

BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF COLORADO

DOCKET NO. 11M-998E

IN THE MATTER OF COMMISSION ACTIVITIES RELATED TO A REGIONAL ENERGY
IMBALANCE MARKET THAT MAY INCLUDE COLORADO ELECTRIC UTILITIES.

ORDER OPENING A MISCELLANEOUS DOCKET

Mailed Date: December 15, 2011
Adopted Date: December 14, 2011

TABLE OF CONTENTS

I. BY THE COMMISSION1

 A. Statement1

 B. The Permit-but-Disclose Process2

 C. Background on Energy Imbalance Markets4

 D. Pertinent Issues Related to a Regional Energy Imbalance Market that may Include
 Colorado Electric Utilities6

 E. Direction to the Parties8

II. ORDER.....9

 A. The Commission Orders That:9

 B. ADOPTED IN COMMISSIONERS’ WEEKLY MEETING December 14, 2011.....9

I. BY THE COMMISSION

A. Statement

1. This matter comes before the Colorado Public Utilities Commission (Commission) to open on its own motion, a miscellaneous docket to evaluate the implications of a potential regional Energy Imbalance Market (EIM) that may include Colorado electric utilities.

2. The Commission finds it is appropriate to initiate a miscellaneous docket to receive and develop information and analysis related to the development of an EIM; to engage with relevant stakeholders involved with the EIM development process; and to participate in a multi-state collaboration to explore the feasibility of an EIM. Additionally, the Commission may also conduct one or more Commissioner Information Meetings related to the issues articulated in this Order.

3. This Docket shall constitute the repository for any such written material, as well as any written material exchanged at an *ex parte* presentation pursuant to the Permit-but-Disclose process adopted in Section B. As this Docket is a non-adjudicatory repository proceeding and because there are no parties to this proceeding, service upon other participants is not necessary. Persons making submissions to this matter are encouraged to use the Commission's E-Filings System to the extent possible; otherwise, if paper copy filings are made, the filings should conform with Rule 1204(a)(II)(C) of the Commission's Rules of Practice and Procedure, 4 *Code of Colorado Regulations* 723-1, or to the Permit-but-Disclose paper copy filing process described below.

B. The Permit-but-Disclose Process

4. The Commission's Permit-but-Disclose process, described below, shall apply in this Docket.

5. During the 2008 legislative session, the General Assembly passed, and the Governor signed, House Bill 08-1227 (HB 08-1227). HB 08-1227, among other things, modified the requirements applicable to the Commission concerning *ex parte* contacts with interested persons in non-adjudicatory proceedings. The Commission modified its Rules of

Practice and Procedure to conform to the new statute. *See* Decision No. R08-1297, Docket No. 08R-459ALL, mailed December 19, 2008.

6. As of the mailed date of this Order, any person may make an *ex parte* presentation to a Commissioner in a meeting that may include Commission Staff. Any such *ex parte* contacts must relate to matters being reviewed in this Docket and cannot concern any matter pending before the Commission in any other docket.

7. Within two business days following a permitted *ex parte* presentation, the person requesting the meeting shall file with the Commission in this Docket, a letter disclosing the contact. The disclosure letter shall state the date, time, and place of the meeting, list the individuals attending, and shall contain a summary description of the presentation, and a statement that the subject matter of the communication did not relate to any pending adjudicatory proceeding before the Commission. If any materials were provided to the Commissioner during the meeting, those shall be identified in the letter and attached. For filing purposes, the submission should be made through the E-Filings System if possible; if not, and the submission is made using the paper copy filing method, the disclosure and any attachments shall include an original and three copies. The disclosure letter and any other material must provide other interested persons with sufficient information to allow them to decide whether they wish to hold *ex parte* meetings to share their views on the subject. Persons should not simply file a disclosure that indicates they discussed this Docket, but should also include the specific topics covered.

8. The disclosure letter and any attached materials will become part of the official record in this Docket. Further, if the paper copy method of filing is used, the disclosure letter and other provided material will be promptly scanned and posted to the Commission's website in connection with other documents and orders in this Docket. Any materials asserted to be

confidential will be treated in the same manner as confidential material provided in comments in a rulemaking.

9. The Commissioners will attempt to accommodate all reasonable requests for *ex parte* meetings, subject to the schedule and availability of each Commissioner. We may give preference in scheduling to a person that has not made a prior *ex parte* presentation in this Docket, in contrast to a person wishing to make an additional presentation. Finally, we note that there is no requirement that a person make the same presentation to each of the three Commissioners. In other words, persons may elect to meet (in separate meetings) with one, two, or all three Commissioners. However, in such situations, copies of all the presentations, with letter(s) disclosing the separate contacts and presentations, must be filed with the Commission in this Docket.

10. To schedule an *ex parte* presentation with a Commissioner, the interested person should contact Ms. Donna Acierno, Executive Assistant to the Commissioners. When contacting Ms. Acierno, the interested person should identify that the presentation is associated with this matter.

C. Background on Energy Imbalance Markets

11. Energy imbalance is the difference between scheduled electricity production or usage and actual electricity production or usage.¹ This imbalance happens as a normal course of operation in all electricity markets. Current energy balancing practices in the majority of the Western Electricity Coordinating Council (WECC) region may not efficiently allocate resources and are estimated by prominent researchers from the Department of Energy National Renewable

¹ Joe Taylor, Manager, Transmission Access for Xcel Energy. "Energy Imbalance Market." *Meeting Transmission Challenges in the Rocky Mountain Region Workshop*. June 21, 2011.

Energy Laboratory (NREL) to be insufficient to meet the challenges of integrating large amounts of variable renewable energy resources. Multiple stakeholders are considering the feasibility of an EIM across various potential operating regions that may include Colorado electric utilities.

12. Energy imbalance is managed by regional Balancing Authorities (BAs). The BAs are the entities that integrate resource plans ahead of time, maintain load-interchange-generation balance, and support interconnection frequency in real time within a BA area.² There are 38 BAs in the WECC,^{3, 4} each covering different sizes and types of electricity providers.

13. There are two BAs in Colorado: one is managed by Public Service Company of Colorado (PSCo) and the other by the Western Area Power Administration.⁵ In Colorado, PSCo operates as both a regulated investor-owned utility for its retail service area and as the BA for both regulated and non-regulated electricity providers.

14. An EIM is a centralized mechanism to dispatch generation and transmission resources in response to energy imbalances. In contrast to the existing system in Colorado, which performs this process via bilateral transactions, an EIM automates imbalance dispatch and settles imbalance transactions via an organized market protocol.

15. It is hypothesized that an EIM will facilitate greater coordination across BAs, which is expected to reduce electricity generation expenses, increase the efficiency of transmission system utilization, and increase the ability of utilities to integrate increasing levels of renewable generation into the electricity system.

² North American Electric Reliability Corporation. "Glossary of Terms Used in Reliability Standards." February 12, 2008.

³ WECC is the "regional entity responsible for coordinating and promoting bulk electric system reliability in the Western Interconnection." Retrieved November 28, 2011 from <http://www.wecc.biz/About/Pages/default.aspx>

⁴ WECC. "Western Electricity Coordinating Council Balancing Authority Abbreviations." March 2010.

⁵ WECC. "Balancing Authority Map." Retrieved November 28, 2011 from:

<http://www.wecc.biz/library/WECC%20Documents/Publications/Balancing%20Authorities.pdf>

16. By design, an EIM involves multiple states, BAs, and electricity generators. As currently contemplated, participation in an EIM would be voluntary for each generator in all hours of the year. However, the economical and functional feasibility of an EIM would decline with fewer participants and, at a yet-to-be-determined level of participation, would not provide a net benefit to the entities that do choose to participate.

17. The concept of an EIM is being evaluated actively by the states, Western Interstate Energy Board, WECC, BAs, electricity service providers, NREL, and electricity utility consultants. Multiple studies have been developed and are continuing to be developed to estimate the feasibility, market design, and potential benefits and costs of an EIM to the various stakeholders. However, the assumptions on which these analyses are based are subject to much debate and there is dissent across the stakeholder groups as to whether, to whom, and to what degree an EIM may be of net benefit.

18. There is a significant need to engage state-level policy makers in the progression of the research, market design, and technical specifications of an EIM. To this end, multiple western state public utilities commissions are initiating a collaborative effort to engage proactively with the various stakeholders involved in evaluating the feasibility of an EIM.

D. Pertinent Issues Related to a Regional Energy Imbalance Market that may Include Colorado Electric Utilities

19. The Commission is interested in a multitude of topics related to an EIM that may include Colorado electric utilities. Topics of particular relevance to the Commission include:

- a) What are the appropriate funding sources for continued evaluation of an EIM and how could those funding sources be most effectively coordinated?
- b) What is the appropriate market design for an EIM? Market design includes, but is not limited to: definition of governance structures,

selection of a market operator, development of technical designs, and development of appropriate tariffs.

- c) What are the pros and cons of the various market design options?
- d) Which of the potential market participants are likely to join an EIM? Which are not?
- e) What are the primary drivers that may cause market participants to choose to opt-in or opt-out of an EIM?
- f) What system upgrades are necessary for an EIM to be technically feasible?
- g) What are the data sharing requirements for an EIM to effectively operate? What are the potential issues related to the transfer of such data from one entity to another?
- h) What is the critical mass of market participants that must be achieved for an EIM to be economically feasible?
- i) What are the start-up and ongoing costs of an EIM and how should those benefits be allocated?
- j) What are the potential benefits of an EIM and how should those costs be allocated?
- k) Will an EIM allow Colorado utilities to more efficiently use the State's generation and transmission resources?
- l) Is an EIM critical to the ability of Colorado's electricity providers to achieve compliance with Renewable Energy Standard requirements?
- m) Is an EIM more cost effective than other potential measures for improving system efficiency and/or integrating increased amounts of renewable generation into the electricity system?
- n) Will an EIM raise or lower costs to consumers?
- o) What are the risks associated with participation in an EIM?
- p) What have been the experiences of other regions in the development and deployment of an EIM?
- q) How does a potential EIM which includes Colorado compare to EIMs in other region(s)?
- r) Which challenges would be unique to implementing an EIM in a bilateral market?
- s) What additional issues should the Commission consider when evaluating an EIM?

E. Direction to the Parties

20. In this Docket, there are no “parties” in the usual sense of applicants, complainants, or intervenors. Instead, there are “interested parties,” and it is in this sense that we use the term “party” throughout this Docket.

21. The Commission hereby invites interested parties to submit comments, research materials, operational studies, market analyses, and other material that may be pertinent to the topics identified in Section D and with respect to the Permit-but-Disclose process described in Sections A and B.

22. We ask that parties file electronic copies of all materials submitted for inclusion in this Docket via the Commission’s E-Filings website, which may be accessed at: <https://www.dora.state.co.us/pls/efi/EFI.homepage>.

23. In addition to receiving and evaluating information, the Commission may also conduct one or more Commissioner Information Meetings related to the issues articulated in this Order and may also become involved with research related to the issues.

24. It is anticipated that this Docket will remain active for one calendar year, but the timeframe may be adjusted as the Commission deems appropriate. Submissions from parties are invited throughout the duration of the Docket. The Commission anticipates achieving through this Docket, an articulation of its position concerning whether an EIM would be of net benefit to the State of Colorado.

II. ORDER

A. The Commission Orders That:

1. This Miscellaneous Docket is opened to serve as a repository for general information, research, and meeting activities related to the potential development of a regional Energy Imbalance Market that may include Colorado electric utilities.

2. This Order is effective on its Mailed Date.

**B. ADOPTED IN COMMISSIONERS' WEEKLY MEETING
December 14, 2011.**

(S E A L)



ATTEST: A TRUE COPY

Doug Dean

Doug Dean,
Director

THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF COLORADO

JOSHUA B. EPEL

JAMES K. TARPEY

MATT BAKER

Commissioners