Exh. KAF-4

Dockets UE-170033/UG-170034

Witness: Kyle A. Frankiewich

BEFORE THE WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION

WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION,

DOCKETS UE-170033 and UG-170034 (Consolidated)

Complainant,

v.

PUGET SOUND ENERGY,

Respondent.

EXHIBIT TO TESTIMONY OF

Kyle A. Frankiewich

STAFF OF WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION

PSE's Response to UTC Staff Data Request No. 327 (including Attachment A)

June 30, 2017

BEFORE THE WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION

Puget Sound Energy 2017 General Rate Case

WUTC STAFF DATA REQUEST NO. 327

WUTC STAFF DATA REQUEST NO. 327:

In Exh. No. DEM-3, page 10, E3 determines that the net present value (NPV) of the benefits of joining the EIM is "\$153.7 million to \$174.4 million." The footnote attached to this sentence notes that E3's "calculation assumes 20 years of sub-hourly dispatch and flexibility reserves benefits and annual ongoing cost from 2016 through 2035. PSE's participation in the EIM is estimated to go live in Fall 2016 with benefits and ongoing costs assumed to begin then. Startup costs are assumed to be incurred during 2015 and 2016. [...] Increasing the NPV calculation to include 30 years of benefits and ongoing costs would raise the NPV range to \$190.2 to \$216.3 million."

Please provide the yearly streams of costs and benefits derived by E3 that were used to calculate the NPV, referenced above, of joining the EIM.

Response:

Attached as Attachment A to Puget Sound Energy's Response to WUTC Staff Data Request No. 327 is an MS Excel spreadsheet that contains the streams of costs and benefits and the net present value calculation requested above.

ATTACHMENT A to PSE's Response to WUTC Staff Data Request No. 327

Net Present Value Calculation of Estimated EIM Benefits Values in millions of 2014 \$

Assumptions	
Nominal discount rate	%69'9
Inflation rate	2.0%
Real discount rate	4.69%
% of upfront in 2015 vs. 16	20%
% of annual gross benefits 2016 (for 2 mos)	17%

	VMV	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035
One time cost			-\$7.1	-\$7.1																			
ongoing costs (annual)			\$0.0	-\$3.5	-\$3.5	-\$3.5	-\$3.5	-\$3.5	-\$3.5	-\$3.5	-\$3.5	-\$3.5	-\$3.5	-\$3.5	-\$3.5	-\$3.5	-\$3.5	-\$3.5	-\$3.5	-\$3.5	-\$3.5	-\$3.5	-\$3.5
Gross Benefits																			_	-			
Low			\$0.0	\$3.1	\$18.3	\$18.3	\$18.3	\$18.3	\$18.3	\$18.3	\$18.3	\$18.3	\$18.3	\$18.3	\$18.3	\$18.3	\$18.3	\$18.3	\$18.3	\$18.3	\$18.3	\$18.3	\$18.3
High			\$0.0	\$3.4	\$20.1	\$20.1	\$20.1	\$20.1	\$20.1	\$20.1	\$20.1	\$20.1	\$20.1	\$20.1	\$20.1		Ш	\$20.1	\$20.1	\$20.1	\$20.1	\$20.1	\$20.1
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NET (Low Benefit)	\$153.7		-\$7.1	-\$7.6	\$14.8	\$14.8	\$14.8	\$14.8	\$14.8	\$14.8	\$14.8	\$14.8	\$14.8	\$14.8	\$14.8		\$14.8	\$14.8	\$14.8	\$14.8	\$14.8	\$14.8	\$14.8
NET (High Benefit)	\$174.4				\$16.6	\$16.6		\$16.6	\$16.6		\$16.6	\$16.6	\$16.6	\$16.6	\$16.6	\$16.6	\$16.6	\$16.6	\$16.6	\$16.6	\$16.6	\$16.6	\$16.6
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