

Short Description	Long Description	Technology	Type	Ownership (Utility or PPA)	First Year Available	Plant Size (MW) (59F)	Storage (MWh)	Capital Cost Excludes AFUDC (\$/mill)	Capital Cost Excludes AFUDC (2018\$/kW)	Transmission Upgrades (2018 \$000)	Fixed O&M (2018\$/kW/Yr)	Variable Costs (2018\$/MWh)	Forced Outage (%)	Development (Yrs)	Tax Depreciation Life	Book Depreciation Life
Advanced Large Frame CT	GE - 7F.06 Simple Cycle	Frame SC	Brownfield	Utility	2020	245.0	n/a	160.6	656	0	2.0	2.00	3	3	20	30
Advanced Small Frame CT	GE- 7E.03 Simple Cycle	Frame SC	Brownfield	Utility	2020	84.0	n/a	78.6	936	0	5.0	3.00	3	3	20	30
Frame/Aero Hybrid CT	GE-LMS100PB Wet Intercooler DLN	Advanced Aero SC	Brownfield	Utility	2021	92.0	n/a	92.1	1,001	0	3.0	3.00	3	3	20	30
Large Reciprocating Engine Facility	10X Wartsila 18V50SG-B	NG Recip	Greenfield	Utility	2021	184.2	n/a	188.7	1,024	0	7.0	3.00	3	3	20	30
Small Reciprocating Engine Facility (Option 2)	Jenbacher 920	NG Recip	Brownfield	Utility	2021	91.4	n/a	103.1	1,128	0	13.0	4.00	3	3	20	30
Modern Small Frame CT	Siemens- SGT-800-50	Frame SC	Brownfield	Utility	2021	47.9	n/a	50.6	1,057	0	4.0	2.50	3	3	20	30
Aero CT option 1	PW- FT8 Swift Pac	2 on 1 SS	Brownfield	Utility	2021	44.9	n/a	54.0	1,203	0	6.0	2.50	3	3	20	30
Aero CT option 2	GE- LM6000- PF Sprint	Aero SS	Brownfield	Utility	2021	42.3	n/a	52.8	1,249	0	6.0	2.50	3	3	20	30
1 on 1 Advanced CCCT option 1	GE - 7F.06 One on One	1 on 1 CC	Greenfield	Utility	2021	412.5	n/a	392.0	950	0	17.0	3.75	3	4	20	30
1 on 1 Advanced CCCT option 2	Siemens- SGT6-5000F CCCT (Flex Plant)	1 on 1 CC	Greenfield	Utility	2021	479.4	n/a	421.2	879	0	13.0	3.75	3	4	20	30
1 on 1 Advanced CCCT option 3	MHI- 501 F 1 on 1	1 on 1 CC	Greenfield	Utility	2021	423.9	n/a	394.1	930	0	13.0	3.50	3	4	20	30
1 on 1 modern CCCT	GE - 7F.04 One on One	1 on 1 CC	Greenfield	Utility	2021	308.2	n/a	314.7	1,021	0	14.0	3.00	3	4	20	30
3 x 2 small CCCT	Siemens- SGT-800 3 on 2	3 on 2 CC	Greenfield	Utility	2021	235.4	n/a	342.3	1,454	0	26.0	3.50	3	4	20	30
2 x 1 small CCCT	Siemens- SGT-800 2 on 1	2 on 1 CC	Greenfield	Utility	2021	158.9	n/a	235.8	1,484	0	32.0	3.50	3	4	20	30
Small Nuclear	Small Nuclear (share)	Nuclear	Greenfield	PPA	2030	100.0	n/a	438.6	4,386	BPA	135.0	0.75	5	6	20	40
NW Wind On System	NW Wind On System	Wind	Greenfield	PPA	2021	101.2	n/a	155.1	1,533	0	35.0	0.00	n/a	2	5	20
NW Wind Off System	NW Wind Off System	Wind	Greenfield	PPA	2021	101.2	n/a	144.3	1,426	BPA	35.0	0.00	n/a	2	5	20
Wind Montana	Wind Montana	Wind	Greenfield	PPA	2021	101.2	n/a	144.3	1,426	NWE'	35.0	0.15	n/a	2	5	20
Off Shore Wind (Share)	Off Shore Wind (Share)	Wind	Greenfield	PPA	2025	100.0	n/a	350.0	3,500	BPA	90.0	0.00	n/a	2	5	20
Solar Photovoltaic Fixed Array (5 MW AC)	Solar Photovoltaic Fixed Array (5 MW AC)	Solar	Greenfield	PPA	2020	5.0	n/a	7.0	1,400	0	10.0	0.00	n/a	1	5	25
Solar Photovoltaic w/ Single Axis Tracking (100 MW AC)	Solar Photovoltaic w/ Single Axis Tracking (100 MW AC)	Solar	Greenfield	PPA	2021	100.0	n/a	115.7	1,157	0	8.0	0.00	n/a	1	5	25

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Southern NW Solar Photovoltaic w/ Single Axis Tracking (100 MW AC)	Southern NW Solar Photovoltaic w/ Single Axis Tracking (100 MW AC)	Solar	Greenfield	PPA	2021	100.0	n/a	115.7	1,157	BPA	8.0	0.00	n/a	1	5	25
Solar Photovoltaic w/ Single Axis Tracking (100 MW AC w/ 50 MW/200 MWh Lithium-ion)	Solar Photovoltaic w/ Single Axis Tracking (100 MW AC w/ 25 MW/100 MWh Lithium-ion)	Solar/Storage	Greenfield	PPA	2021	100.0	100.0	150.4	1,504	0	n/a	n/a	n/a	1	5	25
Geothermal	Geothermal (Off System)	Geothermal	Greenfield	PPA	2021	20.0	n/a	70.0	3,500	BPA	30.0	0.00	8	3	5	25
Distribution Scale 4hr Lithium-Ion	Distribution Scale 4hr Lithium-Ion	Storage	Brownfield	Utility	2020	5.0	20.0	9.8	1,950	TBD Savings	68.3	0.00	2	1	7	10
Distribution Scale 8hr Lithium-Ion	Distribution Scale 8hr Lithium-Ion	Storage	Brownfield	Utility	2020	5.0	40.0	19.1	3,822	TBD Savings	133.8	0.00	2	1	7	10
4hr Lithium-Ion	4hr Lithium-Ion	Storage	Greenfield	Utility	2020	25.0	100.0	36.0	1,438	0	50.3	0.00	2	1	7	10
8hr Lithium-Ion	8hr Lithium-Ion	Storage	Greenfield	Utility	2020	25.0	200.0	70.5	2,818	0	98.6	0.00	2	1	7	10
16hr Lithium-Ion	16hr Lithium-Ion	Storage	Greenfield	Utility	2020	25.0	400.0	139.5	5,578	0	195.2	0.00	2	1	7	10
40hr Lithium-Ion	40hr Lithium-Ion	Storage	Greenfield	Utility	2020	25.0	1000.0	346.5	13,858	0	485.0	0.00	2	1	7	10
4 hr Vanadium Flow Battery	4 hr Vanadium Flow Battery	Storage	Greenfield	Utility	2020	25.0	100.0	40.0	1,600	0	56.0	0.00	2	1	20	30
4 hr Zinc Bromide Flow Battery	4 hr Zinc Bromide Flow Battery	Storage	Greenfield	Utility	2020	25.0	100.0	45.0	1,800	0	63.0	0.00	2	1	20	30
Hydrogen Fuel Cell with 4 hrs storage w/ Electrolysis	Hydrogen Fuel Cell with 4 hrs storage w/ Electrolysis	Storage	Greenfield	Utility	2021	25.0	100.0	137.6	5,505	0	156.6	0.00	5	2	20	20
Hydrogen Fuel Cell with 16 hrs Storage w/ Electrolysis	Hydrogen Fuel Cell with 16 hrs Storage w/ Electrolysis	Storage	Greenfield	Utility	2021	25.0	400.0	139.4	5,576	0	156.6	0.00	5	2	20	20
Hydrogen Fuel Cell with 40 Hrs Storage w/ Electrolysis	Hydrogen Fuel Cell with 40 Hrs Storage w/ Electrolysis	Storage	Greenfield	Utility	2021	25.0	1000.0	141.7	5,667	0	156.6	0.00	5	2	20	20
Liquid Air	Liquid Air	Storage	Greenfield	Utility	2020	25.0	300.0	35.0	1,400	0	25.0	3.00	2	2	20	30
Pumped Hydro (16 hr/ 100 MW share)	Pumped Hydro (16 hr/ 100 MW share)	Storage	Greenfield	Utility	2025	100.0	1600.0	285.0	2,850	BPA	15.0	0.50	2	6	20	50
Supplemental Compression- two unit operation	Supplemental Compression to CT	Existing CT Upgrade	Thermal Upgrade	Utility	2020	24.0	n/a	17.3	720	0	4.0	2.5	n/a	1	20	20
Rathdrum CT 2055 Upgrades two unit operation	Rathdrum CT 2055 Upgrades two unit operation	Existing CT Upgrade	Thermal Upgrade	Utility	2020	5.0	n/a	3.6	721	0	0.0	2.5	n/a	1	20	20
Kettle Falls Turbine Generator Upgrade	Kettle Falls Turbine Generator Upgrade	Plant Re Power	Thermal Upgrade	Utility	2025	12.0	n/a	16.1	1,338	0	0.0	0.0	n/a	1	20	20
Rathdrum CT: Inlet Evaporation 2 unit operation	Rathdrum CT: Inlet Evaporation 2 unit operation	Inlet Evap	Thermal Upgrade	Utility	2018	4.3	n/a	1.0	241	0	2.0	0.9	n/a	1	20	20

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Post Falls Redevelopment	Post Falls Redevelopment	Plant Re Power	Hydro Upgrade	Utility	2023	8.0	n/a	17.0	2,125	0	(38.5)	0.0	n/a	n/a	20	50
Long Lake 2nd Powerhouse	Long Lake 2nd Powerhouse	2nd Power House	Hydro Upgrade	Utility	2022	68.0	n/a	158.3	2,327	0	8.8	0.00	n/a	5	20	50
Monroe St/Upper Falls 2nd Powerhouse	Monroe St/Upper Falls 2nd Powerhouse	2nd Power House	Hydro Upgrade	Utility	2022	80.0	n/a	164.5	2,057	0	3.4	0.00	n/a	5	20	50
Cabinet Gorge 2nd Powerhouse	Cabinet Gorge 2nd Powerhouse	2nd Power House	Hydro Upgrade	Utility	2022	110.0	n/a	250.0	2,273	0	0.0	0.00	n/a	5	20	50
Biomass	Biomass	Wood Boiler	Thermal Addition	Utility	2025	100.0	n/a	250.0	2,500	0	25.0	3.05	n/a	1	20	20