

ITEM NO. CA6

**PUBLIC UTILITY COMMISSION OF OREGON
STAFF REPORT
PUBLIC MEETING DATE: July 21, 2015**

REGULAR _____ CONSENT X EFFECTIVE DATE _____ Upon Commission Approval

DATE: July 1, 2015

TO: Public Utility Commission

FROM: John Crider

THROUGH: Jason Eisdorfer and Aster Adams

SUBJECT: OREGON PUBLIC UTILITY COMMISSION STAFF: Establish the Alternative Compliance Payment Rate for 2016-17 pursuant to ORS 469A.180.

STAFF RECOMMENDATION:

Staff recommends the Commission maintain the current renewable portfolio standard (RPS) alternative compliance payment (ACP) rate of \$110 per megawatt-hour (MWh) for 2016 and 2017 for Portland General Electric (PGE), PacifiCorp, and all electricity service suppliers (ESS).

APPLICABLE STATUTES:

Under ORS 469A.180, an electric company or an ESS may elect to comply with the RPS by making an ACP. Under ORS 469A.180(1), the Commission shall establish the ACP rate in dollars per MWh.

Under ORS 469A.180(2):

"In establishing an alternative compliance rate, the commission shall set the rate to provide adequate incentive for the electric company or electricity service supplier to purchase or generate qualifying electricity in lieu of using alternative compliance payments to meet the renewable portfolio standard applicable to the company or supplier."

Further under ORS 469A.180(2), Commission considerations to set the ACP rate must include:

“the cost of qualifying electricity, contracts that the electric company or electricity service supplier has acquired for future delivery of qualifying electricity and the number of unbundled renewable energy certificates that the company or supplier anticipates using in the compliance year to meet the renewable portfolio standard applicable to the company or supplier.”

ANALYSIS:

The ACP is intended to incent the electric company or ESS to purchase or generate qualifying electricity in lieu of using ACPs to meet the renewable portfolio standard. Staff recommends that the Commission set the rate at the lowest rate needed to provide this incentive.

The current rate for the ACP is \$110 per megawatt-hour. The current rate was determined by comparing various indicators of renewable energy price, and selecting a value that represents a reasonable upper bound. In particular, to determine the current rate Staff compared the relative price of a unit of renewable energy by comparing prices for:

- Traded unbundled renewable energy certificates (RECs);
- Forward market prices of energy at the Mid-Columbia trading hub;
- Estimate of levelized costs of renewable energy generation facilities from the Energy Information Administration (EIA); and
- Levelized costs of renewable energy generation as put forth in the utilities' most recent Integrated Resource Plans.

For setting the ACP in 2016 and 2017, Staff once again reviewed these sources for comparative prices. The results indicate that:

- Based on the 2013 RPS Compliance Reports, the cost of unbundled renewable RECs ranged from \$0.30 to \$0.90 per MWh. An unbundled REC represents the environmental attributes of the underlying power that is generated but is purchased separately from the power. Staff does not recommend using unbundled REC prices to guide setting the ACP since the market-driven low price will not incent new facility development as intended.

- PacifiCorp's 2015 Integrated Resource Plan (IRP) includes market electricity price forecasts for the Mid-Columbia and Palo Verde trading hubs. For 2016 and 2017, the average price at both trading hubs is about \$41.
- EIA Energy Outlook 2015 includes estimates of the average levelized costs for generation facilities entering service in 2020. The costs for selected resource technologies are summarized in the table below:¹

Resource Technology	\$/MWh
Natural Gas Combined Cycle Combustion Turbine	75.20
Wind	73.60
Solar PV	125.30

- PacifiCorp's 2015 IRP includes estimates of the average levelized costs for generation facilities. The costs for selected resource technologies are summarized in the table below:²

Resource Technology	\$/MWh
Natural Gas Combined Cycle Combustion Turbine	47 - 113
Wind	37 - 61
Solar PV	88 - 116

- PGE's 2013 IRP includes estimates of the average levelized costs for new Northwest wind resources at about \$90/MWh.³

Based on the estimated cost of new solar resources, Staff concludes that the current ACP rate of \$110 per MWh remains adequate to incent electric companies and ESSs to purchase or generate qualifying electricity. Choosing a rate lower than this value risks making the ACP more attractive than the acquisition of new renewable generation, thus defeating its purpose as an incentive.

¹ "Levelized Cost and Levelized Avoided Cost of New Generation Resources in the Annual Energy Outlook 2015", Energy Information Agency, June 2015, Table A5.

² PacifiCorp 2015 Integrated Resource Plan, page 95 (Table 6.2)

³ PGE 2013 Integrated Resource Plan, page 148 (Figure 8-3).

PROPOSED COMMISSION MOTION:

The alternative compliance payment rate of \$110 per MWh for 2016 and 2017 for Portland General Electric, PacifiCorp, and all electricity service suppliers, be adopted pursuant to ORS 469A.180.