



Advancing Renewable Energy in Resource-Rich Economies of the MENA

Executive Summary

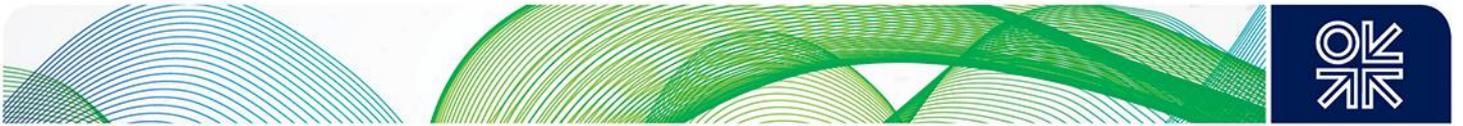
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Despite the enormous renewable energy potential in resource-rich MENA countries, their share of renewables in electricity generation is among the lowest in the world, not only lagging behind similar high-income economies, but also low-income economies. Although in recent years most MENA countries have announced renewables targets, these have extremely ambitious timeframes and face significant challenges given current high levels of hydrocarbon resource-dependency. This paper investigates the following two questions: (i) what are the policy solutions for incentivising investment in renewable energy in these countries (focusing primarily on Saudi Arabia, Iran, Kuwait, UAE, Algeria and Qatar); and (ii) what are the barriers to the deployment of renewable sources?

The paper contends that while the main obstacles to the deployment of renewables are institutional challenges, grid inadequacy and risk and uncertainties, the solutions for spurring investment lie on a policy instrument spectrum in which a full market-based approach and a full renewable subsidies model (in addition to existing fossil fuel subsidies) are two polar cases. The market approach requires the complete removal of fossil fuel subsidies, whereas a renewable subsidies programme requires long-term support and commitment on the part of government. Furthermore, the market approach promotes competition in the energy sector and relies entirely on price signals, whereas a fully subsidised renewable program encourages investment in renewables by offering various forms of direct and indirect financial incentives. Additionally, implementing the market-oriented approach is politically challenging while adopting a fully subsidised renewable programme is economically problematic given the current level of fossil fuel subsidies in these countries and tight fiscal budgets in the aftermath of oil price fall.

Therefore, there is a trade-off between the two dimensions of the fiscal burden and political acceptance across the policy instrument spectrum which implies the two polar solutions themselves are not easily and fully implementable in these countries. We propose a combinatorial approach in which incentive for investment is provided partially through the market (i.e., energy price reform) and partially through government subsidies. The combinatorial approach can be part of a dynamic process where governments start from the most feasible point on the proposed policy instrument spectrum and gradually move towards market based incentive provision over the medium to long term where all forms of energy subsidies are eventually phased out. The dynamic combinatorial approach not only reduces fiscal pressure on government budgets (compared to a fully subsidised model), but also averts political risks by allowing businesses and households to slowly adapt to the new environment, where energy carriers are priced at their full economic costs.

Although the provision of investment incentives is necessary for renewable deployment, such incentives are not sufficient on their own, as barriers to deployment also need to be removed. Resource-rich countries need to ensure that the necessary institutional capacity exists in the country to deliver renewables, generators have access to a reliable and flexible grid and also appropriate risk mitigation instruments are available to deal with inherent risks and uncertainties. These barriers can cause underinvestment not just in renewables but also in conventional generation which is essential



to backup renewables. The paper asserts that most MENA economies are lagging behind in energy sector reform and market liberalisation, and while they have moved away from vertically integrated structures, most retain variants of the single-buyer model which in some cases is accompanied by the unbundling of generation and network segments. In order to avoid the perverse incentives seen in integrated monopolies and reduce the credit and default risk posed by having just a single power off taker, an appropriate market structure needs to be developed. The fact that resource-rich MENA countries have not emulated the experiences of other OECD and non-OECD countries implies that they have some sort of last-mover advantage, in the sense that they can tap into years of international (e.g. European) experience to avoid design mistakes and create a sustainable solution compatible with their own context.
