NEET Executive Committee Meeting June 17, 2010

Progress Update from NEET Workgroup 5: Workforce Development

Overview

- Background and Context
- Workgroup Implementation Efforts
- Where do we go from here?

Fundamental Assumptions

- A workforce shortage is imminent that will adversely affect utilities ability to conduct EE programs.
- Utilities, Government, Private Businesses (Microsoft, Property Management Firms, Large Retailers) and other key employers in the region will be competing for talent from the same small labor pool.
- Strategically addressing the workforce shortage at the regional level is more efficient than local initiatives.
- The time to act is at the present moment

Approach

- WG#5 decided to focus its approach on:
 - A regional perspective,
 - A literature review,
 - Actionable items within a 5 year timeframe.

Research Findings

- Workforce Challenges
 - Retirements and Age Structure
 - ~50% of workforce to retire in next five years.
 - · Decline in working age cohorts over next 20 years
 - · Particular shortage in the skilled trades and engineering programs
 - Employment in EE Refracted Across
 - Trade Allies (A&E, Contractors, Specialized Skills), ESCOs, Government, Manufacturing, Utilities, Private Business (Microsoft, J.C. Penny, Property Management Firms)
 - · Disparate job classifications that are difficult to classify and quantify

Example Job Titles

Utilities, ESCOs, Private Business Skilled Labor/Trades Administration (Budget, Tracking, Reporting) Building Inspectors Analysts Carpenter Helpers **Building Commissioners** Economists Cement Masons and Concrete Finishers Emerging Technology Construction Equipment Operators Energy Auditors Commercial Energy Auditors Residential Construction Laborers Energy Management Engineers (Jr. Sr. Supervisory) Construction Mangers Management Electricians Hazardous Materials Remover Workers Outreach **HVAC Installers** Resource Conservation Mangers Program Mangers Industrial Truck Drivers Appliances Insulation Workers Commercial & Industrial Plumbers, Pipefitters, and Steamfitters Evaluation and Audit Roofers HVAC Sheet Metal Workers Lighting Government Low Income Heating Energy Assistance Commissioners Pilot and New Program Development Public Administration Staff Planning Research Economists Residential Public Counsel Trade Allies Auditors

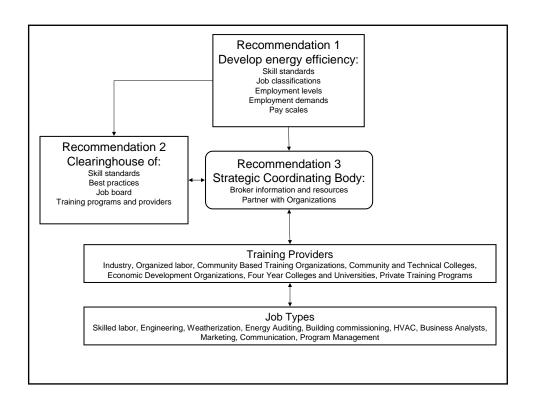
Key Things that Emerged From Research

- Lack of Strategic Coordination Among EE Workforce Development Players:
 - Community Based Training Programs
 - Education
 - Organized Labor
 - Private Training Programs
 - State Workforce and Training Boards
 - Utilities
- Lack of Coordination Among Training and Coordination Entities
 - Approximately 100 different training and education programs exist in region
 - Competitive versus coordinated environment

- Lack of data for EE workforce development:
 - Skills required
 - Positions needed
 - Pay rates
 - Public Awareness
- Lack of Funding For Workforce Development Training
 - Present Economic Downturn
 - State Deficit (WA)

Additional Learning from WA State Green Jobs Assessment 2009

- 38.9% of Green Jobs are in Energy Efficiency
 - 87% are located in the private sector
 - 74% of EE jobs within the private sector are full time positions.
 - 44% of all green jobs in the private sector are EE jobs
 - A majority of private sector EE jobs are within the construction sector.



Executive Committee Action Plan

- ACTION 6: Define energy efficiency jobs distinct from other green-economy jobs, establish skill standards and identify job classifications for use throughout the Northwest. Create a regional clearinghouse for energy efficiency job openings.
- ACTION 7: Create a coordinating body to partner with energy efficiency entities to increase regional coordination on training, educational programs, curriculum and skill standards.

Implementation Actions

- Executive Co-Chairs of Workgroup Five contracted with Ken Canon to facilitate on-going activities for Actions 6 and 7.
- Contracted with The Center for Excellence in Energy Technology (COE) for cataloging and coordinating existing energy efficiency training and that deliverable is now available on COE website.

Implementation Actions

- Between November 2008 and June 2010 Workgroup five approached 4 organizations:
 - NEEA
 - Center for Energy Workforce Development (CEWD)
 - Western Energy Institute (WEI) and
 - NWPPA

as administrative homes to implement actions 6 & 7.

- Additionally, Workgroup 5 considered an independent, stand alone effort with its own executive committee.
- Tracking of research and workforce development activity from November 2008 to present.

Education and Outreach

Since November of 2008, the report from workgroup 5 has informed efforts for a variety of organizations and ARRA grant applications:

2009

March 18 BPA EE Summit Presentation
June 25 Center of Excellence Energy Summit
June 30 Olympic Worksource Consortium

July 21 Workforce and Economic Development Councils of Eastern Washington July 23 Washington Workforce Education and Training Coordinating Board

DOL grant application strategy meeting

July 28 Presentation to Western Regional CEWD Meeting

September 10 Presentation to Northwest Association of Women in Construction November 17 Strategy Meeting for DOE Smart Grid Training Grant Application

2010

January 28 Presentation to King County Green Workforce Council

February 3 Presentation to:

Washington Employment Security Department, Workforce Education and Training Coordinating Board,

Department of Commerce

~ subsequent outreach effort to corresponding agencies in neighboring states

February 9 Presentation to Northwest Harvesting Clean Energy Conference

April 8 DOE Smart Grid Training Grant awarded creating Pacific Northwest Center for

Excellence in Clean Energy

April 19 Presentation to NWPPA and subsequent development of scope of

work for action item 6.

Research Approaches for Action 6

	EMSI Database	Primary Employer Survey	Primary Employer Interviews	
Explanation	Economic Modeling Specialists Inc. (EMSI) makes use of a linked set of databases from the Department of Labor, Bureau of Economic Analysis, U.S. Census, Bureau of Labor Statistics, individual state agencies. Data sets are current within six months and O*Net standard occupation codes (SOC) include energy efficiency groupings including Energy Engineer and Energy Auditors. Querying EMSI databases would give an overview of the existing employment levels for energy efficiency work and indicate SOC groups poised for growth.	Design an online or written industry survey of employment needs for five selected occupations and gather data from employers on additional occupations that are perceived as high need. The survey would be checked against an initial group of NEET participants for targeting prior to full field deployment, and would gauge levels of employment, future demand, training/education/experience requirements, present sources of employees, compensation ranges, and other determined data needs.	Design research to query employers regarding five selected occupations and gather data on additional occupations perceived as high need. Research design would be checked against an initial grou of NEET participants prior to full field deployment. Conduct live interviews vi phone/other method to gauge levels of employment, future demand, training/education/experience requirements, present sources of employees, compensation ranges and other determined data needs.	
Timeframe	Month to six weeks for tables with interpretive context, year long subscription to database services.	Up to one year for completed study and publication.	One year to year and a half for complete study and publication.	
Advantages Fast, lower cost, breadth of data, updateable query during subscription period.		Large sample of employers, quantitative data for analysis, engage employers in policy, demand, priorities and capacity of workforce pipeline	Highest degree of understanding and accuracy, able to dynamically respond to unanticipated issues and gather addition pertinent data at time fielded. Integrates quantitative and qualitative data to clarifundation of results.	

Research Approaches for Action 6

	EMSI Database	Primary Employer Survey	Primary Employer Interviews
Disadvantages	Assumptions built into the existing high-level industry/job classification systems—broad job classes may not pertain specifically to EE industry supply/needs, limitations in accuracy drawing inference at finer scale. Results will guide necessary follow up work.	Higher costs, longer timeframe for results, pre-determined questions and one way communication limits level of understanding of employer responses. May generate unanticipated questions requiring follow up work.	Higher costs, labor intensive, time intensive. Limited in breadth (sample of key employers, sectors).
	\$32,000 consulting state level analysis tables/data/text \$40,000 consulting state level with extended analysis including graphs/maps Additional cost drill down on particular counties Discount on web tool if purchased as well. Alternatively, just the web tool may be purchased with supporting instruction from EMSI staff for NEET staff to run queries. Subscriptions are on a yearly basis.	Scope limited to \$100,000 - \$150,000 Surveys are more economical than interviews and costs depend on the design, number of occupations, and number of employers included. It is assumed the budget scope above is the outer limit NEET can allocate to the research effort and so numbers of occupations and employers will be constrained accordingly, yet meaningful results can be attained.	Scope limited to \$100,000 - \$150,000 Costs depend on the number of occupations and employers included. Focusing on a cluster of similar occupations is more economical. Given a similar breadth to a survey of the same scope, an interview methodology will yield much greater detail and insight in results.

Energy Efficiency Grant Investment Activity within NEET Coordination Area							
Project Title	Grant Amount	Geography	Focus	Contact			
Oregon Green Jobs Council	\$5.38 Million	Oregon	Training in efficient vehicle technologies, supply chain manufacturing, green building and other sustainable industries	Oregon Workforce Investment Board: Green Jobs Council Dave Williams Co-Chair			
Washington's Energy Sector Partnership Grant	\$5,973,635	Washington: WDCs Spokane, Snohomish, King	Provide training for targeted populations in high demand professional-technical occupations needed for energy efficiency in commercial and public buildings	Washington State Workforce Training and Education Coordinating Board Bryan Wilson Martin McCallum			
State Energy Sector Partnership	\$5,991,184	Idaho	Prepare workers for careers in energy efficiency, renewable energy industries, and green occupations (curriculum and articulations)	Idaho Department of Labor			
Sound Energy Efficiency Development	\$3.3 million	Washington: Puget Sound Region	473 people in the Puget Sound region will be trained, earning industry-recognized certificates in residential energy auditing, building operator, and OSHA safety	NEEC Seattle-King County Workforce Development Board Stan Price			
Pacific Northwest Regional Center of Excellence for Clean Energy	\$5 million	NEET Region: Idaho, Montana, Oregon, Utah, Washington	Smart Grid Workforce Training. Includes provisions for smart grid demand side management. Remote Learning, Regional Education Training Center (SATSOP)	Centralia Center of Excellence for Energy Technology Barbara Hins-Turner			
Northwest Energy Efficiency New Opportunities \$75,000		Washington Seattle/King County	Develop training in energy efficiency and emerging clean energy: RFP commercial energy curriculum (residential cohort SSCC funded by other sources)	Seattle-King Workforce Development Council			
NSF Grant: Energy Management in a Carbon Constrained World	\$900,000 may be scaled back by NSF	Washington	Develop summary skills for energy management occupations, yet to be defined but likely to include RCM, HVAC Tech, Energy Advisor	Edmonds Community College (Fiscal Agent) Consortium of Colleges Alison Pugh			

^{*}Given the economy and state of unemployment, the focus for ARRA and other funds was prioritized for getting jobs on the ground and shovel ready projects rather than research efforts to guide them.

Where Do We Go From Here?

- Pacific Northwest Center of Excellence for Clean Energy will serve as ongoing host for action items 6 and 7
- Bridging the DOE Smart Grid Grant for NEET action items
- Coordinating relationships to ARRA and other grant recipients in the region.
- How will COE proceed?
 - Advisory committee creation
 - Acquiring additional funds for action item 6 as necessary
 - Staffing and administration
 - Transfer of remaining NEET Workgroup 5 seed money from NEEA to COE