Get the Structure Right: Lessons from the Israeli Energy Market

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By Louisa Lund, Program Director, Consortium for Energy Policy Research

A "malformed" energy market has resulted in distorted electricity and natural gas prices in Israel, even as significant progress has been made towards introducing competition, Orit Farkash HaCohen (MPA '07), former Chairperson of the Israel Electric Authority, explained in a September 26, 2016, energy policy seminar.

Israel's electricity was long provided by a state-owned (and politically connected) monopoly, the Israeli Electricity Company (IEC), Farkash-HaCohen explained—an entity that, despite its monopoly status, has struggled to thrive in an environment of high labor costs and regulated tariffs. The IEC's financial challenges are illustrated by a debt to equity ratio of over 80% and a current debt roughly equal to 15% or Israel's GDP.

However, following a 1996 law that began the process of introducing competition from third party electricity generators, private power plants have recently begun playing a significant role in the electricity market, encouraged by generous capacity payments and long-term purchase guarantees. Some new generation has come from renewables. A significant new player, as well, has been natural gas, which is replacing some coal generation and is projected to grow to over 50%-60% of supply by 2020, a growth deliberately fostered by government policy and enabled by the discovery of significant offshore gas resources in recent years. Overall, new market entrants, both conventional and renewable, will supply over 40% of the electricity in the market by 2017, Farkash-HaCohen reported.

However, Farkash-HaCohen argued, this influx of new resources has come at a cost borne by the Israeli public, since it occurred within the context of a poorly structured market (fully bundled) and has been dependent on protective regulation and on market-distorting incentives. For example, she explained, in the absence of a wholesale market and an independent system operator, new generation is incorporated through bilateral contracts and given priority in dispatch decisions, with the result that the generation that is dispatched may not be the lowest cost generation. Compounding this problem, natural gas supply to Israel is effectively a monopoly, which recently succeeded in obtaining long term contracts indexing gas prices to the American CPI plus 1% per year with an 80% take or pay provision.

In this situation, the government's regulatory authority faces a very difficult task, Farkash-HaCohen explained, including balancing the mandate to bring in more competition with resistance from the IEC's labor union to increased participation by (non-union) third parties, balancing the mandate to keep rates reflective of economic costs with competing pressures to provide generous payments to renewable and gas producers, and finding ways to move farther down the path to market restructuring. Farkash-HaCohen argued that the natural institutional tension that always exists in energy markets between the regulator, other market players, and the government is exacerbated in a poorly structured energy market, as all market players are fully regulated and not facing any real wholesale market or economic competition signals (especially in the case of Israel's monopoly gas supplier). In this situation, the whole burden falls on the regulator to make decisions that will allow the "market" to function efficiently and the regulatory scrutiny is heavy relatively.

In Farkash-HaCohen's case, she reported, all of these competing pressures came to a head during the last year of her term, when the IEA, led by Farkash-HaCohen, refused to approve the generous long term natural gas contracts mentioned above, which, in her opinion, would commit consumers to paying over-inflated electricity rates for years to come and which creates natural gas pricing disconnected from international fuel prices. The resulting political struggle that ended with not only her dismissal from her role as Chairperson of the IEA, but a restructuring of IEA governance to put the agency more firmly under political control as part of the Ministry of Energy.

Nonetheless, Farkash-HaCohen's overall evaluation of the Israeli electricity market is that it has gone through "great positive change," with the historic introduction of private players. However, as a result of the flawed market structured, the energy market is best understood as fully regulated and should urgently be restructured in order to move to the next step. Significant institutional reforms (i.e., the unbundling of IEC to establish an independent system operator and significantly enhanced oversight the gas monopoly) are needed if the public is to see any of the benefits of increased market participation, Farkash-HaCohen concluded. All of that must include going back to an independent regulator as well.

Farkash-HaCohen spoke as part of the Kennedy School's Energy Policy Seminar Series, which is sponsored by the Consortium for Energy Policy Research of the Mossavar-Rahmani Center on Business and Government.