Electric Power Industry Plant Analysis

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Eric Johnson: Focus | Numeric

Electric Power Industry Power Plants by Predominant Energy Sources within Plant 2003 through 2013

All Sources

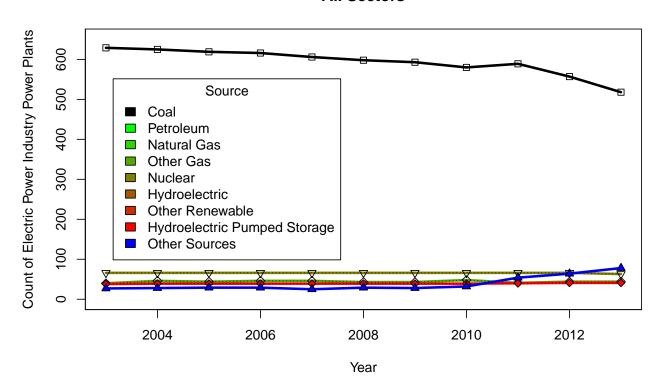
- 1. Coal is still the dominant energy source for industry power plants in spite of a drop of 111 coal-powered plants between 2003 and 2013.
- 2. The number of both petroleum and nuclear power plants dropped.
- 3. The number of natural gas, other gas, conventional and pumped storage hydroelectric, other, and other renewables increased.
- 4. Other renewable sources had the largest increase, with 1558 added units, over this period.

In 2013, there were

- 518 coal plants,
- 1101 petroleum plants,
- 1725 natural gas plants,
- 63 nuclear power plants,
- 1435 conventional hydroelectric plants,
- 2299 other renewable plants,
- 41 pumped storage hydroelectric plants, and
- 78 other plants

in operation.

All Sectors

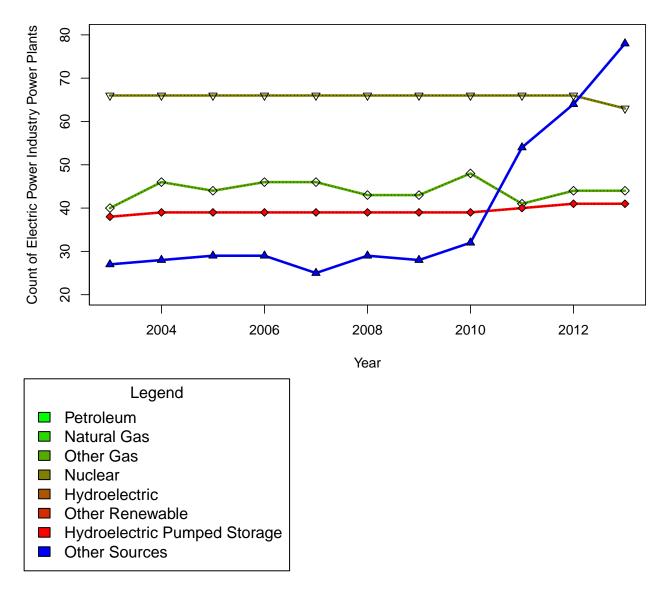


The average rate of change for each type of plant per year were as follows:

- -11.1 coal plants / year,
- -6.5 petroleum plants / year,
- 3.2 natural gas plants / year,
- -0.3 nuclear power plants / year,
- 1 conventional hydroelectric plants / year,
- 155.8 other renewable plants / year,
- 0.3 pumped storage hydroelectric plants / year, and
- 5.1 other plants / year.

Changes in the number of plants can be more easily seen when coal is removed.

All Sectors, Coal Excluded

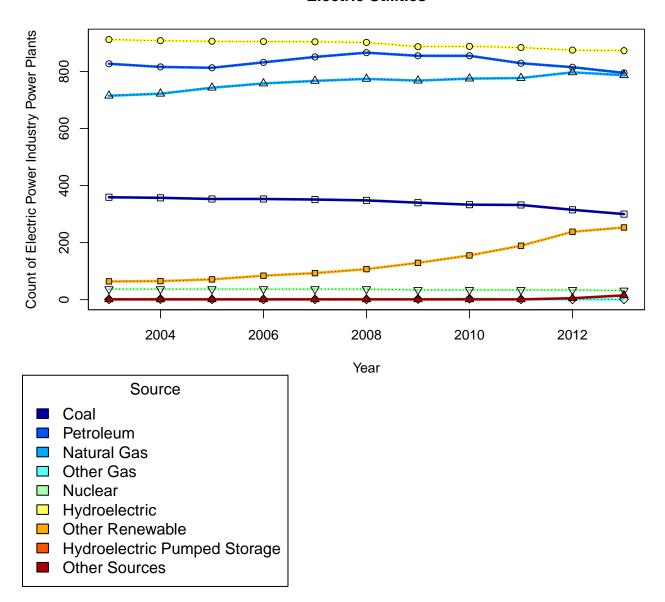


Electric Utilities

- 1. Hydroelectric, petroleum, and natural gas plants dominate electric utilities.
- 2. The number of coal plants has dropped somewhat over the period from 2003 to 2013, from 359 to 300 plants.
- 3. Other renewable sources had the largest increase in plants with an increase of 14 plants.

In 2013, there are 300 coal plants, 795 petroleum plants, 787 natural gas plants, 32 nuclear power plants, 873 conventional hydroelectric plants, 253 other renewable plants, pumped storage hydroelectric plants, and 15 other plants in operation at electric utilities.

Electric Utilities

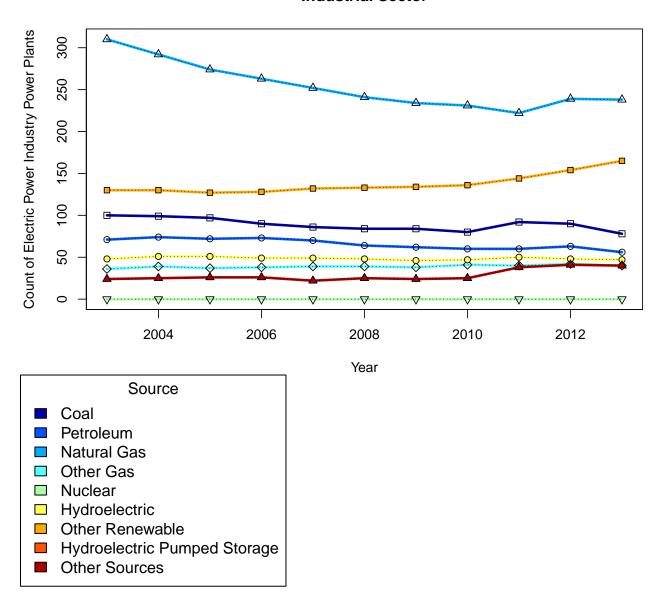


$Industrial\ Sector$

- 1. The industrial sector saw a drop of 72 natural gas units over the period from 2003 to 2013.
- 2. Other renewable sources increased from 130 plants in 2003 to 165 plants in 2013.

In 2013, there are 78 coal plants, 56 petroleum plants, 238 natural gas plants, 0 nuclear power plants, 47 conventional hydroelectric plants, 165 other renewable plants, pumped storage hydroelectric plants, and 40 other plants in operation at electric utilities.

Industrial Sector

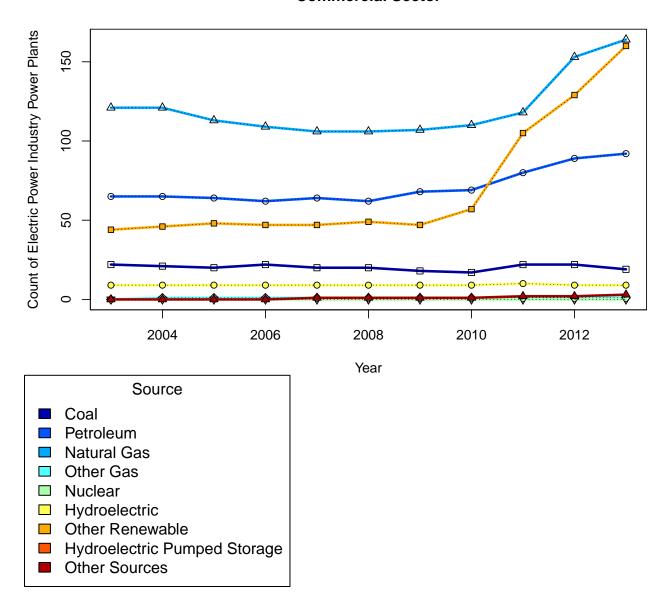


$Commerical\ Sector$

- 1. The number of other renewable plants increased by 116 plants over the period from 2003 to 2013.
- 2. Natural gas plants dropped from 2003 to 2008, then increased to 164 in 2013.
- 3. There was a small increase in petroleum plants to 160 in 2013.

In 2013, there are 19 coal plants, 92 petroleum plants, 164 natural gas plants, 0 nuclear power plants, 9 conventional hydroelectric plants, 160 other renewable plants, pumped storage hydroelectric plants, and 3 other plants in operation at electric utilities.

Commercial Sector

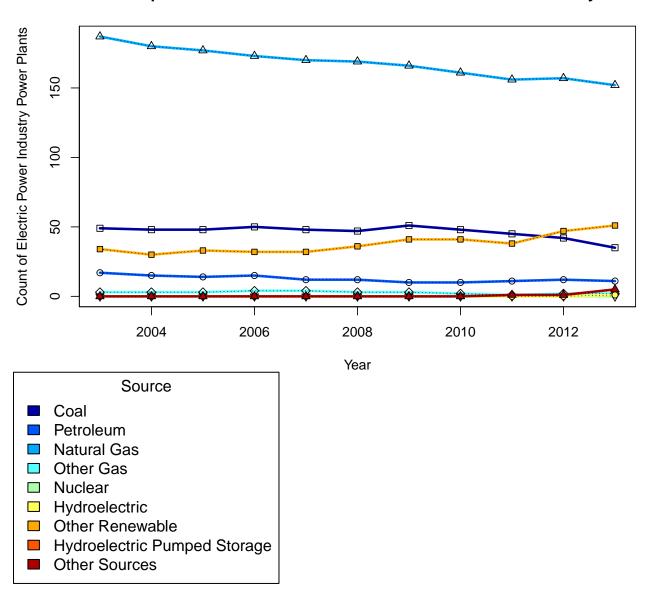


Independent power producers, combined heat and electricity

- 1. The number of natural gas plants dropped from 187 in 2003 to 152 in 2013.
- 2. There was a small increase in the utilization of other renewable power plant sources to 51 in 2013.
- 3. There was a small drop in the number of coal power plants. Over the period from 2003 to 2013, there was an average drop of 1.7 per year.

In 2013, there are 35 coal plants, 11 petroleum plants, 152 natural gas plants, 0 nuclear power plants, 1 conventional hydroelectric plants, 51 other renewable plants, pumped storage hydroelectric plants, and 5 other plants in operation at electric utilities.

Independent Power Producers – Combined Heat and Electricity



- 1. Independent power producers (non-combined heat and electricity) utilized a substantial rise of 1202 other renewable-powered plants. This corresponded to a mean increase of 120.2 plants per year.
- 2. No other plant sources showed a substantial change.

In 2013, there are 86 coal plants, 147 petroleum plants, 384 natural gas plants, 31 nuclear power plants, 505 conventional hydroelectric plants, 1670 other renewable plants, pumped storage hydroelectric plants, and 15 other plants in operation at electric utilities.

Independent Power Producers - Heat and Electricity Separate

