



A University-Business Learning Partnership

Power Marketization in Turkey

**Current Studies on Business/Public Policy
Issues in Energy**

An Energy Institute White Paper

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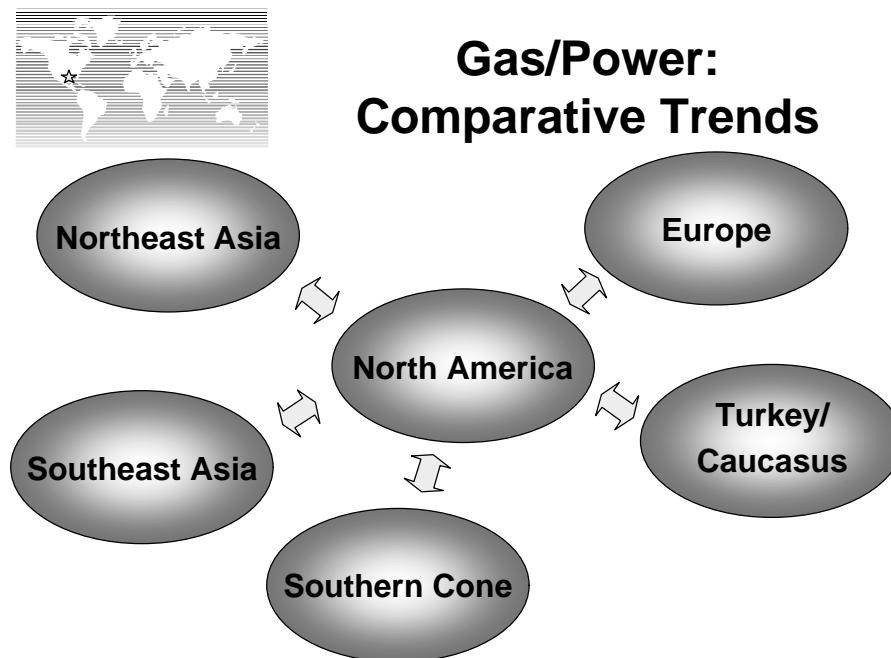
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PREFACE

This latest white paper published by the Energy Institute introduces a new area of research to our portfolio – energy market development, institutional frameworks and ultimately regional energy trade opportunities for Turkey and the Caucasus/Black Sea region. A crossroads between Europe and Asia, Turkey encompasses the full range of issues associated with energy development. Tremendous energy needs exist if Turkey is to progress economically and achieve the global stature that many believe that country should enjoy. A fundamental philosophical and political debate is emerging about how best to build markets for energy in Turkey and whether market-based approaches will provide adequate security, given that Turkey is so dependent upon energy imports. Critical questions exist with regard to the portfolio of fuels that ought to be encouraged, and the extent to which the Turkish government should influence that portfolio. Whatever strategy is chosen, there are two clear needs in Turkey. One is for competitive energy prices, so that all customers can enjoy the benefits of reasonably priced, high quality energy services. The other need is for a more predictable investment climate, so that producers will have incentives to enter the Turkish market and bring with them the efficiencies of new technologies. Finally, one cannot ignore Turkey's geopolitical position with respect to energy development and transportation. Many opportunities exist for Turkey to be a leader in energy market development and trade within the greater Caucasus and Black Sea region. Many opportunities also exist for Turkey to act as an arbiter between East and West when it comes to unlocking the vast energy resources that exist around the Caspian Sea, in Central Asia and in other locations of the Former Soviet Union. All of this potential can only be realized, however, if Turkey makes the right decisions today and in the waning years of this century. To that end, our Institute will play a growing role as a provider of objective analysis on all of these issues within Turkey and the surrounding region.

The work we have initiated with this report is part of an overall goal at the Institute to build a profile of comparative studies on natural gas and electric power trends in key world energy regions, as the diagram below illustrates.



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The Institute and UH are strongly positioned in North America. Our most recently completed report, *North American Energy Integration*, funded through the Shell Interdisciplinary Scholars Program at UH, is a survey of the regulatory and policy environment and energy trade in light of the North American Free Trade Agreement (NAFTA). Similar conditions exist of course in Europe, where the European Union, common market regime and Energy Charter Treaty overlay a set of trade conditions upon energy markets that adds an additional dimension to decision making within member countries. We will soon publish a baseline report on Europe. The

Mercosur trade region in South America (commonly referred to as the Southern Cone) and the potential for trade-influenced cooperative regimes that facilitate gas and power infrastructure networks in Northeast and Southeast Asia are other targeted areas of study.

In all, our interest is in understanding common factors, problems and approaches. Already, we can state the following.

- Pressure from trade flows can change internal conditions within domestic markets, making market-based approaches more acceptable. Countering these forces, however, is the strength of government control.
- Open trade cannot adequately counteract inadequate institutional development within countries. That is why the choices made in Turkey, as well as in other countries, are so critical at this time.
- Economic development is both a constraint and imperative for open energy trade and market-based institutional development. Many of the reasons governments cite for retaining control of their energy sectors are precisely the reasons why government control should dissipate – price disparities across customer groups, inefficiencies in energy production and delivery, lack of modern infrastructure.

Our work will add to the body of research on regional gas/power networks and the role that regional trade regimes play in fostering infrastructure development. Some of these inquiries are taking place elsewhere within the Institute network as well as by outside organizations. We invite the reader to join us in these efforts by providing comment and input on our efforts.

— Michelle Michot Foss, Ph.D.
Director, Energy Institute

Power Marketization in Turkey

Executive Summary

The ongoing economic and financial crisis in Asia shows that the “Asian Model,” which emphasized a crucial role for government in economic development is failing despite recent reform efforts. Japan, a bona fide industrial power continues to suffer from economic inertia. On the other hand, most of the former communist countries have started to reap benefits of full-scale privatization and some have already surpassed Turkey in economic performance. Even in Latin America, significant reforms to reduce government control have been undertaken which led to a healthier economy in most countries. In many cases, energy sector has been one of the first sectors to be privatized. Despite this worldwide trend of marketization, the Turkish economy, especially the energy sector, remains dominated by state-owned companies. Although a privatization program was initiated in the early 1980s, progress has been slow and uneven.

Turkey has great potential with 62 million people, a dynamic private sector and a unique location on the world map as a bridge between consumers and producers of energy. The economic problems of the country – a large public sector deficit and high inflation - are known and solutions offered by the International Monetary Fund coincide with those suggested by different governments that were in power since the early 1980s. These solutions include privatization or restructuring of money-losing State Economic Enterprises, improved tax collection and streamlining of social security and agricultural price subsidy systems. These remedies have been tried and mostly proven successful in other countries with similar problems. However, in Turkey, political instability leading to threats of early elections has always put pressure on parties in power, especially since the early 1990s. There is an apparent need for change in laws governing the involvement of the private capital in certain sectors of the economy. With the current political stalemate in the parliament, however, reforming the constitution is a considerable challenge.

Developments in the power sector provide a critical opportunity to study Turkey’s economic ills and ways to remedy those problems. The efforts of past governments to induce the private sector to participate in the country’s power sector have faced considerable opposition from several groups including SEE employees, bureaucrats and politicians. More importantly, high courts obstructed or delayed a significant number of projects through a very strict interpretation of “public service” as defined in the Constitution of Turkey. Some suggest that there is an ongoing power struggle between governments and high courts, i.e., between legislative and judiciary branches of the state. *This is a serious mistake.* Turkey has the fastest growing economy in OECD, but this cannot continue with the power shortages that the country is now facing. Since 1990, electricity consumption increased at almost nine percent a year while capacity expansion lagged far behind at about 4.5 percent a year. In addition, Turkish industrialists pay the *highest rate* and *highest taxes* for electricity in OECD based on purchasing power parity. In this rapidly globalizing world economy, Turkish businesses cannot be expected to compete while using the most costly electricity among developed nations and unreliable service.

The 21st century is considered by many the age of electronics and information. Economies without secure and competitively priced power supplies cannot be successful in the next century. Turkish energy policy should be made considering this leading role of electricity in economic development and competitiveness. As the country is heavily dependent on imported fuel, the effort should be made to diversify the types of fuels as well as sources of imports. From that perspective, in addition to current LNG-IPP schemes and pipeline gas projects, it is clear that commercial and strategic viability of nuclear fission should receive a closer look. Also, more efficient and clean use of Turkey’s lignite resources and import of hard coal should be seriously considered. Time is another factor that would impact these decisions. The need for capacity expansion is immediate. Long-term projects such as long-distance pipelines or pipelines that are delayed because of geopolitical challenges do not provide an answer to this immediate need. Although close proximity to large suppliers and its clean-burning qualities makes natural gas an almost ideal fuel, there are financial, technical and geopolitical problems that may delay, if not eliminate, most natural gas projects that are currently under consideration. Similarly, because of long construction periods nuclear power is not the solution for immediate problems although it is probably a logical long-term option.

The composition of the fuel mix does not have to be a concern for state planners, however. The main obstacle to reaching an efficient electricity market where demand and supply determine the equilibrium remains: excessive state involvement. When this obstacle is removed, profit-maximizing private companies will choose the most economic fuel for their power plants. Many countries faced the same problems in the past and responded by liberalizing the electricity sector. As a result, consumers in these countries benefited from lower prices. Companies were able to sell electricity for less because they were able to lower costs through increased efficiency. Competition has also led to service innovations and improved investment decisions. Given the importance of electricity as a major input for most economic activities, lower rates also helped lower cost of production in many other manufacturing activities. Turkey needs to follow, without delay, the example of these countries. In particular, the following preliminary but crucial steps should be taken to initiate the reform of the power industry.

- Unbundling of electricity assets.
- Privatization of state electricity assets through sale or public auction.
- Opening up of domestic electricity assets to foreign investment.
- Realization of a competitive market in generation and marketing of electricity.
- Creation of electricity pools and independent system operators.
- Formation of an independent regulatory agency to oversee the competitiveness and efficiency of the new marketplace.

Turkey has implemented certain policies that are in line with these suggestions such as the division of Turkish Electric Authority (TEK) into Turkish Electricity Generation and Transmission Company (TEAS) and Turkish Electricity Distribution Company (TEDAS), two public companies, with the intention of eventually privatizing them. Several governments employed Build-Operate-Transfer (BOT) and Build-Operate (BO) schemes to attract private capital. However, the current struggle between administration and high courts slows down the privatization process and creates an uncertain environment, which discourages much-needed foreign capital and know-how. In most other sectors, Turkey has a very liberal investment regime in which foreign capital receives national treatment. If the same regime can be established for the energy sector as well, international capital will probably prefer Turkey to some other growing energy markets of the world where western market principles are not as well understood as in Turkey.