

EMERGING OPPORTUNITIES AND CHALLENGES IN THE CASPIAN

Dr. Yurdakul H. Yiğitgüden

Undersecretary, The Ministry of Energy and Natural Resources, The Republic of Turkey

Today, Turkey is in a drastic industrialisation process with its dynamic population over 62 million and a per capita income amounting to 3,000 \$ of GNP while the energy and electricity consumption per capita are 1.1 TOE of primary energy and 1,500 kWh levels, respectively.

I would like to emphasize that Turkey, with over 400 billion \$ of GNP in terms of purchasing power parity (PPP), is the 17th biggest economy of the world.

While the average energy demand increase in developed OECD countries is forecasted to be 1.4% annually until the year 2010, the rate for Turkey is expected to reach 8% in the same period. This means that Turkey's energy demand will be threefold in 2010.

By the end of 1997, Turkey's primary energy consumption was about 72 million TOE. This figure could be divided upon fuel types as follows: Oil 43%, coal 29%, natural gas 13%, hydro-energy 5%, others 10%.

Turkey has been supplying 60% of her energy by imports from various countries and this rate is expected to rise 70% in 2010, and further to 75% in 2020. As it may be easily understood from such data, Turkey is a growing energy market.

The main portion of the energy import is crude oil with a rate of 70%. Crude oil occupies an amount of 20% of Turkey's total imports. In other words, approximately 30% of total export income is allocated to oil imports.

Turkey's crude oil and oil products demand will increase from 31 million tones in 1997 to 52 million tones in the year 2010 and 63 million tones in 2015. While the indigenous crude oil production was 3.5 million tones in 1997, it is expected to decrease to 1.1 million tones in 2010 and 0.7 million tones in 2015.

Turkey's crude oil imports of about 23 million tones in 1997 are realised from Saudi Arabia (23%), Iran (18%), Iraq (16%), Libya (15%), Syria (12%), Egypt (9%), Algeria (5%) and Russia (2%). Enforced by the necessity of urgent energy investments, Turkey prefers environment-friendly natural gas fired power plants with rapid construction periods and efficient operation.

The share of natural gas in primary energy consumption has been suggested to increase to 27% in 2010. Natural gas consumption which is now 10 bcm, will reach 54 bcm by 2010, increasing five times.

Domestic natural gas production is expected to increase 250 million m³ in 1997 to 620 million m³ in 2000 and then the gas production will be decrease to 130 million m³ in

2005 and around 90 million m³ in 2010. These figures show us the importance of natural gas imports for Turkey.

Natural gas has been imported from Russian Federation since 1987; liquefied natural gas (LNG) has been imported since 1994 from Algeria and in 1998 on spot basis from Qatar.

Turkey possesses limited oil and natural gas resources. Hence special importance and attention have been paid to exploration and production activities in Turkey and abroad.

Main Onshore exploration activities in Turkey are concentrated in two regions:

1. Southeastern Anatolian Region

2. Thrace Basin

Offshore exploration activities in Turkey are being conducted in five regions projects mostly with international petroleum companies:

1. Western Black Sea

2. Eastern Black Sea

3. Mersin Bay

4. Iskenderun Bay

5. Antalya Bay

Located at crucial geopolitical region, Turkey forms a natural bridge between the energy rich countries of Caspian region, Central Asia and Middle East and the markets in Europe. In conclusion; Turkey's critical position will help particularly the Caspian region and Central Asian countries to open up to international markets.

The Caspian Sea Basin is one of the most ancient oil producing regions of the world. As the Soviet Union dissolved in 1991 the Central Asian Republics of Kazakhstan, Kyrgyzstan, Tadjikistan, Turkmenistan and Uzbekistan as well as the Caucasus Republics of Armenia, Azerbaijan and Georgia began their independent political existence. Since then Central Asian and the Caucasus are considered by many to be the next oil and gas frontier. Because of minor investment activities in the past decades there is a big difference between the potential and proven reserves of oil and gas. The potential of the Caspian Basin is estimated to be 179-195 billion barrels of oil and 564-665 trillion cubic feet of gas (Source: US Energy Information Administration, Dec. 98). Proven reserves of the region are between 15-40 billion barrels of oil and 237-325 trillion cubic feet of gas (Source: IEA, Caspian Oil and Gas, 98).

Since the last 5-6 years, together with the big international oil companies, Turkey has commenced its activities in the Caspian Basin with the experience that it has gained from successful domestic and international experience on the past 40 years.

In this frame, Turkish Public and private sector companies are active in exploration and production of hydrocarbons in Caspian Region and also offering their services according to western standards to oil and gas industry.