

2019 Supply Side Table (2018\$)

Description		Resource Characteristics				Costs			Operating Characteristics				Environmental			
Fuel	Resource	Elevation (AFSL)	Net Capacity (MW)	Commercial Operation Year	Design Life (yrs)	Base Capital (\$/KW)	Var O&M (\$/MWh)	Fixed O&M (\$/KW-yr)	Average Full Load Heat Rate (HHV Btu/KWh)/Efficiency	EFOR (%)	POR (%)	Water Consumed (Gal/MWh)	SO2 (lbs/MMBtu)	NOx (lbs/MMBtu)	Hg (lbs/TBTu)	CO2 (lbs/MMBtu)
Natural Gas	SCCT Aero x3, ISO	0	142	2023	30	1,570	7.54	27.14	9279	2.6	3.9	58	0.0006	0.009	0.255	117
Natural Gas	Intercooled SCCT Aero x2, ISO	0	231	2023	30	1,092	5.05	18.78	8725	2.9	3.9	80	0.0006	0.009	0.255	117
Natural Gas	SCCT Frame "F" x1, ISO	0	233	2023	35	704	5.50	13.28	9811	2.7	3.9	20	0.0006	0.009	0.255	117
Natural Gas	IC Recips x 6, ISO	0	111	2023	35	1,810	7.45	29.82	8272	2.5	5.0	5	0.0006	0.0288	0.255	117
Natural Gas	CCCT Dry "G/H", 1x1, ISO	0	419	2024	40	1,469	1.76	20.52	6847	2.5	3.8	11	0.0006	0.0072	0.255	117
Natural Gas	CCCT Dry "G/H", DF, 1x1, ISO	0	51	2024	40	478	0.15	5.39	6847	0.8	3.8	11	0.0006	0.0072	0.255	117
Natural Gas	CCCT Dry "G/H", 2x1, ISO	0	840	2025	40	1,060	1.67	13.79	6861	2.5	3.8	11	0.0006	0.0072	0.255	117
Natural Gas	CCCT Dry "G/H", DF, 2x1, ISO	0	102	2025	40	365	0.16	4.44	6861	0.8	3.8	11	0.0006	0.0072	0.255	117
Natural Gas	CCCT Dry "J/HA.02", 1x1, ISO	0	539	2024	40	1,218	1.70	17.66	6787	2.5	3.8	0	0.0006	0.0072	0.255	117
Natural Gas	CCCT Dry "J/HA.02", DF, 1x1, ISO	0	63	2024	40	407	0.16	4.86	6787	0.8	3.8	0	0.0006	0.0072	0.255	117
Natural Gas	CCCT Dry, "J/HA.02" 2X1, ISO	0	1,083	2025	40	881	1.62	12.00	6787	2.5	3.8	0	0.0006	0.0072	0.255	117
Natural Gas	CCCT Dry "J/HA.02", DF, 2X1, ISO	0	126	2025	40	316	0.16	4.05	6787	0.8	3.8	0	0.0006	0.0072	0.255	117
Natural Gas	SCCT Aero x3	1,500	138	2023	30	1,612	7.76	27.96	9228	2.6	3.9	58	0.0006	0.009	0.255	117
Natural Gas	Intercooled SCCT Aero x2	1,500	221	2023	30	1,143	5.35	19.88	8689	2.9	3.9	80	0.0006	0.009	0.255	117
Natural Gas	SCCT Frame "F" x1	1,500	221	2023	35	741	5.81	14.02	9792	2.7	3.9	20	0.0006	0.009	0.255	117
Natural Gas	IC Recips x 6	1,500	111	2023	35	1,810	7.45	29.82	8272	2.5	5.0	5	0.0006	0.0288	0.255	117
Natural Gas	CCCT Dry "G/H", 1x1	1,500	396	2024	40	1,552	1.86	21.68	6788	2.5	3.8	11	0.0006	0.0072	0.255	117
Natural Gas	CCCT Dry "G/H", DF, 1x1	1,500	51	2024	40	478	0.15	5.39	6788	0.8	3.8	11	0.0006	0.0072	0.255	117
Natural Gas	CCCT Dry "G/H", 2x1	1,500	795	2025	40	1,120	1.77	14.57	6800	2.5	3.8	11	0.0006	0.0072	0.255	117
Natural Gas	CCCT Dry "G/H", DF, 2x1	1,500	102	2025	40	365	0.16	4.44	6800	0.8	3.8	11	0.0006	0.0072	0.255	117
Natural Gas	CCCT Dry "J/HA.02", 1x1	1,500	510	2024	40	1,288	1.80	18.67	6732	2.5	3.8	11	0.0006	0.0072	0.255	117
Natural Gas	CCCT Dry "J/HA.02", DF, 1x1	1,500	63	2024	40	407	0.16	4.86	6732	0.8	3.8	11	0.0006	0.0072	0.255	117
Natural Gas	CCCT Dry, "J/HA.02" 2X1	1,500	1,023	2025	40	932	1.71	12.69	6732	2.5	3.8	11	0.0006	0.0072	0.255	117
Natural Gas	CCCT Dry "J/HA.02", DF, 2X1	1,500	126	2025	40	316	0.16	4.05	6732	0.8	3.8	11	0.0006	0.0072	0.255	117
Natural Gas	SCCT Aero x3	3,000	131	2023	30	1,704	8.21	29.58	9232	2.6	3.9	58	0.0006	0.009	0.255	117
Natural Gas	Intercooled SCCT Aero x2	3,000	209	2023	30	1,209	5.67	21.10	8687	2.9	3.9	80	0.0006	0.009	0.255	117
Natural Gas	SCCT Frame "F" x1	3,000	210	2023	35	782	6.13	14.81	9799	2.7	3.9	20	0.0006	0.009	0.255	117
Natural Gas	IC Recips x 6	3,000	111	2023	35	1,810	7.45	29.82	8273	2.5	5.0	5	0.0006	0.0288	0.255	117
Natural Gas	CCCT Dry "G/H", 1x1	3,000	375	2024	40	1,641	1.97	22.92	6762	2.5	3.8	11	0.0006	0.0072	0.255	117
Natural Gas	CCCT Dry "G/H", DF, 1x1	3,000	51	2024	40	478	0.15	5.39	6762	0.8	3.8	11	0.0006	0.0072	0.255	117
Natural Gas	CCCT Dry "G/H", 2x1	3,000	752	2025	40	1,184	1.86	15.39	6775	2.5	3.8	11	0.0006	0.0072	0.255	117
Natural Gas	CCCT Dry "G/H", DF, 2x1	3,000	102	2025	40	365	0.16	4.44	6775	0.8	3.8	11	0.0006	0.0072	0.255	117
Natural Gas	CCCT Dry "J/HA.02", 1x1	3,000	482	2024	40	1,363	1.90	19.73	6690	2.5	3.8	11	0.0006	0.0072	0.255	117
Natural Gas	CCCT Dry "J/HA.02", DF, 1x1	3,000	63	2024	40	407	0.16	4.86	6690	0.8	3.8	11	0.0006	0.0072	0.255	117
Natural Gas	CCCT Dry, "J/HA.02" 2X1	3,000	967	2025	40	986	1.81	13.41	6692	2.5	3.8	11	0.0006	0.0072	0.255	117
Natural Gas	CCCT Dry "J/HA.02", DF, 2X1	3,000	126	2025	40	316	0.16	4.05	6692	0.8	3.8	11	0.0006	0.0072	0.255	117
Natural Gas	SCCT Aero x3	5,050	122	2023	30	1,829	8.85	31.86	9229	2.6	3.9	58	0.0006	0.009	0.255	117
Natural Gas	Intercooled SCCT Aero x2	5,050	194	2023	30	1,305	6.14	22.82	8680	2.9	3.9	80	0.0006	0.009	0.255	117
Natural Gas	SCCT Frame "F" x1	5,050	194	2023	35	843	6.61	15.97	9805	2.7	3.9	20	0.0006	0.009	0.255	117
Natural Gas	IC Recips x 6	5,050	111	2023	35	1,810	7.45	29.82	8280	2.5	5.0	5	0.0006	0.0288	0.255	117
Natural Gas	CCCT Dry "G/H", 1x1	5,050	344	2024	40	1,788	2.12	24.74	6510	2.5	3.8	11	0.0006	0.0072	0.255	117
Natural Gas	CCCT Dry "G/H", DF, 1x1	5,050	51	2024	40	478	0.15	5.39	6510	0.8	3.8	11	0.0006	0.0072	0.255	117
Natural Gas	CCCT Dry "G/H", 2x1	5,050	687	2025	40	1,297	2.01	16.63	6520	2.5	3.8	11	0.0006	0.0072	0.255	117
Natural Gas	CCCT Dry "G/H", DF, 2x1	5,050	102	2025	40	365	0.16	4.44	6520	0.8	3.8	11	0.0006	0.0072	0.255	117
Natural Gas	CCCT Dry "J/HA.02", 1x1	5,050	442	2024	40	1,485	2.05	21.26	6464	2.5	3.8	11	0.0006	0.0072	0.255	117
Natural Gas	CCCT Dry "J/HA.02", DF, 1x1	5,050	63	2024	40	407	0.16	4.86	6464	0.8	3.8	11	0.0006	0.0072	0.255	117
Natural Gas	CCCT Dry, "J/HA.02" 2X1	5,050	884	2025	40	1,079	1.95	14.45	6469	2.5	3.8	11	0.0006	0.0072	0.255	117
Natural Gas	CCCT Dry "J/HA.02", DF, 2X1	5,050	126	2025	40	316	0.16	4.05	6469	0.8	3.8	11	0.0006	0.0072	0.255	117
Natural Gas	SCCT Aero x3	6,500	113	2023	30	1,975	9.60	34.56	9209	2.6	3.9	58	0.0006	0.009	0.255	117
Natural Gas	Intercooled SCCT Aero x2	6,500	181	2023	30	1,394	6.45	24.00	8694	2.9	3.9	80	0.0006	0.009	0.255	117
Natural Gas	SCCT Frame "F" x1	6,500	185	2023	35	887	6.96	16.81	9786	2.7	3.9	20	0.0006	0.009	0.255	117
Natural Gas	IC Recips x 6	6,500	111	2023	35	1,810	7.75	31.04	8320	2.5	5.0	5	0.0006	0.0288	0.255	117
Natural Gas	CCCT Dry "G/H", 1x1	6,500	333	2024	40	1,843	2.25	26.20	6757	2.5	3.8	11	0.0006	0.0072	0.255	117
Natural Gas	CCCT Dry "G/H", DF, 1x1	6,500	51	2024	40	478	0.15	5.39	6757	0.8	3.8	11	0.0006	0.0072	0.255	117
Natural Gas	CCCT Dry "G/H", 2x1	6,500	669	2025	40	1,330	2.13	17.61	6772	2.5	3.8	11	0.0006	0.0072	0.255	117
Natural Gas	CCCT Dry "G/H", DF, 2x1	6,500	102	2025	40	365	0.16	4.44	6772	0.8	3.8	11	0.0006	0.0072	0.255	117
Natural Gas	CCCT Dry "J/HA.02", 1x1	6,500	424	2024	40	1,549	2.15	22.33	6681	2.5	3.8	11	0.0006	0.0072	0.255	117
Natural Gas	CCCT Dry "J/HA.02", DF, 1x1	6,500	63	2024	40	407	0.16	4.86	6681	0.8	3.8	11	0.0006	0.0072	0.255	117
Natural Gas	CCCT Dry, "J/HA.02" 2X1	6,500	851	2025	40	1,120	2.05	15.18	6681	2.5	3.8	11	0.0006	0.0072	0.255	117
Natural Gas	CCCT Dry "J/HA.02", DF, 2X1	6,500	126	2025	40	316	0.16	4.06	6681	0.8	3.8	11	0.0006	0.0072	0.255	117

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Fuel	Resource	Elevation (AFSL)	Net Capacity (MW)	Commercial Operation Year	Design Life (yrs)	Base Capital (\$/KW)	Var O&M (\$/MWh)	Fixed O&M (\$/KW-yr)	Average Full Load			Water Consumed (Gal/MWh)	SO2 (lbs/MMBtu)	NOx (lbs/MMBtu)	Hg (lbs/TBTu)	CO2 (lbs/MMBtu)
									Heat Rate (HHV Btu/KWh)/Efficiency	EFOR (%)	POR (%)					
Coal	SCPC with CCS	4,500	526	2036	40	6,462	7.00	72.22	13087	5.0	5.0	1,004	0.009	0.070	0.022	20.5
Coal	IGCC with CCS	4,500	466	2036	40	6,257	11.77	58.20	10823	8.0	7.0	394	0.009	0.050	0.333	20.5
Coal	PC CCS retrofit @ 500 MW	4,500	-139	2033	20	1,419	6.47	77.76	14372	5.0	5.0	1,004	0.005	0.070	1.200	20.5
Coal	SCPC with CCS	6,500	692	2036	40	7,318	7.58	67.09	13242	5.0	5.0	1,004	0.009	0.070	0.022	20.5
Coal	IGCC with CCS	6,500	456	2036	40	7,085	14.11	63.40	11047	8.0	7.0	394	0.009	0.050	0.333	20.5
Coal	PC CCS retrofit @ 500 MW	6,500	-139	2031	20	1,607	7.00	72.22	14372	5.0	5.0	1,004	0.005	0.070	1.200	20.5
Geothermal	Blundell Dual Flash 90% CF	4,500	35	2021	40	5,708	1.16	103.85	n/a	5.0	5.0	10	n/a	n/a	n/a	n/a
Geothermal	Greenfield Binary 90% CF	4,500	43	2023	40	5,973	1.16	103.85	n/a	5.0	5.0	270	n/a	n/a	n/a	n/a
Geothermal	Generic Geothermal PPA 90% CF	4,500	30	2021	20	0	77.34	0.00	n/a	5.0	5.0	270	n/a	n/a	n/a	n/a
Wind	3.6 MW Wind turbine 37.1% CF WA, 2020 (100% PTC)	4,500	200	2020	30	1,354	0.00	27.99	n/a	Included with CF	0	n/a	n/a	n/a	n/a	n/a
Wind	3.6 MW Wind turbine 37.1% CF OR, 2020 (100% PTC)	1,500	200	2020	30	1,334	0.00	27.99	n/a	Included with CF	0	n/a	n/a	n/a	n/a	n/a
Wind	3.6 MW Wind turbine 37.1% CF ID, 2020 (100% PTC)	4,500	200	2020	30	1,358	0.00	27.99	n/a	Included with CF	0	n/a	n/a	n/a	n/a	n/a
Wind	3.6 MW Wind turbine 29.5% CF UT, 2020 (100% PTC)	6,500	200	2020	30	1,301	0.00	27.99	n/a	Included with CF	0	n/a	n/a	n/a	n/a	n/a
Wind	3.6 MW Wind turbine 43.6% CF WY, 2020 (100% PTC)	1,500	240	2020	30	1,301	0.65	27.99	n/a	Included with CF	0	n/a	n/a	n/a	n/a	n/a
Wind + Storage	Wind + Stor, Pocatello, ID, 200 MW+ 50 MW 100 MWh	4,500	200	2023	30	1,738	0.00	29.18	1	Included with CF	0	n/a	n/a	n/a	n/a	n/a
Wind + Storage	Wind + Stor, Arlington, OR, 200 MW+ 50 MW 100 MWh	1,500	200	2023	30	1,765	0.00	29.18	1	Included with CF	0	n/a	n/a	n/a	n/a	n/a
Wind + Storage	Wind + Stor, Monticello, UT, 200 MW+ 50 MW 100 MWh	4,500	200	2023	30	1,735	0.00	29.18	1	Included with CF	0	n/a	n/a	n/a	n/a	n/a
Wind + Storage	Wind + Stor, Medicine Bow, WY, 200 MW+ 50 MW 100 MWh	6,500	200	2023	30	1,730	0.65	29.18	1	Included with CF	0	n/a	n/a	n/a	n/a	n/a
Wind + Storage	Wind + Stor, Goldendale, WA, 200 MW+ 50 MW 100 MWh	1,500	200	2023	30	1,772	0.00	29.18	1	Included with CF	0	n/a	n/a	n/a	n/a	n/a
Wind + Storage	Wind + Stor, Pocatello, ID, 200 MW+ 50 MW 200 MWh	4,500	200	2023	30	1,880	0.00	29.88	1	Included with CF	0	n/a	n/a	n/a	n/a	n/a
Wind + Storage	Wind + Stor, Arlington, OR, 200 MW+ 50 MW 200 MWh	1,500	200	2023	30	1,917	0.00	29.88	1	Included with CF	0	n/a	n/a	n/a	n/a	n/a
Wind + Storage	Wind + Stor, Monticello, UT, 200 MW+ 50 MW 200 MWh	4,500	200	2023	30	1,877	0.00	29.88	1	Included with CF	0	n/a	n/a	n/a	n/a	n/a
Wind + Storage	Wind + Stor, Medicine Bow, WY, 200 MW+ 50 MW 200 MWh	6,500	200	2023	30	1,872	0.65	29.88	1	Included with CF	0	n/a	n/a	n/a	n/a	n/a
Wind + Storage	Wind + Stor, Goldendale, WA, 200 MW+ 50 MW 200 MWh	1,500	200	2023	30	1,924	0.00	29.88	1	Included with CF	0	n/a	n/a	n/a	n/a	n/a
Wind + Storage	Wind + Stor, Pocatello, ID, 200 MW+ 50 MW 400 MWh	4,500	200	2023	30	2,158	0.00	31.03	1	Included with CF	0	n/a	n/a	n/a	n/a	n/a
Wind + Storage	Wind + Stor, Arlington, OR, 200 MW+ 50 MW 400 MWh	1,500	200	2023	30	2,214	0.00	31.03	1	Included with CF	0	n/a	n/a	n/a	n/a	n/a
Wind + Storage	Wind + Stor, Monticello, UT, 200 MW+ 50 MW 400 MWh	4,500	200	2023	30	2,155	0.00	31.03	1	Included with CF	0	n/a	n/a	n/a	n/a	n/a
Wind + Storage	Wind + Stor, Medicine Bow, WY, 200 MW+ 50 MW 400 MWh	6,500	200	2023	30	2,150	0.65	31.03	1	Included with CF	0	n/a	n/a	n/a	n/a	n/a
Wind + Storage	Wind + Stor, Goldendale, WA, 200 MW+ 50 MW 400 MWh	1,500	200	2023	30	2,221	0.00	31.03	1	Included with CF	0	n/a	n/a	n/a	n/a	n/a
Solar	PV Idaho Falls, ID, 50 MW, 2021, 28.1% CF (30% ITC)	4,700	50	2021	25	1,366	0.00	21.72	n/a	Included with CF	0	n/a	n/a	n/a	n/a	n/a
Solar	PV Idaho Falls, ID, 200 MW, 2021, 28.1% CF (30% ITC)	4,700	200	2021	25	1,271	0.00	21.72	n/a	Included with CF	0	n/a	n/a	n/a	n/a	n/a
Solar	PV Lakeview, OR, 50 MW, 2021, 29.7% CF (30% ITC)	4,800	50	2021	25	1,424	0.00	22.35	n/a	Included with CF	0	n/a	n/a	n/a	n/a	n/a
Solar	PV Lakeview, OR, 200 MW, 2021, 29.7% CF (30% ITC)	4,800	200	2021	25	1,329	0.00	22.35	n/a	Included with CF	0	n/a	n/a	n/a	n/a	n/a
Solar	PV Milford, UT, 50 MW, 2021, 32.5% CF (30% ITC)	5,000	50	2021	25	1,363	0.00	22.32	n/a	Included with CF	0	n/a	n/a	n/a	n/a	n/a
Solar	PV Milford, UT, 200 MW, 2021, 32.5% CF (30% ITC)	5,000	200	2021	25	1,268	0.00	22.32	n/a	Included with CF	0	n/a	n/a	n/a	n/a	n/a
Solar	PV Rock Springs, WY, 50 MW, 2021, 30.1% CF (30% ITC)	6,400	50	2021	25	1,360	0.00	21.13	n/a	Included with CF	0	n/a	n/a	n/a	n/a	n/a
Solar	PV Rock Springs, WY, 200 MW, 2021, 30.1% CF (30% ITC)	6,400	200	2021	25	1,266	0.00	21.13	n/a	Included with CF	0	n/a	n/a	n/a	n/a	n/a
Solar	PV Yakima, WA, 50 MW, 2021, 26% CF (30% ITC)	1,000	50	2021	25	1,422	0.00	22.35	n/a	Included with CF	0	n/a	n/a	n/a	n/a	n/a
Solar	PV Yakima, WA, 200 MW, 2021, 26% CF (30% ITC)	1,000	200	2021	25	1,327	0.00	22.35	n/a	Included with CF	0	n/a	n/a	n/a	n/a	n/a

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									Heat Rate (HHV Btu/KWh)/Efficiency	EFOR (%)	POR (%)	Consumed (Gal/MWh)	(lbs/MMBtu)	(lbs/MMBtu)	(lbs/TBTu)	(lbs/MMBtu)			
Solar + Storage	PV + Stor, Idaho Falls, ID, 50 MW + 10 MW X 20 MWh (30% ITC)		4,700	50	2021	25	1,628	0.00	23.48				n/a	n/a	n/a	n/a			
Solar + Storage	PV + Stor, Idaho Falls, ID, 200 MW + 50 MW X 100 MWh (30% ITC)		4,700	200	2021	25	1,470	0.00	22.91				n/a	n/a	n/a	n/a			
Solar + Storage	PV + Stor., Idaho Falls, ID, 50 MW + 10 MW X 40 MWh (30% ITC)		4,700	50	2021	25	1,756	0.00	25.03				n/a	n/a	n/a	n/a			
Solar + Storage	PV + Stor, Idaho Falls, ID, 200 MW + 50 MW X 200 MWh (30% ITC)		4,700	200	2021	25	1,614	0.00	24.24				n/a	n/a	n/a	n/a			
Solar + Storage	PV + Stor, Idaho Falls, ID, 50 MW + 10 MW X 80 MWh (30% ITC)		4,700	50	2021	25	1,992	0.00	26.46				n/a	n/a	n/a	n/a			
Solar + Storage	PV + Stor, Idaho Falls, ID, 200 MW + 50 MW X 400 MWh (30% ITC)		4,700	200	2021	25	1,897	0.00	25.36				n/a	n/a	n/a	n/a			
Solar + Storage	PV + Stor, Lakeview, OR, 50 MW + 10 MW X 20 MWh (30% ITC)		4,800	50	2021	25	1,706	0.00	23.48				n/a	n/a	n/a	n/a			
Solar + Storage	PV + Stor, Lakeview, OR, 200 MW + 50 MW X 100 MWh (30% ITC)		4,800	200	2021	25	1,543	0.00	22.91				n/a	n/a	n/a	n/a			
Solar + Storage	PV + Stor, Lakeview, OR, 50 MW + 10 MW X 40 MWh (30% ITC)		4,800	50	2021	25	1,844	0.00	25.03				n/a	n/a	n/a	n/a			
Solar + Storage	PV + Stor, Lakeview, OR, 200 MW + 50 MW X 200 MWh (30% ITC)		4,800	200	2021	25	1,699	0.00	24.24				n/a	n/a	n/a	n/a			
Solar + Storage	PV + Stor, Lakeview, OR, 50 MW + 10 MW X 80 MWh (30% ITC)		4,800	50	2021	25	2,098	0.00	26.46				n/a	n/a	n/a	n/a			
Solar + Storage	PV + Stor., Lakeview, OR, 200 MW + 50 MW X 400 MWh (30% ITC)		4,800	200	2021	25	2,004	0.00	25.36				n/a	n/a	n/a	n/a			
Solar + Storage	PV + Stor., Milford, UT, 50 MW + 10 MW X 20 MWh (30% ITC)		5,000	50	2021	25	1,626	0.00	23.48				n/a	n/a	n/a	n/a			
Solar + Storage	PV + Stor., Milford, UT, 200 MW + 50 MW X 100 MWh (30% ITC)		5,000	200	2021	25	1,467	0.00	22.91				n/a	n/a	n/a	n/a			
Solar + Storage	PV + Stor., Milford, UT 50 MW + 10 MW X 40 MWh (30% ITC)		5,000	50	2021	25	1,754	0.00	25.03				n/a	n/a	n/a	n/a			
Solar + Storage	PV + Stor., Milford, UT, 200 MW + 50 MW X 200 MWh (30% ITC)		5,000	200	2021	25	1,612	0.00	24.24				n/a	n/a	n/a	n/a			
Solar + Storage	PV + Stor., Milford, UT, 50 MW + 10 MW X 80 MWh (30% ITC)		5,000	50	2021	25	1,990	0.00	26.46				n/a	n/a	n/a	n/a			
Solar + Storage	PV + Stor., Milford, UT, 200 MW + 50 MW X 400 MWh (30% ITC)		5,000	200	2021	25	1,895	0.00	25.36				n/a	n/a	n/a	n/a			
Solar + Storage	PV + Stor., Rock Springs, WY, 50 MW + 10 MW X 20 MWh (30% ITC)		6,400	50	2021	25	1,623	0.00	23.48				n/a	n/a	n/a	n/a			
Solar + Storage	PV + Stor., Rock Springs, WY, 200 MW + 50 MW X 100 MWh (30% ITC)		6,400	200	2021	25	1,464	0.00	22.91				n/a	n/a	n/a	n/a			
Solar + Storage	PV + Stor., Rock Springs, WY, 50 MW + 10 MW X 40 MWh (30% ITC)		6,400	50	2021	25	1,751	0.00	25.03				n/a	n/a	n/a	n/a			
Solar + Storage	PV + Stor., Rock Springs, WY, 200 MW + 50 MW X 200 MWh (30% ITC)		6,400	200	2021	25	1,609	0.00	24.24				n/a	n/a	n/a	n/a			
Solar + Storage	PV + Stor., Rock Springs, WY, 50 MW + 10 MW X 80 MWh (30% ITC)		6,400	50	2021	25	1,987	0.00	26.46				n/a	n/a	n/a	n/a			
Solar + Storage	PV + Stor., Rock Springs, WY, 200 MW + 50 MW X 400 MWh (30% ITC)		6,400	200	2021	25	1,892	0.00	25.36				n/a	n/a	n/a	n/a			
Solar + Storage	PV + Stor., Yakima, WA, 50 MW + 10 MW X 20 MWh (30% ITC)		1,000	50	2021	25	1,704	0.00	23.48				n/a	n/a	n/a	n/a			
Solar + Storage	PV + Stor, Yakima, WA, 200 MW + 50 MW X 100 MWh (30% ITC)		1,000	200	2021	25	1,541	0.00	22.91				n/a	n/a	n/a	n/a			
Solar + Storage	PV + Stor, Yakima, WA, 50 MW + 10 MW X 40 MWh (30% ITC)		1,000	50	2021	25	1,842	0.00	25.03				n/a	n/a	n/a	n/a			
Solar + Storage	PV + Stor, Yakima, WA, 200 MW + 50 MW X 200 MWh (30% ITC)		1,000	200	2021	25	1,697	0.00	24.24				n/a	n/a	n/a	n/a			
Solar + Storage	PV + Stor, Yakima, WA, 50 MW + 10 MW X 80 MWh (30% ITC)		1,000	50	2021	25	2,097	0.00	26.46				n/a	n/a	n/a	n/a			
Solar + Storage	PV + Stor, Yakima, WA, 200 MW + 50 MW X 400 MWh (30% ITC)		1,000	200	2021	25	2,002	0.00	25.36				n/a	n/a	n/a	n/a			
Storage	Oregon PS, 400 MW X 3,800 MWh		4,457	400	2025	60	3,095	0.00	16.76				79%	3	7	0	0	0	
Storage	Oregon PS joint ownership, 100 MW X 950 MWh		4,457	100	2025	60	3,099	0.00	16.76				79%	3	7	0	0	0	
Storage	Washington PS, 1,200 MW X 16,800 MWh		500	1,200	2029	60	2,719	0.00	12.50				79%	3	7	0	0	0	
Storage	Wyoming PS, 700 MW X 7,000 MWh		580	700	2027	60	3,255	0.00	17.00				79%	3	7	0	0	0	
Storage	Utah PS, 300 MW X 1,800 MWh		6,359	300	2025	60	2,991	0.00	17.00				79%	3	7	0	0	0	
Storage	Idaho PS, 360 MW X 2,880 MWh		5,000	360	2031	60	2,680	0.00	17.00				79%	3	7	0	0	0	
Storage	CAES, 320 MW X 15,360 MWh		4,600	320	2022	30	1,625	0.00	7.01				4230 / 55%	1	3	0	0	117	
Storage	Li-Ion 1 MW X 250 kWh		0	1	2020	15	1,473	11.42	8.29				88%	1	3	0	0	0	
Storage	Li-Ion 1 MW X 2 MWh		0	1	2020	15	2,615	15.70	23.56				88%	1	3	0	0	0	
Storage	Li-Ion 1 MW X 4 MWh		0	1	2020	15	3,412	14.98	35.23				88%	1	3	0	0	0	
Storage	Li-Ion 1 MW X 8 MWh		0	1	2020	15	5,455	14.98	52.09				88%	1	3	0	0	0	
Storage	Li-Ion 15 MW X 60 MWh		0	15	2020	15	1,766	15.07	11.50				88%	1	3	0	0	0	
Storage	Flow 1 MW X 6 MWh		0	1	2021	15	3,996	0.00	32.00				65%	2	3	0	0	0	
Nuclear	Advanced Fission		5,000	2,234	2030	40	6,765	11.75	101.62				10,710	7.7	7.3	96	0	0	0
Nuclear	Small Modular Reactor x 12		5,000	570	2028	40	6,028	15.50	173.35				10,710	7.7	7.3	65	0	0	0

2019 Supply Side Table (2018\$)

Supply Side Resource Options Mid-Calendar Year 2018 Dollars (\$)	Elevation (AFSL)	Capital Cost \$/kW			Fixed Cost					
		Total Capital Cost ¹	Payment Factor ¹	Annual Payment (\$/kW-Yr)	Fixed O&M \$/kW-Yr					Total Fixed (\$/kW-Yr)
					O&M ¹	Capitalized Premium	O&M Capitalized ¹	Gas Transportation ¹	Total	
Resource Description										
SCCT Aero x3, ISO	0	\$1,570	7.411%	\$116.34	27.14	1.262%	0.34	31.94	59.42	\$175.76
Intercooled SCCT Aero x2, ISO	0	\$1,092	7.411%	\$80.97	18.78	0.273%	0.05	30.03	48.87	\$129.84
SCCT Frame "F" x1, ISO	0	\$704	6.959%	\$48.96	13.28	1.135%	0.15	33.77	47.21	\$96.17
IC Recips x 6, ISO	0	\$1,810	6.959%	\$125.94	29.82	0.136%	0.04	28.47	58.33	\$184.27
CCCT Dry "G/H", 1x1, ISO	0	\$1,469	6.790%	\$99.72	20.52	0.146%	0.03	23.57	44.12	\$143.84
CCCT Dry "G/H", DF, 1x1, ISO	0	\$478	6.790%	\$32.45	5.39	0.000%	0.00	23.57	28.96	\$61.42
CCCT Dry "G/H", 2x1, ISO	0	\$1,060	6.790%	\$71.98	13.79	0.146%	0.02	23.62	37.43	\$109.41
CCCT Dry "G/H", DF, 2x1, ISO	0	\$365	6.790%	\$24.75	4.44	0.000%	0.00	23.62	28.05	\$52.81
CCCT Dry "J/HA.02", 1x1, ISO	0	\$1,218	6.790%	\$82.69	17.66	0.000%	0.00	23.36	41.02	\$123.70
CCCT Dry "J/HA.02", DF, 1x1, ISO	0	\$407	6.790%	\$27.67	4.86	0.000%	0.00	23.36	28.22	\$55.89
CCCT Dry, "J/HA.02" 2X1, ISO	0	\$881	6.790%	\$59.80	12.00	0.146%	0.02	23.36	35.38	\$95.18
CCCT Dry "J/HA.02", DF, 2X1, ISO	0	\$316	6.790%	\$21.45	4.05	0.000%	0.00	23.36	27.42	\$48.86
SCCT Aero x3	1,500	\$1,612	7.411%	\$119.50	27.96	1.262%	0.35	31.76	60.07	\$179.57
Intercooled SCCT Aero x2	1,500	\$1,143	7.411%	\$84.71	19.88	0.273%	0.05	29.91	49.85	\$134.56
SCCT Frame "F" x1	1,500	\$741	6.959%	\$51.54	14.02	1.135%	0.16	33.71	47.89	\$99.43
IC Recips x 6	1,500	\$1,810	6.959%	\$125.94	29.82	0.136%	0.04	28.47	58.33	\$184.27
CCCT Dry "G/H", 1x1	1,500	\$1,552	6.790%	\$105.38	21.68	0.146%	0.03	23.37	45.08	\$150.46
CCCT Dry "G/H", DF, 1x1	1,500	\$478	6.790%	\$32.45	5.39	0.000%	0.00	23.37	28.76	\$61.21
CCCT Dry "G/H", 2x1	1,500	\$1,120	6.790%	\$76.07	14.57	0.146%	0.02	23.41	38.00	\$114.07
CCCT Dry "G/H", DF, 2x1	1,500	\$365	6.790%	\$24.75	4.44	0.000%	0.00	23.41	27.84	\$52.60
CCCT Dry "J/HA.02", 1x1	1,500	\$1,288	6.790%	\$87.46	18.67	0.000%	0.00	23.17	41.84	\$129.30
CCCT Dry "J/HA.02", DF, 1x1	1,500	\$407	6.790%	\$27.67	4.86	0.000%	0.00	23.17	28.03	\$55.70
CCCT Dry, "J/HA.02" 2X1	1,500	\$932	6.790%	\$63.30	12.69	0.146%	0.02	23.17	35.88	\$99.17
CCCT Dry "J/HA.02", DF, 2X1	1,500	\$316	6.790%	\$21.45	4.05	0.000%	0.00	23.17	27.23	\$48.67

2019 Supply Side Table (2018\$)

Resource Description	Elevation (AFSL)	Capital Cost \$/kW			Fixed Cost					
		Total Capital Cost ¹	Payment Factor ¹	Annual Payment (\$/kW-Yr)	Fixed O&M \$/kW-Yr					Total Fixed (\$/kW-Yr)
					O&M ¹	Capitalized Premium	O&M Capitalized ¹	Gas Transportation ¹	Total	
SCCT Aero x3	3,000	\$1,704	7.411%	\$126.26	29.58	1.262%	0.37	16.94	46.89	\$173.15
Intercooled SCCT Aero x2	3,000	\$1,209	7.411%	\$89.58	21.10	0.273%	0.06	15.94	37.10	\$126.68
SCCT Frame "F" x1	3,000	\$782	6.959%	\$54.43	14.81	1.135%	0.17	17.98	32.95	\$87.38
IC Recips x 6	3,000	\$1,810	6.959%	\$125.94	29.82	0.136%	0.04	15.18	45.03	\$170.97
CCCT Dry "G/H", 1x1	3,000	\$1,641	6.790%	\$111.41	22.92	0.146%	0.03	23.28	46.23	\$157.64
CCCT Dry "G/H", DF, 1x1	3,000	\$478	6.790%	\$32.45	5.39	0.000%	0.00	23.28	28.67	\$61.12
CCCT Dry "G/H", 2x1	3,000	\$1,184	6.790%	\$80.42	15.39	0.146%	0.02	12.43	27.85	\$108.27
CCCT Dry "G/H", DF, 2x1	3,000	\$365	6.790%	\$24.75	4.44	0.000%	0.00	12.43	16.87	\$41.62
CCCT Dry "J/HA.02", 1x1	3,000	\$1,363	6.790%	\$92.58	19.73	0.000%	0.00	12.27	32.01	\$124.58
CCCT Dry "J/HA.02", DF, 1x1	3,000	\$407	6.790%	\$27.67	4.86	0.000%	0.00	12.27	17.13	\$44.80
CCCT Dry, "J/HA.02" 2X1	3,000	\$986	6.790%	\$66.98	13.41	0.146%	0.02	12.28	25.71	\$92.69
CCCT Dry "J/HA.02", DF, 2X1	3,000	\$316	6.790%	\$21.45	4.05	0.000%	0.00	12.28	16.33	\$37.78
SCCT Aero x3	5,050	\$1,829	7.411%	\$135.58	31.86	1.262%	0.40	14.06	46.32	\$181.90
Intercooled SCCT Aero x2	5,050	\$1,305	7.411%	\$96.74	22.82	0.273%	0.06	13.22	36.10	\$132.84
SCCT Frame "F" x1	5,050	\$843	6.959%	\$58.69	15.97	1.135%	0.18	14.93	31.08	\$89.77
IC Recips x 6	5,050	\$1,810	6.959%	\$125.94	29.82	0.136%	0.04	12.61	42.47	\$168.41
CCCT Dry "G/H", 1x1	5,050	\$1,788	6.790%	\$121.40	24.74	0.146%	0.04	9.91	34.69	\$156.09
CCCT Dry "G/H", DF, 1x1	5,050	\$478	6.790%	\$32.45	5.39	0.000%	0.00	9.91	15.30	\$47.76
CCCT Dry "G/H", 2x1	5,050	\$1,297	6.790%	\$88.06	16.63	0.146%	0.02	9.93	26.58	\$114.64
CCCT Dry "G/H", DF, 2x1	5,050	\$365	6.790%	\$24.75	4.44	0.000%	0.00	9.93	14.37	\$39.12
CCCT Dry "J/HA.02", 1x1	5,050	\$1,485	6.790%	\$100.84	21.26	0.000%	0.00	9.84	31.10	\$131.95
CCCT Dry "J/HA.02", DF, 1x1	5,050	\$407	6.790%	\$27.67	4.86	0.000%	0.00	9.84	14.70	\$42.37
CCCT Dry, "J/HA.02" 2X1	5,050	\$1,079	6.790%	\$73.29	14.45	0.146%	0.02	9.85	24.33	\$97.61
CCCT Dry "J/HA.02", DF, 2X1	5,050	\$316	6.790%	\$21.45	4.05	0.000%	0.00	9.85	13.91	\$35.35

2019 Supply Side Table (2018\$)

Resource Description	Elevation (AFSL)	Capital Cost \$/kW			Fixed Cost					
		Total Capital Cost ¹	Payment Factor ¹	Annual Payment (\$/kW-Yr)	Fixed O&M \$/kW-Yr					Total Fixed (\$/kW-Yr)
					O&M ¹	Capitalized Premium	O&M Capitalized ¹	Gas Transportation ¹	Total	
SCCT Aero x3	6,500	\$1,975	7.411%	\$146.35	34.56	1.262%	0.44	9.13	44.13	\$190.47
Intercooled SCCT Aero x2	6,500	\$1,394	7.411%	\$103.31	24.00	0.273%	0.07	8.62	32.68	\$136.00
SCCT Frame "F" x1	6,500	\$887	6.959%	\$61.71	16.81	1.135%	0.19	9.70	26.70	\$88.42
IC Recips x 6	6,500	\$1,810	6.959%	\$125.94	31.04	0.136%	0.04	8.24	39.33	\$165.27
CCCT Dry "G/H", 1x1	6,500	\$1,843	6.790%	\$125.17	26.20	0.146%	0.04	20.66	46.90	\$172.07
CCCT Dry "G/H", DF, 1x1	6,500	\$478	6.790%	\$32.45	5.39	0.000%	0.00	20.66	26.05	\$58.50
CCCT Dry "G/H", 2x1	6,500	\$1,330	6.790%	\$90.33	17.61	0.146%	0.03	6.71	24.34	\$114.67
CCCT Dry "G/H", DF, 2x1	6,500	\$365	6.790%	\$24.75	4.44	0.000%	0.00	6.71	11.15	\$35.90
CCCT Dry "J/HA.02", 1x1	6,500	\$1,549	6.790%	\$105.16	22.33	0.000%	0.00	6.62	28.95	\$134.11
CCCT Dry "J/HA.02", DF, 1x1	6,500	\$407	6.790%	\$27.67	4.86	0.000%	0.00	6.62	11.48	\$39.15
CCCT Dry, "J/HA.02" 2X1	6,500	\$1,120	6.790%	\$76.08	15.18	0.146%	0.02	6.62	21.82	\$97.90
CCCT Dry "J/HA.02", DF, 2X1	6,500	\$316	6.790%	\$21.45	4.06	0.000%	0.00	6.62	10.68	\$32.12
Blundell Dual Flash 90% CF	4,500	\$5,708	6.185%	\$0.00	103.85	0.918%	0.95	0.00	104.80	\$104.80
Generic Geothermal PPA 90% CF	4,500	\$0	6.185%	\$0.00	0.00	0.000%	0.00	0.00	0.00	\$0.00
3.6 MW Wind turbine 37.1% CF WA, 2020 (100% PTC)	4,500	\$1,354	6.899%	\$93.42	27.99	2.902%	0.81	0.00	28.80	\$122.22
3.6 MW Wind turbine 37.1% CF OR, 2020 (100% PTC)	1,500	\$1,334	6.899%	\$92.01	27.99	2.902%	0.81	0.00	28.80	\$120.81
3.6 MW Wind turbine 37.1% CF ID, 2020 (100% PTC)	4,500	\$1,358	6.899%	\$93.71	27.99	2.902%	0.81	0.00	28.80	\$122.52
3.6 MW Wind turbine 29.5% CF UT, 2020 (100% PTC)	6,500	\$1,301	6.899%	\$89.79	27.99	2.902%	0.81	0.00	28.80	\$118.59
3.6 MW Wind turbine 43.6% CF WY, 2020 (100% PTC)	1,500	\$1,301	6.899%	\$89.79	27.99	2.902%	0.81	0.00	28.80	\$118.59
2.0 MW Wind turbine 37.1% CF WA,2023 (40% PTC)	4,500	\$1,354	6.899%	\$93.42	27.99	2.902%	0.81	0.00	28.80	\$122.22
2.0 MW Wind turbine 37.1% CF OR, 2023 (40% PTC)	1,500	\$1,334	6.899%	\$92.01	27.99	2.902%	0.81	0.00	28.80	\$120.81
2.0 MW Wind turbine 37.1% CF ID, 2023 (40% PTC)	4,500	\$1,358	6.899%	\$93.71	27.99	2.902%	0.81	0.00	28.80	\$122.52
2.0 MW Wind turbine 29.5% CF UT, 2023 (40% PTC)	6,500	\$1,301	6.899%	\$89.79	27.99	2.902%	0.81	0.00	28.80	\$118.59
3.3 MW Wind turbine 43.6% CF WY, 2023 (40% PTC)	1,500	\$1,301	6.899%	\$89.79	27.99	2.902%	0.81	0.00	28.80	\$118.59
Wind + Stor, Pocatello, ID, 200 MW+ 50 MW 200 MWh	4,500	\$1,880	6.899%	\$129.66	29.88	2.902%	0.87	0.00	30.74	\$160.41
Wind + Stor, Arlington, OR, 200 MW+ 50 MW 200 MWh	1,500	\$1,917	6.899%	\$132.26	29.88	2.902%	0.87	0.00	30.74	\$163.00
Wind + Stor, Monticello, UT, 200 MW+ 50 MW 200 MWh	4,500	\$1,877	6.899%	\$129.51	29.88	2.902%	0.87	0.00	30.74	\$160.25
Wind + Stor, Medicine Bow, WY, 200 MW+ 50 MW 200 MWh	6,500	\$1,872	6.899%	\$129.12	29.88	2.902%	0.87	0.00	30.74	\$159.86
Wind + Stor, Goldendale, WA, 200 MW+ 50 MW 200 MWh	1,500	\$1,924	6.899%	\$132.71	29.88	2.902%	0.87	0.00	30.74	\$163.45
PV Idaho Falls, ID, 200 MW, 2021, 28.1% CF (30% ITC)	4,500	\$1,271	7.712%	\$98.02	21.72	1.379%	0.30	0.00	22.02	\$120.04
PV Lakeview, OR, 200 MW, 2021, 29.7% CF (30% ITC)	4,800	\$1,329	7.712%	\$102.53	22.35	1.379%	0.31	0.00	22.66	\$125.19
PV Milford, UT, 200 MW, 2021, 32.5% CF (30% ITC)	4,500	\$1,268	7.712%	\$97.83	22.32	1.379%	0.31	0.00	22.63	\$120.46
PV Rock Springs, WY, 200 MW, 2021, 30.1% CF (30% ITC)	4,800	\$1,266	7.712%	\$97.62	21.13	1.379%	0.29	0.00	21.42	\$119.04
PV Yakima, WA, 200 MW, 2021, 26% CF (30% ITC)	4,802	\$1,327	7.712%	\$102.36	22.35	1.379%	0.31	0.00	22.66	\$125.02

2019 Supply Side Table (2018\$)

Supply Side Resource Options Mid-Calendar Year 2018 Dollars (\$)	Elevation (AFSL)	Capital Cost \$/kW			Fixed Cost					
		Total Capital Cost ¹	Payment Factor ¹	Annual Payment (\$/kW-Yr)	Fixed O&M \$/kW-Yr					Total Fixed (\$/kW-Yr)
					O&M ¹	Capitalized Premium	O&M Capitalized ¹	Gas Transportation ¹	Total	
Resource Description										
PV Idaho Falls, ID, 200 MW, 2026, 28.1% CF (10% ITC)	4,802	\$1,271	7.712%	\$98.02	21.72	1.379%	0.30	0.00	22.02	\$120.04
PV Lakeview, OR, 200 MW, 2026, 29.7% CF (10% ITC)	4,802	\$1,329	7.712%	\$102.53	22.35	1.379%	0.31	0.00	22.66	\$125.19
PV Milford, UT, 200 MW, 2026, 32.5% CF (10% ITC)	4,802	\$1,268	7.712%	\$97.83	22.32	1.379%	0.31	0.00	22.63	\$120.46
PV Rock Springs, WY, 200 MW, 2026, 30.1% CF (10% ITC)	4,802	\$1,266	7.712%	\$97.62	21.13	1.379%	0.29	0.00	21.42	\$119.04
PV Yakima, WA, 200 MW, 2026, 26% CF (10% ITC)	4,802	\$1,327	7.712%	\$102.36	22.35	1.379%	0.31	0.00	22.66	\$125.02
PV + Stor, Idaho Falls, ID, 200 MW + 50 MW X 200 MWh (30% ITC)	4,802	\$1,614	7.712%	\$124.48	24.24	1.379%	0.33	0.00	24.57	\$149.05
PV + Stor, Lakeview, OR, 200 MW + 50 MW X 200 MWh (30% ITC)	4,802	\$1,699	7.712%	\$131.01	24.24	1.379%	0.33	0.00	24.57	\$155.58
PV + Stor., Milford, UT, 200 MW + 50 MW X 200 MWh (30% ITC)	4,802	\$1,612	7.712%	\$124.29	24.24	1.379%	0.33	0.00	24.57	\$148.86
PV + Stor., Rock Springs, WY, 200 MW + 50 MW X 200 MWh (30% ITC)	4,802	\$1,609	7.712%	\$124.08	24.24	1.379%	0.33	0.00	24.57	\$148.65
PV + Stor, Yakima, WA, 200 MW + 50 MW X 200 MWh (30% ITC)	4,802	\$1,697	7.712%	\$130.86	24.24	1.379%	0.33	0.00	24.57	\$155.43
PV + Stor, Idaho Falls, ID, 200 MW + 50 MW X 200 MWh (10% ITC)	4,802	\$1,614	7.712%	\$124.48	24.24	1.379%	0.33	0.00	24.57	\$149.05
PV + Stor, Lakeview, OR, 200 MW + 50 MW X 200 MWh (10% ITC)	4,802	\$1,699	7.712%	\$131.01	24.24	1.379%	0.33	0.00	24.57	\$155.58
PV + Stor., Milford, UT, 200 MW + 50 MW X 200 MWh (10% ITC)	4,802	\$1,612	7.712%	\$124.29	24.24	1.379%	0.33	0.00	24.57	\$148.86
PV + Stor., Rock Springs, WY, 200 MW + 50 MW X 200 MWh (10% ITC)	4,802	\$1,609	7.712%	\$124.08	24.24	1.379%	0.33	0.00	24.57	\$148.65
PV + Stor, Yakima, WA, 200 MW + 50 MW X 200 MWh (10% ITC)	4,802	\$1,697	7.712%	\$130.86	24.24	1.379%	0.33	0.00	24.57	\$155.43
Oregon PS, 400 MW X 3,800 MWh	4,457	\$3,095	6.142%	\$190.09	16.76	0.000%	0.00	0.00	16.76	\$206.85
Oregon PS joint ownership, 100 MW X 950 MWh	580	\$3,099	6.142%	\$190.38	16.76	0.000%	0.00	0.00	16.76	\$207.14
Washington PS, 1,200 MW X 16,800 MWh	580	\$2,719	6.142%	\$166.98	12.50	0.000%	0.00	0.00	12.50	\$179.48
Wyoming PS, 700 MW X 7,000 MWh	6,359	\$3,255	6.142%	\$199.94	17.00	0.000%	0.00	0.00	17.00	\$216.94
Utah PS, 300 MW X 1,800 MWh	6,360	\$2,991	6.142%	\$183.72	17.00	0.000%	0.00	0.00	17.00	\$200.72
Idaho PS, 360 MW X 2,880 MWh	6,361	\$2,680	6.142%	\$164.61	17.00	0.000%	0.00	0.00	17.00	\$181.61
CAES, 320 MW X 15,360 MWh	4,640	\$1,625	7.411%	\$120.41	7.01	0.000%	0.00	0.00	7.01	\$127.41
Li-Ion 15 MW X 60 MWh	6,359	\$1,766	11.126%	\$196.44	11.50	0.000%	0.00	0.00	11.50	\$207.93
Advanced Fission	5,000	\$6,765	6.639%	\$449.13	101.62	5.687%	5.78	0.00	107.40	\$556.53
Small Modular Reactor x 12	5,000	\$6,028	6.639%	\$400.24	173.35	11.228%	19.46	0.00	192.82	\$593.06

¹ Input into IRP SO and PAR Model
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2019 Supply Side Table (2018\$)

Brownfield Sites

Supply Side Resource Options Mid-Calendar Year 2018 Dollars (\$)	Elevation (AFSL)	Capital Cost \$/kW			Fixed Cost					
		Total Capital Cost ¹	Payment Factor ¹	Annual Payment (\$/kW-Yr)	Fixed O&M \$/kW-Yr					Total Fixed (\$/kW-Yr)
					O&M ¹	Capitalized Premium	O&M Capitalized ¹	Gas Transportation ¹	Total	
Resource Description										
Dave Johnston										
SCCT Aero x3	5,050	\$1,626	7.411%	\$120.52	31.86	1.262%	0.40	28.22	60.48	\$181.00
Intercooled SCCT Aero x2	5,050	\$1,177	7.411%	\$87.27	22.82	0.273%	0.06	26.54	49.42	\$136.69
SCCT Frame "F" x1	5,050	\$709	6.959%	\$49.31	15.97	1.135%	0.18	29.98	46.12	\$95.43
IC Recips x 6	5,050	\$1,577	6.959%	\$109.72	29.82	0.136%	0.04	25.31	55.17	\$164.89
CCCT Dry "G/H", 1x1	5,050	\$1,604	6.790%	\$108.90	24.74	0.146%	0.04	19.90	44.68	\$153.58
CCCT Dry "G/H", DF, 1x1	5,050	\$429	6.790%	\$29.11	5.39	0.000%	0.00	19.90	25.29	\$54.41
CCCT Dry "J/HA.02", 1x1	5,050	\$1,342	6.790%	\$91.12	21.26	0.000%	0.00	19.76	41.02	\$132.14
CCCT Dry "J/HA.02", DF, 1x1	5,050	\$368	6.790%	\$25.00	4.86	0.000%	0.00	19.76	24.62	\$49.62
Hunter										
SCCT Aero x3	5,050	\$1,626	7.411%	\$120.52	31.86	1.262%	0.40	14.06	46.32	\$166.84
Intercooled SCCT Aero x2	5,050	\$1,177	7.411%	\$87.27	22.82	0.273%	0.06	13.22	36.10	\$123.37
SCCT Frame "F" x1	5,050	\$709	6.959%	\$49.31	15.97	1.135%	0.18	14.93	31.08	\$80.39
IC Recips x 6	5,050	\$1,577	6.959%	\$109.72	29.82	0.136%	0.04	12.61	42.47	\$152.18
CCCT Dry "G/H", 1x1	5,050	\$1,604	6.790%	\$108.90	24.74	0.146%	0.04	9.91	34.69	\$143.59
CCCT Dry "G/H", DF, 1x1	5,050	\$429	6.790%	\$29.11	5.39	0.000%	0.00	9.91	15.30	\$44.42
CCCT Dry "J/HA.02", 1x1	5,050	\$1,342	6.790%	\$91.12	21.26	0.000%	0.00	9.84	31.10	\$122.22
CCCT Dry "J/HA.02", DF, 1x1	5,050	\$368	6.790%	\$25.00	4.86	0.000%	0.00	9.84	14.70	\$39.70
Huntington										
SCCT Aero x3	5,050	\$1,626	7.411%	\$120.52	31.86	1.262%	0.40	14.06	46.32	\$166.84
Intercooled SCCT Aero x2	5,050	\$1,177	7.411%	\$87.27	22.82	0.273%	0.06	13.22	36.10	\$123.37
SCCT Frame "F" x1	5,050	\$709	6.959%	\$49.31	15.97	1.135%	0.18	14.93	31.08	\$80.39
IC Recips x 6	5,050	\$1,577	6.959%	\$109.72	29.82	0.136%	0.04	12.61	42.47	\$152.18
CCCT Dry "G/H", 1x1	5,050	\$1,604	6.790%	\$108.90	24.74	0.146%	0.04	9.91	34.69	\$143.59
CCCT Dry "G/H", DF, 1x1	5,050	\$429	6.790%	\$29.11	5.39	0.000%	0.00	9.91	15.30	\$44.42
CCCT Dry "G/H", 2x1	5,050	\$1,200	6.790%	\$81.46	16.63	0.146%	0.02	9.93	26.58	\$108.04
CCCT Dry "G/H", DF, 2x1	5,050	\$337	6.790%	\$22.90	4.44	0.000%	0.00	9.93	14.37	\$37.27
CCCT Dry "J/HA.02", 1x1	5,050	\$1,342	6.790%	\$91.12	21.26	0.000%	0.00	9.84	31.10	\$122.22
CCCT Dry "J/HA.02", DF, 1x1	5,050	\$368	6.790%	\$25.00	4.86	0.000%	0.00	9.84	14.70	\$39.70

2019 Supply Side Table (2018\$)

Brownfield Sites

Supply Side Resource Options Mid-Calendar Year 2018 Dollars (\$)	Elevation (AFSL)	Capital Cost \$/kW			Fixed Cost					
		Total Capital Cost ¹	Payment Factor ¹	Annual Payment (\$/kW-Yr)	Fixed O&M \$/kW-Yr					Total Fixed (\$/kW-Yr)
					O&M ¹	Capitalized Premium	O&M Capitalized ¹	Gas Transportation ¹	Total	
Resource Description										
Jim Bridger										
SCCT Aero x3	6,500	\$1,755	7.411%	\$130.09	34.56	1.262%	0.44	9.13	44.13	\$174.22
Intercooled SCCT Aero x2	6,500	\$1,258	7.411%	\$93.20	24.00	0.273%	0.07	8.62	32.68	\$125.88
SCCT Frame "F" x1	6,500	\$745	6.959%	\$51.85	16.81	1.135%	0.19	9.70	26.70	\$78.56
IC Recips x 6	6,500	\$1,577	6.959%	\$109.71	31.04	0.136%	0.04	8.24	39.33	\$149.04
CCCT Dry "G/H", 1x1	6,500	\$1,654	6.790%	\$112.29	26.20	0.146%	0.04	10.29	36.53	\$148.81
CCCT Dry "G/H", DF, 1x1	6,500	\$429	6.790%	\$29.11	5.39	0.000%	0.00	10.29	15.68	\$44.80
CCCT Dry "J/HA.02", 1x1	6,500	\$1,399	6.790%	\$95.01	22.33	0.000%	0.00	6.62	28.95	\$123.97
CCCT Dry "J/HA.02", DF, 1x1	6,500	\$368	6.790%	\$25.00	4.86	0.000%	0.00	6.62	11.48	\$36.48
Naughton										
SCCT Aero x3	6,500	\$1,755	7.411%	\$130.09	34.56	1.262%	0.44	14.02	49.02	\$179.11
Intercooled SCCT Aero x2	6,500	\$1,258	7.411%	\$93.20	24.00	0.273%	0.07	13.24	37.31	\$130.51
SCCT Frame "F" x1	6,500	\$745	6.959%	\$51.85	16.81	1.135%	0.19	14.90	31.91	\$83.76
IC Recips x 6	6,500	\$1,577	6.959%	\$109.71	31.04	0.136%	0.04	12.67	43.75	\$153.47
CCCT Dry "J/HA.02", 1x1	6,500	\$1,399	6.790%	\$95.01	22.33	0.000%	0.00	10.17	32.51	\$127.52
CCCT Dry "J/HA.02", DF, 1x1	6,500	\$368	6.790%	\$25.00	4.86	0.000%	0.00	10.17	15.03	\$40.03
Wyodak										
SCCT Aero x3	6,500	\$1,755	7.411%	\$130.09	34.56	1.262%	0.44	28.15	63.15	\$193.24
Intercooled SCCT Aero x2	6,500	\$1,258	7.411%	\$93.20	24.00	0.273%	0.07	26.58	50.65	\$143.85
SCCT Frame "F" x1	6,500	\$745	6.959%	\$51.85	16.81	1.135%	0.19	29.92	46.92	\$98.78
IC Recips x 6	6,500	\$1,577	6.959%	\$109.71	31.04	0.136%	0.04	0.00	31.08	\$140.80

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2019 Supply Side Table (2018\$)

Resources not Modeled in 2019 IRP

Supply Side Resource Options Mid-Calendar Year 2018 Dollars (\$)	Elevation (AFSL)	Capital Cost \$/kW			Fixed Cost					
		Total Capital Cost	Payment Factor	Annual Payment (\$/kW-Yr)	Fixed O&M \$/kW-Yr					Total Fixed (\$/kW-Yr)
					O&M	Capitalized Premium	O&M Capitalized	Gas Transportation	Total	
Resource Description										
SCPC with CCS	4,500	\$6,462	6.726%	\$434.61	72.22	5.541%	4.00	0.00	76.23	\$510.84
IGCC with CCS	4,500	\$6,257	6.533%	\$408.75	58.20	0.000%	0.00	0.00	58.20	\$466.95
PC CCS retrofit @ 500 MW	4,500	\$1,419	6.726%	\$95.42	77.76	0.000%	0.00	0.00	77.76	\$173.17
SCPC with CCS	6,500	\$7,318	6.726%	\$492.18	67.09	5.541%	0.00	0.00	67.09	\$559.27
IGCC with CCS	6,500	\$7,085	6.533%	\$462.83	63.40	0.000%	0.00	0.00	63.40	\$526.23
PC CCS retrofit @ 500 MW	6,500	\$1,607	6.712%	\$107.84	72.22	0.000%	0.00	0.00	72.22	\$180.07
Greenfield Binary 90% CF	4,500	\$5,973	6.185%	\$369.45	103.85	0.918%	0.95	0.00	104.80	\$474.26
Wind + Stor, Pocatello, ID, 200 MW+ 50 MW 100 MWh	4,500	\$1,738	6.899%	\$119.87	29.18	2.902%	0.85	0.00	30.03	\$149.90
Wind + Stor, Arlington, OR, 200 MW+ 50 MW 100 MWh	1,500	\$1,765	6.899%	\$121.79	29.18	2.902%	0.85	0.00	30.03	\$151.83
Wind + Stor, Monticello, UT, 200 MW+ 50 MW 100 MWh	4,500	\$1,735	6.899%	\$119.71	29.18	2.902%	0.85	0.00	30.03	\$149.74
Wind + Stor, Medicine Bow, WY, 200 MW+ 50 MW 100 MWh	6,500	\$1,730	6.899%	\$119.32	29.18	2.902%	0.85	0.00	30.03	\$149.35
Wind + Stor, Goldendale, WA, 200 MW+ 50 MW 100 MWh	1,500	\$1,772	6.899%	\$122.24	29.18	2.902%	0.85	0.00	30.03	\$152.27
Wind + Stor, Pocatello, ID, 200 MW+ 50 MW 400 MWh	4,500	\$2,158	6.899%	\$148.85	31.03	2.902%	0.90	0.00	31.93	\$180.78
Wind + Stor, Arlington, OR, 200 MW+ 50 MW 400 MWh	1,500	\$2,214	6.899%	\$152.75	31.03	2.902%	0.90	0.00	31.93	\$184.68
Wind + Stor, Monticello, UT, 200 MW+ 50 MW 400 MWh	4,500	\$2,155	6.899%	\$148.69	31.03	2.902%	0.90	0.00	31.93	\$180.62
Wind + Stor, Medicine Bow, WY, 200 MW+ 50 MW 400 MWh	6,500	\$2,150	6.899%	\$148.30	31.03	2.902%	0.90	0.00	31.93	\$180.23
Wind + Stor, Goldendale, WA, 200 MW+ 50 MW 400 MWh	1,500	\$2,221	6.899%	\$153.22	31.03	2.902%	0.90	0.00	31.93	\$185.15
PV Idaho Falls, ID, 50 MW, 28.1% CF (30% ITC)	4,500	\$1,366	7.712%	\$105.31	21.72	1.379%	0.30	0.00	22.02	\$127.33
PV Lakeview, OR, 50 MW, 2021, 29.7% CF (30% ITC)	4,800	\$1,424	7.712%	\$109.83	22.35	1.379%	0.31	0.00	22.66	\$132.48
PV Milford, UT, 50 MW, 2021, 32.5% CF (30% ITC)	4,500	\$1,363	7.712%	\$105.12	22.32	1.379%	0.31	0.00	22.63	\$127.75
PV Rock Springs, WY, 50 MW, 2021, 30.1% CF (30% ITC)	4,800	\$1,360	7.712%	\$104.91	21.13	1.379%	0.29	0.00	21.42	\$126.34
PV Yakima, WA, 50 MW, 2021, 26% CF (30% ITC)	4,801	\$1,422	7.712%	\$109.66	22.35	1.379%	0.31	0.00	22.66	\$132.31
PV Idaho Falls, ID, 50 MW, 2026, 28.1% CF (10% ITC)	4,802	\$1,366	7.712%	\$105.31	21.72	1.379%	0.30	0.00	22.02	\$127.33
PV Lakeview, OR, 50 MW, 2026, 29.7% CF (10% ITC)	4,802	\$1,424	7.712%	\$109.83	22.35	1.379%	0.31	0.00	22.66	\$132.48
PV Milford, UT, 50 MW, 2026, 32.5% CF (10% ITC)	4,802	\$1,363	7.712%	\$105.12	22.32	1.379%	0.31	0.00	22.63	\$127.75
PV Rock Springs, WY, 50 MW, 2026, 30.1% CF (10% ITC)	4,802	\$1,360	7.712%	\$104.91	21.13	1.379%	0.29	0.00	21.42	\$126.34

2019 Supply Side Table (2018\$)

Resources not Modeled in 2019 IRP

Supply Side Resource Options Mid-Calendar Year 2018 Dollars (\$)	Elevation (AFSL)	Capital Cost \$/kW			Fixed Cost					
		Total Capital Cost	Payment Factor	Annual Payment (\$/kW-Yr)	Fixed O&M \$/kW-Yr					Total Fixed (\$/kW-Yr)
					O&M	Capitalized Premium	O&M Capitalized	Gas Transportation	Total	
Resource Description										
PV Yakima, WA, 50 MW, 2026, 26% CF (10% ITC)	4,802	\$1,422	7.712%	\$109.66	22.35	1.379%	0.31	0.00	22.66	\$132.31
PV + Stor, Idaho Falls, ID, 50 MW + 10 MW X 20 MWh (30% ITC)	4,802	\$1,628	7.712%	\$125.57	23.48	1.379%	0.32	0.00	23.81	\$149.37
PV + Stor, Idaho Falls, ID, 200 MW + 50 MW X 100 MWh (30% ITC)	4,802	\$1,470	7.712%	\$113.34	22.91	1.379%	0.32	0.00	23.23	\$136.57
PV + Stor., Idaho Falls, ID, 50 MW + 10 MW X 40 MWh (30% ITC)	4,802	\$1,756	7.712%	\$135.46	25.03	1.379%	0.35	0.00	25.38	\$160.83
PV + Stor, Idaho Falls, ID, 50 MW + 10 MW X 80 MWh (30% ITC)	4,802	\$1,992	7.712%	\$153.67	26.46	1.379%	0.36	0.00	26.82	\$180.49
PV + Stor, Idaho Falls, ID, 200 MW + 50 MW X 400 MWh (30% ITC)	4,802	\$1,897	7.712%	\$146.31	25.36	1.379%	0.35	0.00	25.71	\$172.01
PV + Stor, Lakeview, OR, 50 MW + 10 MW X 20 MWh (30% ITC)	4,802	\$1,706	7.712%	\$131.56	23.48	1.379%	0.32	0.00	23.81	\$155.37
PV + Stor, Lakeview, OR, 200 MW + 50 MW X 100 MWh (30% ITC)	4,802	\$1,543	7.712%	\$119.00	22.91	1.379%	0.32	0.00	23.23	\$142.23
PV + Stor, Lakeview, OR, 50 MW + 10 MW X 40 MWh (30% ITC)	4,802	\$1,844	7.712%	\$142.22	25.03	1.379%	0.35	0.00	25.38	\$167.59
PV + Stor, Lakeview, OR, 50 MW + 10 MW X 80 MWh (30% ITC)	4,802	\$2,098	7.712%	\$161.83	26.46	1.379%	0.36	0.00	26.82	\$188.66
PV + Stor., Lakeview, OR, 200 MW + 50 MW X 400 MWh (30% ITC)	4,802	\$2,004	7.712%	\$154.52	25.36	1.379%	0.35	0.00	25.71	\$180.23
PV + Stor., Milford, UT, 50 MW + 10 MW X 20 MWh (30% ITC)	4,802	\$1,626	7.712%	\$125.37	23.48	1.379%	0.32	0.00	23.81	\$149.18
PV + Stor., Milford, UT, 200 MW + 50 MW X 100 MWh (30% ITC)	4,802	\$1,467	7.712%	\$113.14	22.91	1.379%	0.32	0.00	23.23	\$136.37
PV + Stor., Milford, UT 50 MW + 10 MW X 40 MWh (30% ITC)	4,802	\$1,754	7.712%	\$135.27	25.03	1.379%	0.35	0.00	25.38	\$160.64
PV + Stor., Milford, UT, 50 MW + 10 MW X 80 MWh (30% ITC)	4,802	\$1,990	7.712%	\$153.48	26.46	1.379%	0.36	0.00	26.82	\$180.30
PV + Stor., Milford, UT, 200 MW + 50 MW X 400 MWh (30% ITC)	4,802	\$1,895	7.712%	\$146.11	25.36	1.379%	0.35	0.00	25.71	\$171.82
PV + Stor., Rock Springs, WY, 50 MW + 10 MW X 20 MWh (30% ITC)	4,802	\$1,623	7.712%	\$125.17	23.48	1.379%	0.32	0.00	23.81	\$148.97
PV + Stor., Rock Springs, WY, 200 MW + 50 MW X 100 MWh (30% ITC)	4,802	\$1,464	7.712%	\$112.94	22.91	1.379%	0.32	0.00	23.23	\$136.17
PV + Stor., Rock Springs, WY, 50 MW + 10 MW X 40 MWh (30% ITC)	4,802	\$1,751	7.712%	\$135.06	25.03	1.379%	0.35	0.00	25.38	\$160.43
PV + Stor., Rock Springs, WY, 50 MW + 10 MW X 80 MWh (30% ITC)	4,802	\$1,987	7.712%	\$153.27	26.46	1.379%	0.36	0.00	26.82	\$180.09
PV + Stor., Rock Springs, WY, 200 MW + 50 MW X 400 MWh (30% ITC)	4,802	\$1,892	7.712%	\$145.91	25.36	1.379%	0.35	0.00	25.71	\$171.61
PV + Stor., Yakima, WA, 50 MW + 10 MW X 20 MWh (30% ITC)	4,802	\$1,704	7.712%	\$131.40	23.48	1.379%	0.32	0.00	23.81	\$155.21
PV + Stor, Yakima, WA, 200 MW + 50 MW X 100 MWh (30% ITC)	4,802	\$1,541	7.712%	\$118.85	22.91	1.379%	0.32	0.00	23.23	\$142.08
PV + Stor, Yakima, WA, 50 MW + 10 MW X 40 MWh (30% ITC)	4,802	\$1,842	7.712%	\$142.07	25.03	1.379%	0.35	0.00	25.38	\$167.45
PV + Stor, Yakima, WA, 50 MW + 10 MW X 80 MWh (30% ITC)	4,802	\$2,097	7.712%	\$161.70	26.46	1.379%	0.36	0.00	26.82	\$188.53
PV + Stor, Yakima, WA, 200 MW + 50 MW X 400 MWh (30% ITC)	4,802	\$2,002	7.712%	\$154.39	25.36	1.379%	0.35	0.00	25.71	\$180.10
Li-Ion 1 MW X 250 kWh	6,359	\$1,473	11.126%	\$163.90	8.29	0.000%	0.00	0.00	8.29	\$172.19
Li-Ion 1 MW X 2 MWh	6,359	\$2,615	11.126%	\$290.96	23.56	0.000%	0.00	0.00	23.56	\$314.52
Li-Ion 1 MW X 4 MWh	6,359	\$3,412	11.126%	\$379.58	35.23	0.000%	0.00	0.00	35.23	\$414.82
Li-Ion 1 MW X 8 MWh	6,359	\$5,455	11.126%	\$606.91	52.09	0.000%	0.00	0.00	52.09	\$659.00
Flow 1 MW X 6 MWh	6,360	\$3,996	11.126%	\$444.59	32.00	0.000%	0.00	0.00	32.00	\$476.59

Total Resource Cost for Supply-Side Resource Options

Supply Side Resource Options Mid-Calendar Year 2018 Dollars (\$)	Convert to \$/MWh						Variable Costs (\$/MWh)					Total Costs and Credits (\$/MWh)			
	Resource Description	Elevation (AFSL)	Capacity Factor ²	Total Fixed (\$/MWh)	Storage Efficiency	Levelized Fuel		O&M ¹	Capitalized Premium	O&M Capitalized ¹	Integration Cost ¹	Environmental	Total Resource Cost	Credits	
						¢/mmBtu	\$/MWh							PTC Tax Credits / ITC (Solar Only)	Total Resource Cost - with PTC / ITC Credits
SCCT Aero x3, ISO	0	33%	60.80	na	320	29.73	7.54	11.48%	0.87	-	-	98.93	-	98.93	
Intercooled SCCT Aero x2, ISO	0	33%	44.91	na	320	27.96	5.05	13.23%	0.67	-	-	78.59	-	78.59	
SCCT Frame "F" x1, ISO	0	33%	33.27	na	320	31.44	5.50	11.48%	0.63	-	-	70.84	-	70.84	
IC Recips x 6, ISO	0	33%	63.74	na	320	26.51	7.45	8.73%	0.65	-	-	98.35	-	98.35	
CCCT Dry "G/H", 1x1, ISO	0	78%	21.05	na	320	21.94	1.76	10.21%	0.18	-	-	44.93	-	44.93	
CCCT Dry "G/H", DF, 1x1, ISO	0	12%	58.42	na	320	21.94	0.15	0.00%	0.00	-	-	80.52	-	80.52	
CCCT Dry "G/H", 2x1, ISO	0	78%	16.01	na	320	21.99	1.67	10.79%	0.18	-	-	39.85	-	39.85	
CCCT Dry "G/H", DF, 2x1, ISO	0	12%	50.24	na	320	21.99	0.16	0.00%	0.00	-	-	72.38	-	72.38	
CCCT Dry "J/HA.02", 1x1, ISO	0	78%	18.10	na	320	21.75	1.70	10.21%	0.17	-	-	41.72	-	41.72	
CCCT Dry "J/HA.02", DF, 1x1, ISO	0	12%	53.17	na	320	21.75	0.16	0.00%	0.00	-	-	75.07	-	75.07	
CCCT Dry, "J/HA.02" 2X1, ISO	0	78%	13.93	na	320	21.75	1.62	10.79%	0.17	-	-	37.47	-	37.47	
CCCT Dry "J/HA.02", DF, 2X1, ISO	0	12%	46.48	na	320	21.75	0.16	0.00%	0.00	-	-	68.39	-	68.39	
SCCT Aero x3	1500	33%	62.12	na	320	29.57	7.76	11.48%	0.89	-	-	100.34	-	100.34	
Intercooled SCCT Aero x2	1500	33%	46.55	na	320	27.84	5.35	13.23%	0.71	-	-	80.45	-	80.45	
SCCT Frame "F" x1	1500	33%	34.40	na	320	31.38	5.81	11.48%	0.67	-	-	72.25	-	72.25	
IC Recips x 6	1500	33%	63.74	na	320	26.51	7.45	8.73%	0.65	-	-	98.35	-	98.35	
CCCT Dry "G/H", 1x1	1500	78%	22.02	na	320	21.75	1.86	10.21%	0.19	-	-	45.82	-	45.82	
CCCT Dry "G/H", DF, 1x1	1500	12%	58.23	na	320	21.75	0.15	0.00%	0.00	-	-	80.14	-	80.14	
CCCT Dry "G/H", 2x1	1500	78%	16.69	na	320	21.79	1.77	10.79%	0.19	-	-	40.44	-	40.44	
CCCT Dry "G/H", DF, 2x1	1500	12%	50.04	na	320	21.79	0.16	0.00%	0.00	-	-	71.98	-	71.98	
CCCT Dry "J/HA.02", 1x1	1500	78%	18.92	na	320	21.57	1.80	10.21%	0.18	-	-	42.48	-	42.48	
CCCT Dry "J/HA.02", DF, 1x1	1500	12%	52.99	na	320	21.57	0.16	0.00%	0.00	-	-	74.71	-	74.71	
CCCT Dry, "J/HA.02" 2X1	1500	78%	14.51	na	320	21.57	1.71	10.79%	0.18	-	-	37.98	-	37.98	
CCCT Dry "J/HA.02", DF, 2X1	1500	12%	46.30	na	320	21.57	0.16	0.00%	0.00	-	-	68.03	-	68.03	
SCCT Aero x3	3000	33%	59.90	na	324	29.90	8.21	11.48%	0.94	-	-	98.95	-	98.95	
Intercooled SCCT Aero x2	3000	33%	43.82	na	324	28.14	5.67	13.23%	0.75	-	-	78.38	-	78.38	
SCCT Frame "F" x1	3000	33%	30.23	na	324	31.74	6.13	11.48%	0.70	-	-	68.80	-	68.80	
IC Recips x 6	3000	33%	59.14	na	324	26.80	7.45	8.73%	0.65	-	-	94.04	-	94.04	
CCCT Dry "G/H", 1x1	3000	78%	23.07	na	324	21.90	1.97	10.21%	0.20	-	-	47.14	-	47.14	
CCCT Dry "G/H", DF, 1x1	3000	12%	58.15	na	324	21.90	0.15	0.00%	0.00	-	-	80.20	-	80.20	
CCCT Dry "G/H", 2x1	3000	78%	15.85	na	324	21.94	1.86	10.79%	0.20	-	-	39.86	-	39.86	
CCCT Dry "G/H", DF, 2x1	3000	12%	39.60	na	324	21.94	0.16	0.00%	0.00	-	-	61.70	-	61.70	
CCCT Dry "J/HA.02", 1x1	3000	78%	18.23	na	324	21.67	1.90	10.21%	0.19	-	-	42.00	-	42.00	
CCCT Dry "J/HA.02", DF, 1x1	3000	12%	42.62	na	324	21.67	0.16	0.00%	0.00	-	-	64.44	-	64.44	
CCCT Dry, "J/HA.02" 2X1	3000	78%	13.56	na	324	21.67	1.81	10.79%	0.19	-	-	37.24	-	37.24	
CCCT Dry "J/HA.02", DF, 2X1	3000	12%	35.94	na	324	21.67	0.16	0.00%	0.00	-	-	57.77	-	57.77	

Total Resource Cost for Supply-Side Resource Options

Supply Side Resource Options Mid-Calendar Year 2018 Dollars (\$)	Convert to \$/MWh						Variable Costs (\$/MWh)					Total Costs and Credits (\$/MWh)		
	Elevation (AFSL)	Capacity Factor ²	Total Fixed (\$/MWh)	Storage Efficiency ¹	Levelized Fuel		O&M ¹	Capitalized Premium	O&M Capitalized ¹	Integration Cost ¹	Environmental	Total Resource Cost	Credits	
					¢/mmBtu	\$/MWh							PTC Tax Credits / ITC (Solar Only)	Total Resource Cost - with PTC / ITC Credits
Resource Description														
SCCT Aero x3	5050	33%	62.92	na	327	30.14	8.85	11.48%	1.02	-	-	102.93	-	102.93
Intercooled SCCT Aero x2	5050	33%	45.95	na	327	28.35	6.14	13.23%	0.81	-	-	81.25	-	81.25
SCCT Frame "F" x1	5050	33%	31.05	na	327	32.02	6.61	11.48%	0.76	-	-	70.45	-	70.45
IC Recips x 6	5050	33%	58.26	na	327	27.04	7.45	8.73%	0.65	-	-	93.40	-	93.40
CCCT Dry "G/H", 1x1	5050	78%	22.84	na	327	21.26	2.12	10.21%	0.22	-	-	46.45	-	46.45
CCCT Dry "G/H", DF, 1x1	5050	12%	45.43	na	327	21.26	0.15	0.00%	0.00	-	-	66.85	-	66.85
CCCT Dry "G/H", 2x1	5050	78%	16.78	na	327	21.29	2.01	10.79%	0.22	-	-	40.30	-	40.30
CCCT Dry "G/H", DF, 2x1	5050	12%	37.21	na	327	21.29	0.16	0.00%	0.00	-	-	58.66	-	58.66
CCCT Dry "J/HA.02", 1x1	5050	78%	19.31	na	327	21.11	2.05	10.21%	0.21	-	-	42.68	-	42.68
CCCT Dry "J/HA.02", DF, 1x1	5050	12%	40.31	na	327	21.11	0.16	0.00%	0.00	-	-	61.57	-	61.57
CCCT Dry, "J/HA.02" 2X1	5050	78%	14.29	na	327	21.13	1.95	10.79%	0.21	-	-	37.57	-	37.57
CCCT Dry "J/HA.02", DF, 2X1	5050	12%	33.63	na	327	21.13	0.16	0.00%	0.00	-	-	54.91	-	54.91
SCCT Aero x3	6500	33%	65.89	na	320	29.50	9.60	11.48%	1.10	-	-	106.09	-	106.09
Intercooled SCCT Aero x2	6500	33%	47.04	na	320	27.85	6.45	13.23%	0.85	-	-	82.20	-	82.20
SCCT Frame "F" x1	6500	33%	30.59	na	320	31.35	6.96	11.48%	0.80	-	-	69.69	-	69.69
IC Recips x 6	6500	33%	57.17	na	320	26.65	7.75	8.73%	0.68	-	-	92.25	-	92.25
CCCT Dry "G/H", 1x1	6500	78%	25.18	na	320	21.64	2.25	10.21%	0.23	-	-	49.31	-	49.31
CCCT Dry "G/H", DF, 1x1	6500	12%	55.65	na	320	21.64	0.15	0.00%	0.00	-	-	77.45	-	77.45
CCCT Dry "G/H", 2x1	6500	78%	16.78	na	320	21.69	2.13	10.79%	0.23	-	-	40.84	-	40.84
CCCT Dry "G/H", DF, 2x1	6500	12%	34.15	na	320	21.69	0.16	0.00%	0.00	-	-	56.00	-	56.00
CCCT Dry "J/HA.02", 1x1	6500	78%	19.63	na	320	21.40	2.15	10.21%	0.22	-	-	43.39	-	43.39
CCCT Dry "J/HA.02", DF, 1x1	6500	12%	37.24	na	320	21.40	0.16	0.00%	0.00	-	-	58.80	-	58.80
CCCT Dry, "J/HA.02" 2X1	6500	78%	14.33	na	320	21.40	2.05	10.79%	0.22	-	-	38.00	-	38.00
CCCT Dry "J/HA.02", DF, 2X1	6500	12%	30.56	na	320	21.40	0.16	0.00%	0.00	-	-	52.12	-	52.12
Blundell Dual Flash 90% CF	4500	90%	13.26	na	0	-	1.16	0.00%	0.00	-	-	14.42	(15.55)	(1.14)
Generic Geothermal PPA 90% CF	4500	90%	-	na	0	-	77.34	0.00%	0.00	-	-	77.34	-	77.34
3.6 MW Wind turbine 37.1% CF WA, 2020 (100% PTC)	4500	37%	37.61	na	0	-	10.00	0.00%	0.00	0.93	-	48.54	(15.55)	32.98
3.6 MW Wind turbine 37.1% CF OR, 2020 (100% PTC)	1500	37%	37.17	na	0	-	10.00	0.00%	0.00	0.93	-	48.10	(15.55)	32.55
3.6 MW Wind turbine 37.1% CF ID, 2020 (100% PTC)	4500	37%	37.70	na	0	-	0.00	0.00%	0.00	0.93	-	38.63	(15.55)	23.07
3.6 MW Wind turbine 29.5% CF UT, 2020 (100% PTC)	6500	30%	45.89	na	0	-	0.00	0.00%	0.00	0.93	-	46.82	(15.55)	31.27
3.6 MW Wind turbine 43.6% CF WY, 2020 (100% PTC)	1500	44%	31.05	na	0	-	0.65	0.00%	0.00	0.93	-	32.63	(15.55)	17.08
2.0 MW Wind turbine 37.1% CF WA,2023 (40% PTC)	4500	37%	37.61	na	0	-	10.00	0.00%	0.00	0.93	-	48.54	(6.22)	42.31
2.0 MW Wind turbine 37.1% CF OR, 2023 (40% PTC)	1500	37%	37.17	na	0	-	10.00	0.00%	0.00	0.93	-	48.10	(6.22)	41.88
2.0 MW Wind turbine 37.1% CF ID, 2023 (40% PTC)	4500	37%	37.70	na	0	-	0.00	0.00%	0.00	0.93	-	38.63	(6.22)	32.41
2.0 MW Wind turbine 29.5% CF UT, 2023 (40% PTC)	6500	30%	45.89	na	0	-	0.00	0.00%	0.00	0.93	-	46.82	(6.22)	40.60
3.3 MW Wind turbine 43.6% CF WY, 2023 (40% PTC)	1500	44%	31.05	na	0	-	0.65	0.00%	0.00	0.93	-	32.63	(6.22)	26.41
Wind + Stor, Pocatello, ID, 200 MW+ 50 MW 200 MWh	4500	37%	49.36	88%	0	-	0.00	0.00%	0.00	0.93	-	50.29	(6.22)	44.06
Wind + Stor, Arlington, OR, 200 MW+ 50 MW 200 MWh	1500	37%	50.15	88%	0	-	10.00	0.00%	0.00	0.93	-	61.08	(6.22)	54.86
Wind + Stor, Monticello, UT, 200 MW+ 50 MW 200 MWh	4500	30%	62.01	88%	0	-	0.00	0.00%	0.00	0.93	-	62.94	(6.22)	56.72
Wind + Stor, Medicine Bow, WY, 200 MW+ 50 MW 200 MWh	6500	44%	41.86	88%	0	-	0.65	0.00%	0.00	0.93	-	43.43	(6.22)	37.21
Wind + Stor, Goldendale, WA, 200 MW+ 50 MW 200 MWh	1500	37%	50.29	88%	0	-	10.00	0.00%	0.00	0.93	-	61.22	(6.22)	55.00

Total Resource Cost for Supply-Side Resource Options

Supply Side Resource Options Mid-Calendar Year 2018 Dollars (\$)	Convert to \$/MWh						Variable Costs (\$/MWh)					Total Costs and Credits (\$/MWh)			
	Resource Description	Elevation (AFSL)	Capacity Factor ²	Total Fixed (\$/MWh)	Storage Efficiency	Levelized Fuel		O&M ¹	Capitalized Premium	O&M Capitalized ¹	Integration Cost ¹	Environmental	Total Resource Cost	Credits	
						¢/mmBtu	\$/MWh							PTC Tax Credits / ITC (Solar Only)	Total Resource Cost - with PTC / ITC Credits
PV Idaho Falls, ID, 200 MW, 2021, 28.1% CF (30% ITC)	4700	28%	48.77	na	0	-	0.00	0.00%	0.00	0.70	-	49.47	(13.57)	35.90	
PV Lakeview, OR, 200 MW, 2021, 29.7% CF (30% ITC)	4800	30%	48.12	na	0	-	0.00	0.00%	0.00	0.70	-	48.82	(13.43)	35.40	
PV Milford, UT, 200 MW, 2021, 32.5% CF (30% ITC)	5000	33%	42.31	na	0	-	0.00	0.00%	0.00	0.70	-	43.01	(11.71)	31.31	
PV Rock Springs, WY, 200 MW, 2021, 30.1% CF (30% ITC)	6400	30%	45.15	na	0	-	0.00	0.00%	0.00	0.70	-	45.85	(12.61)	33.24	
PV Yakima, WA, 200 MW, 2021, 26% CF (30% ITC)	1000	26%	54.89	na	0	-	0.00	0.00%	0.00	0.70	-	55.60	(15.31)	40.28	
PV Idaho Falls, ID, 200 MW, 2026, 28.1% CF (10% ITC)	4700	28%	48.77	na	0	-	0.00	0.00%	0.00	0.70	-	49.47	(4.97)	44.50	
PV Lakeview, OR, 200 MW, 2026, 29.7% CF (10% ITC)	4800	30%	48.12	na	0	-	0.00	0.00%	0.00	0.70	-	48.82	(4.92)	43.91	
PV Milford, UT, 200 MW, 2026, 32.5% CF (10% ITC)	5000	33%	42.31	na	0	-	0.00	0.00%	0.00	0.70	-	43.01	(4.29)	38.73	
PV Rock Springs, WY, 200 MW, 2026, 30.1% CF (10% ITC)	6400	30%	45.15	na	0	-	0.00	0.00%	0.00	0.70	-	45.85	(4.62)	41.23	
PV Yakima, WA, 200 MW, 2026, 26% CF (10% ITC)	1000	26%	54.89	na	0	-	0.00	0.00%	0.00	0.70	-	55.60	(5.61)	49.99	
PV + Stor, Idaho Falls, ID, 200 MW + 50 MW X 200 MWh (30% ITC)	4700	28%	60.55	88%	0	-	0.00	0.00%	0.00	0.70	-	61.25	(17.25)	44.01	
PV + Stor, Lakeview, OR, 200 MW + 50 MW X 200 MWh (30% ITC)	4800	30%	59.80	88%	0	-	0.00	0.00%	0.00	0.70	-	60.50	(17.07)	43.43	
PV + Stor., Milford, UT, 200 MW + 50 MW X 200 MWh (30% ITC)	5000	33%	52.29	88%	0	-	0.00	0.00%	0.00	0.70	-	52.99	(14.88)	38.11	
PV + Stor., Rock Springs, WY, 200 MW + 50 MW X 200 MWh (30% ITC)	6400	30%	56.38	88%	0	-	0.00	0.00%	0.00	0.70	-	57.08	(16.04)	41.04	
PV + Stor, Yakima, WA, 200 MW + 50 MW X 200 MWh (30% ITC)	1000	26%	68.24	88%	0	-	0.00	0.00%	0.00	0.70	-	68.95	(19.47)	49.48	
PV + Stor, Idaho Falls, ID, 200 MW + 50 MW X 200 MWh (10% ITC)	4700	28%	60.55	88%	0	-	0.00	0.00%	0.00	0.70	-	61.25	(6.32)	54.94	
PV + Stor, Lakeview, OR, 200 MW + 50 MW X 200 MWh (10% ITC)	4800	30%	59.80	88%	0	-	0.00	0.00%	0.00	0.70	-	60.50	(6.25)	54.25	
PV + Stor., Milford, UT, 200 MW + 50 MW X 200 MWh (10% ITC)	5000	33%	52.29	88%	0	-	0.00	0.00%	0.00	0.70	-	52.99	(5.45)	47.54	
PV + Stor., Rock Springs, WY, 200 MW + 50 MW X 200 MWh (10% ITC)	6400	30%	56.38	88%	0	-	0.00	0.00%	0.00	0.70	-	57.08	(5.87)	51.21	
PV + Stor, Yakima, WA, 200 MW + 50 MW X 200 MWh (10% ITC)	1000	26%	68.24	88%	0	-	0.00	0.00%	0.00	0.70	-	68.95	(7.13)	61.82	
Oregon PS, 400 MW X 3,800 MWh	4457	36%	65.59	79%	324	27.44	0.00	0.00%	0.00	-	-	93.03	-	93.03	
Oregon PS joint ownership, 100 MW X 950 MWh	4457	36%	65.68	79%	324	27.44	0.00	0.00%	0.00	-	-	93.12	-	93.12	
Washington PS, 1,200 MW X 16,800 MWh	500	36%	56.91	79%	320	27.13	0.00	0.00%	0.00	-	-	84.05	-	84.05	
Wyoming PS, 700 MW X 7,000 MWh	580	36%	68.79	79%	320	27.14	0.00	0.00%	0.00	-	-	95.93	-	95.93	
Utah PS, 300 MW X 1,800 MWh	6359	36%	63.65	79%	327	27.67	0.00	0.00%	0.00	-	-	91.31	-	91.31	
Idaho PS, 360 MW X 2,880 MWh	5000	36%	57.59	79%	327	27.67	0.00	0.00%	0.00	-	-	85.25	-	85.25	
CAES, 320 MW X 15,360 MWh	4600	72%	20.20	55%	327	25.12	0.00	0.00%	0.00	-	-	45.32	-	45.32	
Li-Ion 15 MW X 60 MWh	0	17%	142.42	88%	327	0.00	15.07	0.00%	0.00	-	-	157.49	-	157.49	
Advanced Fission	5000	86%	74.25	na	0	-	11.75	0.00%	0.00	-	-	86.00	-	86.00	
Small Modular Reactor x 12	5000	86%	79.12	na	0	-	15.50	0.00%	0.00	-	-	94.62	-	94.62	

¹ Input into IRP SO and PAR Model

² Wind and solar shapes are input into IRP SO and PAR Model

NC = Not Calculated

Results presented without credits

Information Presented is Illustrative

Total Resource Cost for Supply-Side Resource Options

Brownfield Sites

Supply Side Resource Options Mid-Calendar Year 2018 Dollars (\$)	Elevation (AFSL)	Convert to \$/MWh					Variable Costs (\$/MWh)					Total Costs and Credits (\$/MWh)		
		Capacity Factor ²	Total Fixed (\$/MWh)	Storage Efficiency	Levelized Fuel		O&M ¹	Capitalized Premium	O&M Capitalized ¹	Integration Cost ¹	Environmental	Total Resource Cost	PTC Tax Credits / ITC (Solar Only)	Total Resource Cost - with PTC / ITC Credits
					¢/mmBtu	\$/MWh								
Resource Description														
Dave Johnston														
SCCT Aero x3	5050	33%	62.61	na	320	29.50	8.85	11.48%	1.02	-	-	101.97	-	101.97
Intercooled SCCT Aero x2	5050	33%	47.28	na	320	27.74	6.14	13.23%	0.81	-	-	81.98	-	81.98
SCCT Frame "F" x1	5050	33%	33.01	na	320	31.34	6.61	11.48%	0.76	-	-	71.72	-	71.72
IC Recips x 6	5050	33%	57.04	na	320	26.46	7.45	8.73%	0.65	-	-	91.60	-	91.60
CCCT Dry "G/H", 1x1	5050	78%	22.48	na	320	20.81	2.12	10.21%	0.22	-	-	45.63	-	45.63
CCCT Dry "G/H", DF, 1x1	5050	12%	51.76	na	320	20.81	0.15	0.00%	0.00	-	-	72.72	-	72.72
CCCT Dry "J/HA.02", 1x1	5050	78%	19.34	na	320	20.66	2.05	10.21%	0.21	-	-	42.25	-	42.25
CCCT Dry "J/HA.02", DF, 1x1	5050	12%	47.20	na	320	20.66	0.16	0.00%	0.00	-	-	68.02	-	68.02
Hunter														
SCCT Aero x3	5050	33%	57.71	na	327	30.22	8.85	11.48%	1.02	-	-	97.80	-	97.80
Intercooled SCCT Aero x2	5050	33%	42.68	na	327	28.42	6.14	13.23%	0.81	-	-	78.05	-	78.05
SCCT Frame "F" x1	5050	33%	27.81	na	327	32.11	6.61	11.48%	0.76	-	-	67.29	-	67.29
IC Recips x 6	5050	33%	52.64	na	327	27.11	7.45	8.73%	0.65	-	-	87.85	-	87.85
CCCT Dry "G/H", 1x1	5050	78%	21.02	na	327	21.32	2.12	10.21%	0.22	-	-	44.67	-	44.67
CCCT Dry "G/H", DF, 1x1	5050	12%	42.25	na	327	21.32	0.15	0.00%	0.00	-	-	63.73	-	63.73
CCCT Dry "J/HA.02", 1x1	5050	78%	17.89	na	327	21.17	2.05	10.21%	0.21	-	-	41.31	-	41.31
CCCT Dry "J/HA.02", DF, 1x1	5050	12%	37.77	na	327	21.17	0.16	0.00%	0.00	-	-	59.09	-	59.09
Huntington														
SCCT Aero x3	5050	33%	57.71	na	327	30.22	8.85	11.48%	1.02	-	-	97.80	-	97.80
Intercooled SCCT Aero x2	5050	33%	42.68	na	327	28.42	6.14	13.23%	0.81	-	-	78.05	-	78.05
SCCT Frame "F" x1	5050	33%	27.81	na	327	32.11	6.61	11.48%	0.76	-	-	67.29	-	67.29
IC Recips x 6	5050	33%	52.64	na	327	27.11	7.45	8.73%	0.65	-	-	87.85	-	87.85
CCCT Dry "G/H", 1x1	5050	78%	21.02	na	327	21.32	2.12	10.21%	0.22	-	-	44.67	-	44.67
CCCT Dry "G/H", DF, 1x1	5050	12%	42.25	na	327	21.32	0.15	0.00%	0.00	-	-	63.73	-	63.73
CCCT Dry "G/H", 2x1	5050	78%	15.81	na	327	21.35	2.01	10.79%	0.22	-	-	39.39	-	39.39
CCCT Dry "G/H", DF, 2x1	5050	12%	35.45	na	327	21.35	0.16	0.00%	0.00	-	-	56.96	-	56.96
CCCT Dry "J/HA.02", 1x1	5050	78%	17.89	na	327	21.17	2.05	10.21%	0.21	-	-	41.31	-	41.31
CCCT Dry "J/HA.02", DF, 1x1	5050	12%	37.77	na	327	21.17	0.16	0.00%	0.00	-	-	59.09	-	59.09

Total Resource Cost for Supply-Side Resource Options

Brownfield Sites

Supply Side Resource Options Mid-Calendar Year 2018 Dollars (\$)	Elevation (AFSL)	Convert to \$/MWh					Variable Costs (\$/MWh)					Total Costs and Credits (\$/MWh)		
		Capacity Factor ²	Total Fixed (\$/MWh)	Storage Efficiency	Levelized Fuel		O&M ¹	Capitalized Premium	O&M Capitalized ¹	Integration Cost ¹	Environmental	Total Resource Cost	Credits	
					¢/mmBtu	\$/MWh							PTC Tax Credits / ITC (Solar Only)	Total Resource Cost - with PTC / ITC Credits
Resource Description														
Jim Bridger														
SCCT Aero x3	6500	33%	60.27	na	321	29.57	9.60	11.48%	1.10	-	-	100.54	-	100.54
Intercooled SCCT Aero x2	6500	33%	43.55	na	321	27.92	6.45	13.23%	0.85	-	-	78.77	-	78.77
SCCT Frame "F" x1	6500	33%	27.17	na	321	31.43	6.96	11.48%	0.80	-	-	66.36	-	66.36
IC Recips x 6	6500	33%	51.56	na	321	26.72	7.75	8.73%	0.68	-	-	86.71	-	86.71
CCCT Dry "G/H", 1x1	6500	78%	21.78	na	321	21.70	2.25	10.21%	0.23	-	-	45.96	-	45.96
CCCT Dry "G/H", DF, 1x1	6500	12%	42.61	na	321	21.70	0.15	0.00%	0.00	-	-	64.47	-	64.47
CCCT Dry "J/HA.02", 1x1	6500	78%	18.14	na	321	21.45	2.15	10.21%	0.22	-	-	41.97	-	41.97
CCCT Dry "J/HA.02", DF, 1x1	6500	12%	34.70	na	321	21.45	0.16	0.00%	0.00	-	-	56.31	-	56.31
Naughton														
SCCT Aero x3	6500	33%	61.96	na	327	30.16	9.60	11.48%	1.10	-	-	102.82	-	102.82
Intercooled SCCT Aero x2	6500	33%	45.15	na	327	28.47	6.45	13.23%	0.85	-	-	80.92	-	80.92
SCCT Frame "F" x1	6500	33%	28.98	na	327	32.05	6.96	11.48%	0.80	-	-	68.78	-	68.78
IC Recips x 6	6500	33%	53.09	na	327	27.24	7.75	8.73%	0.68	-	-	88.76	-	88.76
CCCT Dry "J/HA.02", 1x1	6500	78%	18.66	na	327	21.88	2.15	10.21%	0.22	-	-	42.91	-	42.91
CCCT Dry "J/HA.02", DF, 1x1	6500	12%	38.08	na	327	21.88	0.16	0.00%	0.00	-	-	60.11	-	60.11
Wyodak														
SCCT Aero x3	6500	33%	66.85	na	323	29.71	9.60	11.48%	1.10	-	-	107.26	-	107.26
Intercooled SCCT Aero x2	6500	33%	49.76	na	323	28.05	6.45	13.23%	0.85	-	-	85.12	-	85.12
SCCT Frame "F" x1	6500	33%	34.17	na	323	31.58	6.96	11.48%	0.80	-	-	73.51	-	73.51
IC Recips x 6	6500	33%	48.71	na	323	26.85	7.75	8.73%	0.68	-	-	83.98	-	83.98

¹ Input into IRP SO and PAR Model

² Wind and solar shapes are input into IRP SO and PAR Model

NC = Not Calculated

Results presented without credits

Information Presented is Illustrative

Total Resource Cost for Supply-Side Resource Options

Resources not Modeled in 2019 IRP

Supply Side Resource Options Mid-Calendar Year 2018 Dollars (\$)	Convert to \$/MWh						Variable Costs (\$/MWh)					Total Costs and Credits (\$/MWh)		
	Elevation (AFSL)	Capacity Factor	Total Fixed (\$/MWh)	Storage Efficiency	Levelized Fuel		O&M	Capitalized Premium	O&M Capitalized	Integration Cost	Environmental	Total Resource Cost	Credits	
					¢/mmBtu	\$/MWh							PTC Tax Credits / ITC (Solar Only)	Total Resource Cost - with PTC / ITC Credits
Resource Description														
SCPC with CCS	4500	90%	64.62	na	178	23.30	7.00	0.00%	0.00	-	-	94.91	-	94.91
IGCC with CCS	4500	86%	62.30	na	178	19.27	11.77	11.52%	1.36	-	-	94.69	-	94.69
PC CCS retrofit @ 500 MW	4500	90%	21.90	na	178	25.58	6.47	0.00%	0.00	-	-	53.96	-	53.96
SCPC with CCS	6500	90%	70.74	na	178	23.57	7.58	0.00%	0.00	-	-	101.89	-	101.89
IGCC with CCS	6500	86%	70.21	na	178	19.66	14.11	0.00%	0.00	-	-	103.98	-	103.98
PC CCS retrofit @ 500 MW	6500	90%	22.78	na	178	25.58	7.00	0.00%	0.00	-	-	55.36	-	55.36
Greenfield Binary 90% CF	4500	90%	59.99	na	0	-	1.16	0.00%	0.00	-	-	61.15	(15.55)	45.60
Wind + Stor, Pocatello, ID, 200 MW+ 50 MW 100 MWh	4500	37%	46.12	88%	0	-	0.00	0.00%	0.00	0.93	-	47.05	(6.22)	40.83
Wind + Stor, Arlington, OR, 200 MW+ 50 MW 100 MWh	1500	37%	46.72	88%	0	-	10.00	0.00%	0.00	0.93	-	57.65	(6.22)	51.42
Wind + Stor, Monticello, UT, 200 MW+ 50 MW 100 MWh	4500	30%	57.95	88%	0	-	0.00	0.00%	0.00	0.93	-	58.87	(6.22)	52.65
Wind + Stor, Medicine Bow, WY, 200 MW+ 50 MW 100 MWh	6500	44%	39.10	88%	0	-	0.65	0.00%	0.00	0.93	-	40.68	(6.22)	34.46
Wind + Stor, Goldendale, WA, 200 MW+ 50 MW 100 MWh	1500	37%	46.85	88%	0	-	10.00	0.00%	0.00	0.93	-	57.78	(6.22)	51.56
Wind + Stor, Pocatello, ID, 200 MW+ 50 MW 400 MWh	4500	37%	55.62	88%	0	-	0.00	0.00%	0.00	0.93	-	56.55	(6.22)	50.33
Wind + Stor, Arlington, OR, 200 MW+ 50 MW 400 MWh	1500	37%	56.82	88%	0	-	10.00	0.00%	0.00	0.93	-	67.75	(6.22)	61.53
Wind + Stor, Monticello, UT, 200 MW+ 50 MW 400 MWh	4500	30%	69.89	88%	0	-	0.00	0.00%	0.00	0.93	-	70.82	(6.22)	64.60
Wind + Stor, Medicine Bow, WY, 200 MW+ 50 MW 400 MWh	6500	44%	47.19	88%	0	-	0.65	0.00%	0.00	0.93	-	48.77	(6.22)	42.55
Wind + Stor, Goldendale, WA, 200 MW+ 50 MW 400 MWh	1500	37%	56.97	88%	0	-	10.00	0.00%	0.00	0.93	-	67.90	(6.22)	61.68
PV Idaho Falls, ID, 50 MW, 28.1% CF (30% ITC)	4700	28%	51.73	na	0	-	0.00	0.00%	0.00	0.70	-	52.43	(14.58)	37.86
PV Lakeview, OR, 50 MW, 2021, 29.7% CF (30% ITC)	4800	30%	50.92	na	0	-	0.00	0.00%	0.00	0.70	-	51.63	(14.38)	37.24
PV Milford, UT, 50 MW, 2021, 32.5% CF (30% ITC)	5000	33%	44.87	na	0	-	0.00	0.00%	0.00	0.70	-	45.58	(12.58)	32.99
PV Rock Springs, WY, 50 MW, 2021, 30.1% CF (30% ITC)	6400	30%	47.91	na	0	-	0.00	0.00%	0.00	0.70	-	48.62	(13.56)	35.06
PV Yakima, WA, 50 MW, 2021, 26% CF (30% ITC)	1000	26%	58.09	na	0	-	0.00	0.00%	0.00	0.70	-	58.80	(16.40)	42.39
PV Idaho Falls, ID, 50 MW, 2026, 28.1% CF (10% ITC)	4700	28%	51.73	na	0	-	0.00	0.00%	0.00	0.70	-	52.43	(5.34)	47.09
PV Lakeview, OR, 50 MW, 2026, 29.7% CF (10% ITC)	4800	30%	50.92	na	0	-	0.00	0.00%	0.00	0.70	-	51.63	(5.27)	46.36
PV Milford, UT, 50 MW, 2026, 32.5% CF (10% ITC)	5000	33%	44.87	na	0	-	0.00	0.00%	0.00	0.70	-	45.58	(4.61)	40.97
PV Rock Springs, WY, 50 MW, 2026, 30.1% CF (10% ITC)	6400	30%	47.91	na	0	-	0.00	0.00%	0.00	0.70	-	48.62	(4.96)	43.65
PV Yakima, WA, 50 MW, 2026, 26% CF (10% ITC)	1000	26%	58.09	na	0	-	0.00	0.00%	0.00	0.70	-	58.80	(6.01)	52.79

Total Resource Cost for Supply-Side Resource Options

Resources not Modeled in 2019 IRP

Supply Side Resource Options Mid-Calendar Year 2018 Dollars (\$)	Convert to \$/MWh						Variable Costs (\$/MWh)					Total Costs and Credits (\$/MWh)		
	Elevation (AFSL)	Capacity Factor	Total Fixed (\$/MWh)	Storage Efficiency	Levelized Fuel		O&M	Capitalized Premium	O&M Capitalized	Integration Cost	Environmental	Total Resource Cost	Credits	
					c/mmBtu	\$/MWh							PTC Tax Credits / ITC (Solar Only)	Total Resource Cost - with PTC / ITC Credits
Resource Description														
PV + Stor, Idaho Falls, ID, 50 MW + 10 MW X 20 MWh (30% ITC)	4700	28%	60.68	88%	0	-	0.00	0.00%	0.00	0.70	-	61.39	(18.53)	42.85
PV + Stor, Idaho Falls, ID, 200 MW + 50 MW X 100 MWh (30% ITC)	4700	28%	55.48	88%	0	-	0.00	0.00%	0.00	0.70	-	56.18	(17.25)	38.93
PV + Stor., Idaho Falls, ID, 50 MW + 10 MW X 40 MWh (30% ITC)	4700	28%	65.34	88%	0	-	0.00	0.00%	0.00	0.70	-	66.04	(18.53)	47.51
PV + Stor, Idaho Falls, ID, 50 MW + 10 MW X 80 MWh (30% ITC)	4700	28%	73.32	88%	0	-	0.00	0.00%	0.00	0.70	-	74.03	(18.53)	55.50
PV + Stor, Idaho Falls, ID, 200 MW + 50 MW X 400 MWh (30% ITC)	4700	28%	69.88	88%	0	-	0.00	0.00%	0.00	0.70	-	70.58	(17.25)	53.34
PV + Stor, Lakeview, OR, 50 MW + 10 MW X 20 MWh (30% ITC)	4800	30%	59.72	88%	0	-	0.00	0.00%	0.00	0.70	-	60.42	(18.28)	42.14
PV + Stor, Lakeview, OR, 200 MW + 50 MW X 100 MWh (30% ITC)	4800	30%	54.67	88%	0	-	0.00	0.00%	0.00	0.70	-	55.37	(17.07)	38.30
PV + Stor, Lakeview, OR, 50 MW + 10 MW X 40 MWh (30% ITC)	4800	30%	64.42	88%	0	-	0.00	0.00%	0.00	0.70	-	65.12	(18.28)	46.84
PV + Stor, Lakeview, OR, 50 MW + 10 MW X 80 MWh (30% ITC)	4800	30%	72.51	88%	0	-	0.00	0.00%	0.00	0.70	-	73.22	(18.28)	54.93
PV + Stor., Lakeview, OR, 200 MW + 50 MW X 400 MWh (30% ITC)	4800	30%	69.27	88%	0	-	0.00	0.00%	0.00	0.70	-	69.98	(17.07)	52.91
PV + Stor., Milford, UT, 50 MW + 10 MW X 20 MWh (30% ITC)	5000	33%	52.40	88%	0	-	0.00	0.00%	0.00	0.70	-	53.10	(15.99)	37.11
PV + Stor., Milford, UT, 200 MW + 50 MW X 100 MWh (30% ITC)	5000	33%	47.90	88%	0	-	0.00	0.00%	0.00	0.70	-	48.60	(14.88)	33.72
PV + Stor., Milford, UT 50 MW + 10 MW X 40 MWh (30% ITC)	5000	33%	56.43	88%	0	-	0.00	0.00%	0.00	0.70	-	57.13	(15.99)	41.14
PV + Stor., Milford, UT, 50 MW + 10 MW X 80 MWh (30% ITC)	5000	33%	63.33	88%	0	-	0.00	0.00%	0.00	0.70	-	64.03	(15.99)	48.04
PV + Stor., Milford, UT, 200 MW + 50 MW X 400 MWh (30% ITC)	5000	33%	60.35	88%	0	-	0.00	0.00%	0.00	0.70	-	61.06	(14.88)	46.17
PV + Stor., Rock Springs, WY, 50 MW + 10 MW X 20 MWh (30% ITC)	6400	30%	56.50	88%	0	-	0.00	0.00%	0.00	0.70	-	57.20	(17.23)	39.97
PV + Stor., Rock Springs, WY, 200 MW + 50 MW X 100 MWh (30% ITC)	6400	30%	51.64	88%	0	-	0.00	0.00%	0.00	0.70	-	52.34	(16.04)	36.31
PV + Stor., Rock Springs, WY, 50 MW + 10 MW X 40 MWh (30% ITC)	6400	30%	60.85	88%	0	-	0.00	0.00%	0.00	0.70	-	61.55	(17.23)	44.31
PV + Stor., Rock Springs, WY, 50 MW + 10 MW X 80 MWh (30% ITC)	6400	30%	68.30	88%	0	-	0.00	0.00%	0.00	0.70	-	69.00	(17.23)	51.77
PV + Stor., Rock Springs, WY, 200 MW + 50 MW X 400 MWh (30% ITC)	6400	30%	65.09	88%	0	-	0.00	0.00%	0.00	0.70	-	65.79	(16.04)	49.75
PV + Stor., Yakima, WA, 50 MW + 10 MW X 20 MWh (30% ITC)	1000	26%	68.15	88%	0	-	0.00	0.00%	0.00	0.70	-	68.85	(20.85)	48.00
PV + Stor, Yakima, WA, 200 MW + 50 MW X 100 MWh (30% ITC)	1000	26%	62.38	88%	0	-	0.00	0.00%	0.00	0.70	-	63.08	(19.47)	43.62
PV + Stor, Yakima, WA, 50 MW + 10 MW X 40 MWh (30% ITC)	1000	26%	73.52	88%	0	-	0.00	0.00%	0.00	0.70	-	74.22	(20.85)	53.37
PV + Stor, Yakima, WA, 50 MW + 10 MW X 80 MWh (30% ITC)	1000	26%	82.77	88%	0	-	0.00	0.00%	0.00	0.70	-	83.48	(20.85)	62.62
PV + Stor, Yakima, WA, 200 MW + 50 MW X 400 MWh (30% ITC)	1000	26%	79.07	88%	0	-	0.00	0.00%	0.00	0.70	-	79.78	(19.47)	60.31
Li-Ion 1 MW X 250 kWh	0	1%	1,886.99	88%	327	0.00	11.42	0.00%	0.00	-	-	1,898.41	-	1,898.41
Li-Ion 1 MW X 2 MWh	0	8%	430.85	88%	327	0.00	15.70	0.00%	0.00	-	-	446.55	-	446.55
Li-Ion 1 MW X 4 MWh	0	17%	284.12	88%	327	0.00	14.98	0.00%	0.00	-	-	299.11	-	299.11
Li-Ion 1 MW X 8 MWh	0	33%	225.69	88%	327	0.00	14.98	0.00%	0.00	-	-	240.67	-	240.67
Flow 1 MW X 6 MWh	0	25%	217.62	65%	327	0.00	0.00	0.00%	0.00	-	-	217.62	-	217.62