



# MEMORANDUM

EUGENE WATER & ELECTRIC BOARD

*Rely on us.*

TO: Commissioners Simpson, Helgeson, Manning, Mital and Brown  
FROM: Erin Erben, Chief Customer Officer, Bert Dunn, Lead Mid-Term Trader and  
Catherine Gray, Energy Resource Analyst II  
DATE: September 22, 2016  
SUBJECT: Wholesale Market Price Impacts and Mitigation  
OBJECTIVE: Information Only – Response to Board Questions

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## **Issue**

The Board has requested information to better understand how wholesale prices impact EWEB retail prices and how we mitigate those impacts.

## **Background**

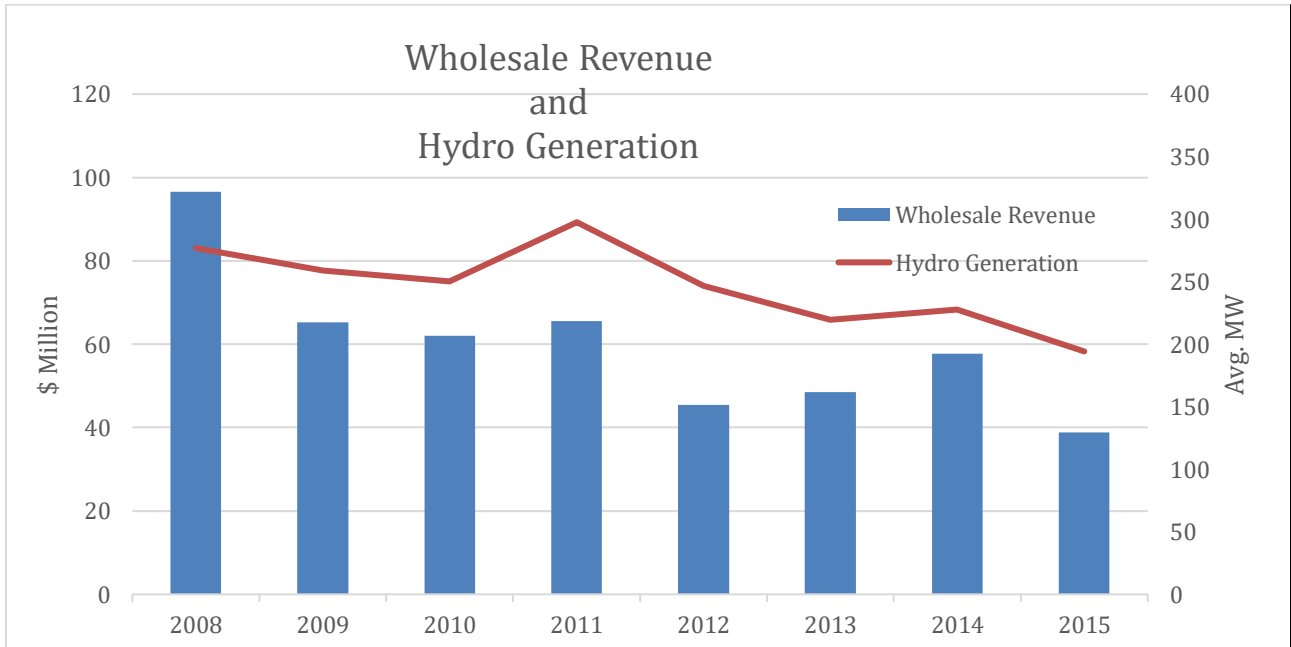
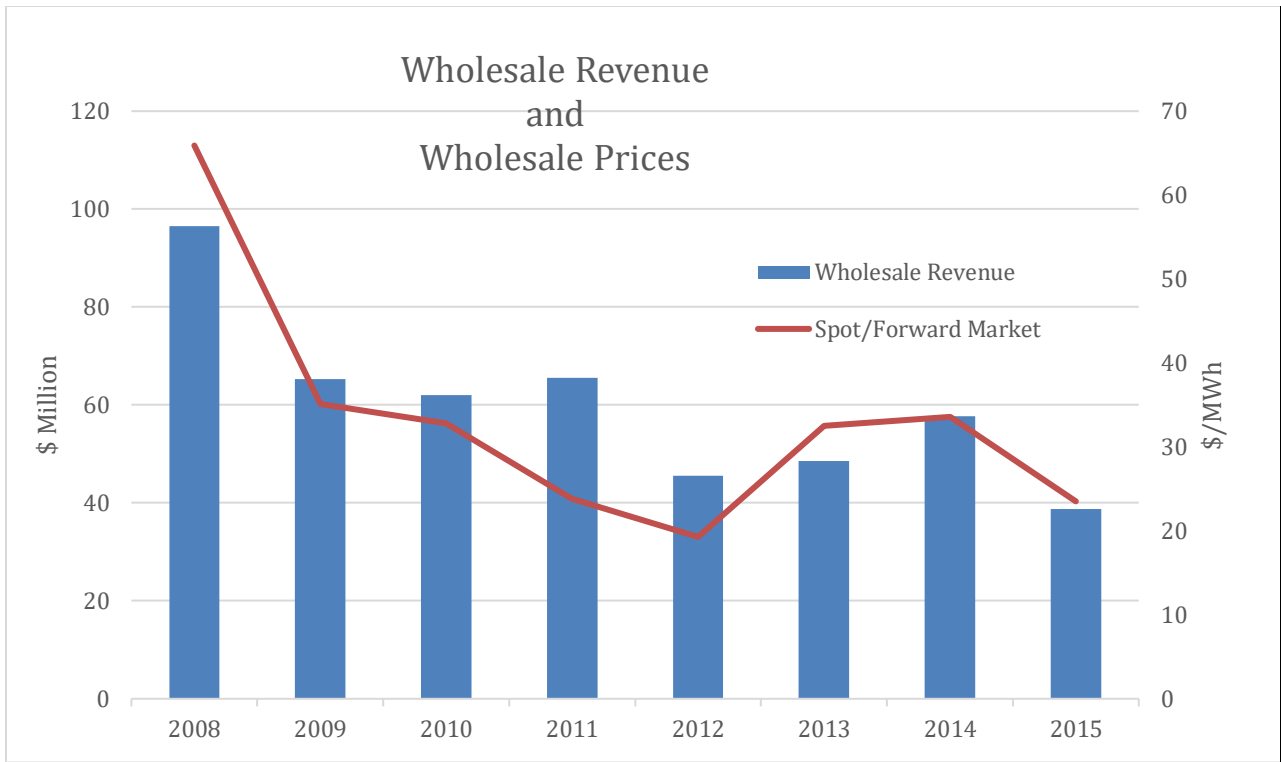
EWEB has substantial financial exposure to wholesale market prices, hydro generation volumes, and retail sales volumes. Wholesale prices and generation volumes affect wholesale revenues directly. Retail sales volumes affect retail revenues directly. Both wholesale revenue and retail revenue are major factors influencing retail prices (rates).

EWEB exposure to wholesale market prices is due to ongoing surplus power in excess to the needs of our retail customers. EWEB sells its surplus power in wholesale markets with the revenues offsetting power supply expenses. As wholesale prices have fallen sharply in the last eight years, wholesale revenues have also fallen. The fall in wholesale revenues has also significantly reduced BPA revenues and a key driver for the rising costs of BPA power. These reduced revenues have put upward pressure on retail prices and EWEB has implemented comprehensive activities to minimize the impacts.

## **Discussion**

EWEB and BPA hydroelectric resources commonly produce surplus power due to uncertain stream flows. EWEB has also gained additional surplus from the acquisition of renewable resources and retail load loss.

Wholesale market power prices and wholesale revenues, after peaking in 2008, have since dropped sharply. Primary market drivers include lower natural gas prices, new renewable resource additions and modest to stagnant load growth.



Although wholesale prices have fallen since 2008 and generation volumes have sometimes been below average, reduced wholesale revenues are not the only contributing factor. Other factors have also put pressure on retail prices, such as lower retail sales, higher BPA costs, and increased operating expenses.



EWEB revenues, whether wholesale or retail, have differing sensitivities to the key drivers. The table below illustrates the relative impact for each of the drivers using the same assumptions used for sizing financial power reserves.

2017 Revenue Sensitivity to Key Drivers (relative to budget results)	
Wholesale Prices (30% drop)	-\$ 1,000,000
Hydro Generation (drop to Firm levels)	-\$ 3,300,000
Retail Sales (4% drop)	-\$ 4,900,000

Note that 2017 has less surplus power due to forward sales and therefore is less sensitive than other years. EWEB sells surplus power in forward markets to reduce wholesale revenue volatility. Current practice is to sell EWEB surplus power over a 5 year period. In 2008 we were selling surplus power over a 3 years period.

Strategies deployed to mitigate the impact of surplus resources, variance of market prices, and maintain competitive retail pricing include the following:

- Hedge Trades
  - Forward sales and option purchases up to five years in advance.
- Asset sales
  - Smith Creek Hydroelectric project sold in 2016.
- Cost Management
  - Reductions in capital spending such as Carmen-Smith
  - Reductions in operation and maintenance expenses
  - Bond refinancing to reduce ongoing debt payments
- Pricing (Rate) Design
  - Revisions to customer pricing to better align with current costs of service.

In summary, EWEB is a net seller in the wholesale market due to the surplus of resources that exceed our retail customer demand and lower wholesale prices contribute to higher retail prices. In response we have taken measures to mitigate the impact to retail pricing using various strategies.

**Recommendation**

For information only

**Requested Board Action**

No action is requested