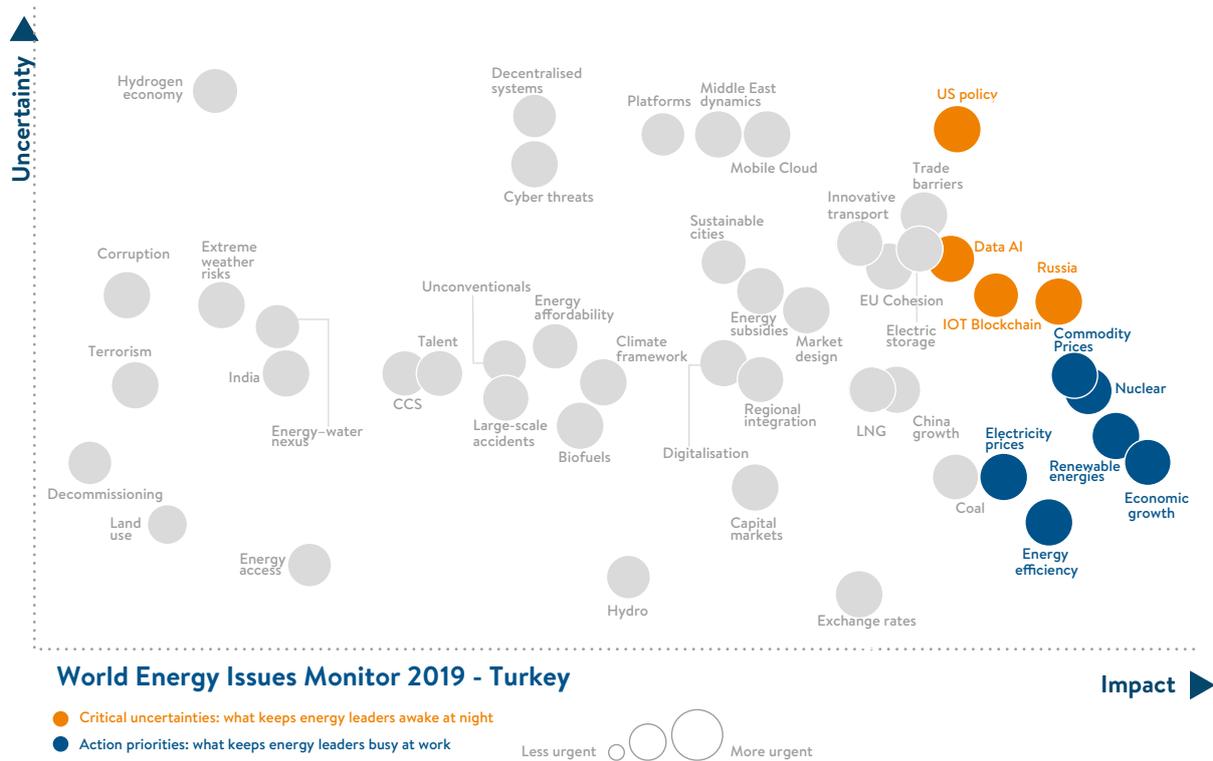


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TURKEY



NATIONAL OVERVIEW & CONTEXT

In line with global trends, Turkey is shifting priorities in its energy agenda towards technology-oriented areas. Innovative technologies namely Blockchain, Internet of Things, Big Data and Artificial Intelligence come to forefront on the critical uncertainties for energy leaders in Turkey. Moreover, the Exchange Rate’s impact on the energy sector remains to be a critical uncertainty for Turkish energy leaders. In line with an increasing impetus towards decarbonisation, renewable energy, energy efficiency and nuclear energy have become top action priorities for the country’s energy leaders.

KEY ISSUES FROM THE NATIONAL MONITOR

Digitalisation: The Turkish energy market has gained maturity due to market reforms carried out since 2002. According to the EU’s Turkey 2018 Report, “Turkey has continued to align with the EU acquis. Regarding the internal energy market, good progress has been achieved on the electricity sector and good progress can be reported on renewable energy and energy efficiency.” However, these developments bring their own difficulties such as utilising systems and managing the grid while increasing the share of small and large-scale renewable. To solve these problems, the realisation of Blockchain, IoT, AI and other big data solutions becomes inevitable, at the local and global levels. But uncertainties remain due to technological, regulatory and other practical challenges.

Exchange Rate: Turkish energy markets can be described by two main characteristics which are also the sector’s major challenges: import dependency and growing demand. For a country with a high current account deficit, mainly driven by energy imports, the implications of exchange rate movements are particularly important. In this regard, Turkey has comprehensive strategies to decrease import dependency while meeting increasing demand.

US Policy: Turkey, with its increasing LNG import capacity and a high utilisation of its regasification terminal, has started to source LNG from various suppliers. Turkey's LNG imports has recently exceeded its historical 15-16% share in gas supply mix and reached 23% in 2018. It was reported by the Energy Market Regulatory Authority (EMRA) that Turkey imported LNG from 12 different countries during 2017. In this regard, as a potential supplier, competitiveness of US LNG policy remains to be a critical uncertainty for the Turkish natural gas market.

Renewable energies feature as a high impact issue on Turkey's energy agenda. The installed capacity of renewable energy sources, excluding hydro, has reached 13,328 MW, representing 15 percent of the total installed capacity by the end of August 2018. Currently, the installed capacity for wind and solar is around 7,000 MW and 5,000 MW, respectively. Turkey is planning to add 1,000 MW additional capacity for each solar and wind, annually, adding 20,000 MW of wind and solar capacity in total within 10 years. To promote renewable energy, Turkey announced a first of its kind tender mechanism: Renewable Energy Resource Zone (RE-ZONE). The strategy encourages investors not only to build power plants but also to manufacture renewable energy equipment in Turkey. Two RE-ZONE competitions of solar and wind for 1,000 MW each have been completed with historic low prices. Turkey plans to launch new RE-ZONE tenders in the coming ten years.

Energy Efficiency continues to be perceived as a top action priority. Turkey announced its National Energy Efficiency Action Plan in January 2018 which sets out actions to implement a reduction of 14 percent of primary energy consumption by 2023. The Action Plan aims to save 23.9 mtoe, from Turkey's primary energy consumption, through a strategy which includes USD\$10.9 billion of planned investment. The return of total projected investment is expected to be USD\$30 billion until 2033. Sectoral measures set out in the plan include buildings and services, energy, transport, industry and technology, agriculture, and cross-cutting areas. The Action Plan is due to be finalised in 2019 and the implementation under each category is expected to be clarified during the same year.

Nuclear: In line with policies aiming to ensure energy security while sustaining transition towards a low carbon future, Turkey has also firm plans for adding nuclear power to its energy mix. The country's first nuclear power plant named Akkuyu, is planned to have 4,800 MW total capacity with four units. The construction license of power plant was granted, and the first unit is due to become operational by 2023. A new regulatory authority was established to regulate the nuclear energy sector.

CONCLUSION

Developments in IoT/Blockchain and Data AI are at the epicentre of Turkey's energy concerns. In addition, policies toward a low carbon future are gaining importance and driving energy leaders' action priorities. All the critical uncertainties and action priorities are in line with energy policies of the country. Many of Turkey's ambitious energy strategies prioritise energy security, reducing adverse economic impacts of increasing energy imports, increasing market competitiveness and investment on renewable energy and energy efficiency.

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Saide Simin BAYRAKTAR, Economist and General Directorate of Energy Affairs, Ministry of Energy and Natural Resources, Turkey