



Masdar Institute of Science & Technology

UCC501 – Sustainable Energy

Fall 2014

Project Submission Form

Release Date:

Submission Date: 2/10/2014

Team Member	Department
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*at least 3 programs should be represented in your team

Topics of Interest

Rank	Topic
1	Building design for energy efficiency in inhospitable climates: a view of building sustainability in the Gulf
2	How does government policy effect the economics of renewable energy? Energy subsidy confusion in the United States
3	Sustainable Transportation in developing economies: Increasing opportunity through improved transportation in East Africa

*rank by preference

Brief Description of each Topic

Topic	Description
1	The state of the art in passive and low-energy cooling systems for residential and commercial buildings will be investigated. We will consider the potential of such designs in the Gulf region, with the goal of answering the question, 'how much can we reduce energy consumption by air conditioning systems by applying the best passive cooling designs to buildings in this region?' The potential gains will be compared to current UAE building standards and current performance of buildings in the region.
2	An investigation of the various taxes, subsidies and incentives that affect the economics of renewable energy in the United States. Emphasis will be placed on identifying 'fossil fuel subsidies' and quantifying the degree to which they undermine other incentives intended to promote renewable energy. The effect on the solar industry will be particularly emphasized.

3	A discussion of the economic and social importance of private cars in developing countries, with the Horn of Africa being taken as a case study. We investigate attitudes towards personal transportation as a typical cultural barrier to the adoption of so-called 'sustainable' development models, and consider what, if any, social, economic or policy changes could promote more sustainable living without further disadvantaging the people of the region.
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