RISEP Stakeholder Meeting #1 Notes
January 17, 2013, 6 – 9 p.m.
Hazard Rooms, URI Bay Campus

Purpose of the meeting:

1. Present the scope of work for the Rhode Island State Energy Plan (RISEP) and follow-up research to the Renewable Energy Siting Partnership (RESP) project
2. Present information on the acoustic signature of Rhode Island wind turbines and plans to conduct radiated noise measurements on turbines
3. Present information on the effects of wind turbines installed throughout the State of Rhode Island on property values of adjacent residential dwelling units

Welcome & Opening Remarks
– Marion Gold, *RI Office of Energy Resources (OER)*
Gold welcomed approximately 40 attendees and provided a brief overview of the evening's agenda. She explained that developing the RISEP is an opportunity to help the State of Rhode Island achieve its goal of developing a clean energy economy and provide services in an affordable and sustainable fashion. She explained that this effort will be led by a collaboration of the RI Office of Energy Resources, RI Statewide Planning Program, the University of Rhode Island, and additional partners.

— Paul Gonsalves, *RI Statewide Planning Program (RISPP)*
Gonsalves followed Gold by giving an overview of the State Guide Plan (SGP) and how the development of an update to the RISEP will be adopted as an "energy element" to the SGP. He explained that the public can expect the RISEP to fit within the broader scope of energy initiatives that are already in place in the State.

RISEP Overview – Danny Musher, *RIOER*
Musher began by providing attendees with an overview of the Renewable Energy Siting Partnership (RESP) project. The main objective of the RESP was to give Rhode Islanders tools to access relevant information to make informed, fact-based decisions about land-based renewable energy. To continue to achieve this objective, RIOER and RISPP will develop the State Energy Plan, and the RIEnergy.org website will be continually updated with relevant resources and information. Musher also explained next steps for wind turbine siting guidelines will include the following:

- Comparing currently operating turbines with drafted wind siting guidelines
- Gathering acoustic data
- Analyzing the impact of wind turbines on property values

Musher then transitioned into an overview of the Rhode Island State Energy Plan. Musher explained that the plan was most recently updated in 2002 and that the current update will be completed by 2014, led by the Office of Energy Resources (RIOER) in partnership with the Statewide Planning Program (RISPP). The project timeline will be broken into the following three phases:

- *Phase I* - Research and data collection
- *Phase II* - Preparation of a preliminary draft plan
- *Phase III* - Technical and public review

Musher introduced the RISEP scope of work by asking attendees to consider what the ultimate goal of an energy plan should be. Musher proposed that at the end of the day what everyone wants is essential energy services. Therefore, the goal of the plan is to provide energy services. Renewable sources of energy, energy conservation, and fossil fuels are all means of providing energy services, not ends in themselves. He moved on to explain that the RISEP scope of work includes gathering data, setting goals, and recommending action. In the process of gathering data, Rhode Island will ultimately be able to develop a historical baseline of energy supply and demand by sector (transportation, electricity, thermal), a business-as-usual forecast, and alternate energy futures to provide insight on setting realistic goals for our state energy system. Once these goals have been quantified, we can recommend appropriate action and a roadmap of near- and long-term policy options.

After the presentation, the following comments and questions were posed by the audience. Musher responded that the RISEP team will work to ensure all comments are addressed.

- The plan should include references to National Grid's policies and programs for residents, business owners, and municipalities.
- Costs of the implementation strategies should be outlined in the plan. For example, if you say that we can get X% of our energy from in-state resources, how much will that cost the state and how will the general public be affected?
- Conservation should be included as an element in roadmap strategies. The RISEP team should quantify what is realistic for conservation measures in the state.
- The team should develop tools to easily update the baseline for future updates.
- The plan should acknowledge that people in the state want to implement renewables now, immediately. The state should focus on this existing interest.
- The plan should consider fuel cells.

Researcher Presentation: "Measurement of the Acoustic Signature of RI Wind Turbines" – Dr. Harold T. Vincent, *URI Department of Ocean Engineering*
Dr. Harold Vincent opened with a brief background of Rhode Island wind turbines and the noise measurement process. He explained that there are currently 14 wind turbines in Rhode Island and, presently, no baseline noise measurement data exists at these sites. Vincent's team will be visiting each operating site to collect repeated noise measurement recordings in order to inform siting guidelines that are currently under development. He outlined various site parameters, indicating that each site is unique due to factors such as the number of turbines, proximity to highways, industrial activity, railroads, and property lines. He also began to describe in more detail the methodology behind these radiated noise measurements which will occur on site visits from January 2013 through April 2013. His measurements will follow the most recent IEC Standards, data will be collected under a variety of conditions in relation to temperature, humidity, background noise, and wind speed, and recordings will encompass both audio and infrasound frequency regions. Vincent also referenced the sound spectrum, pointing out that the measurements would be assessing sounds well above and below that of the typical range of human hearing. Concerning the methods for the project, Vincent explained that quality assurance will be performed to ensure computations are made on appropriate data sections and that his team utilizes raw and calibrated instruments so the results obtained will be traceable and repeatable.

After the presentation, the following comments and questions were posed by the audience.

- The methodology should be detailed on site acoustics will be examined with and without a turbine.
- The project should provide information for extrapolating acoustic impacts over distances and different weather conditions in order to help provide accurate information to citizens and town planners.
- The current methodology seems like an affirmation of original locations for siting turbines or the rated decibel output of the turbine. How will the results of this research be integrated into the siting guidelines under development?
- The project should provide information about sound level readings at property lines.

Researcher Presentation: "Effects of Wind Turbines on Property Values of Adjacent Residential Dwelling Units" – Corey Lang, *URI*

Lang opened by acknowledging the apprehension that often surrounds the effects of wind turbines on property values. He explained that it is commonly a contentious issue and there is still much uncertainty about how closely past research in other nearby states relates specifically to Rhode Island. He followed by briefly describing his plans to use MLS sales data to draw inferences about these very concerns. Lang then began to outline the research plan, stating that his team has already acquired a dataset of virtually every housing sale transaction between January 1996 and December 2012. By using GIS mapping software, Lang's team will be able to assess viewshed and shadow flicker as well. He explained that his team's dataset with over 7500 sales within 1 mile of the wind turbines and over 300 observations within 0.25 miles will allow for an extensive data analysis. Ultimately a model will be developed that analyzes how house prices vary with respect to the following parameters:

- Pre-announcement vs. post-announcement/pre-construction vs. post-construction
- Distance (0-0.25 miles, 0.25-0.5 miles, etc.)
- View shed and shadow flicker
- Characteristics of the turbine (height, capacity)

After the presentation, the following comments and questions were posed by the audience. Lang explained that he will address these questions as best as possible while progressing through the methodology of the project.

- The project should consider the perception of individuals in terms of viewing a turbine from a residential site versus industrial site.
- The project should consider other landmarks similar to wind turbines to test effects on property values, such as cell towers.
- The project should identify short sales in the data set and separate out the short sales if possible.
- The project should also consider whether towns in Massachusetts serve as a good representation of the effects of renewable energy on homeowners.

Next meetings and additional information:

Musher concluded the meeting by notifying the audience of upcoming RISEP stakeholder events. Musher said that additional stakeholder meetings will be scheduled, likely in May and August, and that research results lectures will be scheduled, likely in June and July. Musher said that the RESP and RESPMUNI listservs will remain active so that the public can stay inform, and that a new Office of Energy

Resources website will be active in February, where meeting materials will be posted. For additional questions, please contact: danny.musher@energy.ri.gov

Adjourn