



e-FILING REPORT COVER SHEET

COMPANY NAME:

DOES REPORT CONTAIN CONFIDENTIAL INFORMATION? No Yes If yes, submit a redacted public version (or a cover letter) by email. Submit the confidential information as directed in OAR 860-001-0070 or the terms of an applicable protective order.

Select report type: RE (Electric) RG (Gas) RW (Water) RT (Telecommunications)  
RO (Other, for example, industry safety information)

Did you previously file a similar report? No Yes, report docket number:

Report is required by: OAR  
Statute  
Order

Note: A one-time submission required by an order is a compliance filing and not a report (file compliance in the applicable docket)

Other  
(For example, federal regulations, or requested by Staff)

Is this report associated with a specific docket/case? No Yes, docket number:

List Key Words for this report. We use these to improve search results.

Send the completed Cover Sheet and the Report in an email addressed to [PUC.FilingCenter@state.or.us](mailto:PUC.FilingCenter@state.or.us)

Send confidential information, voluminous reports, or energy utility Results of Operations Reports to PUC Filing Center, PO Box 1088, Salem, OR 97308-1088 or by delivery service to 201 High Street SE Suite 100, Salem, OR 97301.



**Avista Corp.**

1411 East Mission P.O. Box 3727  
Spokane, Washington 99220-0500  
Telephone 509-489-0500  
Toll Free 800-727-9170

October 13, 2021

Public Utility Commission of Oregon  
Attn: Filing Center  
201 High Street SE, Suite 100  
Salem, OR 97301-3612

RE: Docket No. RG 85 – Avista Utilities Energy Efficiency Avoided Cost Report

Filing Center:

Pursuant to OAR 860-030-0011, attached for filing with the Commission is an electronic copy of Avista Corporation's, dba Avista Utilities (Avista or the Company), 2021 Energy Efficiency Avoided Cost Report. This report is being submitted utilizing the natural gas data collection workbook as provided in UM 1893.

If you have any questions regarding this filing, please contact Tom Pardee at (509) 495-2159.

Sincerely,

*/s/ Shawn Bonfield*

Shawn Bonfield  
Sr. Manager Regulatory Policy & Strategy

## Energy Efficiency Avoided Cost Submission Template - Natural Gas

Utility Name: **AVI**

Submission Date: **10/13/2021**

### Instructions and Definitions

<> Please fill out this workbook as completely as possible and per the instructions.

<> Inputs will be reviewed and approved by the OPUC before being sent to the Energy Trust of Oregon for use in Avoided Cost development.

<> **Provide as much detail as possible when sourcing** data inputs, including the link to the source (if available), page number and table or graph number.

*This will increase the efficiency of this process and require less iteration during the OPUC review period.*

*For worksheets 1,2,3,4,5,6 refer to data presented in the most recently acknowledged IRP, IRP Update, or General Rate Case unless otherwise noted.*

#### **1) Global Inputs - IRP**

<> Standard economic assumptions of the avoided costs are input into this tab, including inflation and discount rates, as well as real dollar year and forecast start year.

<> If supply or distribution capacity values were proportioned using a system peak coincident factor, please provide the system peak definition of the utility (calendar Month/Day/Hour) and the peak-day/annual load and peak-hour/Annual Load Ratios for the utility system.

<> Note that in tabs 2-6, calendar start year and input table titles are calculated fields that pull from the global input tab, so these must be populated.

<> **Ensure that the dollar years of the data inputs match the source** - Energy Trust will inflate to the proper year.

#### **2) Commodity and Transport - IRP**

<> Provide Commodity and Transport price forecast by month.

<> **Indicate if the forecast is in nominal or real dollars (if real, dollar value will populate headers from Global Inputs tab).**

#### **3) Environmental Compliance - IRP**

<> Provide the \$/Metric Ton of CO2 assumed for each year of the forecast.

<> Provide the metric ton of CO2/dekatherm assumed for each year of the forecast.

<> Column 'F' is a calculated field, which multiplies the \$/metric ton of CO2 by the CO2/dekatherm.

#### **4) Infrastructure Capacity - IRP**

<> Provide the Supply Infrastructure Capacity Cost in a \$/Dth/Day format for each year available of the forecast period.

<> Provide the Distribution Infrastructure Capacity Cost in a \$/Dth/Day and \$/Dth/Hour format for each year available of the forecast period.

<> If supply or distribution capacity values were proportioned using a system peak coincident factor, please provide the corresponding system peak coincident factor in "Global Inputs - IRP" tab on rows 17 and 19.

#### **5) Risk Reduction - IRP**

<> Provide the Risk Reduction value in a \$/Dth format if available for each year available of the forecast period.

<> The box in cell C7 calculates the levelized net present value of all years of the forecast period. This is used when negative values occur in any year of the forecast period. If the levelized risk reduction value is negative, zero will be assigned as the final value. This is due to the premise that the risk reduction value is meant to be a benefit.

#### **6) End Use Profiles - IRP**

<> Provide the Monthly share of annual load for the utility's system by end use, if available.

<> Provide the peak day/annual load and peak hour/annual load ratios by end use, if available.

<> End-use profiles are meant to represent the timing of savings, these can be derived from either savings profiles or load profiles.

#### **1a, 2a, 3a, 4a, 5a, 6a) Alternative Submissions**

<> These worksheets provide a location for the utility to present alternative values to those found in the most recently acknowledged IRP, IRP Update, or General Rate Case.

<> **Submissions in these tabs are not required.**

<> Provide a rationale for submitting the alternative values in the box provided at the top of each alternative worksheet.

<> If a second set of alternative values is submitted, simply copy the alt tabs necessary and rename to 1b, alt 2 in the tab name. However, note that in tabs 2-6, calendar start year and input table titles are calculated fields that pull from the global input tab. Either update these formulas or override them.

Global Assumptions Inputs			SOURCING				
Provide as much detail as possible with sourcing including a link. Ensure that dollar years listed here are the same as the source.							
Avoided Cost Element	Units	Value	Source	Source Page #	Table # (if applicable)	Source Link or File Name	Source Notes
Discount Rate (Company's Real after-tax weighted average cost of capital (WACC))	Percent	4.36%	<a href="https://www.myavista.com/-/media/myavista/content-documents/about-us/our-company/irp-documents/natural-gas-irp-documents/2021-natural-gas-irp-appendices-final.pdf">https://www.myavista.com/-/media/myavista/content-documents/about-us/our-company/irp-documents/natural-gas-irp-documents/2021-natural-gas-irp-appendices-final.pdf</a>	242			System weighted
Inflation Rate	Percent	2.00%	<a href="https://www.myavista.com/-/media/myavista/content-documents/about-us/our-company/irp-documents/natural-gas-irp-documents/2021-natural-gas-irp-appendices-final.pdf">https://www.myavista.com/-/media/myavista/content-documents/about-us/our-company/irp-documents/natural-gas-irp-documents/2021-natural-gas-irp-appendices-final.pdf</a>	242			GPD price deflator assumption
Regional Act Credit	Percent	10.00%	N/A				
Forecast Period Calendar Start Year	Year	2020	<a href="https://www.myavista.com/-/media/myavista/content-documents/about-us/our-company/irp-documents/natural-gas-irp-documents/2021-natural-gas-irp.pdf">https://www.myavista.com/-/media/myavista/content-documents/about-us/our-company/irp-documents/natural-gas-irp-documents/2021-natural-gas-irp.pdf</a>	4	Figure 1		Data begins in November 2020
Real Dollar Base Year	Year	2019					
System Peak Definition	Calendar Month/Day/Hour	February 28th & December 20th	<a href="https://www.myavista.com/-/media/myavista/content-documents/about-us/our-company/irp-documents/natural-gas-irp-documents/2021-natural-gas-irp.pdf">https://www.myavista.com/-/media/myavista/content-documents/about-us/our-company/irp-documents/natural-gas-irp-documents/2021-natural-gas-irp.pdf</a>	4			(WA,ID,La Grande)-2/28 & (Klamath, Roseburg, Medford)-12/20
System Peak Coincident Day Factor (if needed)	Peak Day/Annual Load Ratio	0.0095	<a href="https://www.myavista.com/-/media/myavista/content-documents/about-us/our-company/irp-documents/natural-gas-irp-documents/2021-natural-gas-irp-appendices-final.pdf">https://www.myavista.com/-/media/myavista/content-documents/about-us/our-company/irp-documents/natural-gas-irp-documents/2021-natural-gas-irp-appendices-final.pdf</a>	271			Peak day and annual load 2020-2040
System Peak Coincident Hour Factor (if needed)	Peak Hour/Annual Load Ratio	0.0004	<a href="https://www.myavista.com/-/media/myavista/content-documents/about-us/our-company/irp-documents/natural-gas-irp-documents/2021-natural-gas-irp-appendices-final.pdf">https://www.myavista.com/-/media/myavista/content-documents/about-us/our-company/irp-documents/natural-gas-irp-documents/2021-natural-gas-irp-appendices-final.pdf</a>	271			Peak hour (peak day/24*1.065) and annual load 2020-2040

### Commodity Price Inputs

Real or Nominal?	Nominal
Source and Pg #:	2021 IRP
Source Link or File Name:	<a href="https://www.myavista.com/-/media/myavista/content-documents/about-us/our-company/irp-documents/natural-gas-irp-documents/2021-natural-gas-irp.pdf">https://www.myavista.com/-/media/myavista/content-documents/about-us/our-company/irp-documents/natural-gas-irp-documents/2021-natural-gas-irp.pdf</a>
Source Notes:	Expected Case

### Gas Commodity and Transportation/Storage Costs - (\$/Dth)

Year #	Calendar Year	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	2020	-\$1.88	-\$1.60	-\$1.30	-\$1.13	-\$1.06	-\$0.87	-\$0.82	-\$1.12	-\$1.02	-\$1.10	-\$1.75	-\$2.46
2	2021	-\$2.51	-\$2.42	-\$2.11	-\$1.79	-\$1.51	-\$1.55	-\$1.67	-\$1.66	-\$1.54	-\$1.60	-\$1.90	-\$2.18
3	2022	-\$2.24	-\$2.15	-\$1.85	-\$1.53	-\$1.22	-\$1.31	-\$1.43	-\$1.39	-\$1.24	-\$1.24	-\$1.52	-\$2.00
4	2023	-\$2.04	-\$1.91	-\$1.64	-\$1.52	-\$1.17	-\$1.32	-\$1.37	-\$1.37	-\$1.14	-\$1.22	-\$1.71	-\$2.00
5	2024	-\$2.11	-\$1.86	-\$1.78	-\$1.66	-\$1.46	-\$1.47	-\$1.45	-\$1.45	-\$1.52	-\$1.54	-\$1.72	-\$2.04
6	2025	-\$2.16	-\$2.08	-\$1.93	-\$2.03	-\$1.85	-\$1.79	-\$1.80	-\$1.79	-\$1.87	-\$1.93	-\$2.14	-\$2.41
7	2026	-\$2.56	-\$2.54	-\$2.35	-\$2.50	-\$2.21	-\$2.19	-\$2.18	-\$2.19	-\$2.23	-\$2.36	-\$2.52	-\$2.73
8	2027	-\$2.75	-\$2.69	-\$2.50	-\$2.72	-\$2.39	-\$2.35	-\$2.34	-\$2.35	-\$2.40	-\$2.47	-\$2.70	-\$2.95
9	2028	-\$2.91	-\$2.84	-\$2.68	-\$2.63	-\$2.52	-\$2.50	-\$2.51	-\$2.52	-\$2.57	-\$2.77	-\$2.92	-\$3.11
10	2029	-\$3.08	-\$2.99	-\$2.80	-\$3.00	-\$2.67	-\$2.67	-\$2.65	-\$2.65	-\$2.70	-\$2.86	-\$3.03	-\$3.28
11	2030	-\$3.19	-\$3.11	-\$2.94	-\$3.14	-\$2.76	-\$2.74	-\$2.69	-\$2.72	-\$2.76	-\$2.97	-\$3.17	-\$3.43
12	2031	-\$3.32	-\$3.27	-\$3.06	-\$3.31	-\$2.90	-\$2.88	-\$2.84	-\$2.84	-\$2.92	-\$3.05	-\$3.29	-\$3.54
13	2032	-\$3.42	-\$3.34	-\$3.14	-\$3.44	-\$2.97	-\$2.94	-\$2.79	-\$2.81	-\$2.97	-\$3.17	-\$3.46	-\$3.74
14	2033	-\$3.64	-\$3.63	-\$3.42	-\$3.69	-\$3.25	-\$3.26	-\$3.15	-\$3.17	-\$3.28	-\$3.43	-\$3.74	-\$3.97
15	2034	-\$3.86	-\$3.79	-\$3.60	-\$3.84	-\$3.43	-\$3.41	-\$3.35	-\$3.37	-\$3.45	-\$4.00	-\$3.89	-\$4.70
16	2035	-\$4.02	-\$3.94	-\$3.68	-\$3.97	-\$3.55	-\$3.50	-\$3.39	-\$3.43	-\$3.53	-\$4.06	-\$4.02	-\$4.94
17	2036	-\$4.21	-\$4.19	-\$3.95	-\$4.06	-\$3.72	-\$3.70	-\$3.53	-\$3.56	-\$3.68	-\$4.19	-\$4.24	-\$5.20
18	2037	-\$4.41	-\$4.28	-\$4.06	-\$4.12	-\$3.91	-\$3.89	-\$3.79	-\$3.87	-\$3.95	-\$4.43	-\$4.54	-\$5.50
19	2038	-\$4.75	-\$4.54	-\$4.24	-\$4.31	-\$4.01	-\$4.01	-\$3.88	-\$3.90	-\$3.98	-\$4.45	-\$4.60	-\$5.64
20	2039	-\$4.86	-\$4.70	-\$4.52	-\$4.56	-\$4.27	-\$4.20	-\$4.09	-\$4.09	-\$4.24	-\$4.69	-\$4.89	-\$5.99
21	2040	-\$5.06	-\$4.90	-\$4.70	-\$4.73	-\$4.43	-\$4.41	-\$4.31	-\$4.34	-\$4.45	-\$4.90		
22	2041												
23	2042												
24	2043												
25	2044												
26	2045												
27	2046												
28	2047												
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39	2058												
40	2059												
41	2060												
42	2061												
43	2062												
44	2063												
45	2064												

### Environmental Compliance Cost Inputs

Real or Nominal?	Nominal
Source and Pg #:	EPA
Source Link or File Name:	<a href="https://www.epa.gov/energy/greenhouse-gases-equivalencies-calculator-calculations-and-references">https://www.epa.gov/energy/greenhouse-gases-equivalencies-calculator-calculations-and-references</a>
Source Notes:	Carbon intensity is 128.27 lbs per Metric Ton 2204.623 lbs

### Environmental Compliance Cost

Year #	Calendar Year	Environmental Compliance Cost (\$/MTCO2e)	Carbon Intensity (MTCO2e/Dth)	Environmental Compliance Cost (\$/Dth)
1	2020			
2	2021	\$15.83	0.0582	\$0.921
3	2022	\$17.02	0.0582	\$0.990
4	2023	\$18.23	0.0582	\$1.060
5	2024	\$19.52	0.0582	\$1.136
6	2025	\$20.91	0.0582	\$1.217
7	2026	\$22.40	0.0582	\$1.303
8	2027	\$23.99	0.0582	\$1.396
9	2028	\$28.06	0.0582	\$1.633
10	2029	\$32.34	0.0582	\$1.882
11	2030	\$36.86	0.0582	\$2.144
12	2031	\$41.62	0.0582	\$2.421
13	2032	\$46.63	0.0582	\$2.713
14	2033	\$51.92	0.0582	\$3.020
15	2034	\$57.49	0.0582	\$3.345
16	2035	\$63.37	0.0582	\$3.687
17	2036	\$69.56	0.0582	\$4.047
18	2037	\$76.09	0.0582	\$4.427
19	2038	\$82.98	0.0582	\$4.828
20	2039	\$90.24	0.0582	\$5.250
21	2040	\$97.90	0.0582	\$5.696
22	2041			
23	2042			
24	2043			
25	2044			
26	2045			
27	2046			
28	2047			
29	2048			
30	2049			
31	2050			
32	2051			
33	2052			
34	2053			
35	2054			
36	2055			
37	2056			
38	2057			
39	2058			
40	2059			
41	2060			
42	2061			
43	2062			
44	2063			
45	2064			

### Infrastructure Capacity Cost Inputs

Real or Nominal?	Nominal
Source and Pg #:	
Source Link or File Name:	2021 IRP Expected Case
Source Notes:	per day costs of Jackson prairie O&M/Capital for Avistas share of owned storage

### Infrastructure Capacity Costs

Year #	Calendar Year	Infrastructure Capacity Costs		
		Supply \$/Dth/Day	Distribution Peak DAY (\$/Dth/Day)	Distribution Peak HOUR (\$/Dth/Hour)
1	2020	-\$0.002		
2	2021	-\$0.001		
3	2022	-\$0.002		
4	2023	-\$0.002		
5	2024	-\$0.002		
6	2025	-\$0.002		
7	2026	-\$0.002		
8	2027	-\$0.002		
9	2028	-\$0.002		
10	2029	-\$0.002		
11	2030	-\$0.002		
12	2031	-\$0.002		
13	2032	-\$0.002		
14	2033	-\$0.002		
15	2034	-\$0.002		
16	2035	-\$0.002		
17	2036	-\$0.002		
18	2037	-\$0.002		
19	2038	-\$0.002		
20	2039	-\$0.002		
21	2040	-\$0.002		
22	2041			
23	2042			
24	2043			
25	2044			
26	2045			
27	2046			
28	2047			
29	2048			
30	2049			
31	2050			
32	2051			
33	2052			
34	2053			
35	2054			
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37	2056			
38	2057			
39	2058			
40	2059			
41	2060			
42	2061			
43	2062			
44	2063			
45	2064			

### Risk Reduction Value Inputs

Real or Nominal?	
Source and Pg #:	
Source Link or File Name:	
Source Notes:	Do not have values in 2018 IRP

\$0.00
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= Levelized Risk Reduction Value (for use when negative values occur in any years of the forecast period). If this value is negative, then zero will be assigned as the final value.

### Risk Reduction Value

Year #	Calendar Year	Risk Reduction Value (\$/Dth)
1	2020	\$0.000
2	2021	\$0.000
3	2022	\$0.000
4	2023	\$0.000
5	2024	\$0.000
6	2025	\$0.000
7	2026	\$0.000
8	2027	\$0.000
9	2028	\$0.000
10	2029	\$0.000
11	2030	\$0.000
12	2031	\$0.000
13	2032	\$0.000
14	2033	\$0.000
15	2034	\$0.000
16	2035	\$0.000
17	2036	\$0.000
18	2037	\$0.000
19	2038	\$0.000
20	2039	\$0.000



**End Use Profiles & Peak Day/Hour Ratios**

2020-2021 OR Peak Day 89,441 OR Peak Hour 3,969

Source and Pg # and/or Table #:	
Source Link or File Name:	
Source Notes:	Avista 2020 IRP - ETO study used for the Expected Case (dths)

End Use Profiles	Monthly Share of Normal Weather Annual Load												2021	Peak to Annual Normal Weather Usage Ratios	
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec		Peak Day	Peak Hour
Com-New Buildings	0.00215	0.00243	0.00305	0.00432	0.00743	0.01057	0.01086	0.01079	0.01018	0.00498	0.00284	0.00190	3,080	0.009585	0.000425
Com-Replacement	0.00622	0.00704	0.00885	0.01251	0.02155	0.03064	0.03148	0.03126	0.02951	0.01442	0.00824	0.00550	8,927		
Com-SEM	0.00036	0.00041	0.00051	0.00072	0.00125	0.00177	0.00182	0.00181	0.00171	0.00083	0.00048	0.00032	516		
Com-Retrofit	0.00562	0.00636	0.00800	0.01131	0.01948	0.02770	0.02846	0.02826	0.02668	0.01304	0.00745	0.00497	8,071		
Ind-Retrofit	0.00144	0.00163	0.00205	0.00291	0.00500	0.00711	0.00731	0.00726	0.00685	0.00335	0.00191	0.00128	2,073		
Ind-Replacement	0.00019	0.00022	0.00028	0.00039	0.00067	0.00096	0.00098	0.00098	0.00092	0.00045	0.00026	0.00017	279		
Res-Manufactured New Homes	0.00006	0.00006	0.00008	0.00011	0.00020	0.00028	0.00029	0.00028	0.00027	0.00013	0.00007	0.00005	81		
Res-SF New Homes	0.00112	0.00127	0.00160	0.00226	0.00389	0.00554	0.00569	0.00565	0.00533	0.00261	0.00149	0.00099	1,613		
Res-Market Transformation	0.00785	0.00889	0.01117	0.01581	0.02722	0.03871	0.03977	0.03949	0.03728	0.01822	0.01041	0.00694	11,278		
Res-Showerheads & Aerators	0.00001	0.00001	0.00002	0.00003	0.00004	0.00006	0.00006	0.00006	0.00006	0.00003	0.00002	0.00001	18		
Res-Smart Thermostat	0.00245	0.00278	0.00349	0.00494	0.00850	0.01209	0.01243	0.01234	0.01165	0.00569	0.00325	0.00217	3,524		
Res-Thermostat Optimization	0.00042	0.00048	0.00060	0.00086	0.00147	0.00209	0.00215	0.00214	0.00202	0.00099	0.00056	0.00038	610		
Res-WaterHeat	0.00021	0.00023	0.00029	0.00041	0.00071	0.00102	0.00104	0.00104	0.00098	0.00048	0.00027	0.00018	296		
Res-Insulation	0.00118	0.00133	0.00167	0.00237	0.00408	0.00580	0.00596	0.00591	0.00558	0.00273	0.00156	0.00104	1,689		
Res-Heating & Windows	0.00065	0.00073	0.00092	0.00130	0.00224	0.00318	0.00327	0.00324	0.00306	0.00150	0.00086	0.00057	927		
MF-Retrofit	0.00023	0.00026	0.00033	0.00046	0.00079	0.00113	0.00116	0.00115	0.00109	0.00053	0.00030	0.00020	329		
MF-Replacement	0.00033	0.00037	0.00046	0.00066	0.00113	0.00161	0.00165	0.00164	0.00155	0.00076	0.00043	0.00029	469		
	1,435,853	1,268,797	1,009,279	713,429	414,346	291,381	283,558	285,601	302,501	618,914	1,083,101	1,624,483			

Notes: Energy Trust will work with Utility and OPUC Staff to determine the most appropriate load or savings profiles and peak factors to use, whether that is utility specific values or Northwest Power and Conservation Council proxies. In order for utility-specific values to be used, utility staff must review the methodology they used to develop the values with OPUC Staff.

<b>Alternative Submissions</b>	<b>Rationale for alternative submission:</b> <i>Provide an overall rationale for providing alternative values - use the 'Source Notes/Rationale' column to provide more detailed rationale for individual inputs.</i>
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Global Assumptions Inputs			SOURCING				
<i>Provide as much detail as possible with sourcing including a link. Ensure that dollar years listed here are the same as the source.</i>							
Avoided Cost Element	Units	Value	Source	Source Page #	Table # (if applicable)	Source Link or File Name	Source Notes
Discount Rate (Company's Real after-tax weighted average cost of capital (WACC))	Percent						
Inflation Rate	Percent						
Regional Act Credit	Percent	10.00%	N/A				
Forecast Period Calendar Start Year	Year	2020					
Real Dollar Base Year	Year	2021					

<b>Alternative Submissions</b>	<b>Rationale for alternative submission:</b> <i>Provide an overall rationale for providing alternative values using this box</i>
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**Commodity Price Inputs**

Real or Nominal?	
Source and Pg #:	
Source Link or File Name:	
Source Notes:	

**Gas Commodity and Transportation/Storage Costs (\$/Dth)**

Year #	Calendar Year	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	2020												
2	2021												
3	2022												
4	2023												
5	2024												
6	2025												
7	2026												
8	2027												
9	2028												
10	2029												
11	2030												
12	2031												
13	2032												
14	2033												
15	2034												
16	2035												
17	2036												
18	2037												
19	2038												
20	2039												
21	2040												
22	2041												
23	2042												
24	2043												
25	2044												
26	2045												
27	2046												
28	2047												
29	2048												
30	2049												
31	2050												
32	2051												
33	2052												
34	2053												
35	2054												
36	2055												
37	2056												
38	2057												
39	2058												
40	2059												
41	2060												
42	2061												
43	2062												
44	2063												
45	2064												

<b>Alternative Submissions</b>	<b>Rationale for alternative submission:</b> <i>Provide an overall rationale for providing alternative values using this box</i>
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**Environmental Compliance Cost Inputs**

<b>Real or Nominal?</b>	Real
<b>Source and Pg #:</b>	151-152
<b>Source Link or File Name:</b>	<a href="https://www.oregon.gov/deq/Regulations/rulemaking/RuleDocuments/GHGCR2021Notice.pdf">https://www.oregon.gov/deq/Regulations/rulemaking/RuleDocuments/GHGCR2021Notice.pdf</a>
<b>Source Notes:</b>	Oregon DEQ Proposed Rulemaking - Climate Protection Program

**Environmental Compliance Cost**

Year #	Calendar Year	Environmental Compliance Cost (Real 2021\$/MTCO2e)	Carbon Intesity (MTCO2e/Dth)	Environmental Compliance Cost (Real 2021\$/Dth)
1	2020	\$0.00	0.0529	\$0.000
2	2021	\$0.00	0.0529	\$0.000
3	2022	\$0.00	0.0529	\$0.000
4	2023	\$81.00	0.0529	\$4.282
5	2024	\$82.00	0.0529	\$4.335
6	2025	\$83.00	0.0529	\$4.388
7	2026	\$85.00	0.0529	\$4.494
8	2027	\$86.00	0.0529	\$4.546
9	2028	\$87.00	0.0529	\$4.599
10	2029	\$89.00	0.0529	\$4.705
11	2030	\$90.00	0.0529	\$4.758
12	2031	\$91.00	0.0529	\$4.811
13	2032	\$93.00	0.0529	\$4.916
14	2033	\$94.00	0.0529	\$4.969
15	2034	\$95.00	0.0529	\$5.022
16	2035	\$97.00	0.0529	\$5.128
17	2036	\$98.00	0.0529	\$5.181
18	2037	\$100.00	0.0529	\$5.287
19	2038	\$101.00	0.0529	\$5.339
20	2039	\$102.00	0.0529	\$5.392
21	2040	\$104.00	0.0529	\$5.498
22	2041	\$105.00	0.0529	\$5.551
23	2042	\$106.00	0.0529	\$5.604
24	2043	\$108.00	0.0529	\$5.709
25	2044	\$109.00	0.0529	\$5.762
26	2045	\$110.00	0.0529	\$5.815
27	2046	\$112.00	0.0529	\$5.921
28	2047	\$113.00	0.0529	\$5.974
29	2048	\$114.00	0.0529	\$6.027
30	2049	\$116.00	0.0529	\$6.132
31	2050	\$117.00	0.0529	\$6.185
32	2051			\$0.000
33	2052			\$0.000
34	2053			\$0.000
35	2054			\$0.000
36	2055			\$0.000
37	2056			\$0.000
38	2057			\$0.000
39	2058			\$0.000
40	2059			\$0.000
41	2060			\$0.000
42	2061			\$0.000
43	2062			\$0.000
44	2063			\$0.000
45	2064			\$0.000

<b>Alternative Submissions</b>	<b>Rationale for alternative submission:</b> <i>Provide an overall rationale for providing alternative values using this box</i>
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**Infrastructure Capacity Cost Inputs**

Real or Nominal?	
Source and Pg #:	
Source Link or File Name:	
Source Notes:	

**Infrastructure Capacity Costs**

Year #	Calendar Year	Infrastructure Capacity Costs		
		Supply (\$/Dth/Day)	Distribution Peak DAY (\$/Dth/Day)	Distribution Peak HOUR (\$/Dth/Hour)
1	2020			
2	2021			
3	2022			
4	2023			
5	2024			
6	2025			
7	2026			
8	2027			
9	2028			
10	2029			
11	2030			
12	2031			
13	2032			
14	2033			
15	2034			
16	2035			
17	2036			
18	2037			
19	2038			
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21	2040			
22	2041			
23	2042			
24	2043			
25	2044			
26	2045			
27	2046			
28	2047			
29	2048			
30	2049			
31	2050			
32	2051			
33	2052			
34	2053			
35	2054			
36	2055			
37	2056			
38	2057			
39	2058			
40	2059			
41	2060			
42	2061			
43	2062			
44	2063			
45	2064			

<b>Alternative Submissions</b>	<b>Rationale for alternative submission:</b> <i>Provide an overall rationale for providing alternative values using this box</i>
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**Risk Reduction Value Inputs**

Real or Nominal?	
Source and Pg #:	
Source Link or File Name:	
Source Notes:	

No Data Entered

= Levelized Risk Reduction Value (for use when negative values occur in any years of the forecast period). If this value is negative, then zero will be assigned as the final value.

**Risk Reduction Value**

Year #	Calendar Year	Risk Reduction Value (\$/Dth)
1	2020	
2	2021	
3	2022	
4	2023	
5	2024	
6	2025	
7	2026	
8	2027	
9	2028	
10	2029	
11	2030	
12	2031	
13	2032	
14	2033	
15	2034	
16	2035	
17	2036	
18	2037	
19	2038	
20	2039	

**Alternative Submissions**

**Rationale for alternative submission:**  
*Provide an overall rationale for providing alternative values using this box*

**End Use Profiles & Peak Day/Hour Ratios**

Source and Pg # and/or Table #:	
Source Link or File Name:	
Source Notes:	

End Use Profiles	Monthly Share of Normal Weather Annual Load											
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec

Peak to Annual Normal Weather Usage Ratios	
Peak Day	Peak Hour

Notes:  
 Energy Trust will work with Utility and OPUC Staff to determine the most appropriate load or savings profiles and peak factors to use, whether that is utility specific values or Northwest Power and Conservation Council proxies. In order for utility-specific values to be used, utility staff must review the methodology they used to develop the values with OPUC Staff.