

Renewable Energy Policies of UAE



Masood Ahmed

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SZABIST

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UAE: Political and Economic Background

- Founded in 1971
- A Federation (7 Emirates)
- All Seven Emirs are member of Supreme Council



UAE: Political and Economic Background

- Abu Dhabi and Dubai are the most powerful emirates.
 - Rulers of Abu Dhabi and Dubai have veto powers over matter of national importance.
 - Ruler of Abu Dhabi is president of UAE.
 - Ruler of Dubai is Prime Minister of UAE.
- Federal Domain
 - Foreign Affairs, Security and Defense
- Emirates Domain
 - Electricity, Education, Health, Implementation of National Policies

UAE: Political and Economic Background



- The full legal control over oil and natural gas reserves is with the local governments without any possibilities of intervention by the federal government.
- In any other emirate other than Abu Dhabi hardly any fossil resources are available.
- Abu Dhabi is the main focus in UAE because of its fossil fuel based wealth.



Masdar Initiative: Transforming Oil Wealth into Renewable Energy Leadership

- Masdar City
 - Carbon Neutral, Zero Waste City in Abu Dhabi.
 - Start: 2006
 - Completion : 2016
 - Home to a population of 90,000 (40,000 residents + 50,000 daily commuters)
 - 1500 companies in the field of sustainable energy technologies
 - 100 percent foreign ownership
 - Zero taxes and zero import
 - Head Quarters of IRENA.



Masdar Initiative: Transforming Oil Wealth into Renewable Energy Leadership

- Masdar City: Mission and Objectives
 - Part of long term economic diversification strategy of Abu Dhabi
 - To Prepare Abu Dhabi for the post oil-age and make other businesses competitive.
 - To enable transition from a 20th century carbon-based economy into a 21st century sustainable economy.
 - To get benefit from the growing global demand for “cleantech” solutions.
 - To maintain Abu Dhabi’s position as a global energy leader.
 - To develop into a global centre of excellence for renewable energy research, development and innovation.
 - To provide a blue print for future cities striving for sustainability
 - To serve a model for how all future cities should be built



Masdar Initiative: Transforming Oil Wealth into Renewable Energy Leadership

- Masdar City: Main Actors
 - Abu Dhabi Future Energy Company (ADFEC)
 - Established 2006
 - ADFEC is a wholly owned subsidiary by Abu Dhabi Government by Mubadala Development Company. (MDC)
 - MDC sole share holder is the Government of Abu Dhabi.



Masdar Initiative: Transforming Oil Wealth into Renewable Energy Leadership

- Masdar Initiative: Key Pillars
 - Masdar Institute of Science and Technology
 - MIT to help develop MIST
 - MIT Faculty assisted MIST in recruiting faculty, administrators, joint research, designing educational programs and student admissions.
 - Masdar CleanTech Fund
 - \$259 Million venture capital fund
 - Launched in partnership with Credit Suisse, Consensus Business Group, Siemens
 - Equity stakes in Segway, Halosource, Sulfurcell, SIC Processing, EnerTech Environmental Durathem and Nanogram.

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Masdar Initiative: Transforming Oil Wealth into Renewable Energy Leadership

- Masdar Initiative: Key Pillars
 - Utilities Unit
 - To bridge the gap between the equipment manufacturers that lack project development capital and local utilities that need the renewable energy economics, knowledge and know how.
 - Direct Investment
 - Torresol Energy
 - WinWind
 - London Array Offshore Windfarm through joint venture with German energy Corporation E.ON
 - Industries Unit
 - Masdar PV
 - Facilities at Germany
 - Carbon Management Unit
 - Carbon Reduction and Monetization
 - Carbon Capture and Storage



Masdar Initiative: Transforming Oil Wealth into Renewable Energy Leadership

- Domestic Renewable Energy Goal
 - To reach a share of at least 7 percent of renewables in Abu Dhabi's power generation capacity in 2020.
 - Masdar City is part of a consistent policy for the promotion of renewable energies
 - Growing domestic demand.



Opportunities for CRER, SZABIST at MASDAR

- Gharo Wind corridor for Investment on a similar model as London Array Offshore wind farm.
- Research Collaboration between MIST and SZABIST in the area of Wind Turbine Technology.
 - Focus at MIST is on Energy conservation, solar, renewable energy from waste, sustainable manufacturing
 - Research in the area of wind energy is not there. (Masdar)