

# Role of VEC & Higher Education

Divide, *share* and conquer!

- VEC survey results point to need
- What's being done?
- What's left to do?
- How do we get there?



**Joan Richmond-Hall**  
*Vermont Tech & VEC*

# We've fallen short...

- Vermont's educational community needs to work differently to coordinate & deliver **needed** skills to our environmental sector.

## Basic skills

Project management

Communication

Problem solving

Literacy

Basic math

## Specific professional skills

Field technicians

Energy modeling & alternative energy

Green building design & building performance

Hydrology

Utility operations

HVAC system design

Brownfields & environmental design

# Recent progress

A number of organizations & programs, largely ARRA-funded, are addressing some of the training needs identified:

## Basic skills

Job readiness

## Trainings

Assessment of energy efficiency

Weatherization & retrofitting

“Green” construction

RE: photovoltaic, solar hot water, wind

Energy efficient & hybrid vehicles

Recycling & waste reduction



EE & RE

# Where are the holes?

- ***Continuing education*** and ***professional trainings***
- Education & training not directly related to EE & RE
- Involvement of Dept of Ed, Technical & Career Centers

## ***Potential roadblocks?***

- Membership in specific professional organizations
- Instructors may have to be certified or approved.
- Specialized equipment may be required.
- Hours have to be tailored to the audience.

# VEC members can help

## VEC members can be effective agents of change:

- Members whose business is training;
- Members who outsource training can pool their needs to create shared solutions; and
- Educational institutions can identify and adopt “orphaned” trainings and offer them to the environmental sector...
- ... and to their pre-professional students.

# What can education offer?

We cannot always create academic programs or courses for credit to meet every workforce need.

But we *can* offer:

- space for trainings - across the state;
- remote access via VIT or web-learning portals;
- some instructors;
- coordination services;
- development of certification or continuing education credits;
- assessment and reporting.

And we can offer trainings to students *before* they enter the workforce, *if* we can find a way to fund these added educational opportunities.

# Educational concerns

Traditionally, higher ed has separated education vs. training.  
Let's reopen the discussion of “value-added” skills for students.

- How do education and skills differ?
- Do we satisfy accreditors or employers?
- How do we deliver basic education, specialized knowledge, & certification skills...
  - in short two-year or four-year programs?
  - and while we have them with us?
- Can we use internships?

How do academics interact with the training side

# At Vermont

## Tech

Embedding skills in academic programs:

- Requiring courses in
  - Communication and conflict
  - Project management
  - LEED certification
- We are committed to improving written

communication

Developing curriculum & trainings for a broader audience:

- Renewable energy assessor training
- Biofuels education: solid biomass & liquid biodiesel
- Ground-source heat pump training for Vermont?

Sharing courses with the community?

- Project management?
- Grant writing?
- Land use & diversified agriculture courses?



# Coordination is critical

Working with Vermont Green, VEC is working to create a ***Training Portal*** to match-make training needs & opportunities.

- Web-based
- Funded by fee per post
- Users would post information themselves
- Archived & searchable
- Location & mapping of trainings & needs
- Discussion forum

We hope that this tool will help employers capture missed opportunities for sharing and collaboration of trainings & resources.

# Next steps?

How do we identify which training or continuing education needs we should address first?

How do those working on this problem communicate with:

- 1) each other; and
- 2) with employers seeking training?

What types of financial models can be developed?  
... particularly for “orphan” trainings?

