
Intermountain Gas Company

Avoided Cost Model

2023 – 2028



INTERMOUNTAIN GAS COMPANY

Avoided Cost by Year

Line No.	Year	Nominal Cost Per Therm ^[1]	Real Percent Adjustment ^[2]	Real Cost Per Therm	Present Value ^[3]	Avoided Cost Per Therm ^[4]
	(a)	(b)	(c)	(d)	(e)	(f)
1	2023	\$ 1.38		\$ 1.38	\$ 1.33	\$ 1.38
2	2024	0.83	-41.53%	0.80	2.08	1.10
3	2025	0.76	-10.69%	0.72	2.73	0.97
4	2026	0.73	-7.15%	0.67	3.31	0.90
5	2027	0.68	-9.91%	0.60	3.82	0.85
6	2028	0.66	-5.39%	0.57	4.28	0.80
7	2029	0.69	0.05%	0.57	4.73	0.77
8	2030	0.71	0.19%	0.57	5.16	0.75
9	2031	0.73	-0.48%	0.57	5.57	0.73
10	2032	0.76	1.84%	0.58	5.98	0.72
11	2033	0.80	1.88%	0.59	6.39	0.71
12	2034	0.84	1.06%	0.59	6.78	0.70
13	2035	0.86	-0.11%	0.59	7.16	0.70
14	2036	0.89	-0.34%	0.59	7.52	0.69
15	2037	0.91	-0.24%	0.59	7.88	0.68
16	2038	0.94	-0.13%	0.59	8.22	0.68
17	2039	0.98	0.63%	0.59	8.55	0.68
18	2040	1.03	2.13%	0.61	8.87	0.67
19	2041	1.10	3.32%	0.63	9.20	0.67
20	2042	1.15	1.62%	0.64	9.52	0.67
21	2043	1.18	-0.35%	0.63	9.82	0.67
22	2044	1.22	0.54%	0.64	10.12	0.67
23	2045	1.27	0.54%	0.64	10.41	0.67
24	2046	1.32	0.54%	0.64	10.70	0.67
25	2047	1.36	0.55%	0.65	10.97	0.67
26	2048	1.42	0.55%	0.65	11.23	0.67
27	2049	1.47	0.55%	0.66	11.49	0.67
28	2050	1.52	0.55%	0.66	11.74	0.67
29	2051	1.58	0.55%	0.66	11.99	0.67
30	2052	1.64	0.55%	0.67	12.22	0.67

NOTES

^[1] See Page 2, Column (e).

^[2] The year over year percentage change in Column (b), adjusted by the inflation assumption on Page 11, Line 4, Column (b).

^[3] The cumulative present value of Column (d) is calculated using the real discount rate on Page 11, Line 5, Column (b).

^[4] Levelized avoided cost of Column (e) computed with the real discount rate on Page 11, Line 5, Column (b).

INTERMOUNTAIN GAS COMPANY

Nominal Avoided Cost by Year

Line No.	Year	Commodity Cost ^{[1][2]}	Variable Distribution Cost ^[3]	Transportation Cost ^[4]	Total Cost ^[5]
	(a)	(b)	(c)	(d)	(e)
1	2023	\$ 1.18	\$ -	\$ 0.20	\$ 1.38
2	2024	0.62	-	0.21	0.83
3	2025	0.55	-	0.21	0.76
4	2026	0.51	-	0.22	0.73
5	2027	0.45	-	0.23	0.68
6	2028	0.43	-	0.23	0.66
7	2029	0.44	-	0.24	0.69
8	2030	0.46	-	0.25	0.71
9	2031	0.47	-	0.26	0.73
10	2032	0.50	-	0.27	0.76
11	2033	0.53	-	0.27	0.80
12	2034	0.55	-	0.28	0.84
13	2035	0.57	-	0.29	0.86
14	2036	0.59	-	0.30	0.89
15	2037	0.60	-	0.31	0.91
16	2038	0.62	-	0.32	0.94
17	2039	0.65	-	0.33	0.98
18	2040	0.69	-	0.34	1.03
19	2041	0.74	-	0.35	1.10
20	2042	0.79	-	0.36	1.15
21	2043	0.81	-	0.37	1.18
22	2044	0.84	-	0.39	1.22
23	2045	0.87	-	0.40	1.27
24	2046	0.91	-	0.41	1.32
25	2047	0.94	-	0.42	1.36
26	2048	0.98	-	0.44	1.42
27	2049	1.02	-	0.45	1.47
28	2050	1.06	-	0.46	1.52
29	2051	1.10	-	0.48	1.58
30	2052	1.14	-	0.49	1.64

NOTES

^[1] See Pages 3-9, Column (f). Nominalized then divided by 10 to convert units from dekatherms to therms.

^[2] Annual growth after 2043 is tied to yearly percentage change of the prior period.

^[3] Placeholder value of zero until a Variable Distribution Cost methodology is developed.

^[4] See Page 10, Line 8, Column (d). Annual growth is tied to inflation assumption from Page 11, Line 4, Column (b).

^[5] Sum of Columns (b)-(d).

INTERMOUNTAIN GAS COMPANY

Commodity Cost

Line No.	Heating Year	Month	Weighted Basin Price Forecast ^[1]	HDD Weight ^[2]	HDD Factor ^[3]	Commodity Cost
	(a)	(b)	(c)	(d)	(e)	(f)
1	2023	10	\$ 5.53	3%	\$ 0.18	
2	2023	11	5.91	8%	0.48	
3	2023	12	14.21	16%	2.23	
4	2023	1	27.73	19%	5.32	
5	2023	2	14.40	16%	2.33	
6	2023	3	4.24	15%	0.66	
7	2023	4	2.57	10%	0.26	
8	2023	5	2.31	7%	0.16	
9	2023	6	2.39	4%	0.08	
10	2023	7	3.06	1%	0.03	
11	2023	8	3.45	0%	0.00	
12	2023	9	3.05	1%	0.02	\$ 11.75
13	2024	10	2.91	3%	0.09	
14	2024	11	5.11	8%	0.42	
15	2024	12	8.26	16%	1.30	
16	2024	1	8.59	19%	1.65	
17	2024	2	7.76	16%	1.26	
18	2024	3	4.64	15%	0.72	
19	2024	4	2.78	10%	0.28	
20	2024	5	2.68	7%	0.19	
21	2024	6	2.68	4%	0.09	
22	2024	7	3.13	1%	0.03	
23	2024	8	3.15	0%	0.00	
24	2024	9	3.11	1%	0.02	\$ 6.04
25	2025	10	3.11	3%	0.10	
26	2025	11	5.14	8%	0.42	
27	2025	12	6.74	16%	1.06	
28	2025	1	6.69	19%	1.28	
29	2025	2	6.20	16%	1.00	
30	2025	3	4.29	15%	0.66	
31	2025	4	2.92	10%	0.29	
32	2025	5	2.92	7%	0.20	
33	2025	6	2.90	4%	0.10	
34	2025	7	3.12	1%	0.03	
35	2025	8	3.19	0%	0.00	
36	2025	9	3.19	1%	0.02	\$ 5.18

NOTES

^[1] Weighted average price forecast for AECO, Sumas, and Rockies supply basins.

^[2] Monthly HDD65 weighting. Based on a normal weather year.

^[3] Column (c) times Column (d).

INTERMOUNTAIN GAS COMPANY

Commodity Cost

Line No.	Heating Year	Month	Weighted Basin Price Forecast ^[1]	HDD Weight ^[2]	HDD Factor ^[3]	Commodity Cost
	(a)	(b)	(c)	(d)	(e)	(f)
1	2026	10	\$ 3.18	3%	\$ 0.10	
2	2026	11	4.71	8%	0.38	
3	2026	12	5.83	16%	0.91	
4	2026	1	5.74	19%	1.10	
5	2026	2	5.33	16%	0.86	
6	2026	3	4.09	15%	0.63	
7	2026	4	2.99	10%	0.30	
8	2026	5	3.00	7%	0.21	
9	2026	6	3.01	4%	0.11	
10	2026	7	3.19	1%	0.03	
11	2026	8	3.18	0%	0.00	
12	2026	9	3.16	1%	0.02	\$ 4.66
13	2027	10	3.16	3%	0.10	
14	2027	11	3.99	8%	0.32	
15	2027	12	4.63	16%	0.73	
16	2027	1	4.53	19%	0.87	
17	2027	2	4.32	16%	0.70	
18	2027	3	3.82	15%	0.59	
19	2027	4	3.10	10%	0.31	
20	2027	5	3.13	7%	0.22	
21	2027	6	3.18	4%	0.11	
22	2027	7	3.19	1%	0.03	
23	2027	8	3.16	0%	0.00	
24	2027	9	3.12	1%	0.02	\$ 4.00
25	2028	10	3.15	3%	0.10	
26	2028	11	3.78	8%	0.31	
27	2028	12	4.06	16%	0.64	
28	2028	1	4.08	19%	0.78	
29	2028	2	3.78	16%	0.61	
30	2028	3	3.53	15%	0.55	
31	2028	4	3.10	10%	0.31	
32	2028	5	3.12	7%	0.22	
33	2028	6	3.14	4%	0.11	
34	2028	7	3.19	1%	0.03	
35	2028	8	3.15	0%	0.00	
36	2028	9	3.10	1%	0.02	\$ 3.68

NOTES

^[1] Weighted average price forecast for AECO, Sumas, and Rockies supply basins.

^[2] Monthly HDD65 weighting. Based on a normal weather year.

^[3] Column (c) times Column (d).

INTERMOUNTAIN GAS COMPANY

Commodity Cost

Line No.	Heating Year	Month	Weighted Basin Price Forecast ^[1]	HDD Weight ^[2]	HDD Factor ^[3]	Commodity Cost
	(a)	(b)	(c)	(d)	(e)	(f)
1	2029	10	\$ 3.12	3%	\$ 0.10	
2	2029	11	3.68	8%	0.30	
3	2029	12	4.03	16%	0.63	
4	2029	1	3.97	19%	0.76	
5	2029	2	3.82	16%	0.62	
6	2029	3	3.63	15%	0.56	
7	2029	4	3.18	10%	0.32	
8	2029	5	3.20	7%	0.22	
9	2029	6	3.22	4%	0.11	
10	2029	7	3.22	1%	0.03	
11	2029	8	3.19	0%	0.00	
12	2029	9	3.15	1%	0.02	\$ 3.68
13	2030	10	3.19	3%	0.10	
14	2030	11	3.76	8%	0.31	
15	2030	12	4.05	16%	0.64	
16	2030	1	3.90	19%	0.75	
17	2030	2	3.58	16%	0.58	
18	2030	3	3.60	15%	0.56	
19	2030	4	3.42	10%	0.34	
20	2030	5	3.44	7%	0.24	
21	2030	6	3.57	4%	0.13	
22	2030	7	3.48	1%	0.03	
23	2030	8	3.24	0%	0.00	
24	2030	9	3.23	1%	0.02	\$ 3.69
25	2031	10	3.29	3%	0.11	
26	2031	11	3.68	8%	0.30	
27	2031	12	3.80	16%	0.60	
28	2031	1	3.78	19%	0.73	
29	2031	2	3.65	16%	0.59	
30	2031	3	3.69	15%	0.57	
31	2031	4	3.48	10%	0.35	
32	2031	5	3.48	7%	0.24	
33	2031	6	3.66	4%	0.13	
34	2031	7	3.57	1%	0.03	
35	2031	8	3.34	0%	0.00	
36	2031	9	3.28	1%	0.02	\$ 3.66

NOTES

^[1] Weighted average price forecast for AECO, Sumas, and Rockies supply basins.

^[2] Monthly HDD65 weighting. Based on a normal weather year.

^[3] Column (c) times Column (d).

INTERMOUNTAIN GAS COMPANY

Commodity Cost

Line No.	Heating Year	Month	Weighted Basin Price Forecast ^[1]	HDD Weight ^[2]	HDD Factor ^[3]	Commodity Cost
	(a)	(b)	(c)	(d)	(e)	(f)
1	2032	10	\$ 3.29	3%	\$ 0.11	
2	2032	11	3.71	8%	0.30	
3	2032	12	3.94	16%	0.62	
4	2032	1	3.88	19%	0.74	
5	2032	2	3.78	16%	0.61	
6	2032	3	3.79	15%	0.59	
7	2032	4	3.59	10%	0.36	
8	2032	5	3.59	7%	0.25	
9	2032	6	3.84	4%	0.13	
10	2032	7	3.72	1%	0.03	
11	2032	8	3.49	0%	0.00	
12	2032	9	3.40	1%	0.02	\$ 3.77
13	2033	10	3.38	3%	0.11	
14	2033	11	3.77	8%	0.31	
15	2033	12	4.04	16%	0.63	
16	2033	1	4.00	19%	0.77	
17	2033	2	3.90	16%	0.63	
18	2033	3	3.85	15%	0.60	
19	2033	4	3.73	10%	0.37	
20	2033	5	3.70	7%	0.26	
21	2033	6	3.98	4%	0.14	
22	2033	7	3.82	1%	0.04	
23	2033	8	3.60	0%	0.00	
24	2033	9	3.50	1%	0.02	\$ 3.88
25	2034	10	3.48	3%	0.11	
26	2034	11	3.88	8%	0.32	
27	2034	12	4.14	16%	0.65	
28	2034	1	4.06	19%	0.78	
29	2034	2	3.99	16%	0.65	
30	2034	3	3.96	15%	0.61	
31	2034	4	3.69	10%	0.37	
32	2034	5	3.66	7%	0.25	
33	2034	6	3.96	4%	0.14	
34	2034	7	3.79	1%	0.04	
35	2034	8	3.59	0%	0.00	
36	2034	9	3.49	1%	0.02	\$ 3.94

NOTES

^[1] Weighted average price forecast for AECO, Sumas, and Rockies supply basins.

^[2] Monthly HDD65 weighting. Based on a normal weather year.

^[3] Column (c) times Column (d).

INTERMOUNTAIN GAS COMPANY

Commodity Cost

Line No.	Heating Year	Month	Weighted Basin Price Forecast ^[1]	HDD Weight ^[2]	HDD Factor ^[3]	Commodity Cost
	(a)	(b)	(c)	(d)	(e)	(f)
1	2035	10	\$ 3.43	3%	\$ 0.11	
2	2035	11	3.84	8%	0.31	
3	2035	12	4.14	16%	0.65	
4	2035	1	4.07	19%	0.78	
5	2035	2	3.96	16%	0.64	
6	2035	3	3.93	15%	0.61	
7	2035	4	3.72	10%	0.37	
8	2035	5	3.69	7%	0.26	
9	2035	6	3.97	4%	0.14	
10	2035	7	3.81	1%	0.04	
11	2035	8	3.61	0%	0.00	
12	2035	9	3.52	1%	0.02	\$ 3.93
13	2036	10	3.47	3%	0.11	
14	2036	11	3.88	8%	0.32	
15	2036	12	4.16	16%	0.65	
16	2036	1	4.01	19%	0.77	
17	2036	2	3.92	16%	0.63	
18	2036	3	3.88	15%	0.60	
19	2036	4	3.72	10%	0.37	
20	2036	5	3.71	7%	0.26	
21	2036	6	3.94	4%	0.14	
22	2036	7	3.81	1%	0.04	
23	2036	8	3.60	0%	0.00	
24	2036	9	3.53	1%	0.02	\$ 3.91
25	2037	10	3.53	3%	0.11	
26	2037	11	3.88	8%	0.32	
27	2037	12	4.11	16%	0.65	
28	2037	1	3.96	19%	0.76	
29	2037	2	3.99	16%	0.65	
30	2037	3	3.87	15%	0.60	
31	2037	4	3.67	10%	0.37	
32	2037	5	3.67	7%	0.25	
33	2037	6	3.90	4%	0.14	
34	2037	7	3.77	1%	0.04	
35	2037	8	3.56	0%	0.00	
36	2037	9	3.47	1%	0.02	\$ 3.90

NOTES

^[1] Weighted average price forecast for AECO, Sumas, and Rockies supply basins.

^[2] Monthly HDD65 weighting. Based on a normal weather year.

^[3] Column (c) times Column (d).

INTERMOUNTAIN GAS COMPANY

Commodity Cost

Line No.	Heating Year	Month	Weighted Basin Price Forecast ^[1]	HDD Weight ^[2]	HDD Factor ^[3]	Commodity Cost
	(a)	(b)	(c)	(d)	(e)	(f)
1	2038	10	\$ 3.48	3%	\$ 0.11	
2	2038	11	3.83	8%	0.31	
3	2038	12	4.07	16%	0.64	
4	2038	1	3.92	19%	0.75	
5	2038	2	3.97	16%	0.64	
6	2038	3	3.91	15%	0.61	
7	2038	4	3.71	10%	0.37	
8	2038	5	3.72	7%	0.26	
9	2038	6	3.92	4%	0.14	
10	2038	7	3.79	1%	0.04	
11	2038	8	3.58	0%	0.00	
12	2038	9	3.52	1%	0.02	\$ 3.89
13	2039	10	3.56	3%	0.12	
14	2039	11	3.87	8%	0.32	
15	2039	12	4.10	16%	0.64	
16	2039	1	3.94	19%	0.76	
17	2039	2	3.95	16%	0.64	
18	2039	3	3.98	15%	0.62	
19	2039	4	3.78	10%	0.38	
20	2039	5	3.79	7%	0.26	
21	2039	6	3.97	4%	0.14	
22	2039	7	3.85	1%	0.04	
23	2039	8	3.65	0%	0.00	
24	2039	9	3.60	1%	0.02	\$ 3.93
25	2040	10	3.65	3%	0.12	
26	2040	11	3.98	8%	0.32	
27	2040	12	4.22	16%	0.66	
28	2040	1	4.08	19%	0.78	
29	2040	2	4.12	16%	0.67	
30	2040	3	4.09	15%	0.63	
31	2040	4	3.89	10%	0.39	
32	2040	5	3.89	7%	0.27	
33	2040	6	4.14	4%	0.15	
34	2040	7	4.05	1%	0.04	
35	2040	8	3.84	0%	0.00	
36	2040	9	3.72	1%	0.02	\$ 4.05

NOTES

^[1] Weighted average price forecast for AECO, Sumas, and Rockies supply basins.

^[2] Monthly HDD65 weighting. Based on a normal weather year.

^[3] Column (c) times Column (d).

INTERMOUNTAIN GAS COMPANY

Commodity Cost

Line No.	Heating Year	Month	Weighted Basin Price Forecast ^[1]	HDD Weight ^[2]	HDD Factor ^[3]	Commodity Cost
	(a)	(b)	(c)	(d)	(e)	(f)
1	2041	10	\$ 3.69	3%	\$ 0.12	
2	2041	11	4.13	8%	0.34	
3	2041	12	4.47	16%	0.70	
4	2041	1	4.32	19%	0.83	
5	2041	2	4.35	16%	0.71	
6	2041	3	4.31	15%	0.67	
7	2041	4	4.01	10%	0.40	
8	2041	5	4.01	7%	0.28	
9	2041	6	4.31	4%	0.15	
10	2041	7	4.20	1%	0.04	
11	2041	8	3.98	0%	0.00	
12	2041	9	3.84	1%	0.02	\$ 4.26
13	2042	10	3.78	3%	0.12	
14	2042	11	4.23	8%	0.34	
15	2042	12	4.58	16%	0.72	
16	2042	1	4.43	19%	0.85	
17	2042	2	4.48	16%	0.73	
18	2042	3	4.45	15%	0.69	
19	2042	4	4.06	10%	0.41	
20	2042	5	4.06	7%	0.28	
21	2042	6	4.34	4%	0.15	
22	2042	7	4.25	1%	0.04	
23	2042	8	4.01	0%	0.00	
24	2042	9	3.88	1%	0.02	\$ 4.36
25	2043	10	3.83	3%	0.12	
26	2043	11	4.26	8%	0.35	
27	2043	12	4.57	16%	0.72	
28	2043	1	4.43	19%	0.85	
29	2043	2	4.44	16%	0.72	
30	2043	3	4.37	15%	0.68	
31	2043	4	4.03	10%	0.40	
32	2043	5	4.04	7%	0.28	
33	2043	6	4.34	4%	0.15	
34	2043	7	4.26	1%	0.04	
35	2043	8	4.01	0%	0.00	
36	2043	9	3.87	1%	0.02	\$ 4.33

NOTES

^[1] Weighted average price forecast for AECO, Sumas, and Rockies supply basins.

^[2] Monthly HDD65 weighting. Based on a normal weather year.

^[3] Column (c) times Column (d).

INTERMOUNTAIN GAS COMPANY

Avoided Gas Transportation Cost

Line No.	Description (a)	RS (b)	GS-1 (c)	Combined RS and GS-1 (d)
1	Gas Transportation Costs ^[1]	\$ 45,330,437	\$ 20,970,743	\$ 66,301,180
2	Estimated Sales Volumes (10/1/22 - 9/30/23) ^[2]	285,288,539	134,964,842	420,253,381
3	RS and GS-1 Combined Gas Transportation Cost per Therm			<u>\$ 0.15776</u>
4	Incremental Gas Transportation Costs ^[3]	\$ 1,287,984	\$ 595,847	\$ 1,883,831
5	Normalized Sales Volumes (1/1/21 - 12/31/21) ^[4]	271,230,531	131,836,767	403,067,298
6	RS and GS-1 Combined Gas Transportation Cost per Therm			<u>\$ 0.00467</u>
7	Gas Transportation Cost ^[5]			<u>\$ 0.03862</u>
8	Total RS and GS-1 Combined Gas Transportation Cost per Therm			<u><u>\$ 0.20105</u></u>

NOTES

^[1] See Case No. INT-G-22-04, Exhibit No. 6, Line 21, Columns (e) and (f).

^[2] See Case No. INT-G-22-04, Exhibit No. 6, Line 22, Columns (e) and (f).

^[3] See Case No. INT-G-22-04, Exhibit No. 5, the sum of Lines 1-20, Columns (i) and (j).

^[4] See Case No. INT-G-22-04, Exhibit No. 5, Line 24, Columns (i) and (j).

^[5] See Case No. INT-G-22-04, Workpaper No. 8, Page 1.

INTERMOUNTAIN GAS COMPANY

Discount Rate

Line No.	Description (a)	Value (b)	Ratio (c)	Weighting (d)	W/Tax benefit (e)
1	Debt ^[1]	4.94%	50%	2.50%	1.98% ^[2]
2	Equity ^[1]	9.50%	50%	4.80%	4.80%
3	Weighted Average Cost of Capital				6.78%
4	Inflation Assumption	3.2%			
5	Real Discount Rate	3.51%			

NOTES

^[1] Costs and weightings from Case No. INT-G-16-02, Order No. 33757.

^[2] Tax benefit adjusts for 21% federal tax.