Energy Transition in Qatar and the Middle East

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Energy Transition in the GCC

- The development of large-scale renewable energy systems has been identified as national priorities in all Gulf Cooperation Council (GCC) countries- Kuwait, Bahrain, Oman, Qatar, Saudi Arabia, and the United Arab Emirates (UAE)
  - With an earmarked budget of USD 103 Billion, **Kuwait's National Vision 2035** outlines plans to generate 15% of Kuwait's total electricity needs from renewable sources by the year 2035
  - With a USD 30 Billion infrastructure development plan, the **Qatar National Vision (QNV) 2030** outlines Qatar's plans to generate 20% of its electricity from solar systems and achieve 'a diversified economy that gradually reduces dependence on hydrocarbon industries' by the year 2030
  - The **Saudi Arabia National Vision 2030** is also a $50 billion renewable energy infrastructure plan aimed at producing about 10 GW of power (30 percent of the Kingdom's total electricity needs) from renewable energy by 2023
  - The **Oman National Vision 2020** sets the target of producing 10% of Oman's total electricity from renewable energy sources by 2020

Law and governance questions

- Three key questions arise:
  - What are the drivers of this focus on low carbon shift in the Middle East?
  - How can these ambitious plans and visions move from political aspirations to reality?, specifically what are the law and governance innovations required to promote a low carbon future for the Middle East?
  - What lessons can be learned from countries such as the United Kingdom, Germany and the United States, that have significant amounts of renewable electricity in their grids with respect to grid balancing, storage, pricing and financing?

Drivers of low carbon transition in the Middle East

There are three main drivers:

- **Rise in electricity demand:** Due to a geometric rise in population across the GCC, electricity consumption has skyrocketed. For example, electricity demand in Qatar has risen by 34 per cent in the past four years. In Saudi Arabia, it is projected that peak-time electricity demand will almost triple to 120,000 megawatts (MW) by 2032, from around 46,000 MW in 2010.

- **Fall in oil prices and the need for economic diversification:** With official forecasts by the Organization of Petroleum Exporting Countries (OPEC), that a return to $100 per barrel price of oil may not be until after 2040, GCC countries have to, more than ever, re-think how to diversify their domestic economies by creating new jobs in manufacturing, technology and innovation sectors.

- With a strong sunshine intensity, an estimated average annual insolation of about 6 kWh/m2 per day, and approximately 3,000 hours of sunshine per year, investment in solar systems provides a realistic and well suited basis for Middle East countries to shift from oil based economies to more diversified and low carbon economies

- **Climate change mitigation and adaptation:** To limit and avoid the catastrophic impacts of climate change in the Middle East, there is renewed regional emphasis on the need for significant investment in climate-smart energy systems, *ie.* structures and systems that lower greenhouse gas (GHG) emissions, and improve the ability to adapt to, and cope with, the risks posed by climate change

Moving from vision to realization

- As Milton Friedman, Nobel Laureate and US Economist famously remarked: *“One of the greatest mistakes is to judge policies and programs by their intentions rather than their results.”*
- To achieve results, with respect to a low carbon future in the Middle East, governments must move beyond mere aspirations and visions, and put in place adequate law and governance frameworks that integrate and balance electricity from RES with existing electricity grid infrastructure

- As can be seen in jurisdictions, such as the United Kingdom and Germany, where renewable technologies have been deployed on a wide scale, three key legal innovations are required:
    - a clear and transparent legislative framework on renewable energy
    - legal framework for encouraging private sector participation in renewable energy projects: particularly attracting private sector experience and technical know-how
    - financial incentives to encourage the development of renewables, especially through a feed-in tariff (FIT) system, to offset costs associated with producing small scale renewable energy

Shukran!

Thank you

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