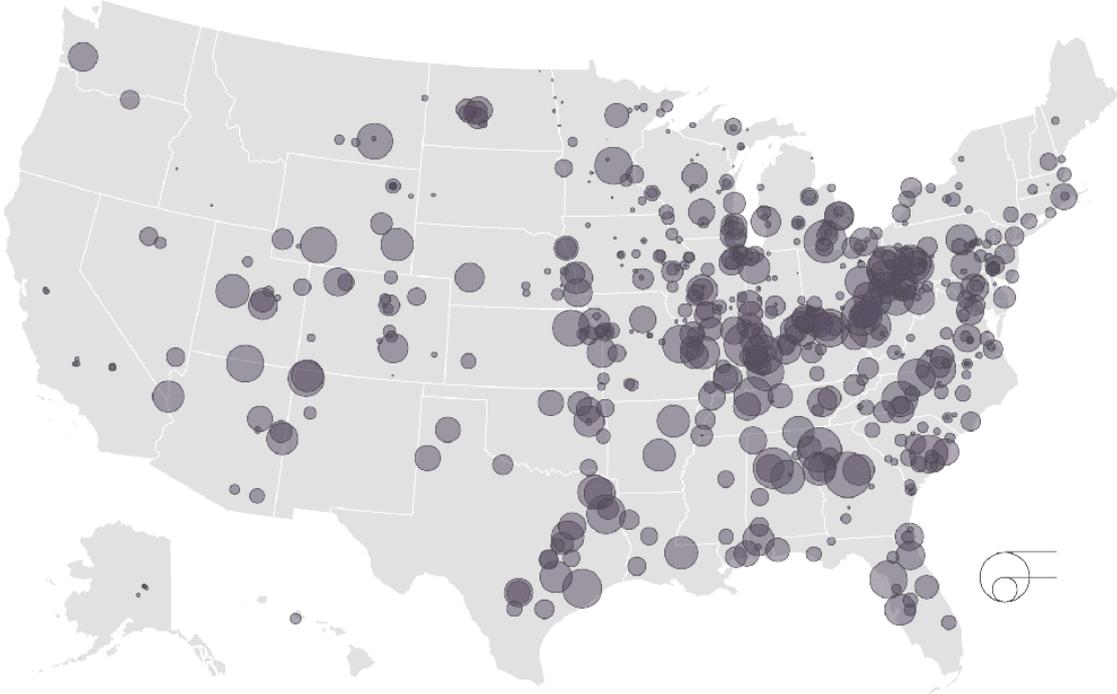
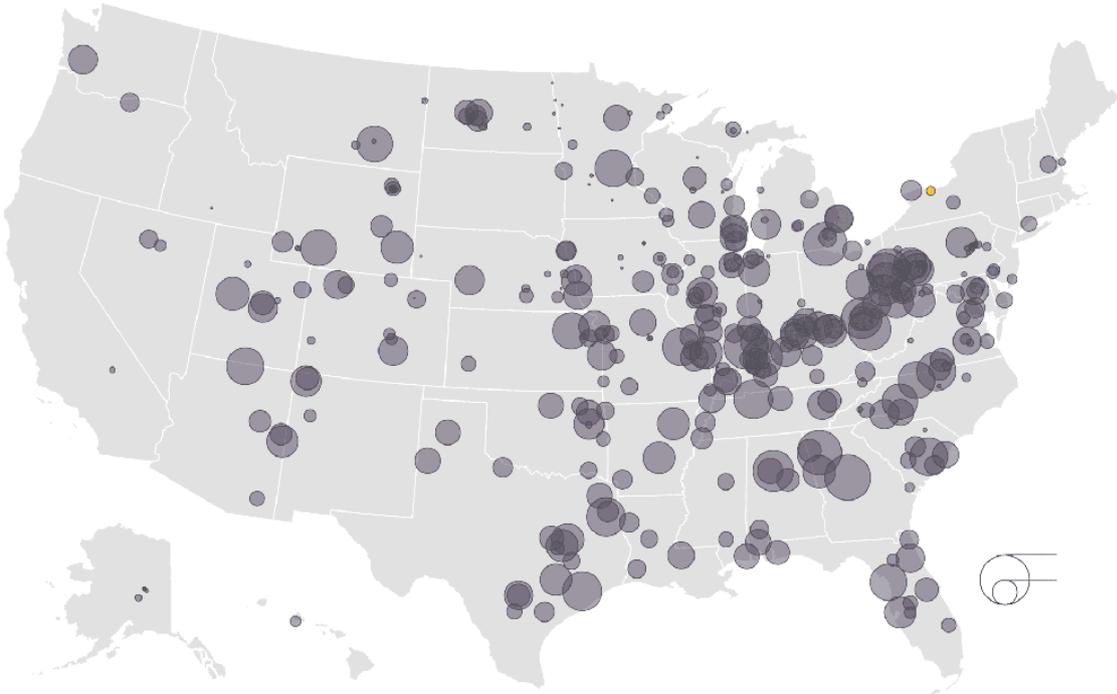


Trump Wants to Bail Out Coal and Nuclear Power. Here's Why That Will Be Hard.

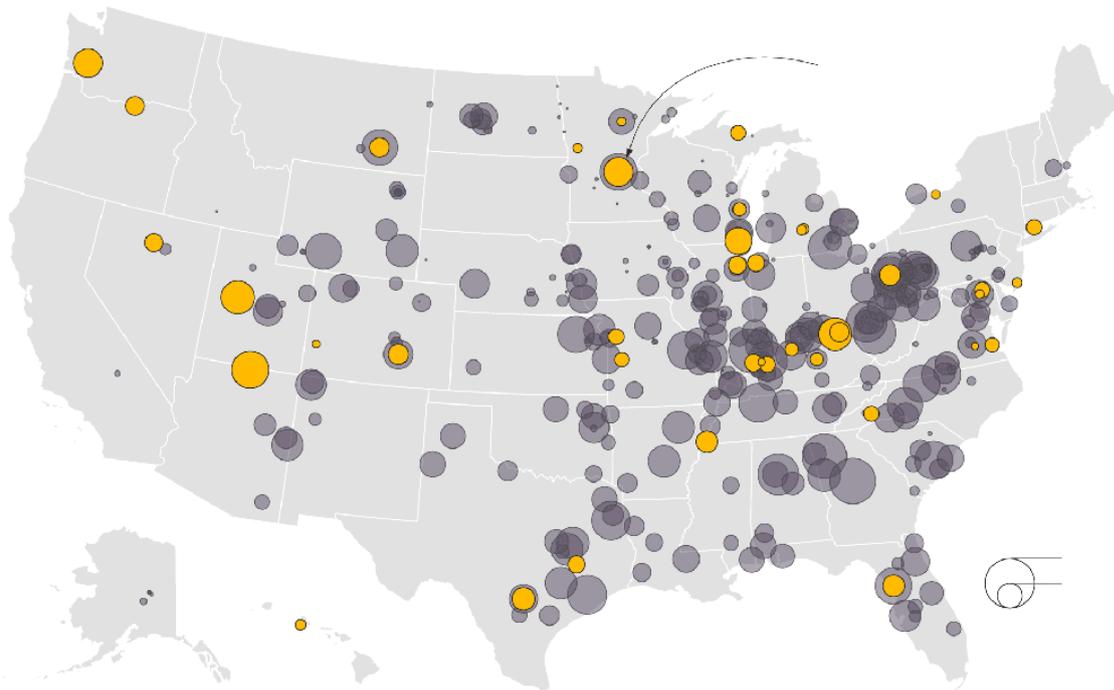
By BRAD PLUMER and NADJA POPOVICH, JUNE 13, 2018



Coal power
2010
Generating capacity
(gigawatts)
4
1



Coal power
2018
Generating capacity
(gigawatts)
4
1



Planned retirements 2018-2025

Generating capacity
(gigawatts)

4

1

In 2010, the United States had 580 coal-fired power plants. They provided 45 percent of the nation's electricity.

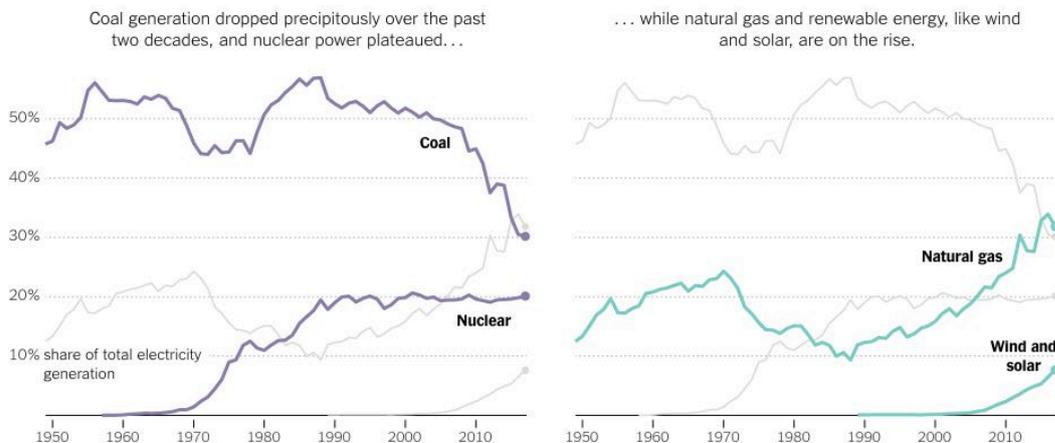
By March 2018, the number of plants had fallen below 350 and coal's market share had dropped to 30 percent, mostly because of competition from cheap natural gas, state efforts to boost renewables and stricter pollution rules.

At least 40 more coal plants have announced they will close or reduce capacity by 2025, and others may soon follow. President Trump has asked his energy secretary to take emergency measures to avert these retirements.

When Mr. Trump came into office, he vowed to revive America's coal mining industry by rolling back Obama-era environmental regulations. But coal keeps getting edged out by cheaper and cleaner alternatives. At least 15.4 gigawatts of coal capacity is set to retire this year, one of the biggest years on record, according to the Institute for Energy Economics and Financial Analysis. And the coal units that are left now operate far less frequently than they used to, replaced by natural gas, wind and solar power.

For many utilities, the decision to abandon coal comes down to simple economics. Xcel Energy, Colorado's largest electric utility, recently concluded that it could save \$213 million by retiring two of its older coal-fired units a decade ahead of schedule and replacing them with a mix of wind, solar, battery storage and natural gas.

"We built a lot of our coal fleet 40 years ago, and it's costly to maintain," said Joshua D. Rhodes, an energy expert at the University of Texas Austin. "Many utilities are now finding that there are plenty of lower-cost options."



By The New York Times | Source: Energy Information Administration. Hydroelectric and other sources of electricity generation are not shown.

By The New York Times | Source: Energy Information Administration. Hydroelectric and other sources of electricity generation are not shown.

That shift has been beneficial for efforts to slow global warming because coal produces more carbon dioxide per unit of energy than any other source in common use. Its decline has lowered CO₂ emissions in America's power sector 27 percent below their 2005 levels.

But as coal companies continue to lose business, some have appealed to Mr. Trump to intervene.

On June 1, Mr. Trump ordered Energy Secretary Rick Perry to "prepare immediate steps" to halt the further closure of coal and nuclear

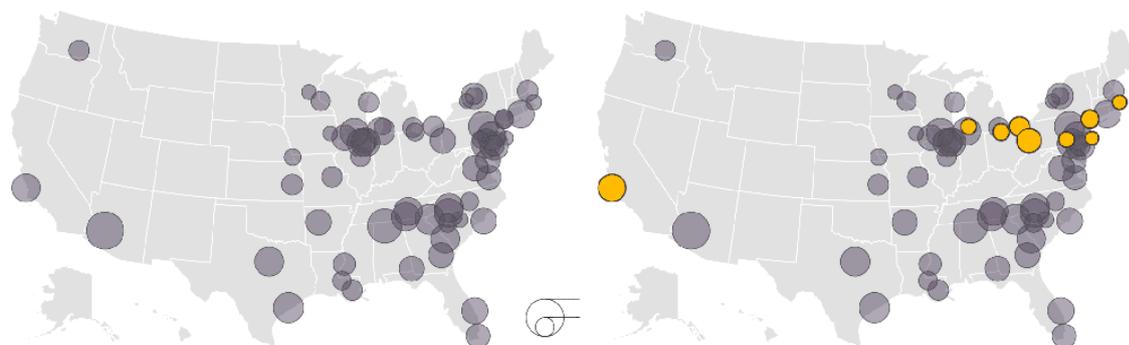
plants. And a leaked internal memo suggested that the administration was considering a drastic intervention in America's electricity markets to do so.

Right now, in parts of the country with deregulated electricity systems, like the Mid-Atlantic region, energy companies compete in auctions to sell their electricity to the grid. A glut of cheap natural gas has caused the prices to fall sharply in recent years — a big reason that many coal and nuclear plants have become unprofitable.

The memo suggested that the Energy Department could try to circumvent these forces by ordering grid operators to buy electricity at above-market rates from certain at-risk coal and nuclear plants for at least two years.

Nuclear Power Is Also Waning

In recent years, America's nuclear power plants have also been succumbing to many of those same market forces. Six nuclear reactors have shut down permanently since 2013, victims of high maintenance costs and competition from cheap natural gas, and 11 more are slated to close by 2025.



Nuclear power in March 2018

Generating capacity
(gigawatts)

4

1

Planned retirements through 2025

The decline of nuclear power, the nation's largest source of carbon-free electricity, is more ominous for efforts to slow global warming.

Experts have warned that if these reactors close, they will likely be replaced by natural gas in the near term and emissions will rise. (While natural gas is cleaner than coal, it is still a fossil fuel and produces carbon dioxide when burned for electricity.)

"Coal and nuclear often get lumped together, but there are at least good climate reasons to worry about the loss of those nuclear plants," said Jason Bordoff, director of the Center for Global Energy Policy at Columbia University. "That's not the case with coal."

While the White House has not cited climate change as a reason for saving these plants, several states — including New Jersey, Illinois and New York — have moved to subsidize their at-risk nuclear plants in the name of fighting global warming. But in Ohio and Pennsylvania, where utilities have threatened to close four reactors, lawmakers have so far been slower to intervene.

Good for Coal Companies, Bad for Consumers

If enacted, Mr. Trump's order is widely expected to benefit companies like FirstEnergy, an Ohio-based utility whose subsidiary declared bankruptcy in April, putting three nuclear plants and two coal plants at risk of closing. FirstEnergy has urged the administration to pursue a rescue plan, as has Robert E. Murray, a major Trump donor and mining executive whose company sells coal to FirstEnergy.

But the proposal has triggered fierce blowback from a broad alliance of other energy companies that would stand to lose market share. The oil and gas industry has joined with wind and solar groups in opposition, calling the idea "unprecedented and misguided" and threatening lawsuits if the proposal goes forward.

The leaked Energy Department memo indicated that the White House may invoke national security and rely on emergency powers that are normally used for short-term crises like hurricanes. The administration has argued that the loss of coal and nuclear plants, which can run around the clock, would make America's electric grid less reliable. But grid operators themselves have disputed this rationale, arguing that there is no pressing emergency.

An attempt to prop up unprofitable plants could also mean higher prices for consumers. An earlier bailout proposal by Mr. Perry would have cost between \$311 million and \$11.8 billion per year, according to an estimate by the research firm Energy Innovation. That plan was ultimately rejected by federal regulators, who have been no less critical of the administration's latest idea.

"This intervention could potentially 'blow up' the markets and result in significant rate increases without any corresponding reliability, resilience, or cybersecurity benefits," warned Robert F. Powelson, one of Mr. Trump's own appointees on the Federal Energy Regulatory Commission, which oversees electricity markets, at a Senate hearing on Tuesday.