

# **ENERGY DECISION-MAKING: THE TURKISH CASE**

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The common denominator of most decision-making analyses is the notion that decision-making is the act of choosing between competing alternatives. The alternatives are usually different strategies for solving a problem. The fundamental concept is that decision-making is a process of selection according to some criterion adopted by the decision-maker.<sup>1</sup>

Despite the obvious and long-standing interest of social scientists in decision-making processes, the concept of decision-making was not defined or developed greatly before the 1950s. Beginning in the 1950s and continuing in the 1960s and 1970s, several social scientists began to pay more attention to decision-making processes and brought new dimensions to decision-making analysis.<sup>2</sup> Richard C. Snyder is one of the pioneers in this regard.<sup>3</sup> Decision-making is the process in which a decision-maker chooses the best action out of alternative possibilities given to him. The following elements describe the process:

- Problem recognition,
- Search for alternative solutions,
- Evaluation of the alternatives,
- Implementation of the choice made and assessment of the results.

## **PROBLEM RECOGNITION**

What really is a problem? The recognition of a problem is very important in the decision-making process. The decision-maker must have a prior disposition to fit the casual information he gets into the appropriate context and to recognise the problem.

In defining the issues in the energy sector, the cost and the availability of energy are perceived as the major problems. The main purpose of energy decision-making is to ensure the availability of energy at the lowest cost. Decision-making in energy has to address three interrelated facets: energy demand, energy supply and pricing.

Energy pricing, energy demand and energy supply have always been taken into consideration in the formation of Turkish energy policies and in recognising the problems of the sector. However, a lack of appropriate macro and micro plans in the Turkish energy sector and the different energy policy targets of different energy authorities have brought difficulties in determining the real issues of the Turkish energy sector. The difficulties in the co-ordination of energy policies of the relevant authorities in the sector also negatively affected defining the problems of the energy sector.

## **SEARCH FOR ALTERNATIVE SOLUTIONS**

There is no decision-making without alternatives, but there may not be a complete view of alternatives given. It may even be impossible to define them.

Instead of considering all alternatives, decision-makers typically appear to consider only a few and to look at them sequentially rather than simultaneously. Decision-makers do not consider all consequences of their alternatives. They focus on some and ignore others.

The existence of alternative solutions and alternative resources play special importance in the energy field. In the energy decision-making process, there is a direct relation between energy supply security and the search for alternative solutions. Diversification of resources and having different alternatives are the main tools of the energy decision-making process. The creation of alternative energy policies needs to be addressed within the framework of a country's economic development goals. Alternative energy policies are taken into consideration to realise supply security, investments, demand priorities, power generation, transmission and distribution activities, regulations and so on. The design, implementation and adjustment of alternatives in the energy field are inevitably an interactive process, often involving complex dynamic interactions between different actors in the decision-making process.

Diversification of resources and the development of alternative resources in the Turkish energy sector have become one of the basic issues for Turkish energy decision-makers over the last three decades. Oil and coal have become the main energy source in the last thirty years. Today, those two resources continue to be the main energy sources, supplying almost 70 per cent of Turkey's primary energy. Renewables and other alternative resources have not been properly inserted into the Turkish energy sector in the past. In recent years, natural gas has begun to be perceived as the main alternative energy source for Turkey. However, to concentrate on one alternative source for the sector is not an appropriate decision in terms of diversifying resources or developing alternative resources. Besides natural gas, other alternative resources like renewables and nuclear, should be taken into consideration over the coming years in order to meet Turkey's growing energy demand.

## **EVALUATION OF THE ALTERNATIVES**

This stage of the decision process can make it a circle, for it can reveal further problems and so push the decision-maker back to the evaluation of 'What really is the problem?'

In the field of energy policy, evaluation plays a substantial additional role. The substance of energy policy moves back to the centre of the argument. Specifically, evaluation provides a framework that supports the transformation of energy policy to include reliance on demand-side as well as supply-side options for addressing projected needs.<sup>4</sup>

Turkish energy authorities should attach importance to the evaluation of alternatives in the energy sector. That can be realised with close co-ordination and the co-operation of relevant bodies in the energy sector. Creation of a long-term national energy policy is of vital importance in this regard.

## **THE IMPLEMENTATION OF THE CHOICE MADE AND ASSESSMENT OF THE RESULTS**

This is a difficult element in the decision-making process because it is not in the hands of the decision-maker himself most of the time. However, given the goal of inquiry into improvement of decision-making, it is an essential element. In all policy decisions, implementation of those policies has a special importance. Due to the implementation of the policies, the following question could be posed and answered. Was the choice used the correct one for the problem? If the answer is negative, then the decision-maker should return to the beginning of decision-making process and ask 'What really is the problem?'

The implementation of energy policies calls for co-ordinated and sustained action on many fronts. Planning and management efforts of this magnitude and complexity are not possible without appropriate institutional arrangements.

The adjustment of energy strategies and policies is inevitably a difficult process, often involving complex dynamic interactions between different actors in the decision-making process.

If energy policy could be tackled in isolation and had a single overriding objective, the issues would be easier to deal with. However, energy policies have to be formulated in an international as well as a national setting. It is a part of general economic policy and needs to be consistent with other important policies, for example fiscal and environmental policies.

International relations and international markets are important in determining national energy policies. First, the prices of energy sources in international markets are a determinant shaping national energy policies. The cheapest energy source is generally perceived as the best for the country and its economy in cost analysis. Second, the climate of international relations is also a determinant in making energy policies. The investment conditions, the possibility of co-operation and co-ordination among the countries are dependent on the climate of international politics. The difficulty of co-operation in the energy sector between the Western and the Eastern Blocs during the Cold War is a clear example in this regard. Third, the exchange of technology and information in the international area is especially important in determining policies and decision making in the energy sector. As was mentioned before, one of the basic elements of the energy decision-making process is to create alternatives and to diversify resources. Involvement in international developments and recent technological improvements provide new alternatives for making decisions in the energy sector.

In the national sense, it is generally accepted that the purpose of broad, rational and modern energy decision-making and policy making is to make the best use of available energy resources for promoting economic development, improving social welfare and enhancing quality of life.<sup>5</sup> Therefore, energy policy-making is an essential part of the overall management of the national economy and should be carried out in close co-ordination with overall economic policy-making. However, in energy management, the principal emphasis should be on the comprehensive analysis of the energy sector and of the different energy sub-sectors themselves. The efficient management of government energy related corporations, the provision of correct investment and the determination of prices are also integral parts of successfully implementing national energy policies. Despite this fact, energy policy making also includes a variety of other objectives such as: reducing dependence on foreign sources, supplying basic energy needs, reducing the trade and foreign exchange deficits, priority development of special regions or sectors of the economy, raising sufficient revenues to finance energy sector development, ensuring continuity of supply, maintaining price stability and preserving the environment.

## **TURKISH ENERGY POLICY MAKING**

If we look at the Turkish energy policy making, we witness that there are various weaknesses and shortcomings in the process. First, it is difficult to claim continuity in Turkish energy policies. Second, the actors in the Turkish energy decision-making process are limited in number and important actors that should be in the process do not participate in it. Third, the existing energy plans and forecasts do not give proper guidance to energy decision-makers. Fourth, more co-operation and co-ordination between the actors in Turkish energy policy making is necessary.

Various proposals and evaluations are made below for the Turkish energy sector and the Turkish energy policy-making system.

### **REGULATORY REFORMS**

If we intend to create appropriate conditions for energy policy making, the realisation of regulatory reforms in the energy sector is of vital importance. Regulatory reforms in the energy sector would contribute to decisions that are more rational.

Bearing in mind the importance of regulatory reforms in the energy sector, the fundamental objective of this is to improve the efficiency of the sector and its ability to adapt to change and to remain competitive. The realisation of these reforms can be ensured through independent regulatory bodies. Independent regulatory bodies in the various sub-sectors of energy should be established in the Turkish energy sector. In this regard, an oil regulatory body, a natural gas regulatory body, a coal regulatory body and an electricity regulatory body could be created. Those bodies should participate in policy making and planning processes. Those regulatory bodies could be composed of the relevant actors in energy-related circles, namely, representatives of the public sector, universities, research centres, private sector, non-governmental organisations and the other actors that are directly or indirectly related to the energy sector.

The co-ordination and co-operation of different regulatory bodies is especially important. Thus, such a mission could be realised by a High National Energy Council.

### **CREATION OF THE HIGH NATIONAL ENERGY COUNCIL**

One of the weaknesses in the Turkish energy decision-making process is the lack of an institution to co-ordinate and supervise all energy policies. Such an institution is vitally important for the Turkish energy sector. A High National Energy Council could be established to co-ordinate all decisions and supervise their implementation in the sector. The Council could also ensure co-ordination between different regulatory bodies. This Council could be composed of the chairmen of all regulatory bodies, high-ranking representatives of relevant ministries, State Economic Enterprises, the private sector, universities and relevant non-governmental organisations. The representatives of the political parties in parliament could also be present in the Council.

### **PARTICIPATION OF THE RELEVANT ACTORS IN THE PROCESS**

The President, government, parliament, the Ministry of Energy and Natural Resources, the State Planning Organisation, the Under-secretary of Treasury and the relevant State Economic

Enterprises are the main actors in the Turkish energy decision-making process. Some other institutions like the Ministry of Foreign Affairs, National Security Council, Turkish General Staff and Ministry of Environment also participate in the process from time to time.

In most countries in the world, the state is still the most powerful actor in determining national energy policies. However, especially in Western countries, governments share their power with the private sector, non-governmental organisations, various kinds of associations acting as a link between the government and general public and scientific circles. Consultations between the relevant actors and referendums are important instruments in these countries in making decisions in the energy sector. Consultations naturally engender a spirit of co-operation and a desire to achieve a wide basis of support for state policies. This is why energy policies should be determined in a process of close co-operation between the different actors of the sectors.

New actors like academicians, researchers, representatives of the private sector and civil organisations should be involved in the Turkish energy decision-making process as well.

## **THE INTEGRATION OF THE TURKISH ENERGY SECTOR IN INTERNATIONAL MARKETS AND PRIVATISATION**

Turkey begun its privatisation efforts in the energy sector in the 1980s and has developed models in the sector (like the Build-Operate-Transfer and Build-Operate-Own models). The continuation of privatisation in the energy sector is a vital necessity.

According to official statements of the Ministry of Energy and Natural Resources, Turkey needs in \$4bn annual investment in the energy sector to meet its energy demand. It is impossible to devote \$4bn from the budget for energy investments. Every year the share of energy investments in the budget is between \$1bn and \$1.5bn. Energy authorities expect to obtain the rest of this from foreign investors. Turkish governments should encourage foreign investors. This can be done in two main ways. First, it is necessary to create competitive market rules in the energy sector. Second, necessary legislation for foreign investors should be enacted.

Although there have been several attempts to reform it, the Turkish energy sector is today far from being a competitive market. The state is still heavily involved in the functioning of the energy market. However, the approval of international arbitration and the automatic pricing system of oil products are important developments in this regard. The world is moving to a globalised and integrated economic system unprecedented in human history. In the new global order of the twenty-first century, energy will hold special importance for all countries, Turkey included.

Turkey should be prepared to meet twenty-first century standards, including international standards in the energy sector. In reaching those standards, the restructuring of the Turkish energy sector and the Turkish energy policy making process deserves special attention.

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- 1 Allan, Lerner W., *The Politics of Decision-Making*, Sage Publications, London, 1976, p. 8.
  - 2 See Allison, Graham, *Essence of Decision: Explaining the Cuban Missile Crises*, Harper Collins, New York, 1971.
  - 3 Snyder, Richard C., et al, *Decision-Making as an Approach to the Study of International Politics*, Princeton University, USA, 1954.
  - 4 Walsh, Roberta W. and Heilman, John G. (eds.), *Energizing the Energy Policy Process*, Quorum Books, Westport, 1994, p. 4.
  - 5 Munasinghe, Mohan, 'Developing Country Energy Issues and Prospects' in Pachauri, R.K. (eds.), *Global Energy Interactions*, Rivardale Company, Maryland,