



Sustainability Efforts at James Madison University

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26 October 2007

Overview

- The campus and its infrastructure
- Sustainability initiatives broadly
- Strengths, goals, challenges
- Strategies and projects
- Institutionalization
- Words of advice



The Campus

- Residential campus of 17,000 (20,000)
- Harrisonburg ~65,000
- 655 acres, + 31 acre farm + arboretum
- 33 dorms, 55 ed/admin bldgs, 14 other
- ~ 4.5 million ft² conditioned space
- Significant growth planned

Infrastructure

- Electricity, space conditioning, hot water, transport
- Electricity is purchased from HEC
- Campus heating & cooling is steam
- Hot water is steam and NG
- Campus power plant for steam (NG)
- Steam from city waste recovery facility
- Public transit for campus bus service
- Fleet of ~330 vehicles
- \$4 million excluding fleet fuel

Sustainability Initiatives

- Talloires many years ago
- Sustainability Working Group Fall 2006
- Presidential Commission April 2007
- President's Climate Commitment July 2007
- Final recommendations October 2007

Campus Sustainability Audit

- 12 operations, institution, academics
- Carbon Neutrality
 - energy use, transportation, air quality
- Materials Use
 - procurement, purchasing, dining, recycling, building and construction
- Resource Conservation
 - landscaping, water/sewage, land use, special properties (arboretum, farm)

Strengths

1. **People**
 - **FM, AVP of Business Affairs**
 - **Student Green Team**
 - **President**
 - **Faculty and staff**

2. **Infrastructure**
 - **Resource recovery facility**
 - **No coal**
 - **10 kW PV array**
 - **Recent PEPCO audit**
 - **New construction**

3. **Transportation**
 - **Public transit system**
 - **100% fleet, equipment, public transit on biodiesel**
 - **Gas fleet running 10% ethanol blend**
 - **Significant AFV efforts and experimentation**
 - **“Privatized dorms”**

Goals and Challenges

■ Goals

- Meeting Governor's 20% directive (by 2010)
- Transportation demand management (~12,000 permits)
- Reducing energy intensity
- Climate Commitment strategic plan & implementation

■ Challenges

- Growth mode
- No energy management system
- Lack of info: need load profiling
- Budget consciousness
- JMU community
- Capital funding (LEED)

Strategies and Constraints

- Minimal change in policies needed
- Climate Commitment plan
- Green fee issue
- Institute Energy Management System (looking at Energy Star)
- Load profiling; bang for buck
- Long term transportation policy
- Continue AFV
- RRF opportunities
- Lots of low-hanging fruit
- Unlikely to pursue offsets; can't do RECs (HEC)

Low Hanging Fruit

- **Green fee?**
- **LEED Silver dining hall**
- **FM practices**
- **Fleet practices**
- **Equipment purchasing**
- **Recycling, procurement**
- **Awareness Campaigns**
 - **Campus sustainability logo, slogan competition**
 - **Dorm challenge & showcase dorm room**
 - **Light bulb exchange**
 - **“One Book”**
 - **Weatherization workshops**
 - **No idling zone signs**
 - **Campus drive-out day**
 - **Biking and walking trail education**
 - **Energy pods**
 - **Tip of the week**

Institutionalization

- Develop culture of sustainability
- AVP of Business Affairs
- Maintain the big sustainability group
- Breakout into small cross-functional teams
- Develop sustainability monitoring system
- Develop energy/carbon monitoring system

Words of Advice

- Be patient: time and labor intensive
- Advocacy v. protest
- Projects v. plans
- Instant gratification, visibility and momentum
- FM buy-in is essential
- Student groups
- Understand/audit your campus first
- Know what you can measure, where data gaps exist
- Cross-campus teams are fab
- Focus on one or two major things at a time
- 5-10 year planning horizon
- Carbon neutrality: the vision v. the reality of scale
- PLAN vs. PROJECTS!!!