

Table A9. Electricity generating capacity
(gigawatts)

| Net summer capacity ¹ | Reference case | | | | | | | Annual growth 2013-2040 (percent) |
|---|----------------|--------------|--------------|----------------|----------------|----------------|----------------|---|
| | 2012 | 2013 | 2020 | 2025 | 2030 | 2035 | 2040 | |
| Electric power sector² | | | | | | | | |
| Power only³ | | | | | | | | |
| Coal ⁴ | 300.2 | 296.1 | 255.4 | 252.8 | 252.8 | 252.8 | 252.9 | -0.6% |
| Oil and natural gas steam ^{4,5} | 99.2 | 94.6 | 87.5 | 78.3 | 73.2 | 69.2 | 68.2 | -1.2% |
| Combined cycle..... | 185.3 | 188.3 | 203.2 | 211.9 | 233.6 | 255.1 | 281.3 | 1.5% |
| Combustion turbine/diesel..... | 136.4 | 139.6 | 140.1 | 144.2 | 151.8 | 160.7 | 172.6 | 0.8% |
| Nuclear power ⁶ | 102.1 | 98.9 | 101.4 | 101.4 | 101.6 | 102.1 | 104.9 | 0.2% |
| Pumped storage..... | 22.4 | 22.4 | 22.4 | 22.4 | 22.4 | 22.4 | 22.4 | 0.0% |
| Fuel cells..... | 0.0 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.0% |
| Renewable sources ⁷ | 148.1 | 153.3 | 187.1 | 190.2 | 196.6 | 209.7 | 229.2 | 1.5% |
| Distributed generation (natural gas) ⁸ | 0.0 | 0.0 | 0.7 | 1.1 | 1.7 | 2.4 | 3.1 | -- |
| Total..... | 993.7 | 993.2 | 997.9 | 1,002.4 | 1,033.7 | 1,074.4 | 1,134.6 | 0.5% |
| Combined heat and power⁹ | | | | | | | | |
| Coal..... | 4.5 | 4.3 | 4.1 | 4.1 | 4.1 | 4.1 | 4.1 | -0.2% |
| Oil and natural gas steam ⁵ | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 0.0% |
| Combined cycle..... | 25.7 | 25.7 | 26.0 | 26.0 | 26.0 | 26.0 | 26.0 | 0.0% |
| Combustion turbine/diesel..... | 3.1 | 3.1 | 3.1 | 3.1 | 3.1 | 3.1 | 3.1 | 0.0% |
| Renewable sources ⁷ | 1.4 | 1.4 | 1.4 | 1.4 | 1.4 | 1.4 | 1.4 | 0.1% |
| Total..... | 35.6 | 35.4 | 35.6 | 35.6 | 35.6 | 35.6 | 35.6 | 0.0% |
| Cumulative planned additions¹⁰ | | | | | | | | |
| Coal..... | -- | -- | 0.7 | 0.7 | 0.7 | 0.7 | 0.7 | -- |
| Oil and natural gas steam ⁵ | -- | -- | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 | -- |
| Combined cycle..... | -- | -- | 14.2 | 14.2 | 14.2 | 14.2 | 14.2 | -- |
| Combustion turbine/diesel..... | -- | -- | 1.6 | 1.6 | 1.6 | 1.6 | 1.6 | -- |
| Nuclear power..... | -- | -- | 5.5 | 5.5 | 5.5 | 5.5 | 5.5 | -- |
| Pumped storage..... | -- | -- | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | -- |
| Fuel cells..... | -- | -- | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | -- |
| Renewable sources ⁷ | -- | -- | 30.5 | 30.5 | 30.5 | 30.5 | 30.5 | -- |
| Distributed generation ⁸ | -- | -- | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | -- |
| Total..... | -- | -- | 52.8 | 52.8 | 52.8 | 52.8 | 52.8 | -- |
| Cumulative unplanned additions¹⁰ | | | | | | | | |
| Coal..... | -- | -- | 0.3 | 0.3 | 0.3 | 0.3 | 0.4 | -- |
| Oil and natural gas steam ⁵ | -- | -- | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | -- |
| Combined cycle..... | -- | -- | 7.7 | 17.3 | 39.0 | 60.5 | 86.9 | -- |
| Combustion turbine/diesel..... | -- | -- | 3.8 | 8.5 | 16.8 | 26.1 | 37.9 | -- |
| Nuclear power..... | -- | -- | 0.0 | 0.0 | 0.1 | 0.6 | 3.5 | -- |
| Pumped storage..... | -- | -- | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | -- |
| Fuel cells..... | -- | -- | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | -- |
| Renewable sources ⁷ | -- | -- | 4.0 | 7.1 | 13.4 | 26.6 | 46.1 | -- |
| Distributed generation ⁸ | -- | -- | 0.7 | 1.1 | 1.7 | 2.4 | 3.1 | -- |
| Total..... | -- | -- | 16.5 | 34.3 | 71.4 | 116.5 | 177.9 | -- |
| Cumulative electric power sector additions¹⁰... | -- | -- | 69.3 | 87.1 | 124.2 | 169.4 | 230.7 | -- |
| Cumulative retirements¹¹ | | | | | | | | |
| Coal..... | -- | -- | 37.4 | 40.1 | 40.1 | 40.1 | 40.1 | -- |
| Oil and natural gas steam ⁵ | -- | -- | 11.8 | 21.0 | 26.1 | 30.1 | 31.0 | -- |
| Combined cycle..... | -- | -- | 7.1 | 8.0 | 8.0 | 8.0 | 8.3 | -- |
| Combustion turbine/diesel..... | -- | -- | 4.9 | 5.5 | 6.1 | 6.5 | 6.5 | -- |
| Nuclear power..... | -- | -- | 3.2 | 3.2 | 3.2 | 3.2 | 3.2 | -- |
| Pumped storage..... | -- | -- | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | -- |
| Fuel cells..... | -- | -- | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | -- |
| Renewable sources ⁷ | -- | -- | 0.6 | 0.6 | 0.6 | 0.6 | 0.6 | -- |
| Total..... | -- | -- | 65.0 | 78.3 | 84.1 | 88.5 | 89.7 | -- |
| Total electric power sector capacity..... | 1,029 | 1,029 | 1,033 | 1,038 | 1,069 | 1,110 | 1,170 | 0.5% |

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

| Net summer capacity ¹ | Reference case | | | | | | | Annual growth 2013-2040 (percent) |
|---|----------------|-------------|-------------|-------------|-------------|-------------|-------------|-----------------------------------|
| | 2012 | 2013 | 2020 | 2025 | 2030 | 2035 | 2040 | |
| End-use generators¹² | | | | | | | | |
| Coal | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 0.0% |
| Petroleum | 0.9 | 0.9 | 0.9 | 0.9 | 0.9 | 0.9 | 0.9 | -0.4% |
| Natural gas | 16.3 | 16.9 | 19.5 | 22.7 | 27.6 | 33.6 | 38.9 | 3.1% |
| Other gaseous fuels ¹³ | 2.1 | 2.1 | 2.8 | 2.8 | 2.8 | 2.8 | 2.8 | 1.0% |
| Renewable sources ⁷ | 10.4 | 12.1 | 18.2 | 22.4 | 28.6 | 36.0 | 44.6 | 4.9% |
| Other ¹⁴ | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.0% |
| Total | 33.6 | 36.0 | 45.3 | 52.8 | 63.8 | 77.2 | 91.1 | 3.5% |
| Cumulative capacity additions¹⁰ | -- | -- | 10.5 | 18.0 | 29.1 | 42.6 | 56.5 | -- |

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 that have a regulatory status.

³Includes plants that only produce electricity and that have a regulatory status. Includes capacity increases (uprates) at existing units.

⁴Coal and oil and natural gas steam capacity reflect the impact of 4.1 GW of existing coal capacity converting to gas steam capacity.

⁵Includes oil-, gas-, and dual-fired capacity.

⁶Nuclear capacity includes 0.2 gigawatts of uprates.

⁷Includes 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.

⁸Primarily peak load capacity fueled by natural gas.

⁹Includes 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 or that have a regulatory status).

¹⁰Cumulative additions after December 31, 2013.

¹¹Cumulative retirements after December 31, 2013.

¹²Includes combined heat and power plants and electricity-only plants in the commercial and industrial sectors that have a non-regulatory status; 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.

¹³Includes refinery gas and still gas.

¹⁴Includes 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 2012 and 2013 are model results and may differ from official EIA data reports.

Sources: 2012 and 2013 capacity and projected planned additions: U.S. Energy Information Administration (EIA), Form EIA-860, "Annual Electric Generator Report" (preliminary). Projections: EIA, AEO2015 National Energy Modeling System run REF2015.D021915A.