



MEMORANDUM

EUGENE WATER & ELECTRIC BOARD

Rely on us.

TO: Commissioners Simpson, Brown, Helgeson, Manning and Mital
FROM: Dave Churchman, Power Operations Manager
DATE: April 26, 2013
SUBJECT: Trading Floor Overview
OBJECTIVE: Information Only

Issue Statement

This backgrounder has been prepared to provide the Board information on the functions performed by the trading floor.

Background

Commissioners have occasionally asked about the need to staff a trading floor. Often this question comes up when contrasting EWEB's business model to other regional utilities such as SUB. The intent of this backgrounder is to provide a summary of the rationale for staffing a trading floor in a Q&A format.

Discussion

What business critical duties does the trading floor perform?

Realtime / Day Ahead

- Remotely dispatches Carmen Smith / Trail Bridge hydro generation from downtown location and manages water flows from the project
- Runs BPA Slice river simulations and submits hourly production schedules to BPA
- Continuously meets load demand using EWEB generation and wholesale transactions
- Schedules all purchases, sales, transmission losses, and remote generation in and out of EWEB system and submits this information to BPA and counterparties via an electronic e-tag
- Purchases transmission to effect wholesale purchases and sales
- Provides trading and scheduling services to other utilities and generating facilities

Mid Term

- Negotiates and executes hedges out through five years for power and RECs in accordance with Board Policy and Risk Management Policy
- Forecasts BPA and EWEB hydro generation for use in hedging and financial forecasts
- Executes long term firm transmission contracts to import resources to EWEB
- Participates in structuring and negotiation of wholesale and retail contracts

What trading floor functions are mandatory for EWEB?

Although not comprehensive, the functions below are generally representative of the mandatory responsibilities of the Trading Floor.

- EWEB is registered as a GO (Generator Operator) and as a PSE (Purchase/Sales Entity) and is required by the North American Electric Reliability Corporation (NERC) to electronically tag all transactions that enter or leave EWEB's service territory, and to coordinate hourly generation and load forecasts with BPA. Because EWEB is a Generator Operator it is required by the Western Electric Coordinating Council (WECC) and NERC to staff a 7x24x365 operation that can respond immediately upon receiving a directive.
- Meet license requirements on the McKenzie River including rate of change in flows and reservoir levels at the Carmen Smith facilities.
- Comply and support regulatory requirements including
 - Emergency Action Plan for dam or canal failure
 - Sabotage Reporting of suspicious activity as required by NERC
 - Reliability dispatch of EWEB generation as directed by the WECC Regional Reliability Coordinator
- Bonneville Transmission Business Practices
 - Failure to follow BPA Business Practices results in severe financial penalties including:
 - Balancing EWEB generation and load on an hourly basis and adjusting electronic e-tags to match changes in generation
 - Reducing generation during oversupply declarations
 - Increasing or decreasing generation when directed by BPA for reliability

Can someone else perform trading floor functions?

- **BPA - No**
 - BPA will not operate, dispatch, or tag customer owned generation, including the BPA slice contract. BPA does provide full requirements service to customers such as SUB that do not have generation. Utilities such as Emerald PUD contract with a scheduling provider to perform these services.
- **EWEB Dispatch – No**
 - FERC has implemented standards of conduct – functional separation between transmission and merchant functions.
 - As a municipal EWEB is not subject to FERC jurisdiction, however FERC has broader authority under Federal Power Act – while it is generally reluctant to use this authority, FERC is exercising its authority over BPA under this statute currently.
 - FERC jurisdictional transmission providers (IOU's) cannot work with trading employees – if dispatch were to take over trading floor responsibility BPA and

PacifiCorp could not coordinate with them on transmission outages – this would be very problematic.

- Dispatch is not staffed or trained to perform the required functions.
- **Third Party Contractor – Yes**
 - Issues
 - BPA is very restrictive regarding the parties that are allowed to schedule the Slice product because they view the information required to schedule Slice as competitive information. Therefore, non-BPA customers that trade in the wholesale market are restricted from providing slice scheduling services.
 - Loss of hands on local control, including ramping on the McKenzie River.
 - Would require EWEB oversight to coordinate and manage a contractor.
 - License requirements – EWEB would still subject to FERC penalties, but would not have control of resource.
 - EWEB would still be responsible for NERC compliance, but would not be in control.
 - Only four parties currently provide power scheduling services in the NW
 - TEA – 9 slice customers, has never operated dispatchable hydro resources
 - Powerex – Chelan County PUD Real Time only, restricted by BPA from providing slice scheduling.
 - EWEB – Clatskanie, and multiple others
 - Douglas PUD – Schedules for Okanogan PUD

Has EWEB investigated the possibility of contracting out trading floor functions?

- Yes, however there are critical logistic and communication issues because the hydro facilities and Scada system used to control them are NERC critical/cyber assets which require a high level of both physical and network security. However, EWEB did talk with TEA and Shell on a preliminary basis about providing scheduling services. BPA determined that Shell was restricted from providing Slice scheduling services. TEA lacks experience scheduling hydro facilities but did provide a rough estimate that was not competitive with the cost of EWEB self staffing the trading floor.
- EWEB staff believes that there is not currently a competent, competitive alternative to self providing these services. Because EWEB provides scheduling services to other parties, we are able to significantly defray the costs of the trading floor to the EWEB customers.

Recommendation/Action

- This backgrounder is for information only. No action is recommended.