

## RETIREMENT OF COAL-FIRED ELECTRIC GENERATING UNITS<sup>1</sup>

*As of February 25, 2017*

- Since 2010, utilities have announced the retirement of a large number of coal-fired electric generating units.<sup>2</sup> In addition to units that are retiring, some coal-fired units are converting to natural gas, and a small number are converting to biomass or another fuel. Most of these retirements and conversions have been attributed to EPA policies, although other factors—such as low natural gas prices and market conditions—play a role too.<sup>3</sup>
- Table 1 lists 37 states with coal retirements and conversions that have been **attributed to EPA policies**. These retirements and conversions total 451 units and represent 75,400 megawatts (MW) of electric generating capacity. Approximately 13,000 MW (one-fifth of the total) are converting to natural gas, biomass, or another fuel. By the end of 2016, almost 51,000 MW of coal-fired electric generating capacity had retired or converted to another fuel because of EPA policies.
- Table 2 lists all announced coal retirements and conversions, **regardless of cause**, through 2030. (Table 2 includes the units in Table 1 plus additional retirements and conversions that have not been attributed to EPA policies.) Table 2 shows that 572 units — totaling almost 99,000 MW — are slated for retirement or conversion. These units are located in 43 states and represent more than 30% of the U.S. coal fleet that existed in 2010. Approximately 14,000 MW (slightly less than one-fifth of the total) are converting to natural gas, biomass, or another fuel.
- By the end of 2016, approximately 60,000 MW of coal-fired generating capacity had retired or converted due to all causes. Between 2017 and 2020, an additional 23,200 MW (87 units) are expected to retire or convert; the majority are due to EPA policies.<sup>4</sup>

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<sup>1</sup> These retirements and conversions is based primarily on public announcements by the owners of the coal units. We also use other information sources that are highly reliable. These retirements and conversions are *not* based on modeling projections. We do not include small (less than 25 MW) cogeneration units.

<sup>2</sup> In 2010, according to EIA, the U.S. coal-fired electric generating fleet was comprised of 1,396 electric generating units located at 580 power plants for a total generating capacity of approximately 317,000 MW.

<sup>3</sup> EPA policies include EPA regulations, as well as settlement agreements resulting from EPA's New Source Review enforcement activities.

<sup>4</sup> Between 2017 and 2020, 57 units totaling 14,407 MW are expected to retire or convert due to EPA policies.

**TABLE 1. Coal Units Closing or Converting Because of EPA Policies<sup>5</sup>**

	<b>MW CLOSING OR CONVERTING</b>	<b>UNITS CLOSING OR CONVERTING</b>
1. Ohio	6,421	40
2. Indiana	6,129	34
3. Pennsylvania	5,548	30
4. Alabama	5,166	26
5. Michigan	4,075	31
6. Kentucky	3,471	16
7. Georgia	3,249	15
8. Illinois	3,076	14
9. Arizona	3,072	7
10. North Carolina	2,783	20
11. West Virginia	2,740	18
12. Tennessee	2,659	17
13. Virginia	2,354	16
14. Minnesota	2,150	15
15. South Carolina	1,768	14
16. Missouri	1,738	17
17. Colorado	1,699	13
18. Arkansas	1,659	2
19. Florida	1,568	7
20. Iowa	1,564	28
21. Oklahoma	1,464	3
22. Massachusetts	1,408	6
23. Texas	1,399	3
24. New Mexico	1,375	5
25. Maryland	1,319	7
26. Wisconsin	1,287	16
27. Mississippi	706	2
28. Nebraska	637	5
29. Oregon	585	1
30. Louisiana	575	1
31. Kansas	478	6
32. New York	475	3
33. Utah	272	5
34. New Jersey	268	2
35. Montana	154	1
36. Wyoming	49	4
37. South Dakota	22	1
<b>37 STATES</b>	<b>75,362 MW</b>	<b>451 UNITS</b>

<sup>5</sup> Most of the coal units listed in Table 1 are retiring; 77 units representing 12,938 MW are converting to natural gas, biomass, or another fuel.

**TABLE 2. Coal Units Closing or Converting Regardless of Cause<sup>6</sup>**

	<b>MW CLOSING OR CONVERTING</b>	<b>UNITS CLOSING OR CONVERTING</b>
1. Ohio	11,491	58
2. Indiana	6,569	39
3. Illinois	6,173	22
4. Pennsylvania	5,737	33
5. Alabama	5,166	26
6. Michigan	4,500	39
7. North Carolina	4,288	33
8. Georgia	3,752	17
9. Kentucky	3,471	16
10. Arizona	3,072	7
11. Virginia	2,836	21
12. West Virginia	2,740	18
13. Nevada	2,689	8
14. Tennessee	2,659	17
15. Minnesota	2,288	17
16. Utah	2,072	7
17. Florida	1,898	8
18. Iowa	1,832	32
19. South Carolina	1,768	14
20. Missouri	1,755	18
21. Colorado	1,745	14
22. Maryland	1,704	9
23. Massachusetts	1,663	8
24. Arkansas	1,659	2
25. New York	1,588	13
26. New Jersey	1,543	6
27. Wisconsin	1,525	23
28. Oklahoma	1,464	3
29. Texas	1,399	3
30. Washington	1,376	2
31. New Mexico	1,375	5
32. Montana	768	3
33. Nebraska	757	6
34. Mississippi	706	2
35. Oregon	585	1
36. Louisiana	575	1
37. Connecticut	566	2
38. Kansas	478	6
39. Delaware	360	4
40. North Dakota	189	1
41. California	129	3
42. Wyoming	49	4
43. South Dakota	22	1
<b>43 STATES</b>	<b>98,981 MW</b>	<b>572 UNITS</b>

<sup>6</sup> Most of the coal units in Table 2 are retiring; 97 units representing 14,127 MW are converting to natural gas, biomass, or another fuel.