Department of Energy
Bonneville Power Administration
P.O. Box 3621

Portland, Oregon 97208-3621

FREEDOM OF INFORMATION ACT PROGRAM

July 20, 2023
In reply refer to: FOIA \#BPA-2023-00046-F
SENT VIA EMAIL ONLY TO:
Kevin Lord


Dear Mr. Lord,
This communication is the Bonneville Power Administration's (BPA) final response to your request for agency records made under the Freedom of Information Act, 5 U.S.C. § 552 (FOIA). BPA received your records request on October 11, 2022, and formally acknowledged your request on November 7, 2022.

## Request

"All emails between Elliot Mainzer and California Independent System Operator (CAISO) from 2010-2021."

## Clarification

After initial records search results were communicated to you via email exchanges with the FOIA office, and with your agreement, your FOIA requested was changed to:
"All emails between Elliot Mainzer and California Independent System Operator (CAISO) from 2010 - 2021; limited to those emails containing the terms 'EIM' or 'Energy Imbalance Market'."

## Response

BPA has searched for and gathered records responsive to your request. BPA collected 260 pages of responsive records from the agency's Outlook email system. The records accompany this communication, with the following redactions applied:

- 19 redactions applied under 5 U.S.C. § 552(b)(6) (Exemption 6)

A detailed explanation of the applied exemptions follows.

## Explanation of Exemptions

The FOIA generally requires the release of all agency records upon request. However, the FOIA permits or requires withholding certain limited information that falls under one or more of nine statutory exemptions ( 5 U.S.C. §§ 552(b)(1-9)). Further, section (b) of the FOIA, which contains the FOIA's nine statutory exemptions, also directs agencies to publicly release any reasonably segregable, non-exempt information that is contained in those records.

## Exemption 6

Exemption 6 serves to protect Personally Identifiable Information (PII) contained in agency records when no overriding public interest in the information exists. BPA does not find an overriding public interest in a release of the information redacted under Exemption 6 specifically, cell phone numbers. BPA cannot waive this PII redaction, as the protections afforded by Exemption 6 belong to individuals and not to the agency.

Lastly, as required by 5 U.S.C. § 552(a)(8)(A), information has been withheld only in instances where (1) disclosure is prohibited by statute, or (2) BPA foresees that disclosure would harm an interest protected by the exemption cited for the record. When full disclosure of a record is not possible, the FOIA statute further requires that BPA take reasonable steps to segregate and release nonexempt information. The agency has determined that in certain instances partial disclosure is possible, and has accordingly segregated the records into exempt and non-exempt portions.

## Certification

Pursuant to 10 C.F.R. § 1004.7(b)(2), I am the individual responsible for the records search, the redactions applied thereto, and the records release described above.

## Appeal

The records release certified above is final. Pursuant to 10 C.F.R. § 1004.8, you may appeal the adequacy of the records search, and the completeness of this final release, within 90 calendar days from the date of this communication. Appeals should be addressed to:

```
Director, Office of Hearings and Appeals
HG-1, L'Enfant Plaza
U.S. Department of Energy
1000 Independence Avenue, S.W.
Washington, D.C. 20585-1615
```

The written appeal, including the envelope, must clearly indicate that a FOIA appeal is being made. You may also submit your appeal by e-mail to OHA.filings@hq.doe.gov, including the phrase "Freedom of Information Appeal" in the subject line. (The Office of Hearings and Appeals prefers to receive appeals by email.) The appeal must contain all the elements required by 10 C.F.R. § 1004.8, including a copy of the determination letter. Thereafter, judicial review will be available to you in the Federal District Court either (1) in the district where you reside, (2) where you have your principal place of business, (3) where DOE's records are situated, or (4) in the District of Columbia.

Additionally, you may contact the Office of Government Information Services (OGIS) at the National Archives and Records Administration to inquire about the FOIA mediation services they offer. The contact information for OGIS is as follows:

Office of Government Information Services
National Archives and Records Administration
8601 Adelphi Road-OGIS
College Park, Maryland 20740-6001
E-mail: ogis@nara.gov
Phone: 202-741-5770
Toll-free: 1-877-684-6448
Fax: 202-741-5769
Questions about this communication or the status of your FOIA request may be directed to James King, FOIA Public Liaison, at jiking@bpa.gov or 503-230-7621. Questions may also be directed to E. Thanh Knudson, Case Coordinator (ACS Staffing Group), at 503-230-5221 or etknudson@bpa.gov.

Sincerely,

Candice D. Palen<br>Freedom of Information/Privacy Act Officer

Attachments / Enclosures: Agency records responsive to FOIA request BPA-2023-00046-F accompany this communication.

From: Almeida, Keoni

Sent: Tue Feb 12 12:11:44 2013
To: Mainzer, Elliot E (BPA) - S-7; Elizeh,Edison G (BPA) - SR-7
Subject: RE: RE: Joint PacifiCorp/ISO Memorandum of Understanding Launches New Energy Imbalance Market Initiative
Importance: Normal

Yes. We look forward to the participation of NW entities in our stakeholder process which will be very open and transparent. We recognize we need all the concerns laid out and addressed. I hope through our stakeholder process we can do this. The kickoff is February $27^{\mathrm{h}}$ and from there, the process depicted below will be followed:
Description: Stakeholders Initiatives Process
We will work very closely with BPA throughout the process. Hope this helps.

## Keoni Almeida

916-608-1121
Lead Stakeholder Policy and Account Manager
California ISO [www.caiso.com]
From: Mainzer,Elliot E (BPA) - S-7 [mailto:eemainzer@bpa.gov]
Sent: Tuesday, February 12, 2013 9:41 AM
To: Almeida, Keoni; Elizeh, Edison
Subject: Re: Joint PacifiCorp/ISO Memorandum of Understanding Launches New Energy Imbalance Market Initiative

Thanks, Keoni, There will be plenty of questions from other members of the NW utility community and certainly some explaining to do, but nothing actionable at this particular time.

From: Almeida, Keoni [mailto:KAlmeida@caiso.com]
Sent: Tuesday, February 12, 2013 09:38 AM
To: Mainzer,Elliot E (BPA) - S-7

Cc: Elizeh,Edison G (BPA) - SR-7
Subject: FW: Joint PacifiCorp/ISO Memorandum of Understanding Launches New Energy Imbalance Market Initiative

Elliot, as you are aware of the effort described below I wanted to ensure you have a copy of the market notice. I am here with Eddie and we will discuss next steps in terms of communication. I do understand that we are relying on PacifiCorp to manage the communication with BPA due to the close relationship you have with them, however, if there is anything you would like us to do let me know.

## Keoni Almeida

916-608-1121
Lead Stakeholder Policy and Account Manager
California ISO [www.caiso.com]
From: CAISO Communications [mailto:marketnotices@caisocommunications.com]
Sent: Tuesday, February 12, 2013 9:03 AM
To: Almeida, Keoni
Subject: Joint PacifiCorp/ISO Memorandum of Understanding Launches New Energy Imbalance Market Initiative

## http://elabs7.com/content/1001271/Market\%20Notice\%20Logo 2011.gifMarket Notice

February 12, 2013

Requested Client Action
Mark Your Calendar
Categories
ISO News and Information
Legal/ Regulatory
Market Rules and Market Design

## Joint PacifiCorp/ISO Memorandum of Understanding Launches New Energy Imbalance Market Initiative

## Summary

Today the California ISO and PacifiCorp announced a memorandum of understanding between them to begin development of an energy imbalance market to go operational October 2014. The ISO will host a conference call on February 27, 2013 to describe the memorandum and plans to involve stakeholders in changes to the ISO tariff to incorporate the energy imbalance market.

## Main Text

Today the California ISO and PacifiCorp issued a press release announcing a memorandum of understanding between them to begin development of an energy imbalance market (EIM) to go operational October 2014. This move is the first step in bringing PacifiCorp and ultimately other Western balancing authorities into an automated real-time 5 -minute dispatch system. Both the memorandum of understanding and the press release are available on the ISO website at http://www.caiso.com/informed/Pages/StakeholderProcesses/EnergylmbalanceMarket.aspx

The ISO will present the memorandum of understanding to the ISO Board of Governors at the March 20-21, 2013 meeting to 1) gain the board's approval to negotiate and file at FERC an implementation agreement, and 2) work with stakehoiders on the tariff modifications necessary to incorporate an energy imbalance market. The implementation details with PacifiCorp will ultimately be subject to the tariff modifications as accepted by FERC.

The ISO will host a conference call on February 27, 2013 to describe the memorandum of understanding and plans to involve stakeholders in changes to the ISO tariff to incorporate EIM.

The presentation and agenda for the conference call will be available on February 20 at the above link.

## Call Details

Date: Wednesday, February 27, 2013
Time: 9:00 a.m. to 10:30 p.m. (Pacific Time)

## Teleconference Information

Call-in Number: 800-230-1085
International Call-in: 612-288-0337
Access Code: Not Required

## Web Conference Information

Web Address: www.webmeeting.att.com
Meeting Number: 5114682337
Access Code: 9341896

## For More Information Contact

eim@caiso.com
The California ISO strives to be a world-class electric transmission organization built around a globally recognized and inspired team providing cost-effective and reliable service, well-balanced energy market mechanisms, and high-quality information for the benefit of our customers.
250 Outcropping Way, Folsom, CA 95630
Update profile or unsubscribe
Glossary of terms and acronyms
P\&CS/ComPR/IPS/ds
http://www.elabs7.com/images/mlopen post.html? $\mathrm{rtr}=$ on\&siteid $=1001271$ \& $\mathrm{mid}=1684212 \& \mathrm{mlid}=9794 \& u \mathrm{id}=$ ea44acca80
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From: Almeida, Keoni
Sent: Tue Feb 12 13:19:03 2013
To: Mainzer, Elliot E (BPA) - S-7; Elizeh,Edison G (BPA) - SR-7
Subject: AWEA EIM supportive news release
Importance: Normal
Attachments: AWEA release on modernizing Western power grid 02-12-13.docx

Please see news release from AWEA.
Keoni Almeida
Keoni Almeida
916-608-1121
Lead Stakeholder Policy and Account Manager
California ISO [WWW.caiso com]
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WIRD: POWERIAG A CLEANER, STRONGER AMERICA I WWW.AWEA.ORG

FOR IMMEDIATE RELEASE
February 12, 2013

Contacts: Ellen Carey, Manager, Media Relations
ecarey@awea.org
(b)(6) cell

Tom Darin, Western Regional Representative tdarin@awea.org
720-244-3153

## AWEA applauds critical step to modernize power grid in Western U.S.

Move will save consumers billions of dollars and facilitate renewable energy growth across the West

WASHINGTON, D.C., February 12, 2013 - The wind energy industry welcomed today's announcement that the California power grid operator and PacifiCorp are creating an "Energy Imbalance Market" in the Western U.S., that will use computer technology to exchange electricity at five-minute intervals, instead of by telephone every hour as was formerly the case.
"We hope other utilities across the West will join this proven solution for reducing electric bills and allowing more clean energy onto the power grid," said Rob Gramlich, Interim CEO.
"This is the single most beneficial step that can be taken to use our existing power grid more efficiently," Gramlich said. "In the year 2013, it is about time that electric companies that want to exchange electricity with their neighbors move beyond using telephone calls and manual processes to do so, while much of the rest of the country is using computers and automated processes."

He continued, "Electricity customers and state regulators across the West should be clamoring for their utilities to join this effort, as continued inaction is literally leaving billions of dollars of consumers' money on the table. As more utilities join, the benefits for all participants increase as more participants mean there are more opportunities for mutually beneficial trade."

An Energy Imbalance Market that has been operated by the Southwest Power Pool for the last six years has already produced hundreds of millions of dollars in net benefits for consumers, according to AWEA.
"Extensive analysis conducted over the last several years indicates that implementing an Energy Imbalance Market across the Western U.S. will yield around $\$ 1.5$ billion in net benefits
over its first ten years," said Michael Goggin, AWEA's Manager of Transmission Policy. "It is time for utilities and regulators to stop studying and start implementing this proven tool."

As explained in today's California Independent System Operator (California ISO) press release, an Energy Imbalance Market (EIM) is a proven tool for allowing electricity to move across the power grid more efficiently than is possible under the existing grid operating rules in place in much of the Western U.S. An EIM helps utilities accommodate the constantly fluctuating supply and demand for electricity on the grid, such as factories coming on and offline, millions of people turning air conditioners and heaters on and off, wind or solar output changing, or conventional power plants shutting down unexpectedly. Instead of scrambling to keep up with these changes using only their own power plants, an EIM allows utilities to buy and sell excess power with their neighbors, making both sides better off.

As is the case in any type of market, participation is voluntary, so in the extremely unlikely event that a utility finds that it is not advantageous to make such trades, it can choose not to. The EIM will take advantage of improvements in communications and computing technology to allow exchanges of electricity at five-minute intervals, replacing the cumbersome process of using phone calls to make hourly changes to electricity flows on the Western grid.

Energy Imbalance Markets have a proven track record of success. The Southwest Power Pool, which coordinates the power grid for Kansas, Oklahoma, and parts of six surrounding states, implemented an EIM in 2007 after studies indicated that the market would produce benefits of around $\$ 600$ million relative to costs of $\$ 212$ million over the first ten years. After implementation, the Southwest Power Pool found that the benefits exceeded its already lofty expectations by 20 percent.

[^0][^1]From: Almeida, Keoni
Sent: Tue Feb 12 13:19:03 2013
To: Mainzer, Elliot E (BPA) - S-7; Elizeh,Edison G (BPA) - SR-7
Subject: AWEA EIM supportive news release
Importance: Normal
Attachments: AWEA release on modernizing Western power grid 02-12-13.docx

Please see news release from AWEA.
Keoni Almeida
Keoni Almeida
916-608-1121
Lead Stakeholder Policy and Account Manager
California ISO [WWW.caiso com]
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From: Berberich, Steve
Sent: Fri Mar 15 08:10:10 2013

To: Mainzer, Elliot E (BPA) - D-T
Subject: RE: RE: Greetings
Importance: Normal

Elliott,

Thank you for the note. Of course, we will be happy to meet with you and discuss the EIM possibilities and potential value to your customers at the appropriate time. I look forward to catching up.

Steve

From: Mainzer, Elliot E (BPA) - D-7 [mailto:eemainzer@bpa.gov]
Sent: Thursday, March 14, 2013 3:00 PM
To: Berberich, Steve
Subject: Greetings

## Hi Steve,

Just wanted to say a quick hello, to congratulate you on the agreement with PAC, and to let you know that I thought we had a productive conversation with your team and the PAC folks earlier in the week about the dynamic scheduling issues on the COI. While we still have multiple issues to work through up here with respect to the Power Pool process and the interests of our core customer base, I am looking forward to engaging with you on your EIM effort and continuing to work constructively together on these important issues.

I think we are working towards a BPA/CAISO leadership meeting in mid-April. I'll look forward to seeing you then, if not beforehand.

## Best,

Elliot

## Elliot E. Mainzer

Acting Deputy Administrator
Bonneville Power Administration
S-7, P.O. Box 3621
Portland, OR 97208-3621
(503) 230-4175 (O)

## (b)(6)

(503) 230-3862 (F)
eemainzer@bpa.gov

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From: Almeida, Keoni
Sent: Mon Mar 18 08:55:38 2013
To: Elizeh,Edison G (BPA) - SR-7; Mainzer, Elliot E (BPA) - D-7; Bekkedahl,Larry N (BPA) - T-DITT2
Subject: FW: FW; Joint Report on Energy Imbalance Market Benefits
Importance: Normal

I want to make sure you saw this market notice. I know you all are very busy and have more than enough to read, but I encourage you to take a look at the executive summary. Essentially, the report was issued outlining the benefits of EIM from a co-optimized ISO and PacifiCorp real-time market. The benefit analysis will be presented to the ISO Board of Governors at this week's board meeting when it considers authorizing the ISO to negotiate a formal agreement with PacifiCorp.
The report estimates the combined benefits of the EIM will range from $\$ 21$ million - $\$ 129$ million in 2017 . It also supports the conclusion that the two-party EIM provides a low-cost, low-risk means of achieving operational savings for both PacifiCorp and ISO and enabling greater penetration of renewable energy resources. Savings calculated with these scenarios could be higher if other entities in the West also participate in the EIM, which would expand the transfer capability within the western transmission network as well as increase available resources in the new real-time market.
I hope you find this helpful. Please forward to others at BPA that you may find this of interest.

## Keoni Almeida

916-608-1121
Lead Stakeholder Policy and Account Manager
California ISO [ww.caiso.com]
From: CAISO Communications [mailto:marketnotices@caisocommunications.com]
Sent: Wednesday, March 13, 2013 1:00 PM
To: Almeida, Keoni
Subject: Joint Report on Energy Imbalance Market Benefits
http://elabs7.com/content/1001271/Market\ Notice\ Logo 2011.gifMarket Notice

March 13, 2013

Requested Client Action
Information Only
Categories
ISO News and Information
Legal/ Regulatory
Market Rules and Market Design

## Joint Report on Energy Imbalance Market Benefits

## Summary

The joint report on Energy Imbalance Market (EIM) benefits from a co-optimized ISO and PacifiCorp real-time market demonstrates a range of benefits. The benefit analysis will be presented to the ISO Board of Governors March 20,2013 when it considers authorizing the ISO to negotiate a formal agreement with PacifiCorp.

## Main Text

The joint report on Energy Imbalance Market (EIM) benefits from a co-optimized ISO and PacifiCorp real-time market demonstrates a range of benefits at $\boldsymbol{h t t p}: / / \mathrm{www}$. caiso.com/Documents/PacifiCorp-ISOEnergylmbalanceMarketBenefits.pdf. The benefit analysis will be presented to the ISO Board of Governors March 20, 2013 when it considers authorizing the ISO to negotiate a formal agreement with PacifiCorp.

The report estimates the combined benefits of the EIM will range from $\$ 21$ million - $\$ 129$ million in 2017. The report supports the conclusion that the two-party EIM provides a low-cost, low-risk means of achieving operational savings for both PacifiCorp and ISO and enabling greater penetration of renewable energy resources. Savings calculated with these scenarios could be higher if other entities in the West also participate in the EIM, which would expand the transfer capability within the western transmission network as well as increase available resources in the new real-time market.

While not included in the report's analysis, enhanced grid reliability and renewable integration are additional benefits that come from an EIM. These types of benefits were recently outlined in the FERC staff paper "Qualitative Assessment of Potential Reliability Benefits for a Western Energy Imbalance Market".

Stakeholder comments regarding the potential EIM can be found at
http://www.caiso.com/informed/Pages/StakeholderProcesses/Energv/mbalanceMarket.aspx.

For More Information Contact
Don Fuller at dfuller@caiso.com
The California ISO strives to be a world-class electric transmission organization built around a globally recognized and inspired team providing cost-effective and reliable service, well-balanced energy market mechanisms, and high-quality information for the benefit of our

## customers.

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[^2]From: Almeida, Keoni
Sent: Tue Mar 19 15:52:57 2013

To: Mainzer, Elliot E (BPA) - D-7; Bekkedahl,Larry N (BPA) - T-DITT2; Elizeh, Edison G (BPA) - SR-7; Linn,Young S (BPA) - TSE-TPP-2
Subject: RE: RE: EIM

Importance: Normal

11 EIM comments posted and trued up with EIM page as of 3 p.m. today.
http://www.caiso.com/informed/Pages/StakeholderProcesses/EnergylmbalanceMarket.aspx
Description: cid:image001.png@01CE24B3.87547C50

Keoni Almeida
916-608-1121
Lead Stakeholder Policy and Account Manager
California ISO [mun.caiso.com]
From: Almeida, Keoni
Sent: Tuesday, March 19, 2013 10:24 AM
To: Mainzer, Elliott; Bekkedahl, Larry (Inbekkedahl@bpa.gov); Elizeh, Edison; Linn, Young
Subject: EIM
I wanted to make sure you were aware of the comments on the bottom of the page:
http://www.caiso.com/informed/Pages/StakeholderProcesses/EnergylmbalanceMarket.aspx

Keoni Almeida
916-608-1121
Lead Stakeholder Policy and Account Manager
California ISO [ww.caiso.com]


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## From: Sharon Irwin

## Sent: Mon Mar 25 16:22:52 2013

To: Diane Broad; Patrick Damiano; dan.bedbury@eweb.org; dan.brickley@srpnet.com; dan.williams@pse.com;
danielle.duran@state.nm.us; datoulson@snopud.com; dave.slick@srpnet.com; dave@daveolsen.net; davep@eccointl.com; David Crowell; David Erickson; David Lemmons; david.sallstrom@ventyx.abb.com; David Schiada; David Miller; davidarthurconsulting@yahoo.com; Dennis Beck; Dan Severson; Dave Charles; David Churchman; ddeyong@mt.gov; deb@a-klaw.com; Hill,Denise E (BPA) - PTF-5; dettmer@columbiagrid.org; dfuller@caiso.com; dgetts@southwesternpower.com; Dan Gimble; David Griscom; dholcom@smud.org; Daniel Kammen; Doug Larson; dmalone@epelectric.com; donald.furman@iberdrolaREN.com; Kevin Doran; Doug Cox; Doug Reese; Del Smith; dstegema@cityoftacoma.org; Dave Warren; Dwight Lamberson; eallen@energy.state.ca.us; ECaplan@publicpower.org; Eduardo.Ibanez@nrel.gov; Mainzer,Elliot E (BPA) - D-7; Erik Hansen; Emler@wapa.gov; Eric Espenhorst; eric.krall@ferc.gov; eric.toolson@energyexemplar.com; Ed Stoneburg; FBarbera@TresAmigasLLC.com; Frank Afranji: Fred Heutte: Amy Frees; fwoods@utc.wa.gov

Subject: fyi
Importance: Normal

Sent on behalf of Doug Larson and Jennifer Gardner
http://elabs7.com/content/1001271/Market\ Notice\ Logo 2011.gifMarket Notice
March 25, 2013

Requested Client Action
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Request for Comment
Categories
ISO News and Information
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Market Rules and Market Design

Energy Imbalance Market Benefits Study - Stakeholder Call 4/1/13

## Summary

The California ISO has scheduled a stakeholder call on April 1, 2013 to discuss the joint PacifiCorp - ISO Energy Imbalance Market Benefits study.

The ISO has scheduled a stakeholder call on April 1, 2013 to discuss the joint PacifiCorp - ISO Energy Imbalance Market Benefits study, which is available on the ISO website at http://www.caiso.com/Documents/PacifiCorp-ISOEnergylmbalanceMarketBenefits.pdf.

The study estimates the combined benefits of the EIM will range from $\$ 21$ million - $\$ 129$ million in 2017. The study supports the conclusion that the two-party EIM provides a low-cost, low-risk means of achieving operational savings for both PacifiCorp and ISO and enabling greater penetration of renewable energy resources. Savings calculated with these scenarios could be higher if other entities in the West also participate in the EIM, which would expand the transfer capability within the western transmission network as well as increase available resources.

Stakeholders should submit comments on the benefits study to ElM@caiso.com by close of business April 8.

The ISO will post an agenda and presentation at http://www.caiso.com/informed/Pages/StakeholderProcesses/EnergylmbalanceMarket.aspx by close of business March 28

## Meeting Details

Date: Monday, April 1, 2013
Time: 10:00 a.m. to 12:00 p.m. (Pacific Time)

## Web Conference Information

Web Address: http://attewc.webex.com/attewc/onstage/g.php?d=648461594

## Teleconference Information

Call-in Number; 800-230-1074

International Call-in: 612-288-0329

No conference ID required

## For More Information Contact

Don Tretheway at 916-608-5995 or dtretheway@caiso.com

The California ISO strives to be a world-class electric transmission organization built around a globally recognized and inspired team providing cost-effective and reliable service, well-balanced energy market mechanisms, and high-quality information for the benefit of our customers.

250 Outcropping Way, Folsom. CA 95630
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http://portal.mxlogic.com/images/transparent.gif

## From: Mainzer,Elliot E (BPA) - D-7

Sent: Sun Apr 14 11:41:05 2013

To: 'Warner, Faith'; 'Anita Decker'; 'aram.benyamin@ladwp.com'; 'Armi.Dedick@bchydro.com'; Drummond,William K (BPA) - A-7; 'Bladow, Joel'; 'bob.rowe@northwestern.com'; 'CPJ2@pge.com'; 'david.I.eves@xcelenergy.com'; 'david.mills@pse.com'; 'dennis.vermillion@avistacorp.com'; 'dick.storro@avistacorp.com'; 'dsikes@idahopower.com'; 'dxh4@pge.com'; 'Grantham-Richards, Maude'; 'greg.reimer@bchydro.com'; Hage,Bonnie J (BPA) - K-7; 'james.ferland@pnmresources.com'; 'janet.woodruff@bctc.com'; 'jason.thackston@avistacorp.com'; 'javery@semprautilities.com'; 'jdistasio@smud.org'; 'Jeff Guldner'; 'Jesus Soto'; 'jim.lobdell@pgn.com'; 'jim.piro@pgn.com'; 'jknight@semprautilities.com'; 'john.Underhill@srpnet.com'; 'kedson@caiso.com'; 'kimberly.harris@pse.com'; 'Igrow@idahopower.com'; 'Ikeen@idahopower.com'; 'Lori Holland'; 'Mark.Schiavoni@aps.com'; 'Melanie Frye WECC'; 'michael.cashell@northwestern.com'; 'Mike.hummel@srpnet.com'; 'mmaher@wecc.biz'; 'mniggli@semprautilities.com'; 'mvillar@nevp.com'; 'myackira@nevp.com'; 'pat.collawn@pnmresources.com'; 'pat.reiten@pacificorp.com'; 'paul.lau@smud.org'; 'Rachel Sherrard'; 'richard.walje@rockymountainpower.net'; 'Rob.Taylor@srpnet.com'; 'Ron.Litzinger@sce.com'; 'Ron.Nichols@ladwp.com'; 'Ron.Talbot@pnmresources.com'; 'sberberich@caiso.com'; 'Stefan Bird'; 'Stephen.Pickett@sce.com'; 'teresa.m.mogensen@xcelenergy.com'; 'thomas.a.imbler@xcelenergy.com'; 'tmontoya@wapa.gov'; 'vkasarj@smud.org'

Cc: 'aglover@caiso.com'; 'ann.davey@sce.com'; 'Brown Cynthia M (Cindy'; 'cfigley@wecc.biz'; 'cgarrett@wecc.biz'; 'Cheryl';
'christine.j.carter@xcelenergy.com'; 'D-D.smith@pse.com'; 'debbie.nevius@smud.org'; 'erlander@wapa.gov'; 'gad9@pge.com'; Bryan,B Gretchen (BPA) - S-7; 'Gregory.Miller@pnm.com'; 'helen.lumpkin@sce.com'; 'Katherine Lee'; 'Kathryn Haney'; 'katie.smith@rockymountainpower.net'; 'khubner@caiso.com'; 'linda.lloyd@northwestern.com'; 'Lourdes.Zerrudo@ladwp.com'; 'lousley@nevp.com'; 'lyneece.james.johnson@sce.com'; 'mary.kay.larsen@pgn.com'; 'mary.trosper@pgn.com'; 'melissa.hartvigson@pse.com'; 'missy.chase@pgn.com'; 'natalie.hocken@pacificorp.com'; 'nburns@smud.org'; 'patricia.sigala@ladwp.com'; 'rjroberts@caiso.com'; 'rkeck@semprautilities.com'; 'rnuno@semprautilities.com'; 'rrossi@semprautilities.com'; 'shanna.cartica@xcelenergy.com'; Boardman,Sandy (BPA) - A-7; 'Tellez Michelle R'; 'tonia.stratton@pacificorp.com'; 'Ward Donna L'; 'Zehr, Mary Ann'

Subject: RE: RE: WEIL Meeting 5/23 Agenda \& Updated Information
Importance: Normal

## Hi Faith,

The agenda looks exceilent. In addition to the briefing from CAISO and PAC on their Energy imbalance Market proposal, I would like to provide an update on the activities of the Northwest Power Pool Members' Market Assessment and Coordination Initiative.

Thanks very much,

Elliot

From: Warner, Faith [mailto.fwarner@tristategt.org]
Sent: Friday, April 12, 2013 10:13 AM
To: Anita Decker; aram.benyamin@ladwp.com; Armi.Dedick@bchydro.com; Drummond,William K (BPA) - A-7:
Bladow, Joel; bob.rowe@northwestern.com; CPJ2@pge.com; david.I.eves@xcelenergy.com;
david.mills@pse.com; dennis.vermillion@avistacorp.com; dick.storro@avistacorp.com; dsikes@idahopower.com; dxh4@pge.com; Mainzer,Elliot E (BPA) - D-7; Grantham-Richards, Maude; greg.reimer@bchydro.com;
Hage,Bonnie J (BPA) - K-7; james.ferland@pnmresources.com; janet.woodruff@bctc.com;
jason.thackston@avistacorp.com; javery@semprautilities.com; jdistasio@smud.org; Jeff Guldner; Jesus Soto; jim.lobdell@pgn.com; jim.piro@pgn.com; jknight@semprautilities.com; john.Underhill@srpnet.com;
kedson@caiso.com; kimberly.harris@pse.com; Igrow@idahopower.com; Ikeen@idahopower.com; Lori Holland;
Mark.Schiavoni@aps.com; Melanie Frye WECC; michael.cashell@northwestern.com; Mike.hummel@srpnet.com; mmaher@wecc.biz; mniggli@semprautilities.com; mvillar@nevp.com; myackira@nevp.com;
pat.collawn@pnmresources.com; pat.reiten@pacificorp.com; paul.lau@smud.org; Rachel Sherrard;
richard.walje@rockymountainpower.net; Rob.Taylor@srpnet.com; Ron.Litzinger@sce.com;
Ron.Nichols@ladwp.com; Ron.Talbot@pnmresources.com; sberberich@caiso.com; Stefan Bird;

Stephen.Pickett@sce.com; teresa.m.mogensen@xcelenergy.com; thomas.a.imbler@xcelenergy.com; tmontoya@wapa.gov; vkasarj@smud.org
Cc: aglover@caiso.com; ann.davey@sce.com; Brown Cynthia M (Cindy; cfigley@wecc.biz; cgarrett@wecc.biz; Cheryl; christine.j, carter@xcelenergy.com; D-D.smith@pse.com; debbie.nevius@smud.org; erlander@wapa.gov; gad9@pge.com; Bryan,B Gretchen (BPA) - S-7; Gregory.Miller@pnm.com; helen.lumpkin@sce.com; Katherine Lee; Kathryn Haney; katie.smith@rockymountainpower.net; khubner@caiso.com; linda.lloyd@northwestern.com; Lourdes.Zerrudo@ladwp.com; lousley@nevp.com; lyneece.james.johnson@sce.com; mary.kay.larsen@pgn.com; mary.trosper@pgn.com; melissa.hartvigson@pse.com; missy.chase@pgn.com; natalie.hocken@pacificorp.com; nburns@smud.org; patricia.sigala@ladwp.com; rjroberts@caiso.com; rkeck@semprautilities.com; rnuno@semprautilities.com; rrossi@semprautilities.com; shanna.cartica@xcelenergy.com; Boardman,Sandy (BPA) - A-7; Tellez Michelle R; tonia.stratton@pacificorp.com; Ward Donna L; Zehr, Mary Ann Subject: WEIL Meeting 5/23 Agenda \& Updated Information

Greetings!

Attached is an updated agenda for the May $23^{\text {rd }}$ meeting. Please let me know if you have any additions, or modifications to the agenda. The meeting start time has been changed from 9:00 a.m. to 9:30 a.m. and will end at 2:00 p.m. If you haven't made your hotel reservations, you may make your reservations by clicking the link below or calling 303-371-4333. If you call the hotel directly, let them know that you are with the WEIL block to get your special rate of $\$ 179.00$ per night. There is free shuttle service from the airport to the hotel every $1 / 2$ hour. Also, if you could send me an e-mail to confirm your attendance, I would appreciate it fwarner@tristategt.org .

## WESTERN ENERGY INDUSTRY LEADERS

- Check-in: Wed May 22, 2013
- Check-out: Thu May 23, 2013
- Special rate available until: Wed May 01, 2013

Description: Description: Description: Description:
http://www.marriott.com/Images/Brands/MHR/Logos/MHR logowhitefield 120×60.gif
DENVER AIRPORT MARRIOTT AT GATEWAY PARK
General \$179 per night
Book General at Denver Airport Marriott at Gateway Park for \$179 per night

If you have any questions, please give me a call.
Have a great weekend!!

Faith Warner
Administrative Assistant to:
Sr. VP Production/Sr. VP Energy Markets/Sr. VP Transmission
Tri-State Generation and Transmission Association, Inc.
1100 W. 116th Avenue
Westminster, Co 80234
Office: 303-254-3315

Fax: 303-254-6007
fwarner@tristategt.org
Description: Description: cid:image001.jpg@01CD1BDE.980FE2C0

From: Mainzer,Elliot E (BPA) = D-7
Sent: Mon Jul 08 15:21:10 2013
To: Almeida, Keoni
Cc: Elizeh,Edison G (BPA) - SR-7
Subject: Re: Re: CAISO EIM Revised Straw Proposal
Importance: Normal

I will touch base with Eddie and we can give it some thought.
Thx!
EM

## Elliot E. Mainzer

Acting Deputy Administrator
Bonneville Power Administration
(503) 230-4175 (w)
(b)(6)
eemainzer@bpa.gov

On Jul 8, 2013, at 3:49 PM, "Almeida, Keoni" [KAlmeida@caiso.com](mailto:KAlmeida@caiso.com) wrote:

Great. Mark Rothleder wanted me to ask you, as part of a follow up to one of our technical calls, if you guys wanted to make a presentation at our August $20^{\text {th }}$ stakeholder meeting in Portland on how BPAs system will continue to operate between the ISO and PAC in terms of communicating constraints and contingencies. You will find that procedures exists today and will continue to exist after
implementation. Since it is over a month and a half away, we thought you may want to consider this to alleviate concerns raised in the BPA comments. Let me know what you think of this idea.

By the way, thank you for taking the time to prepare and submit comments. We really appreciate it.

Keoni Almeida
916-608-1121

Lead Stakeholder Policy and Account Manager
California ISO [WWN.caiso.com]

From: Mainzer,Elliot E (BPA) - D-7 [mailto:eemainzer@bpa,gov]
Sent: Monday, July 08, 2013 : 2:34 PM
To: Almeida, Keoni
Subject: Re: CAISO EIM Revised Straw Proposal

Thanks Keoni. We are keeping an eye on your activities and will stay engaged.

「alk to you soon.

Elliot

Elliot E. Mainzer

Acting Deputy Administrator
Bonneville Power Administration
(503) 230-4175 (w)

## (b)(6)

cemainzer@bpa.gov

On Jul 8, 2013, at 12:34 PM, "Almeida, Keoni" < KAlmeida@caiso.com> wrote:
Hi there.
In addition to the updated proposal that was posted last Tuesday, the matrix, agenda and supporting docs are also now available on the Energy Imbalance Market page under the Meeting Jul 9, 2013 subheading

Keoni Almeida
916-608-1121

Lead Stakeholder Policy and Account Manager
California ISO [www.caiso.com]

From: Almeida, Keoni
Sent: Wednesday, June 05, 2013 9:50 AM
To: 'Drummond,William K (BPA) - A-7'; Mainzer, Elliott; Decker,Anita J (BPA) - K-7; Juj,Hardev S (BPA) - TP-DITT-2; Linn, Young;
Ehli,Cathy L (BPA) - S-7; Delwiche,Gregory K (BPA) - P-6; Bekkedahl,Larry N (BPA) - T-DITT2; Oliver,Stephen R (BPA) - PG-5;
Cooper,Suzanne B (BPA) - PT-5; Johnston,Kenneth H (BPA) - TSE-TPP-2; Leathley,Kimberly A (BPA) - TS-DITT-2-A; Elizeh, Edison;
'Dibble, Rachel L (BPA) - SR-7'
Cc: Berberich, Steve; Edson, Karen; Casey, Keith; Ristanovic, Petar; Rothleder, Mark; Doughty, Thomas; Fuller, Don
Subject: CAISO EIM Revised Straw Proposal

Good Morning! I want you to be aware of our recently posted EIM revised straw proposal which takes into account comments received from stakeholders. I am also including a "comments matrix" so that you can see who submitted comments, what their concerns/interests are, and how we are responding. We look forward to BPA's participation in the stakeholder process in the coming months. We still have two more iterations of the paper to be published as we drill down into the details of the proposal.

Lastly, I am including below the schedule for our EIM initiative.

Outside of the stakeholder process, we are having bi-weekly technical conference calls between BPA, PAC and the ISO to discuss what is needed to facilitate PAC's participation given any transmission limitations (if any exist) that would need to be honored by BPA. The ISO would like to express our appreciation for BPA's efforts in this area. We find these calls to be very productive.
? EIM Revised Straw Proposal: http://www.caiso.com/Documents/RevisedStrawProposal-EnergylmbalanceMarket-053013.pdf
? Comments Matrix: http://www.caiso.com/Documents/Matrix-Comments-EnergylmbalanceMarketDesignStrawProposalIssuePaperJun6 2013.pdf

## ? Schedule:

## Item

Date
Post Revised Straw Proposal
May 30, 2013
Stakeholder Meeting (Folsom)

June 6, 2013
Stakcholder Comments Duc

June 14, 2013

Post $2^{\text {nd }}$ Revised Straw Proposal

July 2, 2013
Stakeholder Meeting (Phoenix)

July 9, 2013
Stakeholder Comments Due

July 19, 2013
Post Draft Final Proposal
August 13, 2013
Stakeholder Meeting (Portland)

## August 20, 2013

Stakeholder Comments Due
August 27, 2013
Post Draft Tariff Language
Scptember 16, 2013
Stakeholder Comments Due
September 23, 2013
Stakeholder Meeting (Folsom)
Seplember 30, 2013
Board Decision
November 8, 2013

## Take care,

Keoni Almeida
916-608-1121
Lead Stakeholder Policy and Account Manager
California ISO [wWN.caiso.com]

From: Drummond,William K (BPA) - A-7 [mailto;wkdrummond@bpa.gov]
Sent: Monday, April 22, 2013 4:03 PM
To: Almeida, Keoni; Mainzer, Elliott; Decker,Anita J (BPA) - K-7; Juj,Hardev S (BPA) - TP-DITT-2; Linn, Young; Ehli,Cathy L (BPA) - S-7; Delwiche,Gregory K (BPA) - P-6; Bekkedahl,Larry N (BPA) - T-DITT2; Oliver,Stephen R (BPA) - PG-5; Cooper,Suzanne B (BPA) - PT-5; Leathley,Kimberly A (BPA) - TS-DITT-2-A; Elizeh, Edison
Cc: Berberich, Steve; Edson, Karen; Casey, Keith
Subject: Re: BPA / CAISO 4/18/2013 Executive Meeting

Thanks, Keoni. On behalf of the Bonneville staff, we really appreciate you and the CAISO staff coming up to Portland to talk with us. It was an extremely informative discussion and will help us to coordinate more closely going forward.

Regards,
Bill

From: Almeida, Keoni [mailto:KAlmeida@caiso.com]
Sent: Monday, April 22, 2013 09:28 AM
To: Drummond, William K (BPA) - A-7; Mainzer, Elliot E (BPA) - D-7; Decker,Anita J (BPA) - K-7; Juj,Hardev S (BPA) - TP-DITT-2; Linn, Young S (BPA) - TSE-TPP-2; Ehli,Cathy L (BPA) - S-7; Delwiche,Gregory K (BPA) - P-6; Bekkedahl, Larry N (BPA) - T-DITT2; Oliver,Stephen R (BPA) - PG-5; Cooper,Suzanne B (BPA) - PT-5; Leathley, Kimberly A (BPA) - TS-DITT-2-A; Elizeh,Edison G (BPA) -SR-7
Cc: Berberich, Steve [SBerberich@caiso.com](mailto:SBerberich@caiso.com); Edson, Karen [KEdson@caiso.com](mailto:KEdson@caiso.com); Casey, Keith [KCasey@caiso.com](mailto:KCasey@caiso.com) Subject: BPA / CAISO 4/18/2013 Executive Meeting

Bill and others, On behalf of Steve, Karen, Keith and myself, I want to convey our appreciation for your time to meet with us to discuss the various topics of common interest between our organizations. The ISO looks forward to collaboratively working with BPA in our efforts to address the regional need for improved coordination and effective grid management. It has been a pleasure to work with BPA staff in the various initiatives we have already undertaken.

Regards,

Keoni Almeida
916-608-1121

Lead Stakeholder Policy and Account Manager
California ISO [www.caiso.com]
----Original Appointment-..-
From: slvanantwerp@bpa.qov [mailto:slvahantwerp@bpa.qov] On Behalf Of Linn,Young S (BPA) - TSE-TPP-2
Sent: Monday, April 15, 2013 3:56 PM
To: Almeida, Keoni; Ehli,Cathy L (BPA) - S-7; Mainzer, Elliott; Bekkedahl,Larry N (BPA) - T-DITT2; Delwiche,Gregory K (BPA) -
P-6; Juj,Hardev S (BPA) - TP-DITT-2; Decker,Anita J (BPA) - K-7; Leathley, Kimberly A (BPA) - TS-DITT-2-A; Elizeh, Edison;
Cooper,Suzanne B (BPA) - PT-5; Drummond, William K (BPA) - A-7; Oliver,Stephen R (BPA) - PG-5
Subject: CEO / Executive Meeting with CAISO
When: Thursday, April 18, 2013 2:00 PM-5:00 PM (UTC-08:00) Pacific Time (US \& Canada).
Where: HQ 545

4/15/2013: Updated with new conference location

## *********************************************************************************************

The foregoing electronic message, together with any attachments thereto, is confidential and may be legally privileged
against disclosure other than to the intended recipient. It is intended solely for the addressee(s) and access to the message by anyone else is unauthorized. If you are not the intended recipient of this electronic message, you are hereby notified that any dissemination, distribution, or any action taken or omitted to be taken in reliance on it is strictly prohibited and may be unlawful. If you have received this electronic message in error, please delete and immediately notify the sender of this error.
$* * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * *$

From: Almeida, Keoni

Sent: Wed Jul 10 08:57:18 2013

To: Elizeh,Edison G (BPA) - SR-7; Linn,Young S (BPA) - TSE-TPP-2; Mainzer,Elliot E (BPA) - D-7
Cc: Rothleder, Mark; Fuller, Don
Subject: RE: RE: technical conf call w/ PAC/BPA/ISO re DTC
Importance: Normal
Attachments: July 9, 2013 EIM Pheonix meeting.pdf

Thanks Eddie. Let us know how we can help. Our policy and procedures will not just be tailored to PAC. We have these procedures currently for all surrounding BAs and we will expand them as necessary. We look forward to working with BPA as we have been in a collaborative manner.

I thought you all would be interested in the number of entities interested in our proposal by show of those on the phone/webinar. There was about 80 folks there in person.

Keoni Almeida
916-608-1121
Lead Stakeholder Policy and Account Manager
California ISO [mw $w$. caiso.com]
From: Elizeh,Edison G (BPA) - SR-7 [mailto:egelizeh@bpa.gov]
Sent: Tuesday, July 09, 2013 11:23 AM
To: Almeida, Keoni; Linn, Young
Cc: Rothleder, Mark; Mainzer, Elliott
Subject: RE: technical conf call w/ PAC/BPA/ISO re DTC
Thanks Keoni. I noticed that revised schedule/time line in the revised proposal. Not sure if a month for third opportunity to provide comments are enough for us. There are many key issues are still at play. I hope ISO considers in the proposal the challenges Intermediary BA faces under the ISO proposal. Many of the functions ISO requesting from EIM Entity balancing area is a change in current procedures and processes in the northwest. We look forward in continue discussions with ISO and PAC, however the policy and procedure BPA needs to establish could not be tailored just for PAC
rather just like ISO our processes and procedures need to accommodate in the same manner as if any other entity that decides to be an ElM Entity under the proposal. This is a huge step for BPA and we have a lot to cover with our executives.

Thank you
Eddie
Edison G. Elizeh
Strategy Integration
egelizeh@bpa.gov
503-230-4105 (office)

## (b)(6) (cell)

From: Almeida, Keoni [mailto:KAlmeida@caiso.com]
Sent: Tuesday, July 09, 2013 10:31 AM
To: Linn, Young S (BPA) - TSE-TPP-2; Elizeh,Edison G (BPA) - SR-7
Cc: Rothleder, Mark; Mainzer,Elliot E (BPA) - D-7
Subject: RE: technical conf call w/ PAC/BPA/ISO re DTC
Thanks Young. I also wanted to let you know that we have considered your input on the timing of developing the proposal. The ISO has modified the schedule to provide additional review time of the 2nd revised straw proposal and opportunity for a 3rd revised straw proposal prior to the draft final proposal.
And so that you are aware, we are contemplating preparing a higher level description of the proposal since what is posted is pretty detailed. It would be along the lines of what we would prepare for our board. I hope this will help you when it comes time to relaying the proposal to your execs.

Keoni Almeida
916-608-1121
Lead Stakeholder Policy and Account Manager
California ISO [mun.caiso.com]
From: Linn, Young S (BPA) - TSE-TPP-2 [mailto:yslinn@bpa.gov]
Sent: Tuesday, July 09, 2013 9:36 AM
To: Almeida, Keoni; Elizeh, Edison
Cc: Rothleder, Mark; Mainzer, Elliott
Subject: RE: technical conf call w/ PAC/BPA/ISO re DTC

[^3]
## Young

From: Almeida, Keoni [mailto:KAlmeida@caiso.com]
Sent: Monday, July 08, 2013 2:59 PM
To: Elizeh,Edison G (BPA) - SR-7; Linn,Young S (BPA) - TSE-TPP-2
Cc: Rothleder, Mark; Mainzer,Elliot E (BPA) - D-7
Subject: FW: technical conf call w/ PAC/BPA/ISO re DTC
Please forward to others on your transmission side as you see appropriate.
Now that our conversations during our technical calls are just with the transmission side, I see that the dialogue is quite a bit more open. Thanks Eddie for pushing to make that happen. I had to drop off last week's call because I was driving.

I wanted to make sure you folks were aware of the type of information we are looking for in these discussions. See highlight below. I know it has been tough to get together with PAC, but if you folks can push this on your end, that would be great.

Also, we pulled together some pretty useful information that I think will help BPA realize that we already have procedures in place. See note below about the timing for triggering events for contingencies between BAs and the associated procedures. The attached procedure is an example of what we would NOT be able to share with the market side of the house, thus I kept my note below very high level below and did not attach it to my e-mail below. I am now attaching them for your use. Of course, these procedures will be updated as needed with the implementation of EIM, however, we do not see a significant change. I hope this helps.

Keoni Almeida
916-608-1121
Lead Stakeholder Policy and Account Manager
California ISO [www.caiso com]
From: Almeida, Keoni [mailto:KAlmeida@caiso.com]
Sent: Tuesday, June 18, 2013 12:58 PM
To: Apperson, John; Linn,Young S (BPA) - TSE-TPP-2; Gillman,Richard A (BPA) - TSPP-TPP-2; Elizeh,Edison G (BPA) - SR-7;
Ramanathan,Ramanathan (CONTR) - TOT-DITT2; Simpson,Troy D (BPA) - TOK-DITT-2; Dibble,Rachel L (BPA) - SR-7; Symonds,Mark C
(BPA) - SR-7; Arison,Sarah K (BPA) - TSP-TPP-2; Kochheiser,Todd W (BPA) - TOK-DITT-2; Johnston,Kenneth H (BPA) - TSE-TPP-2;
McManus,Bart (BPA) - TOT-DITT2; Morris, Janet; Portouw, Jim; Edmonds, Sarah; Schaffroth, John
Cc: Price, James; Angelidis, George; Chiosea, Adrian; Abdul-Rahman, Khaled; Rothleder, Mark
Subject: RE: technical conf call w/ PAC/BPA/ISO re DTC
Although there were conflicts that led to the rescheduling of today's call we would like to continue with the collaborative work we have developed thus far. With that, the ISO would like to request BPA for documentation of any limitations that BPA currently imposes on

PacifiCorp's dispatch of PacifiCorp resources, using transmission that PacifiCorp owns or on which PacifiCorp has rights.
One of the action items from the last meeting included the need to understand the timing for triggering events for contingencies between BAs. We have operating procedures in place today that will continue to exist under the EIM.

We have procedures which cover general responsibilities between BAs, TOPs and the WECC RC like 3110-Coordinated Operation for Reliability as well as general outage coordination, interconnection switching, etc. We also have our general emergency procedures which are also specifically call out when communications and joint decision making needs to take place.
We also have specific procedures which include/ impact BPA and PacifiCorp for example:

- 3530 - Scheduling for Stranded Loads - (for PACW and PG\&E stranded load at Cascade/ Crag View)
- 4410 Emergency Assistance + attachments 4410B Pricing for Emergency Assistance to ISO (BPA is specific, PacifiCorp is not),

4410D Emergency Assistance IDs

- 6030 WECC Open Loop Operation
- 6110 COI Master Operating Procedure
- 6920 PDCI

PacifiCorp's latest System Restoration Plan outlines their studied interactions with our areas-and the only reference is to PG\&E at Cascade/ Crag View.

I can provide links to the Transmission side of your respective organizations if that would help, but they should already have this.

```
Keoni Almeida
916-608-1121
Lead Stakeholder Policy and Account Manager
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California ISO www.calso.com]
-----Original Appointment--.--
From: Almeida, Keoni
Sent: Tuesday, April 16, 2013 8:31 AM
To: Almeida, Keoni; Price, James; Angelidis, George; Chiosea, Adrian; Abdul-Rahman, Khaled; Rothleder, Mark; Apperson, John; Linn, Young; OB - 3210 - Q4 San Diego; Gillman, TM/DItt2, Richard; Elizeh, Edison; 'Ramanathan,Ramanathan (CONTR) - TOT-DITT2'; 'Simpson,Troy D (BPA) - TOK-DITT-2'; 'Dibble,Rachel L (BPA) - SR-7'; 'Symonds,Mark C (BPA) - SR-7'; Bermejo, Sarah; Kochheiser, Todd; Johnston, Kenneth H (BPA) - TSE-TPP-2; McManus, Bart
Cc: Morris, Janet; Portouw, Jim; Edmonds, Sarah; Schaffroth, John
Subject: technical conf call w/ PAC/BPA/ISO re DTC

When: Occurs every 2 weeks on Tuesday and Thursday effective 6/27/2013 until 8/29/2013 from 4:00 PM to 5:30 PM (UTC-08:00) Pacific Time (US \& Canada).
Where: TBD for ISO

Rescheduling due to conflicts.
Call-in:
Meeting Number: 866-528-2256
Access Code: (b)(6)
*********************************************************************************************
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MERCY PARKER HELGET
mparkerhelget@caiso.com
293611
CALIFORNIA ISO
MERCY PARKER HELGET
ENERGY IMBALANCE MARKET
TUESDAY, JULY 09, 2013, 10:00 AM PACIFIC

NAME COMPANY PHONE

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4. ALMEIDA, KEONI
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7. AVALOS, RODRIGO
8. BAILEY, SHAWN
9. BESELKA, THOMAS
10. BAKER, BRIAN
11. BLAIR, BONNIE
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13. BOCCIGNONE, DOUG
14. BRADLEY, JOANNE
15. BRADSHAW, BRIAN
16. BRAY, PETER
17. BREINER, SEAN
18. BURNS, BETH ANN
19. BURROW, AMY
20. CARACRISTI, BOB
21. CHAN, CLARISSA
22. CLINE, RYAN
23. CONGER, SID
24. COOK, GREG
25. COOPER, BRAD
26. CORBOY, JIM
27. COYNE, MARTIN
28. CUELLAR, AMY
29. CUTSOR, BILLY
30. DEVIN, SYLVIE
31. DIBBLE, RACHEL

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SEMPRA
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SMUD
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## From: Almeida, Keon

Sent: Wed Jut 24 15:00:59 2013

To: Mainzer, Elliot E (BPA) - D-7; Bekkedahl, Larry N (BPA) - T-DITT2; Deiwiche,Gregory K (BPA) - P-6; Juj,Hardev S (BPA) - TP-DITT-2;
Oliver, Stephen R (BPA) - PG-5; Leathley, Kimberly A (BPA) - TS-DITT-2-A; Linn, Young S (BPA) - TSE-TPP-2; Ehli,Cathy L (BPA) - S-7;
Cooper,Suzanne B (BPA) - PT-5; Dibble,Rachel L (BPA) - SR-7; Elizeh, Edison G (BPA) - SR-7; Johnston,Kenneth H (BPA) - TSE-TPP-2
Subject: Key NV energy advisor joins the California ISO
Importance: Normal

Hi all. Having heard from BPA and others that the ISO needs to get out more to have broader discussions to enhance regional collaboration I am pleased to announce that Nevada Governor Brian Sandoval's energy advisor Stacey Crowley has accepted a position as Director of Regional Affairs for the ISO. In her new position in the Policy \& Client Services Division, Stacey will work with regional policymakers on our shared energy issues including implementation of the energy imbalance market.
As Director of the Nevada Office of Energy, Crowley administered tax incentives for energy efficient buildings and large scale renewable energy projects, promoted Nevada's renewable energy resources in the region and chaired the Governor's New Energy Industry Task Force. She coordinated efforts with local, state and federal agencies in support of the state's energy industry. Stacey has also nurtured valuable relationships with California to boost Nevada's rich clean energy resources within the western regional market She was on the panel with Elliot Mainzer last year at our annual symposium addressing the topic of regional collaboration.

Keoni Almeida
916-608-1121
Lead Stakeholder Policy and Account Manager
California ISO [www.caiso .com]

## Karen Edson

Vice President Policy and Client Services
California Independent System Operator
916-351-4435
kedson@caiso.com

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From: Almeida, Keoni

Sent: Tue Sep 10 10:51:41 2013
To: Mainzer, Elliot E (BPA) - D-7; Ehli,Cathy L (BPA) - S-7; Juj, Hardev S (BPA) - TP-DITT-2; Linn, Young S (BPA) - TSE-TPP-2;
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Cooper,Suzanne B (BPA) - PT-5; Leathley,Kimberly A (BPA) - TS-DITT-2-A; Spain,Alex J (BPA) - PTF-5
Cc: Edson, Karen; Rothleder, Mark; Fuller, Don
Subject: RE: RE: Energy Imbalance Market Governance Paper and Call 10/11/13
Importance: Normal

Good morning. I wanted to make you aware that comments have now been posted for the $3^{\text {rd }}$ revised proposal and the governance paper:

- Comments on third revised straw proposal Description: http://www.caiso.com/

Layouts/Wirestone/TaxonomyViewerWebPart/Images/gotoanotherpageicon.png

- PacifiCorp Comments on Energy Imbalance Market Third Revised Straw Proposal9/09/2013 11:23
- PGE Comments on Energy Imbalance Market Third Revised Straw Proposal9/09/2013 11:24
- Six Cities Comments on Energy Imbalance Market Third Revised Straw Proposal9/09/2013 11:25
- SMUD Comments on Energy Imbalance Market Third Revised Straw Proposal9/09/2013 11:27
- TANC Comments on Energy Imbalance Market Third Revised Straw Proposal9/09/2013 11:28
- TransAlta Comments on Energy Imbalance Market Third Revised Straw Proposal9/09/2013 11:29
- Tri-State Comments on Energy Imbalance Market Third Revised Straw Proposal9/09/2013 11:30
- UAMPS Comments on Energy Imbalance Market Third Revised Straw Proposal9/09/2013 11:31
- WAPA Comments on Energy Imbalance Market Third Revised Straw Proposal9/09/2013 11:33
- WAPA Supplemental Comments on Energy Imbalance Market Third Revised Straw Proposal9/09/2013 11:35
- WPTF Comments on Energy Imbalance Market Third Revised Straw Proposal9/09/2013 11:36
- Xcel Comments on Energy Imbalance Market Third Revised Straw Proposal9/09/2013 11:37
- PG\&E Comments on Energy Imbalance Market Third Revised Straw Proposal9/10/2013 08:44
- Comments on governance proposal, white paper Description: http://www.caiso.com/

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- APS Comments on Energy Imbalance Market Governance Proposal, White Paper9/09/2013 12:14
- BANC Comments on Energy Imbalance Market Governance Proposal, White Paper9/09/2013 11:44
- Grant County PUD Comments on Energy Imbalance Market Governance Proposal, White Paper9/09/2013 11:48
- Iberdrola Comments on Energy Imbalance Market Governance Proposal, White Paper9/09/2013 12:16
- IREC Comments on Energy Imbalance Market Governance Proposal, White Paper9/09/2013 12:17
- NRDC Comments on Energy Imbalance Market Governance Proposal, White Paper9/09/2013 11:49
- NW Energy Comments on Energy Imbalance Market Governance Proposal, White Paper9/09/2013 11:50
- PacifiCorp Comments on Energy Imbalance Market Governance Proposal, White Paper9/09/2013 11:51
- PGE Comments on Energy Imbalance Market Governance Proposal, White Paper9/09/2013 11:52
- PUC Comments on Energy Imbalance Market Governance Proposal, White Paper9/09/2013 12:18
- Powerex Comments on Energy Imbalance Market Governance Proposal, White Paper9/09/2013 11:53
- RNP Comments on Energy Imbalance Market Governance Proposal, White Paper9/09/2013 11:54
- SCE Comments on Energy Imbalance Market Governance Proposal, White Paper9/09/2013 12:19
- SMUD Comments on Energy Imbalance Market Governance Proposal, White Paper9/09/2013 12:20
- Six Cities Comments on Energy Imbalance Market Governance Proposal, White Paper9/09/2013 11:55
- SRP Comments on Energy Imbalance Market Governance Proposal, White Paper9/09/2013 12:21
- TANC Comments on Energy Imbalance Market Governance Proposal, White Paper9/09/2013 12:22
- IID Comments on Energy Imbalance Market Governance Proposal, White Paper9/09/2013 12:23
- TransAlta Comments on Energy Imbalance Market Governance Proposal, White Paper9/09/2013 12:24
- VEA Comments on Energy Imbalance Market Governance Proposal, White Paper9/09/2013 12:25
- WAPA Comments on Energy Imbalance Market Governance Proposal, White Paper9/09/2013 11:56
- WAPA Supplemental Comments on Energy Imbalance Market Governance Proposal, White Paper9/09/2013 11:57
- WPTF Comments on Energy Imbalance Market Governance Proposal, White Paper9/09/2013 11:59
- WRA Comments on Energy Imbalance Market Governance Proposal, White Paper9/09/2013 12:26
- Xcel Comments on Energy Imbalance Market Governance Proposal, White Paper9/09/2013 12:27


## Keoni Almeida

916-608-1121
Lead Stakeholder Policy and Account Manager
California ISO [www.caiso.com]
From: Almeida, Keoni
Sent: Tuesday, August 13, 2013 4:33 PM
To: Mainzer, Elliott; 'Ehli,Cathy L (BPA) - S-7'; 'Juj,Hardev S (BPA) - TP-DITT-2'; Linn, Young; Elizeh, Edison; 'Delwiche,Gregory K (BPA) -
P-6'; 'Bekkedahl,Larry N (BPA) - T-DITT2'; 'Oliver,Stephen R (BPA) - PG-5'; 'Cooper,Suzanne B (BPA) - PT-5'; 'Leathley,Kimberly A (BPA) -TS-DITT-2-A'; Spain, Alex
Cc: Edson, Karen; Rothleder, Mark; Fuller, Don
Subject: Energy Imbalance Market Governance Paper and Call 10/11/13
Good afternoon. The ISO imbalance energy market proposal is progressing well with a great deal of stakeholder interest across the west. The ISO has just released the third revised design proposal: http://www,caiso.com/Documents/ThirdRevisedStrawProposal-EnergyimbalanceMarket-Aug13 2013.pdf. Thank you for BPA's contribution towards the development of this latest iteration.

In addition, we have now posted the first draft of the EIM governance white paper that responds to participants' request for a meaningful role in decision-making on market policies affecting EIM. It provides participants an immediate voice in EIM decision-making and also suggests an evolution toward a more independent EIM structure. The paper will be discussed at the August 20 stakeholder meeting in Portland, Oregon and comments are requested by September 6. Information regarding the August 20 has previously been sent out in the following market notice: http://www.caiso.com/Documents/EnergylmbalanceMarketStakeholderMeeting-PortlandOR-Aug20 2013.htm

Following the August $20^{\text {th }}$ meeting there will be a conference call to discuss the governance paper on October $11^{\text {th }}$. The link to the governance paper and the details for the October $11^{\text {th }}$ conference call is included in the market notice below. We look forward to your input.

## Keoni Almeida

916-608-1121
Lead Stakeholder Policy and Account Manager
California ISO [wwn. caiso com]
From: CAISO Communications [mailto:Marketnotices@caisocommunications.com]
Sent: Tuesday, August 13, 2013 1:58 PM
To: Almeida, Keoni
Subject: Energy Imbalance Market Governance Paper and Call 10/11/13

## http://elabs7.com/content/1001271/Market\%20Notice\%20Logo 2011.gifMarket Notice

August 13, 2013

## Requested Client Action

Mark Your Calendar
Request for Comment
Categories
ISO News and Information
Legal/ Regulatory
Market Rules and Market Design

## Energy Imbalance Market Governance Paper and Call 10/11/13

## Summary

The California ISO has posted a governance white paper for its Energy Imbalance Market initiative. Please submit comments on the white paper by close of business September 6, 2013. A stakeholder call is scheduled on October 11 to discuss the governance issue.

[^4]A stakeholder call is scheduled on October 11 to discuss the revised proposal. An agenda and presentation will be available by close of business October 9.

More information on the Energy Imbalance Market initiative is available at
http://www.caiso.com/informed/Pages/StakeholderProcesses/EnergylmbalanceMarket.aspx.

## Meeting Details

Date: Friday, October 11, 2013
Time: 10:00 a.m. to 12:00 p.m. (Pacific Time)

## Teleconference Information

Call-in Number: 800-230-1059
International Call-in: 612-332-0107
No conference ID required
Web Conference Information
URL to Join Event: http://attewc.webex.com/attewc/onstage/g.php?d=641598616

## For More Information Contact

Don Fuller at 916-608-7055 or dfuller@caiso.com
The California ISO strives to be a world-class electric transmission organization built around a globally recognized and inspired team providing cost-effective and reliable service, well-balanced energy market mechanisms, and high-quality information for the benefit of our customers.
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Glossary of terms and acronyms

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## From: Almeida, Keon

## Sent: Wed Dec 18 11:43:20 2013

To: Mainzer, Elliot E (BPA) - A-7; Ehli,Cathy L (BPA) - S-7; Juj,Hardev S (BPA) - TP-DITT-2; Linn, Young S (BPA) - TSE-TPP-2;
Elizeh,Edison G (BPA) - SR-7; Delwiche,Gregory K (BPA) - D-7; Bekkedahl, Larry N (BPA) - T-DITT2; Oliver,Stephen R (BPA) - PG-5;
Cooper, Suzanne B (BPA) - PT-5; Leathley,Kimberly A (BPA) - TS-DITT-2-A; Spain,Alex J (BPA) - PTF-5; Gillman,Richard A (BPA) -
TSPP-TPP-2; Mantifel,Russell (BPA) - TSPP-TPP-2; Dibble,Rachel L (BPA) - SR-7
Subject: RE: RE: ISO EIM governance proposal for transitional committee
Importance: Normal

Happy Holidays! I wanted to also share with you the letters that were submitted to our board on this topic from a number of stakeholders.

- Board 1) public comment Description: http://www.caiso.com/Layouts/Wirestone/TaxonomyViewerWebPart/Images/gotoanotherpageicon.png
- Public Comment - Western Resource Advocates re Governance Proposal12/18/2013 08:12
- Public Comment - AWEA re Governance Proposal12/17/2013 14:29
- Public Comment - CEC re Governance Proposal12/16/2013 16:22
- Public Comment - Iberdrola Renewables re Governance Proposal12/16/2013 12:14
- Public Comment - Joint Comments by PUC EIM Group and CPUC re Governance Proposal 12/12/2013 08:42
- Public Comment - Nevada PuC re Governance Proposal12/16/2013 16:23
- Public Comment - NV Energy re Governance Proposal12/16/2013 12:17
- Public Comment - PacifiCorp re Governance Proposal12/13/2013 14:22
- Public Comment - Renewable Northwest Project re Governance Proposal12/17/2013 08:25
- Public Comment - VEA re Governance Proposal12/13/2013 15:00
- Public Comment - Xcel Energy re GovernanceProposal12/16/2013 14:18

I hope you all are enjoying the holidays with your friends and family.
Keoni Almeida

Manager, Stakeholder and Industry Affairs
California Independent System Operator
916-608-1121
From: Almeida, Keoni
Sent: Thursday, December 12, 2013 9:10 AM
To: Mainzer, Elliott; 'Ehli,Cathy L (BPA) - S-7'; 'Juj,Hardev S (BPA) - TP-DITT-2'; Linn, Young; Elizeh, Edison; 'Delwiche,Gregory K (BPA) -
P-6'; 'Bekkedahl,Larry N (BPA) - T-DITT2'; 'Oliver,Stephen R (BPA) - PG-5'; 'Cooper,Suzanne B (BPA) - PT-5'; 'Leathley, Kimberly A (BPA) -
TS-DITT-2-A'; Spain, Alex; Gillman, TM/DItt2, Richard; 'Mantifel,Russell (BPA) - TSPP-TPP-2'; 'Dibble,Rachel L (BPA) - SR-7'
Subject: ISO EIM governance proposal for transitional committee
1 just wanted to you to beware that the EIM documents for the Board meeting next Wednesday is now posted at:
http://www.caiso.com/Documents/Board\ 4)\%20Decision\%20on\%20Energy\%20Imbalance\%20Market\%
20Governance\%20Proposal
Specifically, you will find the following:

1. EIM Board Memo
2. EIM Draft Final Governance Proposal and Transitional Committee Charter
3. Stakeholder Matrix - Our response to comments to folks who submitted comments for this initiative,

## Keoni Almeida <br> Manager, Stakeholder and Industry Affairs <br> California Independent System Operator <br> 916-608-1121

## From: Almeida, Keoni

Sent: Friday, September 13, 2013 8:14 AM
To: Mainzer, Elliott; 'Ehli,Cathy L (BPA) - S-7'; 'Juj,Hardev S (BPA) - TP-DITT-2'; Linn, Young; Elizeh, Edison; 'Delwiche,Gregory K (BPA) -
P-6'; 'Bekkedahl,Larry N (BPA) - T-DITT2'; 'Oliver,Stephen R (BPA) - PG-5'; 'Cooper,Suzanne B (BPA) - PT-5'; 'Leathley, Kimberly A (BPA) -TS-DITT-2-A'; Spain, Alex; Gillman, TM/Ditt2, Richard; 'Mantifel,Russell (BPA) - TSPP-TPP-2'; 'Dibble,Rachel L (BPA) - SR-7'
Subject: ISO strategic plan

Greetings!
The ISO Board approved our three year strategic plan yesterday, and I thought I would send you the link: Building a Sustainable Energy
Future 2014-2016 Strategic Plan.
Our industry is changing fast, and the Plan depicts our strategy and role in working with stakeholders in shaping a reliable and sustainable
energy future. I hope you will take the time to review the plan.
If you have any questions or comments, please send them my way.
Thanks,

Keoni Almeida<br>916-608-1121<br>Manager, Stakeholder Affairs and Industry Relations<br>California ISO [wuw caiso com]

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From: Berberich, Steve
Sent: Mon Mar 31 08:07:06 2014

To: Mainzer, Elliot E (BPA) - A-7; Reiten, Richard (Pat)
Subject: RE: RE: Comments on CAISO tariff
Importance: Normal

Elliott,

I appreciate you sharing BPA's tariff comments and your ongoing collaborativeness. On the first item, we are certainly making sure our market monitor is prepared with the necessary tools and processes to monitor the EIM market and we have made them available for outreach and they have reviewed their approach with Pacificorp. On the other two, we will have a look at the BPA comments and go from there. Certainly, the GHG issue is a state policy issue and we will do what we can to help BPA navigate around the issue as we have done previously.

Steve

From: Mainzer,Elliot E (BPA) - A-7 [mailto:eemainzer@bpa.gov]
Sent: Sunday, March 30, 2014 7:11 PM
To: Berberich, Steve; Reiten, Richard (Pat)
Subject: Comments on CAISO tariff
< EXTERNAL email. Evaluate before clicking. >
Hi Steve and Pat,

I'm sorry I didn't get a chance to speak with you in person last week. I was in DC for a good part of the week and only got briefed on our tariff comments on Friday. But I did want to give you a heads-up that we are going to file some comments on the CAISO tariff. We have one minor administrative issue and two issues of substance. First, we would like the CAISO to ensure that market monitoring capabilities will be in place to deal with potential local market power issues when the market goes live. Second, we share a common concern with multiple other wholesale market participants about relaxation of ISO export fees for EIM participants. I gave my go-ahead on Friday afternoon to submit those comments and know you will give them fair consideration and a reasoned response as you work through your process. My folks had also raised some ongoing concerns about the GHG rules and their impacts on federal generation, but my understanding is that the CAISO has done quite a bit to try to address our concerns on this topic already and we will keep an eye on it in other dockets so I asked them to remove those comments. If we are ever to participate in the CAISO EIM, we will need to bring this issue to resolution. I will also continue to look for other solutions to the GHG issue on our side of the ledger.

In any event, I did want to give you a heads-up that these comments are coming, and I am confident that we can work through these and other issues on our path to mutual success.

Please let me know if you have any questions and I look forward to seeing you soon.

## Elliot

## Elliot E. Mainzer

## Administrator \& CEO

Bonneville Power Administration
905 NE $11^{\text {th }}$ Ave.
Portland, OR 97212
(503) 230-4175 (work)
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eemainzer@bpa.gov

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****************************************************************************************************)

From: Almeida, Keoni
Sent: Thu Apr 17 11:16:20 2014
To: Mainzer, Elliot E (BPA) - A-7
Cc: Ehli,Cathy L (BPA) - S-7; Elizeh,Edison G (BPA) - SR-7; Mantifel,Russell (BPA) - TSPP-TPP-2
Subject: FW: FW: FERC Docket No. ER14-1386-000; Service of Attached Motion and Answer
Importance: Normal
Attachments: Answer to EIM Comments and Protests-Final.pdf

Elliot, it was great seeing you yesterday. I think the discussion was very good for everyone. I shared the attached filing with Eddie and Russ, but I thought I would send it to you as well. It provides our responses to the comments filed as part of the EIM proposal. Being that it is lengthy as it addresses everyone's comments, including BPA's, it would be best to just search on BPA to see our response to BPA's concerns

Best regards,
Keoni Almeida
Manager Stakeholder and Industry Affairs
California Independent System Operator
916-608-1121
From: Almeida, Keoni
Sent: Tuesday, April 15, 2014 2:36 PM
To: Almeida, Keoni
Subject: Fwd: FERC Docket No. ER14-1386-000; Service of Attached Motion and Answer
In case your name is not included below.
Sent from my iPhone

## Subject: FW: FERC Docket No. ER14-1386-000; Service of Attached Motion and Answer

Keoni - Per your request, attached is our answer as filed and served today. John
From: Klein, Daniel [mailto:Daniel.Klein@alston.com]
Sent: Tuesday, April 15, 2014 1:54 PM
To: gga@dwgp.com; Postar, Mike; Mody, Bhaveeta; itg@dwgp.com; VanHoy, Roger; Neal, Sean; Sayler, Greg; dad@dwgp.com; Warren, Joy; jtg@dwgp.com; gga@dwgp.com; denyse.zosa@stinsonleonard.com;
harvey.reiter@stinsonleonard.com; andrew.meditz@smud.org; aba@vnf.com; syndi.driscoll@ladwp.com; mdelaba@gcpud.org; aliza.seelig@seattle.gov; robert.cromwell@seattle.gov; deanna.king@,bgllp.com; sandra.rizzo@bgllp.com; jessica.miller@bgllp.com; tom.elgie@.powerex.com; tina.gary@pgn.com; donald.light@pgn.com; glt@vnf.com; GDB@VNF.com; david.mills@pse.com; Hoerner, Joe; Apperson, Erin; Theaker, Brian; abe.silverman@nrgenergy.com; cortney.madea@nrgenergy.com; Mara, Sue; erik.wahlquist@chelanpud.org; erik.wahlquist@.chelanpud.org; michael.andrea@avistacorp.com; rsterzinar@thompsoncoburn.com; Blair, Bonnie; McNaul, Margaret; Thompson, Carrie; Morrow, George; Mason, Fred; Kolk, David; Klinkner, Eric; Tang, Bob; relliott@mccarter.com; moulton@wapa.gov; Kawamura, Koji; thampton@publicgeneratingpool.com; Wolfe, Ellen; douglass@energyattorney.com; Margaret.Rostker@srpnet.com; chh@cpuc.ca.gov; jason.lewis@jpmorgan.com; stephen.t.greenleaf@jpmorgan.com; Braun, Tony; Smith, Kevin; paula@braunlegal.com; carla.holly@bp.com; gretchen.schott@bp.com; lawferccases@pge.com; MRH2@pge.com; Brookhyser, Don; dswanstrom@jsslaw.com; asarmentero@jsslaw.com; Daniel.Ahrens@xcelenergy.com; Bill.Dudley@xcelenergy.com;
jennifer.d.augustine@xcelenergy.com; maryellen.stefanou@troutmansanders.com; mark.rabuano@pacificorp.com; GBarnes@semprautilities.com; jhalpern@).schiffhardin.com; jdejesus@schiffhardin.com; dwalter@tristategt.org; twoolley@tristategt.org; tshuba@goodwinprocter.com; toan.nguyen@iberdrolaren.com; jsullivan@akingump.com; challen@akingump.com; Huhman, Steve; ed.zabrocki@morganstanley.com; Bagot, Nancy; chilen@nvenergy.com; latif.nurani@spiegelmcd.com; Dowden, Lisa; matthew.goldman@doj.ca.gov; Deane.Burk@water.ca.gov; pbernard@water.ca.gov; eService@spiegelmcd.com; lsnorris@bpa.gov; ragreene@bpa.gov; dina@renewableNW.org; gga@dwgp.com; Scanlon, Peter; nmk@.dwgp.com; gga@dwgp.com; Scanlon, Peter; Gast, Lisa; nmk@,dwgp.com; gga@dwgp.com; Scanlon, Peter; Gast, Lisa; nmk@dwg.com; katharine.mapes@spiegelmcd.com; Dowden, Lisa; latif.nurani@spiegelmed.com; Pope, Jim; eService@spiegelmcd.com; paula@braunlegal.com; Braun, Tony Cc: Anders, John; Jaffe, Ken; Ward, Mike; Collanton, Roger; Ivancovich, Anthony; CAISO Tariff; e-recipient Subject: FERC Docket No. ER14-1386-000; Service of Attached Motion and Answer
<EXTERNAL email. Evaluate before clicking. > Parties to ER14-1386,

Attached please find the Motion and Answer to Comments and Protests filed today in the above-referenced docket by the California ISO. Please contact me via return e-mail or telephone if there are any problems with this service.

Daniel Klein
Paralegal
Alston \& Bird LLP
The Atlantic Building
950 F Street, NW
Washington, DC 20004
202-239-3555

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# UNITED STATES OF AMERICA <br> BEFORE THE <br> FEDERAL ENERGY REGULATORY COMMISSION 

California Independent System )
Operator Corporation
) Docket No. ER14-1386-000 )

## MOTION AND ANSWER TO COMMENTS AND PROTESTS OF THE CALIFORNIA INDEPENDENT SYSTEM OPERATOR CORPORATION

The California Independent System Operator Corporation ("ISO") respectfully submits this motion for leave to answer and answer ${ }^{1}$ to the protests and comments submitted in the above-captioned proceeding in response to the ISO's tariff amendments to implement an Energy Imbalance Market.

## I. BACKGROUND

On February 28, 2014 the ISO submitted for filing proposed amendments to the ISO tariff to provide other balancing authority areas the opportunity to participate in a real-time market for imbalance energy that the ISO currently operates in its own balancing authority area. The amendments define the set of rules and procedures governing the ISO's expansion of the real-time market as the Energy Imbalance Market. To implement the Energy Imbalance Market, the ISO proposed the following tariff amendments: (1) a new section of the tariff with the provisions specific to the Energy Imbalance Market, set forth in section 29 of the ISO tariff; (2) new definitions specific to the Energy Imbalance Market in Appendix A; (3) revisions to existing tariff provisions and definitions, as necessary to accommodate the Energy Imbalance Market; and (4)

1 The ISO submits this motion and answer pursuant to Rules 212 and 213 of the Commission's Rules of Practice and Procedure, 18 C.F.R. §§ 385.212, 385.213 (2013).
new pro forma agreements for use by participants in the Energy Imbalance Market, which are added to Appendix B of the ISO tariff.

The ISO requested a Commission order by June 20, 2014 in order to provide market participants a level of certainty with respect to the market rules that will apply in the simulation scheduled for July 8, 2014, and to enable the ISO to make adjustments to its systems, if necessary, without delaying the market simulation. Additionally, the ISO requested a September 23, 2014 effective date for the tariff amendments, so that the necessary advance data submissions may be made by participants for the EIM to commence operations on October 1, 2014. Finally, the ISO requested a July 1, 2014 effective date for the various agreements to be executed by EIM market participants, just prior to market simulation.

The Commission noticed this proceeding for comment and several parties moved for a 45 day extension of time, which the Commission granted in part extending the deadline to file by 10 days. Numerous parties submitted motions to intervene. ${ }^{2}$

[^5]Numerous parties filed comments that were supportive of or neutral regarding the ISO's proposal, but recommended changes in or expressed concerns about portions of the ISO's tariff amendments. ${ }^{3}$ Eight parties filed supportive comments without any recommendations or concerns. ${ }^{4}$ Powerex and Bonneville filed Protests.

## II. MOTION FOR LEAVE TO ANSWER PROTESTS

The ISO respectfully requests authorization to respond to the protests filed in this proceeding. Notwithstanding Rule 213(a)(2), ${ }^{5}$ the Commission has accepted answers to protests that assist the Commission's understanding and resolution of the issues raised in the protest, ${ }^{6}$ clarify matters under consideration, ${ }^{7}$ or materially aid the Commission's disposition of a matter. ${ }^{8}$ The protests include many arguments that the protestors did not fully develop during the stakeholder process, and to which the ISO therefore could not respond in the transmittal. In addition, the protests include erroneous statements that require correction. The ISO's answer will therefore clarify

[^6]matters under consideration, aid the Commission's understanding and resolution of the issues and help the Commission to achieve a more accurate and complete record, on which all parties are afforded the opportunity to respond to one another's concerns. ${ }^{9}$ Accordingly, the Commission should accept this Answer.

## III. ANSWER

The ISO has organized this answer using the same topics, and in the same order, as discussed in the February 28, 2014 transmittal letter.

## A. EIM Market Participants

Neighboring Systems express concern that proposed section 29.4 may preclude governmental utilities from qualifying either as an "EIM Scheduling Coordinator" or an "EIM Participating Resource Scheduling Coordinator". They noted that both definitions seek to ensure that Scheduling Coordinators do not share transmission information inappropriately by requiring that a Scheduling Coordinator "must be a transmission provider subject to the Commission's standards of conduct set forth in 18 C.F.R. Section 358," which would exclude governmental entities. ${ }^{10}$ Neighboring Systems suggest the use of either a non-disclosure agreement that restricts sharing of the confidential information with personnel engaged in wholesale power marketing or a voluntary code of conduct containing terms comparable to those in FERC's standards of conduct.

It was not the ISO's intent to exclude non-jurisdictional entities from the Energy Imbalance Market, but only to ensure that appropriate barriers between the merchant

9 N. Border Pipeline Co., 81 FERC T1 61,402 at 62,845 n. 16 (1997); Hopkinton LNG Corp., 81 FERC TI 61,291 at 62,382 n. 4 (1997).
$10 \quad$ Neighboring Systems at 18-19.
and transmission functions are in place. Accordingly, the ISO is willing to revise the provision along the suggested lines on compliance if so directed by the Commission.

Imperial Irrigation District states its understanding that dynamically-scheduled resources remain under the control of the native balancing authority area where the resource is interconnected, but pseudo-tied resources are under the control of the attaining balancing authority area where the energy or ancillary services are delivered. Imperial Irrigation District now notes that the definition of "EIM Resource" proposed by the ISO in the Tariff filing in this proceeding includes pseudo-tied resources into the ISO balancing authority area and asks whether this means that a pseudo-tie generating unit could participate in the Energy Imbalance Market solely with the attaining balancing authority's consent to participate, and not the native balancing authorities' consent. Imperial Irrigation District also asks whether, if so, the ISO also intends to exempt EIM Transfers from a pseudo-tie generating unit from ISO wheeling charges under the ISO Tariff when energy is imported into the ISO. ${ }^{11}$

A pseudo-tie into the ISO balancing authority area is treated as generation located in the ISO balancing authority area. ${ }^{12}$ As such, the pseudo-tie import is not subject to a wheeling access charge, regardless of the dispatch instruction sent. The ISO notes, however, that no import into the ISO is charged a wheeling access charge. The load served by pseudo-tie generation, as well as the load served by other imports, does pay the transmission access charge.
$11 \quad$ Neighboring Systems at 20.
${ }^{12}$ ISO Tariff, Appendix N.

A pseudo-tie to the ISO that participates in the ISO's real-time market through its status as a pseudo-tie would not need to become an EIM Participating Generator, thereby mooting the need for the consent of its native balancing authority area in order to participate in the Energy Imbalance Market. ${ }^{13}$ A pseudo-tie to PacifiCorp would only need to meet the eligibility requirements for EIM Participating Resources under the attaining balancing authority, and PacifiCorp has similarly proposed to allow such participation. In addition, a pseudo-tie into the ISO would be exempt from the wheeling access charge when participating in the Energy Imbalance Market, even though the energy it produces may be further transferred to PacifiCorp. Load in PacifiCorp served by the pseudo-tie into the ISO would pay PacifiCorp for transmission that may be applied under PacifiCorp's tariff. Load in the ISO served by a pseudo-tie into PacifiCorp would pay the ISO transmission access charge pursuant to the ISO tariff.

PacifiCorp requests clarification of the ISO's defined term "Scheduling Coordinator Metered Entity." ${ }^{14}$ The ISO clarifies that the definition is intended to include three types of entities: (1) a Generator, an Eligible Customer, an End-User, a Reliability Demand Response Resource, or a Proxy Demand Resource that is not a CAISO Metered Entity; (2) an EIM Entity, and (3) an EIM Participating Resource that elects to be a Scheduling Coordinator Metered Entity with regard to some or all of the EIM Resources it represents.
${ }^{13}$ A pseudo-tie to the ISO balancing authority is a participant in the ISO's real time market and, although it could be dispatched to serve load in the EIM area outside the ISO balancing authority area, it is not an EIM Participating Resource.
$14 \quad$ PacifiCorp at 13.

Seattle asserts that participation in the Energy Imbalance Market should be voluntary. It contends that many proposed provisions of the ISO tariff will require nonparticipants to change actions and incur costs they would not otherwise incur and that the Commission should ensure that these changes are necessary and in the interest of the non-participants. ${ }^{15}$ Participation in the Energy Imbalance Market is of course voluntary. Whether there is an impact on non-participants is a different issue. The just and reasonable standard does not require that the ISO tariff be "in the interest of the non-participants," but only that it not affect them in an unjust, unreasonable or unduly discriminatory or preferential manner. In the transmittal letter and this answer, the ISO has shown that its proposal does not have such impacts. ${ }^{16}$ Seattle does not show otherwise.

## B. Communications

Powerex states that the tariff must provide protection to ensure that EIM Market Participants' information cannot be used for "non-EIM purposes" absent consent of the implicated participant. Powerex states that if information shared by EIM Entities is to be used by the ISO for non- Energy Imbalance Market purposes, the ISO should seek the agreement of external transmission providers and balancing authorities to do so.

Powerex states that any agreement relating to such information sharing should be filed with the Commission. ${ }^{17}$

15 Seattle at 5.
16 It is possible that non-participants may be affected by revisions to the open access tariffs of EIM Transmission Service Providers in the EIM Entity balancing authority area, such as by provisions to allocate imbalance energy charges. Non-participants can address such issues in the proceeding concerning the applicable open access tariff.
17 Powerex at 84-85.

The ISO is not clear what Powerex means by "non- EIM purposes" or how the ISO would define that in order to respond to Powerex's request. Section 20 of the ISO tariff includes extensive confidentiality provisions, approved by the Commission as just and reasonable. These provisions, which would apply to the Energy Imbalance Market, adequately protect confidentiality, while ensuring transparent operations and the ISO's ability to comply with its regulatory obligations. If Powerex believes that there are specific types of information that EIM Entities would provide that are not protected by section 20, the ISO would certainly consider appropriate revisions to section 20. Powerex has not, however, identified as yet any reason why the protections of section 20 are inadequate.

## C. Normal and Emergency Operations

A number of parties express concern about the impact that the operation of the Energy Imbalance Market may have on other systems. TANC asks that the Commission condition approval of the Energy Imbalance Market on the ISO's performance of pre-implementation testing and studies demonstrating that the Energy Imbalance Market will not adversely impact "non-EIM participating transmission", and a directive that the ISO enter into mitigation agreements or other measures to resolve any such adverse impacts that may arise for "non-EIM transmission owners". It asks that any order approving the ISO's Energy Imbalance Market proposal should state explicitly that EIM Transfers will only be made from transmission rights that are subject to the ISO's operational control and will not use or in any way reduce TANC's allocated share of the Available System Transfer Capability (i.e., the physical capability to transmit
power across the California Oregon Intertie), including in the event of a curtailment. ${ }^{18}$
Others express similar concerns. ${ }^{19}$
These concerns are unfounded. As an initial matter, the Energy Imbalance Market does not include any right or obligation that would change the manner in which intertie transactions are handled. ${ }^{20}$ EIM Transfers across the California-Oregon Intertie will use PacifiCorp's rights made available for such purposes and capacity that is currently under the ISO's operational control, or any other rights and capacity specifically made available to the Energy Imbalance Market by EIM Transmission Service Providers. It will not use TANC's rights or those of any other owner or rights holder on the California-Oregon Intertie or elsewhere. The Energy Imbalance Market will only use the capacity made available by the ISO's Participating Transmission Owners or by EIM Transmission Service Providers as a dynamic schedule that will not have any impact on current flows. ${ }^{21}$ The only difference between the ISO's current operations and the Energy Imbalance Market is that the market will ensure that the most efficient resources are used to serve load, recognizing the transmission constraints, and based on available EIM Transfer limits.

## 18 TANC at 15-17.

19 Redding at 9; Santa Clara at 7; CMUA at 7; Portland at 4-6.
${ }^{20}$ The ISO is the path operator for the southern portion of the California-Oregon Intertie and is not aware of any change in the processes or procedures it administers that would reduce an owner's or rights holder's share of capacity on that intertie. As TANC notes, the ISO is under a contractual obligation to respect the transmission rights of others on the California-Oregon Intertie, and the Commission does not need to direct the ISO to respect rights that it is already obligated to respect by a Commission jurisdictional contract. See Pacificorp, 137 FERC $\mathbb{T}$ 61,151 (2011) (order accepting amendments to the California-Oregon Intertie Path Operator Agreement and Owners Coordinated Operations Agreement).
$21 \quad$ Bonneville has expressed some concerns regarding dynamic transfers across COI and has established limits referred to as the "Dynamic Transfer Capability," which are allocated according to its business practices. The ISO does not enforce any such limits at this time.

Portland notes that it is a Bonneville transmission network customer and expresses its concern with the potential for increased congestion and curtailment issues on Bonneville's system. Portland requests that the Commission assess the Energy Imbalance Market proposal with these concerns in mind and consider requiring the ISO to demonstrate that affected stakeholders have a procedural mechanism to rapidly resolve disputes or, if necessary, rapidly request Commission action in the event the Energy Imbalance Market has any detrimental reliability impact once implemented. ${ }^{22}$ The ISO explained in the transmittal letter that it has entered into a memorandum of understanding with PacifiCorp and Bonneville to ensure that transfers between the PacifiCorp balancing authority areas and the ISO, using transmission rights on Bonneville's system made available for that purpose, are managed appropriately. ${ }^{23}$ This agreement should suffice to address Portland's concerns. It is notable that Bonneville, the owner of the rights in question, has not included this issue in its protest.

Tri-State states that there remain questions about how transactions in the Energy Imbalance Market will be treated for purposes of allocating curtailments due to the facts that (1) WECC's unscheduled flow procedures depend on transmission tags to identify and allocate curtailment priorities, (2) the ISO intends to only tag the net of the Energy Imbalance Market transactions that will occur between each of the three participating balancing authorities via a dynamic tag, and (3) all other Energy Imbalance Market transactions (those that don't cross a balancing authority boundary) will not be tagged at

22 Portland at 4-6.
${ }^{23} \quad$ Transmittal Letter at 11-12.
all and thus will not be subject to WECC unscheduled flow procedures. ${ }^{24}$ The ISO stresses that WECC's unscheduled flow procedures will apply to EIM Transfers between each of the three participating balancing authority areas in the same manner as they currently apply to dynamic schedules and to generation at locations within a balancing authority area. ${ }^{25}$ Similarly, there is no reason why Energy Imbalance Market transactions that do not cross a balancing authority boundary should have any different impact on unscheduled flows than current transactions. If there are any questions in connection with the treatment of unscheduled flow procedures, they would be questions regarding the WECC procedures and tools, not the ISO's filing. In addition, the Energy Imbalance Market does not alter the e-Tagging requirements of participating balancing authorities, including PacifiCorp.

The ISO has also concluded an initiative to expand its full network model to more effectively balance the grid with external balancing authority areas and manage the impacts of unscheduled flows on the EIM Area, thereby improving reliability and market solution accuracy. This proposal was approved by the ISO Board of Governors at its meeting on February 6, 2014, and is expected to address these concerns from the perspective of the ISO. ${ }^{26}$ The ISO expects to make its tariff amendment filing to implement this proposal in the near future.

Powerex notes that proposed section $29.7(\mathrm{j})(1)(\mathrm{A})$ provides the ISO with the authority to establish an administrative price in the real-time market in response to a

Tri-State at 5-7.
This principle would also apply to additional balancing authority areas that may elect to join the Energy Imbalance Market.
26
This was discussed in the ISO transmittal letter at p. 19 n. 35 .
disruption. Powerex complains that the provision contains no detail regarding the determination of the administrative price and states that the methodology by which rates will be set in this situation must be provided consistent with the Federal Power Act. ${ }^{27}$ The methodology for the determination of the administrative price is set forth in ISO tariff section 7.7.4. The Commission has already found this methodology to be just and reasonable, and the ISO has provided a cross-reference to section 7.7 .4 in section 29.7(j)(2)(D). It is not necessary to include additional cross-references, particularly when the reference already included is under the heading "CAISO Responses to EIM Disruption". The section referenced by Powerex simply sets forth the conditions, not the actions that may be taken. However, the ISO would be willing to include another cross reference as requested by Powerex if the Commission finds that appropriate and directs the ISO to do so on compliance.

Portland requests that the Commission require the ISO to develop mechanisms to guard against potential detrimental and unintended market and reliability impacts, including a requirement that the ISO provide a detailed description of transparent operations data so that stakeholders can assess the effectiveness of the Energy Imbalance Market. Section 29.7 already provides the ISO and the EIM Entities with the ability to take actions to address unintended market and reliability issues and the ISO and EIM Entities remain responsible for fulfilling all NERC and WECC reliability requirements. Similar provisions in the existing ISO tariff have proved sufficient to address unanticipated market and reliability impacts. No additional "mechanisms" are necessary. In addition, section 29.6 requires the ISO to provide data on the operation

[^7]of the Energy Imbalance Market on OASIS in the same manner as it currently provides data on the operation of existing ISO markets. This data, and the regular reports provided on the ISO website by the ISO, in addition to the Energy Imbalance Market metrics discussed further below, should be sufficient to allow assessment of market effectiveness. ${ }^{28}$ Additional reporting requirements are therefore unnecessary and would be unduly burdensome and of limited value.

## D. Metering

Section 29.10 addresses metering and data requirements for the Energy Imbalance Market. Powerex states that it is not possible to comply with the requirements of proposed section 29.10(e), which provides that an EIM Entity Scheduling Coordinator must provide the ISO, 20 minutes before the operating hour, information related to an EIM External Intertie bid that clears the fifteen-minute market. Powerex points out that this market will run every 15 minutes at 37.5 minutes prior to the start of a given 15-minute delivery interval, so that the required information will not be known at the time the submission is due. ${ }^{29}$ The ISO has already addressed this timing through its compliance with Order No. 764. ${ }^{30}$ Under the ISO Order No. 764 tariff revisions, which the Commission has accepted, ${ }^{31}$ the ISO will update the energy profile of economically bid intertie transactions that clear the fifteen-minute market. By 20
${ }_{28}$ ISO staff, the ISO Department of Market Monitoring, and the Market Surveillance Committee each review, analyze and report on market and operational conditions.
29 Id. at 94-95.
30 Integration of Variable Energy Resources, Order No. 764, FERC Stats. \& Regs. II 31,331, order on reh'g, Order No. 764-A, 141 FERC $\mathbb{1}$ 61,232 (2012), order on reh'g, Order No. 764-B, 144 FERC IT 61,222 (2013) ("Order No. 764").

Cal. Indep. Sys. Operator Corp., 146 FERC $\mathbb{1} 61,204$ (2014).
minutes prior to the hour, the ISO will have completed the hourly fifteen-minute market process and communicated the results such that an EIM Entity will have the hourly information of transmission profile and the best information of 15-minute energy profile prior to the hour. This is the same process used within the ISO, which recognizes the tagging deadline of WECC for intertie transactions.

## E. Creditworthiness, Dispute Resolution, and Legal Matters

Proposed section 29.22 provides additional miscellaneous provisions that parallel those applicable to market participants for transactions within the ISO balancing authority area. First, if the ISO incurs any tax liability as a result of the participation of EIM Market Participants in the real-time market (e.g., as market operator or as central counterparty to transactions by EIM Market Participants), the ISO will pass those taxes on to the EIM Entity Scheduling Coordinator for the area where the transactions triggered the tax liability. Second, neither the ISO nor the EIM Entity will be a "Purchasing Selling Entity" for purposes of e-tagging of EIM Transfers. ${ }^{32}$ Finally, title for energy in the real-time market passes directly from the entity that holds title when the energy enters the ISO controlled grid or the transmission system of an EIM Transmission Services Provider, whichever is first following dispatch, to the entity that removes the energy from the ISO controlled grid or the transmission system of an EIM Transmission Service Provider, whichever last precedes delivery to load.
$32 \quad$ PacifiCorp as a transmission service provider or merchant may have independent requirements as a purchasing or selling entity, but such requirements would not be triggered by its function as an EIM Entity, which relates to its status as a balancing authority, as is provided in the ISO tariff.

Powerex contends that these provisions are inconsistent with the ISO's commitment to serve as the centralized counterparty to transactions. According to Powerex, the transmittal letter and proposed tariff make clear that the ISO is not willing to assume the actual obligations associated with this status, which include taking title to energy and the obligations attendant thereto, such as serving as the Purchasing Selling Entity and being the entity named as the sink on an e-Tag. ${ }^{33}$

The proposed provisions are identical in substance to provisions in the ISO's currently effective tariff for both the day-ahead and real-time market. ${ }^{34}$ Accordingly, Powerex's argument is an improper collateral attack on the Commission's order that accepted existing provision Section 4.5.3.2.2. ${ }^{35}$ The ISO's Order No. 741compliance filing highlighted Section 4.5.3.2.2 and explained in plain terms why the ISO would not be a part of the chain of title on delivery of energy. ${ }^{36}$ The ISO explained that the purpose of this arrangement was to ensure that it could not become the Purchasing Selling Entity on an e-Tag, and therefore responsible for procuring emissions allowances under California law. The ISO was responding to the consensus view of its stakeholders that it should not be responsible for procuring emissions permits. There were two reasons for this: (1) it would result in additional costs that would have to be passed on to market participants; and (2) it would undermine the purposes of California
${ }^{33}$ Powerex at 89-91. Note the ISO is not sure the reference to bankruptcy law was intended, and if so, is not clear how that is relevant.
${ }^{34}$ See ISO Tariff § 4.5.3.2.2 and ISO Transmittal Letter, Docket No. ER12-1856-000, filed May 25, 2012, ("Order 741 Compliance Transmittal") at p. 6.
${ }^{35}$ See Cal. Indep. Sys. Operator Corp., 140 FERC 61,169 (2012).
36
See Order 741 Compliance Transmittal at p. 6..
state law concerning greenhouse gas emissions. ${ }^{37}$ After being presented with those facts, the Commission approved Section 4.5.3.2.2 as complying with Order No. 741. Proposed section 29.22(b) and (c) provide that the same rule will apply to the Energy Imbalance Market, and should likewise be accepted by the Commission. ${ }^{38}$

## F. Transmission System

The ISO proposes to operate the Energy Imbalance Market using capacity made available to it by transmission service providers within the balancing authority area of an EIM Entity (each an "EIM Transmission Service Provider"). In the transmittal letter, the ISO noted that PacifiCorp Energy, which holds transmission rights on facilities connecting the ISO and PacifiCorp, intends to make those rights available for EIM Transfers at no charge. Powerex asserts that the ISO has not demonstrated that PacifiCorp Energy's provision of this capacity is consistent with relevant requirements for such capacity release. ${ }^{39}$

This issue is beyond the scope of this proceeding. ${ }^{40}$ The proposed amendment provides for the ISO to extend the operation of its real-time market to other balancing authority areas. It does not address the mechanics of its implementation with any particular balancing authority area. The mechanics by which EIM Transmission Service

[^8]Providers and other customers will provide capacity are to be determined by each EIM Transmission Service Provider, customer and the EIM Entity. Moreover, nothing in the proposed amendment would over-ride relevant tariffs and agreements. If an EIM Transmission Service Provider, EIM Entity or customer were to act contrary to its legal obligations, any party could seek redress from the Commission. Powerex's concern is thus not only beyond the scope of this proceeding, but also a red herring at this time. ${ }^{41}$

## G. Market Operation

Proposed section 29.32 includes the market rules necessary to recognize that resources participating in the Energy Imbalance Market may incur costs to comply with California Air Resources Board greenhouse gas regulations if their resources are deemed to have been imported into the ISO balancing authority area. Several parties challenge the application of these provisions in the context of the Energy Imbalance Market. Proposed section 29.34 includes variations from requirements of sections 27, 30, and 34 of the ISO tariff that are necessary to permit seamless real-time participation in the Energy Imbalance Market, particularly because some resources do not participate in other ISO markets. Some parties also challenge portions of section 29.34.

## 1. The Proposed Greenhouse Gas Regulations Are Just and Reasonable.

As described in its transmittal letter, the ISO's proposed market rules recognize that EIM Participating Resource Scheduling Coordinators may incur costs to comply with the California Air Resources Board's Greenhouse Gas regulations if output from their participating resources support transfers into the ISO balancing authority area or

41 PacifiCorp proposes that the capacity available for EIM Transfers not constitute a sale, transfer, or reassignment of transmission capacity, and that this issue may be more appropriately considered in its tariff filing. See Docket No. ER14-1578-000.
other balancing authority areas in California. The proposed rules permit EIM Participating Resource Scheduling Coordinators to submit a separate bid adder to recover such costs ("EIM Bid Adder"). In protests and comments, various parties raise concerns with the ISO's proposed rules. ${ }^{42}$ While the ISO remains willing to supplement its proposed tariff language to clarify how it will use EIM Bid Adders in its market clearing processes, the Commission should reject arguments opposing the ISO's proposed EIM Bid Adder.
a. The Commission Should Reject Arguments that the ISO Is Imposing California's Greenhouse Gas Regulations on EIM Participants.

Powerex asks the Commission to reject the ISO's proposed tariff provisions that would establish an EIM Bid Adder. Powerex argues that the ISO's proposed tariff provisions would extend the regulatory authority of the California Air Resources Board to all EIM Market Participants and allow the ISO to assign responsibility to comply with California greenhouse gas regulations to entities that inadvertently or unknowingly import energy to serve load within California. ${ }^{43}$

The ISO's tariff provisions do no such thing. California's greenhouse gas regulations apply to first deliverers of electricity into the state of California on their own terms. ${ }^{44}$ The ISO's proposed tariff provisions merely provide a means to account for
${ }^{42} \quad$ Powerex at 39-57; Seattle at 5-6; Portland at 9-10; Six Cities at 10; Tri-State 4-5; Chelan at 2-4; and Edison at 8-14.
${ }^{43} \quad$ Powerex at 41-46; see also Seattle at 5-6.
$44 \quad$ Title 17, California Code of Regulations Section 95800 et seq. Title 17 California Code of Regulations Section 95100 et seq. Tri-State's request that the Commission not allow the ISO to use its authority to expand the reach of a California regulation into other states, Tri-State at 4-5, is thus misplaced.
the impact of these already existing regulations in production costs resulting from the dispatch of participating resources in the EIM Area.

Under proposed section 29.32(b), the ISO will use EIM Bid Adders submitted by EIM Participating Resource Scheduling Coordinators to dispatch energy from resources outside the ISO's balancing authority for transfer into the ISO. Powerex asserts that scheduling coordinators in the ISO's existing markets know when they are importing electricity to California by virtue of the fact that they submit bids at the ISO's intertie scheduling points and then submit e-Tags when their bids are accepted. Scheduling coordinators then list themselves on the e-Tag as purchasing selling entities and the California Air Resources Board uses the e-Tag to identify the electricity importers that are first deliverers of electricity under its greenhouse gas regulations. ${ }^{45}$ Powerex asserts that the ISO's proposal to determine which output from EIM Participating Resources supports an EIM Transfer into the ISO exposes these resources to the risk of California greenhouse gas compliance requirements without their affirmative determination to accept the requirements. ${ }^{46}$

Under the Energy Imbalance Market design, participation is voluntary. An EIM Participating Resource Scheduling Coordinator will submit bids knowing that if its resources are dispatched, a portion of the resources output may support a transfer into the ISO balancing authority area. The ISO market optimization will take the EIM Bid Adder into account in determining whether to dispatch an EIM Transfer into the ISO balancing authority area. When a net transfer occurs into the ISO balancing authority
$45 \quad$ Title 17 California Code of Regulations Section 95802 (a) (85).
$46 \quad$ Powerex at 41-42.
area, the ISO's optimization will identify the most economic resources supporting the net transfer into the ISO balancing authority area. Instead of using e-Tags to implement its greenhouse gas regulation for EIM Transfers, the California Air Resources Board is modifying its regulations to use results from the ISO's Energy Imbalance Market optimization to identify electricity importers that are first deliverers of electricity. The California Air Resource Board's approach reflects an alternative mechanism to deem that output from certain resources supports an import into the ISO balancing authority area.

Powerex complains that California's greenhouse gas regulations impose substantial requirements on market participants and serve as a barrier to Energy Imbalance Market participation. ${ }^{47}$ The ISO, however, has not observed a substantial decrease of import offers or import clearing in its markets due to greenhouse gas regulations. Indeed, market results indicate that in some of the months following imposition of the greenhouse gas regulations, imports increased compared to prior levels. ${ }^{48}$

Powerex asserts that alternative mechanisms could be developed to address this barrier, including allowing the ISO to insert bid adders for EIM Participating Resources and then manage greenhouse gas obligations on behalf of EIM Participating Resource Scheduling Coordinators. ${ }^{49}$ As previously noted, however, the ISO tariff does

47 Powerex at 44-46.
${ }^{48}$ See e.g. Q1 2013 Report on Market Issues and Performance prepared by ISO's Department of Market Monitoring dated May 29, 2013 at 47-48 and Figure 3.4 Comparison of imports on inter-ties in 2012 and 2013.
49 See Powerex at 46 and Attachment B thereto, Statement of William Hogan at 4 suggesting it would be preferable for the ISO to assume and dispose of carbon obligations of
not determine the compliance requirements associated with California's greenhouse gas regulations. This is the role of the California Air Resources Board. Powerex's alternative is not the approach the California Air Resource Board has proposed to adopt in its regulations or the approach the ISO has proposed in its tariff filing. Instead, the California Air Resources Board has proposed to amend its greenhouse gas regulations to expand the definition of Electricity Importers to include EIM Participating Resource Scheduling Coordinators serving the Energy Imbalance Market whose transactions result in electricity imports into California, ${ }^{50}$ The California Air Resources Board has also proposed to amend its regulation to modify its definition of imported electricity to include Energy Imbalance Market dispatches designated by the ISO's optimization model and reported by the ISO to EIM Participating Resource Scheduling Coordinators. ${ }^{51}$ When incorporated into California greenhouse gas regulations, these provisions will apply of their own force. Thus, the Commission need only assess the ISO's proposal; it need not assess the justness and reasonableness of an alternative proposal. ${ }^{52}$ Stated differently, the ISO's proposal does not need to be the best option, it only needs to be just and reasonable. ${ }^{53}$ Powerex offers no evidence to demonstrate that the ISO's proposal is unjust and unreasonable.
imports so that market participants outside of the ISO would not need to interact directly with the California Air Resource Board.
$50 \quad$ Proposed amendments to Title 17 California Code of Regulations Section 95802
(a)(114) available at http://www.arb.ca.gov/regact/2013/capandtrade13/capandtrade13isorappe.pdf
${ }^{51}$ Proposed amendments to Title 17 California Code of Regulations Section 95802 (a)(179) available at http://www.arb.ca.gov/regact/2013/capandtrade13/capandtrade13isorappe.pdf
52 See e.g. Cal. Indep. Sys. Operator, Corp., 128 FERC $\mathbb{1} 61,282$, at P 31 (2009).
53
Id.
b. Alternatives Exist for Resources that Want To Participate in the Energy Imbalance Market but Do Not Want To Be Subject to California's Greenhouse Gas Regulations.

Some parties express concerns about accepting responsibility for compliance with greenhouse gas requirements. Chelan complains that the ISO will not serve as a first deliverer of electricity into its balancing authority area under the Energy Imbalance Market and thereby take responsibility for California's greenhouse gas regulations. ${ }^{54}$ Tri-State asks whether EIM Participating Resources will be required to register with the California Air Resources Board as covered entities on the chance that the resource may dispatched to support an import into California even if it submits a very high bid adder. ${ }^{55}$

Out-of-state resources that wish to sell into California face responsibility for compliance with greenhouse gas requirements. This is no change from existing law. Importantly, as in the ISO's current market, there is a mechanism for a participating resource to insulate itself from California's greenhouse gas regulations. In the context of the Energy Imbalance Market, California's regulations will apply to EIM Participating Resource Scheduling Coordinators. Energy Imbalance Market resource owners may thus contract with an EIM Participating Resource Scheduling Coordinator to manage any risk associated with complying with California greenhouse gas regulations.

Tri-State is correct that although EIM Participating Resource Scheduling Coordinators may submit high EIM Bid Adders that will likely make their resources uneconomic for dispatch to support a transfer into the ISO balancing authority area, there are circumstances under which an EIM Participating Resource with a high EIM Bid
$54 \quad$ Chelan at 2-4.
55
Tri-State at 4-5.

Adder could still be dispatched to support a transfer into the ISO pursuant to the ISO's proposed tariff provisions. The ISO acknowledges Tri-State's request for a mechanism to avoid being dispatched to support an import to the ISO, but the ISO believes such a proposal requires additional discussion with stakeholders. ${ }^{56}$ Consistent with the ISO's Board of Directors' authorization to seek the Commission's approval of the Energy Imbalance Market design, the ISO commits to examining whether to incorporate such a mechanism in a future revision to its Energy Imbalance Market design and, if so, under what conditions. ${ }^{57}$

EIM Participating Resources are, of course, free not to participate in the market at any time; it is purely voluntary whether they bid. However, the ISO encourages as much participation as possible. When entities are unwilling or unable to sell to their output to the ISO, the overall benefits to those who have joined the Energy Imbalance Market diminish.

## c. The ISO's Proposed Structure of the EIM Bid Adder Treats Participating EIM Participating Resources in the Same Manner as Resources in the ISO Market.

Proposed section 29.32(a)(2) allows EIM Participating Resource Scheduling Coordinators to submit a separate bid component to recover costs of compliance with the California Air Resources Board greenhouse gas regulations. The only limitations the ISO proposes for EIM Bid Adders are that (1) the sum of this bid adder and the
${ }^{56}$ See e.g. Edison at 9-10 (arguing that any such mechanism should only be available to entities that are legally precluded from participating in California's greenhouse gas program). See also Portland at 9-10 (advocating that the ISO should implement the use of a flag to prevent the dispatch of EIM resources to meet ISO load, if the EIM resource so elects).
57 See Memorandum from Petar Ristanovic to ISO Board of Governors dated October 31, 2013 at 8-9.
energy component of the bid cannot exceed $\$ 1,000 \mathrm{MWh}$; (2) bid adders may not be less than \$0/MWh; and (3) EIM Participating Resource Scheduling Coordinators may only submit one bid adder per day for an EIM Participating Resource. ${ }^{58}$ The proposed EIM Bid Adder will allow the ISO to assess the most economic EIM Participating Resources to support transfers into the ISO balancing authority area.

Edison raises concerns that the ISO's proposed EIM Bid Adder permits EIM Participating Resources to sell their output at one price to load in EIM Entity balancing authority areas and at a higher price to load in the ISO balancing authority area. Edison complains that the bid adder is unmitigated and will permit undue price discrimination against load within California. Edison recommends that the Commission only allow EIM Participating Resources to submit bids with verifiable California Air Resources Board greenhouse gas compliance costs and limit payments for the EIM Bid Adder to between zero and 150 percent of the estimated greenhouse gas compliance costs for each generator. ${ }^{59}$ Six Cities also argue that the ISO's proposed EIM Bid Adder could result in over-recovery of greenhouse gas regulation compliance costs. Six Cities recommends that the Commission direct the ISO to limit the EIM Bid Adder to a reasonable proxy for greenhouse gas compliance costs (e.g. 150 percent of an index based on recently published prices for greenhouse gas compliance certificates). ${ }^{60}$

The ISO believes that it is just and reasonable to permit EIM Participating Resource Scheduling Coordinators to estimate their own compliance costs. Further, it
$58 \quad$ See proposed § 29.32(a)(3)-(5).
59 Edison at 8-14.
${ }^{60} \quad$ Six Cities at 10.
is consistent with current ISO bidding and mitigation rules for resources that seek to import power into the ISO. As previously explained, to the extent that an EIM Participating Resource Scheduling Coordinator submits a high EIM Bid Adder, the ISO will look to more economical bids in its fifteen-minute market either from imports or from internal resources. The ISO's proposal treats EIM Participating Resources the same as these other resources by allowing them to submit bids up to the maximum energy bid price. To the extent that an EIM Participating Resource Scheduling Coordinator submits a high EIM Bid Adder in an attempt to avoid a dispatch to serve California, that is an acceptable practice. Under the ISO's current market, non-resource adequacy resources have no requirement to submit import bids.

Edison argues that any EIM Participating Resource Scheduling Coordinator could use the EIM Bid Adder irrespective of whether it has a California greenhouse gas obligation and that the Energy Imbalance Market should only allow EIM Participating Resources with verifiable greenhouse gas compliance costs to submit an EIM Bid Adder. Edison suggests that a hydroelectric resource could use the EIM Bid Adder to effect undue price discrimination as between the ISO and EIM Entity balancing authority areas. ${ }^{61}$ Edison's argument ignores the fact the California greenhouse gas regulations involve more than simply securing and surrendering cap and trade compliance instruments. Even if an EIM Participating Resource Scheduling Coordinator submits a bid that results in an EIM Transfer into the ISO from a resource that does not emit greenhouse gas, California regulations may still require the EIM Participating Resource Scheduling Coordinator to register and submit information to the California Air Resource

61 Edison at 8-9.

Board in connection with imports into the ISO balancing authority area. The EIM Bid Adder will permit recovery of any costs incurred to develop and administer such a reporting program.

Edison provides an example in which an EIM Participating Resource Scheduling Coordinator offers the output of an EIM resource to the EIM Entity at one price and to the ISO balancing authority at a higher price. ${ }^{62}$ Edison asserts this situation creates undue price discrimination but cites no authority for this proposition. The fact that an EIM Participating Resource Scheduling Coordinator may offer an energy bid at one price to load in the Energy Imbalance Market and at another, higher price to load in the ISO balancing authority area simply reflects the optionality that exists in the ISO's current market and the different circumstances that exist in different markets. There is no undue price discrimination under such circumstances. A scheduling coordinator submitting a bid at an ISO intertie scheduling point will price the cost to comply with California's greenhouse gas regulations into its bid. That same scheduling coordinator might offer energy supply at a western trading hub outside of the ISO at a lower price. This reality reflects the economics of selling power into the ISO balancing authority area.

Edison also asserts that when prices are lower in the ISO balancing authority area but higher in the EIM Entity balancing authority Area, load of the EIM Entities will receive an undue benefit. This situation, however, does not reflect an unfair advantage associated with greenhouse gas regulations but simply the operation of the Energy Imbalance Market itself. Based on system conditions and production costs, it may at

[^9]times be more economical to dispatch resources within the ISO to serve load in EIM Entity balancing authority areas. This is one of the fundamental objectives of the Energy Imbalance Market, i.e., to achieve a more economic dispatch of resources across a larger area. Resources within the ISO will receive payment for their output used to serve the load, and the EIM Entity will allocate the costs for that supply pursuant to its open access transmission tariff.

Edison's recommendation that payments for the bid adder must be between zero and 150 percent of the estimated greenhouse gas compliance costs for each EIM Participating Resource is impractical and would over-mitigate Energy Imbalance Market bids in a manner that is not consistent with current ISO market rules for imports. The ISO's proposed EIM Bid Adder will both help identify the most economic EIM Participating Resources to serve load in the ISO balancing authority and provide EIM Participating Resource Scheduling Coordinators with the greatest amount of flexibility to estimate the costs of complying with California's greenhouse gas regulations, including the legal and regulatory risks associated with those regulations. The ISO emphasizes that the California Air Resources Board establishes resources' emissions rates after the end of each calendar year. The conversion of this rate to a rate per MWh depends on the unit's average output level throughout the year, which is difficult for the EIM Participating Resource Scheduling Coordinators to predict. The ISO's design provides more flexibility to the EIM Participating Resource Scheduling Coordinators to manage this uncertainty in connection with their greenhouse gas compliance costs. Edison's proposal, moreover, fails to identify the components of greenhouse gas compliance costs to include in any formula.

Likewise, Six Cities' proposal only accounts for a percentage of the cost of greenhouse gas compliance instruments and may not reflect the actual costs and attendant risks of complying with California greenhouse gas regulations. Edison's argument that the ISO's proposal allows for unmitigated bids is incorrect. Edison itself acknowledges that the ISO's proposed tariff rules prohibit an EIM Participating Resource Scheduling Coordinator from submitting more than one EIM Bid Adder per day for an EIM Participating Resource. The EIM Bid Adder remains subject to the maximum bid price when combined with the energy portion of an Energy Imbalance Market bid. Currently, the maximum bid price in the ISO's markets is $\$ 1,000 \mathrm{MWh} .{ }^{63}$ Scheduling coordinators submitting bids at the ISO's intertie scheduling points do not face any additional bid mitigation apart from this maximum bid price. Likewise, an Energy Imbalance Market bid may not exceed $\$ 1,000 \mathrm{MWh}$. Bids with high EIM Bid Adders or high energy components will only clear the real-time market in the ISO balancing authority area when those bids are necessary to serve load within the ISO balancing authority area. Powerex suggests that this structure undermines economic efficiency and endorses economic withholding by EIM Participating Resource Scheduling Coordinators to avoid being subject to the jurisdiction of the California Air Resource Board. ${ }^{64}$ There is no requirement under the Energy Imbalance Market to submit a bid to serve load within the ISO balancing authority area, and EIM Participating
$63 \quad$ See ISO tariff § 39.6.1.1.
${ }^{64}$ Powerex at 47 and Attachment B thereto, Prepared Statement of William Hogan at 4-5.

Resources do not exercise market power by submitting a high EIM Bid Adder to avoid serving that load. ${ }^{65}$

## d. The Commission Should Not Make Any Payments for Greenhouse Gas Compliance Costs Subject to Refund.

In its comments, Edison argues that payments for the EIM Bid Adder should be subject to refund because it is unclear whether the California Air Resources Board has authority to regulate power imported into the ISO balancing authority area from EIM Participating Resources. ${ }^{66}$ Edison asserts that some EIM Participating Resources may not be required to comply with California's greenhouse gas regulations and that, if such a determination were made after these resources were compensated for greenhouse compliance costs, then such resources might receive windfall profits. Edison's argument ignores the fact that resources external to the ISO have been submitting import bids into the ISO market that reflect the greenhouse gas compliance costs since greenhouse gas compliance requirements went into effect. Indeed, the ISO's Department of Market Monitoring has identified California greenhouse gas regulations as one reason for increases in wholesale energy prices. ${ }^{67}$ Payments to scheduling coordinators in connection with these imports are not subject to refund because of the risk that a Court may determine that California greenhouse gas regulations do not apply

65 The current ISO markets and the proposed Energy Imbalance Market mitigate for local market power conditions where there are non-competitive transmission constraints between supply resources and loads. Non-competitive transmission constraints in EIM Entities' balancing authority areas may prevent EIM Participating Resources from being dispatched to serve load within California, but such a constraint would not cause an EIM Participating Resource to be dispatched to serve California load, and no greenhouse gas obligation would be incurred by an EIM Participating Resource that is dispatched to serve load outside California.

Edison at 13.
67 See e.g. Q4 2013 Report on Market Issues and Performance prepared by ISO Department of Market Monitoring dated February 10, 2014 at 60-63.
to external resources importing into the ISO balancing authority area. Likewise, payments made to EIM Participating Resource Scheduling Coordinators should not be subject to refund. It would be unduly discriminatory to make some import bids subject to refund with respect to greenhouse gas compliance costs, but other import bids not subject to refund. Until such time, if ever, that a court concludes that California's greenhouse gas regulations do not apply to EIM Participating Resource Scheduling Coordinators, these entities will need to incur compliance costs in order to serve load in California. Edison provides no explanation of how EIM Participating Resources would recover these sunk costs in the event that a court were to determine California's regulations do not ultimately apply. ${ }^{68}$ Edison's proposal would create a definite and possibly unacceptable financial risk for EIM participants beyond the uncertainty that exists as a result of legal challenges to California's greenhouse gas regulations.
e. The ISO Does Not Object To Adding Tariff Language Explaining How It Will Use EIM Bid Adders in Its Market Clearing Processes, if The Commission Deems It Advisable.

In its comments, Powerex asks that the ISO augment its proposed tariff provisions to explain how the ISO will use EIM Bid Adders in dispatch, market clearing and determinations as to whether output from a specific resource supports an EIM Transfer into the ISO balancing authority area. ${ }^{69}$ Powerex argues the Commission should apply its rule of reason and require the ISO to include more information about these topics in its tariff. In support of its argument, Powerex compares proposed
$68 \quad$ The ISO takes no position here with respect to how any court order concluding that California's greenhouse gas regulations do not apply to EIM Participating Resource Scheduling Coordinators might be implemented.
section 29.32 to the description of location marginal price calculations in Appendix $C$ of the ISO tariff. Powerex argues that it is appropriate to include this level of detail in the Energy Imbalance Market tariff.

Powerex fails to recognize that the ISO will continue to rely on Appendix $C$ of its tariff to calculate locational marginal prices to the extent those provisions are not otherwise limited in their applicability or inconsistent with the Energy Imbalance Market tariff provisions in proposed section 29. ${ }^{70}$ Accordingly, there is no reason to repeat Appendix C in the Energy Imbalance Market tariff. The ISO is, however, willing to add additional description to its tariff relating to the use of an EIM Bid Adder if the Commission so directs.

## f. The Proposed EIM Bid Adder Tariff Provisions Do Not Create an Undue Preference for or Discriminate Against EIM Participating Resources.

In its comments, Powerex argues that the dispatch and pricing process described by CAISO is tantamount to selecting for California delivery those EIM resources with the lowest emissions. Through an elaborate example, Powerex asserts that the ISO's implementation of dispatch algorithms to choose lowest emissions resources in the EIM dispatch for "deemed" delivery to California would have a discriminatory effect by granting unduly preferential rates to generators selling into the Energy Imbalance Market relative to those "selling directly" to the ISO. ${ }^{71}$

Powerex fails to acknowledge that the ISO's optimization will dispatch the most economic resources, not those with the lowest emission costs, to support imports in the

[^10]ISO. The fact that those resources may have a low EIM Bid Adder does not create undue preferences. A lower emitting resource may be a more economic resource and, therefore, will be selected by the ISO's dispatch process. Powerex's example posits how a resource may bid either into the ISO's market as an importer or into the Energy Imbalance Market. If the scheduling coordinator for the resource bids into the ISO market as an importer, it receives the market clearing price, but also incurs a greenhouse gas cost associated with its schedule. If the EIM Participating Resource Scheduling Coordinator for the resource bids into the real-time market and clears the market, it receives the market clearing price, but may not face a greenhouse gas cost if other less expensive EIM Participating Resources are dispatched to support a transfer. Powerex assumes that these less expensive resources will have lower emissions. That assumption does not necessarily follow. An EIM Participating Resource bid will have both energy and bid adder components. The bid adder component is only one factor in determining whether a resource is the most economic. The ISO will consider both components together in making economic dispatches for EIM Participating Resources to serve load in California. That the ISO will consider emissions costs is no more discriminatory than the fact that the ISO will consider energy bids, in which resources with low fuel costs have an inherent advantage.

## g. The ISO's Proposed Tariff Rules Do Not Raise Any New Constitutional Issues Concerning California's Greenhouse Gas Regulations.

Powerex notes that importers of power into the ISO balancing authority will face regulation under California greenhouse gas regulations and asserts in a conclusory manner that this raises constitutional issues; however, Powerex does not brief these
issues. ${ }^{72}$ Powerex merely states that these issues exist if California extends its greenhouse gas regulation to EIM Participating Resource Scheduling Coordinators. Powerex ignores that these same issues already exist today for scheduling coordinators that import power into the ISO balancing authority area, and the ISO's Energy Imbalance Market proposal does not create any new issues in this regard. Again, participation in the Energy Imbalance Market is entirely voluntary, and all participating resource scheduling coordinators know before submitting a bid that output from its resource may result in an import to the ISO.

## h. The Proposal Allows Other Balancing Authorities Located in California To Participate in the Energy Imbalance Market.

In its comments, PacifiCorp seeks confirmation of its understanding of proposed Section 29.32 of the ISO Tariff and its applicability to the PacifiCorp EIM Entity. PacifiCorp notes that Section 29.32 sets forth provisions affecting energy that is deemed to be imported into "the ISO Balancing Authority Area or other EIM Entity Balancing Authority Areas in California. ${ }^{" 73}$ PacifiCorp's understanding is that the PacifiCorp EIM Entity would not be considered an "EIM Entity Balancing Authority Area in California" and therefore would not be subject to the greenhouse gas obligations applied to such EIM Entity balancing authority areas in California under proposed Section 29.32 of the ISO Tariff. PacifiCorp is correct. The ISO has drafted section 29.32 to allow for EIM participation by other balancing authority areas located in California; it does not apply to PacifiCorp's California service territory as PacifiCorp is

[^11]not located in California despite the fact a small portion of its balancing authority area is located in California.
i. The ISO's Tariff Rules Governing Notice and Reporting Requirements When EIM Participating Resources Are Dispatched To Support an Import into the ISO Balancing Authority Are Internally Consistent.

In its comments, Powerex asserts that Subsections 29.32(d) and (f) may be inconsistent with each other. ${ }^{74}$ In section 29.32(d), the proposed tariff states that the scheduling coordinator will be made aware with its dispatch instruction if its bid is deemed to be imported into ISO, while in section 29.3(f), the proposed tariff provides that energy deemed imported to the ISO will be provided "as part of the Real-Time Market results publication."

These provisions are not inconsistent. The first provision explains that the EIM Participating Resource Scheduling Coordinator will receive a dispatch instruction associated with EIM Participating Resources dispatched to support an import to the ISO; the second provision provides that the EIM Participating Resource Scheduling Coordinator will receive a market results report of the fifteen-minute and five-minute markets.

## 2. The Proposed Resource Sufficiency Tests Adequately Ensure the Sufficiency of Energy to Service Load and Protect Against Leaning.

A number of parties challenge the adequacy of the ISO's proposed procedures for ensuring that each balancing authority area in the Energy Imbalance Market has sufficient energy and ramping capability to service its load. Powerex contends the

[^12]resource sufficiency framework must be applied both in day-ahead and in real-time (as is done in SPP's final approved energy imbalance market design), with material consequences for EIM Entities that fail either of these tests. According to Powerex, the weakness of the proposed Energy Imbalance Market resource sufficiency test is ultimately that it will be conducted from a forecasted energy perspective only, not from a capacity perspective. ${ }^{75}$

CMUA complains about the lack of symmetry regarding forward market processes and resource sufficiency rules between the EIM Entity and the ISO balancing authority, which it asserts can cause disruption or inequitable leaning on California resources. ${ }^{76}$ Six Cities also contend that the proposal does not address concerns about potential capacity leaning. ${ }^{77}$

These concerns are misplaced. The ISO is only proposing an expansion of its real-time market. That market does not incorporate a forward capacity requirement, and the ISO does not believe it is appropriate in its proposal to attempt to impose forward capacity requirements on Energy Imbalance Market participants. Instead, the ISO is proposing robust scheduling and bidding requirements appropriate for a real-time market to ensure the availability and adequacy of energy. These requirements include
(1) balanced supply and demand in EIM Entities' EIM Base Schedules, (2) feasibility of EIM Base Schedules (i.e,, deliverable within resources' operational capability and

75 Powerex at 64-67. See also Chelan at 4-5.
76 CMUA at 8. It is worth nothing that there are no restrictions on exporting in the existing real-time market. The ISO can only curtail exports when necessary to serve ISO load.
Similarly, under the Energy Imbalance Market, the ISO will not export if that would interfere with serving ISO load. In comparison to the current market, however, the ISO will be able to draw upon resources in the EIM Entity balancing authority areas when necessary to serve load.
${ }^{77}$ Six Cities at 6-10.
without unresolved congestion), and (3) flexible ramping capacity requirements. The proposal protects EIM Entity balancing authority areas from real-time leaning on other balancing authority areas, including the ISO balancing authority area, by isolating any EIM Entity balancing authority area that fails to meet these requirements from accessing the resources available in other balancing authority areas in the EIM Area. The ISO believes that these tools are sufficient and should be tested prior to the imposition of additional requirements.

Powerex disagrees. It contends that these measures are inadequate and will lead to some Energy Imbalance Market participants opting out of capacity commitment processes in their source balancing authority, in order to consume capacity at no charge as provided by the broader Energy Imbalance Market footprint. ${ }^{78}$. Chelan agrees with Powerex in this regard. ${ }^{79}$ Powerex first asserts that the ISO has failed to adopt penalties for significantly over- and under-scheduling generation. ${ }^{80}$ The ISO discusses this contention below in connection with cost allocation.

Second, Powerex asserts that the ISO has failed to implement adequate measures to assess the sufficiency of available resources or the resources' actual ability to perform consistent with their base schedules and energy bids. ${ }^{81}$ To the contrary, under section 29.4, EIM Entity Scheduling Coordinators and EIM Participating Resource Scheduling Coordinators must register their resources with the ISO. This will provide the ISO with the necessary resource operating characteristics. The EIM Entity
$78 \quad$ Powerex at 57.
$79 \quad$ Chelan at 4-5.
80 Powerex at 60-64.
${ }^{81}$ Powerex at 64-67.
must also inform the ISO regarding planned and forced outages under section 29.9. The ISO will commit units sufficiently in advance to accommodate their ramping requirements. It is unclear what additional information Powerex considers necessary. After the fact, the ISO will know the degree to which resources fulfilled their obligations, and will take this into account in determining flexible ramping requirements in future intervals.

Third, Powerex contends that the flexible ramping obligation and resource sufficiency tests that have been proposed are inadequate to preclude leaning on the Energy Imbalance Market instead of acquiring sufficient resources in advance. ${ }^{82}$ Specifically, Powerex argues that the filing does not provide sufficient detail on the determination of flexible ramping requirements and simultaneously contends that the ISO is excluding important considerations. Powerex refers to Mr. Tretheway's declaration in which he states that the requirement will be "based on demand forecast change across consecutive intervals, demand forecast error, and energy production variability," using ISO forecasts of demand and variable energy resource generation as inputs to the calculation. Powerex notes that although the ISO will consider both "demand forecast change" and "demand forecast error," these terms refer to the CAISO's forecast of demand, while base schedules may specify an entirely different level of demand. For example, according to Powerex, the ISO's forecast may be for 1,000 MW, with an estimated $+/-25$ MW range, but this does not protect against the EIM Entity scheduling only 800 MW of demand. ${ }^{83}$

82 Powerex at 67, 70.
${ }^{83}$ Powerex at 67-68.

The flexible ramping capacity requirement is not intended to deal with underscheduling of demand. Section 29.11 provides sufficient penalties for under-scheduling that will serve as a deterrent. The flexible ramping capacity requirement serves to ensure sufficient flexible capacity is available to serve the ISO demand forecast, considering additional uncertainty and variability, not the EIM Entity's demand forecast. In Powerex's example, the EIM Entity would need sufficient bids to serve 1025 MW of demand.

Next, Powerex asserts that "energy production variability" appears to be based only on variability surrounding the ISO's forecast of variable energy resource output, which may not bear any resemblance to the resources contained in the resource schedules. But energy production variability is just that—variability in output.

Powerex's interpretation of Mr. Tretheway's statement is strained. Mr. Tretheway's reference to the use of ISO forecasts was in connection with the consideration of forecasts, not production. Powerex's contention that the flexible capacity requirement appears to ignore the failure of imports to be delivered in real-time ${ }^{84}$ suffers from the same error. This circumstance is considered in connection with production variability and will increase the flexible ramping constraint requirement if included in the base schedule.

Powerex also asserts that that the need for flexible capacity will depend on the specific resources in the EIM Entity's resource plan and that historical trends of the observed need for flexible capacity will be a poor guide. ${ }^{85}$ The ISO has never stated
$84 \quad$ ld. at 68.
$85 \quad$ ld. at 69.
that it will restrict itself to historical data of the observed need for flexible capacity. In fact, the ISO's analysis will take into account resource types and ongoing empirical data from operation of the Energy Imbalance Market regarding the performance of these types of resources.

Powerex further contends that the proposed resource sufficiency framework will not prevent the ISO from leaning on ElM Entities. It complains that the ISO does not propose to apply those same resource sufficiency requirements within the ISO balancing authority. Powerex contends that the ISO presumes that it will ensure resource sufficiency within the ISO balancing authority area through its existing dayahead residual unit commitment processes and that the ISO has not demonstrated how this will not result in the ISO "leaning" on the EIM Entities in the future. ${ }^{86}$

Powerex's facts are wrong. The California Public Utility Commission ensures resource sufficiency through a robust resource adequacy requirement, under which utilities must demonstrate sufficient capacity to service $115 \%$ of forecast load. The ISO backstops that program for noncompliance and for any failure of any non-CPUC jurisdictional load serving entities to provide sufficient capacity. The ISO also enforces a local resource capacity requirement. ${ }^{87}$ The ISO's residual unit commitment procedures require that those resources receiving awards participate in the real-time market. The real-time unit commitment procedure simply ensures that this capacity is online when needed. The ISO does not need the resource sufficiency provisions of the
$86 \quad$ Powerex at 70-71.
${ }^{87} \quad$ The ISO Board has recently approved a flexible capacity resource adequacy requirement to address the increase in variable energy resources. Relevant documents regarding the Flexible Capacity Resource Adequacy Must Offer Obligation are available via this link to the ISO website.

Energy Imbalance Market for its balancing authority area because the requirements the ISO already has in place exceed those applicable to Energy Imbalance Market. Rather, the ISO must ensure other balancing authority areas have sufficient resources because the ISO cannot rely upon the resource adequacy requirements in other EIM Entity balancing authority areas in the same manner as it does with respect to the ISO balancing authority area. The ISO tariff simply does not provide such authority in the context of the Energy Imbalance Market.

Iberdrola Renewables believes it may be appropriate to implement some level of scheduling accuracy requirements for variable energy resources. It notes that the ISO proposed one such requirement for imported variable energy resources as part of its new Order No. 764 market implementation, and it believes a similar metric could be added to the Energy Imbalance Market design to ensure responsible behavior and further mitigate concern regarding inappropriate capacity leaning on the system. ${ }^{88}$ The ISO believes its proposed resource sufficiency requirements are appropriate and sufficient for the real-time timeframe in which the Energy Imbalance Market will operate, but the ISO may consider implementing additional measures in the future if actual experience suggests they are necessary.

## 3. Powerex's Suggested Revisions to Section 29.34 Are Inappropriate.

Powerex notes that proposed Section 29.34(q) states, "The ISO shall treat Variable Energy Resources in accordance with Section 34." Powerex contends that this reference is overly broad because it is unclear what particular provisions of Section 34
${ }^{88}$ Iberdrola Renewables at 5-6. The Commission rejected that proposal in its order on the ISO's filing. See Cal. Indep. Sys. Operator Corp., 146 FERC $\mathbb{I} 61,204$ at PP 20-24, 63.
are relevant to the treatment of variable energy resources, as distinct from all other types of resources. ${ }^{89}$

Section 34 of the ISO tariff governs operation of the real-time market. Some of its provisions are applicable only to variable energy resources. The vast majority, however, are applicable to all resources, including variable energy resources. To attempt to identify in section 29 every provision applicable to variable energy resources would serve no purpose and would risk the omission of relevant provisions.

Powerex also notes that proposed Section 29.34(i)(2) states, "An EIM Participating Resource Scheduling Coordinator may bid a transaction at an EIM External Intertie into the FMM if both Balancing Authority Areas support 15- minute scheduling ${ }^{90}$ at the EIM External Intertie under FERC Order No. 764." Powerex contends that the reference to "both Balancing Authority Areas" is vague, as it is unclear which two specific balancing authority areas must support 15-minute scheduling. ${ }^{91}$

The ISO disagrees. An EIM External Intertie is defined as "A point of interconnection between an EIM Entity Balancing Authority Area and an interconnected Balancing Authority Area other than a Balancing Authority Area in the EIM Area." Plainly, these are the two balancing authority areas to which the section refers.

Powerex also asserts that the adoption of 15-minute scheduling by a balancing authority does not necessarily mean that the relevant transmission providers or the path operator for a given intertie will also support 15-minute bidding. Powerex is correct.

89 Powerex at 93-94.
90 Powerex incorrectly describes this as a matter of scheduling on the EIM Entity interties, when it is in fact economic bidding on those interties.

The reference should be to "15-minute economic participation." The ISO requests that the Commission direct it to make this change on compliance.
4. PG\&E Correctly Notes that the ISO Has No Relationship with Nonparticipants Regardless of the Base Schedule Aggregation Process.

PG\&E recommends the ISO include additional language in Section 29.34(f)(4) to state explicitly that the scheduling coordinator for the EIM Entity will remain responsible for communicating with resources in the balancing authority area it represents and for communicating base schedules to the ISO as well as making changes to the base schedules as needed. ${ }^{92}$ The ISO does not believe any clarification is required. There is no contractual, tariff, or other relationship between the ISO and non-participants-they remain customers of the EIM Entity. In addition, the proposed tariff amendments explicitly state that the EIM Entity is responsible for submission of the base schedules and other actions on behalf of their customers. Nonetheless, the ISO would be willing to include a clarification on compliance to address PG\&E's concern, if the Commission deems it appropriate.

## H. Cost Allocation

## 1. The Proposal Does Not Exempt EIM Transfers from Uplift Charges

Powerex also asserts that the ISO is providing "EIM exports" an advantage over "non-EIM exports" because it is excluding EIM Transfers from paying uplift costs.

Powerex points to the fact that the uplift charges for the ISO balancing authority area are allocated according to measured demand, which includes ISO metered demand plus real-time interchange export schedules, and that the definition of real-time

[^13]interchange export schedules excludes EIM Transfers. Powerex asserts that there is no justification for such an exemption. ${ }^{93}$

Powerex's assertion that EIM Transfers will not pay a fair share of uplift charges is simply wrong. ${ }^{94}$ Proposed sections 11.5.4.1 and 11.8.6.3.2 apportion the real-time imbalance energy offset and bid cost recovery costs between balancing authority areas according to the amount attributable to each. Proposed section 11.5.4.1.1 does not apportion charges, but isolates the real-time congestion offset charges attributable to each balancing authority area. Energy Imbalance Market uplift costs attributable to EIM Transfers into the ISO are allocated to the ISO. Energy Imbalance Market uplifts attributable to EIM Transfers into other balancing authority areas, which would include the "EIM exports" to which Powerex refers, are allocated to EIM Entity balancing authority areas. ${ }^{95}$ Including EIM Transfers out of the ISO balancing authority-the "EIM exports"—as a component of "CAISO Measured Demand," to which the ISO allocates uplift costs attributable to EIM Transfers into the ISO, would result in an inappropriate double charge of such transfers, i.e., both balancing authority areas would pay the uplifts associated with the charge.
$93 \quad$ Id. at 26-27.
94 Powerex misstates the definition of EIM Measured Demand, which is "The metered CAISO Demand and metered EIM Demand plus Real-Time Interchange Export Schedules, excluding that portion of Demand of Non-Generator Resources dispatched as Regulation through Regulation Energy Management and EIM Transfers out of an EIM Entity Balancing Authority Area." The definition that Powerex quotes is the definition of "CAISO Measured Demand."
$95 \quad$ The proposed tariff does not dictate how EIM Entities are to allocate uplift charges assigned to their balancing authority areas.

## 2. Over- and Under-Scheduling Charges for Supply Are Not Necessary.

Section 29.11(d) provides penalties for over- and under-scheduling. Powerex notes that the ISO's proposal only penalizes over- or under-scheduling of demand and not of generation and asserts that this is problematic. The ISO explained that such penalties are irrelevant for EIM Participating Resources, which are dispatched by bid, not schedule, and that the requirement for balanced schedules will ensure that EIM Entities that overschedule generation will result in demand-based penalties. Powerex nonetheless points to the potential for EIM Entities to submit an artificially balanced schedule and then deliver less generation than scheduled without penalty. ${ }^{96}$

Powerex misunderstands the purpose of the penalties, which is to provide an incentive for accurate demand schedules, which the ISO must use for settling imbalance energy. In the ISO balancing authority area, the ISO accomplishes this through day-ahead schedules, and relies upon that market to provide the appropriate incentives. There are no over- or under-scheduling penalties in the existing ISO markets. Similarly, outside the ISO balancing authority area, the Energy Imbalance Market exempts from penalties EIM Entities that use the ISO's demand forecast if the base schedule resources sum within one percent of the ISO's demand forecast. Penalties outside of that band are a necessary incentive for accurate base schedules only for EIM Entities using their own forecast.

EIM Entities that do not deliver scheduled energy will pay the imbalance energy charges. As discussed above, the Energy Imbalance Market design prevents leaning

[^14]through the flexible ramping capacity requirement. As discussed above in connection with the failure of a resource to deliver scheduled energy, the ISO will consider production variability as empirical data. As a result, the ISO will increase the requirement in the event of persistent over-scheduling of generation.

## 3. EIM Entities Should Determine the Allocation of Uplift Costs Within Their Balancing Authority Areas.

Under proposed section 29.11 (g), an EIM Entity determines how to allocate the flexible ramping constraint costs allocated to it. Edison argues that allowing the EIM Entity to develop a different allocation method creates several problems. As an example, Edison notes that PacifiCorp proposes to allocate this cost entirely to measured demand. Edison contends this is improper. Edison contends that similar treatment within the current ISO markets helps ensure consistent incentives for all market participants, reduces the likelihood of unintended consequences, and limits parties' ability to exploit different rules sets within the same market. ${ }^{97}$

The EIM Entity, not the load in the balancing authority area, is the Market Participant. The ISO's proposal apportions flexible ramping constraint costs to all EIM Entities in the same manner. The ISO does not believe that it is appropriate, absent design considerations or inconsistency with the ISO tariff, for the ISO to specify how the EIM Entity allocates these charges to load in its area. If Edison or another party believes that PacifiCorp's (or another EIM Entity's) proposed allocation is not just and reasonable, it should raise the matter in PacifiCorp's (or the other EIM Entity's) tariff filing. It is beyond the scope of the instant ISO tariff amendment. In any event, there is
$97 \quad$ Edison, Appendix B at 2-3.
no reason to require a uniform cost allocation methodology for EIM Entities under the Energy Imbalance Market design. ${ }^{98}$

## 4. The Commission Should Not Change The Proposed Treatment of Virtual Bids.

WPTF notes that proposed section 29.11 allocates real-time congestion offset costs to virtual bidding transactions that increase congestion offset costs on a constraint. WPTF believes that this is unreasonable unless there is also a credit when the virtual bids alleviate congestion costs. ${ }^{99}$

The ISO disagrees. Providing a credit would open the door to virtual bidding opportunities designed to exploit the failure to enforce constraints within an EIM Entity balancing authority area. ${ }^{100}$ Virtual bids do not cause the system differences that can lead to uplifts. These are generally caused by flow impacts originating outside the ISO system. The appropriate response is to remedy any underlying modeling issues, and the ISO is addressing these matters in its full network model expansion proposal discussed above. ${ }^{101}$

## 5. It May Be Appropriate To Clarify the Real-time Congestion Offset and the Flexible Ramping Constraint Shadow Price Calculation.

PG\&E recommends that any real-time congestion offset charges that may arise from managing such transmission constraints for transmission rights on an external

98 PacifiCorp Filing for Revisions to the OATT to Implement the Energy Imbalance Market, Docket No, ER14-1578-000 (March 25, 2014) ("Pacificorp EIM Implementation Tariff Filing").

WPTF at 6.
100. See Market Surveillance Committee Opinion on Initial Implementation of the Energy Imbalance Market and Related Market Design Changes, at p. 19.

101
See discussion supra at III(C).
balancing authority area that are held and scheduled by an EIM Entity be treated the same as if the constraints were transmission constraints in the balancing authority area of the EIM Entity that holds and schedules the rights. It contends that the tariff language is not clear on this point. It asks that the tariff be modified to clearly allocate any real-time congestion offset costs that result from a transmission constraint residing outside of an EIM Entity balancing authority area to the EIM Entity that submitted the base schedule affected by that transmission constraint. ${ }^{102}$

The ISO intended the proposed amendments to address PG\&E's concern. The ISO will treat real-time congestion offset charges under these circumstances as if they were located within the applicable EIM Entity balancing authority area. The ISO does not believe any changes to the tariff are necessary, but is willing to include additional clarification on compliance if the Commission believes it is appropriate.

PacifiCorp states that in revised Section 11.25.4(a)(2), the ISO indicates that the ratio of the Flexible Ramping Constraint Shadow Price shall be determined in the manner described in Section 11.25.2.1(b). According to PacifiCorp, restatement of the precise manner in which the ratio will be determined in this sub-section, rather than a cross-reference, would avoid a potential neutrality issue that may arise under the current proposed language. ${ }^{103}$ PacifiCorp points an error in the drafted language.

The ISO notes that the error is not so much the use of a cross-reference, but the sequence of calculations in the cross-referenced procedure. The current calculation does produce a neutrality issue. The ISO provides an example of the corrected tariff

PG\&E at 4-7.
103
PacifiCorp at 14.
language as an Exhibit and asks that Commission direct it to correct this error on compliance.

PacifiCorp also notes that in proposed Section 29.11(d), the ISO includes references to the "EIM Base Schedule of Supply submitted by the EIM Entity." PacifiCorp understands the term "EIM Base Schedule of Supply" to include EIM Base Schedules for resources and interchange, but the proposed language in Section 29.11(d) does not expressly provide as such. PacifiCorp is correct, and a revision consistent with PacifiCorp's understanding would be useful. ${ }^{104}$ Accordingly, the ISO asks Commission to direct it to correct this error on compliance.

PacifiCorp also seeks a commitment from the ISO to re-evaluate the applicability of language in existing Section 11 of the ISO Tariff concerning the timing of Energy Imbalance Market settlement disputes if actual Energy Imbalance Market operational experience reveals that the timing of the ISO settlement process does not provide for meaningful review by PacifiCorp's transmission customers with non-participating resources or loads subject to Energy Imbalance Market-related settlements. ${ }^{105}$ While the ISO does not anticipate the problems that PacifiCorp envisions, the ISO will be mindful of the concerns of EIM Market Participants and monitor the circumstances accordingly. If PacifiCorp's concerns in fact materialize, the ISO may consider whether any changes are warranted, taking into consideration the fact that the settlement and dispute timelines apply equally to all ISO market participants, and it may be difficult to

[^15]justify different treatment. The ISO would have to engage all stakeholders in such an effort, and such an undertaking does not appear to be warranted at this time.

## I. Transmission Charges

Proposed section 29.26 provides for reciprocity concerning charges for transmission access. Load in the ISO balancing authority area will pay the ISO's transmission access charge for Energy Imbalance Market transactions that sink in the ISO balancing authority area. EIM Transfers from the ISO balancing authority area will not pay the ISO's wheeling access charge. This approach is just and reasonable, not unduly discriminatory or preferential, and consistent with Commission precedent for two related reasons as discussed below. EIM Transfers represent a new form of transmission service other than what is presently provided under the ISO tariff, and the parties involved have agreed to exchange this service without additional charge. Nonetheless, the ISO has indicated that it will further consider this transmission reciprocity structure and potential alternative transmission rate designs during the first year of market operations, and propose a revised transmission access charge if it appears that an alternative would provide for a more efficient dispatch or otherwise further the development of the Energy Imbalance Market. ${ }^{106}$ The ISO described three alternatives in addition to the transmission reciprocity structure during its stakeholder process for the Energy Imbalance Market design, but no consensus emerged. The further stakeholder discussion will consider these and possible other methodologies.

106 CMUA asserts that ignoring transmission cost allocation issues will not make them go away and that expansion of the EIM must be conditioned on and accompanied by an affirmative proposal on this issue. The reciprocity proposal is just such an affirmative proposal.

## 1. The Provisions Regarding Transmission Charges Are Not Unduly Discriminatory

Several parties challenge these provisions as discriminatory, providing preferential treatment of EIM Market Participants. ${ }^{107}$ This challenge is unfounded. As the ISO explained in its transmittal letter, the proposal simply entails the elimination of pancaked rates, and the use of a license plate rate, across the footprint of an energy market. ${ }^{108}$ The Commission has consistently approved such proposals in the past. For example, prior to the formation of the ISO, an energy transaction from PG\&E to Edison would require payment of a PG\&E transmission rate and an Edison transmission rate. An energy transaction from PG\&E to PacifiCorp would require payment of a PG\&E transmission rate and a PacifiCorp transmission rate. Following the implementation of the ISO's initial access charge the former transaction would require payment of only the Edison transmission rate, while the latter would still require payment of a PG\&E transmission rate and a PacifiCorp transmission rate. The former transaction is analogous to the EIM Transfer, and the latter is analogous to an export out of the EIM Area. The Commission approved this rate methodology as just and reasonable. ${ }^{109}$

107 Seattle at 5 , WPTF at 3-5, Powerex at 19-26, 32-37, TANC at 19-20, Bonneville at 5-7, Portland at 7-8. See also Redding at 7 (expressing concern about the impact of reciprocity on other systems).
${ }^{108}$ This does not set up a "free transmission zone" as Powerex argues. Powerex at 37. As the ISO explained in the stakeholder process, all EIM transactions will require payment of transmission rates.
109 Pac. Gas \& Elec. Co., 81 FERC 61,122 (1997). The ISO's license plate rate was an interim rate, as required by the ISO's authorizing legislation, but the Commission did not preclude continued use of a license plate rate. The Commission has approved continued use of license plate rates for facilities that were not jointly planned. See, e.g., PJM Interconnection, L.L.C., Opinion No. 494, 119 FERC 1 61,063 at P 54 (2007), rev'd and remanded on other grounds,, III. Commerce Comm'n v. FERC, 576 F.3d 470 ( $7^{\text {th }} \mathrm{Cir}$. 2009).

Similarly, when the companies intending to form the Alliance RTO filed a settlement establishing a non-pancaked rate for transactions within a combined Alliance and Midwest ISO region, several parties argued it was discriminatory because it only applied to transactions where the source and sink were both within the Alliance-Midwest ISO "Super Region." They asserted that this unduly favored generation within the Alliance-Midwest ISO Super Region. The Commission rejected these concerns:

We recognize that limiting availability of the Super Region rate to transactions whose source and sink are located there may provide a competitive advantage to generators located in the Super Region vis-a-vis those located outside the Super Region. There are two overriding considerations. Absent the Settlement, transactions utilizing the facilities of Midwest ISO and Alliance would pay two separate transmission rates. Order No. 2000 does not require two RTOs to charge one rate. ${ }^{1}$ Therefore, the Super Region rate creates a benefit for customers. By requiring the customer to pay only one rate, the proposed Super Region rate may provide to customers additional supply alternatives that might otherwise be uneconomic. In the event that there is only one RTO, the Super Region rate is still a benefit, because the Super Region is larger than either one of the proposed RTOs. Second, the source and sink limitation serves as an incentive to transmission owners that are not currently members of Alliance or Midwest ISO to join one of those organizations. ${ }^{110}$

The same types of benefits justify the ISO's proposal. ${ }^{111}$
Powerex's own purported example of discrimination actually highlights the similarity between the impact of the RTO-wide elimination of pancaked rates and the ISO's proposal. Powerex posits the following:

Consider two energy-limited hydroelectric units-Unit 1 and Unit 2located at a single location in the Pacific Northwest, both of which plan to produce 100 MW. The units are identical in every way except Unit 2 is

110 III. Power Co., 95 FERC TI 61,183 at 61,644 (2001) (footnote omitted)...
111 Powerex attaches the PUC-EIM group's EIM benefit study to show that it recognizes that EIM can indeed have benefits. It is worth pointing out that the PUC-EIM benefit study assumes that hurdle rates (e.g., transmission charges between EIM Entities) are removed within the EIM area.
located in PacifiCorp's BAA whereas Unit 1 is not. . . . Unit 1 submits a decremental bid at the Malin scheduling point in the CAISO real-time market. If the bid is accepted, it results in a Wheeling Out transaction and incurs the Wheeling Access Charge . . . . Unit 2 is an EIM Participating Resource and submits a decremental bid into the EIM. If the bid from Unit 2 is accepted and power flows from the CAISO grid on the COI to serve the dispatch, the proposed Section 29.26(a)(2) expressly exempts the transaction from paying the $\$ 8 / \mathrm{MWh}$ Wheeling Access Charge. ${ }^{112}$

This, however, is not discrimination, but merely the result of non-pancaked rates within an energy market footprint. A similar situation can result from the elimination of pancaking, a rate design that the Commission has already approved. Consider the ISO's current market. Substitute a decremental bid by Unit 1 at Lugo for a bid at Malin. Substitute Anaheim's entitlement to power at the Intermountain Generating Station for Unit No. 2. The Intermountain Generating Station is outside the ISO balancing authority area but connected to the ISO controlled grid by Anaheim's and Riverside's entitlements under the ISO's Operational Control. In both cases, the decremental bid, if accepted, will be "exported" from facilities owned by Southern California Edison at Lugo. Because Anaheim's entitlements are within the footprint of the ISO market, Anaheim will not pay a wheeling charge. Unit 1 will pay a wheeling access charge. The only substantive difference from Powerex's example is that Anaheim's facilities are under the ISO's operational control, which on this case only means that the ISO can schedule on them, much as it would schedule in real-time on the transmission rights made available to the Energy Imbalance Market. Thus, from a market perspective, there is no difference.

In its attempt to allege undue discrimination, WPTF posits a PacifiCorp resource selling through, and outside of, the CAISO and states that this resource does not have

112 Powerex at 23-24.
to pay wheeling when a CAISO supplier would, creating a distortion. ${ }^{113}$ WPTF's premise is erroneous. Only EIM Transfers are exempted from wheeling access charges. A transfer out of the EIM Area is not an EIM Transfer. A PacifiCorp resource that sells through, and outside of, the CAISO will still have to pay the wheeling access charge.

WPTF is correct that PacifiCorp intends to require that a PacifiCorp resource have transmission service with PacifiCorp in order to participate in the Energy Imbalance Market. This is precisely why PacifiCorp has proposed an hourly non-firm rate— to allow more resources within its balancing authority areas to participate. ${ }^{114}$ As the ISO explained in its transmittal letter, the proposed design will not create rate pancaking because for long-term customers, the cost of transmission is a fixed cost. ${ }^{115}$ EIM Transfers will not increase the marginal cost of transmission. In contrast, an export today from PacifiCorp would presumably require point-to-point service to the specific exit point.

## 2. The Provision of Transmission Reciprocity Is Consistent with Commission Approval of the Elimination of Pancaked Rates Between RTOs.

In the transmittal letter, the ISO cited two decisions in which the Commission went even beyond eliminating pancaking rates within an RTO and approved their elimination between RTO markets.

113 WPTF at 4.
114 Docket No. ER14-1578-000, Pacificorp EIM Implementation Tariff Filing at 29-33.
115 The exception is that resources without long term service will have to take short-term service. This is necessary to prevent free ridership with regard to Energy Imbalance Market transactions within PacifiCorp.

Powerex attempts to distinguish Midwest Independent Transmission System Operator ${ }^{16}$ on the basis that the pancaking at issue was intra-RTO pancaking, not interRTO pancaking. ${ }^{117}$ Powerex is correct that the motivating concern was the existence of intra-RTO pancaking, but the fact remains that in order to avoid pancaking within one market, the Commission eliminated pancaking between markets.

Powerex uses a different rationale to attempt to distinguish ISO New England, Inc. v. New England Power Pool, ${ }^{118}$ in which, as Powerex concedes, the Commission determined that the elimination of seams would assist the development of a vital market across the Northeast region-much as the ISO and PacifiCorp are seeking to do here. ${ }^{119}$ Powerex points out that the seams elimination involved all temporal timeframes and did not eliminate pancaking in one market while preserving it in others. ${ }^{120}$ The ISO acknowledges that the Energy Imbalance Market proposal may be the first to include a transmission access charge tailored specifically for one market, ${ }^{121}$ but it also would be the first imbalance energy market extending beyond the border of an RTO if accepted by the Commission. ${ }^{122}$ This does not, however, render it unjust, unreasonable, or

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116 104 FERC | 61,105 (2003).
117 Powerex at 36.
118 106 FERC | 61,280 (2004).
119 The ISO's proposal is not to the contrary; it also involves the elimination of pancaked rates for all market participants in the energy imbalance market.
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120 Powerex at 37.
121 Bonneville attempts to distinguish both cases by observing that they involved the elimination of pancaking for all market participants. Bonneville at 8 . The ISO's proposal is not to the contrary; it also involves the elimination of pancaked rates for all market participants in the energy imbalance market.
122 See Midwest Indep. Transmission Sys. Operator, 126 FERC ๆ 61,139, at PP 59-75
(2009) (rejecting MISO's proposed market services tariff because too many of the benefits of an
unduly discriminatory or preferential. Forward markets, such as the day-ahead market and the fifteen-minute market, and the real-time five-minute energy imbalance market are two different services. The transmission service associated with participation in forward markets is likewise a different service than the transmission service associated with real-time EIM Transfers. As discussed further below, forward market schedules have some level of curtailment priority, while EIM Transfers have no such priority and use only such capacity as may be available in real time. Powerex does not provide a precedent requiring uniformity of transmission charges for services that are qualitatively different. ${ }^{123}$ To the contrary, it is well-settled that rate differentials are not unduly discriminatory or preferential when the customers are not similarly situated because they receive different services. ${ }^{124}$

## 3. The Precedent on Which Powerex Relies Is Not Inconsistent with the ISO's Proposal.

Powerex asserts that the proposed reciprocity is contrary to Commission precedent, but none of the precedent on which Powerex relies is contrary to the proposal. Powerex cites the prohibition against discounting in Order No. 888-A. ${ }^{125}$ The transmission reciprocity under the Energy Imbalance Market, however, is not discounting. Selective transmission service discounting distinguishes among customers receiving the same service. As the ISO has previously explained, all customers

[^16]purchasing energy in the Energy Imbalance Market pay the non-pancaked rate. Any balancing authority area in the Western Interconnection will be eligible to join the Energy Imbalance Market.

Powerex attempts to dismiss this consideration by arguing that resources can only participate in the Energy Imbalance Market if the balancing authority area in which they are located participates in the Energy Imbalance Market. This is incorrect. Resources can participate in the same real-time market of which the Energy Imbalance Market is a part, as a dynamic resource into the ISO regardless of the balancing authority area in which they are located. Powerex acknowledges that it already participates in the ISO markets. ${ }^{126}$ Under a dynamic transfer agreement with the ISO, it would be able to participate in the real-time market in the same manner as a resource physically located on the ISO Controlled Grid. Powerex will need to pay those charges it currently pays to reach the ISO grid, but it will have the same access to reciprocal transmission charges as other participants in the Energy Imbalance Market. All participants in the Energy Imbalance Market have the benefit of reciprocal transmission charges for transfers within the market's footprint.

In an attempt to avoid the conclusion that there are different services involved, Powerex argues that existing transmission and uplift charges ${ }^{127}$ will continue to apply to "non-EIM real-time transactions." ${ }^{128}$ Powerex asserts that it is not aware of any Commission-approved transmission rates that differentiate service on the basis of the

Id. at 2.
The error in Powerex's discussion of uplift charges is discussed below.
particular market design in which the transactions are executed, as opposed to on the basis of priority and duration of service. ${ }^{129}$ The distinction involved here is not the market design, however. It is the nature of the service provided. Hourly day-ahead exports and fifteen-minute market exports are fundamentally different from EIM Transfers.

Hourly day-ahead exports and fifteen-minute market exports are static schedules. The ISO must dispatch around the export to honor the schedule and prescribed ramps between the schedules. Thus, if congestion materializes after the schedule is awarded, the exporter is not exposed to these costs. Because the usage of the grid is guaranteed (except in emergency situations) and the ISO accordingly must dispatch around the static schedules, it is appropriate for these export schedules to pay the wheeling access charges. Also, participation for 15-minute intervals includes optimized unit commitment that is not part of the fifteen-minute market for non-EIM participants.

In contrast, EIM Transfers are equivalent to dynamic schedules. A dynamic export is not guaranteed to flow beyond the 5-minute dispatch interval. If congestion materializes, the export will not use the transmission. For this reason, a dynamic export provides more flexibility to the ISO and has less certainty for the scheduling coordinator than a static schedule. Therefore, they are fundamentally different services for which different rate treatment is permissible.

Powerex's next citation of precedent is a quotation of the Transmission Pricing Policy Statement: "[A] utility must allocate among individual customers or classes of
ld.
customers that portion of the total revenue requirement that is attributable to providing transmission services, in a manner which appropriately reflects the costs of providing transmission service to such customers or classes of customers." ${ }^{130}$ Powerex offers no explanation as to how the ISO's proposal violates this principle. The Commission has consistently found the elimination of pancaked rates to reflect this principle. ${ }^{131}$

Powerex also cites the Commission's approval of SPP's uniform transmission rate for all transactions within its footprint ${ }^{132}$ and of the requirement that entities have transmission service in order to participate in SPP's energy imbalance market. ${ }^{133}$ As an initial matter, nowhere in the Commission's approval of SPP's uniform transmission rate or its approval of SPP's energy imbalance market did the Commission indicate that a license plate proposal would be unjust or unreasonable, and other Commission decisions demonstrate this is not the case. The approval of one rate methodology does not demonstrate that other methodologies are not just and reasonable. Moreover, the reliance of the SPP decisions is simply inapt. The ISO, like SPP, has had a single transmission access charge applying to transactions within its footprint since 2001, years before SPP. The issue here concerns transmission access in a market whose

[^17]footprint extends beyond the ISO's balancing authority area. In contrast, for practical purposes, SPP's energy imbalance market does not extend beyond its footprint. ${ }^{134}$

Finally, Powerex points to the Commission order requiring PJM and MISO to revise grandfathered contracts so that those customers do not pay more than the ISO rate. ${ }^{135}$ In those cases, the Commission was directing revision of the transmission under the grandfathered contracts administered by PJM and MISO so that the service provided would be essentially the same service as under the open access tariff. As explained above, the rates for transmission under the Energy Imbalance Market are available for any entity participating in the market, so the differential treatment with which the Commission was concerned is not presented. The only differential treatment presented here is the result of different service.

## 4. The Reciprocity of the Transmission Arrangements Distinguishes EIM Market Participants from Non-EIM Market Participants.

In other circumstances the Commission has concluded that the reciprocity of transmission arrangements distinguishes participants from non-participants such that the arrangement is not discriminatory. For example, to replace a transmission service agreement that PG\&E was cancelling, the ISO, PG\&E and Western Area Power

134 The ISO understands there are two municipal utilities that participate in the SPP energy imbalance market, for which they must take transmission service, but who otherwise are not covered by the SPP tariff. If there were a load wheeling through their territories, or an independent generator submitting a decremental bid into SPP's market, the load or generator would not be paying only the SPP regional wide rate. Rather, it would have to pay both the SPP transmission charge and the municipal's transmission charge in the same manner in which an export other than a EIM Transfer would pay both the ISO wheeling access charge and the transmission charge of the receiving utility. To the ISO's knowledge, such a circumstance does not exist in the SPP energy imbalance market.
135 Powerex at 35, citing Penn.-N.J.-Md. Interconnection, 81 FERC $\mathbb{1} 61,257$ (1997) and Midwest Indep. Transmission Sys. Operator, Inc., 84 FERC ๆ 61,231 (1998).

Administration entered an agreement to exchange transmission capacity on PG\&Eowned facilities for capacity on Western-owned facilities. ${ }^{136}$ The effect of the agreement was to allow the ISO customers and Western customers to avoid pancaked rates between Oregon and California, much as the ISO's proposal allows EIM Market Participants to avoid pancaked rates.

One party argued that under the transmission exchange agreement, Western would receive preferential treatment because it would receive firm service in the dayahead and hour-ahead markets without having to bid, and would be exempt from congestion charges, scheduling charges, and other ISO charges. The party contended that the ISO Tariff provides for transmission service scheduled entirely on a day-ahead and hour-ahead basis and does not provide for long-term service contracts except for those that pre-date the start of CAISO operations.

The Commission found that the transmission exchange agreement between the ISO, PG\&E and Western provided substantial benefits to all of the parties by providing access to the other party's system and eliminating the potential for rate pancaking between the ISO and the Pacific Northwest. ${ }^{137}$ The Commission also found that the exchange arrangements enhanced reliability and access to different resources and were not unduly discriminatory. ${ }^{138}$ It noted that although Western would receive
${ }^{136}$ Pac. Gas \& Elec. Co., 109 FERC T 61,255 at P 11 (2004), aff'd sub nom., Sacramento Mun. Util. Dist. v. FERC, 474 F.3d 797 (D.C. Cir. 2007). The Commission has also accepted a similar agreement between the ISO, PG\&E, and PacifiCorp. PacifCorp, 121 FERC T 61,278 (2007) (order approving uncontested settlement that included a transmission exchange agreement).
137 Pac. Gas \& Elec. Co., 109 FERC ๆ 61,255 at PP 49-50.
ld. at PP 53-55.
exchange service outside the terms and conditions of the ISO Tariff, there are substantial benefits accruing to the ISO customers.

In addition, PG\&E had filed a notice of cancellation of a transmission service contract with SMUD. SMUD protested the cancellation, arguing that it would be discriminatory to terminate firm long-term service under its transmission service agreement when the CAISO is willing to offer such service to Western. ${ }^{139}$ The Commission found that SMUD was not similarly situated to Western because SMUD could not offer a similar exchange of capacity with the ISO and was essentially seeking a "set aside" of capacity for itself. ${ }^{140}$ Similarly, there is no discrimination here because in the Energy Imbalance Market context, transmission in the forward markets and transmission between the ISO and non-EIM balancing authorities are not similarly situated to transmission in the Energy Imbalance Market. In that regard, the ISO and PacifiCorp are only "exchanging" an agreement not to impose transmission charges on real time capacity that is available and used for EIM Transfers on their respective systems. There is no "exchange" of forward transmission capacity between the two systems. Thus, there is no basis for the ISO to exempt transmission associated with forward market transactions from transmission usage charges. To the extent other balancing authorities become EIM Entities and "exchange" available real-time capacity with the ISO, EIM Transfers into such neighboring systems will not be subject to ISO
transmission charges. Thus, the Energy Imbalance Market does not result in any undue discrimination. ${ }^{141}$

## 5. Protestors' Policy Arguments Do Not Support Rejection of the ISO's Proposal.

Parties also make three policy arguments against the proposed treatment of transmission access charges. None provide a reason for the Commission to reject the ISO's proposal.

First, Bonneville, TANC and Powerex express concerns about the potential that EIM Entities will shift existing day-ahead and real-time trading and scheduling activities into the Energy Imbalance Market to take advantage of the CAISO's waiver of the wheeling access charge. ${ }^{142}$ The ISO explained in its transmittal letter that such a result is certainly possible, but that at this point it is premature and based on unfounded speculation. Powerex counters that any evaluation of a proposed new market design or rules requires careful analysis of the consequences of those rules. ${ }^{143}$ The ISO does not disagree, but there is currently no evidence with which to perform such an analysis.

The best manner of testing Powerex's hypothesis is to implement and monitor the
141 One can reasonably consider the proposed treatment of real-time EIM Transfers as comparable to a bilateral exchange or sharing of capacity that provides mutual benefits. Commission decisions authorizing such arrangements provide further support for the ISO's treatment of EIM Transfers from the ISO balancing authority area. For example, the Commission has authorized MISO to provide a new, separate Seams Service to neighboring systems that are not members of MISO. Midwest Indep. Transmission Sys. Operator, 123 FERC $\mathbb{T} 61,265$ (2008). As part of that service, the Commission approved a capacity sharing provision that creates a reciprocal obligation for MISO and a Seams Service customer to share unused path capacity on each other's system. Midwest Indep. Transmission Sys. Operator, 135 FERC $\mathbb{1} 61,205$ (2011). The Commission declined to reject the provision on the grounds that the capacity sharing arrangement might benefit one party more than another. The Commission recognized that these were wholly voluntary arrangements that might provide mutual benefits to both parties.

Powerex at 29; TANC at 19-21; Bonneville at 6.
Powerex at 31, Edison, Appendix B at 1.
proposal as the ISO intends to do. The fact that the Energy Imbalance Market will initially involve only three balancing authority areas and only a limited amount of transfer capacity provides an ideal circumstance for interested parties to gather and evaluate information. The ISO has made a commitment to evaluate the impact of transmission reciprocity and to develop an alternative if there are untoward effects. This does not require a sunset provision, as Powerex and Edison suggest. ${ }^{144}$ The ISO has consistently fulfilled its commitments to the Commission, and a sunset provision to enforce the commitment would actually create more uncertainty by providing for an arbitrary end date for a rate that is just and reasonable, particularly as such a deadline approaches. Also, to the extent Powerex, TANC or Bonneville believe that that the market operation has produced evidence of adverse, inappropriate market impacts, they can file a complaint under section 206. Establishing a sunset date at this time based on unfounded speculation would be arbitrary.

As part of this argument, Powerex also contends that the proposed treatment of transmission access charges would distort export activity from the PacifiCorp Grid. According to Powerex, a market participant, rather than purchasing energy directly in the ISO markets and paying the wheeling access charge, could effectively export the same ISO-sourced energy through the Energy Imbalance Market footprint and pay the lower export charge under the PacifiCorp tariff. Powerex contends that the market participant could accomplish this result by first scheduling a generator in the PacifiCorp footprint for export under the PacifiCorp OATT scheduling framework, and then

144 Id,
decrementing the generator's output in the Energy Imbalance Market-with power flowing from the CAISO grid to backfill the generator's reduction in output.

Powerex is wrong. The strategy cannot be implemented under the Energy Imbalance Market design. A market participant cannot choose to decrement a resource through its base schedule; the market optimization does this. Base schedules are selfscheduled in to the Energy Imbalance Market unless the bid range of the resource is below the base schedule. In order to execute the posited export, the resource base schedule must violate the rules for submission of base schedules. ${ }^{145}$ Neither EIM Participating Resources nor EIM Entities can submit incremental or decremental selfschedules from the base schedule during the real-time market.

If a participating resource is decremented it will be because it is economically efficient for the entire EIM Area. Moreover, because EIM Transfers are not static, there is no way to guarantee that resource's fifteen-minute market schedule will equal its export schedule and no guarantee that the real-time dispatch will equal the fifteenminute market schedule.

Second, Powerex and Bonneville assert that the ISO's proposal will reduce "wheel-through" revenues, particularly for large intermediary transmission providers such as the ISO and PacifiCorp. They argue that this will increase charges for remaining customers. ${ }^{146}$ The ISO already explained in the transmittal letter that the ISO and PacifiCorp are willing to forego any lost wheeling revenues in return for the reciprocal access to a more diverse set of generation resources to meet load at lower

145 See Proposed § 29.34(I) (requiring base schedules to be balanced and feasible).
Powerex at 29; Bonneville at 6 .
cost provided by the Energy Imbalance Market. ${ }^{147}$ Further, customers within ISO, who would bear their share of any increased charges, ${ }^{148}$ have not complained about this potential increase. As discussed above, the Commission has approved similar arrangements where there were mutual benefits for both parties and both parties voluntarily agreed to accept the benefits and the burdens of the arrangement.

Further, a rate methodology is not unjust and unreasonable merely because some rates may go up. For example, when the ISO moved from a license plate transmission access charge to a postage stamp transmission access charge, rates went up in certain service territories and down in others. Although the Commission approved a mechanism to keep cost shifts below a certain amount, it did not consider the cost shifts sufficient to demonstrate that the proposal was unjust or unreasonable. ${ }^{149}$

Third, Powerex again predicts "distortions to both the static and dynamic efficiency of western wholesale energy and transmission markets through preferential transmission pricing in the narrow temporal Energy Imbalance Market. ${ }^{150}$ As in the case of its comments in the stakeholder process, Powerex does not explain what distortions it is predicting other than those already discussed above.

147 PacifiCorp will be the only EIM Entity at the outset of the Energy Imbalance Market.
148
In 2013, wheeling access charges were approximately $\$ 148.5$ million, constituting $7.5 \%$ of the total access charges of approximately $\$ 1830.9$ million.

Cal. Indep. Sys. Operator Corp., 109 FERC $\mathbb{1} 61,301$ (2004).
150
Powerex at 29.

## J. Administrative Fee

The ISO has proposed an administrative charge to recover its ongoing costs from participants in the Energy Imbalance Market. The administrative charge is paid only by EIM Market Participants. ${ }^{151}$ No party has protested the ISO's administrative charge.

Modesto notes that the ISO relies on the 2010 cost of service study for support for the initial Energy Imbalance Market administrative charge. ${ }^{152}$ This is correct, but provides no reason to modify the proposed administrative charge. Formulation of the proposed administrative charge used the same basic methodology as the current grid management update process, only it was applied to the prior cost of service study performed by the ISO for the 2012-2014 grid management charge currently in effect. The 2010 cost of service study remains the best information available until the broader grid management charge update effort is allowed to unfold in 2014, and is a reasonable basis for the administrative charge. In fact, the ISO anticipates the specific amount currently proposed as the administrative charge to be in effect only from October 1, 2014 until December 31, 2014 - just three months.

Modesto also states that it is essential for the upcoming GMC stakeholder process to show how any ongoing Energy Imbalance Market administrative charge derives from the 2015 updated cost of service study, in order to provide adequate

151 The components of the Energy Imbalance Market administrative charge are the same as the ISO real-time market components of the grid management charge. Current market participants will continue to pay for the real-time components included in the grid management charge. The objective has always been to ensure that EIM Market Participants are treated similarly by paying for these same components of the real-time market as paid by current market participants. See Modesto Comments at 5 (requesting clarification that only EIM Market Participants will be allocated this charge).
152
Modesto at 5.
support for the charge. ${ }^{153}$ The 2015-2017 grid management charge update materials were posted for stakeholder review and comment by the ISO on April 2, 2014; ${ }^{154}$ so Modesto and others can already begin an examination of the data that will support an updated charge. Stakeholders will have a full opportunity to participate in the process to establish the administrative charge for the Energy Imbalance Market, which the ISO will file with the Commission later this year. The ISO expects the updated grid management charge, based on a targeted cost of service study and subject to focused stakeholder input, to be in effect before any other balancing authorities would be participating in the Energy Imbalance Market.

Six Cities contends that the proposed Energy Imbalance Market design does not adequately address recovery of potential stranded costs from withdrawing participants, ${ }^{155}$ The ISO does not believe that an assessment of stranded costs is necessary in the event an EIM Entity later decides to terminate its participation on the Energy Imbalance Market. An important element of the Energy Imbalance Market design is the opportunity for an EIM Entity to participate upon payment of its portion of the implementation costs, and to exit without incurring additional fees above and beyond the administrative fees that must be paid through termination. The recovery of implementation costs and the collection of an ongoing administrative charge are sufficient to eliminate any material risk of stranded costs. Moreover, there is no justification for an open ended requirement to later determine what amounts may not

[^18]have been recovered by the ISO. It is the responsibility of the ISO and the purpose of the administrative charge update processes to ensure that all market participants pay their share. ${ }^{156}$ Imposing a future look back cost exposure risk on EIM Entities would represent an unnecessary barrier to their participation.

Lastly, PacifiCorp requests that the ISO revise the proposed administrative charge language in certain respects. ${ }^{157}$ Although the ISO believes the proposed language accurately represents the calculation and allocation of the administrative charge, it agrees that PacifiCorp's requested clarifications would improve the understanding of the administrative charge among all EIM Market Participants. Accordingly, the ISO asks the Commission to direct it on compliance to propose changes to section 29.11 (i) that address PacifiCorp's concerns. The ISO will include revisions that more precisely indicate that the calculation will be performed once for all EIM Market Participants within each EIM Entity balancing authority area. In addition, the ISO will make changes that more clearly explain the calculation to be performed and the amounts to be allocated to scheduling coordinators in the Energy Imbalance Market. These revisions will improve the overall precision of the language without changing the actual charge to scheduling coordinators, and the Commission should direct the ISO to make them on compliance.

156 See, contra, Letter Order Dated February 4, 2013 in Docket ER11-3415-001 (accepting an exit fee agreement). In this instance, the ISO will have appropriately accounted for upfront and ongoing costs and no exit fee is necessary.

## K. Market Power Mitigation

Proposed section 29.39 extends the ISO's current market power mitigation to the Energy Imbalance Market. For differing reasons, a number of parties object to the ISO's proposal. The ISO's current local market power mitigation procedures apply in the day-ahead and real-time markets. The market power mitigation process automatically tests for constrained paths that would create the potential to exercise local market power. If the process determines that the potential exists, the procedure will mitigate bids. For the real-time market, the ISO runs the market power mitigation process once every fifteen minutes. The ISO's mitigation process is premised on a distinction between competitive and non-competitive transmission constraints. The ISO's local market power mitigation process will use mitigation-where default energy bids are considered in place of submitted bids-only for constraints that are noncompetitive as determined by the ISO's dynamic competitive path assessment. The Commission accepted the ISO's improved real-time market power mitigation in its April 29,2013 order. ${ }^{158}$

## 1. Market Power Mitigation Procedures Belong in the ISO Tariff.

Powerex objects to a one-size-fits-all market power mitigation process and argues that mitigation measures are more appropriately determined by the Commission on a case-by-case basis within the context of reviewing proposed changes to each balancing authority area's open access tariff. ${ }^{159}$ It is not clear to the ISO how or why the

158 See Cal. Indep. Sys. Operator Corp., 143 FERC $\mathbb{1} 61,078$ (2013). The Commission had previously accepted the ISO's tariff amendment to implement improved day-ahead market power mitigation in Cal. Indep. Sys. Operator Corp., 138 FERC II 61,154 (2012).

Powerex at 73-75.

Commission would consider the question of whether to include EIM Transfer constraints in the context of each EIM Entity tariff. ${ }^{160}$ It is not necessary, nor would it be appropriate, to subject different regions of the ISO real-time market to different mitigation procedures. The potential exercise of market power is market power within the Energy Imbalance Market, and the Energy Imbalance Market is governed by the ISO tariff.

## 2. A Structural Competitiveness Assessment Should Precede the Implementation of Market Mitigation Measures.

Some parties request that the Commission order the ISO to implement mitigation of EIM Transfer constraints on day one without any consideration of a structural competitiveness assessment. ${ }^{161}$ At the same time, others argue that the Commission should consider this question with respect to each EIM Entity to avoid the risk of deterring participation. They also claim that the mitigation provisions should be in the EIM Entity tariff, not the ISO tariff. ${ }^{162}$

Application of the ISO's market power mitigation measures ensure that outcomes in the ISO real-time market remain competitive by reflecting the fact that when market power exists, all suppliers-including even smaller suppliers—may have market power. These issues were discussed in detail in the proceedings before the Commission under which the ISO's initial nodal market design was approved. After thorough consideration of this issue prior to start of the ISO's redesigned market in 2009, the Commission found this and other aspects of the ISO's market power mitigation provisions to be

Powerex at 87-89.
Edison at 5; see also Six Cities Comments at 11; and Bonneville Comments at 7.
appropriate and just and reasonable. ${ }^{163}$ In 2012 and 2013, the ISO amended its tariff to improve the efficiency and accuracy of its local market power mitigation. ${ }^{164}$ The ISO's market power mitigation have functioned well in the ISO real-time markets and contributed overall to more competitive market outcomes. ${ }^{165}$ There is no reason to suspect these same measures will not work equally well in the Energy Imbalance Market, particularly as the ISO gains more knowledge and experience in that regard. Protestors provide no specific evidence why they will not work.

The only significant issues are, first, whether a structural competiveness assessment is necessary prior to deciding whether to include EIM Transfer constraints in the automated market power mitigation process and thus make them potentially subject to mitigation; and, second, if such an assessment is necessary, whether that determination should be made by the ISO board or by the Commission. ${ }^{166}$

The ISO has proposed a balanced approach to resolving this question. The ISO will apply mitigation to EIM Transfer constraints only under limited market conditions. Specifically, EIM Transfer constraints initially will only be included in the automated mitigation procedures if, prior to implementation in a specific balancing authority area,

163 Cal. Indep. Sys. Operator Corp., 116 FERC II 61,274 (2006).
$164 \quad$ Supra at n. 159.
165 See, e.g., 2012 Annual Report of Market Issues and Performance, California ISO Department of Market Monitoring, Docket No. ZZ13-4-000 (assessing market performance and concluding they are efficient and competitive). In addition, the ISO's Department of Market Monitoring also provides regular reports on market issues and performance. It is not necessary to include additional reports associated with the Energy Imbalance Market. These regular and annual reports will include information associated with the Energy Imbalance Market. See Neighboring Systems Comments at p. 19 (requesting quarterly reports on the performance of the Energy Imbalance Market).

See DMM Report at 2-3 (Attachment F to the ISO Transmittal Letter); and MSC Opinion at 30-31 (Attachment $F$ to the ISO Transmittal Letter).
the ISO determines, using the criteria in proposed section 29.39(d), that there may be an insufficient amount of competitive supply to prevent the exercise of market power. As the ISO gains experience with the actual supply and demand within an EIM Entity balancing authority area and potential supply from the ISO balancing authority area (or other EIM Entity balancing authority areas) based on actual EIM Transfer limits, the ISO will periodically reassess the competitiveness of each EIM Entity balancing authority area on these empirical data. The ISO will adjust constraints as appropriate.

This approach allows the ISO to consider the components of the structural competiveness assessment from the outset as well as when the Energy Imbalance Market expands, providing a more dynamic approach. The ISO does not believe that it is necessary to include EIM Transfer in the mitigation process absent some evidence that the exercise of market power is possible. Neither does the ISO believe that the ISO board is not fully capable of an informed, independent, and nondiscriminatory judgment based on the structural competiveness assessment. ${ }^{167}$ Nonetheless, the ISO remains open to alternative direction from the Commission. If the Commission determines that it must decide whether mitigation of EIM Transfers is appropriate, the ISO encourages the Commission to make this determination prior to October 1, 2014, and to consider how the ISO might avoid the need to return to the Commission for another determination as each new EIM Entity joins or the empirical data suggests that EIM Transfer constraints no longer need to be included as part of the ISO's automatic mitigation procedures.

Contrary to Powerex's assertion and what some other comments suggest, the ISO would not automatically mitigate all resources in the EIM Entity balancing authority

167 See section III.L, infra.
area. ${ }^{168}$ Under the ISO proposal, bids into the Energy Imbalance Market will be mitigated only when warranted due to the potential for market power. If EIM Transfer constraints are included in the automated mitigation procedures, resources within an EIM Entity balancing authority area will only be subject to mitigation under the same conditions and process that mitigation is applied for any other internal constraint within the ISO system, which the Commission has already found to be just and reasonable. ${ }^{169}$ Under this process, resources would only be subject to mitigation if congestion into the EIM Entity balancing authority area is projected to occur, and market conditions within the EIM Entity balancing authority area are found not to be competitive pursuant to the dynamic competitive assessment incorporated in the ISO automated mitigation procedures. Even if this test does not indicate that competitive conditions exist in the EIM Entity balancing authority area, bids for resources are only mitigated if they exceed the higher of the competitive system wide price for the combined EIM Area or the resource's default energy bid.

## 3. There Should Be Uniform Default Energy Bid Determination Procedures Throughout the EIM Area.

Powerex and Chelan contend that the ISO's market power mitigation measures are not appropriately tailored for the Energy Imbalance Market or do not adequately consider the unique characteristics of resources located outside the ISO balancing authority area. For example, Protestors suggest that the ISO's calculation of default energy bids is unable to account for the opportunity costs of hydroelectric resources that
predominate in the Northwest. ${ }^{170}$ Powerex offers alternatives from other market power design efforts that the Commission has deemed just and reasonable in the past. ${ }^{171}$

The default energy bids that would be used in the mitigation procedures are determined for each resource based on resource specific costs, such as the variable cost option and negotiated default energy bid option, or based on prevailing locational marginal prices in the locational marginal pricing option. The fact that the Commission has accepted other alternative approaches in other circumstances does not render the ISO's proposed market power mitigation measures unjust and unreasonable. All participants in the real-time market should be subject to the same rules, and that is effectively what the ISO has proposed. The energy Imbalance market is an extension of the ISO's existing real-time market, and the same rules should apply to both. It would be inappropriate to treat similarly situated entities within the same market differently unless the circumstances justified otherwise. ${ }^{172}$ Protestors fail to identify any such circumstances to justify their request for alternative treatment.

To the contrary, experience demonstrates that differential treatment is not necessary. The ISO has more experience in operating western markets than any other entity, and the ISO balancing authority area includes a significant amount of hydroelectric generation. The ISO is not aware of any untoward results from the current operation of its market power mitigation process. As noted, EIM Participating Resources with energy limitations can reflect opportunity costs in future time periods

170 Powerex at 77-83; Chelan at 5-6.
171
Powerex at 81.
172 EIM Participating Resources are also eligible to justify opportunity costs in the negotiation of their default energy bids, further mitigating such concerns.
and markets under the negotiated rate option. ${ }^{173}$ Moreover, participation in the Energy Imbalance Market is completely voluntary-both in terms of whether a resource chooses to become eligible to participate in the Energy Imbalance Market, as well as the quantity (if any) it bids any specific hour. There is no must-offer or other similar requirement that would suggest that resources could be called upon when they were unwilling to offer energy. Accordingly, Powerex's concern that a resource will be restricted in terms of the other markets in which it may participate or would not be able to recover their opportunity costs if it is subject to mitigation ${ }^{174}$ is unfounded.

PacifiCorp requests that the ISO supplement the manner in which default energy bids are currently calculated for purposes of the Energy Imbalance Market. PacifiCorp notes that although section 39.7 .1 identifies a number of costs factored into the variable cost option, there is no recognition of a transmission service charge in the generator's cost of service because participating ISO resources do not pay for transmission. In contrast, PacifiCorp EIM Participating Resources can be subject to transmission charges as a result of their participation. Accordingly, PacifiCorp believes these transmission costs should be an element of the variable cost option for calculating Default Energy Bids.

The ISO appreciates PacifiCorp's concern. However, it is not necessary for the ISO to change the variable cost option for EIM Participating Resources to address these concerns. EIM Participating Resources are able to use the flexibility afforded by the

173 The negotiated rate option is between the ISO's third party default energy bid service provider, Potomac Economics, and the resource owner based on defined parameters, including opportunity costs. See BPM for Market Instruments.
174
Powerex at 78.
negotiated option and request that the cost be based on the same methodology as the variable cost option, plus the per MW hour cost of transmission as sought by PacifiCorp. This would embed the variable cost of transmission in the default energy bid, which would otherwise have been recovered in the event their bids were mitigated. The current tariff generally supports this approach, and the ISO commits to providing additional details in the business practice manual for the energy imbalance market to reflect just these clarifications.

## 4. The Commission Should Direct Correction of an Erroneous Cross Reference.

Three parties have noted that proposed sections 29.39(c)(2) and (3) refer to a nonexistent section 29.39(c)(4). ${ }^{175}$ During drafting, the ISO moved section 29.34(c)(4) to section 29.39(d) but neglected to correct the cross-reference. The ISO requests that the Commission direct that it correct this error on compliance.
L. Independence

1. The Interim Energy Imbalance Market Governance Structure Satisfies the Commission's Independence Requirements.

As the ISO explained in the transmittal letter, it is forming a Transitional Committee to advise the ISO Board on Energy Imbalance Market matters and consider options for a long-term Energy Imbalance Market governance structure. Powerex claims, however, that until a more permanent Energy Imbalance Market governance structure is implemented, Energy Imbalance Market governance will not be independent. ${ }^{176}$ Powerex argues that the ISO Board does not meet the Commission's

175 Id. 95 ; Six Cities at 12; and Bonneville at p. 4.
176 Powerex at 18-19.
independence criteria for a multi-state organized market because its members are appointed by California's Governor and confirmed by the State senate. ${ }^{177}$ Powerex states that the independence and governance requirements for regional transmission organizations and independent system operators set forth in Order Nos. 888, 2000, and 719 apply with equal force to Energy Imbalance Market, and that the Energy Imbalance Market proposal fails to meet those requirements. ${ }^{178}$ Powerex urges the Commission to require that additional mechanisms be imposed on the ISO to achieve independence consistent with these orders. ${ }^{179}$

Powerex's claims are unfounded. Powerex's premise that new or different independence requirements apply to the ISO because of the expansion of its real-time energy market to encompass additional balancing authorities is wrong. The Commission has not adopted different governance and independence requirements for multi-state independent system operators than it has for single state independent system operators. Neither has it required an independent system operator that expands its footprint to add new members or serve new customers (including entities that are located in different states) to modify its board membership or board structure.

The ISO remains subject to independence and governance requirements adopted in Order Nos. 888, 2000, and 719 regardless of the geographic extent of its real-time energy market. As discussed below, the Commission has found that the ISO satisfies these requirements, and Powerex identifies nothing that undermines that

[^19]conclusion or presents any other basis for the Commission to require the ISO to adopt a different governance structure for Energy Imbalance Market during the interim period when the Transitional Committee is seated. ${ }^{180}$

Order No. 888 required that (1) independent system operator governance be structured in a fair and non-discriminatory manner, and (2) the independent system operator and its employees have no financial interest in the economic performance of any market participant. ${ }^{181}$ In particular, Order No. 888 provided that an independent system operator must be independent of any individual market participant or class of market participants, such that no class of participants has control. ${ }^{182}$ Similarly, Order No. 2000 required that a regional transmission organization (1) operate independently of market participants, and (2) have the independent and exclusive right to make section 205 filings to establish the rates, terms, and conditions of service over the facilities it operates. ${ }^{183}$ Neither Order No. 888 nor Order No. 2000 established different independence requirements based on the geographic extent of an organization's energy market.

[^20]The Commission has found that the ISO's governance structure meets the independence requirements of Order Nos. 888 and 2000. ${ }^{184}$ In particular, the Commission has found that (1) the ISO is not controlled by a single market participant or class of market participant and is not controlled by the State of California, and (2) the ISO's Board selection process is consistent with the independence principles of Order Nos. 888 and 2000. ${ }^{185}$ The Commission concluded that the ISO Board was able to function in an "impartial, non-parochial and nondiscriminatory manner." 186 Powerex offers no evidence that the expansion of the ISO's real-time energy market undermines any of these findings. In particular, it remains the case that no ISO board member is an employee of, affiliated with, or has a financial interest in, any market participant.

The Commission has found that the ISO satisfies all of the governance and responsiveness directives of Order No. 719. ${ }^{187}$ First, with respect to inclusiveness, the Commission noted that ISO Board meetings are public so that any interested party (which will now include EIM Market Participants and stakeholders) can address the Board directly on individual decisional items before the Board takes action and can submit written comments to the Board at any time. ${ }^{188}$ Second, the Commission found that the ISO's governance procedures and stakeholder process fairly balance diverse interests, in part by establishing a balanced process that allows for input from all interested stakeholder groups and provides all stakeholders with adequate opportunity

Cal. Indep. Sys. Operator Corp., 112 FERC $\mathbb{T}$ 61,010 (2005).
ld. at PP 18-36.
Id. at P 36.
Cal. Indep. Sys. Operator Corp., 133 FERC $\mathbb{1} 61,067$ (2010).
ld. at PP 46-48.
for involvement in vetting qualified candidates for the ISO's Board. ${ }^{189}$ Third, the Commission found that the same Board procedures and practices ensure that when the Board considers a decisional item, it will have the benefit of any minority view that may be relevant. ${ }^{190}$ Finally, the Commission concluded that the ISO's governance procedures and stakeholder process satisfy Order No. 719's ongoing responsiveness requirement because they allow for open dialogue between the ISO and stakeholders on an ongoing basis. ${ }^{191}$

Here, again, Powerex offers no evidence and identifies no facts that call into question the Commission's findings that the ISO is compliant with Order No. 719. The ISO's existing processes will allow Energy Imbalance Market stakeholders to have unfettered access to the Board, participation in ISO stakeholder meetings, and input on all market initiatives. Indeed, compared to the structure that exists today, the interim Energy Imbalance Market structure will in fact enhance access to the Board because the ISO is establishing a Transitional Committee to advise the Board on Energy Imbalance Market matters. The ISO also notes that the six stakeholder sectors that are represented on the Board Nominee Review Committee are broad enough to include all interested Energy Imbalance Market stakeholders. ${ }^{192}$ Thus, there is no basis for the Commission to find that interim Energy Imbalance Market governance will violate Order No. 719's mandates.
189 Id. at PP 49-52.
$190 \quad l d$. at P 54.
191 ld. at PP 56-57.
192 The six stakeholder member classes are (1) transmission owners, (2) end users and retail energy providers, (3) public interest groups, (4) alternative energy providers, (5) transmission dependent utilities, and (6) generators and marketers.

Powerex ignores the fact that the Commission has not required revisions to the governance structure of ISOs and RTOs with each expansion of their markets. It did not require changes to the ISO's governance structure when the ISO expanded its footprint and markets beyond California with the addition of the Valley Electric Association as a new participating transmission owner. Similarly, the Commission did not require the MISO to change its board structure or membership when Entergy joined the MISO; it merely authorized the MISO to expand its Advisory Committee membership from 23 to 24 to accommodate a representative from the Southern Retail Authorities (the jurisdictional retail regulatory authorities in the states where Entergy operates). ${ }^{193}$ Likewise, when the Commission authorized the MISO to expand the services it provides to include the provision of Reliability Coordination Service to certain non-MISO members, the Commission did not require MISO to change the structure or membership of its governing board to ensure that the interests of these parties were adequately represented. ${ }^{194}$ Rather, the Commission accepted MISO's proposal to form a Reliability Coordination Technical Committee comprised of Reliability Service customers to advise the MISO board regarding Reliability Coordination Service matters. ${ }^{195}$

The ISO's proposed Transitional Committee will perform a similar advisory function to MISO's Advisory Committee and Reliability Coordination Technical Committee with respect to Energy Imbalance Market matters. Thus, the Commission's

Midcontinent Indep. Sys. Operator, Inc., 145 FERC ๆ61,131 (2013).
Midwest Indep. Transmission Sys. Operator, Inc., 123 FERC T1 61,265 (2008).
decisions in MISO support a finding that no interim changes to the ISO's board membership or structure are necessary in connection with Energy Imbalance Market.

Powerex also fails to recognize that PacifiCorp has voluntarily agreed to participate in the Energy Imbalance Market and has accepted the proposed interim governance structure. Similarly, the ISO is not aware of any regulatory commission or public interest group in the states where PacifiCorp operates that opposes Energy Imbalance Market or the interim Energy Imbalance Market governance structure. Powerex provides no specific factual evidence showing that the interim Energy Imbalance Market governance structure is unjust, unreasonable or unduly discriminatory. If the ISO were to administer its tariff or otherwise act (or fail to act) in a manner that results in undue discrimination or unjust and unreasonable rates and/or terms of service with respect to Energy Imbalance Market, parties would have recourse at the Commission. In any event, Powerex's claims are mere speculation at this time and should not be countenanced by the Commission.

## 2. The ISO's Department Of Market Monitoring Is Independent.

Powerex objects to the fact that the ISO's Department of Market Monitoring ("DMM") will be the market monitor for the Energy Imbalance Market. Powerex claims that DMM fails to meet the independence requirements of Order No. 719. ${ }^{196}$ Powerex states that the ISO and DMM are state entities and, as such, should not be permitted to impose market mitigation on entities located outside of the state. ${ }^{197}$ Powerex also claims that DMM will not have a balanced perspective across the region because of its

196 Powerex at 9-11.
$197 \quad$ Id. at 11.
historical connection to the ISO. ${ }^{198}$ Relatedly, Powerex alleges that DMM lacks extensive experience and knowledge of Western markets. For these reasons, Powerex urges the Commission to direct the ISO to issue a request for proposals to select an independent market monitor for the Energy Imbalance Market, similar to the structure that the Commission approved for PJM. ${ }^{199}$

As an initial matter, neither the ISO nor DMM are state entities. The ISO is a non-governmental, not-for-profit public benefit corporation. Likewise, the management and employees of the ISO and DMM are not state employees.

There is no basis for Powerex's claim that DMM fails to meet the independence requirements of Order No. 719. In that Order, the Commission specifically approved reliance on internal market monitoring units ("MMUs"), as long as they satisfy certain specified requirements to ensure their independence. Indeed, the Commission expressed no preference for any particular market monitoring structure and ruled that market monitoring units ("MMUs") could be internal, external or hybrid. ${ }^{200}$ The Commission firmly rejected the notion that internal MMUs lack independence, stating "we have not detected any deficiency in performance by MMUs attributable to their structure., ${ }^{201}$ In this regard, the Commission did not state or imply that an internal MMU might be acceptable for a single-state market, but not for a multi-state market.

[^21]To ensure the independence of an internal MMU, the Commission required that any internal MMU must report to the independent system operator or regional transmission organization board and not to management. ${ }^{202}$ The Commission also required that independent system operators and regional transmission organizations include tariff provisions (1) obliging themselves to provide their MMUs with access to market data, resources, and personnel sufficient to enable them to carry out their functions, (2) granting MMUs full access to the ISO/RTO data base, and (3) granting MMUs exclusive control over any MMU created data. ${ }^{203}$ The Commission also adopted minimum ethical standards to ensure that the MMU and its employees are wholly independent of any market participant. ${ }^{204}$

The Commission has found that the ISO's DMM meets the entire independence requirements of Order No. 719. ${ }^{205}$ DMM reports to the ISO board and has a robust, Commission-approved code of conduct that ensures that DMM staff is independent of any individual market participant. ${ }^{206}$ Powerex provides no evidence showing that DMM currently fails to satisfy the specific independence requirements of Order No. 719 or that it will fail to do so upon implementation of the Energy Imbalance Market. Nor is there anything inherent in the expansion of the ISO's real-time energy market that would raise questions about DMM's independence: DMM will continue to report to the ISO's Board; it will continue to have access to all necessary data, including data associated with the

202 Order No. 719 at PP 339-41; Order No. 719-A at P 141.
203 Order No. 719 at P 328. Appendix P of the ISO tariff reflects these requirements.
$204 \quad$ Order No. 719 at P 384.
Cal. Indep. Sys. Operator Corp., 129 FERC ๆ 61,157 (2009), order on compliance, 134 FERC I 61,050 (2011).
206
ISO Tariff, Appendix P, Section 9.
expanded scope of the market, and its staff will remain independent of market participants. In short, the expansion of the ISO's real-time energy market changes no fact bearing on DMM's satisfaction of the independence requirements of Order No. 719.

Powerex's reference to the Commission's market monitoring order in PJM is inapt. In that proceeding, PJM agreed in a settlement filed with the Commission to institute an external market monitoring structure that reported to PJM's board, not PJM's management. The Commission did not unilaterally and involuntarily impose an external market monitoring structure on PJM. ${ }^{207}$ The settlement arose in the context of a complaint proceeding in which certain parties alleged that PJM management was interfering with the independence of its internal market monitor. ${ }^{208}$ Powerex does not allege that those circumstances exist here, nor do they. In any event, in Order No. 719, the Commission expressly declined to adopt as a "best practice" the MMU structure implemented by the PJM settlement. ${ }^{209}$

Powerex's suggestion that DMM is only charged with monitoring California markets is incorrect. DMM's mission is to "provide independent oversight and analysis of the CAISO Markets for the protection of consumers and Market Participants by the identification and reporting of market design flaws, potential market rule violations, and market power abuses." ${ }^{210}$ Because DMM is charged with monitoring all "CAISO Markets," once PacifiCorp becomes part of the Energy Imbalance Market, DMM's monitoring responsibilities will cover that area as well. In particular, DMM will be

[^22]charged with protecting consumers and market participants in all areas within the Energy Imbalance Market in connection with the real time market.

Powerex states that other independent system operators and regional transmission organizations have taken steps to ensure that one state's interests will not adversely impact other states and that the Commission similarly must impose a mechanism to ensure that DMM is independent from California. Powerex fails to explain how California will be pitting its interests against the interests of other states. Indeed, the relevant regulatory agencies in California and the states in which PacifiCorp operates support the Energy Imbalance Market.

The cases cited by Powerex to support its position are not on point and do not even pertain to market monitoring. The PJM case involved PJM's proposal to exempt certain resources developed pursuant to one state's procurement process from the minimum offer price rule applicable to capacity bids in PJM's forward capacity market. ${ }^{211}$ The Commission ruled that caution must be exercised in exempting state subsidized resources from the minimum offer price rule because that could have a significant impact on prices in the wholesale capacity market. ${ }^{212}$ Stated differently, state subsidized resources should not be permitted to bid into the forward capacity market at uneconomic prices, thereby disrupting the competitive price signals in the market. ${ }^{213}$ In contrast, DMM cannot inappropriately disrupt competitive price signals in the Energy Imbalance Market or any other market. Under the ISO tariff, DMM cannot impose

[^23]mitigation, does not administer the ISO tariff, and cannot impose penalties on market participants. ${ }^{214}$ Further, DMM does not have the authority to compel the ISO to make tariff filings absent a complaint proceeding. ${ }^{215}$

Midwest Independent Transmission System Operator, Inc., cited by Powerex, likewise fails to support its position. There, the Commission rejected a request by the Organization of MISO States to grant it authority to endorse changes prior to MISO's filing of tariff amendments or to offer amendments on its own for separate filing to the Commission by MISO. ${ }^{216}$ The Commission rejected the request stating that courts have held that states cannot compel public utilities to make section 205 filings. ${ }^{217}$ This case actually undermines Powerex's claim because it demonstrates that neither the state of California nor DMM can compel the ISO to make specific tariff changes.

Finally, Powerex questions DMM's experience and understanding for purposes of serving as the market monitor for Energy Imbalance Market. However, DMM has the most extensive experience in monitoring the West, including western bilateral markets and trading that interacts with the ISO. Moreover, DMM, through its past monitoring efforts and its deep involvement in the Energy Imbalance Market development process, is intimately familiar with the Energy Imbalance Market design, which is based directly on the ISO's real time market. Upon Energy Imbalance Market implementation, DMM will continue to apply the core principles of market monitoring to the expanded real-time market and will continue to build on its experience with how regional markets interact

| 214 | ISO Tariff, App P, § 5. |
| :--- | :--- |
| 215 | ld. at Section 5.1.6. |
| 216 | 122 FERC ๆ 61,283 at P 64 (2008). |
| 217 | ld. at PP 66-67. |

with ISO markets. Also, under the ISO tariff, the ISO is obligated to provide DMM with access to the resources, personnel, and consulting assistance necessary to enable DMM to carry out its duties independently. ${ }^{218}$ Powerex identifies no other market monitor in the west with experience comparable to DMM's.

## M. Miscellaneous

## 1. The ISO Has Properly Proposed To Include Certain Matters in Business Practice Manuals.

Powerex contends that certain details that the ISO plans to provide in its business practice manuals should be in the tariff under the Commission's rule of reason. ${ }^{219}$ The ISO believes that the detail included in proposed section 29 is consistent with the detail provided in the current ISO tariff.

In addition to its contentions regarding bid adders, discussed above in the context of the greenhouse gas provisions, Powerex identifies that following as items that should be included in the tariff rather than a business practice manual: (1) how ISO will determine whether an EIM Entity is exempt from under- and over-scheduling charges (section 29.11(d)(4)); (2) whether resources that are subject to interruption, or whose output is not controllable, are properly included within the validation for EIM Base Schedules being balanced with the demand forecast (section 29.34(e)(3)); (3) how ISO will derive an initial EIM Base Load Schedule for each EIM Entity (section 29.34(g)); (4) the manner for calculating the flexible ramping constraint requirement (section 29.34(m)(3)); (5) how ISO will review the EIM Resource Plan to verify that it meets the flexible ramping constraint capacity requirement (section 29.34(m)(4)(A)); and (6) how
the ISO will determine prices for congestion when an EIM Entity Scheduling Coordinator's approved EIM Resource Plan does not have sufficient bids to resolve congestion (section 29.34(o)). Each of these is discussed in turn below.

The reference to the business practice manual in section 29.11(11)(d)(4) does not pertain to the determination of exemption. That determination is already set forth in a straight-forward manner in the tariff. ${ }^{220}$ Rather, the reference is to the determination of the Demand Forecast. The procedure for the preparation of the ISO's Demand Forecast is already described in a business practice manual. There is no basis to apply a different standard to the Energy Imbalance Market. In addition, the ISO will include references to existing business practices in the business practice manual for the Energy Imbalance Market.

Despite Powerex's claim, section 29.34(e)(3), which includes the balanced schedule requirement, does not contain a business practice manual reference. The validation process for such schedules, in section 29.34(j) does not call for an evaluation of whether to include resources that are subject to interruption or whose output is not controllable, so the ISO cannot determine what procedures Powerex is asserting must be in the tariff.

The determination of an initial EIM Base Load Schedule under section 29.34(g) is a technical matter. The tariff identifies the inputs necessary for determining the EIM Base Load Schedule and provides specific timelines by which those inputs must be provided. This is more than sufficient to satisfy the rule of reason, and the ISO can
${ }^{220}$ See Proposed $\S \S 29.34(\mathrm{~g})$ and 29.34(I) (supporting the requirement that the base schedule be within $+1 \%$ or $-1 \%$ of the ISO demand forecast).
include additional information in the business practice manual for the Energy Imbalance Market. The ISO does not believe additional tariff revisions are necessary, but the ISO would be willing to specify in the tariff the specific point in time that the final binding base load schedule is determined, if the Commission directs it to do so.

The manners in which the ISO will calculate the flexible ramping requirement and determine whether it is met under sections 29.34(m)(3) and 29.34(m)(4)(a) are also technical matters. Currently the ISO tariff provides for a flexible ramping requirement for the ISO markets. The ISO is simply extending these same requirements to EIM Entity balancing authority areas. There is no reason to require additional details in the ISO tariff with respect to requirements that already exist with respect to operation of the real-time market. In addition, the ISO will include references and other relevant information in the business practice manual for the Energy Imbalance Market.

The reference to the business practice manual in section 29.34(o) identifies where the Transmission Constraint relaxation parameters are established, not the manner of determining prices. There will be different Transmission Constraint relaxation parameters for different constraints. This is not the type of detail that the rule of reason requires in a tariff.

## 2. The ISO Intends to Develop and Report on Specific Energy Imbalance Market Metrics in Addition to its Real-Time Market Reports.

PG\&E proposes that the ISO provide quarterly reports on the performance of the Energy Imbalance Market beginning with its implementation, and running through the first year after reinstatement of convergence bidding at the interties. PG\&E recommends including (1) Resource participation level within each EIM Entity; (2) Transmission capacity made available to the Energy Imbalance Market by each EIM

Entity; and (3) Level of uplift costs incurred by each EIM Entity due to the Energy Imbalance Market. ${ }^{221}$ Neighboring Systems also request quarterly reports. ${ }^{222}$

The ISO will prepare metrics to evaluate the benefits of the Energy Imbalance Market. For example, the ISO intends to propose systematic quantification of the Energy Imbalance Market benefits on congestion management as a redispatch cost savings. In addition, other market performance metrics will be updated to include parameters associated with the Energy Imbalance Market. ${ }^{223}$ These metrics together will be tested as part of the market simulation and made public. Once operational, the ISO intends to thereafter report on these metrics as a regular part of its ongoing market performance reporting efforts. The Energy Imbalance Market, as an extension of the ISO real-time market, will include the reported metrics that will be published in connection with ISO market reports. ${ }^{224}$ There is no need to impose additional Energy Imbalance Market reporting requirements.

Edison asks the Commission to require the ISO to present a plan to resolve the impact of EIM Base Schedule errors on virtual bidding uplift within a year of the

[^24]$222 \quad$ Neighboring Systems at 19.
${ }^{223}$ The following are current reported metrics that are most relevant to the Energy Imbalance Market, which are included in the ISO's regular market reports: 1) locational marginal prices, 2) price convergence between markets (for Energy Imbalance Market consistency between 15 minute prices and 5 minute prices), 3) congestion constraints and associated costs, 4) congestion and imbalance offset costs, 5) bid cost recovery costs, 6) transfer capability and utilization, and 7) total flexibility costs.
224 The ISO continues to consider what interval to specifically report Energy Imbalance Market congestion management benefits, but at a minimum expects to discuss these metrics as a part of normal market performance review offered approximately every 6 weeks. The ISO will also likely incorporate these in its monthly market performance reports and metric catalog.
implementation of the Energy Imbalance Market. ${ }^{225}$ This request is outside the scope of the Energy Imbalance Market. As discussed above, issues associated with virtual bidding have been addressed. ${ }^{226}$ Edison's request is simply another attempt to try and require the ISO to address its underlying concerns with virtual bidding. Those arguments are far beyond the scope of the Energy Imbalance Market proposal.

## 3. There Is No Need for a Phase-In of the Energy Imbalance Market.

Portland believes that because of potential seams issues in an Energy Imbalance Market that spans three balancing authority areas, the ISO should limit the initial operation of the market to the two PacifiCorp balancing authority areas. Portland believes this would allow for more careful study of the impacts of the limited transfers between the two balancing authority areas and the impact on Bonneville's transmission system. ${ }^{227}$ The ISO does not believe such a phase-in is necessary. The initial operation is limited as is-to three balancing authority areas with limited transfers between them. As discussed above, the ISO has worked with Bonneville to address any impact on its system and the parties have entered a memorandum of understanding. The market simulation will provide adequate opportunity to assess the operations. Moreover, the Energy Imbalance Market tariff authority provides the ISO with the ability to suspend operation of the market as necessary to address any unforeseen operational issues.

Edison at 16.
See discussion supra at Section III(H)(4).
Portland at 11.

## 4. There Is a Stakeholder Process for Public Examination of Market Simulation Results.

Portland also requests that the Commission require the ISO to post detailed results of its market simulations, including underlying data, so that ISO stakeholders and other affected entities can weigh in on the potential impacts to the Western Interconnection and Western energy markets. It states that the ISO should hold additional stakeholder meetings prior to the effective go-live date to ensure that operational and regional stability is met and that no unintended market issues arise that may affect reliability. ${ }^{228}$

No Commission directive is necessary for this purpose. The ISO will conduct a market simulation starting on July 8, 2014 and continuing into August and September to allow the EIM Entity, other EIM Market Participants, other market participants and interested stakeholders ample opportunity to review results of both structured and unstructured scenarios. Structured scenarios will demonstrate specific, pre-defined market scenarios and are currently posted on the ISO's public website. ${ }^{229}$ Unstructured scenarios will allow the PacifiCorp and other market participants to submit input data based on their testing needs to validate the Energy Imbalance Market results. The ISO will make market simulation data available via specified market systems. Technical specifications for the systems can be found on the public release planning page. ${ }^{230}$

The ISO will host a market simulation kick off meeting in late June or early July and continue to hold regular stakeholder calls during the market simulation period. The

Portland at 6.
See Full Network Model Expansion Structured Scenarios.
See http://www.caiso.com/informed/Pages/ReleasePlanning/Default.aspx.
stakeholder calls during market simulation are typically twice a week, but may be increased to three or four times a week if needed to communicate with external parties. Additionally, the ISO will continue to provide implementation updates through the Release Users Group which meets bi-weekly on Tuesdays at 10:00. Prospective EIM Market Participants can attend these forums and can view public data on OASIS.

## 5. Consolidation is Unwarranted

Utah moved for consolidation of this proceeding with the PacifiCorp's proposed tariff amendments to implement the Energy Imbalance Market. ${ }^{231}$ The ISO does not believe consolidation of the proceedings is necessary to consider the issues presented by both filings and their interactions. The filings were aligned in a manner to facilitate concurrent review and consideration by the Commission. Accordingly, the ISO respectfully requests that the motion to consolidate by UAMPS be rejected.

## IV. CONCLUSION

For the reasons discussed above, the Commission should accept the ISO Energy Imbalance Market as filed, except for those compliance matters discussed above.

Respectfully submitted,

## By: /s/John C. Anders

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Counsel for the
California Independent System
Operator Corporation
Dated: April 15, 2014

## Exhibit

### 11.25.2.1 Flexible Ramping Constraint Derived Price

(a) For each applicable fifteen-minute FMM interval, the Flexible Ramping Constraint Derived Price is equal to the lesser of-
(1) $\$ 800 / \mathrm{MWh}$; or
(2) the greater of
(i) the Real-Time ASMP for Spinning Reserves for the applicable FMM Interval; or
(ii) the total Flexible Ramping Constraint Shadow Price, but not less than zero.
but not less than zero.
(b) The CAISO will determine the total Flexible Ramping Constraint Shadow Price as the sum of the Flexible Ramping Constraint Shadow Prices for the groupings and individual Balancing Authority Areas in the EIM Area in which the resource is deemed to have contributed to the constraint, minus seventy-five (75) percent of the greater of
zero (0), or
(2) the Real-Time System Marginal Energy Cost, calculated as the simple average of the System Marginal Energy Cost for each of the three five-minute RTD intervals in the applicable FMM interval.

### 11.25.4 Apportionment of Flexible Ramping Constraint Costs

(a) The CAISO will determine the Flexible Ramping Constraint costs for each constraint as the product of-
(1) the resource-specific total Flexible Ramping Constraint costs, calculated as the total compensation in Section 11.25.2(b), net of rescission of payments, and
(2) the ratio of the Flexible Ramping Gonstraint Shadow Price to the total Flexible Ramping Constraint Shadow Price, determined as described in Section 11.25.2.1(b)the ratio of each Flexible Ramping Constraint Shadow Price to the sum of the Flexible Ramping Constraint Shadow Prices for the groupings and individual Balancing Authority Areas in the EIM Area in which the resource is deemed to have contributed to the constraint.
(b) For each constraint and each Balancing Authority Area in the EIM Area, the CAISO will determine the Flexible Ramping Constraint costs attributable to that Balancing Authority Area for which the applicable constraint(s) were binding in the applicable interval, based on the ratio of the Balancing Authority Area's requirement to its contribution to the individual constraint or group of constraints to which that Balancing Authority Area contributes.
(c) The CAISO will determine each Balancing Authority Area's apportionment of Flexible Ramping Constraint costs as the sum for that Balancing Authority Area of the amounts determined in Section 11.25.4(b).

## CERTIFICATE OF SERVICE

I hereby certify that I have served the foregoing document upon the parties listed on the official service list in the captioned proceeding, in accordance with the requirements of Rule 2010 of the Commission's Rules of Practice and Procedure (18 C.F.R. § 385.2010).

Dated at Washington, D.C., this $15^{\text {th }}$ day of April, 2014.
/s/ Michael E. Ward
Michael E. Ward
Alston \& Bird LLP

From: Almeida, Keoni

Sent: Thu May 22 09:41:50 2014
To: Mainzer, Elliot E (BPA) - A-7; Ehli,Cathy L (BPA) - S-7; Leathley, Kimberly A (BPA) - F-2; Bekkedahl,Larry N (BPA) - T-DITT-2;
Mantifel,Russell (BPA) - TSPP-TPP-2; Elizeh,Edison G (BPA) - SR-7; Cooper,Suzanne B (BPA) - PT-5; Johnston, Kenneth H (BPA) - TSE-TPP-2; Dibble,Rachel L (BPA) - SR-7; Linn, Young S (BPA) - TSE-TPP-2

Subject: ISO Board of Governors Meeting - Agenda and Materials posted
Importance: Normal

I wanted to let you all know that the agenda for the May 29 ISO Board meeting has been posted, along with meeting materials which include the decision to appoint the EIM Transitional Committee members. All nominees have been notified directly.

Please see the information posted at: http://www.caiso.com/informed/Pages/BoardCommittees/Default.aspx, general session agenda item \#4.
Regards,

## Keoni Almeida <br> Manager, Stakeholder and Industry Affairs <br> California Independent System Operator

916-608-1121
From: Almeida, Keoni
Sent: Monday, October 07, 2013 11:18 AM
To: 'Ehli,Cathy L (BPA) - S-7'; 'Leathley,Kimberly A (BPA) - TS-DITT-2-A'; 'Bekkedahl,Larry N (BPA) - T-DITT2'; Mantifel,Russell (BPA) -
TSPP-TPP-2 (rxmantifel@bpa.gov); Elizeh, Edison; 'Cooper,Suzanne B (BPA) - PT-5'; 'Johnston,Kenneth H (BPA) - TSE-TPP-2';
'Dibble,Rachel L (BPA) - SR-7'; Linn, Young
Subject: ISO EIM first revised governance proposal posted
Thank you for your continued engagement in the ISO's stakeholder process on the Energy Imbalance Market governance proposal. I wanted to ensure that you were aware that we have posted the revised governance proposal white paper, the Transitional Committee draft charter and a summary of the stakeholder comments and ISO responses to the first draft of the governance proposal on our website.

A stakeholder call is scheduled for October 11, 2013 to discuss the revised paper and draft charter. An agenda and presentation will be available by close of business October 9 . Please see the relevant market notice for the call-in number and additional information,

Please let me know if you have any questions regarding this information.
Regards,

Keoni Almeida
Manager, Stakeholder and Industry Affairs
California ISO
916-608-1121

The foregoing electronic message, together with any attachments thereto, is confidential and may be legally privileged against disclosure other than to the intended recipient. It is intended solely for the addressee(s) and access to the message by anyone else is unauthorized. If you are not the intended recipient of this electronic message, you are hereby notified that any dissemination, distribution, or any action taken or omitted to be taken in reliance on it is strictly prohibited and may be unlawful. If you have received this electronic message in error, please delete and immediately notify the sender of this error.

## From: Almeida, Keoni

Sent: Thu Jun 19 16:08:06 2014

To: Mainzer,Elliot E (BPA) - A-7; Ehli,Cathy L (BPA) - S-7; Juj,Hardev S (BPA) - TP-DITT-2; King,Robert D (BPA) - TS-DITT-2; Linn, Young S (BPA) - TSE-TPP-2; Elizeh,Edison G (BPA) - SR-7; Delwiche, Gregory K (BPA) - D-7; Bekkedahl,Larry N (BPA) - T-DITT-2;
Oliver,Stephen R (BPA) - PG-5; Cooper,Suzanne B (BPA) - PT-5; Leathley, Kimberly A (BPA) - F-2; Spain,Alex J (BPA) - PTF-5;
Gillman, Richard A (BPA) - T-DITT-2; Mantifel,Russell (BPA) - TSPP-TPP-2; Dibble,Rachel L (BPA) - SR-7; Marker, Douglas R (BPA) -DKR-7; Connolly, Kieran P (BPA) - PGS-5; Thomas,Randi R (BPA) - TO-DITT-2; Holden-Baker,Susan M (BPA) - TSS-DITT-1: Ellison, Richard A (BPA) - TOD-DITT-1

Subject: June 19 FERC Order re ISO/PAC EIM

Importance: Normal

In the event you have not heard, the ISO and PacifiCorp announced today that tariff amendments to expand the ISO's real-time energy scheduling market across multiple states in the West was approved by FERC. The Energy Imbalance Market is expected to increase resource efficiency, reduce costs and more effectively use renewable and conventional resources. Click here to review ISO and PAC news release and click here to view the FERC news release.

I would like to sincerely thank you for your organization's involvement in this important effort. We look forward to collaboratively working with you as things progress towards the October $1^{\text {st }}$ Go-Live date.

In the FERC Oder, one of the items they mention is that EIM transfers constraints should be included in the local market power mitigation procedures. The ISO intended to do this in any event. We will adjust our July Board presentation consistent FERC direction in its order. We have been addressing this through our stakeholder initiative that included a call this past Monday. For more information please see the presentation. We welcome any comments you would like to provide (due June 23).

## Orders:

Iso: Order Conditionally Accepting Proposed Tariff Revisions to Implement Energy Imbalance Market re CAISO Corporation under ER14-1386.
http://elibrarv.FERC. Rov/idmws/file list.asp?accession num=20140619-3046
PacifiCorp: Order Conditionally Accepting In Part \& Rejecting In Part Proposed Tariff Revisions to Implement Energy

# Imbalance Market re PacifiCorp under ER14-1578. 

http://elibrarv.FERC.gov/idmws/file list.asp?accession num=20140619-3045
Sincerely,

## Keoni Almeida <br> Manager, Stakeholder and Industry Affairs <br> California Independent System Operator <br> 916-608-1121


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## From: Almeida, Keoni

## Sent: Wed Oct 01 10:01:01 2014

To: Elizeh,Edison G (BPA) - SR-7; Mantifel,Russell (BPA) - TSPP-TPP-2; Kochheiser,Todd W (BPA) - TOK-DITT-2; Ehli,Cathy L (BPA) -S-7; Mainzer,Elliot E (BPA) - A-7

Subject: Parallel Operations

Importance: Normal

All, we are now in EIM parallel operation in real-time. The following interfaces were validated during the day yesterday and are now effective (non-binding):

1. Base schedules submitted
2. Balance tested
3. SIBR economic bid submitted
4. EIM RT interchange schedules
5. EIM dynamic limits
6. BAA OP displays
7. OMS interfaces
8. ADS dispatch signals
9. CMRI market dispatch/EIM entity results
10. OASIS available
11. BPA interfaces (in/out)

Prior to midnight, the HASP run executed with a full AC power flow solution establishing a successful start of trade date. Just after midnight, the ISO market system successfully sent advisory dispatches for all PacifiCorp resources.

I personally want to thank BPA for all the work you have put forth in making this happen successfully.
Regards,
Keoni

## Sent from my iPhone

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$\qquad$

From: Almeida, Keoni
Sent: Wed Oct 15 15:58:08 2014
To: Mainzer, Elliot E (BPA) - A-7; Ehli,Cathy L (BPA) - S-7; Thomas, Randi R (BPA) - TO-DITT-2; King, Robert D (BPA) - TS-DITT-2;
Shaheen, Richard L (BPA) - T-DITT-2; Elizeh,Edison G (BPA) - SR-7; Mantifel,Russell (BPA) - TSPP-TPP-2; Linn, Young S (BPA) - TSE-
TPP-2; Kochheiser, Todd W (BPA) - TOK-DITT-2; Ellison,Richard A (BPA) - TOD-DITT-1; Trolese,Laura C (BPA) - TSP-TPP-2;
McManus,Bart (BPA) - TOT-DITT-2
Cc: Berberich, Steve; Edson, Karen; Ristanovic, Petar; Schmitt, Eric; Abdul-Rahman, Khaled; Subakti, Dede; Morris, Janet; Doughty, Thomas

Subject: FW: FW: Fall 2014 Release Full Network Model Expansion Deployed and Activated
Importance: Normal

Good afternoon. I would like to point out the good news below. You may recall that we have had a number of meetings with our stakeholders, particularly surrounding BAs, to work with them in our Full Network Model Expansion initiative. This initiative allows the ISO to expand its full network model to more effectively balance the grid with external balancing authority areas and improve reliability and market solution accuracy, consistent with FERC and NERC recommendations following the September 8, 2011 southwest power outage. The deployment includes enhanced 1) loop flow modeling; 2) security analysis; 3) high voltage direct current transmission modeling; and 4) outage analysis and coordination.

I would like to thank BPA for their collaboration in this effort.

```
Keoni Almeida
Manager, Stakeholder and Industry Affairs
California Independent System Operator
916-608-1121
```

From: California ISO Communications [mailto:marketnotices@caisocommunications.com]
Sent: Wednesday, October 15, 2014 1:26 PM
To: Almeida, Keoni
Subject: Fall 2014 Release Full Network Model Expansion Deployed and Activated

# http://elabs7.com/content/1001271/Market\%20Notice\%20Logo 2011.gifMarket Notice 

October 15, 2014

## Requested Client Action

Information Only
Categories
Market Operations
Settlements and Market Clearing
System Status/ Technical Update

# Fall 2014 Release Full Network Model Expansion Deployed and Activated 

## Summary

The California ISO is pleased to announce the completion of the deployment of the full network model expansion of the fall 2014 release with activation on trade date October 15, 2014.

## Main Text

The ISO has deployed and activated the full network model expansion of the fall 2014 release effective on trade date October 15, 2014. The implementation of the system changes was completed and activated today.

The full network model expansion project expands the ISO network model to more effectively balance the grid with external balancing authority areas and improves the reliability and market solution accuracy, consistent with FERC and NERC recommendations following the September 8, 2011 Southwest power outage. The solution includes (1) loop flow modeling, (2) security analysis, (3) high voltage direct current transmission modeling, and (4) outage analysis and coordination.

Remaining fall 2014 system changes will be implemented as follows:

Energy imbalance market (EIM) full operational activation including binding dispatches, related financial settlements, and actual energy transfers between balancing authority areas on trade date November 1, together with the Outage Management System (OMS) replacement for EIM entities and their participants

OMS replacement full deployment will occur on trade date December 1
-
Many to Many: Standard Capacity Product and Capacity Procurement Mechanism Availability Calculations deployment will occur on trade date December 1

More fall 2014 release information is available on the ISO website at http://www.caiso.com/informed/Pages/ReleasePlanning/Default.aspx. under the Fall 2014 release heading.

## For More Information Contact <br> Your ISO Client Representative

For the benefit of our customers, we:
Attract, develop and retain a highly skilled workforce - Operate the grid reliably and efficiently • Provide fair and open transmission access Promote environmental stewardship • Facilitate effective markets and promote infrastructure development • Provide timely and accurate information
Engage with us!
isoballtwitterballRSSballFacebookballgoogle + YouTubelSOToday
Update profile or unsubscribe
Glossary of terms and acronyms
P\&CS/ComPR/WS/ds
http://www.elabs7.com/images/mlopen post.htmi? $\mathrm{rtr}=$ on\&siteid $=1001271$ \& $\mathrm{mid}=1995477$ \& mlid=9794\&uid=ea44acca80

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***************************************************************************************************)

From: Berberich, Steve
Sent: Fri Oct 31 11:13:29 2014
To: Mainzer, Elliot E (BPA) - A-7
Cc: Reiten, Richard (Pat)
Subject: Re: Re: I have an update on U/L Limits if it's needed
Importance: Normal

Thank you, Elliot. We know these last few items have challenged us but the collaborative spirit has prevailed. Thank you to you and your team.

## Steve

On Oct 31, 2014, at 10:42 AM, Mainzer,Elliot E (BPA) - A-7 <eemainzer@bpa.gov[mailto:eemainzer@bpa.gov](mailto:eemainzer@bpa.gov)> wrote:
Looks like additional progress this am. I am engaged across the day and looking forward to ratifying our agreements later today in advance of your go-live. Let me know if you need anything from me.

Elliot
From: Ristanovic, Petar [mailtorpristanovic@caiso.com]
Sent: Friday, October 31, 2014 10:26 AM
To: Mantifel,Russell (BPA) - TSPP-TPP-2
Cc: Mainzer,Elliot E (BPA) - A-7; Shaheen,Richard L (BPA) - T-DITT-2; Thomas,Randi R (BPA) - TO-DITT-2; King,Robert D (BPA) - TS-
DITT-2; Berberich, Steve <SBerberich@caiso.com[mailto:SBerberich@caiso.com](mailto:SBerberich@caiso.com)>; Ellison,Richard A (BPA) - TOD-DITT-1:
McManus, Bart (BPA) - TOT-DITT-2; Ramanathan,Ramanathan (CONTR) - TOT-DITT-2; Kochheiser,Todd W (BPA) - TOK-DITT-2;
Simons,Scott D (CONTR) - TO-DITT-2
Subject: RE: I have an update on U/L Limits if it's needed
Correct. We will monitor limits and evaluate together along the way.

## Petar

From: Mantifel,Russell (BPA) - TSPP-TPP-2 [mailto:rxmantifel@bpa.gov]
Sent: Friday, October 31, 2014 10:20 AM
To: Ristanovic, Petar
Cc: Mainzer, Elliott; Shaheen,Richard L (BPA) - T-DITT-2; Thomas,Randi R (BPA) - TO-DITT-2; King,Robert D (BPA) - TS-DITT-2;
Berberich, Steve; Ellison,Richard A (BPA) - TOD-DITT-1; McManus, Bart; Ramanathan,Ramanathan (CONTR) - TOT-DITT-2; Kochheiser,
Todd; Simons,Scott D (CONTR) - TO-DITT-2
Subject: RE: I have an update on U/L Limits if it's needed
Sure thing. Also, we assume that CAISO will send out a WECCnet when the market goes live, is that correct?
Also, to confirm, these are the limits that will be used over the weekend. The yellow cells denote limits for which you requested expansion and the green cells denote cells that are using the $99.95 \%$ number without including Bridger, Mid-C, and Colstrip.

Take Care,
Russ

## Flowgate

Upper 99.95
Lower 99.95
WOCN
40
40
WOCS
60
58
NOH
32

From: Ristanovic, Petar [mailto.pristanovic@caiso.com]
Sent: Friday, October 31, 2014 9:53 AM
To: Mantifel,Russell (BPA) - TSPP-TPP-2
Cc: Mainzer, Elliot E (BPA) - A-7; Shaheen, Richard L (BPA) - T-DITT-2; Thomas, Randi R (BPA) - TO-DITT-2; King, Robert D (BPA) - TS-DITT-2; Berberich, Steve
Subject: RE: I have an update on U/L Limits if it's needed
Russ,
we appreciate very much BPAs willingness to help our efforts to bring EIM live today, For projects of this size and complexity there are so many things that
can go wrong despite all the preparation, hard work and careful planning. By temporary extending these limits BPA is mitigating one of our bigger concerns. With this help
CAISO management is ready to go live after we communicate the good news to PacifiCorp. CAISO is committed to work with BPA and to do whatever it takes to have
a stable EIM operation without negatively impacting the reliability and utilization of BPA system. Thank you!

## Best Regards

Petar
From: Mantifel,Russell (BPA) - TSPP-TPP-2 [mailto:rxmantifel@bpa.gov]
Sent: Friday, October 31, 2014 9:33 AM
To: Ristanovic, Petar
Cc: Mainzer, Elliott; Shaheen,Richard L (BPA) - T-DITT-2; Thomas,Randi R (BPA) - TO-DITT-2; King,Robert D (BPA) - TS-DITT-2
Subject: RE: I have an update on U/L Limits if it's needed
Importance: High

## Hi Petar,

Based on the assumptions below BPA is willing to utilize the limits you described and will re-evaluate them on Monday. I will call you shortly to walk through this and our Front Office will discuss this further with PAC and CAISO management:

1. We will set the upper and lower limits at the end of our acceptable statistical range (99.95\%) in determining the acceptable historicalbased variable impact on our flowgates. We will also use numbers that include variability from plants that are not being bid into the EIM at the start (Bridger, Colstrip, Mid-C). We will test the expanded limits requested below for WOM, WOS, RP, NJD, and NOH over the weekend. The use of these limit values will be re-evaluated on Monday.
2. We expect the average performance of the market to be within a more conservative statistical range (e.g., 99.7\%) and we will analyze performance to confirm.
3. We will closely monitor any impacts and will lower the limits if there are any reliability issues.
4. We have reason to believe that the CAISO's software may be exaggerating PAC's "consumption" of the limits due to issues such as incorrect PTDF's and misapplication of the limits to normal ramps. The CAISO needs to work with us to resolve these issues in order to validate the limits -WE PROPOSE ONE WEEK.
5. If major issues remain after a week's time we will re-evaluate all of the limits to determine if they should be ratcheted down.
6. Data transfer issues remain, which limits our ability to independently validate the use of the limits. These issues should be resolved by Tuesday of next week. We ask the CAISO to affirm their commitment to developing interfaces for additional data that we have determined is needed to this effect (e.g., PTDF's/Shift Factors). I understand that you have been amenable to this and to clarifying this as part of the scope.

Russell Mantifel
Transmission Policy|Bonneville Power Administration
Office (360) 619-6282

## Cell (b)(6)

From: Ristanovic, Petar [mailto:pristanovic@caiso.com]
Sent: Thursday, October 30, 2014 6:49 PM
To: Mantifel,Russell (BPA) - TSPP-TPP-2
Subject: RE: I have an update on U/L Limits if it's needed

Russ,
first thank you very much for helping us go live with this greatly improved ranges. We run few critical cases with these new limits. I need a little bit more room. Specifically I would appreciate if you can change:

WOM from 34-46 to 50-50
WOS from 19-21 to 50-50. This is heavy binding at $60+$ but with 50 I can manage around with other units.
Please check R-P for lower. It was 28-66.3 now is 28-28.
We would need NJD from 27-41 to 30-41
And NOH from 32-29 to 32-31.
I really appreciate your help and support from the BPA organization. We will monitor this carefully and if we see problems we will reconsider this limits for reduction together with your team.

## Regards

Petar
From: Mantifel,Russell (BPA) - TSPP-TPP-2 [mailto;rxmantifel@bpa.gov]
Sent: Thursday, October 30, 2014 6:03 PM
To: Ristanovic, Petar; Abdul-Rahman, Khaled; Kelly, Stuart, Sampson, Mark
(Mark.Sampson@pacificorp.com[mailto:Mark.Sampson@pacificorp.com](mailto:Mark.Sampson@pacificorp.com)); Rothleder, Mark
Cc: McManus, Bart; Ramanathan, Ramanathan (CONTR) - TOT-DITT-2; Simons,Scott D (CONTR) - TO-DITT-2; Kochheiser, Todd
Subject: RE: I have an update on U/L Limits if it's needed
<EXTERNAL email. Evaluate before clicking. >
These are the proposed numbers. We can discuss them further tomorrow.

## Flowgate

Upper 99.95

## Lower 99.95

WOCN
40
40
wocs
60
58
NOH

From: Mantifel,Russell (BPA) - TSPP-TPP-2
Sent: Thursday, October 30, 2014 5:43 PM
To: Ristanovic, Petar (pristanovic@caiso.com[mailto:pristanovic@caiso.com](mailto:pristanovic@caiso.com)); Abdul-Rahman, Khaled
(KAbdulRahman@caiso.com[mailto:KAbdulRahman@caiso.com](mailto:KAbdulRahman@caiso.com)); Kelly, Stuart
(Stuart.Kelly@pacificorp.com[mailto:Stuart.Kelly@pacificorp.com](mailto:Stuart.Kelly@pacificorp.com)); Sampson, Mark
(Mark.Sampson@pacificorp.com[mailto:Mark.Sampson@pacificorp.com](mailto:Mark.Sampson@pacificorp.com)); Rothleder, Mark
(MRothleder@caiso.com[mailto:MRothleder@caiso.com](mailto:MRothleder@caiso.com))
Subject: I have an update on U/L Limits if it's needed
Importance: High
Call me.
Russell Mantifel
Transmission Policy|Bonneville Power Administration
Office (360) 619-6282
Cel(b)(6)

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***************************************************************************************)

From: Almeida, Keoni
Sent: Thu Nov 13 09:42:10 2014
To: Mainzer, Elliot E (BPA) - A-7; Ehli,Cathy L (BPA) - S-7; King,Robert D (BPA) - TS-DITT-2; Elizeh, Edison G (BPA) - SR-T;
Mantifel,Russell (BPA) - TSPP-TPP-2; Linn, Young S (BPA) - TSE-TPP-2; Delwiche,Gregory K (BPA) - D-7; Cooper, Suzanne B (BPA) -PT-5; Shaheen,Richard L (BPA) - T-DITT-2; Thomas,Randi R (BPA) - TO-DITT-2

Subject: RE: RE: EIM
Importance: Normal

Including Richard and Randi, who were instrumental in the implementation. Sorry for missing you in my first note.
Keoni Almeida
Manager, Stakeholder and Industry Affairs
California Independent System Operator
916-608-1121
-----Original Message--.-

## From: Almeida, Keoni

Sent: Thursday, November 13, 2014 9:25 AM
To: Mainzer, Elliott; Cathy L - TS-DITT-2 Ehli; 'Bob King (rdking@bpa.gov)', Elizeh, Edison; Russell (BPA) - TSPP-TPP-2 Mantifel; Linn, Young; 'Delwiche,Gregory K (BPA) - P-6'; 'Cooper, Suzanne B (BPA) - PT-5'
Subject: RE: EIM
Good morning. Thought you would like to know that in today's board meeting Steve Berberich recognized BPA's help in the EIM launch as written in his board report: http://www.caiso.com/Documents/CEO Report-Nov2014.pdf
Again, thank you for all of your support.

## Keoni Almeida

Manager, Stakeholder and Industry Affairs California Independent System Operator
916-608-1121
----Original Message---.

From: Almeida, Keoni
Sent: Saturday, November 01, 2014 5:20 PM
To: Mainzer, Elliott; Cathy L - TS-DITT-2 Ehli; Elizeh, Edison; Russell (BPA) - TSPP-TPP-2 Mantifel; Linn, Young
Subject: EIM
Hi there. I'm pleased to inform you that the Energy Imbalance Market went live at midnight. ISO market systems have been functioning normally. We are investigating some pricing issues that occurred overnight. However, pricing review and necessary corrections are part of our rigid validation processes.

You may have heard that a significant transmission line linking Northern and Southern California relayed off just before midnight. This was not related to EIM, and there was no threat to reliability.

## Sent from my iPhone

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## From: Mainzer,Elliot E (BPA) - A-7

Sent: Fri Dec 12 11:17:23 2014

To: 'arlen.orchard@smud.org'; Armi.Dedick@bchydro.com; ROBERT ROWE (Bob.Rowe@northwestern.com); CPJ2@pge.com; 'Danderson@idahopower.com'; david.I.eves@xcelenergy.com; 'Mills, David E'; Dennis Vermillion (dennis.vermillion@avistacorp.com); 'Dsamil@nvenergy.com'; 'Hapner, Dede'; Mainzer,Elliot E (BPA) - A-7; Gabriel, Mark (Gabriel@WAPA.GOV); gad9@pge.com; greg.reimer@bchydro.com; Gary Stephenson (gstephenson@peakrc.com); jason.thackston@avistacorp.com; javery@semprautilities.com; 'jbladow@tristategt.org'; Jeff Guldner (Jeff.Guldner@aps.com); Jesus Soto (Jesus.Soto@pge.com); 'jfeider@charter.net'; jim.lobdell@pgn.com; Jim.Piro@pgn.com; 'jmartin@semprautilities.com'; 'jmcghee@wecc.biz'; john.Underhill@srpnet.com; Robb, Jim (jrobb@wecc.biz); kedson@caiso.com; 'Kcasey@caiso.com'; kimberly.harris@pse.com Harris (kimberly.harris@pse.com); Lisa Grow (Lgrow@idahopower.com) (Lgrow@idahopower.com); Maria.Pope@pgn.com; Mark.Schiavoni@aps.com; Melanie Frye WECC (mfrye@wecc.biz); Grantham-Richards, Maude (mgrantham-richards@tristategt.org); 'MICHAEL.CASHELL@northwestern.com'; 'mike.hummel@srpnet.com'; 'mrothleder@caiso.com'; Hocken, Natalie; pat.collawn@pnmresources.com; Pat Reiten (Pat.Reiten@PacifiCorp.com); Paul Lau (paul.lau@smud.org); 'MarcieEdwards@ladwp.com'; 'Pcadill@nvenergy.com'; 'Ray.Brush@northwestern.com'; Rob.Taylor@srpnet.com; Ron.Litzinger@sce.com; 'kala.coniglio@sce.com'; 'randy.howard@ladwp.com'; Ron.Talbot@pnmresources.com; 'rsherrard@peakrc.com'; 'rsteinbach@tristategt.org'; sberberich@caiso.com;
'sdavis@semprautilities.com'; 'stefan.bird@pacificorp.com'; Boardman,Sandy (BPA) - A-7; 'teresa.m.mogensen@xcelenergy.com'; 'thomas.a.imbler@xcelenergy.com'; 'tmontoya@wapa.gov'; 'vicken.kasarjian@smud.org'

Subject: Plans for Next WEIL Meeting in Portland, Oregon
Importance: Normal

Fellow WEIL Members:

A quick update on two topics: planning for the next WEIL meeting in Portland, and nominations for the NERC Reliability Issues Steering Committee.

## 1) WEIL Meeting

We have begun assembling an agenda and looking for dates for the next meeting. Assuming you would find it of interest, we have been working on having Energy Secretary Ernest Moniz join us for a discussion of issues facing our industry and the DOE's strategic agenda. We have been working on a date in early March (March 6) for him to join us. I think we have a decent chance of making it happen, but we will of course need to have a backup plan. Below, I have identified a few potential agenda items and a list of possible dates for the meeting. To keep things moving while we work to secure the Secretary's attendance, please respond to Heidi Helwig at hyhelwig@bpa.gov with suggested agenda items and your availability for the proposed dates.

Potential agenda items:

- Discussion with U.S. Energy Secretary Ernest Moniz
- Forest and wild land management/fire protection (Nature Conservancy/Lisa Grow)
- EPA Clean Power Plan next steps
- Gas and electric market coordination update
- CAISO/PacifiCorp EIM, Northwest Power Pool Market Assessment update
- Energy storage update (including California storage procurement)
- FERC Policy Agenda under Norman Bay
- Roundtable/Next Steps

In addition to the potential discussion with the Secretary, I would propose we try to keep the meeting as interactive
as possible, including time for a roundtable. I find the dialogue and interaction among the members particularly engaging. Please provide any other suggestions to make the meeting as effective and valuable as possible.

Possible dates: (The meeting is currently scheduled from 9:00 am - 3:00 pm, Portland location TBD.)

Friday, February 20, 2015
Monday, February 23, 2015
Wednesday, February 25, 2015
Thursday, February 26, 2015
Friday, February 27, 2015
Thursday, March 5, 2015
Friday, March 6, 2015 (Current target date for Secretary of Energy Visit)
Thursday, March 19, 2015
Friday, March 20, 2015
l'll be in touch in early 2015 with an update.

## 2) Nominations for NERC Reliability Issues Steering Committee (RISC)

Jim Robb at WECC brought the attached email to my attention from NERC, noting that two vacancies to the NERC Reliability Issues Steering Committee have opened up due to retirements. At present, the west only has one member on this committee -- from APS. Jim suggested we give some thought to potential nominees as this committee has the potential to be pretty impactful in how NERC addresses reliability risks/issues. Note, this is not a compliance person or role, but rather a VP or SVP role helping guide NERC's risk assessment activity.

Given the timing, I'm not sure we have the time, bandwidth or the need to try to rally around a single nominee or two for this committee, but it does seem like a good idea to try to increase western representation. If anyone would like to advance a candidate through the group please do so, and I will follow up to ensure the name(s) make it to the nominating committee assuming there is no opposition. Of course, folks should also feel free to go straight to NERC with their nominations. Jim expressed some interest in serving on the Committee and is doing some due diligence to see whether he would qualify given his position. Feel free to weigh in on whether he would be an appropriate representative for the west.

Looking forward to seeing you in 2015.

Best,

Elliot

From: Michelle Marx [Michelle.Marx@nerc.net](mailto:Michelle.Marx@nerc.net)
Reply-To: Michelle Marx [Michelle.Marx@nerc.net](mailto:Michelle.Marx@nerc.net)
Date: Wednesday, December 10, 2014 at 4:31 PM
To: Michelle Marx [Michelle.Marx@nerc.net](mailto:Michelle.Marx@nerc.net)
Subject: NERC ANNOUNCEMENT: NOMINATION PERIOD OPEN - New Reliability Issues Steering Committee (RISC) Members - Form Attached
cid:image002.png@01D014A7.46961800

## Nomination Period Open for New RISC Members

Nominations due January 9, 2015
cid:image003.jpg@01D014A6.88FBE2C0
The Reliability Issues Steering Committee (RISC) is seeking nominations to fill two vacancies resulting from the
resignation of Scot Hathaway and Steve Whitley to serve as at-large members of the RISC. The open positions are for the remainder of their terms ending in May 2016.

The RISC is an advisory committee that reports directly to the NERC Board of Trustees (Board) and triages and provides front-end, high-level leadership and accountability for issues of strategic importance to Bulk-Power System (BPS) reliability. The RISC assists the Board, NERC standing committees, NERC staff, regulators, Regional Entities, and industry stakeholders in establishing a common understanding of the scope, priority, and goals for the development of solutions to these issues. In doing so, the RISC provides a framework for developing recommendations to help NERC and the industry effectively focus their resources on the critical issues needed to improve the reliability of the BPS.

As described in the RISC charter, nominees for RISC should meet the following general qualifications:

- Executive-level position within the electric utility industry;

High-level understanding and strategic perspectives on reliability risks; and
Commitment to regular participation on the RISC in a collaborative and consensus-building manner.

The RISC holds a combination of in-person meetings and conference calls, as follows: (1) three one-day, inperson meetings; (2) four brief, in-person meetings following the conclusion of NERC Board meetings; and conference calls as needed.

When determining a final slate of recommended members, the RISC Nominating Committee will evaluate nominees based on experience and qualifications, as well as diversity within the context of the entire membership
of the RISC based on the following considerations:

- Geographic and international diversity, such that Eastern, Western, and Texas Interconnections, along with Canada are represented on the RISC;

Sector, size, and asset (transmission, distribution, load, generation, etc.) diversity; and
Diversity in professional background and experience.

If you are interested in nominating either yourself or another person, please complete the attached nomination form and send it to Kristin Iwanechko (kristin.iwanechko@nerc.net). Nominations are due on or before December 31, 2014.

For more information or assistance, please contact Kristin Iwanechko (via email) or at (404) 446-9736.

## 3353 Peachtree Road NE

# Suite 600, North Tower 

Atlanta, GA 30326
404-446-2560 (www.nerc.com
cid:image005.jpg@01D014A7.46961800

## From: Gabriel, Mark

## Sent: Mon Dec 15 07:38:53 2014

To: Mainzer,Elliot E (BPA) - A-7; 'arlen.orchard@smud.org'; 'ROBERT ROWE (Bob.Rowe@northwestern.com)'; 'CPJ2@pge.com'; 'Danderson@idahopower.com'; 'david.I.eves@xcelenergy.com'; 'Mills, David E'; 'Dennis Vermillion (dennis.vermillion@avistacorp.com)'; 'Dsamil@nvenergy.com'; 'Hapner, Dede'; 'gad9@pge.com'; 'greg.reimer@bchydro.com'; 'Gary Stephenson (gstephenson@peakrc.com)'; 'jason.thackston@avistacorp.com'; 'javery@semprautilities.com'; 'jbladow@tristategt.org'; 'Jeff Guldner (Jeff.Guldner@aps.com)'; 'Jesus Soto (Jesus.Soto@pge.com)'; 'jfeider@charter.net'; 'jim.lobdell@pgn.com'; 'Jim.Piro@pgn.com'; 'jmartin@semprautilities.com';
'john.Underhill@srpnet.com'; 'Robb, Jim (jrobb@wecc.biz)'; 'kedson@caiso.com'; 'Kcasey@caiso.com'; 'kimberly.harris@pse.com Harris (kimberly.harris@pse.com)'; 'Lisa Grow (Lgrow@idahopower.com) (Lgrow@idahopower.com)'; 'Maria.Pope@pgn.com'; 'Mark.Schiavoni@aps.com'; 'Melanie Frye WECC (mfrye@wecc.biz)'; 'Grantham-Richards, Maude (mgrantham-richards@tristategt.org)'; 'MICHAEL.CASHELL@northwestern.com'; 'mike.hummel@srpnet.com'; 'mrothleder@caiso.com'; 'Hocken, Natalie'; 'pat.collawn@pnmresources.com'; 'Pat Reiten (Pat.Reiten@PacifiCorp.com)'; 'Paul Lau (paul.lau@smud.org)'; 'Marcie.Edwards@ladwp.com'; 'Ray.Brush@northwestern.com'; 'Rob.Taylor@srpnet.com'; 'Ron.Litzinger@sce.com'; 'kala.coniglio@sce.com'; 'randy.howard@ladwp.com'; 'Ron.Talbot@pnmresources.com'; 'rsherrard@peakrc.com'; 'rsteinbach@tristategt.org'; 'sberberich@caiso.com'; 'sdavis@semprautilities.com'; 'stefan.bird@pacificorp.com'; Boardman,Sandy (BPA) -A-7; 'teresa.m.mogensen@xcelenergy.com'; 'thomas.a.imbler@xcelenergy.com'; Montoya, Anthony; 'vicken.kasarjian@smud.org'; 'jmcghee@peakrc.com'

Cc: Pena, Miriam
Subject: RE: RE: Plans for Next WEIL Meeting in Portland, Oregon (w/Attachments)
Importance: Normal

I would also like to see us discuss issues and plans on physical security.

## Mark A. Gabriel

Administrator and Chief Executive Officer
Western Area Power Administration
(720) 962-7705 Office

From: Mainzer,Elliot E (BPA) - A-7 [mailto:eemainzer@bpa.gov]
Sent: Friday, December 12, 2014 12:30 PM
To: 'arlen.orchard@smud.org'; 'ROBERT ROWE (Bob.Rowe@northwestern.com)'; 'CPJ2@pge.com';
'Danderson@idahopower.com'; 'david.I.eves@xcelenergy.com'; 'Mills, David E'; 'Dennis Vermillion
(dennis.vermillion@avistacorp.com)'; 'Dsami@@nvenergy.com'; 'Hapner, Dede'; Mainzer,Elliot E (BPA) - A-7;
Gabriel, Mark; 'gad9@pge.com'; 'greg.reimer@bchydro.com'; 'Gary Stephenson (gstephenson@peakrc.com)';
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'kedson@caiso.com'; 'Kcasey@caiso.com'; 'kimberly.harris@pse.com Harris (kimberly.harris@pse.com)'; 'Lisa
Grow (Lgrow@idahopower.com) (Lgrow@idahopower.com)'; 'Maria.Pope@pgn.com'; 'Mark.Schiavoni@aps.com';
'Melanie Frye WECC (mfrye@wecc.biz)'; 'Grantham-Richards, Maude (mgrantham-richards@tristategt.org)';
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Natalie'; 'pat.collawn@pnmresources.com'; 'Pat Reiten (Pat.Reiten@PacifiCorp.com)'; 'Paul Lau
(paul.lau@smud.org)'; 'Marcie.Edwards@ladwp.com'; 'Ray.Brush@northwestern.com'; 'Rob.Taylor@srpnet.com';
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'thomas.a.imbler@xcelenergy.com'; Montoya, Anthony; 'vicken.kasarjian@smud.org'; 'jmcghee@peakrc.com'

Subject: Plans for Next WEIL Meeting in Portland, Oregon (w/Attachments)

Fellow WEIL Members:

A quick update on two topics: planning for the next WEIL meeting in Portland, and nominations for the NERC Reliability Issues Steering Committee.

## 1) WEIL Meeting

We have begun assembling an agenda and looking for dates for the next meeting. Assuming you would find it of interest, we have been working on having Energy Secretary Ernest Moniz join us for a discussion of issues facing our industry and the DOE's strategic agenda. We have been working on a date in early March (March 6) for him to join us. I think we have a decent chance of making it happen, but we will of course need to have a backup plan. Below, I have identified a few potential agenda items and a list of possible dates for the meeting. To keep things moving while we work to secure the Secretary's attendance, please respond to Heidi Helwig at hyhelwig@bpa.gov with suggested agenda items and your availability for the proposed dates.

Potential agenda items:

- Discussion with U.S. Energy Secretary Ernest Moniz
- Forest and wild land management/fire protection (Nature Conservancy/Lisa Grow)
- EPA Clean Power Plan next steps
- Gas and electric market coordination update
- CAISO/PacifiCorp EIM, Northwest Power Pool Market Assessment update
- Energy storage update (including California storage procurement)
- FERC Policy Agenda under Norman Bay
- Roundtable/Next Steps

In addition to the potential discussion with the Secretary, I would propose we try to keep the meeting as interactive as possible, including time for a roundtable. I find the dialogue and interaction among the members particularly engaging. Please provide any other suggestions to make the meeting as effective and valuable as possible.

Possible dates: (The meeting is currently scheduled from 9:00 am - 3:00 pm, Portland location TBD.)

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Thursday, February 26, 2015
Friday, February 27, 2015
Thursday, March 5, 2015
Friday, March 6, 2015 (Current target date for Secretary of Energy Visit)

Thursday, March 19, 2015
Friday, March 20, 2015
l'll be in touch in early 2015 with an update.

## 2) Nominations for NERC Reliability Issues Steering Committee (RISC)

Jim Robb at WECC brought the attached email to my attention from NERC, noting that two vacancies to the NERC Reliability Issues Steering Committee have opened up due to retirements. At present, the west only has one member on this committee -- from APS. Jim suggested we give some thought to potential nominees as this committee has the potential to be pretty impactful in how NERC addresses reliability risks/issues. Note, this is not a compliance person or role, but rather a VP or SVP role helping guide NERC's risk assessment activity.

Given the timing, I'm not sure we have the time, bandwidth or the need to try to rally around a single nominee or two for this committee, but it does seem like a good idea to try to increase western representation. If anyone would like to advance a candidate through the group please do so, and I will follow up to ensure the name(s) make it to the nominating committee assuming there is no opposition. Of course, folks should also feel free to go straight to NERC with their nominations. Jim expressed some interest in serving on the Committee and is doing some due diligence to see whether he would qualify given his position. Feel free to weigh in on whether he would be an appropriate representative for the west.

Looking forward to seeing you in 2015.

## Best,

Elliot

## From: Mainzer,Elliot E (BPA) - A-7

## Sent: Mon Jan 19 15:52:01 2015

To: 'arlen.orchard@smud.org'; 'ROBERT ROWE (Bob.Rowe@northwestern.com)'; 'CPJ2@pge.com'; 'Danderson@idahopower.com'; 'david.I.eves@xcelenergy.com'; 'Mills, David E'; 'Dennis Vermillion (dennis.vermillion@avistacorp.com)'; 'Dsamil@nvenergy.com'; 'Hapner, Dede'; 'Gabriel, Mark (Gabriel@WAPA.GOV)'; 'gad9@pge.com'; 'greg.reimer@bchydro.com'; 'Gary Stephenson (gstephenson@peakrc.com)'; 'jason.thackston@avistacorp.com'; 'javery@semprautilities.com'; 'jbladow@tristategt.org'; 'Jeff Guldner (Jeff.Guldner@aps.com)'; 'Jesus Soto (Jesus.Soto@pge.com)'; 'jfeider@charter.net'; 'jim.lobdell@pgn.com'; 'Jim.Piro@pgn.com'; 'jmartin@semprautilities.com'; 'john.Underhill@srpnet.com'; 'Robb, Jim (jrobb@wecc.biz)'; 'kedson@caiso.com'; 'Kcasey@caiso.com'; 'kimberly.harris@pse.com Harris (kimberly.harris@pse.com)'; 'Lisa Grow (Lgrow@idahopower.com) (Lgrow@idahopower.com)'; 'Maria.Pope@pgn.com'; 'Mark.Schiavoni@aps.com'; 'Melanie Frye WECC (mfrye@wecc.biz)'; 'Grantham-Richards, Maude (mgranthamrichards@tristategt.org)'; 'MICHAEL.CASHELL@northwestern.com'; 'mike.hummel@srpnet.com'; 'mrothleder@caiso.com'; 'Hocken, Natalie'; 'pat.collawn@pnmresources.com'; 'Pat Reiten (Pat.Reiten@PacifiCorp.com)'; 'Paul Lau (paul.lau@smud.org)';
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Cc: Helwig,Heidi Y (BPA) - DKE-7; Marker,Douglas R (BPA) - DIR-7
Subject: RE: RE: Plans for Next WEIL Meeting in Portland, Oregon (w/Attachments)
Importance: Normal

## Fellow WEIL Members:

Happy New Year! Based on feedback from my first email, I am proposing, Friday, March 6 in Portland, Oregon for our next meeting. We have extended an invitation to Energy Secretary Ernest Moniz to join us for a discussion of issues facing our industry and DOE's strategic plan. The Secretary has yet to formally confirm, but we are actively working on securing his participation and I will keep you posted.

In addition, our draft agenda includes topics of interest as we begin the new year:

```
EPA Clean Power Plan next steps (need volunteer to lead discussion)
Forest and wild land management and fire protection (Nature Conservancy/Lisa Grow)
Physical security issues and updates (Mark Gabriel)
Gas and electric market coordination update (Dede Hapner?)
CAISO/PacifiCorp EIM, Northwest Power Pool Market Assessment update (Reiten/Piro/Mainzer)
Energy storage update including California storage procurements (?? Good topic? Roundtable item?)
```

FERC policy agenda under Norman Bay (Good topic? Presenter/facilitator?)

- Roundtable/next steps

Please let me know if you have suggestions for the agenda and presenters.

We are planning to host the meeting at a facility adjacent to BPA Headquarters which has convenient access to the Portland airport and hotels. I will provide final details about the meeting location and suggestions for accommodations in the next couple of weeks. (In the interim, the DoubleTree Lloyd Center is kitty corner from the meeting location http://doubletree3.hilton.com/en/hotels/oregon/doubletree-by-hilton-hotel-portland-RLLCDT/index.html

Please let me know if you see anyone who has been inadvertently left off of our distribution list.

I hope to to see you on March 6 and look forward to a dynamic and informative conversation.

Please RSVP and send any questions to Heidi Helwig at hyhelwig@bpa.gov

Best,

## Elliot

From: Mainzer,Elliot E (BPA) - A-7
Sent: Friday, December 12, 2014 11:30 AM
To: 'arlen.orchard@smud.org'; 'ROBERT ROWE (Bob.Rowe@northwestern.com)'; 'CPJ2@pge.com';
'Danderson@idahopower.com'; 'david.I.eves@xcelenergy.com'; 'Mills, David E'; 'Dennis Vermillion (dennis.vermillion@avistacorp.com)'; 'Dsamil@nvenergy.com'; 'Hapner, Dede'; Mainzer,Elliot E (BPA) - A-7; 'Gabriel, Mark (Gabriel@WAPA.GOV)'; 'gad9@pge.com'; 'greg.reimer@bchydro.com'; 'Gary Stephenson (gstephenson@peakrc.com)'; 'jason.thackston@avistacorp.com'; 'javery@semprautilities.com';
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Looking forward to seeing you in 2015

Best,

## Elliot

## From: Almeida, Keon

Sent: Tue Jan 27 17:08:57 2015

To: Mainzer, Elliot E (BPA) - A-7; Ehli,Cathy L (BPA) - S-7; King,Robert D (BPA) - TS-DITT-2; Elizeh,Edison G (BPA) - SR-T;
Mantifel,Russell (BPA) - TSPP-TPP-2; Linn, Young S (BPA) - TSE-TPP-2; Delwiche,Gregory K (BPA) - D-7; Cooper, Suzanne B (BPA) -
PT-5; Shaheen,Richard L (BPA) - T-DITT-2; Thomas,Randi R (BPA) - TO-DITT-2
Subject: State of the Grid
Importance: Normal

Greetings! I thought you might be interested in our recently published State of the
Grid: http://publications.caiso.com/StateOfTheGrid2014/Default.htm
In particular, the section on "Extending Benefits" outlines our work related to EIM, including efforts around governance. The leadership of the western energy industry is advancing a sustainable energy future. In recent years, California, Washington, Nevada, Oregon, Arizona, Utah, Colorado, Montana and New Mexico have enacted policies aimed at reducing greenhouse gases and increasing renewable resource development. The State of the Grid is an annual document that provides a progress report of how we are working towards these policy objectives.

That said, I would like to again thank BPA for its collaboration in working with us to make the regional benefits a possibility.
Regards,

```
Keoni Almeida
Manager, Stakeholder and Industry Affairs
California Independent System Operator
916-608-1121
```

The foregoing electronic message, together with any attachments thereto, is confidential and may be legally privileged against disclosure other than to the intended recipient. It is intended solely for the addressee(s) and access to the message by anyone else is unauthorized. If you are not the intended recipient of this electronic message, you are hereby notified that any dissemination, distribution, or any action taken or omitted to be taken in
reliance on it is strictly prohibited and may be unlawful. If you have received this electronic message in error, please delete and immediately notify the sender of this error.


## From: Almeida, Keon

## Sent: Thu Mar 05 14:20:32 2015

To: Mainzer, Elliot E (BPA) - A-7; Ehli,Cathy L (BPA) - S-7; King,Robert D (BPA) - TS-DITT-2; Cooper,Suzanne B (BPA) - PT-5;
Shaheen, Richard L (BPA) - T-DITT-2; Delwiche,Gregory K (BPA) - D-7; Elizeh,Edison G (BPA) - S-7; Mantifel,Russell (BPA) - TSPP-TPP-2; Linn, Young S (BPA) - TSE-TPP-2; Juj,Hardev S (BPA) - TP-DITT-2; Thomas,Randi R (BPA) - TO-DITT-2; Spain,Alex J (BPA) -PTF-5; Holden-Baker,Susan M (BPA) - TSS-DITT-1; Ellison,Richard A (BPA) - TOD-DITT-1

Subject: Puget to join EIM
Importance: Normal

Hi there. I'm sure some of you are aware of this, but I wanted to make sure you all had this notice:
http://www.caiso.com/Documents/ISOToAddPugetSoundEnergyToEnergylmbalanceMarket.pdf
Please call me with any questions.

From: Almeida, Keoni
Sent: Thursday, February 19, 2015 11:19 AM
To: Mainzer, Elliott; 'Cathy L - TS-DITT-2 Ehli'; 'Bob King (rdking@bpa.gov)'; 'Cooper,Suzanne B (BPA) - PT-5';
'Richard Shaheen (rlshaheen@bpa.gov)'; 'Delwiche,Gregory K (BPA) - P-6'; Elizeh, Edison; 'Russell (BPA) -
TSPP-TPP-2 Mantifel'; Linn, Young; 'Juj, Hardev S (BPA) - TP-DITT-2'; 'Thomas,Randi R (BPA) - TO-DITT-2';
Spain, Alex; 'smholden-baker@bpa.gov'; 'raellison@bpa.gov'
Subject: 2015 Jan CAISO Org Chart.pptx

Good morning. Thought you would like to have this. It is an org chart l've put together that only includes management that stakeholders interface with.

Keoni Almeida
Manager, Stakeholder and Industry Affairs
Policy and Client Services
California ISO
916-608-1121

The foregoing electronic message, together with any attachments thereto, is confidential and may be legally privileged against disclosure other than to the intended recipient. It is intended solely for the addressee(s) and access to the message by anyone else is unauthorized. If you are not the intended recipient of this electronic message, you are hereby notified that any dissemination, distribution, or any action taken or omitted to be taken in reliance on it is strictly prohibited and may be unlawful. If you have received this electronic message in error, please delete and immediately notify the sender of this error.

From: Almeida, Keoni

## Sent: Tue Mar 24 11:41:11 2015

To: Mainzer, Elliot E (BPA) - A-7; Ehli,Cathy L (BPA) - S-7; Shaheen, Richard L (BPA) - T-DITT-2; Gendron,Mark O (BPA) - P-6;
Manary, Michelle L (BPA) - PS-6; Connolly,Kieran P (BPA) - PG-5; Cooper,Suzanne B (BPA) - PT-5; King,Robert D (BPA) - TS-DITT-2;
Thomas,Randi R (BPA) - TO-DITT-2; Mainzer, Elliot E (BPA) - A-7; Elizeh,Edison G (BPA) - S-7; Linn,Young S (BPA) - TSE-TPP-2
Cc: Berberich, Steve; Edson, Karen; Ristanovic, Petar; Rothleder, Mark; Abdul-Rahman, Khaled
Subject: RE: RE: Follow-ups - March 16th BPA-ISO Executive Meeting
Importance: Normal

Thanks again to all of you for your time last week. Along the lines of collaboration in which we discussed, I wanted you to be aware of our filing of the Puget Sound Energy EIM Implementation Agreement from last Friday (http://www.caiso.com/Documents/Mar20 2015
PugetSoundEnergyEIMImplementationAgreement ER15-1347.pdf) that outlines our commitment to engage with BPA (page 4). As we have expressed in the past, we sincerely appreciate BPA's efforts to work with us.

Regards,

Keoni Almeida
Manager, Stakeholder \& Industry Affairs
California ISO
916-608-1121

From: Linn, Young S (BPA) - TSE-TPP-2 [mailto:yslinn@bpa.gov]
Sent: Friday, March 20, 2015 1:58 PM
To: Berberich, Steve; Rothleder, Mark; Almeida, Keoni; Abdul-Rahman, Khaled; Ehli,Cathy L (BPA) - S-7; Shaheen, Richard L (BPA) - T-DITT-2; Gendron,Mark O (BPA) - P-6; Manary, Michelle L (BPA) - PS-6; Connolly, K.P.; Cooper,Suzanne B (BPA) - PT-5; King,Robert D (BPA) - TS-DITT-2; Thomas,Randi R (BPA) - TO-DITT-2;

Mainzer, Elliott; Elizeh, Edison
Subject: Follow-ups - March 16th BPA-ISO Executive Meeting
<EXTERNAL email. Evaluate before clicking. >
Good afternoon everyone,

Cathy asked that Keoni and I provide a list of follow-ups from the Monday March $16^{\text {th }}$ BPA-ISO Executives meeting. Eddie also contributed his notes with us. Please see below (the list is also attached). We appreciate Steve and the rest of the ISO executive team taking the time and visiting us in Portland. It will be our turn to come south next time. Thanks again and have a great weekend!

## BPA-ISO March 16, 2015 Executive Meeting - Follow-ups

## Executive Points of Contact List:

1. BPA - Create and provide a list of BPA executive POCs and EIM Executive Sponsors.
2. ISO - Create and provide a list of ISO executive POCs.

## Both BPA and ISO discussed making some changes to the ongoing technical meetings:

1. Recommend BPA/PAC/ISO to share a weekly technical conference call agenda in advance. This is to make best use of the time and determine if the meeting should be held.
2. BPA executive POCs to have bi-weekly meetings with ISO and PAC executives. This is intended to have BPA executives more engaged in EIM developments, policy decisions, timelines and resolutions of issues teed up by the technical team. (Randi said she would like to think about how best to engage in these bi-weekly meetings).

## RAS automation:

1. BPA to report out to executives on RAS automation effort - next month or so?
2. ISO to share model on their on line voltage and transient stability tools with BPA to better understand the state of the system; such analysis could result in maximizing BPA's RAS or reactive switching and could assist BPA efforts on RAS automation? (Dede and Randi to touch base).

## Share and educate each other on the regional needs:

1. Hold more sessions like the one held at PGE on $3 / 16$ to educate/promote regional needs - (Eddie will followup with Mark and Keoni, and will coordinate with the regional reps).
2. Next informal educational discussion will include schedulers from the various entities that participated on March 16 Educational meeting.

## Next Executive Meeting:

1. Hold next executive meeting in October 2015 at Folsom

Young S. Linn
Bonneville Power Administration
Senior Transmission Account Executive
360-619-6013 Office

## (b)(6)

Cell
yslinn@bpa.gov

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Sent: Tue Apr 14 11:43:16 2015
To: Mainzer, Elliot E (BPA) - A-7; Ehli,Cathy L (BPA) - S-7; Shaheen, Richard L (BPA) - T-DITT-2; Gendron,Mark O (BPA) - P-6;
Manary, Michelle L (BPA) - PS-6; Connolly,Kieran P (BPA) - PG-5; Cooper,Suzanne B (BPA) - PT-5; King,Robert D (BPA) - TS-DITT-2;
Thomas,Randi R (BPA) - TO-DITT-2; Mainzer, Elliot E (BPA) - A-7; Elizeh,Edison G (BPA) - S-7; Linn, Young S (BPA) - TSE-TPP-2
Subject: PacifiCorp consideration to join the ISO Balancing Area as a Participating Transmission Owner
Importance: Normal

As you may have heard, today, the ISO and PacifiCorp announced that they have entered into a Memorandum of Understanding to explore the feasibility, costs and benefits of PacifiCorp joining the ISO Balancing Area as a Participating Transmission Owner. A comprehensive benefits study is underway that is expected to be complete this summer. The organizations will immediately begin negotiations on a transition agreement and initiate stakeholder processes to review and develop rules and procedures for the proposed project consistent with the principles outlined in the MOU. This agreement, and any eventual decision by PacifiCorp to join the ISO, applies only to the two balancing authority areas operated by PacifiCorp, and is subject to review and approval by PacifiCorp's six state utility commissions and by the FERC. If a decision is made to proceed, the organizations believe a transition date could occur in 2017.

The organizations believe there are substantial mutual benefits associated with full participation:
Enhanced coordination and day-ahead optimization across a broad geographic area.
Coordinated planning and utilization of the two largest transmission systems in the West.
Lower carbon emissions and more efficient use and integration of renewable energy resources.

- Enhanced reliability through broader visibility across the combined systems and better planning and management of congestion across more of the region's high-voltage transmission system.

The ISO and PacifiCorp recognize that there are a number of complex policy questions to resolve that will require engagement and collaboration with numerous stakeholders:

- Review of the governance structure due to operations across a multi-state footprint.
- Explore alternate transmission access charge structures for regional transmission projects.
- Adapt resource adequacy requirements.
- Expand ISO transmission planning process to include PacifiCorp area, engage state commissions.
- Merge generator interconnection queues.

This announcement will not impact the existing Energy Imbalance Market for current or future EIM participants.
EIM remains open for new participants and will continue to provide important opportunities for cost savings and reliability improvements.

Feel free to call me with any questions. You may also refer to the FAQs: http://www.caiso.com/Documents/FAQExpandingRegionalEnergyPartnerships.pdf

Regards,

Keoni Almeida
Manager, Stakeholder \& Industry Affairs

California ISO
916-608-1121

## 

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From: Berberich, Steve

Sent: Tue Apr 14 19:28:57 2015
To: Mainzer,Elliot E (BPA) - A-7
Cc: patrick.reiten@pacificorp.com
Subject: Re: Re: Congratulations on your news today and good seeing you Sunday. Looking forward to staying in touch. EM
Importance: Normal

Thanks, Elliott. I really appreciate your support and help as EIM was implemented and now a control area integration. You deserve credit for helping customers across the West.

## Steve

> On Apr 14, 2015, at 5:47 PM, Mainzer,Elliot E (BPA) - A-7 [eemainzer@bpa.gov](mailto:eemainzer@bpa.gov) wrote:
$>$
$>$
> < EXTERNAL email. Evaluate before clicking. >
$>$
$>$

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## From: Almeida, Keoni

Sent: Mon May 18 08:25:24 2015
To: Mainzer, Elliot E (BPA) - A-7; Ehli,Cathy L (BPA) - S-7; Shaheen, Richard L (BPA) - T-DITT-2; Gendron,Mark O (BPA) - P-6;
Manary, Michelle L (BPA) - PS-6; Connolly, Kieran P (BPA) - PG-5; Cooper,Suzanne B (BPA) - PT-5; King, Robert D (BPA) - TS-DITT-2;
Thomas,Randi R (BPA) - TO-DITT-2; Mainzer, Elliot E (BPA) - A-7; Elizeh,Edison G (BPA) - S-7; Linn, Young S (BPA) - TSE-TPP-2
Subject: APS and the ISO have signed an implementation agreement for APS to participate in the EIM
Importance: Normal

Good morning. I wanted to give you an advance notice that we will be sending out a joint press release with APS at around 11:00 am to announce that APS and the ISO have signed an implementation agreement for APS to participate in the EIM. They are seeking an October 2016 start date and will now also have a seat on the EIM Transitional Committee following ISO Board appointment, scheduled for May 22.

Below are a few highlights to mention:

1. APS customers could save $\$ 7$ million to $\$ 18$ million a year through EIM participation, according to an assessment by Energy and Environmental Economics, Inc. With APS's participation, current EIM entities will see annual benefits accrue to them from $\$ 3$ million to $\$ 6.5$ million in addition to the benefits they already realize.
2. APS expects participation in the Energy Imbalance Market will create at least three benefits:

Produce economic savings to APS customers through lower production costs;
Improve visibility and situational awareness for system operations in the Western Interconnection; and
Improve integration of renewable resources
3. APS has nominated Brad Albert, General Manager of Resource Management, to be appointed to the EIM Transitional Committee and will immediately engage with the committee on their governance proposal work following the Board's decision on May 22. Brad has been the primary contact as APS studied the costs and benefits of studying the EIM and a pleasure to work with.

I would like to take this opportunity to thank BPA for its collaborative relationship that we have continued to foster over the years.

As always, please call if you have any questions.

Keoni Almeida
Manager, Stakeholder \& Industry Affairs
California ISO
916-608-1121

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From: Almeida, Keoni
Sent: Thu Jun 25 11:19:19 2015
To: Mainzer, Elliot E (BPA) - A-7; Shaheen,Richard L (BPA) - T-DITT-2; Cooper,Suzanne B (BPA) - PT-5; Connolly,Kieran P (BPA) - PG-5; Thomas, Randi R (BPA) - TO-DITT-2; Ehli,Cathy L (BPA) - S-7; Linn, Young S (BPA) - TSE-TPP-2; Elizeh,Edison G (BPA) - S-7;
Mantifel,Russell (BPA) - TS-DITT-2
Subject: Today's EIM Transitional Committee Governance Draft Final Proposal discussion and the EIM Transitional Committee meeting material

Importance: Normal

In case you could not listen in and/or had a hard time finding the slides for today's EIM Transitional Committee Governance Draft Final Proposal discussion and the EIM Transitional Committee meeting, here they are (the second link also includes the status of the NV Energy and Puget Sound Energy EIM implementation):
http://www.caiso.com/Documents/Briefing GovernanceProposal-Presentation-Jun2015.pdf
http://www.caiso.com/Documents/Briefing EnergylmbalanceMarket-ISO Presentation-Jun2015.pdf

Nevada slides: http://www.caiso.com/Documents/Briefing EnergylmbalanceMarket-NV EnergyPresentationJun2015.pdf

Regards,
Keoni Almeida
Manager, Stakeholder \& Industry Affairs
California ISO
916-608-1121

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From: Linn, Young S (BPA) - TSE-TPP-2
Sent: Tue Sep 15 13:49:18 2015
To: 'Almeida, Keoni'; Mainzer,Elliot E (BPA) - A-7; Shaheen,Richard L (BPA) - T-DITT-2; Cooper,Suzanne B (BPA) - PT-5; Connolly,Kieran P (BPA) - PG-5; Thomas,Randi R (BPA) - TO-DITT-2; Ehli,Cathy L (BPA) - S-7; Manary,Michelle L (BPA) - TS-DITT-2; Cook, Jeffrey W (BPA) - TP-DITT-2; Gendron,Mark O (BPA) - P-6; Elizeh,Edison G (BPA) - S-7; Mantifel,Russell (BPA) - TS-DITT-2; Marker,Douglas R (BPA) - DIR-7; Spain,Alex J (BPA) - PTF-5

Cc: 'Berberich, Steve'; 'Edson, Karen'; 'Rothleder, Mark'; 'Serina, Joanne'
Subject: RE: RE: Legislature approval of SB 350
Importance: Normal

Thanks for the note Keoni. We were expecting the passage of the legislation 350 and look forward to working with you and the ISO team in these various regional efforts.

Young S. Linn
Transmission Account Executive
Bonneville Power Administration
360-619-6013 Office

## (b)(6)

yslinn@bpa.gov

From: Almeida, Keoni [mailto:KAlmeida@caiso.com]
Sent: Tuesday, September 15, 2015 12:15 PM
To: Mainzer, Elliot E (BPA) - A-7; Shaheen,Richard L (BPA) - T-DITT-2; Cooper,Suzanne B (BPA) - PT-5;
Connolly, Kieran P (BPA) - PG-5; Thomas,Randi R (BPA) - TO-DITT-2; Ehli,Cathy L (BPA) - S-7; Manary, Michelle
L (BPA) - TS-DITT-2; Cook,Jeffrey W (BPA) - TP-DITT-2; Gendron,Mark O (BPA) - P-6; Linn,Young S (BPA) -
TSE-TPP-2; Elizeh, Edison G (BPA) - S-7; Mantifel,Russell (BPA) - TS-DITT-2; Marker,Douglas R (BPA) - DIR-7;
Spain,Alex J (BPA) - PTF-5
Cc: Berberich, Steve; Edson, Karen; Rothleder, Mark; Serina, Joanne
Subject: Legislature approval of SB 350

Elliot and others,
As you are aware the California Legislature approved climate legislation 350 on September 11, 2015, which aims to double energy efficiency in buildings and generate half of California's electricity from renewable sources by 2030. The ISO is committed to supporting policies and mandates that will lead the interconnected western grid to reliable operations in the production of energy. The legislation will foster regional coordination, which is key to promoting a clean, efficient grid, while keeping costs low across the western region. We look forward to working closely with BPA, state regulators and other stakeholders make the vision of regional governance and collaboration a reality.

The legislation directs the ISO to develop a proposed set of revisions to its current process for appointing members of the ISO Board, who by current statute are appointed by the California Governor with approval by the California Senate, and sets up a process for the ISO to stakeholder and ultimately implement the revised governance structure, subject to a future legislative approval. The ISO is directed to develop a set of proposed modifications to its governance structure and also conduct studies evaluating the potential economic and environmental impacts of the regional market that would be enabled by the proposed governance changes. This
legislation aligns with, but is distinct from, the ISO's separate efforts to develop a governance structure for its multistate Energy Imbalance Market. The governance at issue in the legislation involves changes to the appointment of the ISO's Board of Governors, while the EIM governance effort involves development of a body that can operate within the context of the ISO's current Board structure.

The ISO will conduct public workshops on the governance modifications and the results of the studies and once this is completed the ISO is directed to submit its proposed governance changes to the Governor, who would need to transmit these to the Legislature no later than December 31, 2017. SB 350 directs the ISO to "expeditiously" move forward with this effort so that the modifications become effective before new transmission owners from outside California complete the process of joining the ISO.

Again, the ISO looks forward to working with BPA and others to move these initiatives forward.

Regards,

Keoni Almeida
Manager, Stakeholder \& Industry Affairs
California ISO
916-608-1121

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## From: Almeida, Keon

## Sent: Mon Nov 23 09:23:12 2015

To: Mainzer, Elliot E (BPA) - A-7; Shaheen, Richard L (BPA) - T-DITT-2; Cooper,Suzanne B (BPA) - PT-5; Connolly,Kieran P (BPA) - PG-5;
Thomas,Randi R (BPA) - TO-DITT-2; Ehli,Cathy L (BPA) - S-7; Manary,Michelle L (BPA) - TS-DITT-2; Cook, Jeffrey W (BPA) - TP-DITT-2;
Gendron, Mark O (BPA) - P-6; Linn, Young S (BPA) - TSE-TPP-2; Elizeh, Edison G (BPA) - S-7; Mantifel,Russell (BPA) - TS-DITT-2;
Marker, Douglas R (BPA) - DIR-7; Spain,Alex J (BPA) - PTF-5
Subject: EIM Implementation Agreement between the ISO and Portland General Electric
Importance: Normal

Good morning, I wanted you to be aware, if you have not already heard, that the implementation agreement between the ISO and PGE was filed last Friday. You can find the following at the following link:
http://www.caiso.com/Documents/Nov20 2015
EnergyImbalanceMarketImplementationAgreementBetween CalifornialSO PortlandGeneralElectric ER16-366.p
df
The target date for go-live is October 1, 2017.
Please call me if you have any questions.
Keoni Almeida
Manager, Stakeholder \& Industry Affairs
California ISO
916-608-1121

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## From: Almeida, Keoni

Sent Tue Dec 01 09:45:56 2015

To: Mainzer, Elliot E (BPA) - A-7; Shaheen, Richard L (BPA) - T-DITT-2; Cooper,Suzanne B (BPA) - PT-5; Connoily, Kieran P (BPA) - PG-5;
Thomas, Randi R (BPA) - TO-DITT-2; Ehli,Cathy L (BPA) - S-7; Manary, Michelle L (BPA) - TS-DITT-2; Cook, Jeffrey W (BPA) - TP-DITT-2;
Gendron, Mark O (BPA) - P-6; Linn, Young S (BPA) - TSE-TPP-2; Elizeh, Edison G (BPA) - S-7; Mantifel,Russell (BPA) - TS-DITT-2;
Marker, Douglas R (BPA) - DIR-7; Spain,Alex J (BPA) - PTF-5
Cc: Berberich, Steve; Edson, Karen; Rothleder, Mark
Subject: NV Energy EIM participation
Importance: Normal

Good morning, As BPA was involved in the FERC filings and other stakeholder proceedings associated with the Readiness Criteria, I am providing you with the good news that NV Energy successfully began participating in the western EIM at midnight, December 1, 2015.

FERC directed, and approved, the CAISO and new EIM Entities to develop readiness criteria that includes a robust market simulation and period of parallel operation for new EIM Entities; defined criteria developed with the comments of interested stakeholders in a stakeholder process; and a requirement that the CAISO and the new EIM Entities to submit a certification of readiness of the EIM Entity's processes and systems.

This approach will provide BPA the confidence it was seeking for the successful implementation of new EIM Entities. As NV Energy interfaces with BPA's systems, we would like to express our appreciation to BPA for their efforts in working with us to ensure grid resiliency and reliability.

Regards,

Keoni Almeida
Manager, Stakeholder \& Industry Affairs
California ISO
916-608-1121

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## From: Almeida, Keoni

## Sent: Mon Dec 21 13:26:56 2015

To: Mainzer,Elliot E (BPA) - A-7; Shaheen,Richard L (BPA) - T-DITT-2; Cooper,Suzanne B (BPA) - PT-5; Connolly,Kieran P (BPA) - PG-5;
Ehli,Cathy L (BPA) - S-7; Thomas,Randi R (BPA) - TO-DITT-2; Manary,Michelle L (BPA) - TS-DITT-2; Elizeh,Edison G (BPA) - S-7;
Cook, Jeffrey W (BPA) - TP-DITT-2; Gendron,Mark O (BPA) - P-6; Linn,Young S (BPA) - TSE-TPP-2; Mantifel,Russell (BPA) - TS-DITT-2;
Marker, Douglas R (BPA) - DIR-7; Spain,Alex J (BPA) - PTF-5
Subject: Happy Holidays!!
Importance: Normal

From my family to yours, I want to wish you the happiest of holidays. I also want to thank you for the contributions that you and your organization have put towards shaping a better wholesale market and more resilient grid.

Reflecting back on this year, we carefully processed and completed 13 stakeholder initiatives, from Pricing Enhancements, to Interconnection Process Enhancements, to EIM Year 1 Enhancements. This doesn't include the Customer Partnership Groups working on Operational Transparency and Reliability Requirements, to name a couple.

The time and effort put forth by stakeholders is very much appreciated by me and all of us at the ISO. Next year will prove to be just as exciting and rewarding. Therefore, I hope you and your team take the time to relax over the holidays.

## Cheers and Aloha,

## Keoni


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From: Rothleder, Mark
Sent: Thu Jan 21 05:54:28 2016

To: Mainzer,Elliot E (BPA) - A-7

Subject: Re: Re: Messages
Importance: Normal

Thanks Elliot. That message makes sense.
Sent from my iPhone
On Jan 21, 2016, at 4:54 AM, Mainzer,Elliot E (BPA) - A-7 <eemainzer@bpa.gov[mailto:eemainzer@bpa.gov](mailto:eemainzer@bpa.gov)> wrote:
< EXTERNAL email. Evaluate before clicking. >
Mark, I thought I would sharpen my points to you from our late day call. I think the key things I am hoping you can convey to the PGP in order to demonstrate alignment in our messages would be:

We have been working closely with BPA over the past year to ensure a smooth integration of PAC and other potential entities into the EIM. It has been a productive and effective working relationship and I think BPA has done a good job of looking out for Northwest interests and preserving the value of NW assets.

We understand the politics in the Northwest with respect to the federal system, governance and local control. We are not expecting BPA to join the EIM, not to mention pursue a PTO option. Nevertheless, we believe there are significant opportunities for increased operational efficiency and asset optimization between CAISO and BPA and we are interested in engaging in TOP to TOP dialogue to pursue such opportunities, while honoring the sovereignty of BPA. We understand that BPA is interested in working both bilaterally with us and in concert with other Northwest parties on issues of shared interest and we are very interested in helping Northwest entities engage constructively in the evolving western marketplace and looking for win-win opportunities.

Thanks!
Elliot E. Mainzer

Administrator \& CEO
Bonneville Power Administration
(503) 230-4175 (work)

## b)(6)

 (cell)eemainzer@bpa.gov[mailto:eemainzer@bpa.gov](mailto:eemainzer@bpa.gov)
[cid:image001.jpg@01D03BB3.15E37F80]

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*********************************************************************************************

## From: Almeida, Keoni

Sent: Tue Apr 05 14:01:46 2016
To: Mainzer, Elliot E (BPA) - A-7; Shaheen, Richard L (BPA) - T-DITT-2; Cooper, Suzanne B (BPA) - PT-5; Connoily, Kieran P (BPA) - PG-5; Ehli,Cathy L (BPA) - PT-5; Thomas,Randi R (BPA) - TO-DITT-2; Manary,Michelle L (BPA) - TS-DITT-2; Elizeh,Edison G (BPA) - S-3;
Cook, Jeffrey W (BPA) - TP-DITT-2; Gendron,Mark O (BPA) - P-6; Linn, Young S (BPA) - TSE-TPP-2; Mantifel,Russell (BPA) - TS-DITT-2; Marker, Douglas R (BPA) - DIR-7; Spain,Alex J (BPA) - PTF-5; Abadi,Ehud B (BPA) - PTL-5

Cc: Labban, Jamie
Subject: New EIM Entity Announcement
Importance: Normal

Good afternoon, I want to give you a heads up and make you aware that the ISO and Idaho Power have signed an agreement for the Idaho utility to participate in the western Energy Imbalance Market (EIM) beginning April 2018, contingent upon necessary regulatory approvals. A news release will be sent out tomorrow with this announcement. As always, if you have any questions, please feel free to call me.

Regards,
Keoni Almeida
Manager, Stakeholder \& Industry Affairs
California ISO
916-608-1121

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## From: Bosanac, Milos

Sent: Thu Jun 09 19:30:10 2016

To: Mainzer,Elliot E (BPA) - A-7; Shaheen,Richard L (BPA) - T-DITT-2; Cooper,Suzanne B (BPA) - PT-5; Connolly,Kieran P (BPA) - PG-5;
Ehli,Cathy L (BPA) - PT-5; Thomas,Randi R (BPA) - TO-DITT-2; Manary,Michelle L (BPA) - TS-DITT-2; Elizeh,Edison G (BPA) - S-3; Cook,Jeffrey W (BPA) - TP-DITT-2; Gendron,Mark O (BPA) - P-6; Linn,Young S (BPA) - TSE-TPP-2; Marker,Douglas R (BPA) - DIR-7; Spain,Alex J (BPA) - PTF-5; Abadi,Ehud B (BPA) - PTL-5; Kitchen,Larry (BPA) - PTL-5; Miller, Todd E (BPA) - L-7

Subject: CAISO Updates - EIM Governing Body Candidates Announced \& Regional ISO Governance Proposal
Importance: Normal

Good Afternoon,

I wanted to share with you announcements on two important initiatives - EIM Governing Body candidates and a proposal on Regional ISO Governance.

## EIM Governing Body

As you may know, the ISO has been working collaboratively with regional entities in seating a five-member EIM Governing Body which would exercise delegated authority over the rules for the western EIM.

The ISO has announced a list of 5 candidates selected by the EIM Governing Body Nominating Committee to constitute the membership of the EIM Governing Body. The slate of candidates will be considered and voted upon by the ISO Board of Governors on June $28^{\text {th }}$.

You will recognize at least one of the candidates - John Prescott (retired President and CEO of PNGC) - from his collaborative work with BPA and the regional utilities in the Pacific Northwest. The candidates are:

Carl Linvill, Principal, The Regulatory Assistance Project

Doug Howe, Consultant, Vanry \& Associates Inc.

John Prescott, (Retired) President and Chief Executive Officer, Pacific Northwest Generating Cooperative
-

Kristine Schmidt, President, Swan Consulting Services
-
Valerie Fong, (Retired) Director of Utilities, City of Palo Alto

The following link is the market notice announcing the candidates -
http://www.caiso.com/Documents/EIMGoverningBodyNominatingCommitteeSelectsProposedSlate-
BoardConsideration.html

## Proposal for Governance of Regional ISO

The California ISO has issued a set of proposed governance principles for a regional ISO. The proposal identifies key principles related to, in part:

- The development of an initial board and a transition period
- Composition of a Regional ISO Board
- Establishment of a formal Body of State Regulators
- Stakeholder Process and Participation

The following links contain an introductory letter and the proposal itself -
http://www.caiso.com/Documents/TransLetter-ProposedPrinciples-Governance-RegionallSO.pdf
http://www.caiso.com/Documents/ProposedPrinciples-Governance-RegionallSO.pdf

The ISO will present the proposal, and seek comment, in two public meetings scheduled for June $16^{\text {th }}$ (in Sacramento) and on June $20^{\text {th }}$ (in Denver). I

If you have any questions on either of the topics, please do not hesitate to contact me.

Have a good evening!

## Milos Bosanac

Industry Affairs Manager
Customer Service and Industry Affairs

## CAISOLogo-CS

O: (916) 608-1071 | C(b)(6)
250 Outcropping Way, Folsom, CA 95630

California ISO | Twitter I RSS Feed I Facebook

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## From: Bosanac, Milos

Sent: Tue Jun 28 17:17:25 2016

To: Mainzer,Elliot E (BPA) - A-7; Shaheen,Richard L (BPA) - T-DITT-2; Cooper,Suzanne B (BPA) - PT-5; Connolly,Kieran P (BPA) - PG-5; Thomas,Randi R (BPA) - TO-DITT-2; Manary,Michelle L (BPA) - TS-DITT-2; Cook,Jeffrey W (BPA) - TP-DITT-2; Gendron,Mark O (BPA) -P-6; Linn, Young S (BPA) - TSE-TPP-2; Mantifel,Russell (BPA) - TS-DITT-2; Marker,Douglas R (BPA) - DIR-7; Spain,Alex J (BPA) - PTF-5; Abadi,Ehud B (BPA) - PTL-5; Miller, Todd E (BPA) - L-7; Bentz,Roger E (BPA) - SR-3; Symonds,Mark C (BPA) - SR-3; Lut,Agnes (BPA) -SR-3

Subject: ISO Board appoints members to western EIM Governing Body
Importance: Normal

Good Afternoon,

The California Independent System Operator (ISO) Board of Governors has officially appointed five members to the western Energy Imbalance Market (EIM) Governing Body. The appointment follows an extensive vetting process that began in January 2016 by the EIM Nominating Committee. The new members of the EIM Governing Body, and their terms, are identified below:

Valerie Fong for a term beginning July 1, 2016 through June 30, 2019
Doug Howe for a term beginning July 1, 2016 through June 30, 2018
Carl Linvill for a term beginning July 1, 2016 through June 30, 2018

John Prescott for a term beginning July 1, 2016 through June 30, 2019
Kristine Schmidt for a term beginning July 1, 2016 through June 30, 2017

For information on the Governing Body biographies, please click here.

The initial EIM Governing Body was approved in an ISO Board of Governors open session, but all future nominations will be approved by the EIM Governing Body.

If you have any questions, please feel free to contact me.

Have a good day!

## Milos Bosanac

Industry Affairs Manager
Customer Service and Industry Affairs

## CAISOLogo-CS

O: (916) 608-1071 | C:(b)(6)
250 Outcropping Way, Folsom, CA 95630

California ISO | Twitter I RSS Feed I Facebook

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***************************************************************************************************)

## From: Bosanac, Milos

## Sent: Mon Oct 03 10:00:09 2016

To: Mainzer,Elliot E (BPA) - A-7; Linn,Young S (BPA) - TSE-TPP-2; Manary,Michelle L (BPA) - TS-DITT-2; Shaheen,Richard L (BPA) - T-DITT-2; Cooper,Suzanne B (BPA) - PT-5; Gendron,Mark O (BPA) - P-6; Ehli,Cathy L (BPA) - PT-5; Marker,Douglas R (BPA) - DIR-7; Mantifel,Russell (BPA) - TS-DITT-2; Miller,Todd E (BPA) - L-7; Bentz,Roger E (BPA) - BD-3; Symonds,Mark C (BPA) - BD-3; Lut,Agnes (BPA) - BDP-3; Kitchen,Larry (BPA) - PTL-5; Abadi,Ehud B (BPA) - PTL-5; Spain,Alex J (BPA) - PTF-5

Subject: Western Energy Imbalance Market (EIM) - Puget Sound Energy and Arizona Public Service Commence Full Participation (October 1st)

Importance: Normal

Good Morning,

The ISO is pleased to announce the participation of Arizona Public Service (APS) and Puget Sound Energy (PSE) in the western Energy Imbalance Market (EIM).

APS and PSE successfully commenced full participation in the western EIM on Saturday, October $1^{\text {st }}$ after months of intensive testing.

I would like to take the opportunity to thank the Bonneville Power Administration (BPA) for its ongoing support and collaboration on EIM related matters. Whether it is through our weekly technical coordination sessions or through other forums, the ISO appreciates the time and effort of BPA staff in working collaboratively with the ISO and EIM participants (current or prospective) in addressing technical and policy topics.

For more information on PSE and APS full EIM participation, the ISO has issued a press release - here.

If you have any questions, please feel free to contact me.

Thank you very much!

Regards,

## Milos Bosanac

Industry Affairs Manager
Customer Service and Industry Affairs

## CAISOLogo-CS

O: (916) 608-1071 | C:(b)(6)
250 Outcropping Way, Folsom, CA 95630

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From: Fuller, Don
Sent: Mon Mar 20 09:26:58 2017

To: Mainzer,Elliot E (BPA) - A-7
Cc: Fuller, Don

Subject: Beth Looney presentation at NRECA
Importance: Normal

Attachments: 170320 Looney NRECA - EIM and the Pacific NW.pdf

## Elliott -

Good seeing you Friday in Sacramento. I agreed to send you the presentation that PNGC CEO Beth Looney did at the NRECA meeting. It is attached, CTA covered in last slide.

## Don Fuller

Director Strategic Alliances
California ISO
916-608-7055 office
(b)(6) mobile

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# EIM and the Pacific Northwest 

February 26, 2017
Beth Looney
CEO - PNGC power

StZO $\pm-9 t 000-\varepsilon Z 0 Z-\forall d Я$

## PNGC Power

- G\&T that serves 15 distribution cooperatives in seven states in the Pacific Northwest
- BPA provides approximately $80 \%$ of our total power supply
- Rapidly growing system
- Approximately 900 MW peak growing to $1,500+$ MW peak by 2028
- Member cooperatives in multiple balancing authority areas (BAA): BPA, PacifiCorp East and West
- Generation Owner
- Transmission Dependent


## What's the Difference? ISO / EIM / Bilateral Market

|  | Trans. Planning | Trans. <br> Cost <br> Recovery | Trans. Operations | Generation Planning | Generation Cost Recovery | Generation Dispatch | Energy Pricing | Balancing <br> Authority <br> Function | Resource <br> Adequacy <br> Function |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| ISO <br> Environment | ISO | ISO | ISO | Utility | Mixed | ISO | ISO | ISO | ISO |
| EIM <br> Environment | Utility | Utility | Utility | Utility | Mixed | Mixed | Mixed | Utility or Host BAA | Regulating Body of Utility |
| Bilateral Environment | Utility | Utility | Utility | Utility | Utility | Utility | Utility | Utility or <br> Host BAA | Regulating Body of Utility |

## How Does the EIM Impact BPA Cooperatives?

## BPA Doesn't Join ElM

- Some potential for less secondary sales if traditional bilateral partners rely more heavily on EIM.
- Increased complexity of transmission policy as EIM entities utilize dynamic transfers on BPA's transmission system.


## BPA Does Join EIM

- Increased capital costs to implement facility upgrades necessary to communicate with market.
- Increased expenses associated with operating in market design (settlements, scheduling, etc.).
- Enhanced transmission operation visibility.
- Potentially more effective constraint mitigation.
- Uncertain benefits to joining - no cost benefit study has been completed.


## Major Issues with ISO Expansion

- No acknowledgment, recognition, or explanation of treatment of Federal Power Act (FPA) section 217 and 218 (conversion of physical transmission rights to financial rights must be voluntary).
- Insistence that the LSE has the primary relationship with CAISO, and that BPA's Preference Customers are the LSEs.
- CAISO would require the LSE to offer more resources into the market than BPA currently provides its LSEs.
- No provision allowing resources external to the BA to meet flexibility needs.
- Standardized Region-wide planning reserve margin established by CAISO or Western States Committee for all Regulatory Authorities.
- Governance concerns regarding California-centric authority.
- Imposition of green house gas requirements on states not regulated by such GHG requirements.


## OATT vs．CAISO

|  | Transmission | Energy， Congestion， Losses | Ancillary Services | Transmission Cost Recovery |
| :---: | :---: | :---: | :---: | :---: |
| OATT | Physical transmission rights to specific Point of Receipt and Point of Delivery． <br> Rollover rights（first right of refusal）offered on firm reservations five years or greater． | Single purchase price from generator to load． <br> Under NT service the BAA addresses congestion issues through re－dispatch． <br> Losses are a fixed percentage based on a system study set by each BAA． | Transmission Service Provider supplies ancillary services at a fixed rate developed through a rate process． | Pacificorp has an OATT formula rate process to recover Transmission Revenue Requirements（TRR）．If PacifiCorp over collects the overage is refunded back to load inside Pacificorp＇s BA． |
| CAISO | Point of Injection and Point of Withdrawal：No physical transmission rights． <br> Transmission system is optimized based on flows． <br> Import transmission rights granted at interchange points f are based off of schedules （usage）and or load ratio share in localized area or entire BAA． | Generator receives one price at injection point．Load is charged a different price at withdrawal point． <br> Congestion is addresses through a market clearing price based on flows．Can be a negative or positive addition to the energy price at load． <br> Losses are also assigned a market price based on flows and can be a positive or negative addition to the market price at load． | Ancillary services have to be purchased in the market by the load serving entity． | The CAISO uses a Transmission Access Charge（TAC）that is applied to the load inside the CAISO．The TAC recovers TRR similarly to PacifiCorp＇s OATT formula rate．However under the CAISO some of the costs for new transmission builds outside the Pacificorp BA could be applied to the Pacificorp TAC．In addition all exports or wheel－through＇s from the CAISO will be charged a much higher Export Access Charge（EAC）and revenues allocated pro rata based on TRR of each area． |

## Latest and Greatest Coordination Transmission Agreement (CTA)

- Establishes a coordination committee between BPA and CAISO
- Provides a mechanism with which the parties can share data
- Constraints and limitations on the transmission system (assists with modeling efforts)
- CAISO operating actions which may impact BPA's transmission operations
- Enhance EIM operations
- Improve operating coordination between the parties
- Aids in managing EIM power flows on BPA's transmission system
- BPA sets ramp limits
- Manage EIM flows in a constrained and non-constrained environment
- CAISO agrees to attempt to provide generation (re)dispatch to alleviate South of Alston flowgate issues associated with ElM operations
- CAISO ensures that transfers over interties do not exceed limits


## Hot Off The Press - BPA hopeful this will be finalized this week

From: Stasky, Darlene
Sent: Tue Jun 11 14:38:56 2019
To: Mainzer, Elliot E (BPA) - A-7
Cc: Berberich, Steve
Subject: [EXTERNAL] RE: [EXTERNAL] RE: BPA EIM Letter to the Region
Importance: Normal
Attachments: Administrator's Cover Letter to the Region(CAISOreview)_SB.docx

Hi Elliot,

I hope this email finds you well. As per Steve, please see attached with edits highlighted in yellow.

Thank you,

## Darlene Stasky

Executive Assistant to
Steve Berberich, President \& Chief Executive Officer
CAISOLogo-emailsig2

## O: $916.351 .2222 \mid M ;(b)(6)$

dstasky@.caiso.com

From: Mainzer,Elliot E (BPA) - A-7 [eemainzer@bpa.gov](mailto:eemainzer@bpa.gov)
Sent: Monday, June 10, 2019 6:03 PM
To: Berberich, Steve [SBerberich@caiso.com](mailto:SBerberich@caiso.com)
Subject: [EXTERNAL] BPA EIM Letter to the Region

Hi Steve,

Per our conversation this evening, attached is the cover letter to the region for our pending decision on whether to sign an EIM implementation agreement. I have endeavored to articulate our interest in ensuring a well functioning market that effectively addresses capacity pricing and to fairly characterize my understanding of the CAISO's commitment to implementing the day ahead flex reserves product.

Our plan is to release this document and other associated materials next Monday. Please let me know if you have any comments or concerns.

Looking forward to next steps.

## Elliot

## Forwarded message

From: Elliot Mainzer [emainzer@comcast.nel](mailto:emainzer@comcast.nel)
Date: Jun 10, 2019 5:53 PM
Subject: [EXTERNAL] BPA EIM Letter to the Region
To: "Mainzer,Elliot E (BPA) - A-7" [eemainzer@bpa.gov](mailto:eemainzer@bpa.gov)
Cc:

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[^25]
## Administrator's Cover Letter

The Bonneville Power Administration is formally launching a public process to determine its future role in the Western Energy Imbalance Market. The first decision will be whether to sign an implementation agreement with the California Independent System Operator. I am proposing to sign the agreement in September 2019 and move forward toward joining the EIM in March 2022.

Participating in an efficient, organized energy market is one action Bonneville could take in its effort to modernize assets and system operations, a key goal of our 2018-2023 Strategic Plan. Through Bonneville's grid modernization initiative, in a coordinated partnership with the U.S. Army Corps of Engineers and U.S. Bureau of Reclamation, we are driving efficiencies to support commercial and operational success while maintaining reliability and meeting our obligations to the region.

Signing the implementation agreement would not obligate Bonneville to join the EIM, but it is an important milestone, as it establishes a high-level project plan and schedule for the steps we must take to join the market.

To inform this decision, we have been studying how and under what conditions Bonneville could join the EIM. This package describes our findings, much of which has already been shared through previous stakeholder engagements. It includes the results of a cost-benefit analysis, the draft implementation agreement, and the principles that must be met before Bonneville could participate in the market. Bonneville has also provided its perspective on the legal implications of joining the EIM, a roadmap of the process for policy decisions needed to get to a final decision and analysis of several foundational decisions about how Bonneville will participate in the EIM.

To date, all of the participating EIM entities have reported significant generation dispatch benefits and improved situational awareness and congestion management on their transmission systems. Bonneville's participation would give power and transmission customers the opportunity to participate in the market with their own generation. Owners of independent power plants located in the Bonneville balancing authority area would also be eligible to participate in the market.

In 2017, Bonneville staff performed an initial, internal analysis to determine whether there were sufficient benefits for Bonneville to formally explore joining the EIM. Staff's analysis concluded that joining the EIM could provide modest but positive net revenue. Based in part on this initial study, I made the decision to initiate a formal process to consider whether Bonneville should join the EIM. I directed staff to commission a more exhaustive and precise cost-benefit analysis consistent with what other utilities considering whether to join the EIM have done. To perform the cost-benefit analysis, Bonneville contracted with E3, an organization that has performed many similar industry-standard analyses for other EIM participants.

The formal cost-benefit analysis shows Bonneville could earn additional annual power revenues of \$2933 million a year. There are also significant benefits for transmission reliability and operations due to the improvement in situational awareness, visibility and congestion management associated with
participation in the EIM. This is all consistent with the goal of using the transmission system more efficiently to get more out of the existing system.

While the cost-benefit study and other aspects of EIM participation are very encouraging, I realize that joining the EIM has implications for several aspects of Bonneville's operations and business model, and there will be some implications for Bonneville's power and transmission customers and the services that Bonneville provides. That's why we have established a set of principles by which the multiple decisions associated with moving into the market can be measured.

We are seeking input on these principles and all other aspects of the attached package through July 17, 2019. Bonneville will use the input from those comments to develop a record of decision that we will release in September. If the decision is to sign the implementation agreement, the next steps would include implementation activities and further stakeholder processes for the additional policy development, leading to needed changes to the tariff and rates in the TC-22 and BP-22 cases. All this activity will build up to Bonneville making a final decision on whether to join the EIM in late 2021.

As we approach this significant milestone for Bonneville and the region, I want to emphasize that a welldesigned electricity market is built on a strong foundation of resource adequacy and has features that optimize intra-hour energy balancing and explicitly compensate capacity resources for providing capabilities that are essential for system reliability. While the projected revenues and other benefits of EIM participation are encouraging, the EIM is designed to compensate resources for the real-time energy and ramping capability they provide, which Bonneville views as just one piece of a well-designed electricity market. Additional mechanisms are required to compensate Bonneville for the capacity value of the flexible, carbon-free federal power it chooses to provide.

To complement the EIM, the CAISO should administer a day-ahead product that incents the commitment of additional flexible capability from resources that can be deployed in real-time. I vïew such a product as an opportunity for Northwest hydro and other dispatchable resources that can quickly ramp up or down to make up for unscheduled changes in load and generation. These valuable capabilities will support the reliability of the western transmission grid as we work to integrate large amounts of additional renewable energy generation. Bonneville has taken an active role in the CAISO's ongoing effort to develop a day-ahead flexible ramping product. Based on dialogue with CAISO leadership, I expect that the CAISO will complete its stakeholder process and implement this product before Bonneville goes live in the EIM.

In closing, I sincerely appreciate the engagement of our Federal partners, the U.S. Army Corps of Engineers and U.S. Bureau of Reclamation. I also appreciate the stakeholders for their participation and thoughtful input in this process. Bonneville is only successful when it moves ideas forward through collaborative and transparent processes where all the voices of its customers and other stakeholders are heard and considered. Joining the EIM would be a big step forward for Bonneville. I see this as an opportunity to move Bonneville into the future and ensure we continue to drive the region's economic prosperity and environmental sustainability. Thank you in advance for your constructive feedback on this important initiative.

From: Berberich, Steve
Sent: Mon Jun 24 09:07:25 2019

To: Mainzer,Elliot E (BPA) - A-7
Subject: [EXTERNAL] [EXTERNAL] Carl Zichella
Importance: Normal

Elliot,

I had a brief conversation with Ralph Cavanaugh and he requested that we invite Carl to any press event we do around BPA joining the Western Energy Imbalance Market. Can you make that happen when the time is right?

## Steve

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*****************************************************************************************************)

## From: Mainzer,Elliot E (BPA) - A-7

Sent: Wed Jan 08 15:33:09 2020

To: reiko.kerr@ladwp.com; ksra@pge.com; Mike.Hummel@srpnet.com; dhighley@tristategt.org; pat.collawn@pnmresources.com; jeff.guldner@aps.com; mary.kipp@pse.com; Mike Cashell; Daniel T. Froetscher; mzehr@tristategt.org; jimshetler@thebanc.org; Jason Thackston; Alice.Jackson@xcelenergy.com; howard@wapa.gov; tmf2@pge.com; arlen.orchard@smud.org; Stacey Crowley; Gabriel@WAPA.GOV; todd.fridley@pnm.com; SDrury@semprautilities.com; dgeier@semprautilities.com; mfrye@wecc.biz; Igrow@idahopower.com; Kevin.Payne@sce.com; KGeraghty@nvenergy.com; bob.rowe@northwestern.com; Marker,Douglas R (BPA) -DIR-7; David Mills; Larry.Bekkedahl@pgn.com; Michael.I.boughner@xcelenergy.com; Stefan.Bird@pacificorp.com; jbladow@tristategt.org; CWinn@semprautilities.com; Maria.Pope@pgn.com; CBarbash@nvenergy.com; DCannon@nvenergy.com; gary.hoogeveen@pacificorp.com; rbailey@wapa.gov; Tom.Bechard@powerex.com; Chris.Olson@pnm.com; Steve Berberich

Cc: mtwalker@caiso.com; Rose.Cervenak@pacificorp.com; raquel.s.madsen@xcelenergy.com; Stasky, Darlene; D-D.smith@pse.com; patricia.sigala@ladwp.com; Ingrid.Hummelshoj@powerex.com; blanca.g.davila@aps.com; carrin.larsen@pacificorp.com; jessica.smith@pse.com; Liz.Lesko@pgn.com; Ritter Jr,Bill; rnuno@semprautilities.com; Case,Cynthia D (CONTR) - DIR-7; JJeffers@semprautilities.com; fwarner@tristategt.org; Cynthia.Salvador@sce.com; Hannigan IV,Benjamin R (BPA) - A-7; Raedyne.Smith@xcelenergy.com; bhuggins@wecc.biz; lavery@wapa.gov; JRoussel@semprautilities.com; cieluch@wapa.gov

Subject: Report on WEIL member meeting with Western Governors
Importance: Normal

I think this was a very constructive meeting. Special thanks to Governor Ritter, Stacey Crowley, and Doug Marker for the excellent setup and helping us get off to a good start on these very important issues. I am looking forward to a follow up discussion at our next WEIL meeting in February and hope to see as many of you there as possible. More details to come soon.

Happy New Year and best wishes,

## Elliot

On Jan 8, 2020 14:46, "Marker,Douglas R (BPA) - DIR-7" [drmarker@bpa.gov](mailto:drmarker@bpa.gov) wrote:
WEIL Members:

This is a brief report on the meeting of WEIL CEOs and Western Governors adjacent to the WGA winter meeting on December 13.

Elliot Mainzer, BPA; Steve Berberich, CAISO, Mary Kipp, PSE; Alice Jackson, Xcel; and Doug Cannon, NV Energy provided diverse representation of western electric utilities to meet with three western state governors (from CO, ID and NV) and high-level staff representatives from another five states. Former Colorado Governor Bill Ritter convened the hour-long discussion.

Governor Ritter described the interests of the utility executives to engage proactively with state leadership on their clean energy policy design and find ways to work regionally on solutions. He framed this meeting as an initial discussion of how states and utilities can collaborate in support of state economic and environmental objectives in concert with electric system reliability and affordability.

The utility executives conveyed their current challenges and interest in working with the states on policy implementation to meet state goals. They described a variety of solutions already underway, including market design that is yielding costs savings through participation in an energy imbalance market. Other aspects of diverse state policies (such as carbon reduction polices, governance, transmission planning, and cost allocation) remain in need of broader policy collaboration to align standards, implementation schedules and objectives.

Participating governors expressed interest in tackling specific collaborations where needed. The governors emphasized that a list of collaborations should be based on policy "friction" resulting from separate state policies. They urged the utilities leaders to work with state energy policy offices to propose a list of policy issues that promise greatest value for their consumers and electric system reliability. Governor Ritter offered to facilitate refinement of such a policy list and provide that in coming weeks. Several of the senior state policy staff that were present offered to work with Doug, Stacey, and Bill Ritter's team to work on next steps.

## Doug Marker

Intergovernmental Affairs
Bonneville Power Administration
503-230-3549 (office)



[^0]:    California ISO maintains reliability and accessibility to one of the largest and most modem power grids in the world, delivering the energy needed for the world's eighth largest economy. PacifiCorp is one of the West's leading electric utilities. It operates as Pacific Power in Oregon, Washington and California; and as Rocky Mountain Power in Utah, Wyoming and Idaho.

[^1]:    AWEA is the national trade association of America's wind energy industry, with 2,000 member companies, including global leaders in wind power and energy development, wind turbine manufacturing, component and service suppliers, and the world's largest annual wind power trade show, WINDPOWER® Conference and Exhibition, to be held next in Chicago, May 5-8, 2013. AWEA is the voice of wind energy in the U.S., promoting renewable energy to power a cleaner, stronger America. Look up information on wind energy at the AWEA website. Find insight on industry issues at AWEA's blog Into the Wind. Join AWEA on Facebook. Follow AWEA on Twitter

[^2]:    

[^3]:    Thanks Keoni. I will pass this on to the BPA team and would expect to have additional discussions at the upcoming Friday conference call

[^4]:    Main Text
    The ISO has posted a governance white paper to its website at http://www.caiso.com/Documents/EnergylmbalanceMarket-
    GovernanceProposalWhitePaper081313.pdf. Please use the stakeholder comments template available at
    http://www.caiso.com/Documents/StakeholderCommentsTemplate-EnergylmbalanceMarketGovernanceProposalWhitePaper.doc and submit comments on the white paper to EIM@caiso.com by close of business September 6.

    The white paper outlines a proposal for the development of a governance structure that ensures market participants maintain a meaningful role in energy imbalance market decision-making. The proposed structure also seeks to preserve the significant and tangible benefits of the energy imbalance market, both at the outset and in the future.

    An initial presentation about the governance proposal will be featured at the August 20 Energy Imbalance Market stakeholder meeting scheduled in Portland. The ISO will post a revised governance proposal to its website on October 4 in response to stakeholder comments.

[^5]:    2 Powerex Corporation ("Powerex"); the Transmission Agency of Northern California ("TANC"); the Modesto Irrigation District ("Modesto"); Public Utility District No. 2 of Grant County Washington; the City of Seattle, Seattle City Light ("Seattle"); Bonneville Power Administration ("Bonneville"); the Sacramento Municipal Utility District ("SMUD"); the Imperial Irrigation District ("IID"); and the City of Los Angeles Department of Water and Power ("LADWP"); Portland General Electric Company ("Portland"); Puget Sound Energy, Inc.; NRG Companies; Alliance for Retail Energy Markets; Natural Resources Defense Council ("NRDC"); Public Utility District No. 1 of Chelan County, Washington ("Chelan"); Avista Corporation; the Cities of Anaheim, Azusa, Banning, Colton, Pasadena and Riverside ("Six Cities"); Golden State Water Company’ Western Area Power Administration; Public Generating Pool; Western Power Trading Forum ("WPTF"); Salt River Project Agricultural Improvement and Power District; the California Public Utilities Commission ("CPUC"); J.P. Morgan Ventures Energy Corporation; Balancing Authority of Northern California; Goshen Phase II, LLC; Pacific Gas and Electric Company ("PG\&E"); Cogeneration Association of California; Imperial Irrigation District; Public Service Company of Colorado; PacifiCorp; San Diego Gas \& Electric Company; Tri-State Generation and Transmission Association, Inc. ("Tri-State"); Utah Associated Municipal Power Systems ("Utah"); Iberdrola Renewables, LLC ("Iberdrola"), PUC EIM Group; Morgan Stanley Capital Group Inc.; Electric Power Supply Association; Nevada Power Company and Sierra Power Company,

[^6]:    California Department of Water Resources State Water Project, Renewable Northwest Project, City of Redding California, M-S-R Public Power Agency, City of Santa Clara, Southern California Edison Company ("Edison"), Northern California Power Agency, California Municipal Utilities Association ("CMUA"), and the California Energy Commission and the California Air Resources Board.
    ${ }^{3}$ WPTF, Powerex, PG\&E, PacifiCorp, Modesto, Chelan, Tri-State, Utah, Iberdrola, TANC, CUMA, Six Cities, Bonneville, Redding, Seattle, Santa Clara (adopting the comments of TANC and CMUA), NCPA (adopting comments of the CUMA), Edison, SMUD, IID, and LADWP (collectively, Neighboring Entities"), Portland.
    $4 \quad$ PUC EIM Group; CPUC; Xcel Energy Services; San Diego Gas and Electric Co.; The Electric Power Supply Company; Nevada Power Co. and Sierra Power Company; the American Wind Energy Association, the California Wind Energy Association, the Center for Energy Efficiency and Renewable Technologies, and Renewable Northwest; and the California Air Resources Board and California Energy Commission.
    $5 \quad 18$ C.F.R. § 385.213(a)(2) (2013).
    6 Southwest Power Pool, Inc., 89 FERC $\mathbb{T} 61,284$ at 61,888 (1999).
    7 Tennessee Gas Pipeline Co., 82 FERC T1 61,045 at 61,186 n. 5 (1998).
    8 El Paso Natural Gas Co., 82 FERC ๆ 61,052 at 61,200 (1998).

[^7]:    ${ }^{27}$ Powerex at 91-92.

[^8]:    37
    ld.
    ${ }^{38}$ The Commodity Futures Trading Commission has also accepted that the ISO's existing structure, which includes not being part of the chain of title on delivery of energy, "will, in fact, provide [it] with enforceable rights of set off against any of its market participants." See Letter dated April 29, 2013, from Ananda Radhakrishnan (accepting the ISO's legal memorandum as in compliance with Paragraph 6(a) of the CFTC's Final Order, 78 Fed. Reg, 19880) (April 2, 2013).

    39
    Powerex at 87-89.
    40 Indeed, the Energy Imbalance Market could operate without transfers between participating balancing authority areas.

[^9]:    $62 \quad$ Edison at 11-12.

[^10]:    70
    See proposed § 29.1.
    71 Powerex at 49-55.

[^11]:    72 Powerex at 54-55.
    $73 \quad$ PacifiCorp at 12.

[^12]:    74
    Powerex at 93.

[^13]:    92
    PG\&E at p. 6-7.

[^14]:    96
    Powerex at 60-64.

[^15]:    104
    105
    ld.
    PacifiCorp at 8-9.

[^16]:    RTO were extended without full participation, not because the market services extended beyond the MISO border).
    ${ }^{123}$ Indeed, rates for congestion management, which, as an ancillary service, is a transmission service, typically differ between different temporal markets.
    124 Transwestern Pipeline Co., 36 FERC ๆ 61,175, at 61,433 (1986).
    125
    Powerex at 33.

[^17]:    130
    Id. at 33.
    131
    Midwest Indep. Transmission Sys. Operator, 109 FERC TI 61,168 at P 59 (2004) (finding license plate rates consistent with the Commission's regional transmission pricing policies).
    132 Powerex at 34, citing Sw. Power Pool, Inc., 109 FERC ๆ 61,009 at PP 36-40, 48-51 (2004).

    133
    Id., citing Sw. Power Pool, Inc., 114 FERC T 61,289 (2006).

[^18]:    153 ld.
    See Budget and Grid Management Charge Materials for the April 17. 2014 Stakeholder Meeting (including an Energy Imbalance Market cost of service study).
    $155 \quad$ Six Cities at 12.

[^19]:    177
    Id. at 15 .
    178
    ld. at 16-17.
    179
    ld. at 19.

[^20]:    180 These arguments are independent of the outcome of the efforts undertaken by the Transitional Committee and would apply equally even if no further governance changes are proposed as a result.
    181 Promoting Wholesale Competition Through Open Access Non-discriminatory Transmission Services by Public Utilities and Recovery of Stranded Costs by Public Utilities and Transmitting Utilities, Order No. 888, FERC Stats. \& Regs. TI 31,036 at 31,730-31 (1996), order on reh'g, Order No. 888-A, FERC Stats. \& Regs. IT 31,048 (1997).
    182 Order No. 888 at 31,730-31.
    183 Regional Transmission Organizations, Order 2000, FERC Stats. \& Regs. IT 31,039 at 31,061-76 (1999), order on reh'g, Order No. 2000-A, FERC Stats. \& Regs. II 31,092 (2000).

[^21]:    198
    ld. at 13.
    $199 \quad$ ld. at 14.
    200
    Wholesale Competition in Regions with Organized Markets, Order No. 719, 125 FERC $\mathbb{I}$
    61,071 at P 326 (2008), order on reh'g, Order No. 719-A, 74 Fed. Reg. 37,776, PP 138-43 (2009).

    201
    Order No. 719-A at P 141.

[^22]:    207
    PJM Interconnection, LLC, 143 FERC 1 61,090 (2013).
    Allegheny Elec. Coop, Inc. v. PJM Interconnection, LLC, 120 FERC ๆ 61,254 (2007).
    Order No. 719 at P 330.
    ISO Tariff, Appendix P, Section 1.2.

[^23]:    211 PJM Interconnection LLC, 143 FERC ๆ1 61,090 (2013).
    Id. at P 58.
    ld. at P 54.

[^24]:    221
    PG\&E at 8-10.

[^25]:    *******************************************************************************)

