

Technology	Start year	Life time	Load factor		Efficiency		Investment cost	Fixed O&M cost	Variable O&M cost	Progress ratio
			start	2050	start	2050	\$/kW	\$/kW/a	\$/GJ	
<i>Fossil based power plants</i>										
Coal conventional electric	1990	30	0.65	0.75	0.370	0.380	1050	69	0.72	
Coal conventional electric with DeSulf/DeNOx	2000	30	0.65	0.75	0.360	0.370	1150	79	1.22	
Coal conv. with DeSulf/DeNOx and CO2 scrubber	2010	30	0.65	0.75	0.296	0.304	2000	80	1.53	
Coal advanced electric	1990	30	0.65	0.8	0.429	0.500	1584	67.5	0.75	0.94
Coal advanced electric with CO2 scrubber	2010	30	0.65	0.8	0.365	0.425	1900	90	1.13	0.93
Coal IGCC (CHP)	2000	20	0.85	0.85	0.425	0.500	1584	36.6	3	0.94
Coal IGCC (CHP) with CO2 scrubber	2010	20	0.85	0.85	0.361	0.425	1900	90	3.9	0.93
Gas combined cycle	1990	20	0.65	0.75	0.510	0.588	600	36.6	0.63	0.9
Gas combined cycle with CO2 scrubber	2010	20	0.65	0.75	0.459	0.529	1000	50	0.88	0.9
Gas turbine	1990	20	0.2	0.2	0.360	0.360	350	58.5	0.51	
Gas steam conventional	1990	20	0.375	0.65	0.386	0.410	987.7	50.63	0.56	
Cogeneration gas turbine	1990	20	0.4	0.46	0.370	0.370	750	51.6	0.63	
Gas fuel cell	2000	20	0.65	0.65	0.599	0.649	2463	43.5	0.63	0.82
Hydrogen fuel cell (CHP) in industry	2000	20	0.85	0.9	0.4	0.6	3500	20	7.5	0.82
Hydrogen fuel cell (CHP) in res&com.	2000	20	0.85	0.9	0.4	0.5	3500	20	5.8	0.82
Oil electric	1990	20	0.65	0.65	0.303	0.400	991	63.6	0.57	
<i>Nuclear and renewable power plants</i>										
LWR Nuclear plant	1990	30	0.7	0.75	0.327	0.327	2500	114	0.19	
LWR Advanced nuclear plant	2000	30	0.85	0.85	0.345	0.345	2500	114	0.19	0.96
Hydro-electric plant	1990	50	0.42	0.43	0.385	0.471	3563	49.5	0.12	
Solar photovoltaics	1990	20	0.2	0.25	0.400	0.400	4600	9	1.25	0.81
Solar thermal electric	2000	20	0.2	0.2	0.400	0.400	2900	9	1.25	
Wind turbine	1990	20	0.3	0.3	0.330	0.330	1150	13.5	0.83	0.9
Biomass power plant	1990	20	0.42	0.65	0.333	0.333	3075	7.8	2.92	
Geothermal electric	1990	20	0.42	0.42	0.381	0.381	3075	7.8	0.9	