PACIFIC POWER
A DIVISION OF PACIFICORP

825 NE Multnomah, Suite 2000
Portland, Oregon 97232

April 17, 2017

VIA ELECTRONIC FILING

Steven V. King
Executive Director and Secretary
Washington Utilities and Transportation Commission
1300 S. Evergreen Park Drive SW
P.O. Box 47250
Olympia, WA 98504-7250

RE: UE-160781—2015 Energy and Emissions Intensity Metrics Report
Recessed Open Meeting Presentation

Pacific Power & Light Company, a division of PacifiCorp, submits its presentation for the recessed open meeting on April 18, 2017.

Please direct informal questions to Ariel Son, Regulatory Affairs Manager, at (503) 813-5410.

Sincerely,

/s/
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Enclosures

2015 Energy & Emissions Intensity Report

Washington Utilities & Transportation Commission

Recessed Open Meeting

April 18, 2017

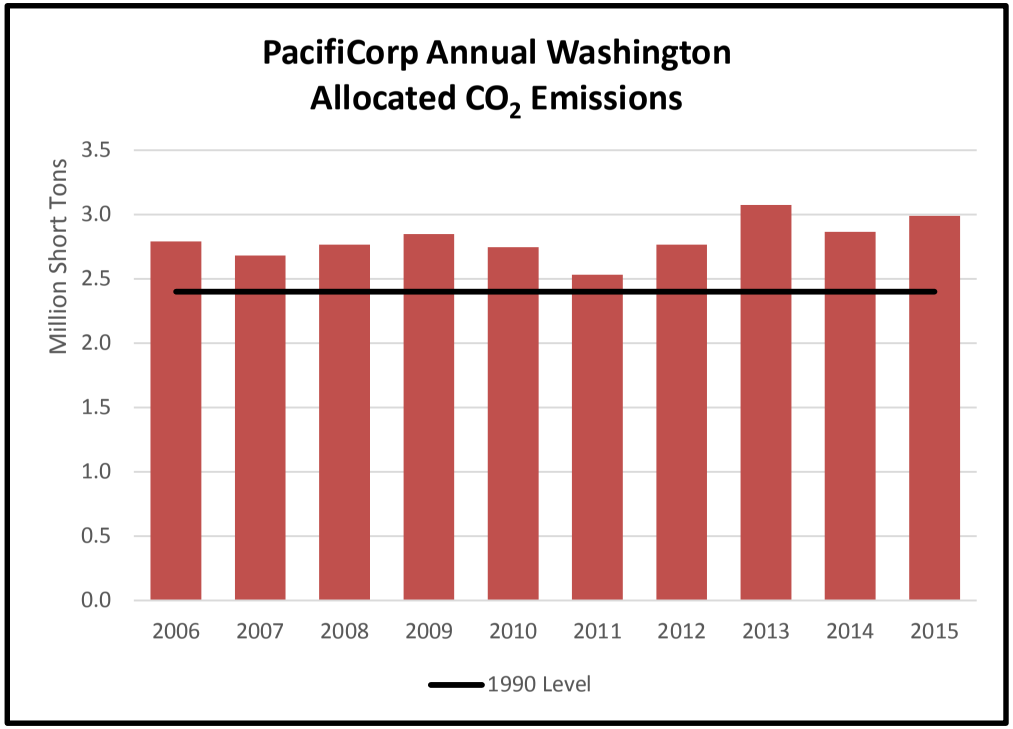



PACIFICORP

A BERKSHIRE HATHAWAY ENERGY COMPANY

2006-2015 Washington-Allocated Emissions

- Emissions are calculated based on Washington share of West Control Area resources
- Includes known and unknown resources
- Known resources are generally PacifiCorp owned or contracted resources
- Unknown resources represent net of short-term market purchases & sales



2006-2015 CO_2 Emission Trends

- Given the large range of factors that influence emission levels, identifying a single contributing factor to substantiate an emission trend is extremely difficult

- Load levels, energy market prices and dynamics, hydroelectric resource levels, renewable penetration, energy efficiency and demand side management additions, participation in the energy imbalance market (EIM), and changes in PacifiCorp's resource fleet all contribute to the level of energy demand and associated emissions

- During the period of 2006-2015:
  - Washington load growth was largely flat to declining
  - The average consumption per residential customers decreased by approximately 10% while average consumption per commercial customers increased by 19%
  - The 2011 and 2012 hydro seasons began earlier and lasted longer than years prior to 2011
  - PacifiCorp added over 1,800 megawatts of renewable capacity to its system

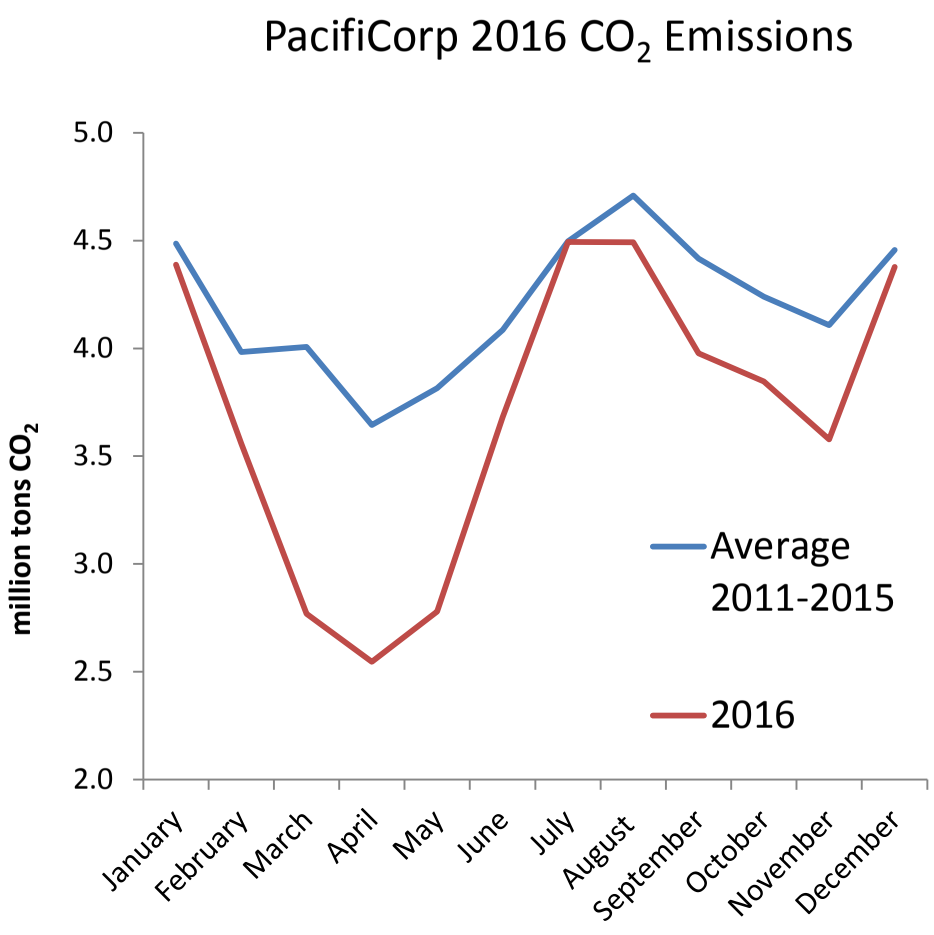
Action Items for Future Reports

- Staff requested further detail regarding the identification of market sales and purchases at the transaction level
  - 2006-2015 reports aggregate Washington share of total market purchases by market hub

- Transaction level data for short-term purchases and sales are not source-specific so additional granularity will not necessarily improve unknown source emissions estimates
  - PacifiCorp net power cost transaction level data is extremely voluminous including tens of thousands of transactions

- Transaction level data of market sales and purchase will not tie to West Control Area net power costs
  - The West Control Area net power costs are calculated using a balancing adjustment based on the average monthly market price not individual transactions

PacifiCorp Future Emissions Trends



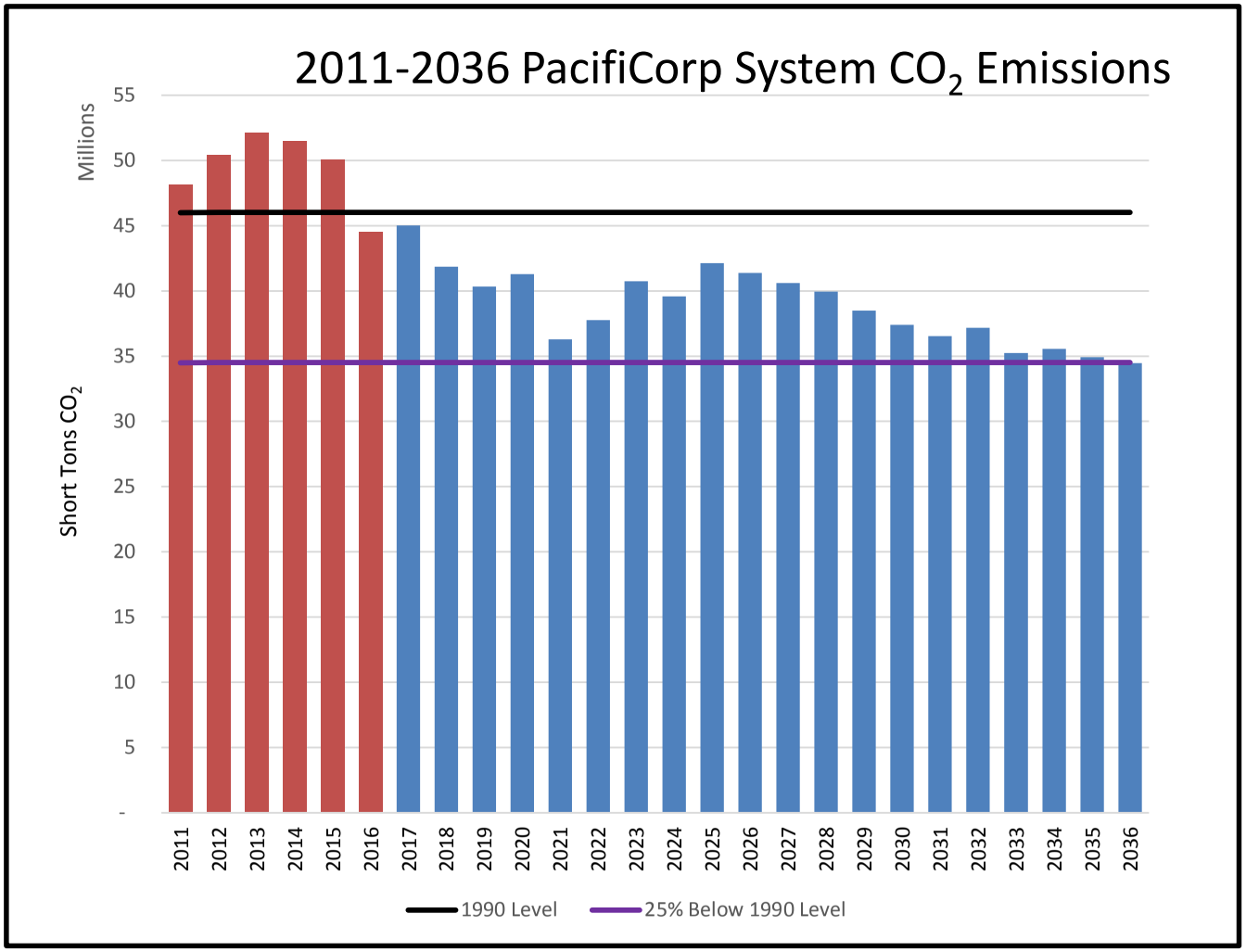
- PacifiCorp is decarbonizing through fundamental shifts in how we plan and operate our system
- Participation in EIM and changes to coal unit operations have enabled us to integrate greater levels of renewable resources on our system and help reduce solar curtailment in California
- In 2016, PacifiCorp emissions from owned resources were down 12% from a 5-year average
- This trend is expected to continue as significant new renewable generation is added and the coal fleet retires

2017 Integrated Resource Plan Emissions Update

- PacifiCorp 2017 Integrated Resource Plan (IRP), filed April 4, 2017, includes:
  - Repowering most of the company's owned wind fleet (905 megawatts) with longer blades and newer technology that will generate more energy
  - Adding 1,100 megawatts of new wind, primarily in Wyoming, by the end of 2020 and 859 megawatts of wind and 1,040 megawatts of solar over the next 20 years
  - Over the first 10 years of the planning horizon, accumulating acquisition of new incremental energy efficiency resources to meet 88 percent of forecasted load growth from 2017 to 2026
  - A 436 megawatt combined cycle combustion turbine to be added to the west side in 2030

- Of the almost 3,000 megawatts of renewable resources projected to be added in the 20-year IRP horizon, 240 megawatts are projected to be sited on the west side of PacifiCorp's system

- The addition of high amounts of renewable capacity to PacifiCorp's system is expected to lower PacifiCorp's CO_2 emissions; however, under Washington's current cost allocation mechanism, Washington-allocated emissions are not expected to be significantly affected



- All owned & contracted system resources
- 2011-2016 actuals
- 2017-2036 projected based on 2017 IRP

- Washington's goals are to reduce emissions to 1990 levels by 2020 and to 25% below 1990 levels by 2035
- On a system basis, PacifiCorp is projected to be well below 1990 levels by 2020 and meet the 25% below 1990 level by 2036