No 3 | April 9, 2021

INSTITUTE OF ENERGY
FOR SOUTH-EAST EUROPE

SEE ENERGY BRIEF

News Analysis

Turkey's energy policies

Turkey's energy policies

*By Dr. Charles Ellinas**

The International Energy Agency (IEA) published an in-depth review of 'Turkey's Energy Policies' early March. The main conclusion was that heavy dependence on energy imports has made energy security central to these policies.

It has often been said that Turkey's aggressive actions in the East Med are driven by energy – by the natural gas discoveries in the region, of which it is determined to get a share. But do we really understand what is driving Turkey's energy needs and policies? This is important if we are to understand its actions in the East Med over the last few years. IEA's review has helped shed a light to this.

Turkey relies heavily on import of fossil fuels that still account for 83% of its total primary energy supply. The country is importing 93% of its oil needs and 99% of its natural gas needs. As a result, it has made security of energy supply one of the central pillars of its energy strategy.

Domestic energy production

Increasing population and prosperity has led to a massive increase in energy consumption – up 92% since 2000 and still increasing (*Figure 1*).

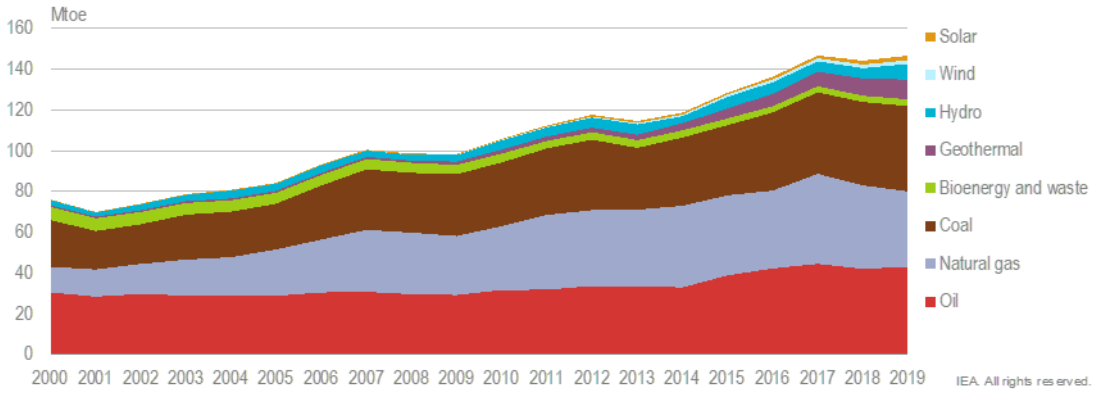

Figure 1: Total primary energy supply by source, 2000-19 - Source: IEA

Turkey has been prioritising domestic sources of energy and diversification of its energy mix, particularly in power generation through growth of renewables, coal/lignite and by 2023 nuclear power. It is also taking measures to reduce energy consumption by increasing energy efficiency, aiming to reduce total primary energy consumption by 14% by 2023.

By 2019 it produced 31% of its energy needs domestically, compared to less than 25% in 2015 (*Figure 2*).

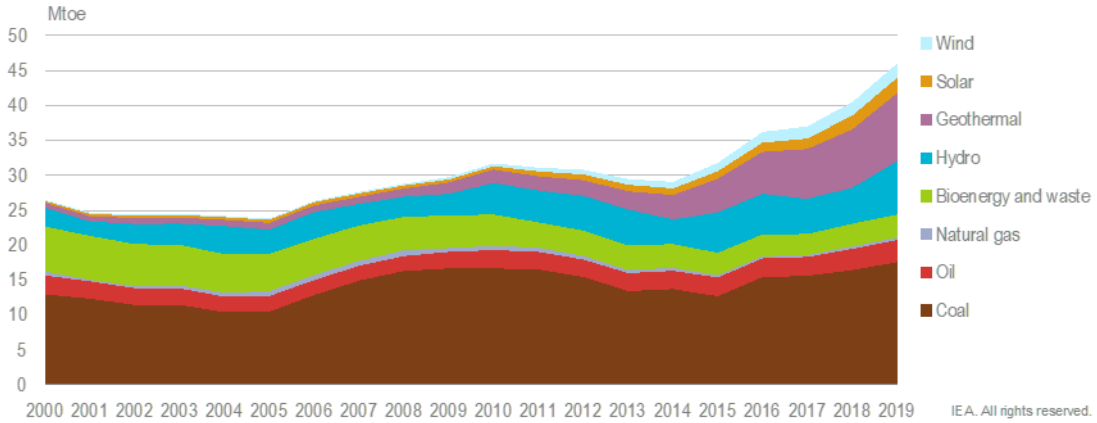

Figure 2: Energy production by source, 2000-19 - Source: IEA

But where it has had tremendous success is in the implementation of renewables – hydro, solar, wind and geothermal energy - that now have reached a 44% share of power generation. Over the last decade renewable electricity generation tripled. Turkey is determined to continue this expansion, with a plan to increase renewable capacity by about 50% by 2024, thus further diversifying its energy mix and increasing its energy security.

Turkey is also implementing an ambitious nuclear power strategy. Its first nuclear power plant, Akkuyu, is expected to be completed by 2023, with installed capacity of 4800 mega-watts (MW) – adding over 5% to the country's power generation capacity.

But while most other countries are switching from coal-to-gas to reduce emissions, Turkey is doing the opposite. It is switching from gas-to-coal is order to reduced its gas-import dependency by boosting domestic production and consumption of its sizeable coal and lignite reserves. But this is interfering with efforts to decarbonise the energy sector. Energy sector emissions in Turkey increased by close 190% since 1990 and air pollution in major cities remains a serious concern.

Security of energy supply

Prioritisation of security of energy supply includes efforts to boost domestic oil and gas exploration and production and diversification of oil and gas supply sources.

Since 2015 Turkey has diversified its heavy natural gas import dependence on Russia by increasing gas imports from Iran and Azerbaijan - through the TANAP pipeline - and LNG imports. It now has two FSRUs – to receive LNG imports and regasify them – and expects another this year. It has also increased its underground gas storage, allowing it to increase LNG import capacity.

The country's strategy to reduce dependence on natural gas imports is meeting with some success. Its highest-ever imports were close to 54 billion cubic metres (bcm) in 2017. By 2019 these were reduced to 47bcm, covering 25% of Turkey's energy needs in comparison to close to a third in 2015 (Figure 1). The target is to bring this down further, to about 20% by 2023.

However, the IEA recommends that Turkey reviews "the cost-effectiveness and distributional impact of its policy to support domestic energy supplies over imports in order to meet security of supply objectives." Further, for Turkey to establish a modern, competitive, economy, the government should pay close attention to the sustainability and longer-term carbon footprint of its energy sector.

Black Sea gas discovery

In August 2020 Turkey announced the discovery of the Sakarya gas-field, in deep water about 170km off its coast in the Black Sea, estimated to have 405bcm gas reserves.

This is expected to diminish the country's natural gas import dependence, particularly as it could meet up to 30% of its annual gas demand. Turkey is planning to commence production in 2023, but many consider this very ambitious. It will, however, give Turkey bargaining power in the renewal of its natural gas import contracts. About a third of these contracts will be up for renewal this year, with most others by 2025.

Turkey has quite low gas prices. In 2019 the price of gas to households was about $8/mmbtu (per about 1000 cubic feet) and to industry close to $3,5/mmbtu. So far in 2021, the average price of Russian gas imports is less than $5/mmbtu.

Implications

Turkey is managing to contain growth of its energy demand and actually has reduced gas imports through increased domestic energy production, particularly through hydro, coal, lignite, solar, wind, and soon nuclear, in power generation.

Natural gas import prices are quite low and Turkey expects to keep these low in the longer-term through the forthcoming renegotiation of expiring gas-import contracts.

Its future energy and natural gas needs are well covered and at competitive prices. Any gas imports will have to beat these low prices if they are to gain any inroads into the Turkish energy market.

This gives credence to the view that Turkey's aggressive actions in the East Med over the last few years are not energy-driven, particularly as the areas it claims to be part of its continental shelf have low probability of gas presence. The drivers behind these actions are geopolitical – pursue of maritime control and hegemony in the East Med.

Hopefully the mode of the future relationship with Turkey proposed in the new 'European Foreign Policy in Times of Covid-19' by Josep Borrell, EU's High Representative, and approved by the European Council on 25 March, will be seen as an encouragement for Turkey to refrain from unilateral actions in the East Med, something that has also been reinforced by recent US statements.

**** Senior Fellow, Atlantic Council, UK and Visiting Research Fellow at IENE***

IENE SEE ENERGY BRIEF - NEWS ANALYSIS - Issue No. 3 – April 9, 2021 – ISSN:179-9163
News Analysis is published by the INSTITUTE OF ENERGY FOR SOUTH-EAST EUROPE (IENE)
3, Alex. Soutsou st. 106 71 Athens, Greece, T: +30-210 3628457, 3640278, F: +30 210 3646144, marketing@iene.gr, www.iene.eu