



MEMORANDUM

EUGENE WATER & ELECTRIC BOARD

Rely on us.

TO: Commissioners Brown, Mital, Helgeson, Manning and Simpson
FROM: Cathy Bloom, Finance Manager; Sue Fahey, Fiscal Services Supervisor;
Anna Wade, Senior Financial Analyst
DATE: March 25, 2014
SUBJECT: Annual Report on Power Trading Compliance and Financial Results
OBJECTIVE: Information Only

Issue

The October 2012 revision to Board Policy SD8, Power Risk Management Policies, requires the Finance Manager to present a report to the Board at least annually that covers the policy's trading and contracting compliance and the financial results of power trading. This backgrounder provides that information for calendar year 2013.

Background

Oregon statutes stipulate the appropriate scope for a governmental agency's investment of "surplus funds." Accordingly, EWEB's activities in the power markets must be associated with the provision of electricity to meet anticipated sales and generation forecasts. In 2006, Board Policy SD8 was developed to provide oversight control and guidance to the power trading operations. SD8 is included as an attachment for your reference.

Discussion

SD8.2 - Anti-speculation Statutes: In Compliance

To comply with anti-speculation statutes, SD8 requires managing its average megawatt market positions so that exposure to prices is limited. Occasionally changes to forecasts, load and/or generation result in SD8 position limits being exceeded. In those events, risk management control procedures developed under SD8.4 require positions to be brought back into compliance no later than the next trading day unless preapproved by the Financial Manager and Power Operations Manager. EWEB was in compliance with this procedure in 2013.

SD8 requires the mid-term position to be managed for a minimum of three years; however the Risk Management Committee (RMC) has adopted a more prudent practice of analyzing market position over a 5 year period.

SD8.3 - Financial Exposure Limitation: In Compliance

In addition to megawatt position limits, SD8 requires that controls be implemented to reduce the financial risk associated with market positions and ensure that results of trading activity combined with reserves provide adequate funding to cover other Electric Utility expenditures. EWEB was in compliance with this policy in 2013. The RMC evaluates financial risk beyond the SD8 three year minimum to encompass a five year time horizon.

Risk management control procedures also require that the following year's market position be hedged to the level included in the long-term financial plan by July. Given the Electric Utility's recent financial challenges, the RMC approved completing that activity by January in 2013 and 2014.

2013 RMC Actions

In addition to reviewing compliance on a monthly basis, the following actions were taken by the RMC in 2013:

- Risk management procedures were updated to:
 - Provide more specificity on Renewable Energy Certificate transactions to ensure that they meet mandated renewable portfolio requirements
 - Provide for authorization and additional review when trades are executed by staff acting in a back up capacity.
- Flakeboard America, LTD contract changes were approved which were ratified by the Board at the September 17, 2013 meeting.
- Direction was provided to staff on various projects relating to power supply assets.
- The termination of the Metro Wastewater power purchase agreement.
- The period for mid-term to cure the 2018 position limit compliance was extended by one month to improve counterparty liquidity.

Recommendation and Requested Board Action

This item is information only and no Board action is being requested at this time.

Attachments: Board Policy SD8

Policy Number: SD8
Policy Type: Strategic Direction
Policy Title: Power Risk Management Policies
Effective Date: October 2, 2012

1. Formation of Risk Management Committee

A Risk Management Committee (RMC) will be established to provide oversight control and guidance to the power trading and contracting operation.

The RMC will be comprised of the General Manager, Assistant General Manager, Finance Manager, Power Resources & Strategic Planning Manager, Trading/Power Operations Manager, Fiscal Services Supervisor, and the Generation & Fleet Services Manager. As a practical matter, minor title and/or work scope changes affecting RMC members shall not require formal amendment to this policy.

This committee, which will meet as necessary, will be responsible to the Board of Commissioners for prudent implementation of these policies and oversight of the trading operation to ensure compliance with this policy and overall good industry practices. On at least an annual basis or as necessary, the Finance Manager will present a report to the Board covering the trading and contracting compliance with this policy and the financial results obtained. Detailed responsibilities of the RMC include:

- Oversee the approval of all wholesale power trading accounts and counterparties to insure creditworthiness.
- Establish and periodically review the exposure and trading limits for trading operations, which shall not exceed the overall trading limits established by this Policy Statement.
- Authorize physical and financial wholesale power trading representatives to conduct trades and contracts pursuant to this policy.
- Review and approve retail contracts that are not subject to traditional retail tariffs.

2. Compliance with Anti-Speculation Statutes

EWEB must comply with ORS statutes stipulating the appropriate scope of investments for "surplus funds." Accordingly, EWEB's activities in the power markets must be associated with the provision of electricity to meet anticipated sales and generation forecasts. These criteria will be applied:

Real Time (a 24 hour day)

EWEB will manage its Real Time position so that its exposure to market prices for the balance of the day is no greater than 50 average megawatts surplus or deficit.

Short Term (balance of month and following month)

EWEB will manage its Short Term position so that its exposure to market prices for the balance of the month and the following month is no greater than 75 average megawatts surplus or deficit.

Mid Term (period beyond short term)

EWEB will manage its Mid Term position so that firm power supplies are within 25 average megawatts of expected firm sales.

This criteria will be applied to Mid Term time periods beyond the short term:

- For each month within the current and next prompt quarter
- For each of the next three quarters
- For each year within the next three years

The Board may grant exception to this policy to deal with specific circumstances, such as long-term resource acquisitions.

3. Financial Exposure Limitation

In addition to the megawatt position limits set forth in the Compliance with Anti-Speculation Statutes policy above, EWEB will implement additional controls to further limit financial risk associated with its market positions. The function of these additional controls would be to ensure that EWEB's projected contribution margin, when combined with available reserves and borrowing authority, will provide funding capabilities to cover other budgeted/projected expenditures at the Electric Utility.

Real Time (a 24 hour day)

Because total volumes and resulting exposure is small, no financial exposure limits are required.

Short Term (balance of month and following month)

EWEB will manage its Short-Term position such that there is a 95% probability an adverse market price movement will result in no more than a \$2 million risk exposure. The Board delegates the setting of methodologies for determining financial risk to be used to the Risk Management Committee.

All Traded Periods

At least on a monthly basis, Fiscal Services with the assistance of Power Operations and General Accounting, will monitor the contribution margin and resulting impact on reserves and available borrowing authority for each month over the succeeding 18 to 36 months. In addition, a probability analysis will be conducted. The target is to have a contribution margin which when combined with available Power Reserve/Unallocated Power Fund and borrowing authority will meet or exceed the funding needs of the Electric Utility in each month with at least 90 percent probability and leave an appropriate safety margin. Currently, that safety margin is determined to be at least \$20 million. Subject to annual review, the contribution margin is calculated by summing wholesale, retail and service revenue from the trading floor and subtracting purchased power, transmission and generation costs, as well as CILT expense. The RMC may establish tighter exposure limits to effectively manage the overall position.

4. Development of Detailed Control Procedures

Consistent with Committee of Chief Risk Officers Risk Policies, detailed control procedures will be developed by EWEB and approved by the RMC. These procedures will incorporate strong dual controls between those groups initiating trades and the risk management/accounting functions.

The Policy and Procedures Guide will further establish the roles and responsibilities of the Power trading, accounting, and Fiscal Services staff. The detailed policies and procedures will incorporate a credit approval and monitoring process to manage and measure credit exposure. The Policy and Procedures Guide, and its inherent controls will be approved by the RMC and reviewed on an ongoing basis.

5. Authorized Activities

The following types of price risk management instruments/transactions are authorized for trading activities:

- Physical delivery contracts with a term up to and including one year.
- Financial agreements with approved counterparties with a term up to and including one year.

The Policy and Procedures Guide as approved by the RMC will specify a process for determining the appropriate use of physical and financial hedge instruments. The Guide will also stipulate the types of swaps and options approved for use by the trading operation. The list of approved products and appropriate uses will likely change as the market changes and EWEB's trading operation gains experience with their use.

Source: Power Risk Management Policies and Procedures, Adopted 08/17/1999, Revised 03/05/2002, 9/19/2006, 10/2/12



MEMORANDUM

EUGENE WATER & ELECTRIC BOARD

Rely on us.

TO: Commissioners Brown, Mital, Helgeson, Manning and Simpson
FROM: Mel Damewood, Engineering Manager and Dean Ahlsten, Compliance Officer
DATE: March 24, 2014
SUBJECT: Rate Adjustment for Dark Fiber Leases
OBJECTIVE: Information Only

Issue Statement

At its May 7, 2013 meeting, the Board approved Resolution No. 1304, as amended, establishing a Dark Fiber Lease Rate for public agencies, higher education institutions and medical service providers. The Resolution included provision for annual rate adjustments, based on the City of Portland Consumer Price Index (CPI), effective April 1 each year thereafter. EWEB's existing "public purpose" rate for this class of customers is \$21.13 per fiber strand-mile per month. The Portland CPI adjustment will result in a 2014 rate of \$21.72 per fiber strand-mile per month.

Background

Prior to April of last year the Board had not authorized an adjustment to dark fiber lease rates since April of 2004. Annual rate adjustments during those intervening years were managed through multi-year contracts (Indefeasible Right of Use Agreements) using the same Portland CPI. Due to differing implementation dates in these Agreements, EWEB was charging slightly different rates for the same dark fiber service. The Board's rate action last year brought all customers in this classification under a common rate.

Discussion

Currently, there are nine Dark Fiber customers on EWEB's "public purpose" rate: the City of Eugene; Lane County; Oregon Department of Transportation; Peacehealth; Oregon Medical Group; White Bird Clinic; LS Networks; the University of Oregon; and Lane Community College. The White Bird Clinic is a relatively new customer added to the system in late 2012 under a Broadband Technology Opportunity Program (BTOP) grant. The others are long-term customers, many of which also added fiber line extensions under the same grant.

In addition to its "public purpose" rate, EWEB also administers two other Dark Fiber rate schedules through IRU Agreements; one for local School Districts and one for commercial telecommunication service providers. Those rates are currently set at \$4.65 per strand-mile

month for schools and \$43.20 per strand-mile month for commercial. The same CPI adjustment will be applied to these rates in accordance with provisions in the Agreements, resulting in \$4.78 and \$44.40 per strand-mile month respectively.

EWEB Dark Fiber services are billed on a quarterly basis to reduce administrative costs, as it is a manual billing process.

Recommendation and Requested Board Action

This item is for informational purposes only to inform the Board of the April 1, 2014 annual Dark Fiber rate increase of 2.8% in accordance with Board [Resolution No. 1304](#). Accordingly there is no recommendation or requested Board action.

Please contact Mel Damewood at 685-7145 or e-mail at mel.damewood@eweb.org to discuss this material.

Attachment: Updated Electric Customer Service Policies and Procedures, E-V, Subsection O.
Dark Fiber Lease



O. Dark Fiber Lease

1. Availability

EWEB’s fiber optic cables run through public right-of-way and are owned and maintained by EWEB. This rate schedule applies to public agencies and higher level educational institutions as well as existing leases for medical service providers within EWEB’s service territory, with the exception of any other rate that may apply under a separate agreement or rate schedule.

2. Character of Service

EWEB’s Dark Fiber Lease Rate Schedule (DFL-1) pertains to the available surplus fiber strands contained within EWEB’s existing fiber-optic system, covering the Eugene metropolitan area and other areas within EWEB’s service territory. Subscribing to EWEB’s Dark Fiber Lease allows the interconnecting entity to obtain an indefeasible right of use of allocated EWEB-owned fiber strands for the purpose of transmitting voice, data and/or video signals between locations.

3. Interconnection

The Customer is responsible for providing a complete conduit path from the termination point inside their facility to the EWEB demarcation point near the customer premise, in accordance with EWEB’s Fiber Optic Customer Standards. All customer provided conduit facilities and patch panels shall be inspected and approved by EWEB prior to connection of the lateral extension.

4. Advance Engineering Fee

All prospective EWEB Dark Fiber Lease subscribers must work with EWEB to complete an Advance Engineering Estimate of the cost and schedule for EWEB to provide dark fiber connectivity. A non-refundable \$500.00 fee is required prior to completing the Advance Engineering Estimate.

Advance Engineering Fee..... \$500.00
(Resolution No. 1304)

5. Service Agreement

A signed “Indefeasible Right of Use Agreement” or an “Intergovernmental Agreement” is required by EWEB before commencement of the detail Engineering design and construction of the lateral extension.

6. Non-Recurring Charges

The Customer shall pay an amount equal to 100 percent of the actual design and construction costs, payable upon completion of Dark Fiber connectivity.



7. Recurring Charges

The monthly charge for Dark Fiber Lease is determined by multiplying the length of the subscribed fiber strand(s) times the current monthly rate. The length of each fiber strand is determined from EWEB's Geographic Information System (GIS) Fiber Manager Application rounded up to the nearest one-half mile length. The Dark Fiber customer shall be billed a minimum of one (1) mile length for each such fiber pair. This information will be recorded in the customer's service agreement.

Dark Fiber Lease bills shall be rendered quarterly.

2013 Monthly Rate per Strand Mile*\$21.72

Note: *The Dark Fiber Lease Rate Schedule will be adjusted annually based on the City of Portland Consumer Price Index. (Resolution No. 1304)

8. General Terms and Conditions

Service under this schedule is subject to the policies and procedures of EWEB.



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TO: Commissioners Brown, Mital, Helgeson, Manning and Simpson

FROM: Lance Robertson, Public Affairs Manager; Dave Churchman, Power Resources Manager; Jason Heuser, Legislative and Federal Affairs Coordinator; Jon Hart, Trading Floor Energy Analyst

DATE: March 24, 2014

SUBJECT: Update on 2014 Legislative Session and Regional Issues; Energy Portfolio Update

OBJECTIVE: Information Only

Issue

This memo is one of three updates you will receive in 2014 on legislative activity, regional affairs, or market conditions. Each update will emphasize one of these topics based on the time of year. At the conclusion of each state legislative session, Public Affairs provides the Board with an overview of the key bills, budget items and other measures that were considered and which had the most potential impact to EWEB and its customers. Late in the year, you will be asked to approve the legislative agenda for the 2015 session.

Once hydro conditions can be reasonably determined Power Operations provides the Board an overview of expected hydro generation, current market prices, and an overview of EWEB's energy portfolio for the next five years. The portfolio and market information in this memo will be updated in the fall and presented along with a report on Bonneville Power Administration issues and actions, as well as an overview of current regional and federal power policy issues.

Background and Discussion – Legislative Issues

The following is a summary of the key bills, budget items and issues from the 2014 legislative session, followed by an update of key federal issues and legislation:

HB 4126 -- Changes to Oregon's Renewable Portfolio Standard (RPS) – PASSED

The Legislature approved this bill in the February “short” session, following a series of special task force meetings to examine RPS implications for smaller utilities that have large data centers move into their service territories, which would result in the utility being subject to the large-utility standard of the RPS. The impetus for the task force was also to produce an alternative solution to a statewide ballot initiative that would make all hydropower a qualifying renewable for the RPS. This would have effectively gutted the 2007 law -- the goal is a 25 percent renewable portfolio by 2025 for large utilities, even though 40 percent of Oregon's electricity comes from hydropower. EWEB was selected to be represented on this task force and participated in each of the task force meetings.

HB 4126 represented a political compromise which ensured that the ballot initiative would be defunded. Under the bill, small utilities that find themselves boosted into the large standard of the RPS would have enhanced flexibility to use a higher percentage of "unbundled" renewable energy certificates (RECs) in their earlier compliance years. An "unbundled" REC is like a commodity that represents the environmental attributes of renewable energy, but is sold without the underlying energy. "Unbundled" RECs can be procured through the market at lower cost, so this change amounts to a mitigation of rate impacts to smaller utilities that enter the large RPS after taking in a large data center or similar load.

Additionally, at the request of Pacific Power and Portland General Electric, HB 4126 instructs the Oregon PUC to examine designs for a green tariff that the two investor-owned utilities could offer to customers voluntarily seeking a bundled renewable product. Current law prohibits the two investor-owned utilities from offering an alternative to their generation-system mix. A green tariff option would allow them to meet the business needs of major technology companies – Google, for example.

EWEB's primary principle in task force meetings were to maintain as level of a playing field as possible for RPS compliance obligations amongst utilities. EWEB staff vigorously advocated for an approach that upheld this principle while offering some rate protection for existing customers of small utilities. The proposal endorsed by EWEB and others on the task force was to partition off new large loads in calculating whether a utility was subject to the large utility standard. A partitioned large load would be subject on its own though to the same renewable percentage targets as large utilities. In this approach, existing customers of small utilities would be protected from rate impacts from new RPS compliance requirements. New large loads would still face RPS requirements though in this proposal and the compliance for these large loads would be the same most anywhere they located in Oregon, making for a level playing field for communities competing for economic development.

There was strong support from many task force members for the partition proposal, but it did not produce an agreement that would ensure the cessation of the proposed state ballot initiative. Only the compromises that ultimately evolved into HB 4126 seemingly provided assurances that the ballot initiative would be defunded. As the task force neared its final meeting, most parties were unwilling to risk the chance of a ballot initiative succeeding, and thus a reluctant near-consensus developed on the compromise ultimately reached in HB 4126. EWEB adopted a position of neutrality as the bill advanced through the legislative process.

EWEB remains concerned that the changes made by HB 4126 could create a permanent disadvantage for EWEB relative to smaller Oregon utilities with less stringent RPS targets. This point could materialize in our current efforts to attract a new load at the Hynix facility. The cost of RPS compliance could prove to be a material difference and if it does result in EWEB's service territory being less attractive due to an unlevel playing field for RPS compliance, EWEB staff will evaluate possible policy solutions. The implications of HB 4126 re-enforce the premise of EWEB's carbon pricing position, which posits that the RPS is not the best way to effectively manage carbon reductions.

SB 1520 -- Securities Exemption for Community Solar Projects – PASSED

This legislation was approved to exempt community renewable energy cooperatives from state securities registration. The legal and accounting fees on even a small project can cost \$50,000 to

\$100,000 and are a significant obstacle to the economics of a community solar project. Although a community solar project concept and effort has not ripened in Eugene thus far, it remains a topic being discussed by members of the community and internally among EWEB staff. SB 1520 likely would afford EWEB more flexibility on our role if we are approached by a community group or entity with a proposed community solar project.

HB 4119 -- Expanding Qualification Based Selection (QBS) in Procurement -- FAILED

EWEB was at the forefront of the lobbying effort against this legislation, which would have prohibited EWEB and other local governments from considering price until AFTER the selection in procuring design services over \$100,000, such as architecture and engineering services.

Proponents of SB 644 argued that prohibiting price from being considered until after the selection is made would result in the most qualified consultants being selected with the best value to taxpayers. In advocacy to explain why this is not true, local governments often used a car-purchase analogy:

"An individual would likely research on the internet and visit a car lot to determine vehicles that meet their needs. They would then negotiate with the dealership on delivery time, color options, special packages, etc. If they could only ask about price when they were in the dealership offices about to sign, they would have taken all this time not knowing thus far whether the cost was within their budget or if it was a fair price compared to other options. If they found the price was out of reach, they would have to start the search process over from scratch."

In the case of a utility such as EWEB, such delays and elongation of procurement could result in missing key opportunities or requirements in narrow construction seasons, such as limits on when we can do in-water work at our hydroelectric projects.

Budget Note for Willamette Basin Review -- Reservoir Study – PASSED

The Legislature included a budget note authorizing up to \$1.5 million of state match funding at the Oregon Water Resources Department for this critical federal study, which would provide essential review of issues needed for possible future municipal access to 1.7 million acre-feet of water stored in the 12 federal reservoirs of the Willamette Basin Project. EWEB requested the help of local state Sen. Chris Edwards in championing this Budget Note, and he deserves great credit for the inclusion of this important authorization needed for the state of Oregon to keep up with the momentum at the federal level of this once-stalled study.

Background and Discussion – Regional Issues

Proposed 10-Year Experimental Spill Test

The Oregon Department of Fish and Wildlife (ODFW) and the Nez Perce tribe have proposed a 10-year experimental test to dramatically increase spill at all 8 federal projects in the Federal Columbia River Power System (FCRPS), ostensibly to benefit fish. The proposed test would:

- Increase the total dissolved gas caps beyond current and state federal limits to levels that most scientists believe could seriously harm or kill salmon and other aquatic species.

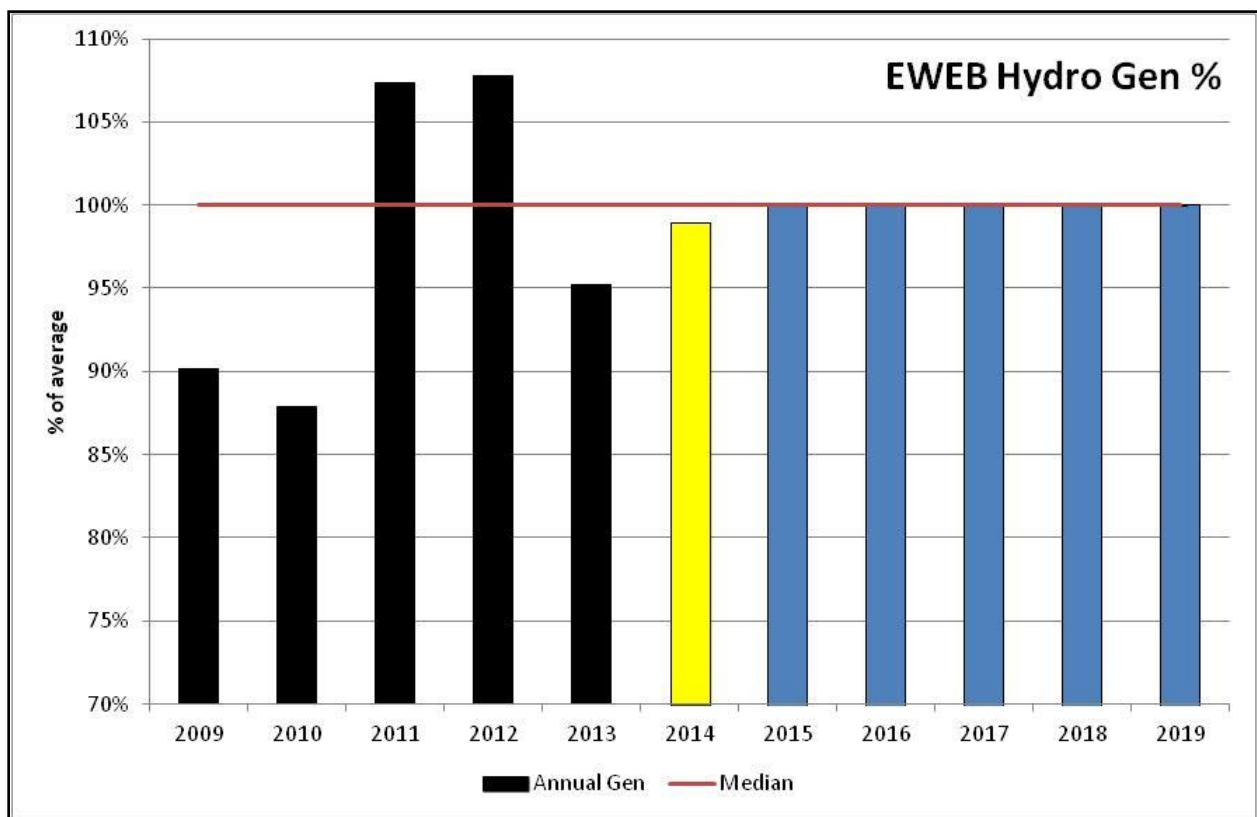
- Cost ratepayers \$110 annually for ten years and de-rate the hydropower system by another 600 average megawatts, hampering the ability to integrate intermittent renewable resources.
- Add up to 1.9 million additional tons of carbon dioxide into the atmosphere from combustion turbines needed to replace lost hydropower generation.

EWEB staff joined by 4 other representatives of public power in Oregon organized a March 10th meeting with Oregon members of the Northwest Power and Conservation Planning Council to share our serious concerns with this proposal. At the same time, EWEB Commissioners were in Washington DC briefing the Oregon Congressional delegation on the faults in this proposed test. The feedback from these meetings indicates that support for the proposed spill test is fading.

Background and Discussion – EWEB Portfolio Update

EWEB Hydro Generation

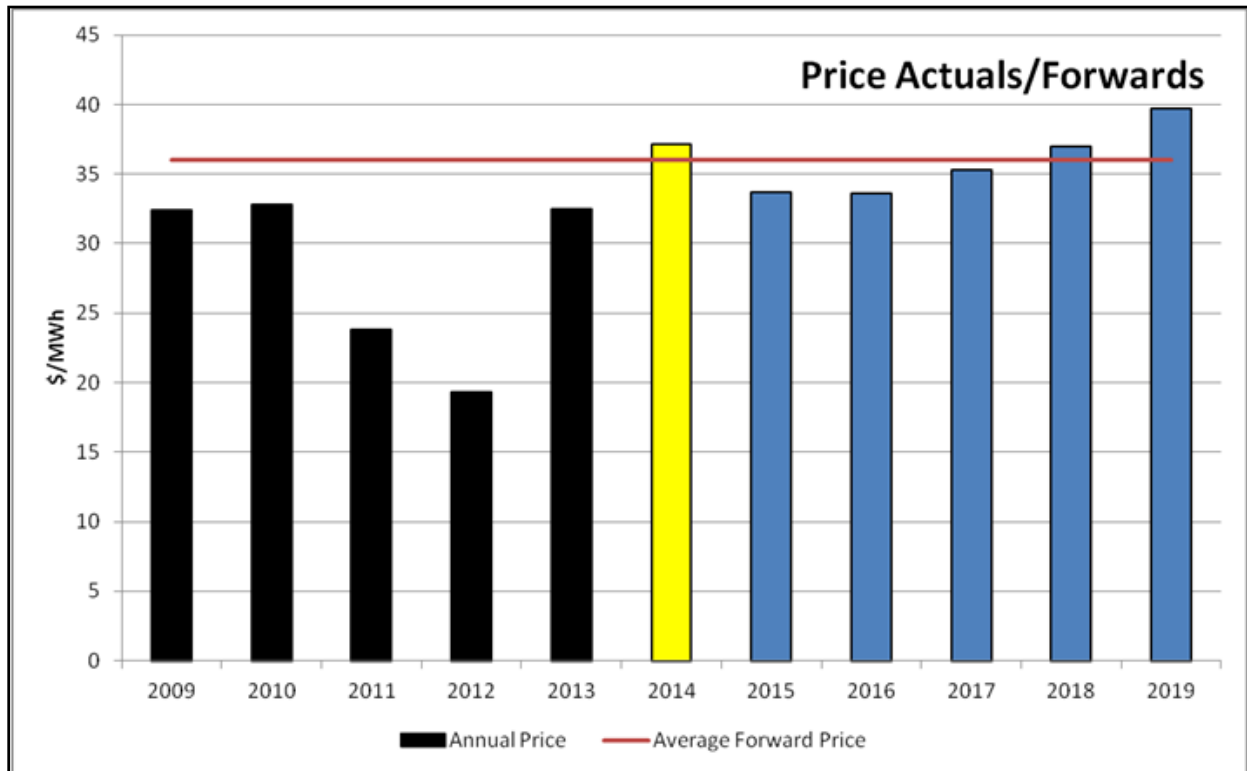
The EWEB hydro season has rebounded after a very poor start. Strong precipitation in February and March moved the hydro forecast back to to near normal levels for calendar year 2014. EWEB’s hydro gen forecast includes both EWEB owned generation (Carmen Smith, Trailbridge, Walterville, Leaburg, Stone Creek, and Smith Falls) and contracted Slice generation from Bonneville Power Administration. The Hydro forecast for the Federal projects on the Columbia and Snake Rivers hit their lowest point at the end of January at 82% of normal for the April – September period. Currently, that same forecast stands at 105%. The generation forecast is lower than the hydro forecast as some of this water will be spilled during the spring runoff period to assist in anadromous fish migration.



Note: The 100% expected percent of average for the forecast years of 2015 to 2019 is a physical expectation of output. For financial planning purposes, EWEB budgets at 90% expected hydro.

Market Price

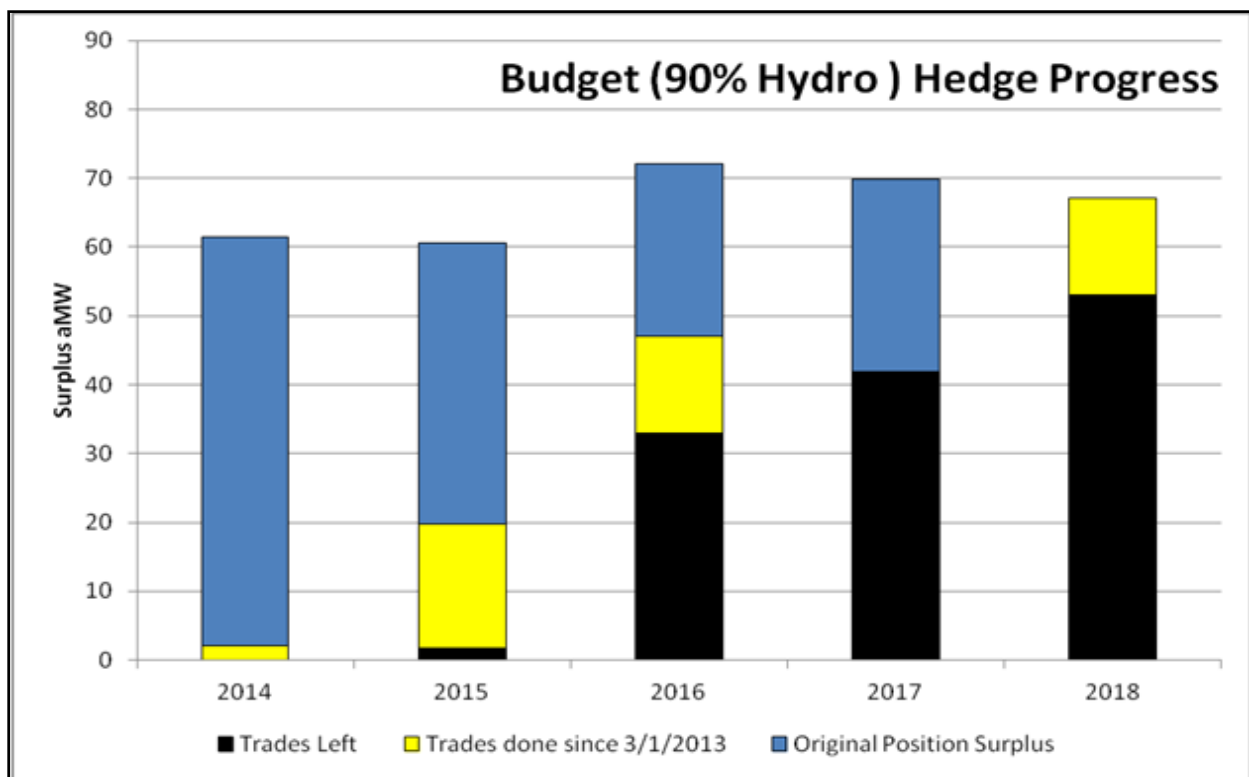
Market prices rebounded sharply in 2014 as natural gas moved upward in response to increased winter heating demand in the east, and subsequent lower gas storage levels. Prices through the first three months of the year have remained strong. EWEB saw some of the highest prices of the past three years during a brief runup at the start of February when day ahead energy traded as high as \$250/mwh. Though current 2014 prices are higher than 2013 and 2015, 2014 prices have moderated with increases in hydro generation. Prices in future years continue to trend upward. Prior prices are an average of daily prices throughout the course of the year. Future prices reflect the market price that can be currently transacted for those future years. While the generally lower long-term price of natural gas has contributed to continued lower power prices, the level of volatility in power prices has increased dramatically primarily due to volatility in the amount of wind power generated.



Surplus Position Hedging

The chart below shows EWEB's surplus power position for 2014-2018. The top of the chart (blue band) indicates EWEB's original surplus position. The yellow band represents sales made since in the last year since March, 2013. The black band represents unhedged energy surplus.

The Trading Floor sells a portion of EWEB's surplus position up to five years in advance. This provides two benefits – 1) currently it gives EWEB the opportunity to sell a portion of its surplus at higher prices relative to near term years, and 2) it results in sales executed at various times which diversifies our sales price through dollar cost averaging through time. This strategy results in near term years being fully hedged while year five is the least hedged, with interim years somewhere in between. Beyond five years the Trading Floor does not hedge any surplus energy. This surplus energy forecast is based upon 90% hydro. If we receive hydro in excess of 90% those surpluses are sold within the current water year.



Requested Board Action

No action requested; this is an informational item only. Commissioners with questions about these issues, or any other questions related to the legislative session or regional issues should contact Jason Heuser at jason.heuser@eweb.org. Commissioners with questions related to the Energy Portfolio Update should contact Dave Churchman at dave.churchman@eweb.org.