

WS096:

***Role of Higher Education and Research in Promotion of Renewable Energy in
Egypt***

By

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Abstract:

With the continuous increase in energy demand in Egypt (7% annually), the depleting available fossil fuels may not be able to cover the future energy needs on the medium and long terms. The Greenhouse gas emissions resulting from fossil fuel burning has also become a major concern. Additionally, Egypt is facing the problem of shortage of fresh water needed for irrigation and human use, which has reached water poverty levels. On the other hand, Egypt possesses a huge potential of renewable energy including solar, wind and biomass energies. Such Energy and Water challenges facing Egypt could be met by proper large scale utilization of the available Solar, wind and biomass energy resources. Educational and Research programs in Renewable energy are essential for preparation of skilled work force capable of handling large RE projects and for developing local knowhow for local manufacturing of Renewable Energy Systems and Components. Undergraduate and graduate Educational programs should be formulated to include all needed skills including technical knowledge, economics, management, policy and intercultural skills and will facilitate integration with large interconnection projects and initiatives such as DESERTEC and MSP. Joint research and development activities between local and foreign research institutions could also facilitate collaboration in local manufacturing of components and systems for utilization of Renewable Energy and could lead to a sustainable energy and fresh water supply for Egypt on the medium and long terms. Different programs and initiatives paving the way to large penetration of Renewable Energy in the future energy mix are reviewed.