

e-FILING REPORT COVER SHEET

COMPANY NAME: Avista Utilities

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 Second Yes, report docket number: RG 85
Report is required by: OAR 860-030-0011
Order Note: A one-time submission required by an order is a compliance filing and not a report
(file compliance in the applicable docket)
(For example, federal regulations, or requested by Staff)
Is this report associated with a specific docket/case? No Section Ves, docket number: UM 1893

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

OAR 860-030-0011, Avista Utilities 2022 Energy Efficiency Avoided Cost Report

Send the completed Cover Sheet and the Report in an email addressed to <u>PUC.FilingCenter@state.or.us</u>

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.

Print



September 14, 2022

AVISTA

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 the 2022 Energy Efficiency Avoided Cost Report (Report) of Avista Corporation, dba Avista Utilities (Avista or the Company). The information contained within this year's Report is based off of Avista's most recently approved Integrated Resource Plan (IRP),¹ in accordance with OAR 860-030-0011(2)(a). To provide the most recent data available, the Company has also provided information from its 2023 IRP process, which has not yet been acknowledged or approved by the Commission, in the "Alternative Submissions" portion of the Report per OAR 860-030-0011(2)(b). Avista believes that the information from its 2023 IRP process provides a more accurate depiction of current state and should therefore be considered when calculating the Company's energy efficiency avoided costs.

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

Sincerely,

/s/Jaime Majure

Jaime Majure Regulatory Policy Analyst

¹ See Docket No. LC 75.

Enorgy Efficiency Avoided Cost S	ubmission Tomplato Natural Cas
	ubmission Template - Natural Gas
Utility Name	
Submission Date	: 9/14/2022
	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	
Provide as much detail as possible when sourcing data inputs, including the link to the so This will be a source of the sourc	
This will increase the efficiency of this process and require less iteration during the OPU	•
or 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 notea.
L) Global Inputs - IRP > Standard economic assumptions of the avoided costs are input into this tab, including infl	
	t factor, please provide the system peak definition of the utility (calendar Month/Day/Hour)
ind the peak-day/annual load and peak-hour/Annual Load Ratios for the utility system.	tractor, please provide the system peak definition of the diffity (calendar Month/Day/Hod)
> Note that in tabs 2-6, calendar start year and input table titles are calculated fields that p	ull 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	
2) Commodity and Transport - IRP	
Provide Commidity and Transport price forecast by month.	
Indicate if the forecast is in nominal or real dollars (if real, dollar value will populate heat	ders from Global Inputs tab).
B) 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/deka	therm.
I) Infrastructure Capacity - IRP	
Provide the Supply Infrastructure Capacity Cost in a \$/Dth/Day format for each year available.	·
Provide the Distribution Infrastructure Capacity Cost in a \$/Dth/Day and \$/Dth/Hour form of four physical data in the second se Second second seco	
Is supply or distribution capacity values were proportioned using a system peak coinciden RP" tab on rows 17 and 19.	t factor, please provide the corresponding system peak coincident factor in "Global Inputs -
i) Risk Reduction - IRP	
> Provide the Risk Reduction value in a \$/Dth format if available for each year available of t	
	riod. This is used when negative values occur in any year of the forecast period. If the levelize
isk reduction value is negative, zero will be assigned as the final value. This is due to the pre	mise that the risk reduction value is meant to be a benefit.
5) 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 availab	
> End-use profiles are meant to represent the timing of savings, these can be derived from	either savings profiles or load profiles.
La, 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	
If a second set of alternative values is submitted, simply copy the alt tabs necessary and r second set by a second set of alternative values is submitted.	
nput table titles are calculated fields that pull from the global input tab. Either update these	formulas or override them.

Global Assi	al Assumptions Inputs						
			Provide as much detail as p	oossible with sourcing	including a link. Ensure that	dollar years listed here are the sa	me 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%	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	242			System weighted
Inflation Rate	Percent	2.00%	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	242			GPD price deflator assumption
Regional Act Credit	Percent	10.00%	N/A				
Forecast Period Calendar Start Year	Year	2020	https://www.myavista.com/- /media/myavista/content-documents/about-us/our- company/irp-documents/natural-gas-irp- documents/2021-natural-gas-irp.pdf	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	https://www.myavista.com/- /media/myavista/content-documents/about-us/our- company/irp-documents/natural-gas-irp- documents/2021-natural-gas-irp.pdf	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	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	271			Peak day and annual load 2020-2040
System Peak Coincident Hour Factor (if needed)	Peak Hour/Annual Load Ratio	0.0004	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	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:
 https://www.n

Source Link or File Name: https://www.myavista.com/-/media/myavista/content-documents/about-us/our-company/irp-documents/natural-gas-irp-documents/2021-natural-gas-irp.pdf
Source Notes: Expected Case

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

$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$	Year #	Calendar Year	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	ОСТ	NOV	DEC
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14 2033 453.64 -53.73 -53.62 -53.75 -53.75 -53.77 -53.28 -53.75 -53.77 -53.84 -53.75 -53.37 -53.84 -53.37 -53.37 -53.84 -53.37 -53.37 -53.35 -53.37 -53.35 -53.37 -53.35 -53.35 -53.35 -53.35 -53.35 -53.35 -53.35 -53.36 -53.38 -53.38 -53.38 -53.38 -53.84 -53.38 -53.84 -53.84 -53.38 -53.68 -54.19 -55.50 19 2038 -54.47 -54.34 -54.04 -54.24 -54.31 -54.01 -53.88 -53.90 -53.88 -53.90 -54.84 -55.60 20 2039 -54.86 -54.70 -54.51 -54.27 -54.20 -54.09 -54.94 -54.90 -54.94 -54.90 -54.94 -54.94 -54.90 -54.94 -54.90 -54.94 -54.94 -54.90 -54.94 -54.94 -54.94 -54.90 -54.93 -54.94	13	2032	-\$3.42	-\$3.34	-\$3.14	-\$3.44	-\$2.97	-\$2.94	-\$2.79	-\$2.81	-\$2.97		-\$3.46	-\$3.74
15 2034 -53.86 -53.94 -53.84 -53.43 -53.43 -53.35 -53.35 -54.00 -53.89 -54.94 16 2035 -54.02 -54.19 -53.97 -53.30 -53.30 -53.68 -53.26 -53.68 -53.68 -54.10 -54.20 -54.94 17 2036 -54.21 -53.95 -54.06 -54.12 -53.97 -53.50 -53.68 -54.86 -54.10 -54.20 -54.94 -54.21 -53.90 -53.89 -53.77 -53.68 -54.94 -54.41 -54.12 -54.11 -54.20 -54.00 -54.60 -55.00 -54.70 -54.21 -54.11 -54.00 -54.00 -54.00 -54.00 -54.00 -54.00 -54.00 -54.00 -54.00 -54.00 -54.00 -54.00 -54.00 -54.00 -54.00 -54.00 -54.00 -54.00 -54.00 -54.00 -54.00 -54.00 -54.00 -54.00 -54.00 -54.00 -54.00 -54.00 -54.00 -54.00 -54.00 -54.00 -54.00 -54.00 -54.00 -54.00	14	2033				-\$3.69			-\$3.15	-\$3.17	-\$3.28			
16 2035 -\$4.02 -\$3.94 -\$3.68 -\$3.97 -\$3.55 -\$3.29 -\$3.33 -\$3.33 -\$4.06 -\$3.72 -\$3.73 -\$3.56 -\$3.68 -\$4.19 -\$4.24 -\$5.20 18 2037 -\$4.41 \$4.28 \$5.406 -\$4.12 -\$3.91 -\$3.89 -\$3.73 \$3.87 \$3.86 -\$4.31 \$4.43 \$5.50 19 2038 -\$4.75 \$4.54 -\$4.24 -\$5.20 \$3.88 \$3.90 \$3.88 \$3.90 \$3.88 \$3.90 \$3.88 \$4.69 \$4.45 \$5.50 20 2039 -\$4.66 -\$4.70 -\$4.72 \$4.21 \$4.01 \$4.01 \$4.81 \$4.31 \$4.45 \$4.45 \$5.59 21 2040 -\$5.06 -\$4.70 -\$4.73 \$4.24 \$4.31 \$4.31 \$4.34 \$4.45 \$4.45 \$4.45 \$4.45 \$4.45 \$4.45 \$4.45 \$4.45 \$4.45 \$4.45 \$4.45 \$4.45 \$4.45 \$4.45 \$4.45 \$4.45 \$4.45 \$4.45 \$4.45 \$4.45 \$4.45 \$4.45	15	2034												
18 2037 -\$4.41 -\$4.28 -\$4.10 -\$3.89 -\$3.89 -\$3.87 -\$3.87 -\$3.87 -\$3.87 -\$3.83 -\$4.43 -\$4.54 -\$5.50 19 2038 -\$4.75 -\$4.54 -\$4.24 -\$4.01 -\$4.00 -\$3.88 -\$3.90 -\$3.88 -\$4.45 -\$4.60 -\$5.64 200 2039 -\$4.86 -\$4.52 -\$4.56 -\$4.20 -\$4.00 >\$4.09 -\$4.90 -\$4.90 -\$4.90 -\$4.90 -\$4.90 -\$4.90 -\$4.90 -\$4.90 -\$4.90 -\$4.90 -\$4.90 -\$4.90 -\$4.90 -\$4.90 -\$4.90 -\$4.90 -\$4.90 -\$4.90 -\$4.90 -\$4.90 -\$4.90 -\$4.90 -\$4.90 -\$4.90 -\$4.90 -\$4.90 -\$4.90 -\$4.90 -\$4.90 -\$4.90 -\$4.90 -\$4.90 -\$4.90 -\$4.90 -\$4.90 -\$4.90 -\$4.90 -\$4.90 -\$4.90 -\$4.90 -\$4.90 -\$4.90 -\$4.90 -\$4.90 -\$4.90 -\$4.90 -\$4.90 -\$4.90 <td>16</td> <td>2035</td> <td>-\$4.02</td> <td>-\$3.94</td> <td>-\$3.68</td> <td>-\$3.97</td> <td>-\$3.55</td> <td>-\$3.50</td> <td>-\$3.39</td> <td>-\$3.43</td> <td>-\$3.53</td> <td>-\$4.06</td> <td>-\$4.02</td> <td>-\$4.94</td>	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
18 2037 -\$4.41 -\$4.28 -\$4.10 -\$3.81 -\$3.87 -\$3.87 -\$3.87 -\$3.87 -\$3.83 -\$4.43 -\$4.54 -\$5.50 19 2038 -\$4.75 -\$4.54 -\$4.24 -\$4.31 -\$4.01 -\$3.88 -\$3.90 -\$3.88 -\$3.90 -\$4.85 -\$6.40 -\$4.00 \$4.09 \$4.09 \$4.09 \$4.09 \$4.00 \$4.31 -\$4.20 \$4.00 \$4.00 \$4.00 \$4.31 -\$4.31 -\$4.20 \$4.00 \$4.00 \$4.00 \$4.00 \$4.00 \$4.00 \$4.00 \$4.00 \$4.00 \$4.00 \$4.00 \$4.00 \$4.00 \$4.00 \$4.00 \$4.00 \$4.00 \$4.00 \$4.00 \$4.00 \$4.00 \$4.00 \$4.00 \$4.00 \$4.00 \$4.00 \$4.00 \$4.00 \$4.00 \$4.00 \$4.00 \$4.00 \$4.00 \$4.00 \$4.00 \$4.00 \$4.00 \$4.00 \$4.00 \$4.00 \$4.00 \$4.00 \$4.00 \$4.00 \$4.00 \$4.00 \$4.00 \$4.00 \$4.00 \$4.00 \$4.00 \$4.00 \$4.00 \$4.	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
202039 \cdot \$4.86 \cdot \$4.70 \cdot \$4.52 \cdot \$4.56 \cdot \$4.27 \cdot \$4.09 \cdot \$4.09 \cdot \$4.24 \cdot \$4.69 \cdot \$4.89 \cdot \$5.99212040 \cdot \$5.06 \cdot \$4.90 \cdot \$4.70 \cdot \$4.73 \cdot \$4.43 \cdot \$4.31 \cdot \$4.31 \cdot \$4.34 \cdot \$4.34 \cdot \$4.34 \cdot \$4.34 \cdot \$4.31 \cdot \$4.34	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
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	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
22 2041 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 <td>20</td> <td>2039</td> <td>-\$4.86</td> <td>-\$4.70</td> <td>-\$4.52</td> <td>-\$4.56</td> <td>-\$4.27</td> <td>-\$4.20</td> <td>-\$4.09</td> <td>-\$4.09</td> <td>-\$4.24</td> <td>-\$4.69</td> <td>-\$4.89</td> <td>-\$5.99</td>	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
2320421111111111242043111111111112520441111111111126204511111111111272046111111111112820471111111111130204911111111111312050111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111 <td>21</td> <td>2040</td> <td>-\$5.06</td> <td>-\$4.90</td> <td>-\$4.70</td> <td>-\$4.73</td> <td>-\$4.43</td> <td>-\$4.41</td> <td>-\$4.31</td> <td>-\$4.34</td> <td>-\$4.45</td> <td>-\$4.90</td> <td></td> <td></td>	21	2040	-\$5.06	-\$4.90	-\$4.70	-\$4.73	-\$4.43	-\$4.41	-\$4.31	-\$4.34	-\$4.45	-\$4.90		
242043IIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII	22	2041												
252044IIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII	23	2042												
262045IIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII	24	2043												
272046Image: sector of the sector of t	25	2044												
282047IIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII	26	2045												
29204811111111111302049IIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII </td <td>27</td> <td>2046</td> <td></td>	27	2046												
302049Image: sector of the sector of t	28	2047												
312050Image: selection of the selection	29	2048												
322051IIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII	30	2049												
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	31	2050												
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	32	2051												
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	33	2052												
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	34	2053												
37 2056 Image: Constraint of the system	35	2054												
38 2057 Image: Constraint of the system	36	2055												
39 2058 Image: Constraint of the symbol state	37	2056												
40 2059 Image: Constraint of the system	38	2057												
41 2060 Image: Constraint of the system Ima	39	2058												
42 2061 Image: Constraint of the second	40	2059												
43 2062 <	41	2060												
44 2063	42	2061												
	43	2062												
	44	2063												
45 2064	45	2064												

Environmental Compliance Cost Inputs

 Real or Nominal?
 Nominal

 Source and Pg #:
 2021 IRP

Source Link or File Name: https://www.myavista.com/-/media/myavista/content-documents/about-us/our-company/irp-documents/natural-gas-irp-documents/2021-natural-gas-irp.pdf
Source Notes: Carbon intensity is 128.27 lbs per Metric Ton 2204.623 lbs

Environmental Compliance Cost

		Environmental Compliance Cost	Carbon Intesity (MTCO2e/Dth)	Environmental Compliance Cost (\$/Dth)
Year #	Calendar Year	(\$/MTCO2e)		
1	2020	645.00	0.0500	<u> </u>
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 7	2025	\$20.91	0.0582	\$1.217
	2026	\$22.40	0.0582	\$1.303
8	2027	\$23.99	0.0582	\$1.396
10	2028 2029	\$28.06	0.0582	\$1.633
		\$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 2034	\$51.92 \$57.49	0.0582	\$3.020 \$3.345
16 17	2035 2036	\$63.37 \$69.56	0.0582	\$3.687 \$4.047
	2036			
18 19	2037	\$76.09 \$82.98	0.0582	\$4.427 \$4.828
20	2038	\$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 28	2046 2047			
28	2047			
30	2048			
31	2050			
32	2051			
33	2052			
34	2053 2054			
35	2054			
36	2055			
37	2056			
38	2057			
40	2058			
40	2059			
41 42	2060			
42	2061			
43	2062			
44 45	2063			
45	2004	1		1

Infrastructure Capacity Cost Inputs

 Real or Nominal?
 Nominal

 Source and Pg #:
 2021 IRP

 Source Link or File Name:
 https://www.myavista.com/-/media/myavista/content-documents/about-us/our-company/irp-documents/natural-gas-irp-documents/2021-natural-gas-irp.pdf

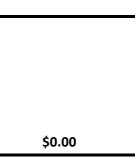
 Source Notes:
 per day costs of Jackson priarie O&M/Capital for Avistas share of owned storage

Infrastructure Capacity Costs

	Γ		Infrastructure Capacity C	osts
Year #	Calendar Year	Supply \$/Dth/Day	Distribution Peak DAY (\$/Dth/Day)	Distribution Peak HOUR (\$/Dth/Hour)
1	2020	-\$0.002	(+) = 11	(+) =,
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			
36	2055			
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 2021 IRP



= 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

out-us/our-company/irp-documen
- ETO study used for the Expected Case (dths)

End Use Profiles		Monthly Share of Normal Weather Annual Load										Normal Weather Ratios			
End Use	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	2021	Peak Day	Peak Hour
Com-New Buildings	0.00215	0.00215	0.00215	0.00215	0.00215	0.00215	0.00215	0.00215	0.00215	0.00215	0.00215	0.00215	3,080	0.009585	0.000425
Com-Replacement	0.00622	0.00622	0.00622	0.00622	0.00622	0.00622	0.00622	0.00622	0.00622	0.00622	0.00622	0.00622	8,927		
Com-SEM	0.00036	0.00036	0.00036	0.00036	0.00036	0.00036	0.00036	0.00036	0.00036	0.00036	0.00036	0.00036	516		
Com-Retrofit	0.00562	0.00562	0.00562	0.00562	0.00562	0.00562	0.00562	0.00562	0.00562	0.00562	0.00562	0.00562	8,071		
Ind-Retrofit	0.00144	0.00144	0.00144	0.00144	0.00144	0.00144	0.00144	0.00144	0.00144	0.00144	0.00144	0.00144	2,073		
Ind-Replacement	0.00019	0.00019	0.00019	0.00019	0.00019	0.00019	0.00019	0.00019	0.00019	0.00019	0.00019	0.00019	279		
Res-Manufactured New Homes	0.00006	0.00006	0.00006	0.00006	0.00006	0.00006	0.00006	0.00006	0.00006	0.00006	0.00006	0.00006	81		
Res-SF New Homes	0.00112	0.00112	0.00112	0.00112	0.00112	0.00112	0.00112	0.00112	0.00112	0.00112	0.00112	0.00112	1,613		
Res-Market Transformation	0.00785	0.00785	0.00785	0.00785	0.00785	0.00785	0.00785	0.00785	0.00785	0.00785	0.00785	0.00785	11,278		
Res-Showerheads & Aerators	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001	18		
Res-Smart Thermostat	0.00245	0.00245	0.00245	0.00245	0.00245	0.00245	0.00245	0.00245	0.00245	0.00245	0.00245	0.00245	3,524		
Res-Thermostat Optimization	0.00042	0.00042	0.00042	0.00042	0.00042	0.00042	0.00042	0.00042	0.00042	0.00042	0.00042	0.00042	610		
Res-WaterHeat	0.00021	0.00021	0.00021	0.00021	0.00021	0.00021	0.00021	0.00021	0.00021	0.00021	0.00021	0.00021	296		
Res-Insulation	0.00118	0.00118	0.00118	0.00118	0.00118	0.00118	0.00118	0.00118	0.00118	0.00118	0.00118	0.00118	1,689		
Res-Heating & Windows	0.00065	0.00065	0.00065	0.00065	0.00065	0.00065	0.00065	0.00065	0.00065	0.00065	0.00065	0.00065	927		
MF-Retrofit	0.00023	0.00023	0.00023	0.00023	0.00023	0.00023	0.00023	0.00023	0.00023	0.00023	0.00023	0.00023	329		
MF-Replacement	0.00033	0.00033	0.00033	0.00033	0.00033	0.00033	0.00033	0.00033	0.00033	0.00033	0.00033	0.00033	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.

OR Peak Day OR Peak Hour 2020-2021

E.

89,441 3,969

Alternativ	e Submis	sions		Rationale for alternative submission: Current 2023 IRP Process							
Global Assumption	ns Inputs		Provide	SOURCING s 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	4.71%									
Inflation Rate	Percent	2.00%									
	i I										
Regional Act Credit	Percent	10.00%									
Forecast Period Calendar Start Year	Year	2023									
Real Dollar Base Year	Year	2022									

Alternative Submissions	Rationale for alternative submission: Current 2023 IRP Process	

Commodity Price Inputs					
Real or Nominal?	Nominal				
Source and Pg #:					

Source Notes: Cost to serve the next unit of load while maintaining compl
Gas Commodity and Transportation/Storage Costs (\$/Dth)

Year #	Calendar Year	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	2023	\$8.56	\$8.22	\$6.85	\$5.04	\$4.91	\$4.91	\$5.03	\$5.04	\$4.50	\$4.89	\$5.24	\$5.44
2	2024	\$12.90	\$12.90	\$12.07	\$11.69	\$11.68	\$11.74	\$11.93	\$11.93	\$11.57	\$11.85	\$12.14	\$12.46
3	2025	\$14.64	\$14.58	\$13.97	\$13.67	\$13.66	\$13.67	\$13.67	\$13.59	\$13.38	\$13.33	\$13.74	\$13.98
4	2026	\$16.34	\$16.34	\$16.08	\$16.00	\$16.00	\$16.00	\$16.00	\$15.84	\$15.55	\$15.69	\$15.94	\$16.09
5	2027	\$17.57	\$17.57	\$17.44	\$17.44	\$17.44	\$17.44	\$17.44	\$17.34	\$17.00	\$17.10	\$17.47	\$17.57
6	2028	\$18.61	\$18.61	\$18.46	\$18.55	\$18.55	\$18.55	\$18.55	\$18.44	\$18.14	\$18.25	\$18.60	\$18.61
7	2029	\$19.54	\$19.54	\$19.35	\$19.41	\$19.41	\$19.38	\$19.41	\$19.41	\$19.05	\$19.13	\$19.52	\$19.54
8	2030	\$20.42	\$20.42	\$20.30	\$20.37	\$20.37	\$20.35	\$20.37	\$20.35	\$19.95	\$20.04	\$20.42	\$20.42
9	2031	\$20.83	\$20.83	\$20.69	\$20.77	\$20.77	\$20.77	\$20.77	\$20.75	\$20.43	\$20.58	\$20.83	\$20.83
10	2032	\$21.19	\$21.19	\$21.09	\$21.14	\$21.14	\$21.14	\$21.14	\$21.14	\$20.72	\$20.83	\$21.19	\$21.19
11	2033	\$21.54	\$21.54	\$21.40	\$21.45	\$21.45	\$21.45	\$21.45	\$21.41	\$21.05	\$21.17	\$21.54	\$21.54
12	2034	\$21.90	\$21.90	\$21.83	\$21.87	\$21.87	\$21.87	\$21.87	\$21.79	\$21.40	\$21.58	\$21.90	\$21.90
13	2035	\$22.27	\$22.27	\$22.22	\$22.26	\$22.26	\$22.26	\$22.26	\$22.22	\$21.84	\$22.06	\$22.27	\$22.27
14	2036	\$22.64	\$22.64	\$22.60	\$22.64	\$22.64	\$22.64	\$22.64	\$22.61	\$22.19	\$22.43	\$22.64	\$22.64
15	2037	\$23.03	\$23.03	\$23.02	\$23.03	\$23.03	\$23.03	\$23.03	\$23.02	\$22.61	\$22.83	\$23.03	\$23.03
16	2038	\$23.42	\$23.42	\$23.41	\$23.42	\$23.42	\$23.42	\$23.42	\$23.42	\$23.00	\$23.22	\$23.42	\$23.43
17	2039	\$23.81	\$23.81	\$23.80	\$23.81	\$23.81	\$23.81	\$23.81	\$23.81	\$23.36	\$23.58	\$23.81	\$23.81
18	2040	\$24.21	\$24.21	\$24.21	\$24.21	\$24.21	\$24.21	\$24.21	\$24.21	\$23.95	\$24.12	\$24.21	\$24.21
19	2041	\$24.61	\$24.61	\$24.61	\$24.61	\$24.61	\$24.61	\$24.61	\$24.61	\$24.21	\$24.45	\$24.61	\$24.61
20	2042	\$25.01	\$25.01	\$25.01	\$25.01	\$25.01	\$25.01	\$25.01	\$25.01	\$24.64	\$24.87	\$25.01	\$25.01
21	2043	\$25.42	\$25.42	\$25.42	\$25.42	\$25.42	\$25.42	\$25.42	\$25.42	\$25.21	\$25.38	\$25.42	\$25.41
22	2044	\$25.84	\$25.84	\$25.84	\$25.84	\$25.84	\$25.84	\$25.84	\$25.84	\$25.59	\$25.76	\$25.84	\$25.84
23	2045	\$26.25	\$26.25	\$26.25	\$26.25	\$26.25	\$26.25	\$26.25	\$26.25	\$26.08	\$26.19	\$26.25	\$26.25
24	2046												
25	2047												
26	2048												
27	2049												
28	2050												
29	2051												
30	2052												
31	2053												
32	2054												
33	2055												
34	2056												
35	2057												
36	2058												
37	2059												
38	2060												
39	2061												
40	2062	1											1
41	2063												
42	2054												1
42	2064	1											
43	2065	+											
44	2066	-											

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Year #	Calendar Year	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	2023	\$10.86	\$8.22	\$9.13	\$7.34	\$7.21	\$7.29	\$7.43	\$7.39	\$6.93	\$7.28	\$7.63	\$5.44
2	2024	\$12.90	\$12.90	\$12.15	\$11.69	\$11.68	\$11.99	\$11.99	\$11.93	\$11.75	\$11.99	\$12.26	\$12.4
3	2025	\$14.64	\$14.58	\$14.18	\$13.82	\$13.72	\$13.67	\$13.67	\$13.60	\$13.71	\$13.58	\$13.89	\$13.9
4	2026	\$16.34	\$16.34	\$16.17	\$16.00	\$16.00	\$16.00	\$16.00	\$15.84	\$15.80	\$15.86	\$16.17	\$16.0
5	2027	\$17.57	\$17.57	\$17.44	\$17.44	\$17.44	\$17.44	\$17.44	\$17.34	\$17.12	\$17.13	\$17.57	\$17.5
6	2028	\$18.61	\$18.61	\$18.46	\$18.55	\$18.55	\$18.55	\$18.55	\$18.44	\$18.24	\$18.25	\$18.61	\$18.6
7	2029	\$19.54	\$19.54	\$19.35	\$19.41	\$19.41	\$19.38	\$19.41	\$19.41	\$19.18	\$19.17	\$19.54	\$19.5
8	2030	\$20.42	\$20.42	\$20.30	\$20.37	\$20.37	\$20.35	\$20.37	\$20.35	\$20.07	\$20.07	\$20.42	\$20.4
9	2031	\$20.83	\$20.83	\$20.73	\$20.79	\$20.78	\$20.83	\$20.78	\$20.79	\$20.74	\$20.80	\$20.83	\$20.8
10	2032	\$21.19	\$21.19	\$21.09	\$21.14	\$21.14	\$21.14	\$21.14	\$21.14	\$20.82	\$20.85	\$21.19	\$21.1
11	2033	\$21.54	\$21.54	\$21.40	\$21.45	\$21.45	\$21.45	\$21.45	\$21.41	\$21.06	\$21.17	\$21.54	\$21.5
12	2034	\$21.90	\$21.90	\$21.90	\$21.87	\$21.87	\$21.87	\$21.87	\$21.79	\$21.62	\$21.67	\$21.90	\$21.9
13	2035	\$22.27	\$22.27	\$22.27	\$22.26	\$22.26	\$22.26	\$22.26	\$22.22	\$22.04	\$22.11	\$22.27	\$22.2
14	2036	\$22.64	\$22.64	\$22.64	\$22.64	\$22.64	\$22.64	\$22.64	\$22.63	\$22.51	\$22.56	\$22.64	\$22.6
15	2037	\$23.03	\$23.03	\$23.03	\$23.03	\$23.03	\$23.03	\$23.03	\$23.02	\$22.87	\$22.90	\$23.03	\$23.0
16	2038	\$23.42	\$23.42	\$23.42	\$23.42	\$23.42	\$23.42	\$23.42	\$23.42	\$23.27	\$23.31	\$23.42	\$23.4
17	2039	\$23.81	\$23.81	\$23.81	\$23.81	\$23.81	\$23.81	\$23.81	\$23.81	\$23.64	\$23.68	\$23.81	\$23.8
18	2040	\$24.21	\$24.21	\$24.21	\$24.21	\$24.21	\$24.21	\$24.21	\$24.21	\$24.02	\$24.12	\$24.21	\$24.2
19	2041	\$24.61	\$24.61	\$24.61	\$24.61	\$24.61	\$24.61	\$24.61	\$24.61	\$24.40	\$24.46	\$24.61	\$24.6
20	2042	\$25.01	\$25.01	\$25.01	\$25.01	\$25.01	\$25.01	\$25.01	\$25.01	\$24.81	\$24.87	\$25.01	\$25.0
21	2043	\$25.42	\$25.42	\$25.42	\$25.42	\$25.42	\$25.42	\$25.42	\$25.42	\$25.24	\$25.38	\$25.42	\$25.4
22	2044	\$25.84	\$25.84	\$25.84	\$25.84	\$25.84	\$25.84	\$25.84	\$25.84	\$25.62	\$25.76	\$25.84	\$25.8
23	2045	\$26.25	\$26.25	\$26.25	\$26.25	\$26.25	\$26.25	\$26.25	\$26.25	\$26.08	\$26.19	\$26.25	\$26.2

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	Rationale for alternative submission:
Alternative Submissions	Current 2023 IRP Process

Environmental Compliance Cost Inputs

Real or Nominal?	Nominal
Source and Pg #:	
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Source Link or File	Name:	https://www.utc.wa.gov/regulated-industries/utilities/energy/conservation-and-renewable-energy-overview/clean-energy-transformation-act/social-cost-carbon
Source Notes:		Carbon intensity of natural gas is 116.9797214653 lbs per Metric Ton (2204.623 lbs). Environmental compliance cost is the social cost of carbon from the link provided above.

Environmental Compliance Cost

Year #	Calendar Year	Environmental Compliance Cost (\$/MTCO2e)	Carbon Intesity (MTCO2e/Dth)	Environmental Compliance Cost (\$/Dth)
1	2023	\$92.68	0.0531	\$4.918
2	2024	\$96.67	0.0531	\$5.129
3	2025	\$100.68	0.0531	\$5.342
4	2026	\$104.58	0.0531	\$5.549
5	2027	\$108.61	0.0531	\$5.763
6	2028	\$112.73	0.0531	\$5.982
7	2029	\$116.98	0.0531	\$6.207
8	2030	\$121.36	0.0531	\$6.439
9	2031	\$125.61	0.0531	\$6.665
10	2032	\$130.00	0.0531	\$6.898
11	2033	\$134.51	0.0531	\$7.137
12	2034	\$139.16	0.0531	\$7.384
13	2035	\$143.95	0.0531	\$7.638
14	2036	\$149.47	0.0531	\$7.931
15	2037	\$155.16	0.0531	\$8.233
16	2038	\$161.03	0.0531	\$8.544
17	2039	\$167.09	0.0531	\$8.866
18	2040	\$173.33	0.0531	\$9.197
19	2041	\$179.11	0.0531	\$9.504
20	2042	\$185.07	0.0531	\$9.820
21	2043	\$191.19	0.0531	\$10.145
22	2044	\$197.50	0.0531	\$10.480
23	2045	\$203.99	0.0531	\$10.824
24	2046			
25	2047			
26	2048			
27	2049			
28	2050			
29	2051			
30	2052			
31	2053			
32	2054			
33	2055			
34	2056			
35	2057			
36	2058			
37	2059			
38	2060			
39	2061			
40	2062			
41	2063			
42	2064			
43	2065			
44	2066			
45	2067			

Alternative Submissions

Infrastructure Capacity Cost Inputs

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

Infrastructure Capacity Costs

	···· / ·····	Infrastructure Capacity Costs		
Year #	Calendar Year	Supply (\$/Dth/Day)	Distribution Peak DAY (\$/Dth/Day)	Distribution Peak HOUR (\$/Dth/Hour)
1	2023			
2	2024			
3	2025			
4	2026			
5	2027			
6	2028			
7	2029			
8	2030			
9	2031			
10	2032			
11	2033			
12	2034			
13	2035			
14	2036			
15	2037			
16	2038			
17	2039			
18	2040			
19	2041			
20	2042			
21	2043			
22	2044			
23	2045			
24	2046			
25	2047			
26	2048			
27	2049			
28	2050			
29	2051			
30	2052			
31	2053			
32	2054			
33	2055			
34	2056			
35	2057			
36	2058			
37	2059			
38	2060			
39	2061			
40	2062			
41	2063			
42	2064			
43	2065			
44	2066			
45	2067			

\$0.00

	Rationale for alternative submission:
Alternative Submissions	

Risk Reduction Value Inputs

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

= 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	2023	\$0.000
2	2024	\$0.000
3	2025	\$0.000
4	2026	\$0.000
5	2027	\$0.000
6	2028	\$0.000
7	2029	\$0.000
8	2030	\$0.000
9	2031	\$0.000
10	2032	\$0.000
11	2033	\$0.000
12	2034	\$0.000
13	2035	\$0.000
14	2036	\$0.000
15	2037	\$0.000
16	2038	\$0.000
17	2039	\$0.000
18	2040	\$0.000
19	2041	\$0.000
20	2042	\$0.000

Alternative Submissions

Rationale for alternative submission:

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										Peak to Annual Normal Weather Usage Ratios			
End Use	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec		Peak Day	Peak Hour
Com-New Buildings															
Com-Replacement															
Com-SEM															
Com-Retrofit															
Ind-Retrofit															
Ind-Replacement]		
Res-Manufactured New Homes															
Res-SF New Homes															
Res-Market Transformation															
Res-Showerheads & Aerators															
Res-Smart Thermostat															
Res-Thermostat Optimization															
Res-WaterHeat															
Res-Insulation															
Res-Heating & Windows]		
MF-Retrofit															
MF-Replacement]		

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.

OR Peak Day OR Peak Hour

Enormy Efficience	Avaided Cest Submission Templete Netural Ces	
	Avoided Cost Submission Template - Natural Gas	

Utility Name: AVA

Submission Date: 9/14/2022

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

Stanuaru economic assumptions of the avoided costs are input into this tab, including innation and discount rates, as well as real donal-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 Commidity 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 Ass	umptions Inputs		SOURCING						
Global Assumptions Inputs			Provide as much detail as p	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%	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	242			System weighted		
Inflation Rate	Percent	2.00%	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	242			GPD price deflator assumption		
Regional Act Credit	Percent	10.00%	N/A						
Forecast Period Calendar Start Year	Year	2020	https://www.myavista.com/- /media/myavista/content-documents/about-us/our- company/irp-documents/natural-gas-irp- documents/2021-natural-gas-irp.pdf	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	https://www.myavista.com/- /media/myavista/content-documents/about-us/our- company/irp-documents/natural-gas-irp- documents/2021-natural-gas-irp.pdf	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	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	271			Peak day and annual load 2020-2040		
System Peak Coincident Hour Factor (if needed)	Peak Hour/Annual Load Ratio	0.0004	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	271			Peak hour (peak day/24*1.065) and annual load 2020-2040		

Commodity Price Inputs

al or Nominal?	Nominal	
ource and Pg #:	2021 IRP	
Source Link or File Name:	https://www.my	vavista.com/-/media/myavista/content-documents/about-us/our-company/irp-documents/natural-gas-irp-documents/2021-natural-
Source Notes:	Expected Case	

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

Year #	Calendar Year	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	ОСТ	NOV	DEC
1	2020											-\$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	<i></i>	φ 1.50	<i></i>	<i>γ</i> 1.75	<i>Ş</i> 1.13	φ π.τ <u>τ</u>	φ1.51	φ 1.5 T	φ 1.15	φ1.50		
23	2042												
24	2043												
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41	2060												
42	2061												
43	2062												
44	2062												
45	2003												
40	2004												

PUC Form FM127

Environmental Compliance Cost Inputs

Real or Nominal?	Nominal	
Source and Pg #:	2021 IRP	
Source Link or File Name:	https://www.myavista.com/-/	media/myavista/content-documents/about-us/our-company/irp-documents/natural-gas-irp-documents/2021-natural-gas-irp.pdf
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 Intesity (MTCO2e/Dth)	Environmental Compliance Cost (\$/Dth)
1	2020	(9/11/00/20/		
2	2020	\$15.83	0.0582	\$0.921
3	2022	\$17.02	0.0582	\$0.990
4	2022	\$18.23	0.0582	\$1.060
5	2023	\$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			
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41	2060			
42	2061			
43	2062			
44	2063			
45	2064			

45	2064		

PUC Form FM127

Infrastructure Capacity Cost Inputs

Real or Nominal?	ominal						
Source and Pg #:	221 IRP						
Source Link or File Name:	tps://www.myavista.com/-/media/myavista/content-documents/about-us/our-company/irp-documents/natural-gas-irp-documents/2021-natural-gas-irp.pdf						
Source Notes:	er day costs of Jackson priarie O&M/Capital for Avistas share of owned storage						

Infrastructure Capacity Costs

	Г		Infrastructure Capacity C	osts
Year #	Calendar Year	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			
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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 2021 IRP



= 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

Source and Pg # and/or Table #:	2021 IRP
Source Link or File Name:	-documents/about-us/our-company/irp-documer
	Avista 2021 IRP - ETO study used for the
Source Notes:	Expected Case (dths)

End Use Profiles		Monthly Share of Normal Weather Annual Load										nual Normal Jsage Ratios				
End Use		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	2021	Peak Day	Peak Hour
Com-New Buildings		0.00215	0.00215	0.00215	0.00215	0.00215	0.00215	0.00215	0.00215	0.00215	0.00215	0.00215	0.00215	3,080	0.009585	0.000425
Com-Replacement		0.00622	0.00622	0.00622	0.00622	0.00622	0.00622	0.00622	0.00622	0.00622	0.00622	0.00622	0.00622	8,927		
Com-SEM		0.00036	0.00036	0.00036	0.00036	0.00036	0.00036	0.00036	0.00036	0.00036	0.00036	0.00036	0.00036	516		
Com-Retrofit		0.00562	0.00562	0.00562	0.00562	0.00562	0.00562	0.00562	0.00562	0.00562	0.00562	0.00562	0.00562	8,071		
Ind-Retrofit		0.00144	0.00144	0.00144	0.00144	0.00144	0.00144	0.00144	0.00144	0.00144	0.00144	0.00144	0.00144	2,073		
Ind-Replacement		0.00019	0.00019	0.00019	0.00019	0.00019	0.00019	0.00019	0.00019	0.00019	0.00019	0.00019	0.00019	279		
Res-Manufactured New Homes		0.00006	0.00006	0.00006	0.00006	0.00006	0.00006	0.00006	0.00006	0.00006	0.00006	0.00006	0.00006	81		
Res-SF New Homes		0.00112	0.00112	0.00112	0.00112	0.00112	0.00112	0.00112	0.00112	0.00112	0.00112	0.00112	0.00112	1,613		
Res-Market Transformation		0.00785	0.00785	0.00785	0.00785	0.00785	0.00785	0.00785	0.00785	0.00785	0.00785	0.00785	0.00785	11,278		
Res-Showerheads & Aerators		0.00001	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001	18		
Res-Smart Thermostat		0.00245	0.00245	0.00245	0.00245	0.00245	0.00245	0.00245	0.00245	0.00245	0.00245	0.00245	0.00245	3,524		1
Res-Thermostat Optimization		0.00042	0.00042	0.00042	0.00042	0.00042	0.00042	0.00042	0.00042	0.00042	0.00042	0.00042	0.00042	610		1
Res-WaterHeat		0.00021	0.00021	0.00021	0.00021	0.00021	0.00021	0.00021	0.00021	0.00021	0.00021	0.00021	0.00021	296		
Res-Insulation		0.00118	0.00118	0.00118	0.00118	0.00118	0.00118	0.00118	0.00118	0.00118	0.00118	0.00118	0.00118	1,689		
Res-Heating & Windows		0.00065	0.00065	0.00065	0.00065	0.00065	0.00065	0.00065	0.00065	0.00065	0.00065	0.00065	0.00065	927		
MF-Retrofit		0.00023	0.00023	0.00023	0.00023	0.00023	0.00023	0.00023	0.00023	0.00023	0.00023	0.00023	0.00023	329		
MF-Replacement		0.00033	0.00033	0.00033	0.00033	0.00033	0.00033	0.00033	0.00033	0.00033	0.00033	0.00033	0.00033	469		
	1	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:

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.

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

Energy Trust will work with Utility and OPUC Staff to determine the most

Alternative	e Submis	sions		Rationale for alternative submission: Current 2023 IRP Process										
Global Assumption	s Innuts			SOURCING										
	is inputs		Provide	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	4.71%												
Inflation Rate	Percent	2.00%												
		I	1	1	1	I								
Regional Act Credit	Percent	10.00%												
Forecast Period Calendar Start Year	Year	2023		I										
Real Dollar Base Year	Year	2022												

	Rationale for alternative submission:
Alternative Submissions	Current 2023 IRP Process

Commodity Price Inputs

Real or Nominal? Nominal

Source and Pg #:

Source Link or File Name:

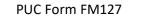
Source Notes:

Cost to serve the next unit of load while maintaining compliance with CPP emission targets and considering the following resources: natural gas, renewable natural gas, hydrogen, and CCIs. The first table (left) reflects such costs for firm customer load (residential, commercial, industrial) while the second table (right) reflects such costs when also including transport custo

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

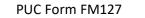
Calendar Year	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	ОСТ	NOV	DEC	Year #	Calendar Year	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	ОСТ	NOV
2023	\$8.56	\$8.22	\$6.85	\$5.04	\$4.91	\$4.91	\$5.03	\$5.04	\$4.50	\$4.89	\$5.24	\$5.44	1	2023	\$10.86	\$8.22	\$9.13	\$7.34	\$7.21	\$7.29	\$7.43	\$7.39	\$6.93	\$7.28	\$7.63
2024	\$12.90	\$12.90	\$12.07	\$11.69	\$11.68	\$11.74	\$11.93	\$11.93	\$11.57	\$11.85	\$12.14	\$12.46	2	2024	\$12.90	\$12.90	\$12.15	\$11.69	\$11.68	\$11.99	\$11.99	\$11.93	\$11.75	\$11.99	\$12.26
2025	\$14.64	\$14.58	\$13.97	\$13.67	\$13.66	\$13.67	\$13.67	\$13.59	\$13.38	\$13.33	\$13.74	\$13.98	3	2025	\$14.64	\$14.58	\$14.18	\$13.82	\$13.72	\$13.67	\$13.67	\$13.60	\$13.71	\$13.58	\$13.89
2026	\$16.34	\$16.34	\$16.08	\$16.00	\$16.00	\$16.00	\$16.00	\$15.84	\$15.55	\$15.69	\$15.94	\$16.09	4	2026	\$16.34	\$16.34	\$16.17	\$16.00	\$16.00	\$16.00	\$16.00	\$15.84	\$15.80	\$15.86	\$16.17
2027	\$17.57	\$17.57	\$17.44	\$17.44	\$17.44	\$17.44	\$17.44	\$17.34	\$17.00	\$17.10	\$17.47	\$17.57	5	2027	\$17.57	\$17.57	\$17.44	\$17.44	\$17.44	\$17.44	\$17.44	\$17.34	\$17.12	\$17.13	\$17.57
2028	\$18.61	\$18.61	\$18.46	\$18.55	\$18.55	\$18.55	\$18.55	\$18.44	\$18.14	\$18.25	\$18.60	\$18.61	6	2028	\$18.61	\$18.61	\$18.46	\$18.55	\$18.55	\$18.55	\$18.55	\$18.44	\$18.24	\$18.25	\$18.61
2029	\$19.54	\$19.54	\$19.35		\$19.41	\$19.38	\$19.41	\$19.41	\$19.05	\$19.13	\$19.52	\$19.54	7	2029	\$19.54	\$19.54			\$19.41	\$19.38	\$19.41	\$19.41	\$19.18	\$19.17	\$19.54
2030	\$20.42	\$20.42	\$20.30	\$20.37	\$20.37	\$20.35	\$20.37	\$20.35	\$19.95	\$20.04	\$20.42	\$20.42	8	2030	\$20.42	\$20.42	\$20.30	\$20.37	\$20.37	\$20.35	\$20.37	\$20.35	\$20.07	\$20.07	\$20.42
2031	\$20.83	\$20.83	\$20.69	\$20.77	\$20.77	\$20.77	\$20.77	\$20.75	\$20.43	\$20.58	\$20.83	\$20.83	9	2031	\$20.83	\$20.83	\$20.73	\$20.79	\$20.78	\$20.83	\$20.78	\$20.79	\$20.74	\$20.80	\$20.83
2032	\$21.19	\$21.19	\$21.09	\$21.14	\$21.14	\$21.14	\$21.14	\$21.14	\$20.72	\$20.83	\$21.19	\$21.19	10	2032	\$21.19	\$21.19	\$21.09	\$21.14	\$21.14	\$21.14	\$21.14	\$21.14	\$20.82	\$20.85	\$21.19
2033	\$21.54	\$21.54	\$21.40	\$21.45	\$21.45	\$21.45	\$21.45	\$21.41	\$21.05	\$21.17	\$21.54	\$21.54	11	2033	\$21.54	\$21.54	\$21.40	\$21.45	\$21.45	\$21.45	\$21.45	\$21.41	\$21.06	\$21.17	\$21.54
2034	\$21.90	\$21.90	\$21.83	\$21.87	\$21.87	\$21.87	\$21.87	\$21.79	\$21.40	\$21.58	\$21.90	\$21.90	12	2034	\$21.90	\$21.90	\$21.90	\$21.87	\$21.87	\$21.87	\$21.87	\$21.79	\$21.62	\$21.67	\$21.90
2035	\$22.27	\$22.27	\$22.22	\$22.26	\$22.26	\$22.26	\$22.26	\$22.22	\$21.84	\$22.06	\$22.27	\$22.27	13	2035	\$22.27	\$22.27	\$22.27	\$22.26	\$22.26	\$22.26	\$22.26	\$22.22	\$22.04	\$22.11	\$22.27
2036	\$22.64	\$22.64	\$22.60	\$22.64	\$22.64	\$22.64	\$22.64	\$22.61	\$22.19	\$22.43	\$22.64	\$22.64	14	2036	\$22.64	\$22.64	\$22.64	\$22.64	\$22.64	\$22.64	\$22.64	\$22.63	\$22.51	\$22.56	\$22.64
2037	\$23.03	\$23.03	\$23.02	\$23.03	\$23.03	\$23.03	\$23.03	\$23.02	\$22.61	\$22.83	\$23.03	\$23.03	15	2037	\$23.03	\$23.03	\$23.03	\$23.03	\$23.03	\$23.03	\$23.03	\$23.02	\$22.87	\$22.90	\$23.03
2038	\$23.42	\$23.42	\$23.41	\$23.42	\$23.42	\$23.42	\$23.42	\$23.42	\$23.00	\$23.22	\$23.42	\$23.42	16	2038	\$23.42	\$23.42	\$23.42	\$23.42	\$23.42	\$23.42	\$23.42	\$23.42	\$23.27	\$23.31	\$23.42
2039	\$23.81	\$23.81	\$23.80	\$23.81	\$23.81	\$23.81	\$23.81	\$23.81	\$23.36	\$23.58	\$23.81	\$23.81	17	2039	\$23.81	\$23.81	\$23.81	\$23.81	\$23.81	\$23.81	\$23.81	\$23.81	\$23.64	\$23.68	\$23.81
2040	\$24.21	\$24.21	\$24.21	\$24.21	\$24.21	\$24.21	\$24.21	\$24.21	\$23.95	\$24.12	\$24.21	\$24.21	18	2040	\$24.21	\$24.21	\$24.21	\$24.21	\$24.21	\$24.21	\$24.21	\$24.21	\$24.02	\$24.12	\$24.21
2041	\$24.61	\$24.61	\$24.61	\$24.61	\$24.61	\$24.61	\$24.61	\$24.61	\$24.21	\$24.45	\$24.61	\$24.61	19	2041	\$24.61	\$24.61	\$24.61	\$24.61	\$24.61	\$24.61	\$24.61	\$24.61	\$24.40	\$24.46	\$24.61
2042	\$25.01	\$25.01	\$25.01	\$25.01	\$25.01	\$25.01	\$25.01	\$25.01	\$24.64	\$24.87	\$25.01	\$25.01	20	2042	\$25.01	\$25.01	\$25.01	\$25.01	\$25.01	\$25.01	\$25.01	\$25.01	\$24.81	\$24.87	\$25.01
2043	\$25.42	\$25.42	\$25.42	\$25.42	\$25.42	\$25.42	\$25.42	\$25.42	\$25.21	\$25.38	\$25.42	\$25.42	21	2043	\$25.42	\$25.42	\$25.42	\$25.42	\$25.42	\$25.42	\$25.42	\$25.42	\$25.24	\$25.38	\$25.42
2044	\$25.84	\$25.84	\$25.84	\$25.84	\$25.84	\$25.84	\$25.84	\$25.84	\$25.59	\$25.76	\$25.84	\$25.84	22	2044	\$25.84	\$25.84	\$25.84	\$25.84	\$25.84	\$25.84	\$25.84	\$25.84	\$25.62	\$25.76	\$25.84
2045	\$26.25	\$26.25	\$26.25	\$26.25	\$26.25	\$26.25	\$26.25	\$26.25	\$26.08	\$26.19	\$26.25	\$26.25	23	2045	\$26.25	\$26.25	\$26.25	\$26.25	\$26.25	\$26.25	\$26.25	\$26.25	\$26.08	\$26.19	\$26.25
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45	2067						



UM 1893, Copy of RG 85 - Avista EE Avoided Cost Report (Sept 2022) 2a) Commodity & Transport(Alt1)

mer load.



	Rationale for alternative submission:
Alternative Submissions	Current 2023 IRP Process

Environmental Compliance Cost Inputs

 Real or Nominal?
 Nominal

 Source and Pg #:
 Image: Comparing the second process of the second process of

Environmental Compliance Cost

Year #	Calendar Year	Environmental Compliance Cost (\$/MTCO2e)	Carbon Intesity (MTCO2e/Dth)	Environmental Compliance Cost (\$/Dth)		
1	2023	\$92.68	0.0531	\$4.918		
2	2024	\$96.67	0.0531	\$5.129		
3	2025	\$100.68	0.0531	\$5.342		
4	2026	\$104.58	0.0531	\$5.549		
5	2027	\$108.61	0.0531	\$5.763		
6	2028	\$112.73	0.0531	\$5.982		
7	2029	\$116.98	0.0531	\$6.207		
8	2030	\$121.36	0.0531	\$6.439		
9	2031	\$125.61	0.0531	\$6.665		
10	2032	\$130.00	0.0531	\$6.898		
11	2033	\$134.51	0.0531	\$7.137		
12	2034	\$139.16	0.0531	\$7.384		
13	2035	\$143.95	0.0531	\$7.638		
14	2036	\$149.47	0.0531	\$7.931		
15	2037	\$155.16	0.0531	\$8.233		
16	2038	\$161.03	0.0531	\$8.544		
17	2039	\$167.09	0.0531	\$8.866		
18	2040	\$173.33	0.0531	\$9.197		
19	2041	\$179.11	0.0531	\$9.504		
20	2042	\$185.07	0.0531	\$9.820		
21	2043	\$191.19	0.0531	\$10.145		
22	2044	\$197.50	0.0531	\$10.480		
23	2045	\$203.99	0.0531	\$10.824		
24	2046	+=00.00				
25	2047					
26	2048					
27	2049					
28	2050					
29	2051					
30	2052					
31	2053					
32	2054					
33	2055					
34	2056					
35	2057					
36	2058					
37	2059					
38	2060					
39	2061					
40	2062					
41	2063					
42	2064					
43	2065					
44	2066					
45	2007					

Alternative Submissions

Infrastructure Capacity Cost Inputs

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

Infrastructure Capacity Costs

		Infrastructure Capacity Costs					
Year #	Calendar Year	Supply (\$/Dth/Day)	Distribution Peak DAY (\$/Dth/Day)				
1	2023						
2	2024						
3	2025						
4	2026						
5	2027						
6	2028						
7	2029						
8	2030						
9	2031						
10	2032						
11	2033						
12	2034						
13	2035						
14	2036						
15	2037						
16	2038						
17	2039						
18	2040						
19	2041						
20	2042						
21	2043						
22	2044						
23	2045						
24	2046						
25	2047						
26	2048						
27	2049						
28	2050						
29	2051						
30	2052						
31	2053						
32	2054						
33	2055						
34	2056						
35	2057						
36	2058						
37	2059						
38	2060						
39	2061						
40	2062						
41	2063						
42	2064						
43	2065						
44	2066						
45	2067						

	Rationale for alternative submission:
Alternative Submissions	

Risk Reduction Value Inputs

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

\$0.00	

= 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

		Risk Reduction Value
Year #	Calendar Year	(\$/Dth)
1	2023	\$0.000
2	2024	\$0.000
3	2025	\$0.000
4	2026	\$0.000
5	2027	\$0.000
6	2028	\$0.000
7	2029	\$0.000
8	2030	\$0.000
9	2031	\$0.000
10	2032	\$0.000
11	2033	\$0.000
12	2034	\$0.000
13	2035	\$0.000
14	2036	\$0.000
15	2037	\$0.000
16	2038	\$0.000
17	2039	\$0.000
18	2040	\$0.000
19	2041	\$0.000
20	2042	\$0.000

Alternative Submissions

Rationale for alternative submission:

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											
End Use	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Com-New Buildings												
Com-Replacement												
Com-SEM												
Com-Retrofit												
Ind-Retrofit												
Ind-Replacement												
Res-Manufactured New Homes												
Res-SF New Homes												
Res-Market Transformation												
Res-Showerheads & Aerators												
Res-Smart Thermostat												
Res-Thermostat Optimization												
Res-WaterHeat												
Res-Insulation												
Res-Heating & Windows												
MF-Retrofit												
MF-Replacement												

Notes:

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.

OR Peak Day OR Peak Hour

Peak to Annual Normal					
Weather Usage Ratios					
Peak Day	Peak Hour				

Energy Trust will work with Utility and OPUC Staff to determine the most