

Eastern Montana Technology	Fuel Type	Nameplate Capacity (Nominal) (MW)	Design Life (Years)	Capital Cost² (\$/kW)	Fixed O&M (Yr 1) (\$/kW-yr)	Variable O&M (Yr 1) (\$/MWH)	Plant Heat Rate- Winter (Btu/kWH)
Combustion Turbine - Dry Cooling							
Simple Cycle 1x0 CT - 50 MW Frame	NG	51.4	30	\$1,361	\$13.01	\$8.30	9,970
Simple Cycle 1x0 CT - 25 MW Aeroderivative	NG	30.5	30	\$1,547	\$20.23	\$5.37	9,921
Simple Cycle 1x0 CT - 50 MW Aeroderivative	NG	49.6	30	\$1,276	\$12.64	\$4.05	9,369
Simple Cycle 1x0 CT - 50 MW Aeroderivative (NG / Fuel Oil) ⁴	NG / Fuel Oil	49.4	30	\$1,425	\$13.05	\$4.80	9,407
Simple Cycle 1x0 CT - 50 MW Aeroderivative (NG/LNG) ⁴	NG / LNG	49.6	30	\$1,700	\$13.12	\$4.37	9,399
Combined Cycle 2x1 CT - Frame/Industrial CT	NG	140.2	30	\$1,259	\$25.22	\$5.99	7,213
Combined Cycle 2x1 CT - Frame/Industrial CT w/ DB- Unfired	NG	140.6	30	\$1,312	\$25.27	\$6.00	7,192
Combined Cycle 2x1 CT - Frame/Industrial CT w/ DB - Fired	NG	159.6	30	\$1,157	\$22.30	\$5.31	7,530
Reciprocating Internal Combustion Engine							
Simple Cycle 1x0 RICE - 18 MW Class NG Only	NG	19.4	30	\$1,833	\$23.07	\$4.64	8,370
Simple Cycle 1x0 RICE - 18 MW Class NG Only (NG / LNG) ⁴	NG / LNG	19.4	30	\$2,149	\$23.43	\$4.99	8,398
Simple Cycle 1x0 RICE - 18 MW Class Dual Fuel	NG	17.9	30	\$2,017	\$25.10	\$5.73	8,505
Simple Cycle 1x0 RICE - 18 MW Dual Fuel (NG / Fuel Oil) ⁴	NG / Fuel Oil	17.4	30	\$2,075	\$29.45	\$7.38	8,545
Simple Cycle 1x0 RICE - 9 MW Class NG Only	NG	9.6	30	\$2,306	\$54.20	\$4.52	8,160
Solar Photovoltaic (PV)							
Solar PV - Single Axis Tracking	N/A	105	30	\$1,330	\$21.60	N/A	N/A
Wind Energy							
Wind Energy	N/A	105	25	\$1,650	\$37.00	N/A	N/A
Geothermal							
Geothermal - Flash Steam	N/A	21	30	\$2,800	\$123.98	\$9.88	1,000
Compressed Air Energy Storage (CAES)							
CAES - Diabatic (8 Hour)	Elec. Grid / NG	105	30	\$1,500-\$2,300	\$15.27	\$8.53	4,500
Pumped Hydro Energy Storage (PHES)							
PHES - Closed Loop (9 Hour)	Elec. Grid / NG	525	30	\$1,700-\$3,000	\$14.55	\$0.90	N/A
Battery Energy Storage System (BESS)							
BESS - Lithium Ion (4 Hour)	N/A	26.3	20	\$2,070	\$39.61	\$7.00	N/A
BESS - Vanadium Flow (4 Hour)	N/A	26.3	20	\$1,700	\$34.01	N/A	N/A

¹ Thermal heat rates are presented on a higher heating value (HHV) basis.

² \$/kW capital cost metrics divide estimated project costs by the net winter

³ Capacity factors for dispatchable technologies assumed in order to develop

⁴ Dual fuel performance and costs are presented as a blend of NG and alternative fuel (NG or FO) operations (1,034 hours on NG and 263 hours on alternate fuel)