

Exh. JL-20
Dockets UE-190529/UG-190530 and
UE-190274/UG-190275 (*consolidated*)
Witness: Jing Liu

**BEFORE THE WASHINGTON
UTILITIES AND TRANSPORTATION COMMISSION**

**WASHINGTON UTILITIES AND
TRANSPORTATION COMMISSION,**

Complainant,

v.

PUGET SOUND ENERGY,

Respondent.

**DOCKETS UE-190529
and UG-190530 (*consolidated*)**

In the Matter of the Petition of

PUGET SOUND ENERGY

**For an Order Authorizing Deferral
Accounting and Ratemaking Treatment
for Short-life UT/Technology Investment**

**DOCKETS UE-190274 and
UG-190275 (*consolidated*)**

EXHIBIT TO TESTIMONY OF

Jing Liu

**STAFF OF
WASHINGTON UTILITIES AND
TRANSPORTATION COMMISSION**

Attrition Base and Growth Factor Comparison

November 22, 2019

Comparison of PSE's and UTC Staff's Attrition Analysis Electric

Gross Plant	PSE Attrition Base Excluding AMI and GTZ	PSE Growth Factor	Escalation From Test Year	Staff Attrition Base Excluding AMI and GTZ	Staff Growth Factor	Escalation From Test Year	Reasons for Staff's Recommended Growth Factor
Production	4,226,607,969	1.50%	146,729,337	4,219,025,238	0.00%	36,282,023	use linear function
Transmission	1,537,389,479	5.32%	184,130,453	1,537,389,479	4.60%	162,337,596	use linear function
Distribution	3,863,263,017	3.44%	376,884,699	3,862,712,861	2.95%	340,451,268	use linear function; exclude AMI in data set
Intangible Plant	349,416,086	16.16%	97,266,452	332,198,531	5.84%	42,763,861	use linear function; exclude GTZ and EIM in data set
General Plant	515,670,959	6.04%	142,966,217	515,670,959	4.43%	124,533,538	use linear function
Total Gross Plant	10,492,347,510	9.03%	947,977,158	10,466,997,068	6.75%	706,368,287	

Expenses	PSE Attrition Base Excluding AMI and GTZ	PSE Growth Factor	Escalation From Test Year	Staff Attrition Base Excluding AMI and GTZ	Staff Growth Factor	Escalation From Test Year	Reasons for Staff's Recommended Growth Factor
Other Power Supply Expenses	127,132,038	2.21%	6,639,861	108,277,181	2.21%	5,655,108	use exponential function (better fit)
Transmission Expense	24,319,869	2.32%	1,338,190	24,319,869	2.82%	1,630,784	use exponential function (better fit)
Distribution Expense	83,321,444	2.32%	4,584,726	83,321,444	1.81%	3,562,601	no pattern; use compound average growth rate
Customer Account Expenses	46,156,575	2.45%	2,683,847	46,157,950	2.40%	2,630,569	use exponential function (better fit)
Customer Service Expenses	4,015,681	2.45%	233,498	4,015,681	6.56%	641,588	use linear function (2012-2018)
Conservation Amortization	-		-	-		-	
Admin & General Expense	124,099,219	3.02%	8,913,512	124,099,544	3.02%	8,913,535	use exponential function (better fit)
Depreciation	293,675,965		106,267,566	293,061,809		99,731,822	
Amortization	68,843,929		23,358,322	63,174,646		14,196,146	
Amortiz Of Property Gain/Loss	43,150,399		-	43,150,399		-	
Other Operating Expenses	12,818,325	2.51%	764,747	9,465,484	0.00%	-	no pattern
Asc 815	-		-	-		-	
Taxes Other Than F.I.T.	57,992,756	0.87%	1,182,732	57,998,985	0.87%	1,182,859	use exponential function (better fit)
Federal Income Taxes	84,094,421		(14,430,610)	86,144,382		(6,756,270)	
Deferred Income Taxes	(51,808,801)		(7,170,363)	(51,808,801)		(5,692,515)	
Total Operating Rev. Deduct.	917,811,822	14.64%	134,366,028	891,378,572	14.10%	125,696,229	

O&M Expense	\$ 409,044,826	5.96%	24,393,634	\$ 390,191,669	5.90%	23,034,186	
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Comparison of PSE's and UTC Staff's Attrition Analysis Natural Gas

Gross Plant	PSE Attrition Base Excluding AMI and GTZ	PSE Growth Factor	Escalation From Test Year Before Adding CRM, AMI and GTZ	Staff Attrition Base Excluding AMI and GTZ	Staff Growth Factor	Escalation From Test Year Before Adding AMI and GTZ	Reasons for Staff's Recommended Growth Factor
Production	76,474,409	1.33%	(5,709,370)	76,474,409	1.45%	(5,554,549)	use linear function
Transmission	-		-	-		-	
Distribution	3,610,012,706	5.22%	473,698,917	3,577,778,905	3.53%	385,458,729	use linear function; exclude CRM/AMI/LNG from dataset
Intangible Plant	122,934,181	15.11%	29,959,842	122,820,858	7.16%	10,795,762	use linear function; exclude GTZ from dataset
General Plant	173,600,530	2.90%	51,500,825	173,600,530	2.14%	48,437,977	use linear function
Total Gross Plant	3,983,021,826	13.79%	549,450,214	3,950,674,702	11.12%	439,137,919	

Expenses	PSE Attrition Base Excluding AMI and GTZ	PSE Growth Factor	Escalation From Test Year Before Adding CRM, AMI and GTZ	Staff Attrition Base Excluding AMI and GTZ	Staff Growth Factor	Escalation From Test Year Before Adding AMI and GTZ	Reasons for Staff's Recommended Growth Factor
Other Power Supply Expenses	6,061,389	5.59%	820,560	6,059,691	5.59%	820,330	use exponential function (curve)
Transmission Expense	2,111		-	2,111		-	
Distribution Expense	60,697,625	0.93%	1,325,694	60,697,625	0.93%	1,325,694	use exponential function (better fit)
Customer Account Expenses	28,149,920	1.09%	723,482	28,150,071	0.78%	517,265	poor model fit; use compound average growth rate
Customer Service Expenses	1,763,236	1.09%	45,317	1,763,236	2.32%	96,732	poor model fit; use compound average growth rate
Conservation Amortization	-		-	-		-	
Admin & General Expense	59,108,615	2.02%	2,817,750	59,028,745	2.02%	2,813,943	use exponential function (better fit)
Depreciation	108,591,776		26,520,777	107,879,353		22,795,244	
Amortization	26,117,570		13,538,136	26,117,570		8,736,564	
Amortization of Property Loss	-		-	-		-	
Other Operating Expenses	15,193,512	1.45%	519,479	13,480,873	0.00%	-	no pattern
Taxes Other Than F.I.T.	24,100,589	3.15%	1,807,182	24,101,717	3.15%	1,807,267	use exponential function (better fit)
Federal Income Taxes	5,694,740		12,906,301	4,873,210		14,958,005	
Deferred Income Taxes	523,320		(20,022,516)	523,320		(19,251,850)	
Total Operating Rev. Deduct.	336,004,403	12.20%	41,002,162	332,677,524	10.41%	34,619,194	

O&M	\$ 155,782,896	3.68%	\$ 5,732,804	\$ 155,701,480	3.58%	\$ 5,573,964	
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