



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

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Energy Efficiency Avoided Cost Submission Template - Natural Gas	
Utility Name:	CNG
Submission Date:	10/15/2021
Instructions and Definitions	
<p><> Please fill out this workbook as completely as possible and per the instructions</p> <p><> Inputs will be reviewed and approved by the OPUC before being sent to the Energy Trust of Oregon for use in Avoided Cost development.</p> <p><> 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. <i>This will increase the efficiency of this process and require less iteration during the OPUC review period.</i></p> <p><i>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.</i></p>	
1) Global Inputs - IRP	
<p><> 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.</p> <p><> 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.</p> <p><> 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.</p> <p><> Ensure that the dollar years of the data inputs match the source - Energy Trust will inflate to the proper year.</p>	
2) Commodity and Transport - IRP	
<p><> Provide Commodity and Transport price forecast by month.</p> <p><> Indicate if the forecast is in nominal or real dollars (if real, dollar value will populate headers from Global Inputs tab).</p>	
3) Environmental Compliance - IRP	
<p><> Provide the \$/Metric Ton of CO2 assumed for each year of the forecast.</p> <p><> Provide the metric ton of CO2/dekatherm assumed for each year of the forecast.</p> <p><> Column 'F' is a calculated field, which multiplies the \$/metric ton of CO2 by the CO2/dekatherm.</p>	
4) Infrastructure Capacity - IRP	
<p><> Provide the Supply Infrastructure Capacity Cost in a \$/Dth/Day format for each year available of the forecast period</p> <p><> Provide the Distribution Infrastructure Capacity Cost in a \$/Dth/Day and \$/Dth/Hour format for each year available of the forecast period.</p> <p><> 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.</p>	
5) Risk Reduction - IRP	
<p><> Provide the Risk Reduction value in a \$/Dth format if available for each year available of the forecast period</p> <p><> 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.</p>	
6) End Use Profiles - IRP	
<p><> Provide the Monthly share of annual load for the utility's system by end use, if available.</p> <p><> Provide the peak day/annual load and peak hour/annual load ratios by end use, if available.</p> <p><> End-use profiles are meant to represent the timing of savings, these can be derived from either savings profiles or load profiles.</p>	
1a, 2a, 3a, 4a, 5a, 6a) Alternative Submissions	
<p><> 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</p> <p><> Submissions in these tabs are not required.</p> <p><> Provide a rationale for submitting the alternative values in the box provided at the top of each alternative worksheet.</p> <p><> 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.</p>	

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	7.33%	CNGC Spring Earnings Review	13		Interest Coordination Adjustment	WACC Support Document.pdf Used in 2020 OR IRP
Inflation Rate - 2021	Percent	2.66%	Woods & Poole 2019 Projections	36	4	Raw Inflation Data.xlsx	Used in 2020 OR IRP
Inflation Rate - 2022	Percent	2.86%	Woods & Poole 2019 Projections	36	4	Raw Inflation Data.xlsx	Used in 2020 OR IRP
Inflation Rate - 2023	Percent	3.01%	Woods & Poole 2019 Projections	36	4	Raw Inflation Data.xlsx	Used in 2020 OR IRP
Inflation Rate - 2024	Percent	3.18%	Woods & Poole 2019 Projections	36	4	Raw Inflation Data.xlsx	Used in 2020 OR IRP
Inflation Rate - 2025	Percent	3.32%	Woods & Poole 2019 Projections	36	4	Raw Inflation Data.xlsx	Used in 2020 OR IRP
Inflation Rate - 2026	Percent	3.45%	Woods & Poole 2019 Projections	36	4	Raw Inflation Data.xlsx	Used in 2020 OR IRP
Inflation Rate - 2027	Percent	3.56%	Woods & Poole 2019 Projections	36	4	Raw Inflation Data.xlsx	Used in 2020 OR IRP
Inflation Rate - 2028	Percent	3.65%	Woods & Poole 2019 Projections	36	4	Raw Inflation Data.xlsx	Used in 2020 OR IRP
Inflation Rate - 2029	Percent	3.73%	Woods & Poole 2019 Projections	36	4	Raw Inflation Data.xlsx	Used in 2020 OR IRP
Inflation Rate - 2030	Percent	3.79%	Woods & Poole 2019 Projections	36	4	Raw Inflation Data.xlsx	Used in 2020 OR IRP
Inflation Rate - 2031	Percent	3.83%	Woods & Poole 2019 Projections	36	4	Raw Inflation Data.xlsx	Used in 2020 OR IRP
Inflation Rate - 2032	Percent	3.85%	Woods & Poole 2019 Projections	36	4	Raw Inflation Data.xlsx	Used in 2020 OR IRP
Inflation Rate - 2033	Percent	3.86%	Woods & Poole 2019 Projections	36	4	Raw Inflation Data.xlsx	Used in 2020 OR IRP
Inflation Rate - 2034	Percent	3.88%	Woods & Poole 2019 Projections	36	4	Raw Inflation Data.xlsx	Used in 2020 OR IRP
Inflation Rate - 2035	Percent	3.89%	Woods & Poole 2019 Projections	36	4	Raw Inflation Data.xlsx	Used in 2020 OR IRP
Inflation Rate - 2036	Percent	3.90%	Woods & Poole 2019 Projections	36	4	Raw Inflation Data.xlsx	Used in 2020 OR IRP
Inflation Rate - 2037	Percent	3.91%	Woods & Poole 2019 Projections	36	4	Raw Inflation Data.xlsx	Used in 2020 OR IRP
Inflation Rate - 2038	Percent	3.92%	Woods & Poole 2019 Projections	36	4	Raw Inflation Data.xlsx	Used in 2020 OR IRP
Inflation Rate - 2039	Percent	3.92%	Woods & Poole 2019 Projections	36	4	Raw Inflation Data.xlsx	Used in 2020 OR IRP
Inflation Rate - 2040	Percent	3.93%	Woods & Poole 2019 Projections	36	4	Raw Inflation Data.xlsx	Used in 2020 OR IRP
Inflation Rate - 2041	Percent	3.93%	Woods & Poole 2019 Projections	36	4	Raw Inflation Data.xlsx	Used in 2020 OR IRP
Inflation Rate - 2042	Percent	3.94%	Woods & Poole 2019 Projections	36	4	Raw Inflation Data.xlsx	Used in 2020 OR IRP
Inflation Rate - 2043	Percent	3.94%	Woods & Poole 2019 Projections	36	4	Raw Inflation Data.xlsx	Used in 2020 OR IRP
Inflation Rate - 2044	Percent	3.94%	Woods & Poole 2019 Projections	36	4	Raw Inflation Data.xlsx	Used in 2020 OR IRP
Inflation Rate - 2045	Percent	3.94%	Woods & Poole 2019 Projections	36	4	Raw Inflation Data.xlsx	Used in 2020 OR IRP
Inflation Rate - 2046	Percent	3.94%	Woods & Poole 2019 Projections	36	4	Raw Inflation Data.xlsx	Used in 2020 OR IRP
Inflation Rate - 2047	Percent	3.94%	Woods & Poole 2019 Projections	36	4	Raw Inflation Data.xlsx	Used in 2020 OR IRP
Inflation Rate - 2048	Percent	3.95%	Woods & Poole 2019 Projections	36	4	Raw Inflation Data.xlsx	Used in 2020 OR IRP
Inflation Rate - 2049	Percent	3.94%	Woods & Poole 2019 Projections	36	4	Raw Inflation Data.xlsx	Used in 2020 OR IRP
Inflation Rate - 2050	Percent	3.95%	Woods & Poole 2019 Projections	36	4	Raw Inflation Data.xlsx	Used in 2020 OR IRP
Regional Act Credit	Percent	10.00%	N/A				
Forecast Period Calendar Start Year	Year	2021	N/A				
Real Dollar Base Year	Year	2019	2020 OR IRP, Appendix H	Tab "1) Global Inputs - IRP"		2020 OR IRP - Appendix H.xlsx	Real values are converted to 2019\$
System Peak Definition	Calendar Month/Day/Hour	Day	2020 OR IRP, Section 3	3-10	N/A	https://www.cngc.com/rates-services/rates-tariffs/oregon-integrated-resource-plan/	
System Peak Coincident Day Factor (if needed)	Peak Day/Annual Load Ratio	0.0513	2020 CNGC OR IRP, Appendix H	Tab "1) Global Inputs - IRP"	N/A	https://www.cngc.com/rates-services/rates-tariffs/oregon-integrated-resource-plan/	
System Peak Coincident Hour Factor (if needed)	Peak Hour/Annual Load Ratio	0.0005	2020 CNGC OR IRP, Appendix H	Tab "1) Global Inputs - IRP"	N/A	https://www.cngc.com/rates-services/rates-tariffs/oregon-integrated-resource-plan/	

Commodity Price Inputs

Real or Nominal?	Real
Source and Pg #:	2020 OR IRP Appendix H - Tab "2) Commodity & Transport - IRP"
Source Link or File Name:	2020 OR IRP - Appendix H.xlsx
Source Notes:	

Gas Commodity and Transportation/Storage Costs (Real 2019\$/Dth)

Year #	Calendar Year	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	2021	\$2.66	\$2.47	\$2.05	\$1.71	\$1.57	\$1.57	\$1.86	\$1.90	\$1.92	\$1.91	\$2.12	\$2.41
2	2022	\$2.53	\$2.44	\$2.05	\$1.77	\$1.66	\$1.68	\$1.93	\$1.96	\$1.97	\$2.02	\$2.21	\$2.47
3	2023	\$2.54	\$2.48	\$2.11	\$1.86	\$1.74	\$1.71	\$2.02	\$2.06	\$2.08	\$2.13	\$2.28	\$2.50
4	2024	\$2.57	\$2.48	\$2.17	\$1.93	\$1.79	\$1.89	\$2.10	\$2.14	\$2.13	\$2.27	\$2.43	\$2.76
5	2025	\$2.76	\$2.68	\$2.37	\$2.17	\$2.08	\$2.12	\$2.41	\$2.49	\$2.45	\$2.41	\$2.59	\$2.95
6	2026	\$2.92	\$2.85	\$2.51	\$2.30	\$2.19	\$2.22	\$2.52	\$2.60	\$2.58	\$2.53	\$2.69	\$3.07
7	2027	\$3.00	\$2.92	\$2.57	\$2.36	\$2.26	\$2.28	\$2.58	\$2.67	\$2.65	\$2.58	\$2.73	\$3.09
8	2028	\$3.01	\$2.92	\$2.62	\$2.40	\$2.29	\$2.31	\$2.61	\$2.73	\$2.69	\$2.60	\$2.77	\$3.13
9	2029	\$3.07	\$3.00	\$2.71	\$2.46	\$2.37	\$2.41	\$2.76	\$2.88	\$2.82	\$2.75	\$2.95	\$3.28
10	2030	\$3.28	\$3.19	\$2.89	\$2.60	\$2.50	\$2.60	\$2.90	\$3.02	\$2.96	\$2.89	\$3.13	\$3.39
11	2031	\$3.47	\$3.31	\$2.98	\$2.70	\$2.61	\$2.68	\$2.97	\$3.08	\$3.03	\$2.95	\$3.17	\$3.42
12	2032	\$3.50	\$3.31	\$2.99	\$2.71	\$2.62	\$2.70	\$3.00	\$3.10	\$3.05	\$2.97	\$3.21	\$3.46
13	2033	\$3.54	\$3.38	\$3.05	\$2.75	\$2.67	\$2.76	\$3.06	\$3.16	\$3.10	\$3.03	\$3.28	\$3.55
14	2034	\$3.61	\$3.44	\$3.09	\$2.80	\$2.71	\$2.79	\$3.11	\$3.21	\$3.15	\$3.07	\$3.34	\$3.62
15	2035	\$3.65	\$3.48	\$3.13	\$2.84	\$2.75	\$2.84	\$3.14	\$3.25	\$3.19	\$3.11	\$3.38	\$3.65
16	2036	\$3.70	\$3.52	\$3.15	\$2.87	\$2.78	\$2.87	\$3.18	\$3.28	\$3.23	\$3.14	\$3.43	\$3.70
17	2037	\$3.77	\$3.59	\$3.23	\$2.95	\$2.83	\$2.91	\$3.27	\$3.36	\$3.30	\$3.26	\$3.55	\$3.84
18	2038	\$4.18	\$3.88	\$3.44	\$3.03	\$3.03	\$3.14	\$3.68	\$3.80	\$3.70	\$3.50	\$3.87	\$4.31
19	2039	\$4.27	\$3.96	\$3.50	\$3.15	\$3.18	\$3.24	\$3.75	\$3.86	\$3.80	\$3.59	\$3.96	\$4.35
20	2040	\$4.34	\$4.01	\$3.55	\$3.50	\$3.26	\$3.27	\$3.95	\$4.21	\$4.44	\$3.92	\$3.89	\$4.26
21	2041	\$4.38	\$4.05	\$3.58	\$3.53	\$3.29	\$3.30	\$3.99	\$4.25	\$4.48	\$3.96	\$3.93	\$4.31
22	2042	\$4.42	\$4.09	\$3.62	\$3.57	\$3.33	\$3.33	\$4.03	\$4.29	\$4.53	\$4.00	\$3.97	\$4.35
23	2043	\$4.47	\$4.13	\$3.66	\$3.60	\$3.36	\$3.37	\$4.07	\$4.34	\$4.57	\$4.04	\$4.01	\$4.39
24	2044	\$4.51	\$4.18	\$3.69	\$3.64	\$3.39	\$3.40	\$4.11	\$4.38	\$4.62	\$4.08	\$4.05	\$4.44
25	2045	\$4.56	\$4.22	\$3.73	\$3.68	\$3.43	\$3.43	\$4.15	\$4.42	\$4.66	\$4.12	\$4.09	\$4.48
26	2046	\$4.60	\$4.26	\$3.77	\$3.71	\$3.46	\$3.47	\$4.19	\$4.47	\$4.71	\$4.16	\$4.13	\$4.53
27	2047	\$4.65	\$4.30	\$3.81	\$3.75	\$3.50	\$3.50	\$4.23	\$4.51	\$4.76	\$4.20	\$4.17	\$4.57
28	2048	\$4.70	\$4.35	\$3.84	\$3.79	\$3.53	\$3.54	\$4.27	\$4.56	\$4.80	\$4.24	\$4.21	\$4.62
29	2049	\$4.74	\$4.39	\$3.88	\$3.83	\$3.57	\$3.57	\$4.32	\$4.60	\$4.85	\$4.29	\$4.26	\$4.66
30	2050	\$4.79	\$4.43	\$3.92	\$3.86	\$3.60	\$3.61	\$4.36	\$4.65	\$4.90	\$4.33	\$4.30	\$4.71
31	2051	\$4.84	\$4.48	\$3.96	\$3.90	\$3.64	\$3.64	\$4.40	\$4.69	\$4.95	\$4.37	\$4.34	\$4.76
32	2052	\$4.89	\$4.52	\$4.00	\$3.94	\$3.68	\$3.68	\$4.45	\$4.74	\$5.00	\$4.42	\$4.38	\$4.81
33	2053	\$4.94	\$4.57	\$4.04	\$3.98	\$3.71	\$3.72	\$4.49	\$4.79	\$5.05	\$4.46	\$4.43	\$4.85
34	2054	\$4.98	\$4.61	\$4.08	\$4.02	\$3.75	\$3.75	\$4.54	\$4.84	\$5.10	\$4.50	\$4.47	\$4.90
35	2055	\$5.03	\$4.66	\$4.12	\$4.06	\$3.79	\$3.79	\$4.58	\$4.89	\$5.15	\$4.55	\$4.52	\$4.95
36	2056	\$5.08	\$4.71	\$4.16	\$4.10	\$3.82	\$3.83	\$4.63	\$4.93	\$5.20	\$4.59	\$4.56	\$5.00
37	2057	\$5.14	\$4.75	\$4.20	\$4.14	\$3.86	\$3.87	\$4.68	\$4.98	\$5.25	\$4.64	\$4.61	\$5.05
38	2058	\$5.19	\$4.80	\$4.25	\$4.18	\$3.90	\$3.91	\$4.72	\$5.03	\$5.31	\$4.69	\$4.65	\$5.10
39	2059	\$5.24	\$4.85	\$4.29	\$4.23	\$3.94	\$3.95	\$4.77	\$5.08	\$5.36	\$4.73	\$4.70	\$5.15
40	2060	\$5.29	\$4.90	\$4.33	\$4.27	\$3.98	\$3.99	\$4.82	\$5.13	\$5.41	\$4.78	\$4.75	\$5.20
41	2061	\$5.34	\$4.95	\$4.37	\$4.31	\$4.02	\$4.03	\$4.87	\$5.19	\$5.47	\$4.83	\$4.80	\$5.26
42	2062	\$5.40	\$5.00	\$4.42	\$4.35	\$4.06	\$4.07	\$4.91	\$5.24	\$5.52	\$4.88	\$4.84	\$5.31
43	2063	\$5.45	\$5.05	\$4.46	\$4.40	\$4.10	\$4.11	\$4.96	\$5.29	\$5.58	\$4.93	\$4.89	\$5.36
44	2064	\$5.51	\$5.10	\$4.51	\$4.44	\$4.14	\$4.15	\$5.01	\$5.34	\$5.63	\$4.98	\$4.94	\$5.41
45	2065	\$5.56	\$5.15	\$4.55	\$4.49	\$4.18	\$4.19	\$5.06	\$5.40	\$5.69	\$5.03	\$4.99	\$5.47

Environmental Compliance Cost Inputs

Real or Nominal?	Real
Source and Pg #:	2020 OR IRP Appendix H - Tab "3)Environ. Compliance - IRP"
Source Link or File Name:	2020 OR IRP - Appendix H.xlsx
Source Notes:	

Environmental Compliance Cost

Year #	Calendar Year	Environmental Compliance Cost (Real 2019\$/MTCO2e)	Carbon Intesity (MTCO2e/Dth)	Environmental Compliance Cost (Real 2019\$/Dth)
1	2021	\$21.13	0.0583	\$1.233
2	2022	\$26.16	0.0583	\$1.526
3	2023	\$26.77	0.0583	\$1.562
4	2024	\$30.14	0.0583	\$1.758
5	2025	\$33.95	0.0583	\$1.980
6	2026	\$38.24	0.0583	\$2.230
7	2027	\$43.06	0.0583	\$2.512
8	2028	\$48.50	0.0583	\$2.829
9	2029	\$54.61	0.0583	\$3.185
10	2030	\$61.50	0.0583	\$3.587
11	2031	\$61.50	0.0583	\$3.587
12	2032	\$61.50	0.0583	\$3.587
13	2033	\$61.50	0.0583	\$3.587
14	2034	\$61.50	0.0583	\$3.587
15	2035	\$61.50	0.0583	\$3.587
16	2036	\$61.50	0.0583	\$3.587
17	2037	\$61.50	0.0583	\$3.587
18	2038	\$61.50	0.0583	\$3.587
19	2039	\$61.50	0.0583	\$3.587
20	2040	\$61.50	0.0583	\$3.587
21	2041	\$61.50	0.0583	\$3.587
22	2042	\$61.50	0.0583	\$3.587
23	2043	\$61.50	0.0583	\$3.587
24	2044	\$61.50	0.0583	\$3.587
25	2045	\$61.50	0.0583	\$3.587
26	2046	\$61.50	0.0583	\$3.587
27	2047	\$61.50	0.0583	\$3.587
28	2048	\$61.50	0.0583	\$3.587
29	2049	\$61.50	0.0583	\$3.587
30	2050	\$61.50	0.0583	\$3.587
31	2051	\$61.50	0.0583	\$3.587
32	2052	\$61.50	0.0583	\$3.587
33	2053	\$61.50	0.0583	\$3.587
34	2054	\$61.50	0.0583	\$3.587
35	2055	\$61.50	0.0583	\$3.587
36	2056	\$61.50	0.0583	\$3.587
37	2057	\$61.50	0.0583	\$3.587
38	2058	\$61.50	0.0583	\$3.587
39	2059	\$61.50	0.0583	\$3.587
40	2060	\$61.50	0.0583	\$3.587
41	2061	\$61.50	0.0583	\$3.587
42	2062	\$61.50	0.0583	\$3.587
43	2063	\$61.50	0.0583	\$3.587
44	2064	\$61.50	0.0583	\$3.587
45	2065	\$61.50	0.0583	\$3.587

Infrastructure Capacity Cost Inputs

Real or Nominal?	Real
Source and Pg #:	2020 OR IRP Appendix H - Tab "4)Infrastruct. Capacity - IRP"
Source Link or File Name:	2020 OR IRP - Appendix H.xlsx
Source Notes:	Peak Day costs are calculated by pulling CNGC Margin numbers from Tariffs 101, 104, 105, 111, 170, 502, 503, 504, 505, 511, 570 then calculating what % of total load each rate class accounts for on peak day. This number is then multiplied by the % of projects related to growth specifically, and then multiplied by the ratio of peak day demand to average daily demand. Peak hour demand is calculated by looking at a recent historical cold week on Cascade's system (1/10/17-1/16-17) and pulling actual hourly demand data, indentifying the highest demand hour on the system from a representative sample of citygates, and calculating what % of the day's demand that hour accounted for. This hourly impact is then multiplied by the Peak Day figure.

Infrastructure Capacity Costs

Year #	Calendar Year	Infrastructure Capacity Costs		
		Supply (Real 2019\$/Dth/Day)	Distribution Peak DAY (Real 2019\$/Dth/Day)	Distribution Peak HOUR (Real 2019\$/Dth/Hour)
1	2021	\$0.000	\$0.119	\$0.006
2	2022	\$0.000	\$0.127	\$0.007
3	2023	\$0.000	\$0.130	\$0.007
4	2024	\$0.000	\$0.121	\$0.006
5	2025	\$0.000	\$0.141	\$0.007
6	2026	\$0.000	\$0.126	\$0.006
7	2027	\$0.000	\$0.126	\$0.006
8	2028	\$0.000	\$0.128	\$0.007
9	2029	\$0.000	\$0.128	\$0.007
10	2030	\$0.000	\$0.129	\$0.007
11	2031	\$0.000	\$0.129	\$0.007
12	2032	\$0.000	\$0.128	\$0.007
13	2033	\$0.226	\$0.128	\$0.007
14	2034	\$0.226	\$0.130	\$0.007
15	2035	\$0.226	\$0.130	\$0.007
16	2036	\$0.226	\$0.131	\$0.007
17	2037	\$0.226	\$0.131	\$0.007
18	2038	\$0.226	\$0.129	\$0.007
19	2039	\$0.226	\$0.131	\$0.007
20	2040	\$0.226	\$0.132	\$0.007
21	2041	\$0.226	\$0.131	\$0.007
22	2042	\$0.226	\$0.000	\$0.000
23	2043	\$0.226	\$0.000	\$0.000
24	2044	\$0.226	\$0.000	\$0.000
25	2045	\$0.226	\$0.000	\$0.000
26	2046	\$0.226	\$0.000	\$0.000
27	2047	\$0.226	\$0.000	\$0.000
28	2048	\$0.226	\$0.000	\$0.000
29	2049	\$0.226	\$0.000	\$0.000
30	2050	\$0.226	\$0.000	\$0.000
31	2051	\$0.226	\$0.000	\$0.000
32	2052	\$0.226	\$0.000	\$0.000
33	2053	\$0.226	\$0.000	\$0.000
34	2054	\$0.226	\$0.000	\$0.000
35	2055	\$0.226	\$0.000	\$0.000
36	2056	\$0.226	\$0.000	\$0.000
37	2057	\$0.226	\$0.000	\$0.000
38	2058	\$0.226	\$0.000	\$0.000
39	2059	\$0.226	\$0.000	\$0.000
40	2060	\$0.226	\$0.000	\$0.000
41	2061	\$0.226	\$0.000	\$0.000
42	2062	\$0.226	\$0.000	\$0.000
43	2063	\$0.226	\$0.000	\$0.000
44	2064	\$0.226	\$0.000	\$0.000
45	2065	\$0.226	\$0.000	\$0.000

Risk Reduction Value Inputs

Real or Nominal?	Real
Source and Pg #:	2020 OR IRP Appendix H - Tab "5)Risk Reduction - IRP"
Source Link or File Name:	2020 OR IRP - Appendix H.xlsx
Source Notes:	CNGC Price forecast as of 9-30-2019

\$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

Year #	Calendar Year	Risk Reduction Value (Real 2019\$/Dth)
1	2021	-\$0.139
2	2022	-\$0.108
3	2023	-\$0.067
4	2024	-\$0.104
5	2025	-\$0.245
6	2026	-\$0.301
7	2027	-\$0.221
8	2028	-\$0.109
9	2029	-\$0.078
10	2030	-\$0.105
11	2031	-\$0.069
12	2032	\$0.000
13	2033	-\$0.001
14	2034	-\$0.016
15	2035	-\$0.030
16	2036	-\$0.057
17	2037	-\$0.141
18	2038	-\$0.459
19	2039	-\$0.304
20	2040	\$0.000

End Use Profiles & Peak Day/Hour Ratios

Source and Pg # and/or Table #:	2020 OR IRP Appendix H - Tab "6) Monthly Load Shape"
Source Link or File Name:	2020 OR IRP - Appendix H.xlsx
Source Notes:	Derived from CNGC Load Forecast

End Use Profiles	Monthly Share of Normal Weather Annual Load												Peak to Annual Normal Weather Usage Ratios	
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Peak Day	Peak Hour
All	0.154178	0.126423	0.107155	0.072351	0.04992	0.035601	0.030266	0.031202	0.041425	0.070827	0.119081	0.16157	N/A	N/A

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.

Alternative Submissions	Rationale for alternative submission: <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 - 2020	Percent						
Inflation Rate - 2021	Percent						
Inflation Rate - 2022	Percent						
Inflation Rate - 2023	Percent						
Inflation Rate - 2024	Percent						
Inflation Rate - 2025	Percent						
Inflation Rate - 2026	Percent						
Inflation Rate - 2027	Percent						
Inflation Rate - 2028	Percent						
Inflation Rate - 2029	Percent						
Inflation Rate - 2030	Percent						
Inflation Rate - 2031	Percent						
Inflation Rate - 2032	Percent						
Inflation Rate - 2033	Percent						
Inflation Rate - 2034	Percent						
Inflation Rate - 2035	Percent						
Inflation Rate - 2036	Percent						
Inflation Rate - 2037	Percent						
Inflation Rate - 2038	Percent						
Inflation Rate - 2039	Percent						
Inflation Rate - 2040	Percent						
Inflation Rate - 2041	Percent						
Inflation Rate - 2042	Percent						
Inflation Rate - 2043	Percent						
Inflation Rate - 2044	Percent						
Inflation Rate - 2045	Percent						
Inflation Rate - 2046	Percent						
Inflation Rate - 2047	Percent						
Inflation Rate - 2048	Percent						
Inflation Rate - 2049	Percent						
Inflation Rate - 2050	Percent						
Regional Act Credit	Percent						
Forecast Period Calendar Start Year	Year						
Real Dollar Base Year	Year						

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

Commodity Price Inputs

Real or Nominal?	Real
Source and Pg #:	CNGC Price Forecast 9-29-2021
Source Link or File Name:	IRP LT Price Forecast 2021-09-29.Xlsx
Source Notes:	

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

Year #	Calendar Year	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	2021	\$2.99	\$2.65	\$2.09	\$1.86	\$1.46	\$1.48	\$2.05	\$2.35	\$2.56	\$5.18	\$5.79	\$6.51
2	2022	\$6.53	\$6.09	\$4.88	\$3.43	\$3.11	\$3.18	\$3.53	\$3.59	\$3.52	\$3.54	\$4.08	\$4.43
3	2023	\$4.37	\$4.15	\$3.59	\$2.59	\$2.46	\$2.50	\$2.72	\$2.74	\$2.73	\$2.75	\$3.30	\$3.54
4	2024	\$3.52	\$3.39	\$3.01	\$2.36	\$2.34	\$2.38	\$2.49	\$2.50	\$2.49	\$2.63	\$3.04	\$3.25
5	2025	\$3.28	\$3.15	\$2.93	\$2.36	\$2.40	\$2.44	\$2.53	\$2.55	\$2.55	\$2.64	\$2.99	\$3.16
6	2026	\$3.18	\$3.04	\$2.86	\$2.45	\$2.52	\$2.56	\$2.64	\$2.65	\$2.66	\$2.75	\$3.05	\$3.18
7	2027	\$3.16	\$3.01	\$2.87	\$2.56	\$2.62	\$2.65	\$2.72	\$2.73	\$2.74	\$2.82	\$3.10	\$3.24
8	2028	\$3.22	\$3.06	\$2.87	\$2.54	\$2.62	\$2.63	\$2.69	\$2.71	\$2.72	\$2.80	\$3.08	\$3.22
9	2029	\$3.30	\$3.05	\$2.99	\$2.80	\$2.86	\$2.86	\$2.88	\$2.78	\$2.78	\$2.87	\$3.08	\$3.21
10	2030	\$3.28	\$3.12	\$3.07	\$2.89	\$2.96	\$2.95	\$2.97	\$2.88	\$2.88	\$2.97	\$3.19	\$3.31
11	2031	\$3.20	\$3.06	\$3.01	\$2.82	\$2.89	\$2.90	\$2.92	\$2.84	\$2.85	\$2.92	\$3.12	\$3.23
12	2032	\$3.34	\$3.15	\$3.14	\$3.01	\$3.09	\$3.10	\$3.11	\$2.96	\$2.98	\$3.07	\$3.26	\$3.36
13	2033	\$3.51	\$3.35	\$3.27	\$3.12	\$3.21	\$3.22	\$3.22	\$3.08	\$3.09	\$3.18	\$3.38	\$3.48
14	2034	\$3.57	\$3.43	\$3.28	\$3.14	\$3.22	\$3.23	\$3.23	\$3.09	\$3.10	\$3.20	\$3.41	\$3.51
15	2035	\$3.54	\$3.40	\$3.31	\$3.17	\$3.27	\$3.28	\$3.27	\$3.15	\$3.16	\$3.25	\$3.48	\$3.59
16	2036	\$3.63	\$3.46	\$3.36	\$3.20	\$3.29	\$3.34	\$3.32	\$3.19	\$3.23	\$3.29	\$3.51	\$3.62
17	2037	\$3.60	\$3.46	\$3.28	\$3.15	\$3.24	\$3.25	\$3.25	\$3.14	\$3.15	\$3.22	\$3.37	\$3.46
18	2038	\$3.62	\$3.47	\$3.39	\$3.23	\$3.32	\$3.33	\$3.34	\$3.23	\$3.23	\$3.31	\$3.62	\$3.72
19	2039	\$3.68	\$3.53	\$3.46	\$3.32	\$3.40	\$3.42	\$3.42	\$3.31	\$3.31	\$3.40	\$3.61	\$3.72
20	2040	\$3.67	\$3.51	\$3.45	\$3.31	\$3.40	\$3.43	\$3.43	\$3.30	\$3.31	\$3.39	\$3.59	\$3.69
21	2041	\$3.71	\$3.55	\$3.49	\$3.34	\$3.44	\$3.47	\$3.47	\$3.33	\$3.34	\$3.43	\$3.62	\$3.73
22	2042	\$3.75	\$3.59	\$3.52	\$3.37	\$3.47	\$3.50	\$3.50	\$3.37	\$3.37	\$3.46	\$3.66	\$3.76
23	2043	\$3.78	\$3.62	\$3.56	\$3.41	\$3.51	\$3.54	\$3.54	\$3.40	\$3.41	\$3.50	\$3.69	\$3.80
24	2044	\$3.82	\$3.66	\$3.59	\$3.44	\$3.54	\$3.57	\$3.57	\$3.43	\$3.44	\$3.53	\$3.73	\$3.84
25	2045	\$3.86	\$3.69	\$3.63	\$3.48	\$3.58	\$3.61	\$3.61	\$3.47	\$3.48	\$3.57	\$3.77	\$3.88
26	2046	\$3.90	\$3.73	\$3.66	\$3.51	\$3.61	\$3.64	\$3.64	\$3.50	\$3.51	\$3.60	\$3.81	\$3.92
27	2047	\$3.94	\$3.77	\$3.70	\$3.55	\$3.65	\$3.68	\$3.68	\$3.54	\$3.55	\$3.64	\$3.84	\$3.96
28	2048	\$3.98	\$3.81	\$3.74	\$3.58	\$3.69	\$3.72	\$3.72	\$3.57	\$3.58	\$3.68	\$3.88	\$3.99
29	2049	\$4.02	\$3.84	\$3.78	\$3.62	\$3.72	\$3.75	\$3.75	\$3.61	\$3.62	\$3.71	\$3.92	\$4.03
30	2050	\$4.06	\$3.88	\$3.81	\$3.65	\$3.76	\$3.79	\$3.79	\$3.65	\$3.65	\$3.75	\$3.96	\$4.07
31	2051	\$4.10	\$3.92	\$3.85	\$3.69	\$3.80	\$3.83	\$3.83	\$3.68	\$3.69	\$3.79	\$4.00	\$4.12
32	2052	\$4.14	\$3.96	\$3.89	\$3.73	\$3.84	\$3.87	\$3.87	\$3.72	\$3.73	\$3.82	\$4.04	\$4.16
33	2053	\$4.18	\$4.00	\$3.93	\$3.76	\$3.87	\$3.91	\$3.91	\$3.76	\$3.76	\$3.86	\$4.08	\$4.20
34	2054	\$4.22	\$4.04	\$3.97	\$3.80	\$3.91	\$3.94	\$3.94	\$3.79	\$3.80	\$3.90	\$4.12	\$4.24
35	2055	\$4.26	\$4.08	\$4.01	\$3.84	\$3.95	\$3.98	\$3.98	\$3.83	\$3.84	\$3.94	\$4.16	\$4.28
36	2056	\$4.31	\$4.12	\$4.05	\$3.88	\$3.99	\$4.02	\$4.02	\$3.87	\$3.88	\$3.98	\$4.20	\$4.33
37	2057	\$4.35	\$4.16	\$4.09	\$3.92	\$4.03	\$4.06	\$4.06	\$3.91	\$3.92	\$4.02	\$4.25	\$4.37
38	2058	\$4.39	\$4.20	\$4.13	\$3.96	\$4.07	\$4.10	\$4.10	\$3.95	\$3.96	\$4.06	\$4.29	\$4.41
39	2059	\$4.44	\$4.25	\$4.17	\$4.00	\$4.11	\$4.15	\$4.15	\$3.99	\$4.00	\$4.10	\$4.33	\$4.46
40	2060	\$4.48	\$4.29	\$4.21	\$4.04	\$4.15	\$4.19	\$4.19	\$4.03	\$4.04	\$4.14	\$4.38	\$4.50
41	2061	\$4.53	\$4.33	\$4.25	\$4.08	\$4.20	\$4.23	\$4.23	\$4.07	\$4.08	\$4.18	\$4.42	\$4.55
42	2062	\$4.57	\$4.37	\$4.30	\$4.12	\$4.24	\$4.27	\$4.27	\$4.11	\$4.12	\$4.23	\$4.46	\$4.59
43	2063	\$4.62	\$4.42	\$4.34	\$4.16	\$4.28	\$4.31	\$4.31	\$4.15	\$4.16	\$4.27	\$4.51	\$4.64
44	2064	\$4.66	\$4.46	\$4.38	\$4.20	\$4.32	\$4.36	\$4.36	\$4.19	\$4.20	\$4.31	\$4.55	\$4.68
45	2065	\$4.71	\$4.51	\$4.43	\$4.24	\$4.37	\$4.40	\$4.40	\$4.23	\$4.24	\$4.35	\$4.60	\$4.73

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

Real or Nominal?	Real
Source and Pg #:	SCC Calculation
Source Link or File Name:	SCC Calculation.Xlsx
Source Notes:	Values for 2051 to 2065 are assumed to be \$1/year increases

Environmental Compliance Cost

Year #	Calendar Year	Environmental Compliance Cost (Real \$/MTCO2e)	Carbon Intesity (MTCO2e/Dth)	Environmental Compliance Cost (Real \$/Dth)
1	2021	\$0.00	0.0531	\$0.000
2	2022	\$79.37	0.0531	\$4.211
3	2023	\$80.61	0.0531	\$4.277
4	2024	\$81.85	0.0531	\$4.343
5	2025	\$84.33	0.0531	\$4.475
6	2026	\$85.57	0.0531	\$4.541
7	2027	\$86.81	0.0531	\$4.606
8	2028	\$88.05	0.0531	\$4.672
9	2029	\$89.29	0.0531	\$4.738
10	2030	\$90.53	0.0531	\$4.804
11	2031	\$91.77	0.0531	\$4.870
12	2032	\$93.01	0.0531	\$4.935
13	2033	\$94.25	0.0531	\$5.001
14	2034	\$95.49	0.0531	\$5.067
15	2035	\$96.73	0.0531	\$5.133
16	2036	\$97.97	0.0531	\$5.199
17	2037	\$100.46	0.0531	\$5.330
18	2038	\$101.70	0.0531	\$5.396
19	2039	\$102.94	0.0531	\$5.462
20	2040	\$104.18	0.0531	\$5.528
21	2041	\$105.42	0.0531	\$5.593
22	2042	\$106.66	0.0531	\$5.659
23	2043	\$107.90	0.0531	\$5.725
24	2044	\$109.14	0.0531	\$5.791
25	2045	\$110.38	0.0531	\$5.857
26	2046	\$111.62	0.0531	\$5.922
27	2047	\$114.10	0.0531	\$6.054
28	2048	\$115.34	0.0531	\$6.120
29	2049	\$116.58	0.0531	\$6.186
30	2050	\$117.82	0.0531	\$6.251
31	2051	\$119.06	0.0531	\$6.317
32	2052	\$120.30	0.0531	\$6.383
33	2053	\$121.54	0.0531	\$6.449
34	2054	\$122.78	0.0531	\$6.515
35	2055	\$124.02	0.0531	\$6.580
36	2056	\$125.26	0.0531	\$6.646
37	2057	\$126.50	0.0531	\$6.712
38	2058	\$127.74	0.0531	\$6.778
39	2059	\$128.98	0.0531	\$6.844
40	2060	\$130.22	0.0531	\$6.909
41	2061	\$131.46	0.0531	\$6.975
42	2062	\$132.70	0.0531	\$7.041
43	2063	\$133.94	0.0531	\$7.107
44	2064	\$135.18	0.0531	\$7.173
45	2065	\$136.42	0.0531	\$7.238

Alternative Submissions	<p>Rationale for alternative submission: <i>Provide an overall rationale for providing alternative values using this box</i></p>
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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 (Real 2019\$/Dth/Day)	Distribution Peak DAY (Real 2019\$/Dth/Day)	Distribution Peak HOUR (Real 2019\$/Dth/Hour)
1	0			
2	1			
3	2			
4	3			
5	4			
6	5			
7	6			
8	7			
9	8			
10	9			
11	10			
12	11			
13	12			
14	13			
15	14			
16	15			
17	16			
18	17			
19	18			
20	19			
21	20			
22	21			
23	22			
24	23			
25	24			
26	25			
27	26			
28	27			
29	28			
30	29			
31	30			
32	31			
33	32			
34	33			
35	34			
36	35			
37	36			
38	37			
39	38			
40	39			
41	40			
42	41			
43	42			
44	43			
45	44			

Alternative Submissions	<p align="center">Rationale for alternative submission: <i>Provide an overall rationale for providing alternative values using this box</i></p>
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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	0	
2	1	
3	2	
4	3	
5	4	
6	5	
7	6	
8	7	
9	8	
10	9	
11	10	
12	11	
13	12	
14	13	
15	14	
16	15	
17	16	
18	17	
19	18	
20	19	

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												Peak to Annual Normal Weather Usage Ratios	
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Peak Day	Peak Hour
	End Use													
All														

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.