Project team on Abu Dhabi zero carbon city appointed

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Six consultants with Foster + Partners on Masdar City scheme. WSP reveals energy waste and water strategies

Six firms have joined Foster + Partners on the project team planning to create a zero carbon, zero waste city in Abu Dhabi.

The Masdar Development is a 6 million square metre sustainable city which is expected to be completed by 2015. A sustainable infrastructure strategy for the design of the scheme is expected to be completed by WSP in November.

The Full team

- Programme manager: CH2m Hill
- Sustainable infrastructure strategy: WSP
- Renewable energy design: ETA
- Environmental design guidance: Transsolar
- QS Cyril Sweett cost consultancy
- Transportation consultancy Systematica

WSP document

WSP has written a three page case study on the scheme which details how the team will achieve the zero carbon and waste ambitions. To start with a temporary photovoltaic power plant will be installed on-site before any building commences. As the city nears completion the panels will be transferred to permanent structures with in the city.

Waste and water

WSP has developed a waste-to-energy strategy involves the implementation of on-site recycling facilities for municipal solid waste and the conversion of organic waste material into gas which then runs an engine which generates electricity. WSP has also developed a water strategy that reduces the demand for water. This involves water desalination to provide potable water for use in homes, the treatment of waste water and then the reuse of this water for toilet flushing and irrigation.

Masdar has several main power sources to meet the energy that the city will demand. There will be a large photovoltaic power plant, a solar thermal plant using parabolic troughs which work on the principal of concentrating solar power into steam, and the waste-to-energy plant. There will also be both wind and photovoltaic energy farms located in the land surrounding the city. The city will house clean technology companies as well as a research and development institution established in cooperation with the Massachusetts Institute of Technology.

Marketplace Recommendations