



Recessed Open Meeting

Energy and Emissions Intensity Reports

April 18, 2017

1. Energy and Emissions Intensity (EEI)

Report Background – UTC Staff

2. Pacific Power & Light Company

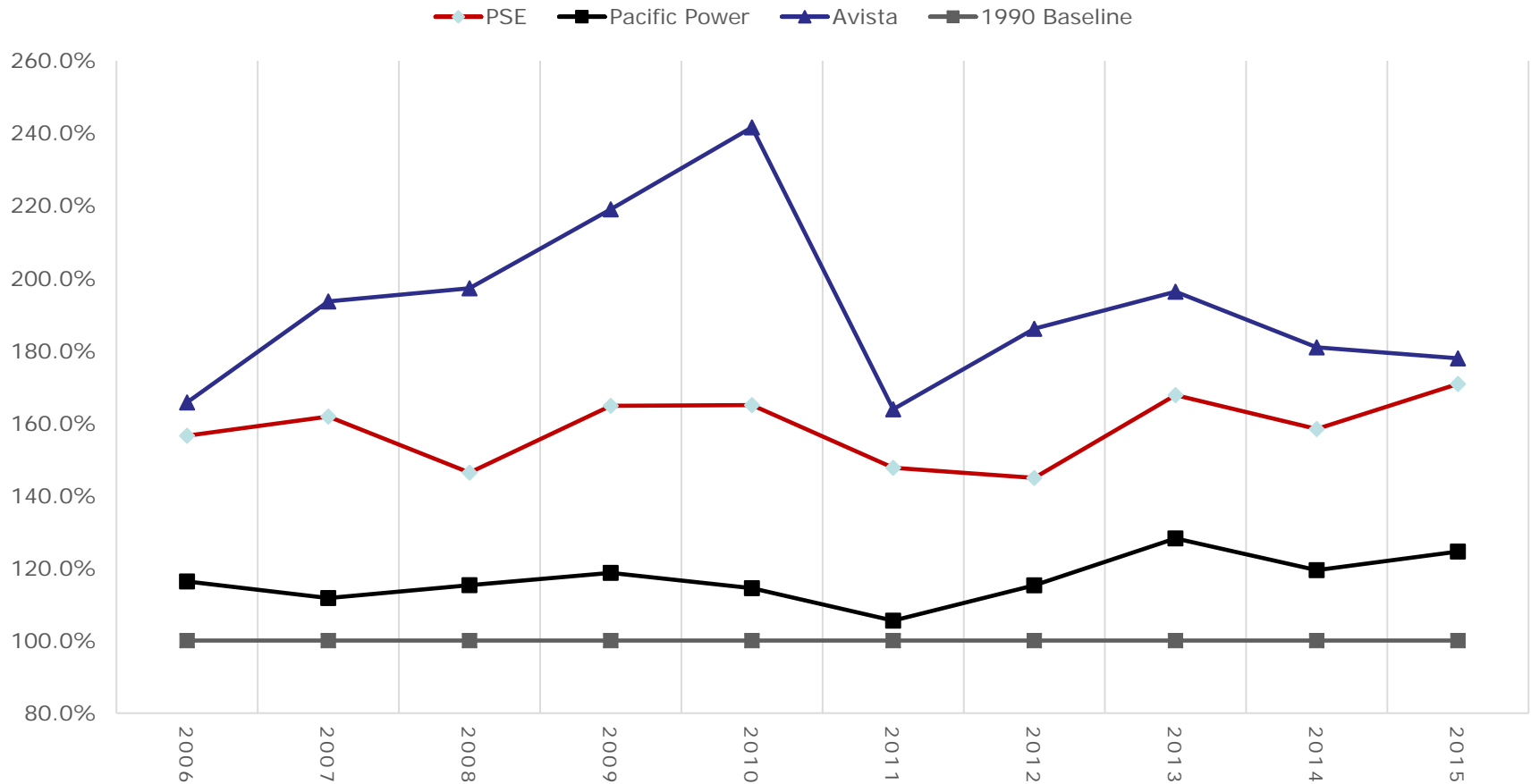
3. Puget Sound Energy

4. Avista Corporation

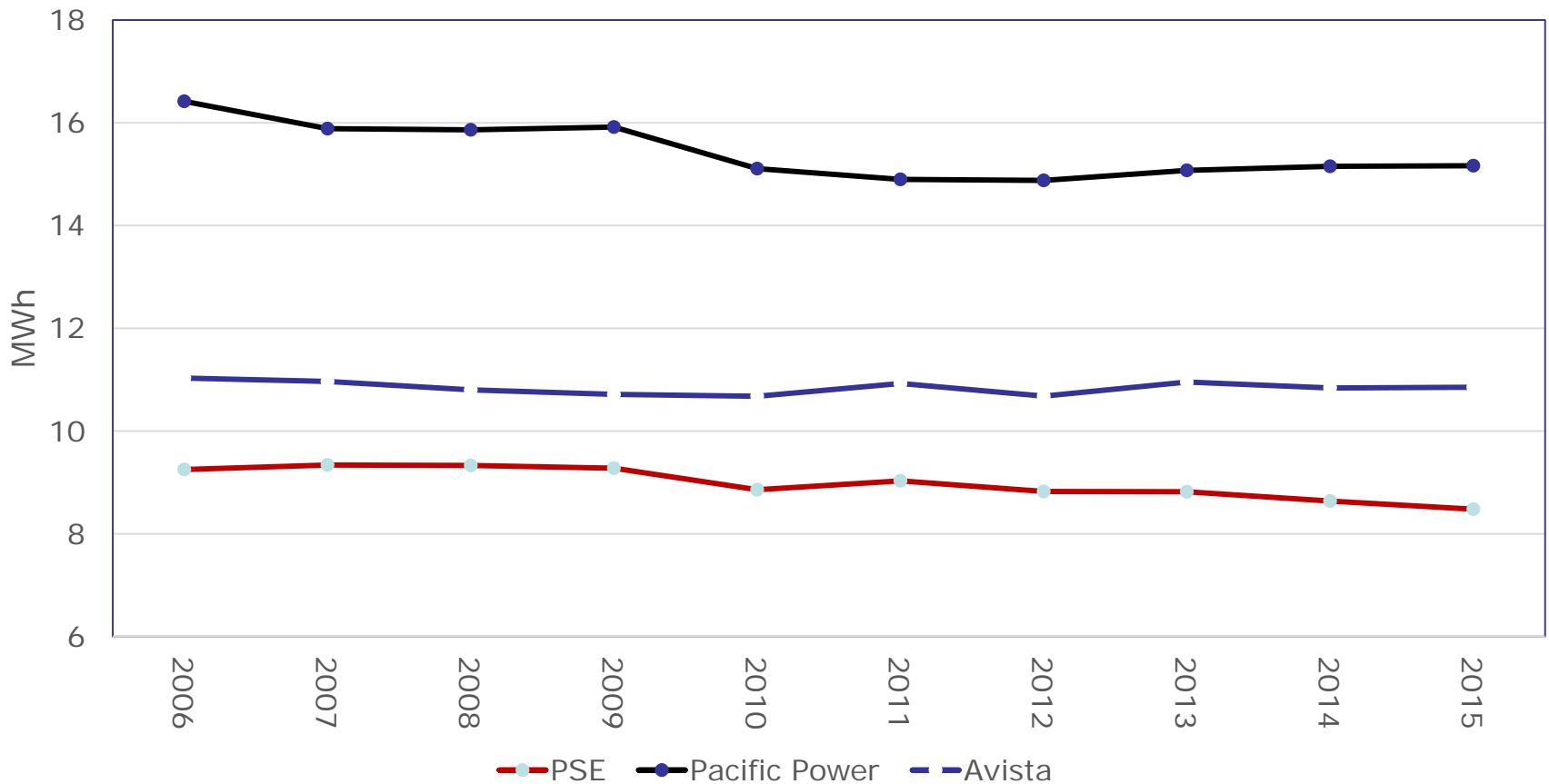
5. Questions and comments

- 1st year of compliance with WAC 480-109-300
- Objective was to examine 10 year trends
- The companies worked hard to provide accurate information
- A few inconsistencies in reporting
 - Some not very significant
 - Others led to supplemental filings
- Narrative analysis on emissions was good but energy intensity narrative was relatively thin
- Staff is working with companies to continued to improve reports for 2016, due June 1, 2017

TOTAL CO₂ EMISSIONS AS % OF EACH COMPANIES' 1990 LEVELS



Average Energy use per capita (MWh)



Challenges: Emissions Intensity Data

Known Resources Serving WA Customers	2015		
	WA MWh	2015	Short
Resource	2015	lbs CO ₂ /MWh	Tons CO ₂
Lower Baker	308,611	-	-
Snoqualmie Falls #1	17,891	-	-
Snoqualmie Falls #2	100,980	-	-
Upper Baker	278,750	-	-
Colstrip 1 & 2	1,756,858	2,595	2,279,098
Colstrip 3 & 4	2,738,174	2,359	3,229,428
Crystal Mountain	294	1,823	268
Encogen	297,658	1,059	157,600
Ferndale Co-Generation	868,467	1,029	446,779
Freddie #1	623,181	875	272,686
Fredonia	113,691	1,577	89,625
Fredonia 3 & 4	47,604	1,200	28,566
Fredrickson 1 & 2	39,935	2,385	47,632
Goldendale	1,498,666	811	607,527
Hopkins Ridge (W184)	364,779	-	-
Lower Snake River	741,768	-	-

Challenges: Emissions Intensity Data

Challenge	Different methods and data sources to determine emissions
Potential Solution	Use the EPA's Acid Rain Program (ARP) emissions data for all generators included in that dataset, and describe methodology for calculations for the few generators not in ARP.
Action items	PSE and Avista – hone and describe procedures for calculating emissions from generators not in ARP.

Challenges: Sales and Purchases

Company approaches in 2016 reports

Company	Purchased Energy	Sold energy	Emissions Intensity #
PSE	Listed for each transaction partner	Listed for each transaction partner	Dept of Commerce Fuel Mix calc
Pacific Power	Purchases aggregated by market geography	All sales summed	Dept of Commerce Fuel Mix calc
Avista	Listed for each transaction partner	All sales summed	Dept of Commerce Fuel Mix calc for purchases; fleet avg for sales

Challenges: Sales and Purchases

Challenge	Differing approaches to reporting sales and purchases
Potential Solution	<p>Report all sales and purchases separately for each trading entity.</p> <ul style="list-style-type: none">• Net sales: company's fleet average emissions rate• Net purchases: Dept. of Commerce's fuel mix emissions rate
Action items	<ul style="list-style-type: none">• PSE and Avista – test potential solution with historical data• Pacific Power – determine what is feasible given Western Control Area framework

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5. Questions and comments

This year's EEI reports are due on June 1, 2017.

Questions on EEI reports may be directed
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