EXH. PKW-9
DOCKETS UE-19___/UG-19___
2019 PSE GENERAL RATE CASE
WITNESS: PAUL K. WETHERBEE

BEFORE THE
WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION

WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION, **Complainant,** **v.** **PUGET SOUND ENERGY,** **Respondent.**	**Docket UE-19____** **Docket UG-19____**

EIGHTH EXHIBIT (NONCONFIDENTIAL) TO THE PREFILED DIRECT TESTIMONY OF

PAUL K. WETHERBEE

ON BEHALF OF PUGET SOUND ENERGY

JUNE 20, 2019

Hopkins Ridge/LSR Transmission Purchase

PUGET SOUND ENERGY

EMC Decisional

Tom Flynn
Manager, Energy Delivery

April 19th, 2018

Recommendation

- **Accept 79 MW (LSR) and 75 MW (Hopkins) of BPA transmission contracts for 5 year term**
- Overview:
  - The contracts begin in March 2024
  - 79 MW of LSR will have an incremental Power Cost of $1.7M/yr., with PSE assumption of 3% annual escalation rate
  - 75 MW of Hopkins will not have an incremental Power Cost. It's existing cost is $1.6M/yr., with PSE assumption of 3% annual escalation rate
  - Contracts are renewed indefinitely

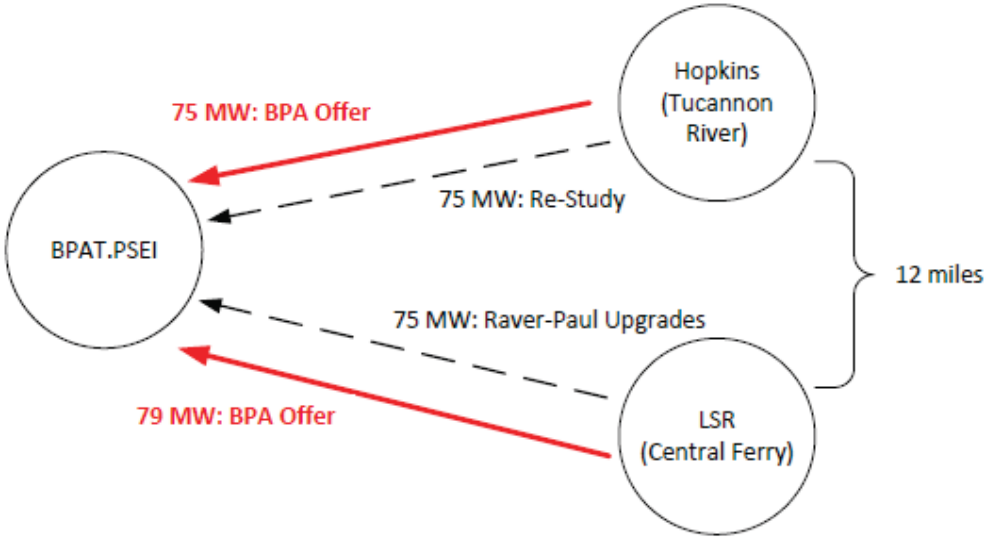
Background

- 2011 WUTC GRC Final Order: PSE is expected to provide for any renewal or acquisition of firm transmission "a full and detailed justification showing the prudence of this expense if the Company expects to continue to recover it in rates."
- PSE holds the rights to 150 MW of BPA transmission for Hopkins Ridge ending March 2024 with no rollover rights due to a unique transmission agreement with BPA
- PSE submitted 150 MW transmission service requests (TSRs) from Hopkins Ridge & 154 MW from Lower Snake River in BPA'S 2016 Cluster Study to cover Hopkins's Ridge capacity:
  - BPA granted 75 MW of the 150 MW requested from Hopkins Ridge
  - BPA granted 79 MW of the 154 MW request from LSR
- LSR TSRs were submitted under the following contingencies:
  - BPA did not grant replacement transmission service from Hopkins; and/or
  - Upgrades needed to grant service from Hopkins exceeded cost to construct a transmission line from Hopkins to LSR

CONTRACTS FOR PURCHASE:			
Project	**Start**	**Term**	**MW**
Hopkins	3/1/2024	3/1/2029	75
LSR	3/1/2024	3/1/2029	79
TOTAL			**154**

PUGET SOUND ENERGY

Hopkins and LSR Cluster Study Results



Source	Demand	Start Term	Results
Hopkins	75 MW	3/1/2024	Granted
Hopkins	75 MW	3/1/2024	BPA studied incorrectly, will re-study in 2018 Cluster Study
LSR	75 MW	3/1/2024	Upgrades needed on Raver-Paul flowgate (see other EMC presentation)
LSR	79 MW	3/1/2024	Granted

PUGET SOUND ENERGY

Key Benefits for Purchase – 75 MW

- For 75 MW from Hopkins:
  - Replace half of the existing 154 MW of Hopkins transmission
  - Current information from BPA suggests PSE's ability to obtain this transmission in the future is very limited and uncertain
  - Analysis of BPA Long-Term Pending Queue indicates lack of future capacity on Cross Cascades Flowgate

Key Benefits for Purchase – 79 MW

- For 79 MW from LSR:
  - PSE preserves options for the remaining 75 MW of Hopkins transmission
  - This transmission could be redirected to Goldendale, Mint Farm and/or MidC if remaining 75 MW from Hopkins is not granted*
    - BPA could grant service for remaining Hopkins 75 MW if capacity agreement can be reached with Avista, PSE, and BPA
  - This transmission could be used for a future phase of LSR
  - If BPA does not grant the remaining 75 MW from Hopkins or BPA system upgrades are too costly, a replacement renewable resource is approximately $70M

* Redirects will be granted by BPA only if the redirect requests pass the De Minimis test and do not have any sub-grid issues.

Alternative Uses for LSR 79 MW Transmission Purchase

ALTERNATIVE USES	BENEFITS	RISKS
Flow Hopkins energy to LSR by building a 12-mile Transmission line (if BPA service not available from Hopkins)	• Creates pipeline for energy to flow from Hopkins to LSR • Allows for continued operation of Hopkins to meet RPS and IRP needs • Least cost alternative compared to replacing Hopkins with a new renewable resource ($70 Million)	• Feasibility, costs, and timing for constructing a new transmission line from Hopkins to LSR • Estimated $20M to 85M to construct a 115kV or 230kV, 12-mile transmission line
Redirect (if not used for Hopkins)	• Flexibility to utilize at MidC (80 MW), Mint Farm (15 MW), Goldendale (45 MW) or EIM Imports (80 MW)	• Future uncertainty in redirecting transmission with future BPA transmission congestion • If unable to redirect, PSE could be paying for unused transmission (Incremental Power Cost: $1.7M)
Future LSR expansion or RFP Proposals (if not used for Hopkins)	• Secures transmission for future renewable developments	• Uncertainty in the timing and development of LSR expansion and RFP projects

Next Steps

EMC approves the purchase of 79 MW LSR and 75 MW Hopkins BPA Transmission

Appendix

April 19th, 2018

BPA Long term Queue Analysis

- Pending queue data was pulled on February 27, 2018 and is publically available on bpa.gov/transmission
- Queue analysis indicates that if PSE does not accept, next requesters in the queue could reserve capacity into perpetuity

Future Outlook of North Cascades North Flowgate

	2018	2019	2020	2021	2022	2023	2024	2025	2026
Remaining ATC (MW)	552	455	363	270	176	81	0	0	0
Less Pending Queued Requests (MW)	(726)	(689)	(278)	(656)	(749)	(798)	(1,075)	(1,169)	(1,179)