

Dr. Sultan Al-Jaber
Select Committee on Energy Independence and Global Warming
U.S. House of Representatives Congressional Hearing
June 18, 2008

Chairman Markey, Ranking Member Sensenbrenner (Sin-sin-brenner) and members of the Committee, thank you for giving me the opportunity to testify on such an important issue. Sustainable development is essential to the United Arab Emirates, to Abu Dhabi in particular; it is integral to my company and personally important to me.

Today's hearing helps illustrate our belief that aggressively addressing these fundamental issues can help bring communities together—even those as diverse as Abu Dhabi and Greensburg, Kansas.

Let me begin with a brief overview. In April 2006, the government of Abu Dhabi launched the Masdar Initiative to establish a new economic development program that is entirely dedicated to sustainable energy. Masdar is a multifaceted undertaking to address future energy related issues. The government of Abu Dhabi has committed \$15 billion to the Masdar Initiative—and we are leveraging additional funds through partnerships and the private sector.

Masdar includes investments in current technologies, new solar manufacturing plants, renewable energy infrastructure and carbon management projects. We are creating a one-of-a-kind research institute in Abu Dhabi and developing Masdar City, the world's first carbon neutral, zero-waste city.

Given the subject of the hearing, I want to focus on Masdar City – which is really the centerpiece of the entire program. Imagine a city built in the desert that will house 50,000 people, technology companies, a research institute, R&D facilities, light manufacturing plants, stores, schools and libraries—all powered by renewable energy. There will be no cars—people will move around on personal rapid transit, light rail, Segways and bikes. A net of photovoltaic collectors will create shade along narrow streets. Green spaces will be fed with purified, recycled water.

We expect the city will be the blueprint for cities of the future.

We will do this by completely re-engineering the way modern cities are built and use energy. In planning the city, we did not look at the cost of energy-per-kilowatt hour. Instead, we looked at the cost per-square-meter. Integrated design is a core element of our planning. It will help reduce energy and water demand to unprecedented levels. Specifically:

- Masdar City will require only 200 megawatts of power, instead of the 800 megawatts normally required by a conventional city of the same size.
- Desalinated water consumption will drop from 20,000 cubic meters per day to only 8,000.
- And through intensive reuse and recycling, we will eliminate the need for millions of square meters of landfill.

Masdar City will be more than just an efficient, environmentally friendly space. It will be a platform for long-term innovation. Residents of the city will be a part of a community that includes global leaders in business, academia, and finance who can collaborate on a common goal. Masdar City will promote leadership in the following 8 sectors:

- Advanced energy
- Sustainable transportation
- Water and waste management
- Energy efficiency
- Green construction and materials
- Biodiversity
- Climate change
- And sustainability finance.

Each of these sectors will have innovation hubs creating new technologies and solutions, as well as a commercialization unit for the rapid deployment of these solutions. In this way, Masdar will avoid becoming a sustainability theme park. It will be a productive and active innovator, contributing to the global marketplace.

When I travel, the most frequent question I get is “Why?”

Why would a major oil producing country proactively seek a key role in the alternative energy space?

The answer is simple. First, we want to reduce our own carbon footprint. The UAE ratified the Kyoto Protocol, and we must be prepared to meet future commitments to reduce emissions, while ensuring continuous growth. Second, as part of our diversification and long-term economic strategy, Abu Dhabi seeks to be a developer and exporter of technology, rather than an importer.

We will continue to be a leader in the global energy markets, but go beyond hydrocarbons. We believe we can act as a catalyst to encourage nations with greater human, technological and institutional resources to accelerate the adoption of clean and sustainable technology.

We also see this as an opportunity to be a part of a growing business sector. According to the International Energy Agency, the world's energy requirements could grow by as much as 50% or more by 2030. We want to help meet these needs. That is why we are taking these proactive steps.

Many believe that “green” solutions are costly and unprofitable. We want to dispel this myth and demonstrate a model of sustainability that is affordable, replicable and transferable.

Innovative financing structures will make Masdar City economically viable. Among them, carbon finance is an essential driver for Masdar City. We will monetize all carbon emission reductions under the Kyoto Protocol's Clean Development Mechanism. Such innovative financing has never been applied on the scale of an entire city.

Finally, I want to inform the committee about the significant contribution of American innovators.

- MIT is working with us to establish the world’s first research-driven graduate university focused on sustainable energy, which is called the Masdar Institute of Science and Technology.
- Investments by the Masdar Clean Tech Fund include U.S.-based DuraTherm, Enertech, Halosource, Nanogram Corporation, Segway, HelioVolt and Solargenics.

- Colorado-based CH2MHill serves as program manager for the overall development of Masdar City, and The Louis Berger Group is the project manager for the first phase of the city. They have both joined me here today.
- The Chicago-based architecture firm, Adrian Smith + Gordon Gill, will design Masdar headquarters in Masdar City, which will be the world's first mixed-use net positive energy building.
- We recently announced a \$2 billion thin film photovoltaic program using the latest generation of equipment from Applied Materials of California.
- And we have also had the benefit of working with US National Labs and the Department of Energy.

Things are happening fast at Masdar. We broke ground on Masdar City in February. Students are being enrolled in MIST. In January we will host the second annual World Future Energy Summit in Abu Dhabi. Last year, more than 11,000 future energy leaders from around the world gathered to share results, find partners and define action on the way forward. We invite you to come to Abu Dhabi and

see it all first-hand. I welcome our American friends and partners to join us.

Thank you again for inviting me today. I look forward to answering your questions.