

**Exh. KAF-8  
Dockets UE-170033/UG-170034  
Witness: Kyle A. Frankiewicz**

**BEFORE THE WASHINGTON  
UTILITIES AND TRANSPORTATION COMMISSION**

**WASHINGTON UTILITIES AND  
TRANSPORTATION COMMISSION,**

**Complainant,**

**v.**

**PUGET SOUND ENERGY,**

**Respondent.**

**DOCKETS UE-170033 and  
UG-170034 (*Consolidated*)**

**EXHIBIT TO  
TESTIMONY OF**

**Kyle A. Frankiewicz**

**STAFF OF  
WASHINGTON UTILITIES AND  
TRANSPORTATION COMMISSION**

*Staff Example of Variance in Reasonable Estimates of CAR Baseline  
(expansion of Exh. PKW-5)*

**June 30, 2017**

2017 GRC ESTIMATED Greenhouse Gas Emissions Baselines  
 WUTC Staff Analysis

Illustrative examples only - WUTC Staff does not intend to predict CAR baseline

Metric Tons Carbon Dioxide Equivalent (MTCO2e)

PSE Plants	2012	2013	2014	2015	2016†	2012-2015 Average and 2017 Cap - PSE GRC	2012-2016 Average, no outliers removed	2012-2016		2012-2016		2012-2016		2012-2016	
								Average, +15% outliers removed †	Average, +20% outliers removed †	Average, +35% outliers removed †	Average, +50% outliers removed †				
Encogen	51,680	132,778	105,650	143,119	103,711	108,307	107,388	114,046	114,046	114,046	121,315	121,315	121,315	121,315	
Femdale Cogeneration	14,719	395,315	333,194	405,726	354,142	287,239	300,619	360,884	360,884	360,884	372,094	372,094	372,094	372,094	
Frederickson I PSE Share	69,361	163,542	135,412	247,631	164,695	153,987	156,128	154,550	154,550	154,550	154,550	154,550	154,550	154,550	
Goldendale	325,690	544,866	387,312	551,705	385,280	452,393	438,971	461,524	461,524	461,524	438,971	438,971	438,971	438,971	
Mint Farm	433,875	633,493	508,640	685,789	433,446	565,449	539,049	525,336	502,364	502,364	539,049	539,049	539,049	539,049	
Sumas	106,647	250,238	209,202	282,703	192,572	212,198	208,272	217,337	217,337	217,337	217,337	217,337	217,337	217,337	
Total PSE	1,001,972	2,120,232	1,679,410	2,316,673	1,633,846	1,779,572	1,750,427	1,833,677	1,810,704	1,810,704	1,843,315	1,843,315	1,843,315	1,843,315	

% difference from PSE's emissions baseline calculation:

100.0%	98.4%	103%	101.7%	103.6%	103.1%
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† Outliers identified by WUTC Staff based on PSE-provided data and based on Staff's understanding of Clean Air Rule; final determination and discretion lies solely with Dept. of Ecology. Where outlier criteria identify more than two outlying years, emissions data nearest to 2012-2016 average are included to comply with WAC 173-442-030(3)(ii) requirement to use at least 3 years of emissions data.

‡ 2016 emissions data provided by PSE's Supplemental Response to WUTC Data Request No. 328, Attachment E. Data not yet verified by Ecology. PSE also reported 30,296 metric tons of emissions at "Frederickson GT" not included in this illustrative example.

WUTC Staff spreadsheet based on Exh. PKW-5. PSE comment: Data extracted from Environmental Protection Agency's Facility Level Information on GreenHouse Gasses Tool