Saudi Arabia's Deputy Crown Prince and President of the Council of Economic Affairs and Development Mohammed bin Salman bin Abdulaziz unveils the kingdom's "Vision 2030". In an interview with Al Arabiya News Channel he acknowledges the state's "oil addiction" and emphasizes that the Vision's roadmap includes raising non-oil revenue. 25 April 2016, Riyadh.

The Obstacles Facing Renewables in the Gulf
by Faris Al Sulayman

The presumed economic logic underlying the prospects for renewables in the current oil environment suggests that the availability of cheaper oil resources should make it more difficult for renewable alternatives to compete, at least in the short and medium term. This logic has proved somewhat simplistic however, and there are in fact other barriers—including the role of the state and the regulatory environment—that continue to hamper the disruptive potential of renewables in the Gulf.

Examining the industry more globally, the correlation between oil prices and growth in the renewables sector is tenuous at best. After all, oil does not form a large part of the global economy's electricity generation mix, and resource costs represent only one constituent part of the final electricity tariff faced by consumers, with other variables such as grid maintenance, transmission, and government levies all rising as a share of total cost in recent years. At the level of utilities, it is undoubtedly true that natural gas has become a more attractive generation option,[1] but large utilities operate on long-term investment cycles and must confront a simple reality: while fossil fuel costs may fluctuate in coming years, renewable costs are only going in one direction, down.[2]

However, the calculus in the Gulf and other oil producing states is even more favorable for renewables, if one considers the added complexity of government finances and subsidy reform. The dramatic decreases

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in government revenues since the oil price decline have exerted strong pressures for fiscal reforms, with the slashing of wasteful energy subsidies high on the list of priorities. In addition to the obvious economic impetus to engage in price reforms, the low oil price environment has also provided a unique political opportunity to publicly justify and mask the removal of subsidies, allowing governments to deflect some blame, if and when prices do recover, on mar ket forces now far beyond their reach. There is indeed an argument to be made that such reforms could never have been considered in a stronger fiscal environment. With few exceptions among the "Super Rentiers," the Gulf Cooperation Council (GCC) states have begun broaching this issue, focusing on non-residential subsidies first while avoiding the political sensitivities attached to more wide-reaching reforms.

Remaining hurdles

For renewables, the larger macro-economic trends finally seem to be dictating a favorable trajectory, and the long awaited boom should be at hand. As players on the ground note, however, other hurdles still loom large.[3] Focusing on the region's biggest energy market, Saudi Arabia, it is clear that the state can do more to promote and facilitate the growth of the domestic renewable sector. This argument is particularly salient and urgent in the kingdom, where the proportion of oil production consumed domestically has, and continues to, increase at an alarming rate, leaving fewer barrels for much needed export revenue.[4]

The most debilitating obstacle is the regulatory vacuum that currently exists in the Kingdom. Electricity tariffs will continue to increase, but as we expect the forthcoming National Transformation Plan (NTP) to elucidate, small and medium sized enterprises (SMEs) and larger entities looking to enter the independent power producer (IPP) space are in desperate need of regulatory clarity. This is necessary not only to increase their appetite for risk, but also to strengthen their credibility to consumers and financiers alike.

On the proactive policy front, and in lieu of a more rapid slashing of subsidies that may prove inflationary and politically divisive, the state could find ways of supporting renewable technologies directly, as Dubai has done with its Shams Dubai program. A healthy feed in tariff rate by the Water and Electricity Company (WEC)[5] with a long-term guarantee by the state alongside a net-metering[6] structure for residential consumers, would truly mark the start of a new era for solar in the Gulf without excessive amounts of capital spending by the state. Though Saudi Arabia's Electricity & Cogeneration Regulatory Authority (ECRA), the Ministry of Economy and Planning, and the newly created Ministry of Energy (which absorbed the Ministry of Water and Electricity) seem to be taking steps in this direction, signs of hesitation and reluctance take a toll on the investment climate, particularly among entrepreneurs and SMEs looking to enter the market.

Another crucial area where the state can provide structure is in the realm of project finance. As we enter what may be a prolonged period of decreased liquidity, state and quasi-governmental institutions such as ARAMCO, TAQNIA, and potentially the Saudi Electric Company could be arbiters of trust, acting as project guarantors and financiers in a largely barren and untested economic landscape. Power purchasing agreements (PPAs), often lasting 20 years or more in the OECD, require large and increasingly private capital investments, which in turn need robust institutional and financial support, particularly in an industry with high barriers to entry and devoid of long-established norms and networks of trust.

More broadly, as the kingdom enters a period of austerity, where the state is drastically shrinking its capital expenditure, radical and innovative solutions need to be implemented to entice the private sector to fill the investment void. Without a concerted effort and a well-designed institutional framework, the Saudi market will continue to be underdeveloped and uncompetitive, with a handful of large players dominating another protected and oligopolistic industry.

A new kind of energy industry

The renewables boom that beckons is not just an opportunity to build a new industry, but to build a new kind of industry. It would be one that is more local, diverse, socially responsible, and ultimately more sustainable. And on the fiscal front, the government's ability to stimulate long-term investment in the renewables sector will in many ways be a gauge of its ability to attract and retain private capital in the face of increasing capital flight and current account pressures.

Finally, but perhaps most crucially, a deeper paradigm shift away from largesse and towards efficiency must take place. This shift is in many ways a deeper behavioral transition that cannot easily be hastened. Convincing a commercial or industrial energy consumer, accustomed to increasing profits by increasing revenue, to invest in efficiency and cost reductions does not come as naturally as one might think. Here the state must lead the way too, not only in its role as the dominant economic player, but also because it faces a more acute financial strain than that faced by private capital. More generally, the state's adoption of a more present and transparent institutional role will in the long term facilitate such a shift. But perhaps on a more psychological level, the public perception of the depth and potential resilience of the oil crisis, and by proxy the permanence of price reforms, will also help in this effort.

The state's ability to rise to the occasion and confront this distinct set of problems and opportunities will be a litmus test of its capacity to meet the broader set of economic challenges it is likely to face in the coming years. Unlike some of the other economic tests facing the region, the incentive structures inherent in the regional political economy are well aligned in the case of renewables, with little standing in the way of progress politically. More broadly, it remains clear that the biggest obstacle facing renewables in the region is not a low oil price, which has proven to be an opportunity in disguise, but rather the ability of states to create and regulate a diverse, competitive, and local market for a new breed of energy providers.

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[1] A sharp decrease in liquefied natural gas (LNG) prices preceded low oil prices by half a decade, giving markets time to adjust to the new realities.

[2] Peck Yean Gan and ZhiDong Li, "Quantitative study on long term global solar photovoltaic market," *Renewable and Sustainable Energy Reviews* Vol. 46 (2015): 88-99.

[3] *Middle East Solar Outlook for 2016* (Middle East Solar Industry Association: 2016).

[4] Yukari Hino, "Saudi Arabia field report: Another potential oil crisis in the Middle East," Brookings Middle East Politics and Policy, 2 July, 2015.

[5] Water and Electricity Company, to be the price setting single buyer once feed in tariffs are unveiled.

[6] A billing arrangement with a utility where customers get credit for any excess renewable electricity delivered to the grid.