

Table A9. Electricity generating capacity
(gigawatts)

Net summer capacity ¹	Reference case							Annual growth 2011-2040 (percent)	
	2010	2011	2020	2025	2030	2035	2040		
Electric power sector²									
Power only³									
Coal	308.0	309.5	268.7	267.9	267.9	267.9	269.0	-0.5%	
Oil and natural gas steam ⁴	105.6	101.9	86.4	78.3	69.1	66.6	64.0	-1.6%	
Combined cycle	171.8	179.5	193.2	207.6	238.3	265.8	288.4	1.6%	
Combustion turbine/diesel	134.5	136.1	149.9	162.1	177.2	190.2	208.9	1.5%	
Nuclear power ⁵	101.2	101.1	110.6	114.1	113.6	109.3	113.1	0.4%	
Pumped storage	22.3	22.3	22.3	22.3	22.3	22.3	22.3	0.0%	
Fuel cells	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8%	
Renewable sources ⁶	125.3	132.3	152.9	155.6	159.7	174.3	206.8	1.6%	
Distributed generation ⁷	0.0	0.0	0.9	1.9	3.1	4.1	5.1	--	
Total	968.7	982.8	985.0	1,009.8	1,051.2	1,100.7	1,177.7	0.6%	
Combined heat and power⁸									
Coal	4.9	4.9	4.3	4.2	4.2	4.2	4.2	-0.5%	
Oil and natural gas steam ⁴	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.0%	
Combined cycle	26.0	26.0	26.0	26.0	26.0	26.0	26.0	0.0%	
Combustion turbine/diesel	2.8	2.8	2.8	2.8	2.8	2.8	2.8	-0.1%	
Renewable sources ⁶	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.2%	
Total	35.3	35.3	34.6	34.6	34.6	34.6	34.6	-0.1%	
Cumulative planned additions⁹									
Coal	0.0	0.0	6.1	6.1	6.1	6.1	6.1	--	
Oil and natural gas steam ⁴	0.0	0.0	0.0	0.0	0.0	0.0	0.0	--	
Combined cycle	0.0	0.0	10.9	10.9	10.9	10.9	10.9	--	
Combustion turbine/diesel	0.0	0.0	5.6	5.6	5.6	5.6	5.6	--	
Nuclear power	0.0	0.0	5.5	5.5	5.5	5.5	5.5	--	
Pumped storage	0.0	0.0	0.0	0.0	0.0	0.0	0.0	--	
Fuel cells	0.0	0.0	0.0	0.0	0.0	0.0	0.0	--	
Renewable sources ⁶	0.0	0.0	18.1	18.1	18.1	18.1	18.1	--	
Distributed generation ⁷	0.0	0.0	0.0	0.0	0.0	0.0	0.0	--	
Total	0.0	0.0	46.3	46.3	46.3	46.3	46.3	--	
Cumulative unplanned additions⁹									
Coal	0.0	0.0	0.3	0.3	0.3	0.4	1.5	--	
Oil and natural gas steam ⁴	0.0	0.0	0.0	0.0	0.0	0.0	0.0	--	
Combined cycle	0.0	0.0	3.1	17.4	48.2	75.7	98.3	--	
Combustion turbine/diesel	0.0	0.0	15.4	28.0	43.3	56.4	75.3	--	
Nuclear power	0.0	0.0	0.0	0.0	0.0	0.8	5.5	--	
Pumped storage	0.0	0.0	0.0	0.0	0.0	0.0	0.0	--	
Fuel cells	0.0	0.0	0.0	0.0	0.0	0.0	0.0	--	
Renewable sources ⁶	0.0	0.0	3.7	6.4	10.5	25.2	57.6	--	
Distributed generation ⁷	0.0	0.0	0.9	1.9	3.1	4.1	5.1	--	
Total	0.0	0.0	23.4	54.1	105.4	162.4	243.3	--	
Cumulative electric power sector additions.....	0.0	0.0	69.7	100.4	151.7	208.7	289.5	--	
Cumulative retirements¹⁰									
Coal	0.0	0.0	47.9	48.8	48.8	48.8	48.8	--	
Oil and natural gas steam ⁴	0.0	0.0	15.5	23.6	32.8	35.3	37.9	--	
Combined cycle	0.0	0.0	0.2	0.2	0.2	0.2	0.2	--	
Combustion turbine/diesel	0.0	0.0	7.3	7.7	7.9	7.9	8.2	--	
Nuclear power	0.0	0.0	0.6	0.6	1.1	6.1	7.1	--	
Pumped storage	0.0	0.0	0.0	0.0	0.0	0.0	0.0	--	
Fuel cells	0.0	0.0	0.0	0.0	0.0	0.0	0.0	--	
Renewable sources ⁶	0.0	0.0	1.2	1.2	1.2	1.2	1.2	--	
Total	0.0	0.0	72.7	82.1	92.0	99.6	103.4	--	
Total electric power sector capacity.....	1,004.1	1,018.1	1,019.6	1,044.4	1,085.8	1,135.3	1,212.3	0.6%	

Table A9. Electricity generating capacity (continued)
(gigawatts)

Net summer capacity ¹	Reference case							Annual growth 2011-2040 (percent)
	2010	2011	2020	2025	2030	2035	2040	
End-use generators¹¹								
Coal	3.6	3.6	3.6	4.2	4.4	4.6	4.9	1.1%
Petroleum	0.7	0.7	1.0	1.0	1.0	1.0	1.0	1.0%
Natural gas	15.1	15.0	17.2	19.7	24.1	30.1	35.1	3.0%
Other gaseous fuels ¹²	1.6	2.0	2.1	2.1	2.1	2.1	2.1	0.1%
Renewable sources ⁶	7.6	9.9	24.2	26.3	29.1	32.7	37.5	4.7%
Other ¹³	0.5	0.4	0.5	0.5	0.5	0.5	0.5	0.8%
Total	29.0	31.6	48.5	53.7	61.1	71.0	81.0	3.3%
Cumulative capacity additions⁹	0.0	0.0	16.9	22.1	29.5	39.3	49.4	--

¹Net summer capacity is the steady hourly output that generating equipment is expected to supply to system load (exclusive of auxiliary power), as demonstrated by tests during summer peak demand.

²Includes electricity-only and combined heat and power plants whose primary business is to sell electricity, or electricity and heat, to the public.

³Includes plants that only produce electricity. Includes capacity increases (uprates) at existing units.

⁴Includes oil-, gas-, and dual-fired capacity.

⁵Nuclear capacity includes 8.0 gigawatts of uprates through 2040.

⁶Includes conventional hydroelectric, geothermal, wood, wood waste, all municipal waste, landfill gas, other biomass, solar, and wind power. Facilities co-firing biomass and coal are classified as coal.

⁷Primarily peak load capacity fueled by natural gas.

⁸Includes combined heat and power plants whose primary business is to sell electricity and heat to the public (i.e., those that report North American Industry Classification System code 22).

⁹Cumulative additions after December 31, 2011.

¹⁰Cumulative retirements after December 31, 2011.

¹¹Includes combined heat and power plants and electricity-only plants in the commercial and industrial sectors; and small on-site generating systems in the residential, commercial, and industrial sectors used primarily for own-use generation, but which may also sell some power to the grid.

¹²Includes refinery gas and still gas.

¹³Includes batteries, chemicals, hydrogen, pitch, purchased steam, sulfur, and miscellaneous technologies.

-- = Not applicable.

Note: Totals may not equal sum of components due to independent rounding. Data for 2010 and 2011 are model results and may differ slightly from official EIA data reports.

Sources: 2010 and 2011 capacity and projected planned additions: U.S. Energy Information Administration (EIA), Form EIA-860, "Annual Electric Generator Report" (preliminary). **Projections:** EIA, AEO2013 National Energy Modeling System run REF2013.D102312A.