



TO: Commissioners Carlson, Mital, Helgeson, Schlossberg and Brown

FROM: Sue Fahey, Assistant Manager and Chief Financial Officer,  
Rene Gonzalez, Customer Solutions Manager, Juan Serpa Munoz, Electrification  
and Conservation Business Line Manager

DATE: August 19, 2019

SUBJECT: Carbon Reduction Accounting Methodology

OBJECTIVE: Information Only

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### **Issue**

One of EWEB's organizational goals is to equitably and cost-effectively reduce community/regional carbon emissions by 7,500 MTCO<sub>2</sub>e. Commissioners requested additional information on how savings are calculated.

### **Discussion**

Staff calculates carbon emission reductions from energy efficiency efforts, electric vehicles, fleet and conversions from gas heating to heat pump technology based on certain assumptions. EWEB has direct control over some of the carbon reduction efforts, such as fleet operations. For others, like Electric Vehicles (EV), EWEB's products and services support community-wide efforts. The assumptions used are intended to provide a reasonable representation of carbon savings.

Bonneville Power Administration provides annual savings estimates for energy efficiency measures to ensure savings are calculated consistently throughout the region. These estimates are multiplied by a regional carbon intensity factor assuming the most-carbon intensive source on the grid is reduced. Carbon emission reductions from our various energy efficiency programs are projected to account for around 50% of EWEB's target.

Until EWEB receives final 2019 data from the Oregon Department of Environmental Quality on EVs registered in EWEB service territory, reported carbon reduction totals from EV's only include those that have participated in our transportation electrification programs. The carbon reduction is estimated based on the carbon intensity of gasoline saved and adjusts for increased electricity use. These carbon savings are expected to meet about a third of EWEB's target.

The calculation for fleet carbon reductions is based on reduced fuel consumption and the increased use of biofuels. To calculate the reduction in fuel consumption, current usage is compared to 2009 which is the first year EWEB began tracking greenhouse gas emissions. The carbon reductions from these efforts will contribute 15 to 20% of the target.

Heating conversion carbon reduction is estimated based on the carbon intensity of decreased natural gas use and adjusted for increased electricity use, and its regional carbon intensity. Carbon savings

are achieved primarily through the overall reduction in energy use enabled by heat pump technology. Since these opportunities arise on a case-by-case basis and require extra time to develop and implement, these savings are expected to contribute minimally to the target.

**Recommendation/Board Action**

None at this time. For information only.