

Workgroup #2

Emerging Solutions and Technologies – How can we keep the pipeline full of energy efficiency innovations for use in the Pacific Northwest?

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Introduction

The Northwest Energy Efficiency Taskforce Work Group #2 (WG2) --_Emerging Solutions and Technologies is tasked with looking into "how to keep the pipeline full of energy efficiency innovations for use in the Pacific Northwest."

Our Phase 1 Task is to “assess the current state of energy efficiency in the region including ongoing, research, initiatives, data needs, funding and operational experience. Assess what, if any additional information is needed to determine further action or decisions”

And our Phase 2 Task is to “identify and discuss short-term and long-term strategies and time recommendations to increase efficient energy efficiency development throughout the region”

Currently 60 regional participants have signed up for WG2, with average attendance of 20. Since late July, WG2 has had one meeting, three conference calls and five subgroups have formed and have been actively working in between calls.

Challenge and Approach

WG2 realized early that we needed a quick snapshot of the current state of RD&D, so an on-line survey¹ was fielded to ~ 250 individuals. From the 82 respondents which participated in the survey and represented 63 organizations throughout the Northwest region, it was clear that:

- There was not a commonly held definition of what RD & D is.
- There appeared to be more activity on early commercialization activities such as demonstration projects, versus early research and development activities.
- There is belief that there is a role for regional R D & D, and that it should be a multifunction, multi-jurisdictional effort, with a strong emphasis on regional coordination/collaboration.

From this information, the first subgroups were formed. One focused on drafting a common definition and scope of RD & D, and the second developing an RD & D framework which could be used to house an R D & D inventory.

¹ The survey results are available on the NEET website.

WG2 reviewed and discussed these drafts and three new subgroups were formed. One to start a RD & D inventory of technologies; one to develop selection criteria for identifying emerging technologies, and one to explore “who should do it”.

Current Thinking

WG2 has currently landed on the following definition which encompasses both gas and electric efficiency:

The innovation is an emerging technology or solution that promises a quantifiable increase in efficiency of energy use, production, or distribution as seen by end-use customers in the Region. (Inclusion of demand, water, distributed generation, and direct application renewables are under consideration as additional benefits.)

WG2 has currently landed on the following basic selection criteria, which are broad and fundamental and meant to guide relative ranking for prioritized selection²:

- The innovation has technical promise;
- The innovation has Regional RD & D program promise;
- The innovation has market promise.

WG2 currently believes that there should be a central entity that is held accountable for the Region’s energy efficiency RD & D portfolio. The four basic elements of its scope include:

- Identification and tracking;
- Selection;
- Oversight and Coordination;
- Reporting.

The group also discussed that the central entity would not “implement” all of these aspects, but rather contract out with organizations with specific expertise. Lastly, the entity should have permanent dedicated staff and budget, and a volunteer technical and marketing oversight board that would provide advice on selections and coordination.

Finally, WG2 discussed possible entities to fulfill this role, including the Northwest Energy Efficiency Alliance (NEEA), the Regional Technical Forum (RTF), and Bonneville Power Administration (BPA). Pros and cons of each were discussed, but no recommendation at this point.

Recommendations

In order “to keep the pipeline full of energy efficiency innovations for use in the Pacific Northwest,” WG2 has the following early recommendations:

NEED FOR FOCUS AND DEDICATION: The RD & D scope should only focus on energy efficient technologies and solutions, and not on other RD & D activities, such

² WG2 has also drafted a more comprehensive list of potential criteria that may be useful to fill in details beyond the basic criteria.

as transmission, smart grid, etc. In addition, there must be a central entity and dedicated resources, both staff and funding, for this effort.

NEED FOR LONG TERM FOCUS: The Region must accept that RD & D efforts to develop emerging technologies and solutions need a long term view and commitment. The current measurement paradigm of pure cost effectiveness and benefit cost tests are barriers for this effort and should not be explicitly applied.

ADVOCACY AND POLICY ROLE NEEDS A HOME: Important work such as advocating for code/standard improvements and recommendations to legislatures, and identifying legislative proposals such as tax policies does not fit WG2 scope, and needs further direction. Potentially a legislative task force should be established.

Next Steps

WG2 will continue to refine its thinking and recommendations around the tasks described in the introduction over the next few months. At this point, we do not foresee a need to change our approach. In addition, we will make sure to coordinate with other Workgroup efforts where appropriate. Finally, we look forward to discussion and feedback from the Executive Committee and will incorporate that into our next steps.

Documents Available

More detailed information is available in the following draft documents. If you would like to review any or all, please call or email Susan Hermet at 503-827-8416 x 225 or shermet@nwalliance.org. Meeting notes can be found on the NEET website.

1. Emerging Solutions and Technologies Research Development & Demonstration Survey Summary
2. Decision Framework for Regional RD & D, NEET WG #2 - Emerging Technologies Subcommittee Paper 8/13/08
3. RD&D Framework and Emerging technology inventory list Draft
4. NEET WG #2 –Emerging Technology Selection Criteria, Second Draft 9/24/2008
5. NEET WG #2 (Emerging Technologies) – “Who Should Do It” subgroup [Version 2, September 26]