

City of Richland Resolution No. 100-20 temporarily designates virtual locations for all municipal meetings. This meeting will be held remotely via Zoom. Members of the public may attend this meeting by selecting the Zoom link or by calling the phone numbers provided.



Agenda
Utility Advisory Committee Meeting
Tuesday, May 11, 2021
Join the Zoom Meeting [here](#)
Public Telephone Access: (206) 337-9723 or (253) 215-8782
Meeting ID No. 930 7525 3836

Committee Members: Chair Porter, Vice-Chair Gregoire and Members Campbell, Felton, Lo Presti and Sanders

Liaisons: Council Liaison Lemley
Staff Liaison Whitney

Regular Meeting - 3:00 p.m. via Zoom

Call to Order/Attendance:

Approval of Agenda: (Approved by Motion)

Approval of Minutes: (Approved by Motion)

1. Approval of March 9, 2021, Meeting Minutes

Public Comments:

Items of Business:

1. Status - Each City Utility (45 Minutes)
2. Electric Utility Rate Discussion (15 Minutes)
 - Clint Whitney, Energy Services Director
3. Residential EV Program Recommendation (15 Minutes)
 - Sandi Edgemon, Energy Services Business Services Manager
4. Resource Adequacy (15 Minutes)
 - Clint Whitney, Energy Services Director
5. HRSST Generation Discussion (10 Minutes)
 - Clint Whitney, Energy Services Director

Unfinished Business:

Other Informational Items:

1. Disconnect Status & A/R Balance Update
 - Clint Whitney, Energy Services Director

2. Tri Energy Partnership for Advanced Reactor Demonstration Program
 - Clint Whitney, Energy Services Director
3. RES March 2021 Capital Work Plan
 - Clint Whitney, Energy Services Director
4. Letter to EFSEC on Horse Heaven Wind Project
 - Clint Whitney, Energy Services Director
5. Interconnection Requests with BPA
 - Clint Whitney, Energy Services Director
6. Forward Agenda Items

Adjournment

Richland Public Library is ADA accessible with special parking and access available at the entrance facing Northgate Drive. Requests for sign interpreters, audio equipment, and/or other special services must be received 48 hours prior to the meeting by calling the City Clerk's Office at 942-7389.



UTILITY ADVISORY COMMITTEE AGENDA ITEM COVERSHEET

Meeting Date: 5/11/2021

Agenda Category: Approval of Minutes

Prepared By:

Subject:

Approval of March 9, 2021, Meeting Minutes

Department:

Energy Services

Recommended Motion:

Approve the minutes of the UAC meeting held on March 9, 2021.

Summary:

Fiscal Impact:

Attachments:

1. Draft - 030921 Meeting Minutes



MINUTES

UTILITY ADVISORY COMMITTEE MEETING

Tuesday, March 9, 2021

Zoom - Public Telephone Access: (206) 337-9723 or (253) 215-8782

Meeting ID No. 930 7525 3836

DRAFT

Utility Advisory Committee Regular Meeting - 3:00 p.m. via Zoom

Chair Sanders called the meeting to order at 3:00 p.m.

Attendance: Chair James Sanders, Committee Members Charlton Campbell, Larry Felton, Charles LoPresti, Dan Porter, and Don Gregoire were present. Committee Member Anderson was absent.

Also remotely present were Council Liaison Lemley, Staff Liaison and Energy Services Director Whitney, Public Works Director Rogalsky, Fire Chief Huntington, Administrative Services Director Koch, Business Services Manager Edgemon, Energy Specialist Senger, and Administrative Assistant II White.

UAC Chair and Vice Chair Selection

MEMBER PORTER MOVED AND MEMBER LOPRESTI SECONDED THE MOTION TO NOMINATE MEMBER GREGOIRE AS THE 2021 VICE CHAIR. THE MOTION CARRIED 6-0.

MEMBER SANDERS MOVED AND MEMBER FELTON SECONDED THE MOTION TO NOMINATE MEMBER PORTER AS THE 2021 CHAIR. THE MOTION CARRIED 6-0.

Approval of Agenda

MEMBER CAMPBELL MOVED AND MEMBER FELTON SECONDED THE MOTION TO APPROVE THE AGENDA AS PUBLISHED. THE MOTION CARRIED 6-0.

Approval of Minutes

Chair Porter presented the minutes from the November 10, 2020, meeting for approval.

MEMBER FELTON MOVED AND MEMBER SANDERS SECONDED THE MOTION TO APPROVE THE MINUTES AS AMENDED. THE MOTION CARRIED 6-0.

Public Comments

None.

Items of Business

1 Status - Each City Utility

Energy Services Director Whitney, Public Works Director Rogalsky, and Fire & Emergency Services Director Huntington each provided a brief update regarding their respective utilities.

2 RES Electric Vehicle Draft Program Discussion

Business Service Manager Edgemon and Greg Sullivan, P.E., presented information regarding the impact of electric vehicles along with a proposed draft electric vehicle program. The Committee requested that additional information be presented at a future meeting.

3. RES Financials and Preliminary COSA

Energy Services Director Whitney presented the draft financial statements for the fourth quarter of 2020 as well as information from the preliminary Cost of Service Analysis (COSA).

4. Medical Service Utility Update and Recommendation

Fire & Emergency Services Chief Huntington presented the Medical and Ambulance Service Utility Strategic Plan.

Unfinished Business

None.

Other Informational Items

Information on the following items was provided to the committee members for later review:

1. Capital Work Plan Through December 2020
2. COVID-19 Utility Disconnects and 2020 CARES Funds
3. Idaho US Representative Simpson's Columbia Basin Funding Concept
4. PPC Legislative Talking Points for BPA Competitiveness
5. Washington 2021 State Energy Strategy
6. Forward Agenda Items

Adjournment

Chair Porter adjourned the meeting at 5:19 p.m.

APPROVED:

ATTESTED:

Dan Porter, Utility Advisory Committee Chair

Samantha Nolan-White, Administrative Assistant II

DATE APPROVED:

DATE PUBLISHED:



UTILITY ADVISORY COMMITTEE AGENDA ITEM COVERSHEET

Meeting Date: 5/11/2021

Agenda Category: Items of Business

Prepared By: Clint Whitney, Energy Services Director
Pete Rogalsky, Public Works Director
Tom Huntington, Fire Chief

Subject:
Status - Each City Utility (45 Minutes)

Department:
Energy Services

Recommended Motion:
This is an informational item.

Summary:
Per request from UAC members, a representative for each of the five City utilities will present a policy summary.
Clint Whitney - Energy Services Director
Pete Rogalsky - Public Works Director
Tom Huntington - Fire & Emergency Services Director

Fiscal Impact:

Attachments:



UTILITY ADVISORY COMMITTEE AGENDA ITEM COVERSHEET

Meeting Date: 5/11/2021

Agenda Category: Items of Business

Prepared By: Clint Whitney, Energy Services Director

Subject:

Electric Utility Rate Discussion (15 Minutes)

Department:

Energy Services

Recommended Motion:

This is an informational item.

Summary:

The purpose of this staff report is to update UAC on a potential electric rate increase initially discussed at the March 9th UAC meeting. City Staff has worked with Financial Consulting Services Group (FCS) on an update to the Cost of Service Analysis (COSA) using 2020 data. The preliminary COSA results were included with 4Q20 Financial Statements and projected a potential 4.25% electric rate increase. Since then, updated data is available on 2022-2023 wholesale power and transmission resources as well as inventory, labor costs, and accounts receivable (A/R) balances. Across all BPA customers, the overall interim power rate for 2022-2023 is projected to be 2.5% lower than the 2020 rate period. BPA's Administrator will finalize the 2022-2023 rate period with a final record of decision by the end of July 2021.

Some of the data is favorable and some is not so favorable to rates, with some of the variables having more substantial effects on rates than others. The data impacts include:

1. Inventory Expenses: Overall inventory costs have increased 6.5% since 2020. Two of the most significant inventory items are transformers and cable with typical cost increases of 10% and 19%, respectively.
2. Labor/Benefits Expense increase of 3%.
3. A/R Balance increase of \$1M above average due to the Governor's utility disconnect moratorium.
4. BPA Transmission 2022-2023 Rate Period (TC22-23) increase of 9.6% for the City.
5. BPA Power 2022-23 Rate Period (BP22-23) decrease of 3.6% for the City.

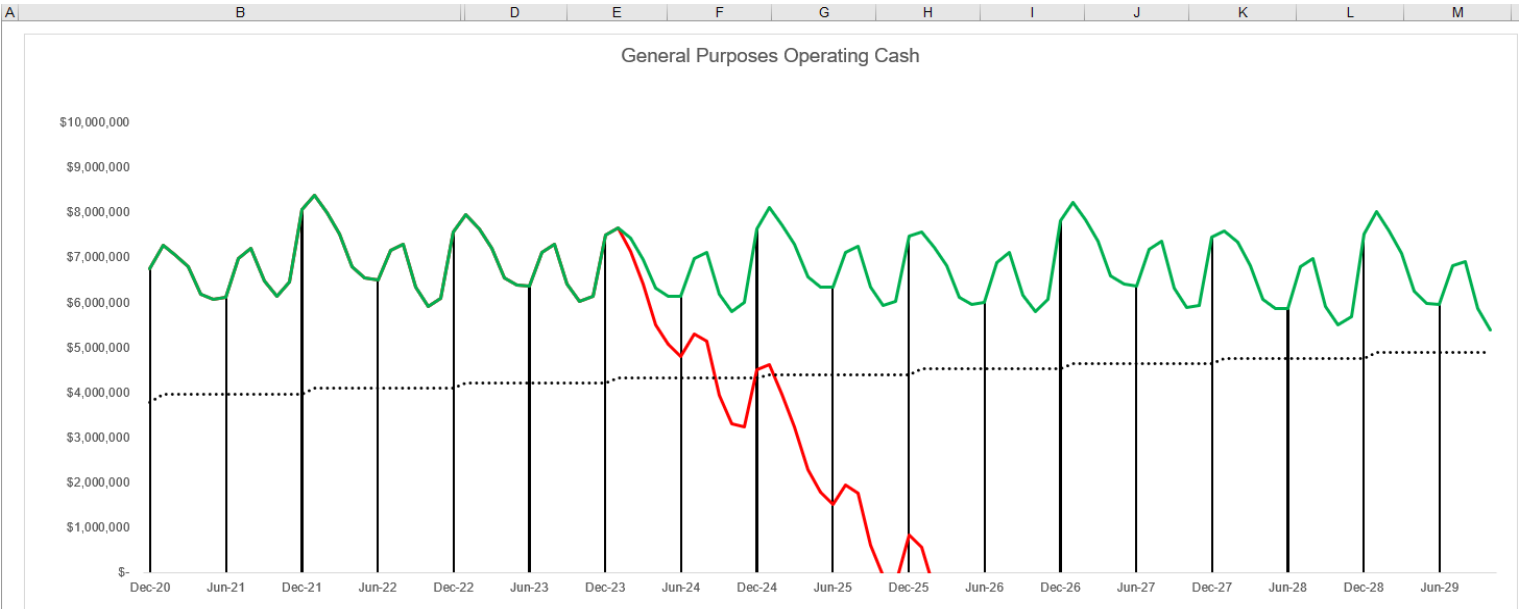
After adjusting expenses in the COSA, the overall rate increase projected for 1/1/2022 is not necessary. Since BPA wholesale expenses have the largest impact on overall expenses for Energy Services, a rate increase is not projected until BPA's next fiscal year rate period. The one caveat is that the Northwest will have a low water year following the driest La Niña weather pattern in the last 80 years with possibility that BPA leverages its Financial Reserve Policy or Cost Recovery Adjustment Clause (CRAC). However, the financial impacts from any unplanned BPA increases will be evaluated with enough time to be able to react. Quarterly financial statements for Energy Services will continue to be evaluated for any unusual actual-to-budgeted variances.

Attached for information and/or discussion are screenshots of the COSA after the expenses were adjusted. They will be discussed in the following order: Summary Projections, General Purpose Operating Cash Graph, Revenue Projections, and Fund Balance Projections. Also attached is a graph expressing RES's 2021 Budget Expenses as percentages of the overall budget.

Fiscal Impact:

Attachments:

- 1. COSA GPOC Projection 2022-23
- 2. COSA Summary Projection for 2022-23
- 3. COSA Revenue Projections 2022-23
- 4. COSA Fund Balance Projections 2022-23
- 5. 2021 RES Budget Expense Percentages





City of Richland

Electric Cost of Service

Dashboard



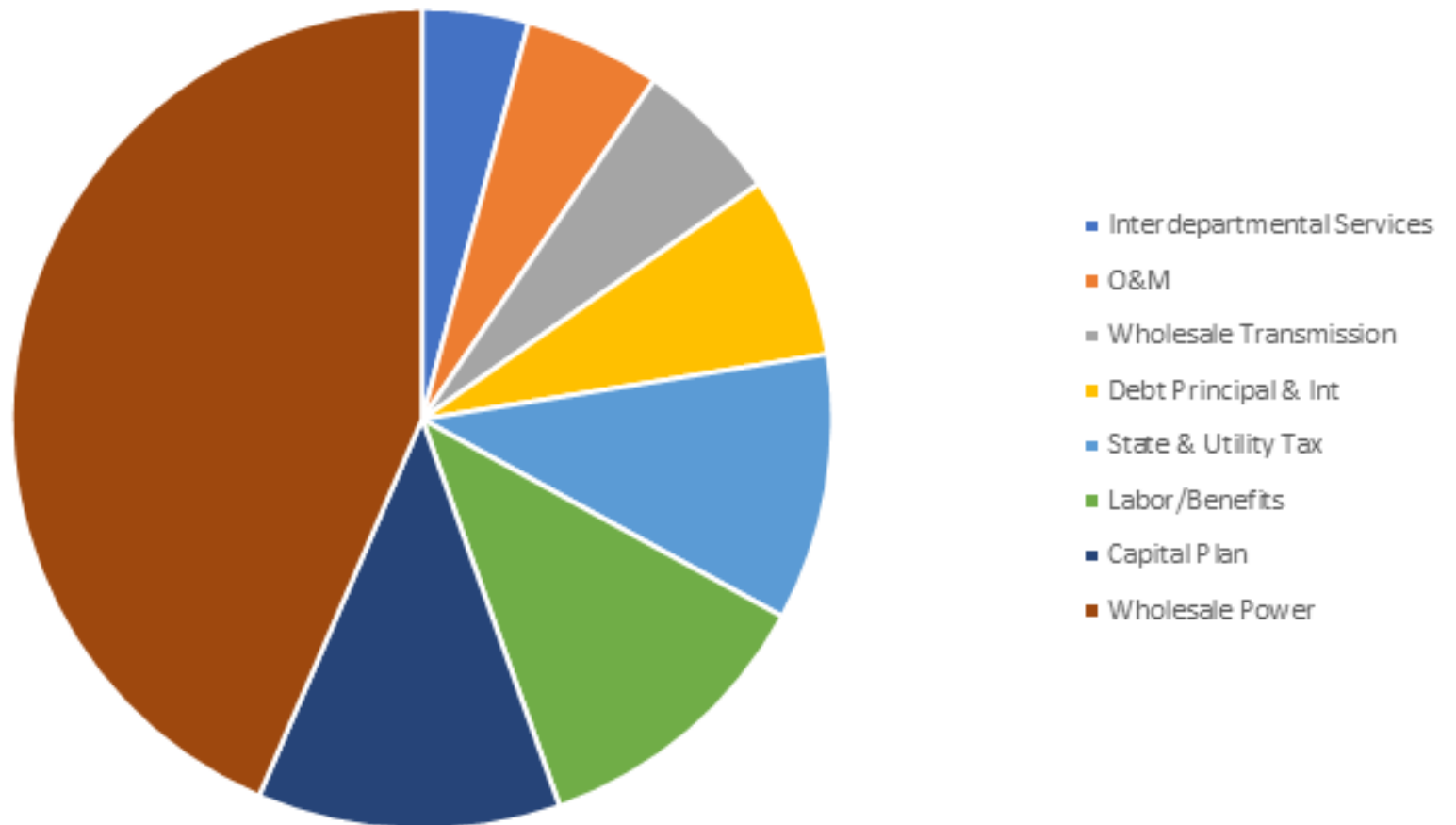
Description	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
Total Revenues (Existing)	\$ 68,846,893	\$ 70,137,490	\$ 70,795,321	\$ 71,410,202	\$ 72,193,052	\$ 72,668,813	\$ 73,300,458	\$ 73,952,297	\$ 74,763,684	\$ 75,259,921
Total Expenses (Existing)	67,235,741	68,932,350	71,332,208	71,657,742	75,118,082	76,558,903	79,617,217	81,594,421	85,289,379	86,517,466
Surplus (Deficiency)	\$ 1,611,151	\$ 1,205,140	\$ (536,886)	\$ (247,541)	\$ (2,925,030)	\$ (3,890,091)	\$ (6,316,759)	\$ (7,642,123)	\$ (10,525,695)	\$ (11,257,545)
% of Rate Revenue	-2.45%	-1.78%	0.79%	0.36%	4.20%	5.55%	8.93%	10.71%	14.59%	15.50%
Coverage Before Increase	2.41	2.30	2.10	2.49	1.93	1.82	1.41	1.23	0.79	0.71
Months Effective	11	11	11	11	11	11	11	11	11	11
Policy Level Increase	0.00%	0.00%	0.00%	0.00%	5.00%	0.00%	5.00%	0.00%	5.00%	0.00%
Cumulative Increases	0.00%	0.00%	0.00%	0.00%	5.00%	5.00%	10.25%	10.25%	15.76%	15.76%
Surplus (Deficiency)	\$ 1,611,151	\$ 1,205,140	\$ (536,886)	\$ (247,541)	\$ 79,030	\$ (521,623)	\$ 284,123	\$ (613,222)	\$ 14,266	\$ (254,255)
Coverage (After Increase)	2.41	2.30	2.10	2.49	2.47	2.42	2.53	2.43	2.54	2.54
Ending Capital Balance	\$ 7,549,419	\$ 3,043,696	\$ 4,024,493	\$ 23,974	\$ 3,486,772	\$ 11,281	\$ 1,602,603	\$ 21,170	\$ 1,077,321	\$ 4,026
Key Factors										
BPA Power Rate Increases (FFY)	0.00%	0.00%	-3.60%	0.00%	5.00%	0.00%	5.00%	0.00%	5.00%	0.00%
BPA Transmission Rate Increases (FFY)	0.00%	0.00%	9.60%	0.00%	5.00%	0.00%	5.00%	0.00%	5.00%	0.00%
O&M Adjustments	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
CIP	\$ 9,375,265	\$ 10,981,500	\$ 11,022,003	\$ 11,657,004	\$ 11,173,005	\$ 11,697,005	\$ 10,294,100	\$ 10,294,100	\$ 10,294,100	\$ 10,294,100
Capital Adjustments	\$ 139	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Depreciation Funding (% of)	90.00%	90.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
Revenue Bond Proceeds	\$ -	\$ -	\$ 4,650,000	\$ -	\$ 6,750,000	\$ -	\$ 3,450,000	\$ -	\$ 2,400,000	\$ -

A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q
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Revenue Requirement	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
Revenues										
Rate Revenues Under Existing Rates	\$ 65,816,342	\$ 67,656,014	\$ 68,253,075	\$ 68,857,164	\$ 69,629,337	\$ 70,083,982	\$ 70,707,584	\$ 71,337,847	\$ 72,141,499	\$ 72,619,600
Non-Rate Revenues	3,030,551	2,481,476	2,542,246	2,553,037	2,563,715	2,584,831	2,592,874	2,614,450	2,622,185	2,640,321
Total Revenues	\$ 68,846,893	\$ 70,137,490	\$ 70,795,321	\$ 71,410,202	\$ 72,193,052	\$ 72,668,813	\$ 73,300,458	\$ 73,952,297	\$ 74,763,684	\$ 75,259,921
Expenses										
Cash Operating Expenses	\$ 15,324,176	\$ 16,092,679	\$ 16,668,343	\$ 17,097,360	\$ 17,556,288	\$ 17,845,341	\$ 18,326,182	\$ 18,811,753	\$ 19,329,472	\$ 19,836,468
Total Power	40,379,653	41,015,819	41,582,081	42,468,124	44,709,427	45,568,769	47,640,250	48,871,721	51,634,308	52,085,328
Existing Debt Service	6,028,713	6,073,569	6,088,219	4,807,269	4,810,746	4,810,747	4,815,430	4,818,240	4,805,830	4,818,547
New Debt Service	-	-	328,811	328,811	806,117	806,117	1,050,074	1,050,074	1,219,783	1,219,783
Rate Funded System Reinvestment	5,503,199	5,750,283	6,664,754	6,956,179	7,235,504	7,527,929	7,785,281	8,042,634	8,299,986	8,557,339
Total Expenses	\$ 67,235,741	\$ 68,932,350	\$ 71,332,208	\$ 71,657,742	\$ 75,118,082	\$ 76,558,903	\$ 79,617,217	\$ 81,594,421	\$ 85,289,379	\$ 86,517,466
Capitalized Labor, Overhead, & Engineering Expense	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Net Surplus (Deficiency)	\$ 1,611,151	\$ 1,205,140	\$ (536,886)	\$ (247,541)	\$ (2,925,030)	\$ (3,890,091)	\$ (6,316,759)	\$ (7,642,123)	\$ (10,525,695)	\$ (11,257,545)
Additions to Meet Coverage	-	-	-	-	-	-	-	-	-	-
Total Surplus (Deficiency)	\$ 1,611,151	\$ 1,205,140	\$ (536,886)	\$ (247,541)	\$ (2,925,030)	\$ (3,890,091)	\$ (6,316,759)	\$ (7,642,123)	\$ (10,525,695)	\$ (11,257,545)
% of Rate Revenue	0.00%	0.00%	0.79%	0.36%	4.20%	5.55%	8.93%	10.71%	14.59%	15.50%
Annual Rate Adjustment	0.00%	0.00%	0.00%	0.00%	5.00%	0.00%	5.00%	0.00%	5.00%	0.00%
Cumulative Annual Rate Adjustment	0.00%	0.00%	0.00%	0.00%	5.00%	5.00%	10.25%	10.25%	15.76%	15.76%
Rate Revenues After Rate Increase	\$ 65,816,342	\$ 67,656,014	\$ 68,253,075	\$ 68,857,164	\$ 72,754,446	\$ 73,588,181	\$ 77,574,448	\$ 78,649,976	\$ 83,106,165	\$ 84,066,264
Additional Taxes from Rate Increase	\$ -	\$ -	\$ -	\$ -	\$ 121,048	\$ 135,732	\$ 265,981	\$ 283,228	\$ 424,705	\$ 443,375
Net Cash Flow After Rate Increase	\$ 1,611,151	\$ 1,205,140	\$ (536,886)	\$ (247,541)	\$ 79,030	\$ (521,623)	\$ 284,123	\$ (613,222)	\$ 14,266	\$ (254,255)
Coverage After Rate Increases	2.41	2.30	2.10	2.49	2.47	2.42	2.53	2.43	2.54	2.54
Sample Residential Monthly Bill (1,200 kWh)	\$ 109.91	\$ 109.91	\$ 109.91	\$ 109.91	\$ 115.40	\$ 115.40	\$ 121.17	\$ 121.17	\$ 127.23	\$ 127.23
Monthly Average Increase (\$)	\$ -	\$ -	\$ -	\$ -	\$ 5.50	\$ -	\$ 5.77	\$ -	\$ 6.06	\$ -

A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q					
Fund Balance			2020		2021		2022		2023		2024		2025		2026		2027		2028		2029
OPERATING FUND																					
Beginning Balance		\$	4,123,615	\$	5,734,766	\$	6,939,906	\$	6,403,020	\$	6,155,479	\$	6,234,509	\$	5,712,886	\$	5,997,010	\$	5,383,788	\$	5,398,054
plus: Net Cash Flow after Rate Increase			1,611,151		1,205,140		(536,886)		(247,541)		79,030		(521,623)		284,123		(613,222)		14,266		(254,255)
less: Transfer of Surplus to Capital Fund			-		-		-		-		-		-		-		-		-		-
Ending Balance		\$	5,734,766	\$	6,939,906	\$	6,403,020	\$	6,155,479	\$	6,234,509	\$	5,712,886	\$	5,997,010	\$	5,383,788	\$	5,398,054	\$	5,143,798
Target Balance		\$	3,778,564	\$	3,968,058	\$	4,110,002	\$	4,215,787	\$	4,328,948	\$	4,400,221	\$	4,518,785	\$	4,638,514	\$	4,766,171	\$	4,891,184
Days			137		157		140		131		130		117		119		104		102		95
CAPITAL																					
Beginning Balance		\$	10,537,892	\$	7,549,419	\$	3,043,696	\$	4,024,493	\$	23,974	\$	3,486,772	\$	11,281	\$	1,602,603	\$	21,170	\$	1,077,321
plus: Rate Funded System Reinvestment/ Equipment Transfe			5,503,199		5,750,283		6,664,754		6,956,179		7,235,504		7,527,929		7,785,281		8,042,634		8,299,986		8,557,339
plus: Transfers from Operating Fund			-		-		-		-		-		-		-		-		-		-
plus: Grants/ Donations/ CIAC			-		-		-		-		-		-		-		-		-		-
plus: Additional Proceeds (Costs)			650,000		650,000		650,000		650,000		650,000		650,000		650,000		650,000		650,000		650,000
plus: Net Debt Proceeds Available for Projects			-		-		4,650,000		-		6,750,000		-		3,450,000		-		2,400,000		-
plus: Interest Earnings			233,592		75,494		38,046		50,306		300		43,585		141		20,033		265		13,467
Total Funding Sources		\$	16,924,684	\$	14,025,196	\$	15,046,496	\$	11,680,978	\$	14,659,777	\$	11,708,286	\$	11,896,703	\$	10,315,270	\$	11,371,421	\$	10,298,126
less: Capital Expenditures			(9,375,265)		(10,981,500)		(11,022,003)		(11,657,004)		(11,173,005)		(11,697,005)		(10,294,100)		(10,294,100)		(10,294,100)		(10,294,100)
Ending Working Capital Balance		\$	7,549,419	\$	3,043,696	\$	4,024,493	\$	23,974	\$	3,486,772	\$	11,281	\$	1,602,603	\$	21,170	\$	1,077,321	\$	4,026
Minimum Target Balance		\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
RATE STABILIZATION																					
Beginning Balance		\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
plus: Transfers In			-		-		-		-		-		-		-		-		-		-
plus: Interest Earnings			-		-		-		-		-		-		-		-		-		-
less: Transfers Out			-		-		-		-		-		-		-		-		-		-
Ending Rate Stabilization Balance		\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
Notes:			2020		2021		2022		2023		2024		2025		2026		2027		2028		2029
Debt-to-Net Assets Ratio			0.51		0.45		0.43		0.38		0.39		0.35		0.34		0.31		0.30		0.27
Additional proceeds (costs) consist of the following:																					
Facility Fees		\$	650,000	\$	650,000	\$	650,000	\$	650,000	\$	650,000	\$	650,000	\$	650,000	\$	650,000	\$	650,000	\$	650,000
BPUD Substation Contributions			-		-		-		-		-		-		-		-		-		-
2019 Bond Proceeds			-		-		-		-		-		-		-		-		-		-

2021 RES Budget Expense, %





UTILITY ADVISORY COMMITTEE AGENDA ITEM COVERSHEET

Meeting Date: 5/11/2021

Agenda Category: Items of Business

Prepared By: Sandi Edgemon, Energy Services Business Services Manager

Subject:

Residential EV Program Recommendation (15 Minutes)

Department:

Energy Services

Recommended Motion:

Endorse staff recommendation to implement a Residential EV Incentive Program

Summary:

The market for electric vehicles (EV) locally, regionally, and nationally is growing steadily and this trend is expected to continue for the foreseeable future. Transportation electrification has significant potential benefits to vehicle owners, electric utilities, and the environment. Richland Energy Services is expecting increasing load as a result of EV charging.

At the March 9, 2021, UAC meeting Energy Services staff and consultant Efficiency Solutions, LLC, presented electric vehicle (EV) information and program considerations. Since then, staff has modeled the wholesale power costs and rate revenue resulting from EV charging. Staff will present the results from the sensitivity analysis and discuss the its recommendation to incentivize customers for EV charging during low load hours (10 p.m. - 6 a.m.).

Fiscal Impact:

Budget for program implementation and incentives are included the 2021 Electric Utility's fund.

Attachments:

1. EV UAC Presentation 5-4-21 Final



Residential Electric Vehicle (EV) Program Planning

Greg Sullivan, Efficiency Solutions

Sandi Edgemon, Richland Energy Services

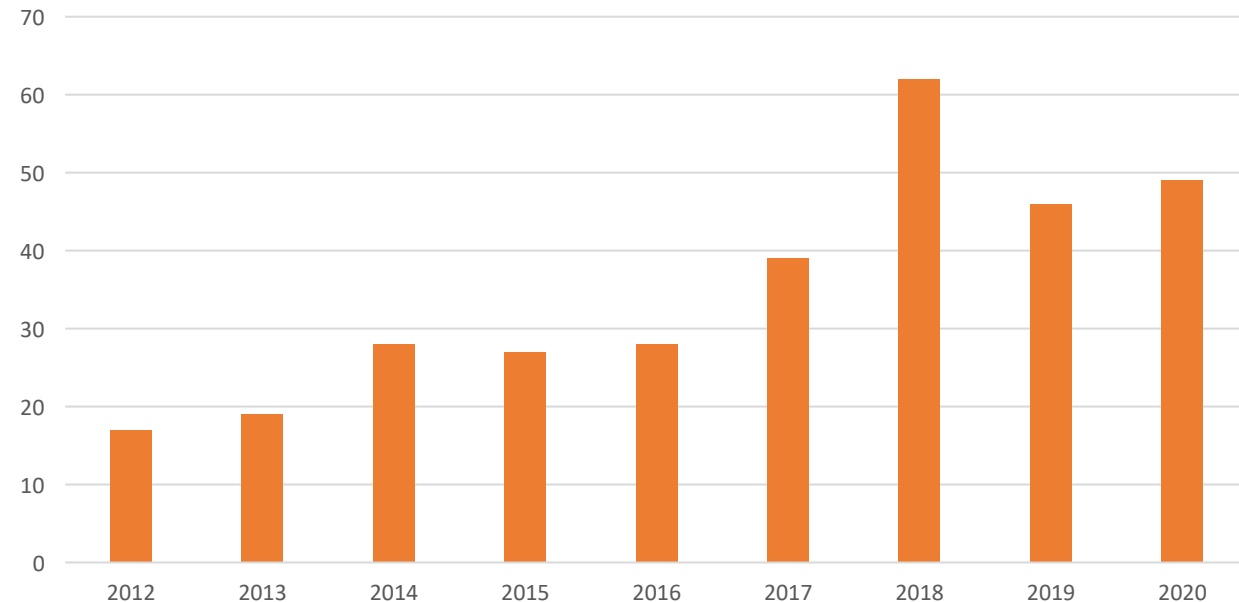


Why Electric Vehicles?

- New load in times of reducing loads
- Emissions friendly and requirements
- Economic benefits to:
 - Customers
 - Utility
 - Region



City of Richland BEV/PHEV Totals
by Model Year



Why Electric Vehicles Incentives?

Most utilities offer EV incentives to:

1. Engage customers with this economic opportunity and take advantage of the new load.
2. Encourage charging during “utility-beneficial” Light Load Hours (LLH).
3. A conduit for future interaction with Time of Use (TOU) rates, demand response during Heavy Load Hours (HLH), and other engagements.



Cost Justification of EV Program



City of Richland Electric Cost of Service EV Load Summary - Input % HLH

Last Update: 5/3/2021

I. Inputs

EV Load Assumptions		Notes
Number of EVs on Grid	100	Enter number of EVs on RES grid
Proposed EV/Charger Incentive (\$/EV or Charger)	\$300	Enter proposed incentive
Percent of new load during HLH	50%	Enter percent load Heavy Load Hours
Percent of new load during LLH	50%	Calculated value
EV Annual Electricity Use (kWh/EV/Year)	2,700	Assumed 10,000 miles/year at 3.7 miles/kWh

II. Outputs

Metric	Value	Notes
Annual New Load (kWh)	270,000	Annual system load (kWh)
Annual New Load (aMW)	0.03	Annual system load (aMH)
Power Costs at assumed HLH/LLH % (\$/year)	\$8,765	Cost of power procurement from BPA
Gross Revenue Generated (\$/year)	\$20,007	Revenue generated from new load
Net Revenue (\$/year)	\$11,242	Net of procurement cost and revenue generated
Calculated Annual "Net" Revenue per EV (\$/year)	\$112.42	Net revenue per EV
Simple Payback on proposed incentive (years)	2.7	Simple payback based on proposed incentive

EXPENSES

Power Costs	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	TOTAL	Rates based on
Load Shaping - HLH														
HLH - \$/kWh	\$ 0.0328	\$ 0.0328	\$ 0.0237	\$ 0.0195	\$ 0.0184		0.0139	\$ 0.0328	\$ 0.0370	\$ 0.0275	\$ 0.0284	\$ 0.0307	\$ 0.0374	
EV Load (kWh)	11,466	10,356	11,450	11,096	11,466		11,096	11,466	11,466	11,096	11,466	11,111	11,466	
HLH Load Shaping Charge	\$ 376	\$ 340	\$ 271	\$ 217	\$ 211		154	\$ 376	\$ 424	\$ 305	\$ 326	\$ 341	\$ 429	\$ 3,769

Cost Justification of EV Program

COSA outputs:

- **100 EVs, all load during HLH:**
 - Net RES revenue \$9,965
 - Simple payback on \$300 incentive: **3.0 years**
- **100 EVs, all load during LLH:**
 - Net RES revenue \$12,519
 - Simple payback on \$300 incentive: **2.4 years**
- **100 EVs, assuming 50%/50% split HLH/LLH:**
 - Net RES revenue \$11,242
 - Simple payback on \$300 incentive: **2.7 years**

Recommendation

Residential EV Charger Incentive Program – Similar to Eastern
REA

- \$300 incentive for “smart” charger
- Set-up (schedule) requirement for LLH operation
- Permitted professional installation



Rebate awarded after proper invoices and dc
provided.





UTILITY ADVISORY COMMITTEE AGENDA ITEM COVERSHEET

Meeting Date: 5/11/2021

Agenda Category: Items of Business

Prepared By: Clint Whitney, Energy Services Director

Subject:

Resource Adequacy (15 Minutes)

Department:

Energy Services

Recommended Motion:

This is an informational item.

Summary:

From the March 9th UAC meeting, a forward agenda was added for July on Resource Adequacy (RA). More information will be available when Northwest Power and Planning Council (NWPPC) releases its [8th Power Plan](#) as a draft in July for review. There continues to be growing interest in RA so supplemental information is being included now ahead of the 8th Power Plan release.

Background:

Resource Adequacy is having enough resources to serve load. Resources can be generation as well as demand-side resources. Energy Efficiency programs “count” as a resource that offsets/reduces load. The resource is modeled with consideration to capacity factors and degree of reliability. Outages in California during August 2020 and Texas in 2021 are recent examples of resource adequacy problems. North American Electric Reliability Corporation (NERC) criteria for resource adequacy is “loss of load expectation or probability (LOLE or [LOLP](#)) equal to 0.1 day per year, or one day in every 10 years.” LOLP over 5% begins to be a concern.

Since the City is a load following customer, BPA is responsible for ensuring it has the resources adequate to serve and follow the load as it varies moment to moment. This is included in the wholesale rates the City pays to BPA such as 1.5% operating and 1.5% spinning reserves. The resource adequacy is part of the responsibility BPA has for being a Balancing Area Authority (BAA). The Northwest area has about 20 BAAs and across the [US there are 66 BAAs](#). The BAAs cooperate with each other as power flows between the systems and provides diversity in supply during stressed grid and market conditions.

Many of the BAAs have generated resource adequacy models and each are showing different results. Attached is a graph showing resource adequacy/inadequacy projections in the future years. Two observations are apparent:

1. The RA modeling assumptions need to be standardized to ensure confidence in the results.
2. All of the RA models project an inadequacy of resources in the future years.

To resolve these concerns, NWPPC is coordinating a resource adequacy within the 8th Power Plan expected in July 2021. This will be an important document as recent and future legislation in the Northwest are heavily influencing resource adequacy (e.g. Renewable Portfolio Standard and Clean Energy Transformation Act). This includes: eliminating coal as a resource by 2025, requiring generation resources to be carbon neutral in 2030, and requiring up to 15% of renewable energy that is highly intermittent, and required spill during increasingly dry water years.

In the near term, the City will continue to support BPA data needs by ensuring accurate load forecasts are provided.

In addition, the City will participate through energy trade organizations for review and comments on the 8th Power Plan as it is developed. The mid-term and long-term solutions are not as easy as building a new generation plant given legal, financial, and time constraints. It will also be important for the City to reduce risks with secured block purchases of wholesale power and prevent exposure to day-ahead market purchases. Future energy costs will reflect the risks of capacity deficits.

Recognizing UAC members are in a position to influence policy, what would you do if you were in a position to impact legislation or a BAA utility manager?

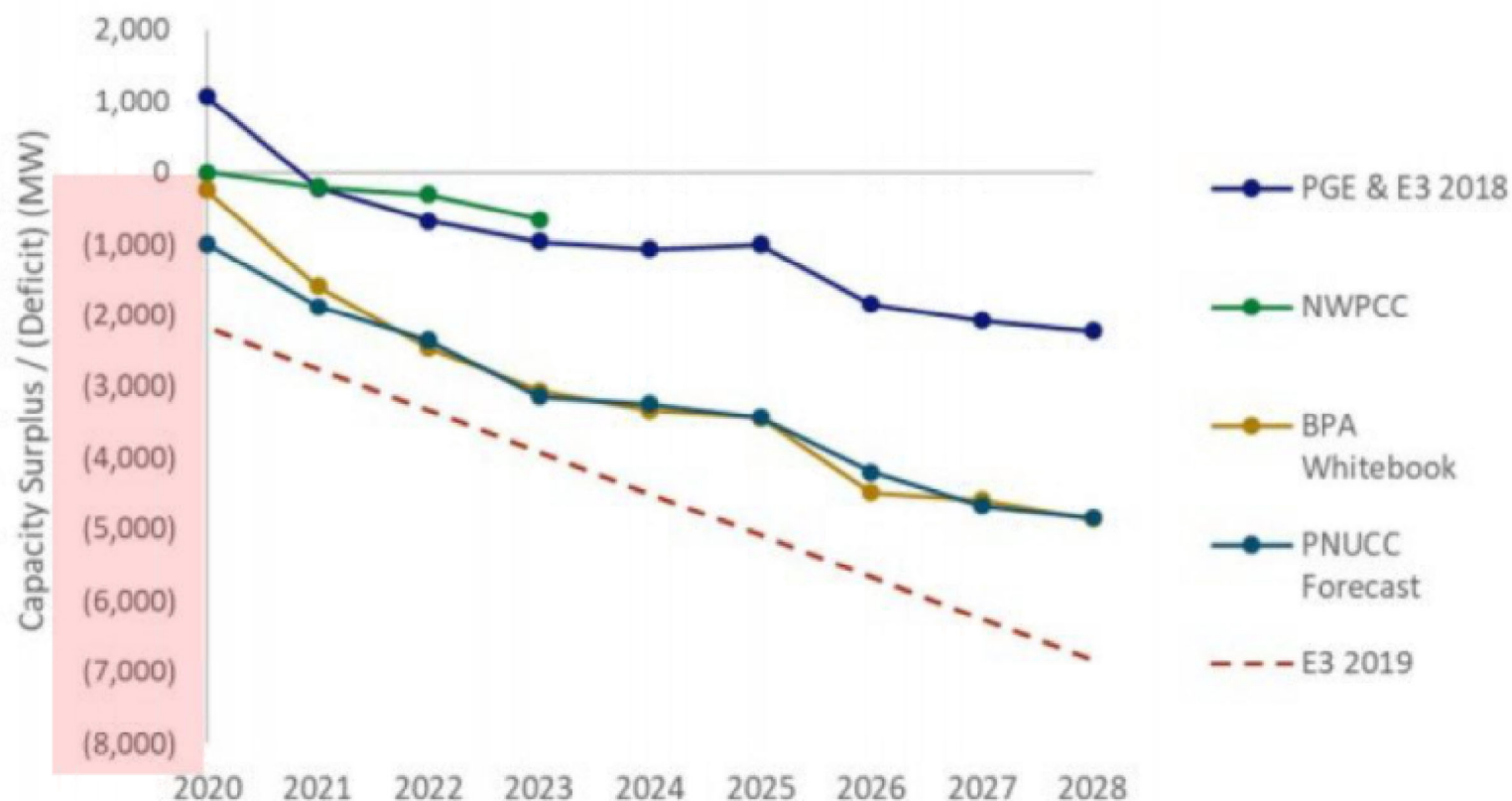
Fiscal Impact:

Attachments:

1. Resource Adequacy Graph

Regional Utilities See Risk of Capacity Deficits

- There is growing concern about capacity deficits in the Northwest. Entities are looking for cost-effective ways of ensuring resource adequacy.





UTILITY ADVISORY COMMITTEE AGENDA ITEM COVERSHEET

Meeting Date: 5/11/2021

Agenda Category: Items of Business

Prepared By: Clint Whitney, Energy Services Director

Subject:

HRSST Generation Discussion (10 Minutes)

Department:

Energy Services

Recommended Motion:

This is an informational item.

Summary:

Fiscal Impact:

Attachments:



UTILITY ADVISORY COMMITTEE AGENDA ITEM COVERSHEET

Meeting Date: 5/11/2021

Agenda Category: Other Informational Items

Prepared By: Clint Whitney, Energy Services Director

Subject:

Disconnect Status & A/R Balance Update

Department:

Energy Services

Recommended Motion:

This is an informational item.

Summary:

Current information on utility account balances and customers in disconnect status is attached.

Fiscal Impact:

Attachments:

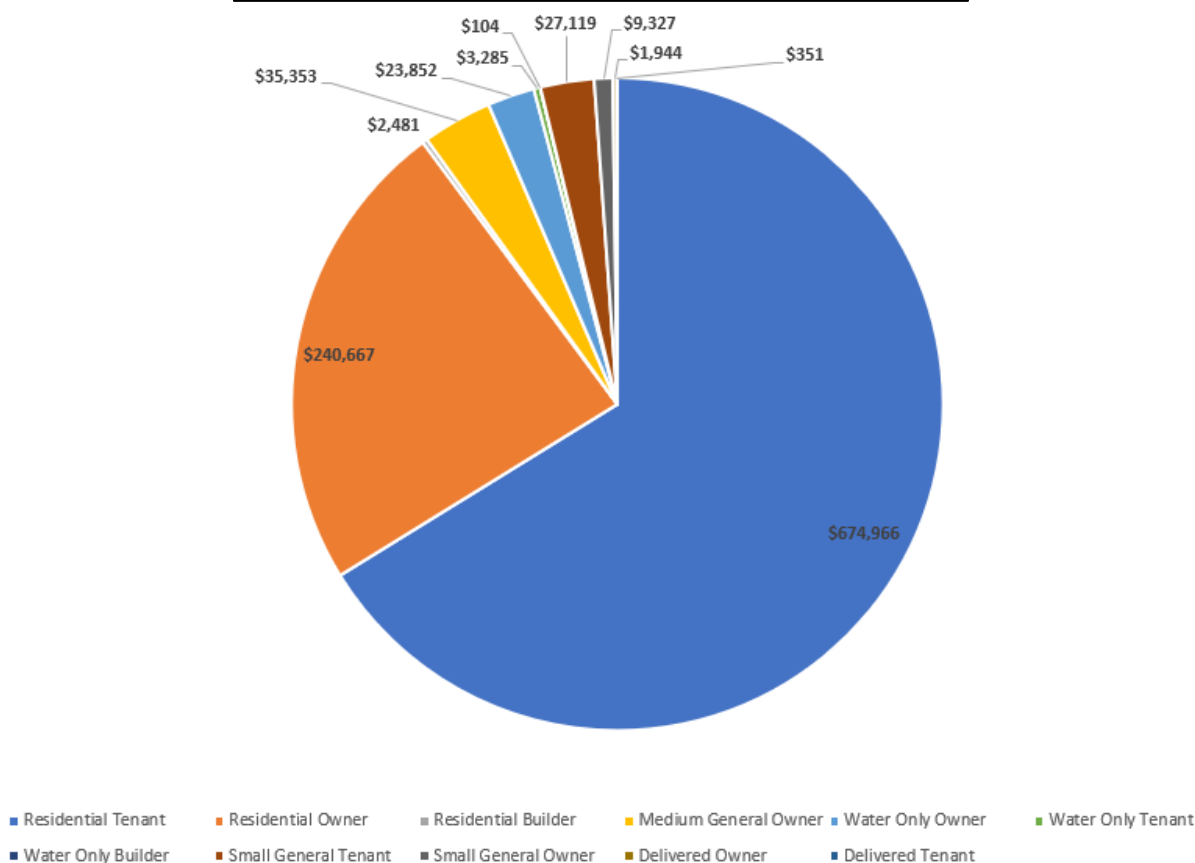
1. Disconnect Status and AR Balance Update

On March 24, 2020, Governor Inslee expanded Proclamation 20-23 to include a moratorium on utility disconnects due to nonpayment and prohibiting assessment of late fees. The proclamation has been amended many times and – as anticipated – was extended through July 31, 2021. This proclamation can be read in its entirety at: https://www.governor.wa.gov/sites/default/files/proclamations/proc_20-23.15.pdf.

The outstanding utility account balances have continued increased to just over \$1.4M as of May 7, 2021. However, the number of customers who are significantly past due has remained relatively flat: 1,446 accounts would be subject to disconnection for nonpayment if the Governor’s proclamation expired today, compared to 1,499 in March. It is also worth noting that of the 1,446 accounts that are past due to the point of disconnect, roughly 886 had not been disconnected for nonpayment between January 2019 and March of 2020, when the last disconnects for nonpayment were performed.

A breakdown of outstanding utility balances across customer classes are as follows:

Average/Customer	\$ 705.01	\$ 995.05		
Row Labels	Overdue Balance	Account Balance	% of Total	Count
Residential	\$918,114	\$1,231,297	86%	1370
Tenant	\$674,966	\$905,162	63%	1060
Owner	\$240,667	\$322,661	22%	308
Builder	\$2,481	\$3,474	0%	2
Medium General	\$35,353	\$75,591	5%	5
Owner	\$35,353	\$75,591	5%	5
Water Only	\$27,241	\$69,862	5%	22
Owner	\$23,852	\$56,127	4%	14
Tenant	\$3,285	\$5,331	0%	7
Builder	\$104	\$8,403	1%	1
Small General	\$36,446	\$59,648	4%	46
Tenant	\$27,119	\$40,725	3%	27
Owner	\$9,327	\$18,922	1%	19
Delivered	\$2,295	\$2,452	0%	3
Owner	\$1,944	\$1,953	0%	2
Tenant	\$351	\$499	0%	1
Grand Total	\$1,019,450	\$1,438,849	100%	1446





UTILITY ADVISORY COMMITTEE AGENDA ITEM COVERSHEET

Meeting Date: 5/11/2021

Agenda Category: Other Informational Items

Prepared By: Clint Whitney, Energy Services Director

Subject:

Tri Energy Partnership for Advanced Reactor Demonstration Program

Department:

Energy Services

Recommended Motion:

This is an informational item.

Summary:

On April 1st, Energy Northwest (ENW), X-Energy, and Grant PUD signed a Memorandum of Understanding (MOU) establishing a Tri Energy Partnership developing the Xe-100 project. The Xe-100 is a 80 MW gas cooled high temperature reactor consisting of four reactors for a total of 320 MW project located at ENW Site 1. The project will provide 100% clean, carbon-free power beginning late 2027-2030 timeframe. Department of Energy (DOE) is providing initial funding as part of the Advanced Reactor Demonstration Program (ARDP) and 50% of the \$2.2B project costs. Energy is estimated to be \$40-45 MWh after the DOE funding.

Media Links to Tri Energy Partnership and MOU signing:

- [Tri-City Herald Article](#)
- [KEPR-TV Video](#)
- [KAPP/KVEW TV Video](#)
- [Seattle Times Article](#)
- [Newsdata Article](#)

Fiscal Impact:

Attachments:



UTILITY ADVISORY COMMITTEE AGENDA ITEM COVERSHEET

Meeting Date: 5/11/2021

Agenda Category: Other Informational Items

Prepared By: Clint Whitney, Energy Services Director

Subject:

RES March 2021 Capital Work Plan

Department:

Energy Services

Recommended Motion:

This is an informational item.

Summary:

Attached is the Energy Services March 20201 Capital Work Plan.

Fiscal Impact:

Attachments:

1. RES CWP REPORT-March 2021



Richland Energy Services Capital Work Plan March 2021



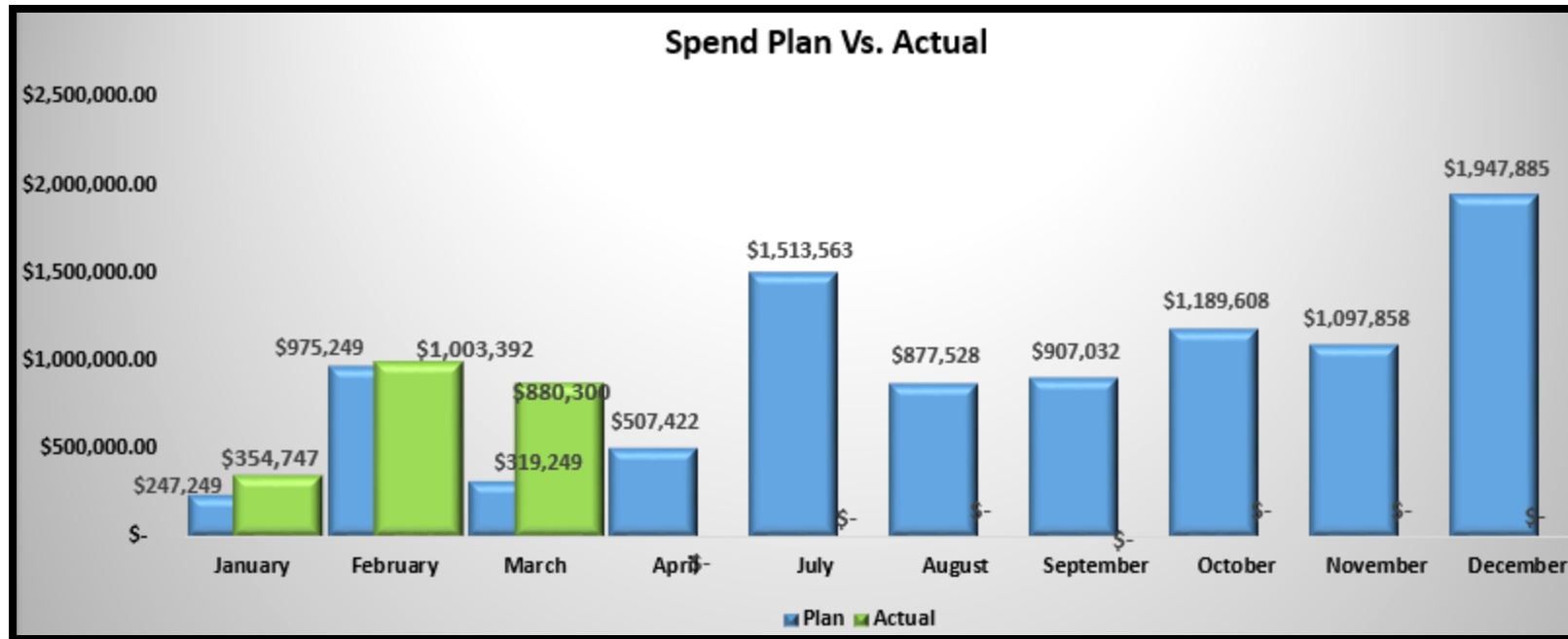
CWP Costs for March

	Original 2021 Budget	Total Project Costs	Actual	Sum of Remaining	March
+ Line Extensions	\$ 1,288,000	\$ 1,481,125	\$ 448,275	\$ 1,032,850	\$200,911.89
+ Smart Grid - Advanced Metering Infrastructure	\$ 3,771,000	\$ 3,771,000	\$ 701,926	\$ 3,069,074	\$521,029.53
+ System Improvements	\$ 607,500	\$ 782,000	\$ 255,585	\$ 526,415	\$74,752.97
+ Renewal and Replacement	\$ 1,364,000	\$ 1,021,972	\$ 186,360	\$ 835,612	\$44,982.61
+ Gateway Substation	\$ 3,710,000	\$ 4,285,000	\$ 733,150	\$ 3,551,850	\$38,440.83
+ Purchase Southwest Service Area Infrastructure	\$ 158,000	\$ 25,000	\$ 996	\$ 24,004	\$182.52
Grand Total	\$ 10,898,500	\$ 11,366,097	\$ 2,326,291	\$ 9,039,806	\$880,300

Cost Performance YTD:	\$2,326,291
Cost Performance remaining:	\$9,039,806
YTD % Complete	20%

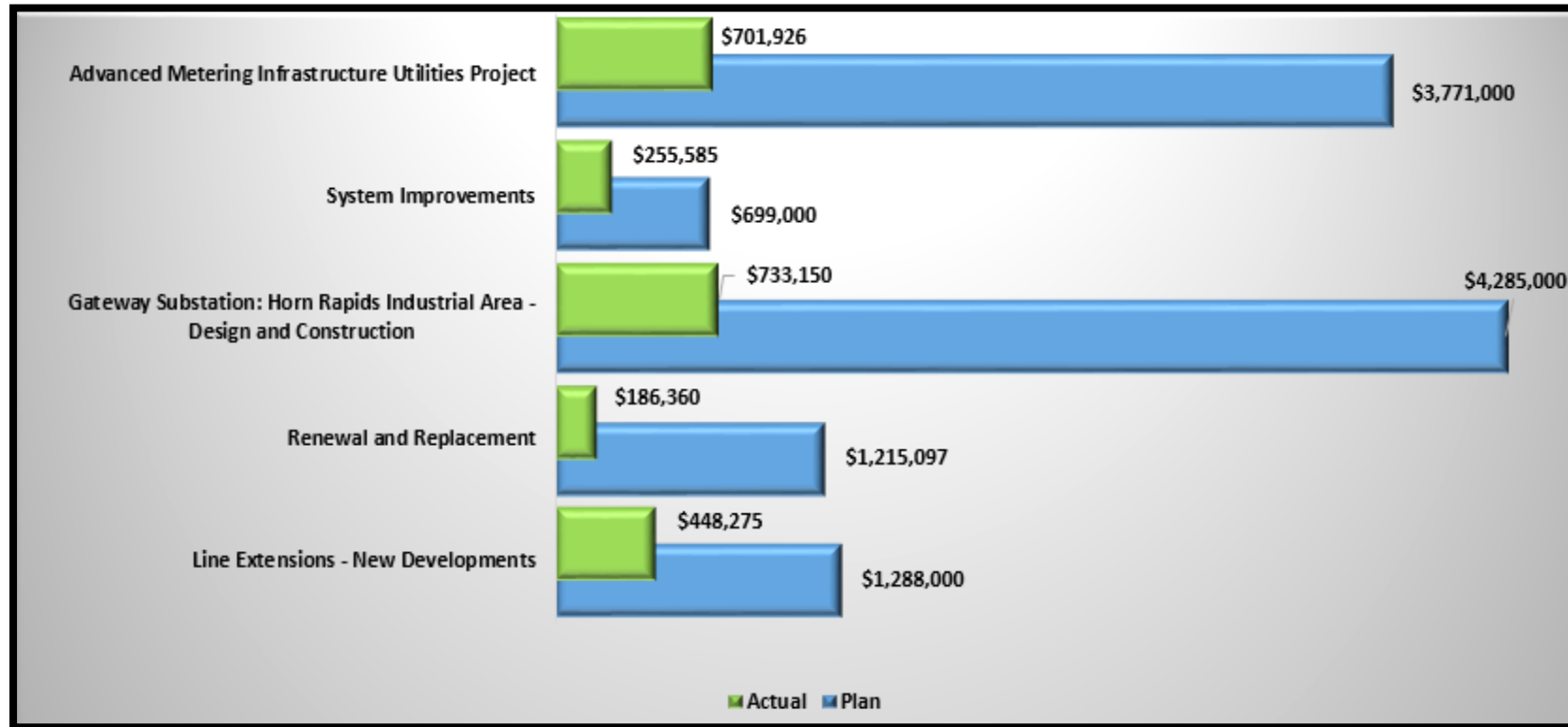


CWP Monthly Spend Vs. Actuals



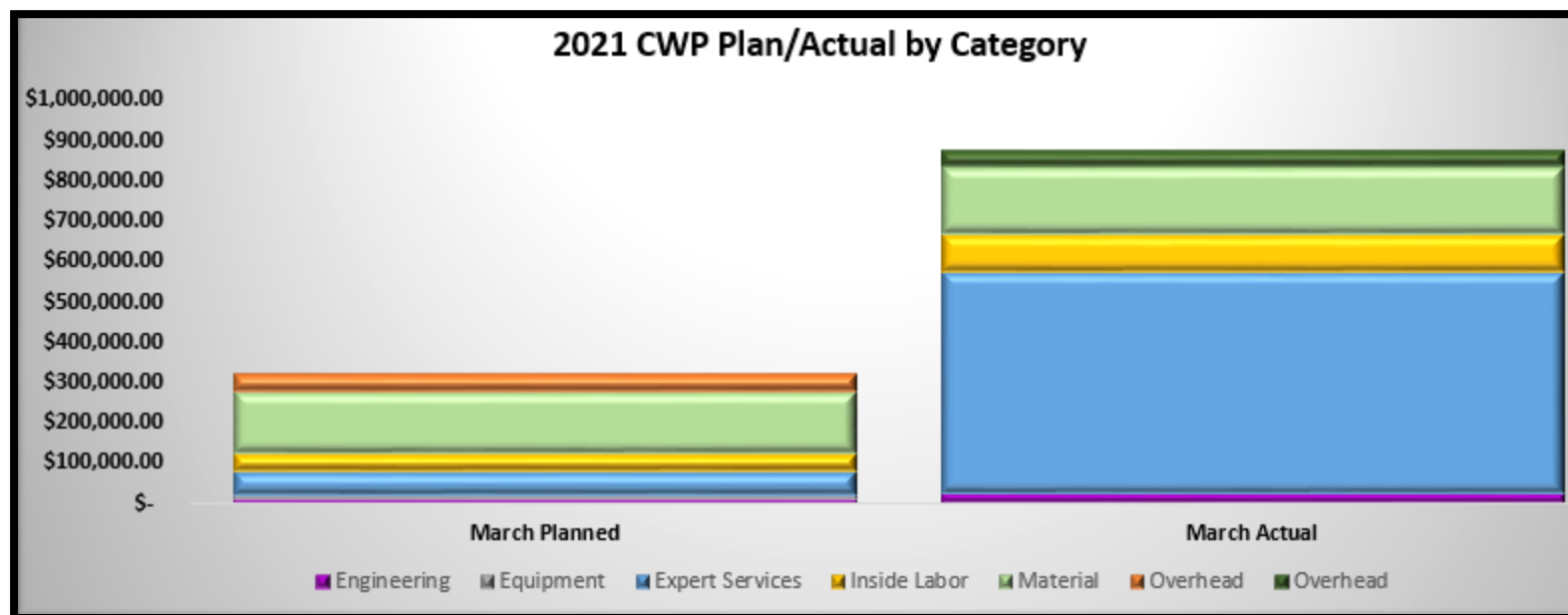
% Complete of Overall Spend Plan		
To-Date Projected	\$	1,541,747
To-Date Actual	\$	2,326,291
Variance	\$784,544	151%

Costs by Category





CWP Cost Types



Cost Type	March Planned	March Actual
Engineering	\$ 9,725.52	\$ 23,020.00
Equipment	\$ 8,666.65	\$ -
Expert Services	\$ 60,232.70	\$ 551,014.64
Inside Labor	\$ 44,391.51	\$ 96,131.41
Material	\$ 150,487.04	\$ 166,710.01
Overhead	\$ 45,745.58	\$ 43,424.29
Total	\$ 319,249.00	\$ 880,300.35



CWP Project Costs for March

	Original 2021 Budget	Total Project Costs	Actual	Sum of Remaining	March
+ Line Extensions	\$ 1,288,000	\$ 1,481,125	\$ 448,275	\$ 1,032,850	\$200,911.89
+ Smart Grid - Advanced Metering Infrastructure	\$ 3,771,000	\$ 3,771,000	\$ 701,926	\$ 3,069,074	\$521,029.53
- System Improvements	\$ 607,500	\$ 782,000	\$ 255,585	\$ 526,415	\$74,752.97
+ METER INSTALLATION MATERIALS	\$ 74,000	\$ 74,000	\$ 76,699	\$ (2,699)	\$20,195.13
+ NEW & ALT SVCS - UNDERGROUND	\$ 405,000	\$ 405,000	\$ 135,988	\$ 269,012	\$40,657.33
+ DISTRIBUTION FEEDER RELAY REPLACEMENT	\$ 128,500	\$ 220,000	\$ -	\$ 220,000	\$0.00
- Renewal and Replacement	\$ 1,364,000	\$ 1,021,972	\$ 186,360	\$ 835,612	\$44,982.61
+ CANYON TERRACE 2, UG R&R	\$ -	\$ 106,110	\$ -	\$ 106,110	\$0.00
+ 1305 Farrell Ln: Renew Replace #6BC ~13 poles	\$ -	\$ 134,205	\$ 498	\$ 133,707	\$281.22
+ 1303 Kimball Ave: Renew and Replace #6BC with 1/0A	\$ -	\$ 113,170	\$ 498	\$ 112,672	\$281.22
+ Areva Riser/Cable Replacement	\$ -	\$ 160,792	\$ -	\$ 160,792	\$0.00
+ INDIAN VALLEY; NEW PRIMARY AND SECONDARY	\$ -	\$ -	\$ 116,916	\$ (116,916)	\$29,950.11
+ 2108 Van Giesen, R&R Westview Acres Boring 2021	\$ 916,000	\$ -	\$ 7,717	\$ (7,717)	\$649.04
+ Pole Replacement Program	\$ 448,000	\$ 430,000	\$ -	\$ 430,000	\$0.00
+ Gateway Substation	\$ 3,710,000	\$ 4,285,000	\$ 733,150	\$ 3,551,850	\$38,440.83
+ Purchase Southwest Service Area Infrastructure	\$ 158,000	\$ 25,000	\$ 996	\$ 24,004	\$182.52
Grand Total	\$ 10,898,500	\$ 11,366,097	\$ 2,326,291	\$ 9,039,806	\$880,300



UTILITY ADVISORY COMMITTEE AGENDA ITEM COVERSHEET

Meeting Date: 5/11/2021

Agenda Category: Other Informational Items

Prepared By: Clint Whitney, Energy Services Director

Subject:

Letter to EFSEC on Horse Heaven Wind Project

Department:

Energy Services

Recommended Motion:

This is an informational item.

Summary:

Attached is a letter from the City of Richland opposing the Horse Heaven Wind Project that was submitted to the Energy Facility Site Evaluation Council (EFSEC) to be included with the public comments for the meeting on March 30, 2021. The complete list of project application, comments, and activity can be found at: <https://www.efsec.wa.gov/energy-facilities/horse-heaven-wind-project>. No new activity or decisions appear to have been made by EFSEC at this time.

Chapter 19.285 RCW requires the City to obtain increasing percentages of renewable energy as part of renewable portfolio standards (RPS) that originated from I-937. More recent legislation implemented in Chapter 19.405 RCW introduced the Clean Energy Transformation Act (CETA) which eliminates coal generation by 2025, requires carbon neutral greenhouse gas (GHG) generation by 2030, and eliminates greenhouse gas (GHG) generation by 2045. Electrification of many sectors continues with the most recent "carbon cap and trade/invest" legislation from WA Senate Bill 5126. Cap and invest will be analyzed along with other legislation to determine any impacts to Energy Services and rate payers. Energy Services has evaluated other legislation and is well positioned to meet the renewable requirements through 2026.

With the City being a load-following customer as a part of the regional dialog contract for wholesale power through Bonneville Power Administration (BPA), unshaped and intermittent resources - such as wind - are required to be shaped into flat block resources. Shaping of resources depends upon capacity factors and can add \$20/MWh to any renewable resource.

There are other reasons referenced in the letter submitted to EFSEC that ultimately result in it not making business sense for the City to support the Horse Heaven Wind Project.

Fiscal Impact:

Attachments:

1. Horse Heaven Wind Project - COR Letter of Opposition



CITY OF RICHLAND
RICHLAND CITY COUNCIL
625 Swift Boulevard, MS-04
Richland, WA 99352
Telephone (509) 942-7381
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CI.RICHLAND.WA.US · 509-942-7390

March 26, 2021

Energy Facility Site Evaluation Council
621 Woodland Square Loop, P.O. Box 43172
Olympia, WA 98504-3172

RE: Scout Clean Energy's Horse Heaven Wind Project

Energy Facility Site Evaluation Council:

I am writing today to voice my opposition to Scout Clean Energy's Horse Heaven Wind Project, which is proposed to be located in unincorporated Benton County and directly adjacent to the City of Richland. As Mayor of the City of Richland, I am well aware of how it will affect the greater Richland area and its surrounding communities, and ask that EFSEC deny Scout Clean Energy's request for an expedited review of this application for the reasons outlined below.

The City of Richland is home to 60,000 residents, many of whom work for agricultural and technical employers in Benton County. The City has wonderful parks that citizens have shown consistent and strong support for. To be clear: parks and outdoor recreation are very important to our residents and to many others in Benton County.

The City collaborates with Benton County for recreational areas similar to Horse Heaven Hills for the enjoyment of local residents. One area includes Badger Mountain Natural Preserve, which is accessed from several City trailhead parks. Badger Mountain Natural Preserve, like Horse Heaven Hills, is a favorite recreational hike for many citizens in and around Richland. Wind mills would negatively impact the natural area enjoyed by City and County residents.

Additionally, an expedited review should not be approved during an emergency declaration from the Governor, the nature of which prevents complete participation of public, regulatory, and site certification processes. The Horse Heaven Wind Project satisfies several of the criteria indicating that a full review should be conducted (as defined in WAC 463-60-117): environmental impact, area affected, magnitude of project, and the degree to which the project represents a change of use of the proposed site. No previous application for a project this complexity – combining wind, solar, and battery storage – has ever been considered by EFSEC. This alone is a sufficient basis upon which an expedited review should be denied. However, the following should also be taken into consideration when deciding whether or not an expedited review should be permitted:

- The full environmental impacts are not fully documented, addressed, or known by the applicant. Some negative impacts to the bat population are addressed, but minimally. What other environmental impacts from this project are not known and will not be considered due to the truncated nature of an expedited review?

- On pages 1-66 of the application, the applicant identifies over 6,869 acres of area that will be either temporarily or permanently impacted. This along with the complexity of the proposed project exceed the magnitude that is appropriate for expedited review.
- A wind farm would be a radical departure from the current use of the proposed site, which land that is currently a combination of agricultural, recreational, and Department of Natural Resource open space.

To further elaborate, the Horse Heaven Wind Project is neither needed nor beneficial for our community. This may sound counterintuitive considering events in other states, such as rolling blackouts in California during August 2020 followed by the rolling blackouts and multi-day power outages in Texas in February 2021. However, wind and solar projects are intermittent energy resources that do not provide any firm energy capacity. City of Richland customers expect reliable energy resources and the City concurs with the technical aspects of Benton PUD's wind policy perspective. The Horse Heaven Wind Project will not be a reliable source of energy generation.

The City of Richland is a municipal electric utility and a load-following customer of Bonneville Power Administration (BPA). The City proudly provides its customers with low-cost electricity, using a fuel mix composition where the percentage from clean, carbon-free resources exceeds 92%. The City is already well positioned to meet the Clean Energy Transformation Act (CETA) requirements codified in Chapter 19.405 RCW. While the City has to meet the renewable energy, requirements set forth in Chapter 19.285 RCW, the City is already covered with renewable resources through 2026. Even after 2026, any renewable resource would need to be shaped into a flat block energy resource. Currently, shaping and ancillary services for renewables add approximately \$20/MWh compared to BPA wholesale energy resources, which presently cost a total of \$40/MWh. Unshaped energy resources from the Horse Heaven Wind Project would not be economical for the City's electrical rate payers.

In summary, I appreciate the opportunity to share my concerns with you regarding the Horse Heaven Wind Project. This project will negatively impact natural areas, will not meet the City's firm energy needs, and it will not be an economical resource as an unshaped product. With respect to technical and business considerations, as well as our natural resources, please consider this letter as our formal opposition to the Horse Heaven Wind Project.

Sincerely,



Ryan Lukson
Mayor

Cc:

Richland City Council
Jon Amundson, Interim City Manager
Clint Whitney, Energy Services Director

Enclosure:
Benton PUD's Wind Power and Clean Energy Policy Perspectives

Wind Power and Clean Energy Policy Perspectives



Rick Dunn, General Manager

Commissioners:

Barry Bush

Jeff Hall

Lori Sanders

July 14, 2020

Executive Summary

Clean energy technology and public-policy development continue to be in the news and at the forefront of much political debate and discussion. While wind power has emerged as a popular choice for helping meet greenhouse gas emission reduction goals, reasonable questions continue to be raised regarding its ability to cost-effectively contribute to the powering of modern civilization and how the lifecycle environmental and ecological impacts compare to other types of technologies.

With Washington State's passage of the Clean Energy Transformation Act (CETA) in 2019 and the current schedule for expiration of renewable energy federal tax credits, there is a resurgence in proposed wind power development activity in the Pacific Northwest (PNW), including projects proposed for eastern Washington and Benton County specifically.

As developers and many elected officials tout the economic and environmental benefits of wind farms, Benton PUD believes it is important for our customers and the general public to hear utility perspectives. Unlike the narrower focus of some wind power interests, utilities must balance environmental benefits and concerns with costs and power grid reliability; and we will be held accountable if we fail on any of these dimensions.

While Benton PUD acknowledges wind power development in the PNW will likely continue as Washington State utilities respond to the 2025 CETA deadline for eliminating coal-fired energy and in response to nearby state and corporate clean energy mandates and goals, we do not support further development of wind power in the PNW for the following primary reasons:

- 1) Benton PUD's current power supply is hydro and nuclear based and is over 93% "non-emitting" by Washington State standards. While we are ahead of the clean energy curve, we do experience supply deficits during hot summer months and deeply cold winter periods. To cover these deficits, we make power market purchases from generation resources that can be counted on to run on the days and hours needed (dispatchable). Since wind power relies on natural weather conditions decoupled from electricity demand, it is not dispatchable generation and therefore will not help us resolve our seasonal energy deficit problems.
- 2) The PNW's hydroelectric generation resources are the foundation of a reliable and clean energy supply that has historically resulted in Washington State contributing no more than 0.5% to the nation's annual total greenhouse gas (GHG) emissions from electricity production; even with soon to be retired coal-fired power plants in the mix. Further development of wind power in the PNW will not result in consequential reductions in national or global GHG emissions attributable to Washington State utilities and will do very little to mitigate the increasing risk of northwest power grid blackouts; which could grow to a 26% probability by 2026 if utilities are unable to replace the reliable generating capacity of shuttered coal plants.

- 3) The low availability of wind power requires utilities to continue paying for dispatchable generation capacity that may run infrequently but is still sized to meet most of the peak energy demand on the grid. This “double paying” is why electricity rates in countries and states with high wind penetrations are rising despite the declining costs of this popular renewable energy source. Benton PUD believes further wind power development will unnecessarily contribute to increases in northwest utility retail electricity rates which could erode the economic development advantage low rates has given our region for many years.
- 4) Energy production from wind farms in the PNW is often high during periods of maximum hydro generation contributing to energy gluts that can drive short-term market prices to zero or even to negative values due to federal tax credits received by wind power. To minimize the net cost of hydro generation the region needs for year-round flexible and reliable electricity, the value of surplus hydro energy sales needs to be maximized. Building more wind farms in the PNW will contribute to untimely energy supply gluts and low short-term market prices which reduces surplus hydro energy sales revenues, increases net hydro power costs and puts upward pressure on retail rates Benton PUD and other utilities charge our customers.
- 5) Benton PUD believes the best long-term, sustainable and environmentally responsible strategy toward meeting the CETA goal of 100% clean electricity in Washington State by 2045 could be to transition coal power to natural gas and then natural gas to nuclear. It is estimated wind power requires 30 to 45 times as much land and about 10 times as much concrete and steel to produce the equivalent power of nuclear. In addition, a recent study estimates that assuming hydro and nuclear power in the PNW stay in place, meeting a theoretical 100% clean electricity goal in our region using wind (and solar) power would require a land area 20 to 100 times the area of Seattle and Portland combined.
- 6) Benton PUD supports Energy Northwest (EN) in their efforts to develop small modular reactor (SMR) technology. However, we are concerned continued large-scale investments in PNW wind power projects will contribute to increases in the normally surplus annual energy supplies in the region thereby eroding the hourly energy supply opportunities needed by SMRs to achieve economic feasibility. Maintaining the existing Columbia Generating Station operations while expanding SMR technology development and possible manufacturing in the Tri-Cities represent opportunities for economic stability and growth in an area with a long history of grid-scale energy production and world class scientific research capabilities.

As some legislators and certain advocacy groups continue to call for more wind power while simultaneously calling for removal of hydro-electric dams, Benton PUD believes it is important

for our customers and citizens of Washington State to hear the utility side of the energy story. To this end, we are committed to facilitating education and outreach efforts based on the premise that all energy choices represent economic and environmental tradeoffs and that consideration of utility business models and the physics of the power grid matter when taking a position to promote one form of power generation technology over another.

Existing wind farm development in Washington State and along the northern Oregon border has already resulted in the industrialization of previously scenic hillsides, canyons and desert vistas in the region in and around Benton County. Before Benton PUD customers and citizens throughout our region accept further sacrifice of the natural beauty and open spaces that are part of our way of life, we want them to know there are other options we should be asking our legislators and utility industry leaders to urgently and seriously consider. This is the reason for this report and for our formal declaration that Benton PUD does not support further development of wind power in the PNW.

Existing Power Resources and Loads

Despite clean energy policies and trends favoring wind and solar power, continued development of wind farms in the northwest is not expected to be necessary or beneficial to serving the interests of Benton PUD customers for at least the next decade or more. This is primarily due to our hydro and nuclear rich wholesale power supply contract with the Bonneville Power Administration (BPA) which entitles Benton PUD to annual energy amounts that are normally greater than what is consumed by our customers. In addition, our BPA contract in combination with other energy purchases and contracts results in a power supply that is already over 93% “non-emitting” and clean by Washington State standards.

With this said, it is important to recognize Benton PUD does face significant power supply challenges under the terms and conditions of our current BPA contract. These challenges are rooted in the timing of BPA energy delivery which does not always align with our customer demand for electricity. Benton PUD is a “summer peaking” utility with our highest customer demand being driven by irrigated-agriculture pumping operations combined with high residential and business air conditioning; see FIGURE 1.

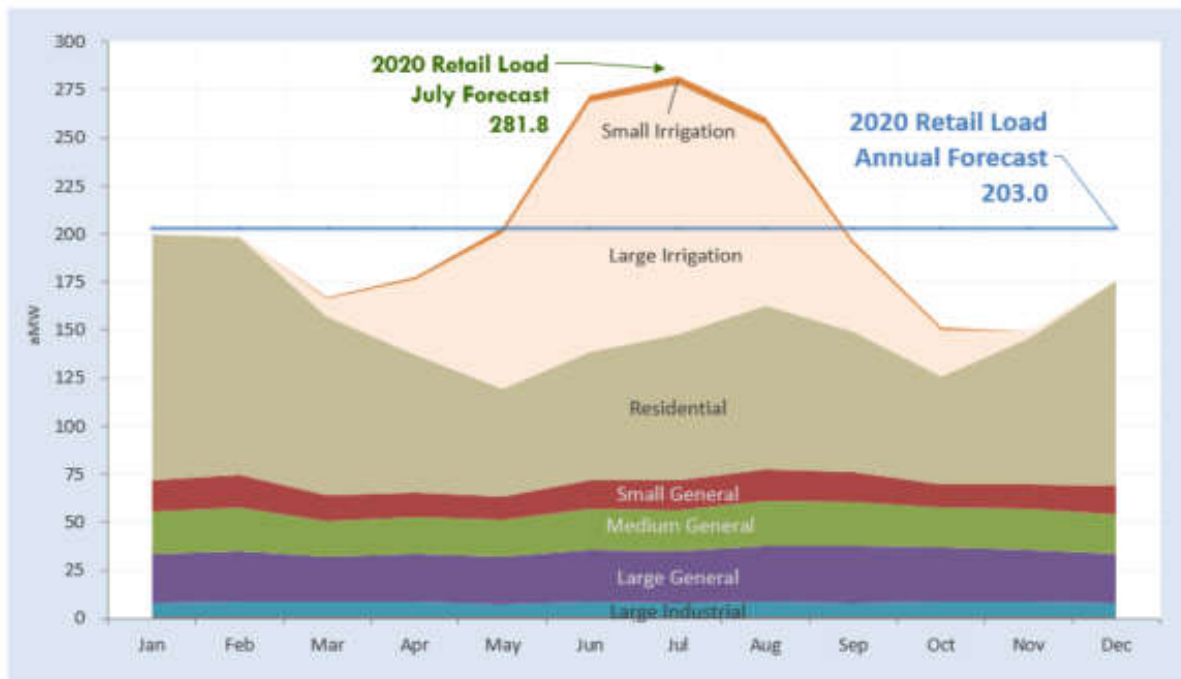


FIGURE 1

As a “Slice” customer of BPA, Benton PUD has rights to a fixed percentage of the electricity generated by BPA resources for any given hour of the year which can be highly variable. As BPA resources are predominantly hydro-electric, the variability is driven by the timing and quantity

of runoff from snowpack as well as short term precipitation events which must be managed to serve interests that compete with power generation; including fish and wildlife, flood control, river navigation and recreation.

To gain further perspective, it is instructive to know that Benton PUD's annual allocation of BPA wholesale energy in typical water years delivers about 225 average megawatts (aMW) which is more than our total annual customer retail energy consumption forecast beyond the year 2030. On average, our BPA supply is currently 11 aMW more than our customers consume on an annual basis. However, while Benton PUD currently has a "long" annual energy supply position, we do experience regular seasonal energy supply deficits in the summer and on occasion can come up short during deep cold periods in the winter. These seasonal energy supply shortfalls, referred to as capacity deficits, are a function of Benton PUD's dependence on the availability of "fuel" (river flows) for BPA's hydro resources which can vary significantly from year-to-year and month-to-month; see FIGURE 2.

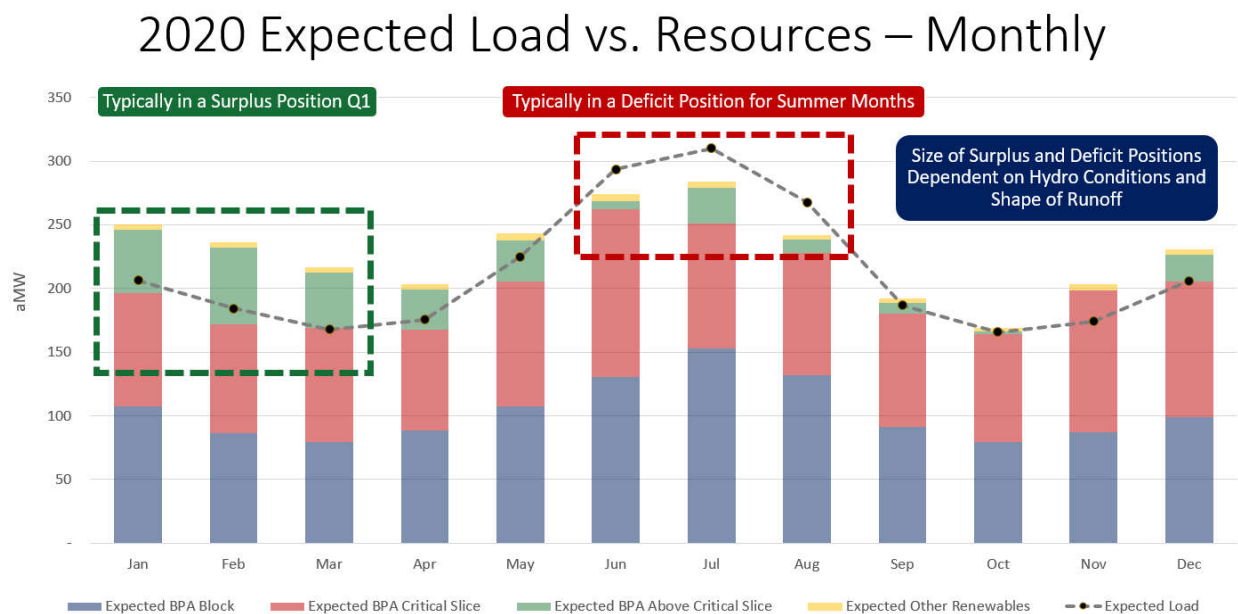


FIGURE 2

Under Benton PUD's Slice contract with BPA, they are required to guarantee delivery of firm monthly energy represented by the combined total of a "Block" and "Critical Slice" amount. The "Above Critical Slice" is the amount of energy BPA is forecasting will be available to Benton PUD but not guaranteed. Slice customers can re-sell surplus energy received from BPA when supply exceeds what is required to serve customer loads but in return must accept and independently manage the risk that loads may be higher than the available BPA supply.

Any forecasted capacity deficits require Benton PUD to make purchases from wholesale electricity markets in order to augment our long-term power supply contracts. Consequently, we have people, processes and contracts in place to be sure our customer electricity demand is completely supplied on an hourly and around the clock basis. Benton PUD's wholesale electricity purchases are typically made in short-term monthly, weekly, day-ahead and hourly markets from generation resources that can be counted on to run on the days and hours needed (dispatchable). These dispatchable generation resources provide needed capacity to cover energy supply deficits that occur on the hottest and coldest days of the year.

Since wind power relies on natural weather conditions decoupled from electricity demand, it is not a dispatchable generation resource and therefore development of more wind power will not help Benton PUD resolve our seasonal capacity deficit problems; particularly our most acute deficits which occur in summer months with very low levels of wind. We are also concerned that preferences for wind power risk under investment in dependable and dispatchable natural-gas generation plants most utilities believe will be essential for replacing the capacity of coal-fired plants being rapidly retired and shut down in the Pacific Northwest and throughout the western United States.

While wind energy developed on a large scale can be a substitute for much of the annual energy produced by fossil-fueled power plants, it cannot provide the equivalent capacity required for balancing electricity supply and demand on an around the clock basis, and under a wide variety of weather conditions. Because the northwest is so dependent on the availability of water for hydro-electric generation, the coldest and hottest days of a year in which water resources are at a critically low level are of particular concern for electric utilities and is why other reliable and dispatchable generation must be standing by and ready to run on demand. When power grid supply does not meet demand on a moment-by-moment basis, blackouts can occur. Benton PUD is concerned that a deepening dependence on wind power as a replacement for energy produced by coal plants in the northwest could have serious consequences in the not-too-distant future if grid operators are faced with the simultaneous occurrence of drought conditions (low hydro power production), extreme temperatures, low wind and not enough dispatchable electricity generators to meet peak customer demands.

To gain further perspective, it is also instructive to consider Benton PUD's 11 aMW "long" BPA annual energy position in the context of customer growth which is currently forecasted to result in an increase of about 0.4 aMW of energy consumption per year. This relatively low growth rate is driven by our continued investments in effective conservation measures as well as improvements in the energy efficiency of new homes and businesses. In the simplest analysis, Benton PUD's expected annual supply of BPA power represents over 27 years of

customer growth which means we are not currently looking to add substantial amounts of “baseload” annual energy to our power supply portfolio from wind power or other resources.

With this said, new large loads associated with electricity intensive businesses or industry locating in Benton PUD’s service territory are a wild card that could require acquisition of new generation resources. Another resource acquisition driver could be preferences for wind and solar power which are often used to brand businesses as sustainable. In either case, given the requirements of Washington State’s Clean Energy Transformation Act (CETA) and other clean energy policies and preferences in adjacent states and regions, wind and solar power may be the only significant energy resources available to meet a future Benton PUD need. While not ideal, we would choose solar power over wind given that solar energy production curves are better aligned with our summer peaking load profile and would contribute to reducing our regular summer capacity deficits on most days.

Existing Wind Power Resources

Currently, Benton PUD’s power supply portfolio includes wind energy through direct contracts from the Nine Canyon (9 MW) and White Creek (9.1 MW) projects delivering about 5.7 aMW of total energy on an annual basis. These contracts were initiated by Benton PUD in response to the qualifying renewable energy requirements of Washington State’s Energy Independence Act (EIA) which initially did not include energy from existing hydro generation.

In addition to direct wind power purchases, Benton PUD’s contract with BPA includes an allocation of about 1.4 aMW of their wind portfolio’s annual energy production. All the wind resources in Benton PUD’s portfolio along with BPA’s hydro generation resulting from incremental improvements to turbine-generator efficiency (incremental hydro) are considered EIA qualifying renewable energy. This means energy from these resources provide a renewable energy credit (REC) for every megawatt-hour of electricity generated.

REC allocations and purchases are how Benton PUD meets the renewable portfolio standard (RPS) currently required by EIA mandates. In 2020 Benton PUD will need a total of about 30 aMW of REC allocations and purchases each year to meet the current 15% RPS requirement. We plan to meet our compliance requirement with 7.1 aMW of total wind power RECs from Nine Canyon, White Creek and BPA; 2.6 aMW of BPA incremental hydro REC allocations; and 20.4 aMW of REC purchases from other entities, including wind farms.

It is important to emphasize that a REC is a certificate corresponding to the environmental attributes of energy produced from qualifying renewable resources and does not necessarily

represent purchases of physical electricity. While Benton PUD has contractual rights to the electricity produced by the Nine Canyon and White Creek projects, it is usually surplus to our annual customer energy requirements except under a worst-case low hydro generation scenario.

With that said, Benton PUD's share of Nine Canyon's physical electricity is always scheduled to supply our load with the net effect during low customer load periods of increasing our BPA hydro surplus which we sell in regional wholesale electricity markets. Due to power scheduling complexities, Benton PUD's share of the White Creek project's physical electricity is bundled with other utility shares and sold to another counterparty at a price currently well below the relevant market power index. This below index pricing is an indicator of the reduced value of wind energy compared to other more dependable generation resources.

Revenues from the sales of physical electricity attributed to Nine Canyon and White Creek are considered as offsets to the total annual cost of Benton PUD's EIA renewable-energy compliance which is budgeted to be \$3.8 million in 2020. We expect to continue to rely on REC purchases as the primary means for meeting EIA mandates with some relief possible in 2030, depending on CETA rules which are currently under development.

Benton PUD considers the incremental cost and dependence we have on continued operation and development of wind and solar power for REC purchases as a perverse outcome of EIA mandates given our extraordinarily clean power supply and surplus annual hydro and nuclear-based energy position.

Surplus Energy and Market Sales

With respect to Benton PUD's net annual surplus of energy, it is important to understand the timing of when most surplus hydro generation occurs. For Benton PUD, the best combination of market price and volume of surpluses occurs in January through March with the highest volume and lowest prices occurring in April and May. When our hydro supply exceeds customer demand, our BPA contract allows us to sell the surplus energy into wholesale electricity markets. The revenues generated by our sales have the effect of buying down our annual wholesale power costs.

Energy production from wind farms in the northwest can also be high during periods of maximum hydro generation contributing to energy gluts that can drive market prices to zero or even to negative values due to federal tax credits received by wind power. The wholesale electricity market distortions created by wind power tax credits combined with the availability

of abundant and low-priced natural gas has driven market prices to very low levels in recent years. Consequently, the value of Benton PUD surplus hydro energy sales has been significantly reduced from over \$50 million in 2008 to under \$20 million today.

While there are efforts underway centered on possible expansion of the Western Energy Imbalance Market (EIM) to an extended day ahead market (EDAM) that could increase the economic value of BPA hydro flexibility and capacity, Benton PUD believes further development of wind power in existing “energy only” wholesale markets will continue to contribute to the devaluation of hydro. To be clear, Benton PUD believes abundant and low-cost natural gas has been the major driver of wholesale electricity price reductions but building more wind farms will contribute to downward pressure on prices.

Overall, the erosion of the market value of hydro energy has resulted in upward pressure on the prices BPA charges Benton PUD and consequently on the retail rates we charge our customers. Since 2007, BPA’s revenues derived from market sales have dropped from over \$400 million to under \$200 million in some years which leaves them looking to their ratepayers to make up the difference. Benton PUD’s net power supply costs are budgeted to be \$84 million in 2020 which is up 40% since 2010 when actual costs were \$60 million.

Oversupply and Curtailments

Additional concerns regarding the development of more wind power are oversupply and curtailments which are well described in a report developed by Harvard University for the Bonneville Power Administration in May 2018.¹

...As more intermittent renewable energy is added to the grid it creates oversupply, particularly during low demand hours, when generation exceeds load. Oversupply causes low or negative prices for wholesale energy during periods of overgeneration. When scheduled generation exceeds scheduled demand in the hour-ahead market, the price of energy falls below zero in an attempt to balance supply and demand. After accounting for changes in generation and load between the hour-ahead and real-time markets, if generation still exceeds load and there are no more generators willing to receive payments to reduce their output, then balancing authorities must order generators to curtail output to maintain system frequency. Negative bids often represent the lost opportunities for the generator to take advantage of tax credits for renewable energy production.

¹ Patricia Florescu and Jack Pead, “Realizing the Value of Bonneville Power Administration’s Flexible Hydroelectric Assets”, 12, 13, 14, Mossavar-Rahmani Center for Business & Government, Harvard University, May 2018.

...Due to the Pacific Northwest's reliance on hydroelectricity, oversupply becomes more problematic in the springtime when both river flows and wind generation are high. Under those circumstances, extra water can be spilled from the dams so that it does not contribute to oversupply, but too much spill exceeds water quality standards and can harm fish and other aquatic species. If water cannot be spilled, it must be passed through the hydropower turbines, thus generating electricity.

For conditions like these, BPA implemented the Oversupply Management Protocol, under which non-hydrogeneration is displaced to protect aquatic life and maintain system reliability. Displacement decisions are made according to a least-cost displacement cost curve that lists generation in order of cost, from the least cost facility to the highest-cost facility, until the required displacement quantity is achieved.⁵³ After a federal court case concluded in 2011, BPA enacted a new protocol that compensated wind generators for lost revenues from curtailment and assigned the costs of curtailing generation during oversupply events to BPA transmission customers.⁵⁴

While Oversupply Management Protocol costs have not been extremely high² relative to other costs incurred by Benton PUD through our BPA transmission contract, we are concerned more wind power on the grid will contribute to increases in BPA costs and will add more complexity to the already difficult balancing act of managing river flows to meet the competing interests of power generation, environmental stewardship, barging operations, flood control and recreation.

Pacific Northwest Resource Adequacy Challenges

The Pacific Northwest's clean hydroelectric generation resources are unmatched anywhere in the United States and are the primary reason Washington State contributed on average no more than 0.5% to the nation's annual total greenhouse gas emissions from electricity production each year between 1980 and 2017³; even with coal plants in the mix.

While our already clean electricity sector is the envy of the nation, policy makers in Washington State have set the course for 100% clean by 2045 through passage of the Clean Energy Transformation Act (CETA). While a long-term goal like this is clearly aspirational at this point,

² BPA's displacement costs of OMP were around \$4.87 million in 2018 and \$2.2 million in 2017 <https://www.bpa.gov/Projects/Initiatives/Oversupply/Pages/Annual-Oversupply-Review.aspx>.

³U.S. Energy Information Administration, "State Carbon Dioxide Emissions Data" <https://www.eia.gov/environment/emissions/state/>.

the near-term consequences of CETA's underlying requirements are significant and very concerning when it comes to maintaining power grid reliability. The most consequential requirements are the explicit removal of coal power from utility portfolios by 2025 and the "social cost of carbon" which must be used as a cost adder when utilities evaluate investments in new generation resources. As intended by legislators, this cost adder will have a chilling effect on investments to construct new natural-gas power plants which utilities would normally consider to be the logical replacement for dispatchable capacity associated with retiring coal plants.

Unfortunately, CETA along with other anti-fossil-fuel sentiment in Oregon and California energy policies has put northwest utilities in a position where it appears only wind and solar power along with batteries, pumped hydro and customer load curtailments (demand response) will be allowed to try and solve utility capacity deficits. The problem is that science, economics and project development cycle times indicate the politically preferred technologies are not ready to provide solutions at the scale needed to mitigate the already unacceptable increase in the risk of blackouts projected for the Pacific Northwest beginning in 2021⁴. In their most recent assessment, the Northwest Power and Conservation Council (NWPCC) estimates that accelerated coal-plant retirements could increase the likelihood that generating capacity will not be adequate for meeting demand to a level of 26% by 2026. This is well above the 5% threshold established as the limit for an adequate regional power supply.

Benton PUD is a relatively small player in the northwest grid, but our seasonal capacity deficits are significant. This is why we joined forces with other members of the Public Generating Pool (PGP) and several investor owned utilities to co-fund a study by E3 Consulting⁵ of what will be required to maintain power grid reliability in the Pacific Northwest while further de-carbonizing the electricity sector. This study found that deep de-carbonization is possible but that natural gas fired generation will be needed to maintain power grid reliability; it would just run infrequently.

While development of wind farms may be politically fashionable and appeal to many in the general public as a harmonization of nature with electricity production, the science and economics indicate powering modern civilization with intermittent generation resources like wind and solar power comes at a high financial and environmental cost. E3's study concludes that increasing the Pacific Northwest's inventory of wind power from the 2018 level of 7

⁴ Northwest Power and Conservation Council, "*Pacific Northwest Power Supply Adequacy Assessment for 2024*": October 2019.

⁵ Energy+Environmental Economics, "*Resource Adequacy in the Pacific Northwest*": Public Generating Pool, March 2019.

gigawatts to a level of 38 gigawatts by 2050⁶ would only result in an effective capacity contribution from wind of 19%. In other words, a more than fivefold investment in wind power which E3 estimates would cover an area as much as 37 times the combined areas of Seattle and Portland, would only allow regional utilities to count on 19% of the capital investment to produce electricity when it is most critically needed. The E3 study also estimates the area required to achieve a theoretical 100% clean electricity sector in the northwest using only wind and solar power (assuming existing hydro and nuclear stay in place) would require a land area as much 100 times the combined areas of Seattle and Portland.

On November 12, 2019 Benton PUD Commissioners adopted Resolution 2523 in support of actions to ensure electric sector resource adequacy in the Pacific Northwest. This resolution provides a sound argument for why northwest utilities have serious concerns regarding the reliability of the northwest power grid and why Benton PUD questions the wisdom of continued development of large numbers of wind farms in our region when we are facing potentially serious consequences associated with power grid blackouts.

Other Considerations

The “fuel” for wind power is dilute and intermittent requiring additional investments in backup generation technologies to meet the always-on requirements of power grids. While developers and advocates often tout continued reductions in the cost of wind energy, the low availability of wind power requires utilities to continue paying for dispatchable generation capacity that may run infrequently but is sized to meet most of the peak energy demand on the grid. This “double paying” is why electricity rates in countries and states with high wind penetrations have risen significantly amid claims of low-cost renewable energy.

CETA together with the Energy Independence Act (EIA) appears to have established an undefined increase in Washington State’s renewable portfolio standard (RPS) which will undoubtedly lead to some level of double paying in Washington State. Establishing preferences for wind and solar energy with no accompanying targets for greenhouse gas (GHG) emission reductions in the electricity sector has been shown through comprehensive study to result in unnecessary increases in the cost of electricity while not reducing GHG emissions in the most cost-effective manner possible⁷.

⁶ 38 gigawatts of nameplate wind power capacity is what E3 determined would be required in an optimal scenario to reduce greenhouse gas emissions from electricity production by 80% below 1990 levels; an often-quoted goal from the Intergovernmental Panel on Climate Change (IPCC).

⁷ Energy+Environmental Economics, “*Pacific Northwest Low Carbon Scenario Analysis - Achieving Least-Cost Carbon Emissions Reductions in the Electricity Sector*”: Public Generating Pool, December 2017.

Additionally, the land area required for wind turbine construction and transmission lines needed for grid interconnections can be immense and the negative ecological and environmental impacts of this “energy sprawl” may outweigh the perceived or real benefits. Benton PUD believes lifecycle economic and environmental impacts expected to result from further development of wind power need to be scrutinized to a much higher degree with greater recognition of issues like the global impacts of raw materials mining and the disposal of wind turbine blades which are currently destined for landfills.

Benton PUD acknowledges every source of energy production takes a toll on the environment but believes wind power is often given a pass due to its popularity with policy makers and many in the general public. One source estimates wind power requires about 30 to 45 times as much land to produce a comparable amount of power as nuclear and that concrete and steel requirements for wind are about 10 times greater⁸. We believe these are important and relevant considerations as investments are made in power generation projects that will have long lasting environmental and financial impacts.

Benton PUD supports provisions of CETA that count hydro and nuclear energy toward the 100% clean by 2045 objective. However, we believe a more cost-effective and potentially less risky trajectory toward this goal would have been to allow for the transition from coal to natural gas and to promote an increase in the development of nuclear energy as the best long-term and sustainable strategy. We believe it is reasonable to suggest the most balanced and environmentally responsible actions you can take to “clean up” the electricity sector is to produce as much low or non-emitting electricity as possible in the smallest area possible. This seems to be best accomplished with energy dense fuels like natural gas and uranium.

Benton PUD supports EN in their efforts to develop small modular reactor (SMR) technology. However, we are concerned continued large-scale investments in wind power will substantially increase the normally surplus annual energy supplies in the Pacific Northwest (PNW) thereby eroding the hourly energy supply opportunities needed by SMRs to achieve economic feasibility. According to the Bonneville Power Administration (BPA)⁹ the generating potential from federal and non-federal hydro projects in the PNW can vary by almost 7,000 aMW annually and by almost 14,000 aMW in some months, depending on project operations and the availability of water. But even in the worst water years, the PNW region is projected to have annual firm energy surpluses for the next ten years, assuming the region’s 4,000 MW of uncommitted independent power producer (IPP) generation capacity is available to serve regional loads. Adding to this “long” regional energy position with continued development of

⁸ Robert Bryce, *“Power Hungry – The Myths of “Green” Energy and the Real Fuels of the Future”*: Pages 84, 91.

⁹ Bonneville Power Administration, *“2018 Pacific Northwest Loads and Resources Study”*: April 2019, Section 3.

large-scale wind farms does not bode well for the development of SMR based generating projects given their relatively high capital costs and the need for lots of run time in order to reduce energy production costs to levels that will make them competitive with other technologies.

Conclusions

It appears additional wind farm development in the Pacific Northwest (PNW) is gaining momentum and is a foregone conclusion in the minds of many legislators, members of the general public and even some utilities. Benton PUD believes it is reasonable to question whether continuing to favor investments in intermittent wind power and putting up roadblocks to the development of dispatchable natural-gas power plants is more about environmental virtue signaling than it is about serving the best interests of the citizens of Washington State.

There is no denying the fact that thanks to abundant PNW hydro energy, Washington State has historically been one of the lowest contributors to electricity sector greenhouse gas (GHG) emissions in the United States and that electricity sector contributions to total statewide GHG emissions have been only 16 to 19%¹⁰, even with coal plants in the mix. Put another way, what urgent “dirty energy” problem are we attempting to solve through the aggressive timelines and technology restrictions of the Clean Energy Transformation Act (CETA) that is worth sacrificing vast amounts of our natural landscapes and risking blackouts that jeopardize the health, safety and wellbeing of northwest electricity customers?

While language exists within CETA requiring future reporting to the governor’s office to address concerns with power grid reliability, it appears legislators do not believe the risk of blackouts is real. If they did, they would accept the results of already existing utility studies and immediately begin to work on modifications to CETA to remove disincentives for the development of dispatchable natural gas plants needed for replacing retiring coal-plant capacity. So, at this point, investor owned utilities are announcing plans for new wind power projects to meet CETA deadlines, and along with all northwest utilities, are hoping the efforts of the Northwest Power Pool (NWPP) to develop power-generation resource adequacy standards can be completed and implemented in time to avoid blackouts¹¹.

Benton PUD strongly supports the efforts of the NWPP, but we do not support further development of wind power in the PNW. We believe continued investments in large-scale wind farm development in the PNW will: (1) contribute very little to keeping the regional power grid

¹⁰ Department of Ecology State of Washington, “*Washington State Greenhouse Gas Emissions Inventory: 1990-2015 Report to the Legislature*,” December 2018, Publication 18-02-043, Pg. 6, Table 2.

¹¹ Northwest Power Pool Resource Adequacy: <https://www.nwpp.org/about/workgroups/12>

reliable and will not help Benton PUD solve our seasonal energy deficit problems; (2) contribute to the devaluation of hydro-generation assets and put upward pressure on retail rates Benton PUD and other utilities charge our customers; (3) risk underinvestment in needed dispatchable capacity today and future investments in visionary advancements in nuclear energy technology; (4) further sacrifice scenic hillsides, canyons and desert vistas in our region for little if any net environmental benefit.



UTILITY ADVISORY COMMITTEE AGENDA ITEM COVERSHEET

Meeting Date: 5/11/2021

Agenda Category: Other Informational Items

Prepared By: Clint Whitney, Energy Services Director

Subject:

Interconnection Requests with BPA

Department:

Energy Services

Recommended Motion:

This is an informational item.

Summary:

Energy Services has three interconnection requests in progress with Bonneville Power Administration (BPA). They include:

1. **L0408 – Reata Sub to Dallas Rd Transmission Line and Substation.** The interconnection request was submitted in February 2017 for a five mile, 115 kV transmission line and a 25 MVA Dallas Rd Substation. The substation will serve the Badger Mountain South area with distribution interconnections to City View Substation and Leslie Substation. The transmission line construction has been completed and is waiting for BPA to interconnect at Reata Substation. Dallas Rd Substation is anticipated to be constructed in 2023. This project is coordinated with BPUD for L0409 to loop the transmission line back to Sunset Rd Sub/Red Mountain Sub.
 - a. Line and Load Interconnection System Impact Study completed by BPA July 31, 2017.
 - b. Revised Line and Load Interconnection System Impact Study completed by BPA September 28, 2017.
 - c. Interconnection Facility Study (IFAS) completed by BPA August 1, 2019.
2. **L0462 – Gateway Substation.** The interconnection request was submitted July 2019 for a 25 MVA Gateway Substation connecting to the City's 115kV transmission line at the SE corner of the City Landfill. The new substation will serve the west end of Horn Rapids Industrial Area and a second connection to Horn Rapids Subdivision with distribution interconnections to Snyder, First St, and Sandhill Substations.
 - a. Line and Load Interconnection System Impact Study completed by BPA February 13, 2020. The substation will be limited to 6 MW of load until a Tri-Cities reinforcement project is completed. BPA was identified the reinforcement to be Webber Canyon 500 kV Sub installation with a 115 kV interconnection to Badger Canyon estimated to be complete in 2024.
3. **L0458 – North Horn Rapids Rd Transmission Line and 50 MW Substation.** The interconnection request was submitted May 2019 for a seven mile, 115 kV transmission line loop and a 50 MVA substation serving the 1,641 acre industrial area North of Horn Rapids Rd. The loads are speculative at this point and anticipated to be 100 acre size parcels for large manufacturing purposes.
 - a. Line and Load Interconnection System Impact Study was completed by BPA December 2019. The requested capacity is contingent upon completion of the Tri-Cities reinforcement project identified as Webber Canyon 500 kV installation estimated to be complete in 2024.

- b. BPA is progressing with preliminary engineering activities through a Reimbursable Agreement with the City.
- c. Energy Northwest has expressed interest to coordinate L0458 with a potential 300+ acre solar installation about 3.5 miles North of Horn Rapids Rd.

Fiscal Impact:

Attachments:



UTILITY ADVISORY COMMITTEE AGENDA ITEM COVERSHEET

Meeting Date: 5/11/2021

Agenda Category: Other Informational Items

Prepared By:

Subject:

Forward Agenda Items

Department:

Energy Services

Recommended Motion:

This is an informational item.

Summary:

July 2021

Reliability Analysis (RES)

Resource Adequacy (RES)

Water and Wastewater Capital Programs Funding Strategies (PW)

Review and Recommendations for Ambulance Utility Rates and Strategic Plan (RFD)

September 2021

UAC Applicant Interviews

Review and Recommendations for Bonds (RES)

Fiscal Impact:

Attachments: