

## The MASDAR Initiative

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### 1. Introduction

The Masdar Initiative is Abu Dhabi's multi-faceted response to the need for a global focus on resource conservation and the alternative energy sector. It will foster the development and commercialization of advanced and innovative technologies for renewable energy, energy efficiency, carbon management, and water usage and desalination.

Masdar is a progressive economic development program designed to:

- Develop Abu Dhabi's role and market share in the future international renewable energy projects
- Position Abu Dhabi as a developer of new energy technologies
- Contribute to, and benefit from, the impact of energy sustainability

Masdar will drive investment in people and technology within the clean technology, advanced energy and resource-sustainability space. Masdar will thus play its part in Abu Dhabi's transition from technology consumer to technology exporter.

This landmark endeavour will further empower the people of Abu Dhabi and the UAE: inviting them to work as partners with government and industry in consolidating Abu Dhabi's economic strength and long-term energy security.

Abu Dhabi has a proud history of conservation and environmental responsibility. Masdar will build on that record – combining the Emirate's traditional energy expertise with advanced clean energy technologies.

The Masdar Initiative was launched in April 2006 by His Highness the Crown Prince of Abu Dhabi Sheikh Mohammad bin Zayed Al Nahyan – expressing his vision to position Abu Dhabi as a global leader in R&D and a developer of Advanced Energy and Sustainability (AE&S) systems and technologies.

The initiative was launched in partnership with leading global energy companies including Shell, BP, GE, Total, Occidental Petroleum, Mitsubishi, Mitsui, Jodco, and Rolls Royce. Masdar will be closely coordinating with ADNOC, ADWEA and the Environmental Authority of Abu Dhabi to maximize the benefits of Abu Dhabi stakeholders.

### 2. Key Features

Masdar's comprehensive strategy will be supported by two main drivers currently under formation:

- A specific non profit R&D fund to finance the academic and research components of the initiative
- The new Abu Dhabi Future Energy Company (ADFEC), the commercial entity mandated to undertake the whole initiative, to champion the adoption of advanced energy technologies, and to contribute to the diversification and sustainable growth of the Abu Dhabi economy.

A central pillar of the Masdar Initiative is the Masdar Academic and Research Institute. This will be research driven – offering graduate degrees in science and engineering, with a focus on sustainability related disciplines.

The Institute will be the nucleus of the Masdar Research Network (MRN), the collaborative research framework launched in July 2006 in partnership with Imperial College (UK), RWTH Aachen (Germany), the University of Waterloo (Canada), Columbia University (USA), Tokyo Institute of Technology (Japan) and the German Aerospace Centre (DLR). Under the MRN structure, Masdar will co-fund research projects that meet specific funding criteria within its technology focus.



The Institute and MRN will be financed through the non profit fund. This will be governed by an independent Board of Trustees and will form part of the Masdar cluster in the forthcoming Masdar Free Zone.

The Institute will be the source of talent and Intellectual Property (IP) for ADFEC, but will have its own independent management.

The ADFEC structure contains five integrated units:

- Innovation and Investment – the catalyst for commercialization of advanced energy & water management technologies, providing finance and support for “clean tech” companies (the Cleantech and STAR funds)
- Carbon Management – aiming to capitalize on monetizing carbon emission reductions and develop a carbon capture and storage infrastructure
- Special Projects – developing large scale, strategic clean energy projects, while attracting value chain manufacturing in Advanced Energy and Sustainability (AE&S)
- Special Free Zone – the industrial entity hosting Masdar components, including facilities management and tenant services
- Property Development – applying sustainability principles in the planning, design and construction of the Masdar Free Zone and other sustainable developments in Abu Dhabi

ADFEC will also host a “think tank” that advises the Abu Dhabi government on the development of new sustainability policies.

The synergy between ADFEC units, the Institute and MRN provides a unique opportunity to deliver tangible economic results and commercialize nascent AE&S technologies.

The Masdar project will take shape by the end of 2009 and deliver sustainable achievements by 2015.

### 3. Conclusions

While the vision is ambitious, the objectives of Masdar are achievable. The real tasks in Abu Dhabi are just beginning; assembling an alliance of such high caliber partners is already an achievement in itself. Backed by the drive, status and credibility of the government of Abu Dhabi, Masdar is well placed to deliver tangible, concrete results for its stakeholders, and to visibly contribute to social and economic growth in the UAE.

### Speaker’s Biography

Engineer **Sultan Ahmed Al Jaber** is a Senior Project Manager at Mubadala Development Company, with overall responsibility for the development of the Abu Dhabi Masdar Initiative in advanced energy and sustainability technologies. He was recently appointed as the CEO of the newly formed Abu Dhabi Future Energy Company which will drive and undertake the Masdar Initiative.

Mr. Al Jaber held broad responsibilities at Mubadala, including direct project origination and execution in the energy and utilities sectors, and relationship management with key multinational companies and government institutions.

Previously, he held various positions with different responsibilities within ADNOC/GASCO, and served as the Executive Marketing Director for the Dubai Department of Tourism and Commerce Marketing based out of Los Angeles, California.

Mr. Al Jaber holds an MBA and a B.Sc. in Chemical Engineering from the University of Southern California, and is currently pursuing a Ph.D. in Economics with a Thesis titled “the role of FDI in the economic growth of the UAE.” He is a board member of the Abu Dhabi Shipbuilding Company, a steering committee member of the REN21, and a member of the Advisory Board of the College of Business and Economy at the UAE University. He is also a member of the executive committee of the designated National Authority in the UAE, and an effective member of the Young Arab Leaders Organization.