



0000150876

ORIGINAL

WESTERN RESOURCE THE ARIZONA CORPORATION COMMISSION

Arizona Corporation Commission

COMMISSIONERS

BOB STUMP, Chairman

GARY PIERCE

BRENDA BURNS

BOB BURNS

SUSAN BITTER SMITH

RECEIVED

2014 JAN 17 P 2:46

WESTERN CORP COMMISSION
DOCKET CONTROL

DOCKETED

JAN 17 2014

DOCKETED BY

DOCKET NO. E-00000J-13-0375

IN THE MATTER OF THE COMMISSION'S
INQUIRY INTO POTENTIAL IMPACTS TO THE
CURRENT UTILITY MODEL RESULTING
FROM INNOVATION AND TECHNOLOGICAL
DEVELOPMENTS IN GENERATION AND
DELIVERY OF ENERGY.

**RESPONSE OF WESTERN RESOURCE
ADVOCATES TO COMMISSIONER
BOB BURNS' PROPOSED WORKSHOPS
AS FILED ON DECEMBER 5, 2013**

Introduction

Western Resource Advocates (WRA) appreciates Commissioner Bob Burns' leadership in addressing innovation and technological developments that are likely to affect the current energy utility and regulatory business model. Innovation and technological change are rapidly altering the means by which electricity is produced, delivered, and used. These innovations and technological changes can offer long term benefits to Arizona. For example, some will result in lower air emissions from power production, some will provide stable prices that are not subject to uncertain fuel costs, some will give customers more control over the production and use of energy at their homes or businesses, some will save energy, and so forth.

These innovations may be disruptive to business as usual because they require utilities to operate in new ways, because they expand the capabilities of consumers to produce energy or control energy use, or because they are offered by entrepreneurs seeking to enter the market. Traditional utility and regulatory business models can be incompatible with deployment of new ways of producing, using, and delivering energy. The Commission's policies will determine the degree to which innovations and new technologies are adopted in Arizona.

Recommendations on Proposed Workshops

In his letter of December 5, 2013, Commissioner Burns requested comments on the proposed workshops and suggestions for potential speakers. WRA offers the following comments.

1. Include a workshop specifically devoted to utility and regulatory business models.

Commissioner Burns' letter (page 2) indicates that experts would discuss business and regulatory impacts and changes in market structures, rate designs, and regulatory policies resulting from or needed to facilitate adoption of new technologies and innovations. However, it is not clear how this topic would be included in the workshops listed on page 1 of Commissioner Burns' letter. Therefore, we suggest including a workshop specifically devoted to presentations and conversations on the following topic: *whether and how the Commission and electric utilities should modify their regulatory and business models to better accommodate and encourage growing deployment of new or innovative technologies*. This topic is at the center of the issues the Commission must ultimately address over the next several years.

We propose that the Commission consider inviting all of the following experts to make presentations on utility and regulatory business models (contact information is in the footnotes):

- Ron Lehr. Mr. Lehr reviewed utility and regulatory models in a recent report.¹ He was formerly a commissioner on the Colorado Public Utilities Commission.
- Charles Goldman from Lawrence Berkeley National Laboratory. He reviewed business models in a recent presentation.²
- James Newcomb or Lena Hansen, Rocky Mountain Institute. They also recently authored a report on new business models.³

2. Consider sponsoring a forum for building consensus on specific features of new business models.

Over the next several years, as the electric industry evolves, the Commission will likely consider aspects of new business models to accommodate and encourage new technologies and innovations. Revising business models entails resolution of numerous difficult issues. We propose that the Commission sponsor a forum available to all interested stakeholders with the aims of: a) identifying and characterizing specific issues related to new business models, b) preparing brief reports to the Commission summarizing specific issues and options for resolving them, and c) encouraging a consensus on as many issues as possible. Topics could be identified by the Commission and by forum participants.

The forum would continue for several months after the workshops proposed by Commissioner Burns and is intended to foster productive conversations among interested stakeholders about

¹ *New Utility Business Models: Utility and Regulatory Models for the Modern Era*, included in *America's Power Plan*, 2013, available at: www.americaspowerplant.com. Contact information for Mr. Lehr is: rllehr@msn.com.

² Charles Goldman, Andy Satchwell, Peter Cappers, and Ian Hoffman, "Utility Business Models in a Low Load Growth/High DG Future: Gazing into the Crystal Ball," presentation at Committee on Regional Electric Power Cooperation (CREPC)/State-Provincial Steering Committee (SPSC) Meeting, Boise, ID, April 10, 2013, <http://emp.lbl.gov/publications/utility-business-models-low-load-growthhigh-dg-future-gazing-crystal-ball>. Contact information for Mr. Goldman is: CAGoldman@lbl.gov.

³ E-Lab, Rocky Mountain Institute, *New Business Models for the Distribution Edge*, Boulder, CO, 2013, http://www.rmi.org/new_business_models. Contact information is at: <http://www.rmi.org/Staff>.

whether and how the Commission and electric utilities should modify their business models. If this process works, the parties may be able to present consensus proposals on specific topics for the Commission's future consideration. If there is no consensus on any issues, the parties and the Commission will, at least, have a better understanding of various perspectives.

Conducting these activities will require adequate time and effective management. Therefore, we suggest that Staff engage a knowledgeable, neutral facilitator to manage the forum and prepare reports reflecting the positions of and analyses by stakeholders.

3. Expand the discussion to include the role of entrepreneurs.

A key element of technological change and innovation is the role of entrepreneurs. The workshops should include an expert panel and general discussion about: a) examples of entrepreneurship in energy markets, b) encouraging entrepreneurship, and c) perceived obstacles to entrepreneurship stemming from current utility and regulatory business models.

Please consider the following individuals as panelists:

- Robert Lusch, McGuire Center Executive Director, James and Pamela Muzzy Chair in Entrepreneurship, University of Arizona, rlusch@eller.arizona.edu.
- Kevin Dooley, Professor of Supply Chain Management, ASU, Kevin.Dooley@asu.edu. Dr. Dooley is an expert on entrepreneurship.
- Robert Hisrich, Garvin Professor of Global Entrepreneurship, Thunderbird School, Robert.hisrich@thunderbird.edu.
- Praveen Kathpal, Vice President, AES Energy Storage, on utility-scale energy storage, Praveen.kathpal@aes.com.
- Mohammad Shahidehpour, Bodine Distinguished Chair and Director, Galvin Center for Electricity Innovation, Illinois Institute of Technology, on micro-grids, ms@iit.edu.
- Lyndon Rive, President, Solar City; contact through Court Rich.

4. Include Distribution Voltage Optimization as a innovation to be discussed.

As part of the discussion on grid automation, WRA suggests that the Commissioners include a presentation and discussion regarding Distribution Voltage Optimization (DVO), sometimes called Volt VAR Optimization (VVO) or Conservation Voltage Reduction (CVR). DVO can save all customers 2% of their overall energy use, reducing customer bills in the same amount. Utilities have historically erred on the side of providing voltages to customers in the high range of acceptable standards. This was mainly due to the lack of real time information about actual voltage levels at various points in the distribution grid. A number of utilities are now putting metering into the distribution grid and implementing control software to dynamically reduce voltages to a lower range, still within national standards.

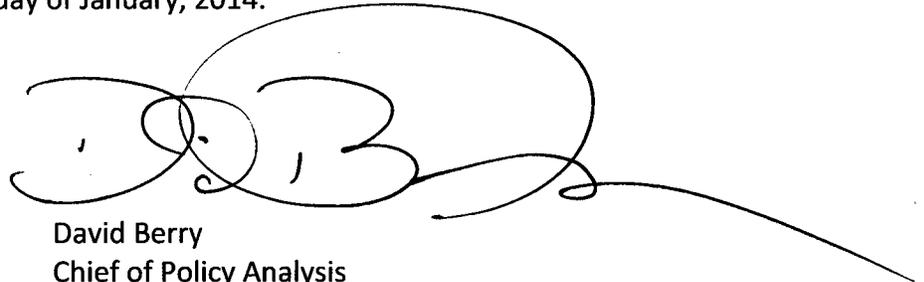
Xcel Energy in Colorado has proposed implementing DVO on its entire system. The project would take five years with an investment of \$90 million. This project is currently being

reviewed by the Colorado PUC for inclusion as a Demand Side Management project. Xcel in Colorado is the first utility in the country to propose DVO system wide.

Current rate models do not encourage projects that reduce energy consumption. The challenge is to find the right incentives and business model that will lead utilities to implement DVO quickly, lowering customer bills.

Please consider inviting Ken Wilson to make a presentation on Distribution Voltage Optimization. Mr. Wilson is an expert on the evolution of the distribution grid and is currently a witness for WRA in Colorado on Xcel Energy's proposal to include DVO. He can be reached at: Ken.Wilson@TransGridConsulting.com.

Respectfully submitted this 17th day of January, 2014.

A handwritten signature in black ink, appearing to read 'D. Berry', with a long horizontal flourish extending to the right.

David Berry
Chief of Policy Analysis
Western Resource Advocates
PO Box 1064
Scottsdale, AZ 85252-1064
david.berry@westernresources.org

Original and 13 copies filed with Docket Control, 1200 W. Washington St., Phoenix, AZ 85007.
Electronic copies to service list.