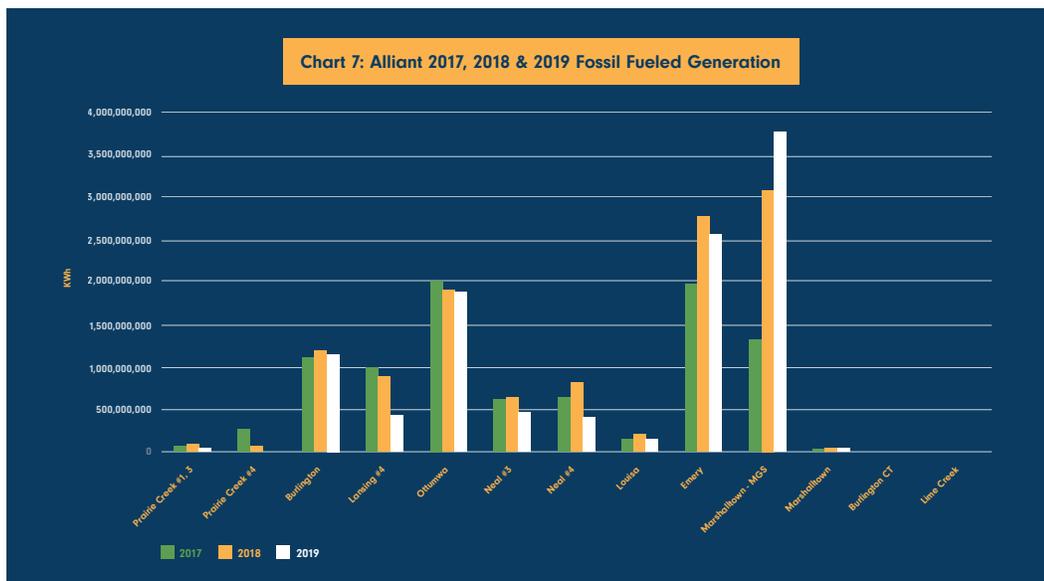


Excess Coal Generation in Iowa

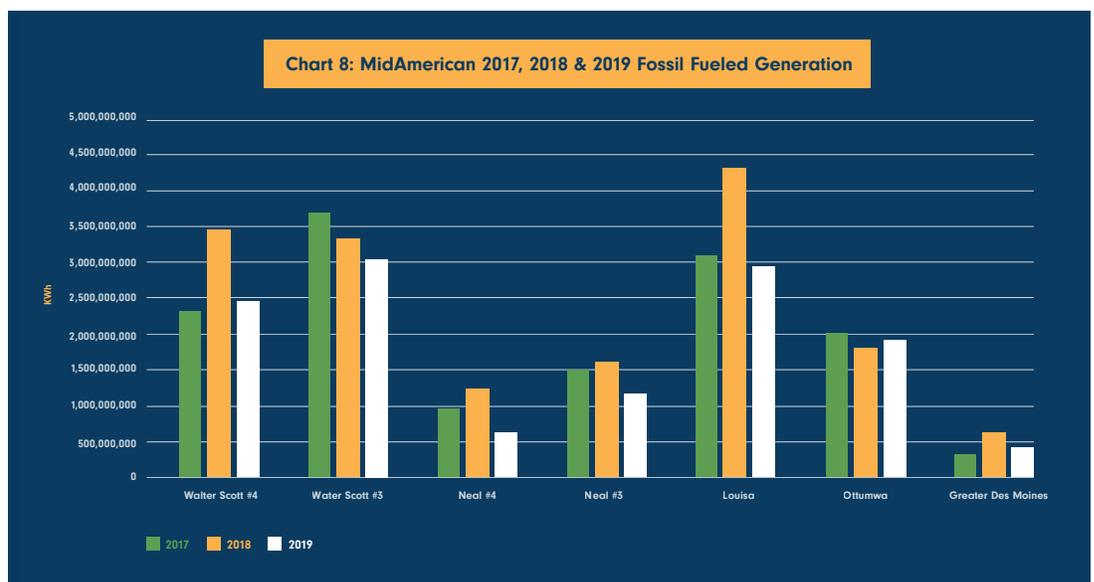
This is the third in a series of policy briefs breaking down the findings of the recent IEC publication, [Iowa Electric Generation: Condition of the State](#), October 2020.

In 2019, fossil-fueled electricity generation represented 38% of MidAmerican generation and 55% of Alliant generation.¹ By comparing the generation from each fossil-fueled power plant, it is easy to identify the specific plants that have increased fossil-fired generation and where generation has decreased.² Charts 7 and 8 below can be found on pages 5 and 6 of the full [Condition of the State publication](#).



The electricity sold to Iowa customers (retail load) was only a portion of the 2019 generation in Iowa. In 2019, 31% of MidAmerican’s generation and 35% of Alliant’s generation was not used to serve Iowa customers but was sold to other utilities for profit.

You can read more about this issue in the [second brief](#) in our series. This is important when we are considering the health and environmental costs of these plants that fall directly on Iowans but do not provide any benefits to people here.



Excess Coal Generation in Iowa

Since electric generation is categorized by type, the environmental impacts from the different types of electric generation can be quantified. It is well known that coal is the most environmentally damaging fuel to use for electricity generation, with environmental impacts ranging from air and water pollution to high carbon emissions. If we consider the true cost of environmental externalities from health impacts and a changing climate, as well as the overall cost of generation using this fuel, coal should be the last resort, not the default or “baseload” for generation. With that in mind, the amount of excess coal fueled generation, defined as coal fueled generation that is not necessary to serve Iowa customers, can be calculated by comparing the utilities’ total generation to their actual Iowa load.³ The excess coal fueled generation for MidAmerican and Alliant in 2019 was as follows:

Table 3: MidAmerican 2019 Excess Coal Fueled Generation

	MWh
2019 MidAmerican Customer Load	26,200,820
Subtract the Generation from Wind	16,127,832
Subtract the Generation from Nuclear	3,848,602
Subtract the Generation from Fossil Gas	440,494
Subtract the Generation from Other Resources	8,950
Total 2019 Customer Load Not Served by Resources Listed Above	5,774,942
Subtract the 2019 MidAmerican Coal Fueled Generation	12,181,572
Total MidAmerican Excess Coal Fueled Generation	6,406,630

Table 4: Alliant 2019 Excess Coal Fueled Generation

	MWh
2019 Alliant Customer Load	14,177,172
Subtract the Generation from Wind	2,067,059
Subtract the Generation from Other Resources	6,685,621
Subtract the Generation from Fossil Gas	6,354,783
Total 2019 Customer Load Not Served by Resources Listed Above	0
Subtract the 2019 Alliant Coal Fueled Generation	4,482,462
Total Alliant Excess Coal Fueled Generation	4,482,462

MidAmerican produced an excess of 6.4 million megawatt hours (MWh) of coal generation and Alliant 4.5 million MWh. For MidAmerican that means that the 2019 production from Neal 3, Neal 4, Louisa, and 87% of Ottumwa production was not required for Iowa customers. Alliant did not need the entire 2019 electricity production from any of its coal plants, including Prairie Creek 4, Lansing 4, Neal 3, Neal 4, Ottumwa, and Louisa for Iowa customers. This costly excess coal generation leads to needless pollution that directly impacts Iowans, at the expense of customer’s health and financial well-being.

Excess Coal Generation in Iowa



In fact, Neal Unit 3 and Neal Unit 4 have been uneconomic to operate for several years.⁴ In 2019, Unit 3 operated at only 35.5% capacity and cost Alliant and MidAmerican customers' \$55.63/MWh. That same year, Unit 4 operated at just 27.6% capacity, costing Alliant and MidAmerican customers \$61.43/MWh. To put that in perspective, Alliant and MidAmerican could have retired Neal 3 and Neal 4, and purchased wind power on the market at just \$26.87/MWh.

In 2020, the Sierra Club released "THE COAL TRUTH, MidAmerican can save customers millions by retiring uneconomic coal plants, August 2020".⁵ Based on the Sierra Club report, in total, the plants lost \$47 million over the five-year period of 2015 through 2019, and by failing to retire both plants by 2023, it will cost Alliant and MidAmerican customers an additional \$157 million for the dirty, unnecessary coal generation.

Next up in the series: *Pollution and Waste from Excess Coal Generation in Iowa.*

¹ 2019 Q4 FERC Form 1, Alliant and MidAmerican

² 2017, 2018, and 2019 Q4 FERC Form 1, Alliant and MidAmerican

³ 2019 Q4 FERC Form 1, Alliant and MidAmerican

⁴ See RPU-2019-0001, Revised Direct Testimony of Paul Chernick (Public), (filed Sept. 26 2019) attached as Posner Direct Exhibit 2; RPU-2019-0001, Direct Testimony of Uday Varadarajan, (filed Aug. 1, 2019), attached as Posner Direct Exhibit 3; and Sierra Club, The Coal Truth: MidAmerican can save customers millions by retiring uneconomic coal plants (August 2020), attached as Posner Direct Exhibit 4.

⁵ ["THE COAL TRUTH, MidAmerican can save customers millions by retiring uneconomic coal plants, August 2020"](#)