



Energy and Clean Technology Roundtable Notes

Workforce Snohomish, in collaboration with Snohomish County and Economic Alliance Snohomish County, has been convening monthly industry-focused employer roundtables to gauge and assess our region's workforce challenges. These roundtable events have identified issues that are industry-specific, as well as those seen across all types and sizes of employers. Each quarter, Workforce Snohomish shares the results with all interested community partners to help align and focus community resources.

Energy and Clean Technology Employers met on 4/25/17 and identified multiple issues that they are facing within their workforce. The workforce community partners will continue to realign the community resources to address the deeper and more systemic issues facing the pipeline, retention, and development of the retail workforce. While solutions are being developed and implemented, the community of partners would like to make sure that current solutions for many of the issues raised currently exist and can help the engaged businesses.

The Following are the takeaways from the Energy and Clean Technology Employer Roundtable Meeting on 4/25/17.

How to Read: underlined are the Different Sections, the red text are the **Gaps / Needs Improvements**, the green text are the **Possible Solutions / Recommendations**, and the black text are the general comments that apply to the section.

- 1. Identify the key issues within your industry.**
 - A. Utility companies do not currently face much competition.**
 - a. But that will change in the coming years as more off the grid and personal utilities technology because the norm.
 - B. There is growth in the service area due to the booming construction going on in our county.**
 - C. Growth rate is pressuring companies to provide discounted rates to low income and senior customers.**
 - a. Although Snohomish County generally is a high income area, there are many pockets of poverty.
 - b. There are about 5,500 subsidized electric heat users within the utility network.
 - D. Skill sets within many employees are not keeping up with technology.**
 - a. Long time employees are not willing to adapt to new technology which limits tech advances.
 - b. The mentality is, "We've always done it this way."



- c. Staff don't want to change processes.
- E. Self-service options are not available to consumers because internal staff are reluctant to change and unionized jobs can take a long time to change.

2. Challenges & Opportunities.

- A. Department of Energy (DOE) has provided funding opportunities allowing for research universities and laboratories to collaborate.
 - a. But these funds have been drying up.
- B. Governor's Clean Tech bill has also provided funding for innovation.
- C. The decision process in identifying or creating a new delivery of energy can take decades.
 - a. No one makes energy decisions quickly which impacts innovation.
 - i. Entities may have a good ideas, but because the implementation and high cost the decision trees take a long time, it prevents bringing new ideas into the markets.
- D. Consumers want lights on and low rates. They don't care particularly what makes that happen.
- E. Utility companies by practice are very conservative since they cannot use money on practices or techniques that are not highly efficient or proven to not operate close to 100% of the time.
- F. Smart grid is making the transportation of energy more efficient from sources of energy to the end users.
- G. Other industries usually look to new companies to bring more innovation into their fields. This is not the case within energy.
 - a. The large energy companies that are creating their own internal innovations to solve specific energy issues.
- H. Generation and delivery of energy to users is in a crisis.
 - a. Technology industry is pushing to not need a single source power, but instead multiple sources.
 - i. As homes are able to provide energy themselves, it could move outside the grid.
 - b. This is being pushed by the need for rural areas and the third world needing to figure out how to generate and store their own power.
 - c. This will be good for many end users, but is likely going to threaten utility companies.

3. Solar Energy.

- A. Solar Energy technical panels are becoming more efficient.



- a. Struggles in marketing solar energy power.
 - i. Especially in this area.
 - b. Need a supply chain and a global market to make any head way in the development.
 - B. Possibly find a way for consumers to sell back energy created in homes (i.e. like California program).
 - C. This type of energy works, but there doesn't seem to be a lot of benefits.
 - D. One local utility company has about 600 solar customers.
- 4. **Wind power**
 - A. Not very stable and hard to integrate into the grid.
 - B. Need long-term investment into research and resources.
- 5. **Other**
 - A. One utility company is about to open a battery storage operation.
 - B. University of Washington professors are working on smart grid technology with Pacific Northwest National Laboratory.
 - C. DOE funding is scheduled to be cut next year, which will impact university research.
 - D. There needs to be a planning grant that allows for commercialization of technology.
 - E. When looking at energy development, we must look at global markets (vs. regional).
 - F. Other companies may be facing an Engineering cliff because of the number of engineers within the industry who are 55 years or older.
 - G. "Clean Tech" is the new term that tries to overshadow the 100 year-old current backbone of a system
- 6. **Local Utility Company**
 - A. Makes consistent investments to update their infrastructure with newer technology.
 - a. Many consumers do not realize the full benefits of these investments for about 30 – 40 years
 - b. Energy as a whole can be a very long-term forward looking and very conservative in decision making.
 - B. Expensive to make infrastructure improvements.
 - C. Line jobs are a 5-year apprenticeship (IEBW) in Washington.
 - a. Other states have linemen schools, but Washington does not work outside of the union.
 - D. Constantly hiring people because of steady retirements, but it is not a crisis.
 - E. The company/unions pay very well with good benefits.
 - F. Not many part-time or temporary jobs available, and don't utilize temp agencies.



- G. Hire workers of all-ages.
- H. There are restrictions related to collective bargaining agreements.
- I. Utilize Electrical & Mechanical Engineers, who tend to job hop for higher paying jobs.
- J. Customer Service Reps make \$32-\$33/hour after 18 months and have six weeks of vacation, plus three pensions.
 - a. The company gets about 800 apps for six positions.
 - b. When looking at resumes, what rises up is experience, progressive responsibilities, multi-tasking (911 operators, banking experience).
 - i. “Stellar customer service”.
- K. Moving away from nepotism, which was more common in the past.
- L. The company has 1200 employees.
- M. Bilingual is a plus.
- N. Since Snohomish County has a lower cost of living, it is easy to compete against King Co.

7. Internships

- A. University of Wa students find it difficult to find internships locally (especially in material science).
 - a. Professors at the University are able to help students gain internships.
- B. Utility company hires summer interns across their organization.
- C. Technical installation (apprenticeships) are also available.
- D. Networking works in Snohomish County (students, job seekers should attend events).

8. What would be helpful in the industry?

- A. Funding to help support their research efforts.
- B. Collaboration between organizations.
- C. Governor’s Clean Energy Fund ongoing funding.
 - a. Previous funding allowed utilities to put together consortiums to create demonstration projects that they could take to market.
- D. Need funding for scaling up equipment/testing products to take to market.
 - a. Because of the industry, no new untested technology will be implemented into a power grid.
- E. Provide opportunities to collaborate.

9. Job Seekers

- A. Job seekers need help in targeting their resumes to the jobs they are seeking.
- B. They need to know how to present themselves.
- C. Resume presentation and creating documents to “leave behind” after the interview.



- D. Dress appropriately for interviews.
- E. How to perform in a behavioral interview.