the challenge of climate change, and to take the necessary steps to promote the development of clean energy in both Turkey and the region. We believe that a sustainable energy future will involve a more, not less, diverse range of options encompassing low emissions fossil fuel technologies, nuclear power and renewables, alongside widespread improvements in energy efficiency.

As for the regional role and contributions of Turkey to the world's energy security, it is indeed true that Turkey is geographically a bridge between Europe and Asia. However, with our diverse history, Turkey can also become a bridge between cultures, serving as a platform of exchange to better understand the people in these lands, and their systems. Therefore, it is misleading to view Turkey only as a bridge. Turkey is on the way to becoming a regional center between Asia and Europe. The center of Turkey's energy policy is circular. And the diameter of this circle is equal to the world's diameter. Thus, Turkey's policy on energy security directly affects global energy security.

We understand and take the goal of ensuring global security as a significant responsibility, crucial need and a great contribution to global peace. Here I would like to emphasize that I see the concept of energy and peace as a whole:

Turkey is indispensable when it comes to addressing some of the key global energy problems. Turkey is also at the center of energy geopolitics. We particularly give full weight to national and international transportation issues. I also would like to draw your attention to the factors which make Turkey advantageous in energy transport geopolitics.

First of all, Turkey's geopolitical position offers cost-effective transportation. Second, it guarantees resource diversity in energy. And third, it is global in reach. As a result, Turkey can play a central role in efforts to solve energy problems rapidly and

Turkey is one of the most important routes for the EU's resource transportation. For transporting energy resources from the Middle East and the Caspian Basin, Turkey has an indispensable geopolitical position. Turkey also aims to be a "terminal country" – meaning I which means attaining the position of transporting and ensuring secondary supply resources in energy geopolitics. In other words, now, each step that Turkey takes within the energy policy framework, positively effects the global energy outlook.

I would like to underscore that our steps towards nuclear energy are strong, rationalist, and conciliatory. This step aims to deliver benefits to both Turkey and our neighbors.

But what are Turkey's leading goals for 2020? To make the Ceyhan Energy Terminal one of the key stops for the sea transportation between global energy markets is at the top of Turkey's priorities. At this point our 2020 target is that the Ceyhan Energy Terminal and other integrated facilities deal with about three to four percent of global natural gas supply, and about five to six percent of global oil supply.

For a more stable and prosperous world, Turkey, as the shining star of the Near East is always aware of its great responsibility. Today and in the future, an option without Turkey will not suffice in solving all regional and global problems.

Turkey has proven itself a reliable partner with successful projects such as the Baku-Tbilisi-Ceyhan Crude Oil Pipeline, Baku-Tbilisi-Erzurum Natural Gas Pipeline and Interconnector Turkey-Greece Pipeline. Moreover, studies for Arab Natural Gas Pipeline, Iraq-Turkey Natural Gas Pipeline and Italy connection of ITG Pipeline are well underway.

Here, I would like to emphasize our Government's proactive support for the Nabucco project. Nabucco will contribute to the market economy and is going to have a positive effect on gas pricing mechanisms. Attraction of international buyers and sellers will increase competition.

Europe needs a considerable amount of gas imports in the future, and Nabucco –along with other similar projects– envisage varied gas sources. To summarize, the strategic objectives behind Nabucco are:

- To open a new gas supply corridor for Europe and for the countries involved in the project.
- To raise the transit profile of the participating countries along the route.

- To contribute to the security of supply for all partner countries, and also for Europe as a whole.
- To strengthen the role of the gas pipeline grids of all Nabucco partners in connection with the European gas network.
- To contribute to the well functioning single gas market, by providing transparency and increasing competitiveness, as mentioned in the EU Gas Directive.

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The Turkish Straits are of particular importance as around 3.7 percent of the world's daily oil consumption is shipped through them. This figure is expected to grow due to the expected throughput from the Caspian Sea reaching the Black Sea in addition to the large amounts of Central Asian oil. To avoid potential humanitarian and environmental disasters, the solution lies with the use of alternative oil export options that by-pass the Turkish Straits.

Among the various bypass proposals, the Turkish government supports the Trans Anatolian Crude Oil Pipeline Project based on the comparative advantages of the project over its alternatives. The Ceyhan Terminal has already been designed to receive the crude oil reaching Ceyhan from Kirkuk, Baku and Samsun. These will enable Ceyhan to become a major energy hub and the largest oil outlet terminal in the Eastern Mediterranean.

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To conclude, I am confident that by adopting a more rational approach for energy issues and the myriad factors that shape them, as well as promoting a spirit of partnership and shared endeavor among each energy-related side or party, the world can and will overcome the energy challenges that lie ahead.