

Data Insight

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Behavioral Analysis on Developing a GCC Power Market



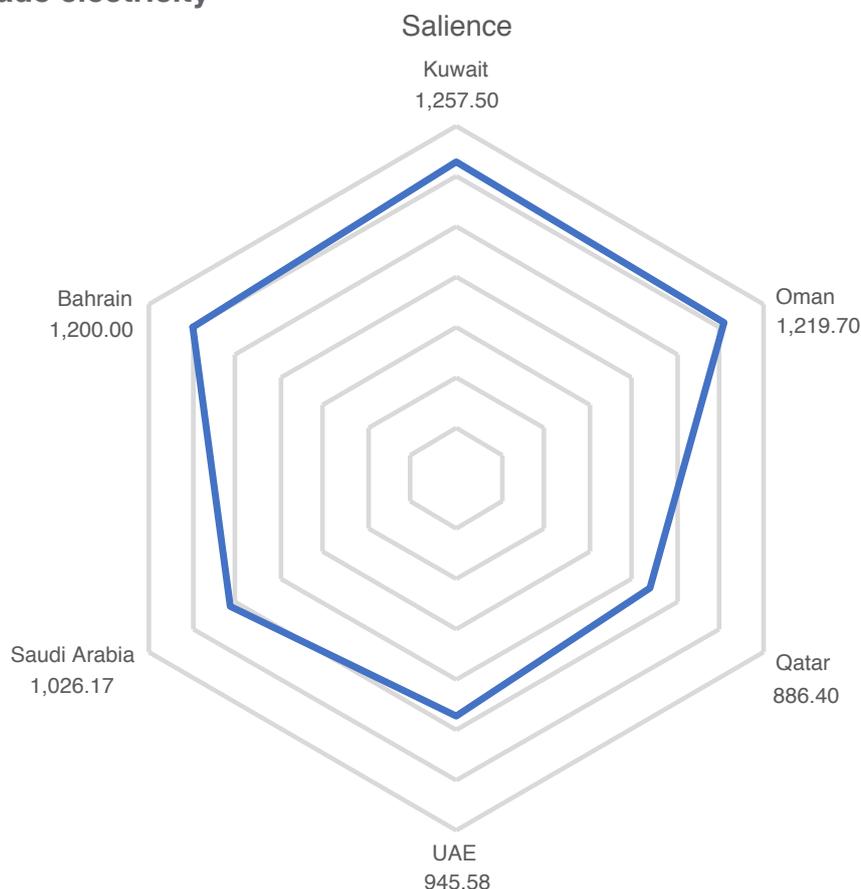
Source: GCC Interconnection Authority.

Key insights:

In 2011, the Gulf Cooperation Council Interconnection Authority (GCCIA) completed the construction of a regional power grid connecting the Gulf states. Its main purpose was to provide backup in case of power emergencies. The grid also increases the likelihood of developing a common power market that could provide significant economic benefits to each GCC member state. Moreover, studies by the GCCIA and others have found that trading power via the grid could save the Gulf states about US\$5 billion in electricity sector investments and US\$1.8 billion in fuel costs between 2014 and 2038.

A recent KAPSARC study used the KAPSARC Toolkit for Behavioral Analysis (KTAB) to simulate the collective decision-making processes of the six GCC countries regarding their willingness to trade electricity with each other. The analysis was based on data collected from semi-structured interviews with subject matter experts in the six GCC countries. A KTAB simulation was also performed for each of the six countries' main stakeholders (policymakers and influencers) individually, in addition to a GCC-wide simulation.

Willingness to trade electricity



Source: KAPSARC KTAB analysis.

Note: The radar chart shows the average level of importance assigned to this issue in each country.

The study found that:

- There is a growing political will in each country and in the region as a whole to develop a power pool within the GCC.
- Despite growing political will for a regional power market, little progress has so far been made. This may be the result of a lack of interest (saliency) shown from the GCC's three largest economies — Saudi Arabia, the United Arab Emirates (UAE) and Qatar.
- Oman, Kuwait and Bahrain all place a higher priority than the other GCC countries on the expanded use of the GCC grid but have less regional clout to overcome the remaining regulatory and fiscal barriers to broader usage.
- The dispute between Qatar, on the one hand, and Saudi Arabia, the UAE and Bahrain on the other, would need to be resolved before region-wide trading could begin. In the short term, one-off bilateral trading appears more practical.

Access this and related datasets from KAPSARC's data portal for further analysis and visualization.

Source: Mollet, Paul, Imtenan Al-Mubarak, Brian Efird, Saleh Al Muhanna, and Omar Al-Ubaydli. 2018. "Assessment of the Political Feasibility of Developing a GCC Power Market." KS--2018-DP39. Riyadh: KAPSARC. DOI: <https://doi.org/10.30573/KS--2018-DP39>.

The KAPSARC Toolkit for Behavioral Analysis (KTAB) is an open source toolkit for assembling models that allows for the systematic and rigorous analysis of collective decision-making processes (CDMPs). KTAB has been developed to meet the need for widely available, state-of-the-art, supported, and open source software that facilitates the modeling and analysis of political decision-making and the policymaking process. KTAB was mainly developed at KAPSARC. The [KTAB homepage](#) includes the model's source code, software executables (for Windows, macOS, and Linux), technical papers detailing the methodology, applied studies, and other useful information. KTAB is widely used around the world in the energy research community, including by institutions such as the Institute for Energy Economics, Japan (IEEJ); the Energy Research Institute (ERI) of the National Development and Reform Commission (NDRC) in Beijing; the Shanghai Academy of Social Sciences; the Energy Futures Lab, Grantham Institute for Climate Change and the Environment, and the Centre for Environmental Policy at Imperial College; the United Kingdom's Catapult Programme; the Clingendael International Energy Programme (CIEP) of the Clingendael Institute in The Hague; the Energy Center at SKOLKVO, Moscow School of Management; the Council on Energy, Environment and Water (CEEW) in Delhi; Brookings India; Khalifa University (The Masdar Institute) in Abu Dhabi; the Arabian Gulf University in Bahrain; the King Faisal Center for Research and Islamic Studies in Riyadh; and Control Risks in Bogota. KTAB has been peer reviewed by a group of world-class scholars and experts in 10 internationally attended workshops around the world.

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