

Innovation for Regeneration: The Business World



Dr. Sarah Slaughter

**MIT LSC Big Picture Panel On Sustainable Energy
February 11, 2008**

Climate Change and Regeneration of Society and Environment

- **Action Is Better Than Inaction**
- **Strategy Can Be Thoughtful**
 - Requires Specific Goal
 - Tied to Measurable Outcomes
 - Supported by Specific Tactics
- **Focus on Developing Resources, Capabilities, and Information As You Go**



What You Can Do

- **Now**
- **When You Graduate**



What You Can Do - Now

- **What You Buy**
 - Consumers have a major impact on what companies decide to provide in products and services
 - Which Resources Used
 - Where and How Resources Used
 - How Delivered
 - What Waste When You're Done



Staples



- **Light, conveyor belts and equipment only “on” when in use**
- **On-site renewable energy generation –supplies 20-60% of energy used**
- **Energy efficiency retrofits of facilities, equipment, and vehicles**
- **New products using agricultural waste**
- **Takes back electronic and office waste for recycling**

What You Can Do - Now

- **What You Use**
 - Waste
 - Inefficiency
 - Unnecessary Use
 - Substitution



Transportation Modes and CO2 Emissions

(Source: Sighline.org)

TRAVEL MODE	CO2 lbs/ pass/mile
SUV	1.6
Average Car	1.1
Jet	1.0
Economy Car	0.6
Intercity Train	0.5
Carpool	0.4
Mass Transit (3/4 full)	0.3

Boston to London RT is 6,507miles and generates 2,538 lbs of CO2
Boston to Tokyo RT is 13,414 and generates 5,232 lbs of CO2



What You Can Do - Now

- **What You Do – MIT as an Experimental Lab**
 - Re-Generator – February 21, 6 pm
 - D-Lab, G-Lab, S-Lab, and other Project-Based Courses
 - \$100k Competition
 - Community Service Center
 - Research



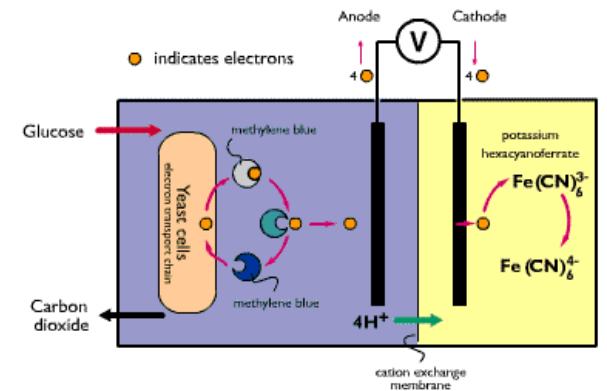
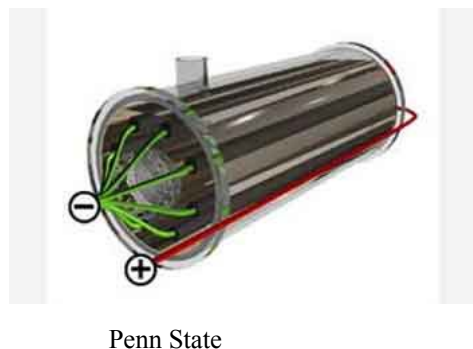
New Approaches

- Waste Water to Energy:

- Microbial Fuel Cell - uses waste water as fuel, creates electricity and water

- Potential Application: Feed lots, NASA missions, sewage treatment plants

Source: Pennsylvania State University



What You Can Do – After Graduation

A company that is strong in sustainability takes action to address social equity, economic development, and environmental restoration with respect to its own employees, its own operations and products/services, and its supply chain, as well as the community(ies) in which it operates.



It is a journey, not a destination.

Finding Companies Committed to Regeneration

- **International Organizations**
 - World Business Council for Sustainable Development
 - International Business Leaders Forum
- **Non-Profits for Investment**
 - Ashoka
 - Ceres
 - Acumen Fund
 - Clean Tech Venture Network

