SMART ENERGY

PACIFIC NORTHWEST CENTER OF EXCELLENCE
FOR CLEAN ENERGY
A Centralia College Partnership

Developing a Pacific Northwest *Smarter* Grid Workforce

Barbara Hins-Turner, Executive Director
Center of Excellence for Clean Energy
Utility Energy Forum
May 13, 2015

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Audience Questions

How many of you:

* plan to retire within the next 5 years?

* have developed a succession plan?

* have job openings in your department today?

* have partnered with at least one community college?

* have worked with K-12?

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CENTERS OF EXCELLENCE

Celebrating 10 Years

Vision

Become national model to develop partnerships between:

- ❖ **Business**
- ❖ **Industry**
- ❖ **Education**
- ❖ **Organized labor**
- ❖ **Workforce system**
- ❖ **Economic development**

Mission

Liaison between partners and the state's education system to:

- ❖ **Drive the energy economy**
- ❖ **Create highly skilled workforce**
- ❖ **Provide consistent curriculum**
- ❖ **Meet industry needs**
- ❖ **Provide state-wide coordination**

"Air traffic control"

The Foundation
Gathering Labor Market Data

National

* 2009 National Commission on Energy Policy's Task Force on America's Energy Jobs
* 2009 IEEE Power and Energy Society (PES)
* 2011 Center for Energy Workforce Development

Pacific NW Region

* 2008 Workforce Challenges of the Electric Sector
* 2009 Northwest Energy Efficiency Study
* 2013 Workforce Challenges of Electric Power Employers in the Pacific Northwest

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2013 Labor Market Study Participants - 5 State Approach

- Avista
- Bonneville Power Admin
- Chelan County PUD
- Energy Northwest
- Grant County PUD
- Grays Harbor PUD
- Idaho Power
- NorthWestern Energy
- PacifiCorp
- Portland General Electric
- Puget Sound Energy
- Seattle City Light
- Snohomish County PUD
- Tacoma Power
- TransAlta (Centralia)
- U.S. Bureau of Reclamation

WASHINGTON STATE UNIVERSITY
EXTENSION ENERGY PROGRAM

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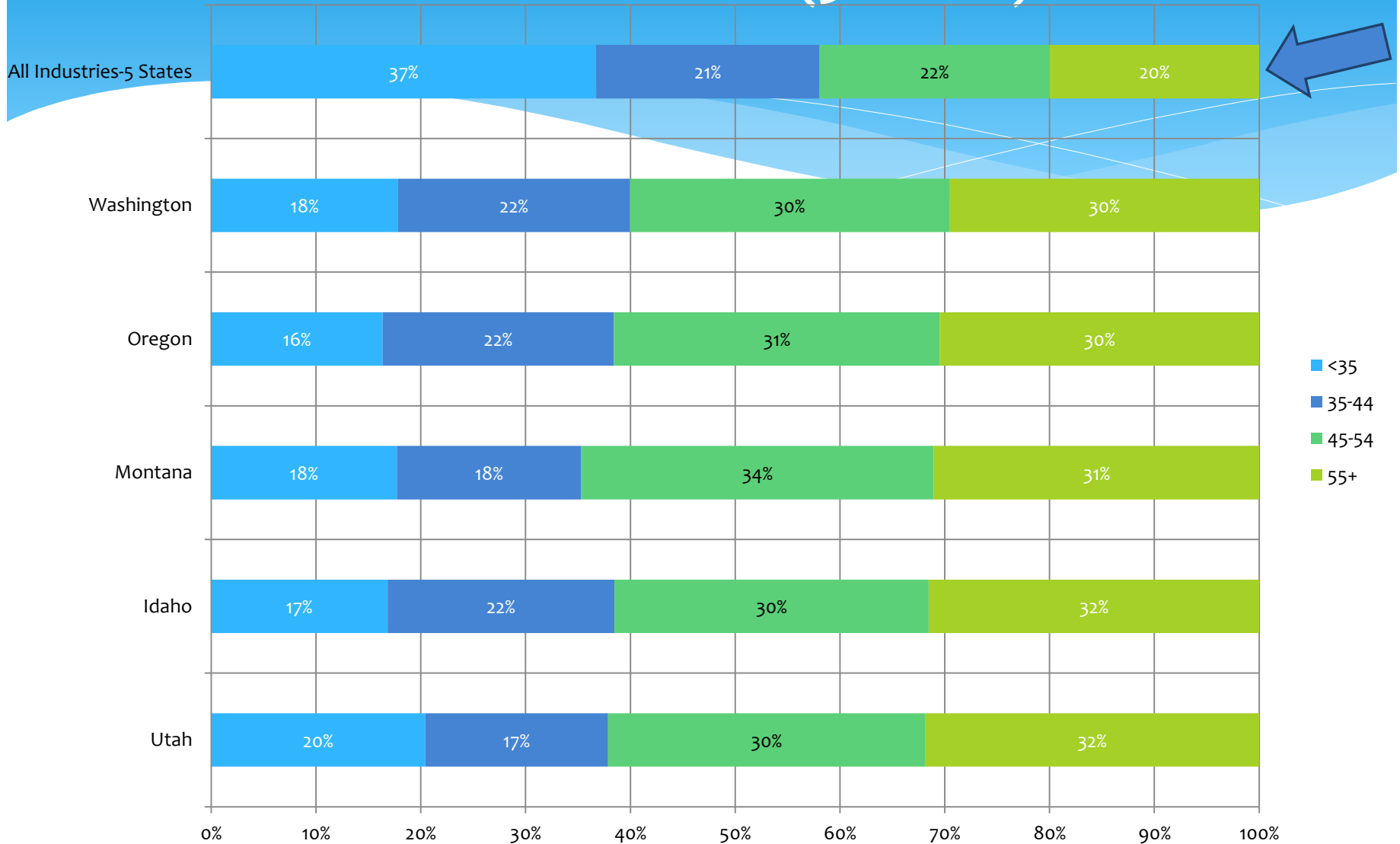
Three Major Factors

* Impending Retirements
* Shrinking Labor Pool
* Knowledge and Skill Gaps

Maintenance employees walk through the juvenile fish bypass
Photo courtesy of Chelan County PUD

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2011 Utility Employment by Age Cohort and State, vs. All Industries (5-states)

State	<35	35-44	45-54	55+
All Industries-5 States	37%	21%	22%	20%
Washington	18%	22%	30%	30%
Oregon	16%	22%	31%	30%
Montana	18%	18%	34%	31%
Idaho	17%	22%	30%	32%
Utah	20%	17%	30%	32%

Key Hiring Challenges

* General shortage of <u>qualified</u> mid-level applicants
* Occupational shortages cut across industry sectors
* Increased recruiting and hiring costs
* Work conditions as a challenge to recruiting and hiring
* A lack of workforce diversity
* Specific shortages: Power engineers, line workers, some technicians and electricians, mechanics

New and Emerging Skill Requirements

Skill Panels

- Connecting industry and education
- Skill Standards: defining industry requirements
- Industry investment of direct dollars
- Seasoned workers define standards
- 18 Standards Completed
  - Newest: Customer Service Representative

http://cleanenergyexcellence.org/skill-panel/

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Washington CTC's in Energy
http://cleanenergyexcellence.org/CollegePrograms/
Aligning with the "Industry Evolution"

2005

Big Bend, Centralia, Clark, Spokane,
Walla Walla Community Colleges

2015

"Niched Up" Energy Programs
Expanded Scope Across the State

Developing a Pacific NW Smarter Grid Workforce

Energy Northwest
Amanda, Nuclear Technician
Columbia Basin CC
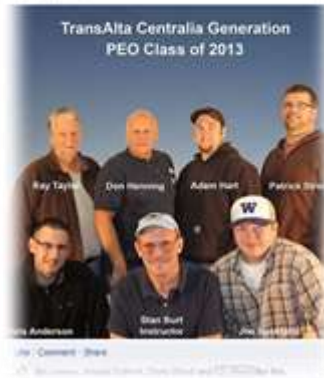
Lewis County PUD
Travis, Intern
Centralia College
Sr WSU Electrical Engineering

Grand Coulee
Brian, Hydro Operator
Centralia College

Seattle City Light
Nick, Power Plant Operator
Centralia College

TransAlta
Plant Equipment Operators
Grays Harbor/Centralia College

Wilson Construction
Kris, Apprentice Lineman
Avista/Spokane CC

Tacoma Power
Jake, Hydroelectric Utility Worker
Centralia College

Careers in Energy Week
Natl Center for Energy Workforce Development
October, 12 – 18, 2015

* Afterschool meet and greet
* Tacoma Power & Lewis County PUD career fairs
* Teachers are apprentices for a day
* Visitor Centers and plant tours

* 2014:
  * 19 events reached 4,283 students, parents, teachers, counselors and veterans attended
* 2013:
  * 27 events reached more than 1,650 people

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Examples of External Funding Sources Center of Excellence for Clean Energy 2006-2015

* U.S. Dept. of Labor
  * Appropriation
  * WIRED
  * **TAACCCT Round 4**
* U.S. Dept. of Energy
  * Smart Grid Project
* U.S. Dept. of Commerce
  * Energy Entrepreneur Program
* Workforce Board
  * Skill Panel Grants

* Nat'l Science Foundation
  * Edmonds CC
  * **South Seattle CC**
  * **Bellingham Tech**
  * **Spokane Falls CC**
* Northwest Energy Efficiency Taskforce (NEET)
* Industry Contributions
  Total - $30,710,980

U.S. Dept. of Labor - TAACCCT Round 4

http://cleanenergyexcellence.org/wise/

* $450 Million - 71 Partnerships
* Announced – 9/29/14
* Washington Integration Sector Employment - WISE:
  * Value - $9,994,854
  * Start Date – 10/1/14 -End Date – 9/30/18
  * 3 years for program -4 years of 3rd party research and evaluation
* Serve 1,992 participants
  * Dislocated Workers
  * Veterans and Spouses
  * Women and Minorities

10ᵗʰ Annual Energy & Construction Best Practices Summit

Clean Tech: Washington's WISE Future

Keynote Speaker: Brian Young, Washington Dept of Commerce Clean Technology Industry Sector Lead

Bates Technical College South Campus

May 28/29

* **Registration is Open: http://cleanenergyexcellence.org**

Building Engagement

* Contact Your Local Community College

  * Workforce Dean or Faculty

  * Volunteer for Advisory Boards

  * Guest Lectures

  * Host Tours

* Contact Your Local High School

  * Counselors

  * Sponsor a Class – Oregon City High School

* Resources:

  * Center of Excellence for Clean Energy

    * http://cleanenergyexcellence.org

  * Foundation for Water Energy and Education

    * http://fwee.org/

  * IEEE PES Student Membership (engineers)

  * CEWD

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http://cleanenergyexcellence.org

The 21st Century Skilled Workforce
How do we recruit, train and retain them?

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