

3TIER Environmental Forecast Group
 Advocates for the West
 Alaska Housing Finance Corporation
 Alliance to Save Energy
 Alternative Energy Resources Organization
 American Rivers
 The Apollo Alliance
 Audubon Washington
 Bonneville Environmental Foundation
 Central Area Motivation Program
 Citizens Utility Board of Oregon
 City of Ashland
 Clackamas County Weatherization
 Climate Solutions
 The Climate Trust
 Community Action Partnership of Oregon
 Community Action Partnership Assoc. of Idaho
 Conservation Services Group
 David Suzuki Foundation
 Earth and Spirit Council
 Earth Ministry
 Ecos Consulting
 Ecological Design Center
 eFormative Options, LLC
 Emerald People's Utility District
 The Energy Project
 Energy Trust of Oregon, Inc.
 enXco Development Corporation
 Environment Oregon
 Environment Washington
 Eugene Water & Electric Board
 Friends of the Earth
 Golden Eagle Audubon Society
 Grasslands Renewable Energy
 Horizon Wind Energy
 Home Performance Washington
 Housing and Comm. Services Agency of Lane Co.
 Human Resources Council, District XI
 Iberdrola Renewables
 Idaho Conservation League
 Idaho Rivers United
 Idaho Rural Council
 Idaho Wildlife Federation
 Interfaith Network for Earth Concerns
 Kootenai Environmental Alliance
 Laborers International Union of North America, NW Region
 League of Women Voters – ID, OR & WA
 Metrocenter YMCA
 Missoula Urban Demonstration Project
 Montana Audubon
 Montana Environmental Information Center
 Montana Public Interest Research Group
 Montana Renewable Energy Association
 Montana River Action
 Montana Trout Unlimited
 Moontown Foundation
 The Mountaineers
 Multnomah County Weatherization
 National Center for Appropriate Technology
 Natural Resources Defense Council
 New Buildings Institute
 Northern Plains Resource Council
 Northwest Energy Efficiency Council
 Northwest Renewable Energy Institute
 Northwest Solar Center
 NW Natural
 NW SEED
 Olympic Community Action Programs
 Opportunities Industrialization Center of WA
 Opportunity Council
 Oregon Action
 Oregon Energy Coordinators Association
 Oregon Environmental Council
 Oregon HEAT
 Pacific Energy Innovation Association
 Pacific NW Regional Council of Carpenters
 Pacific Rivers Council
 The Policy Institute
 Portland Energy Conservation Inc.
 Portland General Electric
 Puget Sound Alliance for Retired Americans
 Puget Sound Energy
 Renewable Northwest Project
 River Network
 Salmon for All
 Save Our Wild Salmon
 Seattle Audubon Society
 Seattle City Light
 Sierra Club
 Sierra Club, BC and MT Chapters



Public Utility Commission of Oregon
 550 Capital Street NE
 Salem, OR 97301

VIA E-MAIL: juliet.johnson@state.or.us

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RE: UM1657 Comments on PGE Smart Grid Report

Dear PUC Staff:

The NW Energy Coalition (Coalition) offers the following comments on Portland General Electric's ("PGE" or "the Company") first Smart Grid Report pursuant to UM1657. The Coalition participated in the workshop on this topic held on May 6, 2013 and submitted comments to the Company prior to their final report filing with the Commission.

PGE is to be commended for their leadership in implementing smart grid applications and technologies. The Company is aggressively researching, piloting and exploring smart grid investments in a proactive manner that has benefited and will continue to benefit the Company and its customers. From PGE's work with Energy Tracker to the groundbreaking smart grid demonstration project in Salem -- PGE is undertaking promising, innovative work that will engage customers, better integrate renewables, improve reliability and enhance the value of the system for customers.

The following recommendations offer suggestions for two areas where the Company should conduct more analysis and improve current implementation strategies of smart grid activities – 1) smart grid and energy efficiency program interactions and 2) low income consumer concerns and protections. The Coalition submitted both of these recommendations to PGE prior to the finalization of the report, but the suggestions were either not included or not included to a sufficient degree in the final report. These comments finish with the recognition of a change to the Vehicle to Grid section of the report in response to Coalition comments submitted earlier in the process.

Smart Grid and Energy Efficiency

A web of sometimes complex interactions connects smart grid technologies and “traditional” energy efficiency programs. Behavioral energy efficiency programs, for example, stand to gain considerable, measureable results with the application of Smart appliances and information.

The interactions between smart grid and traditional energy efficiency programs are occasionally implicit in the current PGE report, however, PGE would benefit from a deliberate examination of these program areas and their interactions. One example of an area that should be addressed is the role of current energy efficiency incentive and marketing systems operated by the Energy Trust and the implementation of similar incentive and marketing programs for the Smart Water Heater program. There may be efficiencies that can be gained by promoting this new smart grid program through established energy efficiency channels.

A thorough examination of the relationship between energy efficiency and smart grid will ensure that important opportunities to maximize efficiencies and operations in both areas do not escape notice because they do not fall clearly within one department or program area or the other. It will also provide interested parties with a clear understanding of PGE’s strategy to utilize smart grid technologies and operations to maximize energy efficiency program achievements. And, PGE should be sure to evaluate the distinction between smart grid programs that advance long-term energy savings and those that support short-term actions by consumers.

Low Income Consumer Protection

Across the country, low income advocates and consumer protection groups have raised concerns regarding specific smart grid applications and investments. For example, automatic shut-off functions of automated metering technology and the impacts on low-income consumers are one area of concern. Another area of concern is time-of-use pricing.

Despite our suggestions to address these issues in their report, the PGE smart grid report does not address these concerns. The Coalition strongly encourages PGE to review potential areas of concern for low-income consumers and to detail PGE’s efforts to ensure that all customers benefit from smart grid investments.

Vehicle to Grid

The Coalition provided comments encouraging the reevaluation of their stated position on vehicle to grid potential over the 5-year time frame. We pointed out in our comments that although the concept of manufacturer concerns about battery life is well circulated among smart grid circles, it is perhaps not as well documented by research and actual technical information. Indeed, a recent pilot project and associated research contradicts this often-repeated myth. The University of Delaware, NRG Energy and the PJM RTO are pioneering a project to use charging EVs to provide two-way frequency regulation services. In the Delaware project, each car is equipped with some additional circuitry and a battery charger that operates in two directions. These cars earn about \$5 a day, or about

\$1,800 a year in incentives. (For more information see: <http://www.nytimes.com/2013/04/26/business/energy-environment/electric-vehicles-begin-to-earn-money-from-the-grid.html?partner=rss&emc=rss&r=1&>)

Vehicle to grid experimentation is already taking place with successful results and car manufacturers recognize the benefits, both in terms of the benefits to the customer to offset the price paid for an electric vehicle and larger benefits associated with the integration of renewables and the greening of our electric system. We are pleased that the PGE revised report appears to leave the door open for the potential of vehicle to grid in the 5- year timeframe and hope that the Company's research endeavors will closely monitor this area for potential application in PGE service territory.

We also understand that some battery and vehicle manufacturers are looking into bundling of used EV batteries into distributed storage units that support integration. We are pleased that the report notes this as a potential area for future evaluation and consideration.

Thank you again for providing this opportunity to comment on PGE's Smart Grid Report. Please do not hesitate to contact me with any questions or to further discuss any of the recommendations contained herein. The Coalition looks forward to working with the Company and the Public Utility Commission to support continuing innovative approaches in Oregon.

Sincerely,

/s/ Wendy Gerlitz

Wendy Gerlitz
Senior Policy Associate
NW Energy Coalition