

# Masdar city essay



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MASDAR CITY Established in 2006, Masdar is a commercially driven enterprise that operates to reach the broad boundaries of the renewable energy and sustainable technologies industry - there by giving it the necessary scope to meet these challenges. Masdar operates through five integrated units, including an independent, research-driven graduate university, and seeks to become a leader in making renewable energy a real, viable business and Abu Dhabi a global centre of excellence in the renewable energy and clean technology category.

The result is an organisation greater than the sum of its parts and one where the synergies of shared knowledge and technological advancement provide this commercial and results-driven company with a competitive advantage that includes an ability to move with agility and intelligence within an industry that is evolving at great speed. This holistic approach keeps Masdar at the forefront of this important global industry, while ensuring it remains grounded in the pursuit of pioneering technologies and systems that also are feasible.

As a result, it delivers innovation to the market while deriving profits for its shareholders. Masdar is a wholly owned subsidiary of the Abu Dhabi Government-owned Mubadala Development Company, a catalyst for the economic diversification of the Emirate. Why Future Energy? Abu Dhabi is home to 8% of proven global crude oil reserves, while the Abu Dhabi National Oil Company is one of the 10 largest oil companies in the world; what's more, the Emirate has enough hydrocarbon reserves at current production levels to last 100 years.

So why has the leadership of this Emirate, which is the capital of the United Arab Emirates, committed billions of dollars to developing Masdar and establishing Abu Dhabi as a global centre of excellence in renewable energy and clean technologies? For the Planet: With a heritage tied to life in the harsh and unforgiving desert, Abu Dhabi's leadership well understands the lessons of traditional desert living, where sustainable practices and resource conservation are not just slogans, but are essential to survival in such surroundings.

That's why the emirate's leadership understands the tremendous challenges posed by climate change, environmental degradation and the need to find sustainable energy sources. For Abu Dhabi's Future: Abu Dhabi has traditionally played a leading role in global energy markets as a significant hydrocarbon producer. Through Masdar, it seeks to leverage its substantial resources and experience in this sector to maintain its leadership position in an evolving world energy market that is increasingly looking to renewable energy.

Through Masdar, Abu Dhabi aspires to be an international hub for renewable energy, new energy and sustainable technologies, thereby balancing its already strong hydrocarbon position. This leadership is expressed in other ways as well. While Abu Dhabi has always been known as a global energy player, through Masdar, it is demonstrating what a responsible oil producer can do to help create a balance between hydrocarbons and renewable energy in addressing both climate change and energy security.

For Abu Dhabi's People: Abu Dhabi has embarked on a two-decade programme to transform its economy from one based on natural resources to one based on knowledge, innovation and the export of cutting-edge technologies. Guiding this transformation is a document called the Abu Dhabi Economic Vision 2030, which provides a comprehensive plan, including the steps to be taken to transform the emirate's economy over the next two decades.

Key goals include increasing the non-oil share of the economy from approximately 40% to more than 60% and significantly diversifying the scope of economic activity to include priority sectors such as education, banking & finance, tourism, pharmaceuticals, media, aviation & aerospace, transportation & logistics, and manufacturing in areas such as aluminum and petrochemicals. It also puts a strong emphasis on value-added knowledge-based industries, such as renewable energy and sustainable technologies.

Masdar will contribute significantly to this diversification in a number of ways. Across its five integrated units, the company will help:

- \* Expand the export base.
- \* Encourage private-sector entrepreneurship.
- \* Invest in education and research that stimulates innovation.
- \* Train, attract and retain skilled workers in knowledge-based sectors.
- \* Encourage investment in areas that generate intellectual property gains.
- \* Grow the non-oil sector's share of the emirate's economy and decouple economic growth from fluctuating oil prices.

Aspiring to be one of the most sustainable cities in the world, approximately 6km<sup>2</sup> Masdar City is an emerging global clean-technology cluster that places

its resident companies in the heart of the global renewable energy and cleantech industry. Situated 17km from downtown Abu Dhabi, Masdar City is a high-density, pedestrian-friendly development where current and future renewable energy and clean technologies are showcased, marketed, researched, developed, tested and implemented.

The city, which at full build out will house 40, 000 residents and hundreds of businesses, will integrate the full range of renewable energy and sustainability technologies, across a living and working community. As with most dynamic technology clusters, the city has a top-notch research university that is a source for innovation, technologies, R&D and highly skilled graduates.

The Masdar Institute, developed in cooperation with the Massachusetts Institute of Technology, is already operating in Masdar City, and its students are the city's first residents. Other major partners include Siemens, which will establish its Middle East headquarters and Centre of Excellence in Building Technologies R&D centre; GE, which will build its first ecomagination Centre; Schneider, which will operate an R&D centre; BASF; the Swiss Village Association; the Korea Technopark Association, and the International Renewable Energy Agency (IRENA).

Masdar Capital targets investments that have the greatest potential globally and to the UAE and is particularly focused on the following sectors: \* Clean energy: including power generation and storage technologies, transportation technologies, cleantech/clean energy innovation, and sustainable biofuels. \* Environmental resources: including water and waste management, and

sustainable agriculture technologies. \* Energy and material efficiency: including developments in advanced materials, building and power-grid efficiency, and the enabling technologies. \* Environmental services: including environmental protection and business services.