**Campus-Based Energy Efficiency**

**Charged with identifying, pursuing, and achieving measurable energy reductions and cost savings across our diverse campus environments**

**Discussion Leader:** Victor Olgyay, Rocky Mountain  
**Team Leaders:** Steve Sharp, UNC Wilmington Energy Manager  
Chris Martin, UNC Chapel Hill Energy Management Director

Please provide notes that are clear, concise, high level, and actionable. These notes will be initially forwarded to team leaders for final editing before publishing. Working Groups will utilize these discussion points as a basis going forward in taking action towards the Energy Leadership Challenge.

**Mid-year conference as basis: 3 issues**  
Opened by Chris Martin  
1. Broader support needed from campus  
   - business cases to senior leadership: funding organizational ...  
2. Data analysis – not to be discussed, not big enough  
3. HVAC – biggest problem, opportunities  
   - educating HVAC technicians

**1st topic (Steve Sharp) – identify develop retaining technical skillsets**

- technical positions: control field techs  
  - control field programmers (same person)  
  - operations level controls – mid level  
  - engineering level – reporting, master planning, commissioning  
  - upper level combine engineering, HVAC, IT

OJT on the job training – send state employee techs to same training as private contractors  
- training at end of building project not sufficient  
Should tech show cx on buildings
-salary vs. other motivations
-training –send techs to company specific training
-focused on site training –instead of company specific

-promote 2 year tech degrees?

Programmer retaining -background?
    Electrical -preferred by ASU
    HVAC
    IT -preferred by UNCCH, others

-train and recruit techs differently?
NC State hiring student interns –trains at university
-call it what it is, engineering at the price of a tech.
-internships and coordination of education/physical plant
-outsourcing

Chris Martin – “integration”

Preventative maintenance highly important
Budgets shrinking –funding needs to be integrated
Housing at UNC CH not interested in spending money to save money energy efficiency –how to make the business case

Where does energy management belong in an organization?
Deferred maintenance, maintenance, energy –different funds
Surcharge on utility bills for on campus entities –utility funds energy conservation
-create more energy on campus directly avoid energy supplier increases
-renegotiate contracts
-Sustainability director’s job
-Policy appreciation –does administration understand us?
Higher ups listen to students, get them to step up
-outside sources to prove financial models
-case directly from chancellors
-internal policies

Organizational location
-validation of ideas, knowledge base
1) direct building operations standards
2) influence maintenance activities
3) influence construction renovations
4) educate and research

-maintenance guys do not prioritize based on energy costs opportunities
Opportunities

Institutional silos
-priorities of departments are different

Can energy managers be successful without direct reporting for HVAC techs?

-with budget cuts, should HVAC techs fix outages or concentrate on energy savings outages or maybe same thing?

Currently maintenance trumps energy management

Control technicians belong with operation engineer
Energy managers need advanced authority
Developing expertise: