

### Renewable Energy: Enabling Sector for Innovation and Entrepreneurship in a Global Economy

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#### Abstract

We live in a 21st century world of sweeping technological and scientific developments, and rapid advances in education, communications, and commerce. However, if there is a single element on which the development of all these depends, it is energy. Energy and energy security have indeed become core issues because all nations, are currently struggling to meet steeply rising energy costs while, at the same time, reducing dependence on external sources.

Arguably, the MENA region has some of the largest sources of energy in the form of oil and natural gas, and is a major world supplier. However the rising demand for energy, the unpredictability of world and regional events that is leading to a disruption in supplies and higher costs, and of course the pollution problem caused by fossil fuels, are forcing countries to look for new, clean, renewable, and cost-effective sources. Fortunately for the MENA region, it has an abundant supply of sun and wind, which, if properly tapped, researched, and applied, could transform the area into a haven of sustainability through clean energy applications, resulting in economic development and prosperity for all.

The **One Million Home Plan** is an initiative by Jordanian researchers and in collaboration with the private sector, which, if implemented, could successfully wean one million households in the Kingdom off their reliance on the highly subsidized electricity provided by the government and encourage them to adopt solar generation. This initiative will provide an affordable, rapid, and innovative solution to its energy crisis and still create jobs that invigorate the local economy, ensuring long term energy security, and improving the environment. According to the plan, the government would abolish all subsidies and instead provide financial incentives to residents to invest in PV systems that would not only save costs but also result in job creation and income generation. The incentives would take the form of low-interest loans to households,

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administered by private banks in cooperation with the government, for the purchase of PV systems. Such a move could transform the bleak energy-deficit picture in Jordan into a win-win situation for all through decreased energy costs for consumers, decreased costs for the government in the long-run, invigoration of the economy through new high-tech job creation, a cleaner environment, and above all energy security.

Finding suitable models for the adoption of renewable energy options goes hand-in-hand with the development of high-tech industries which would be needed to design and manufacture necessary components for the shift from conventional electricity to solar power. The higher education and private sectors could together play a critical role in providing the research, consultation and investments needed for this new high-tech industry. A very impressive model for such a synergy is the University of Central Florida's Research Park. Many high-profile members of academia, business, and technology act as directors and advisors of UCF's Research Park which is geared towards education and technology-based research. The program aims to provide scholarships, business opportunities, activities, and business-related advisory services to students.