Research

Small Business Implications of Greenhouse Gas Regulation

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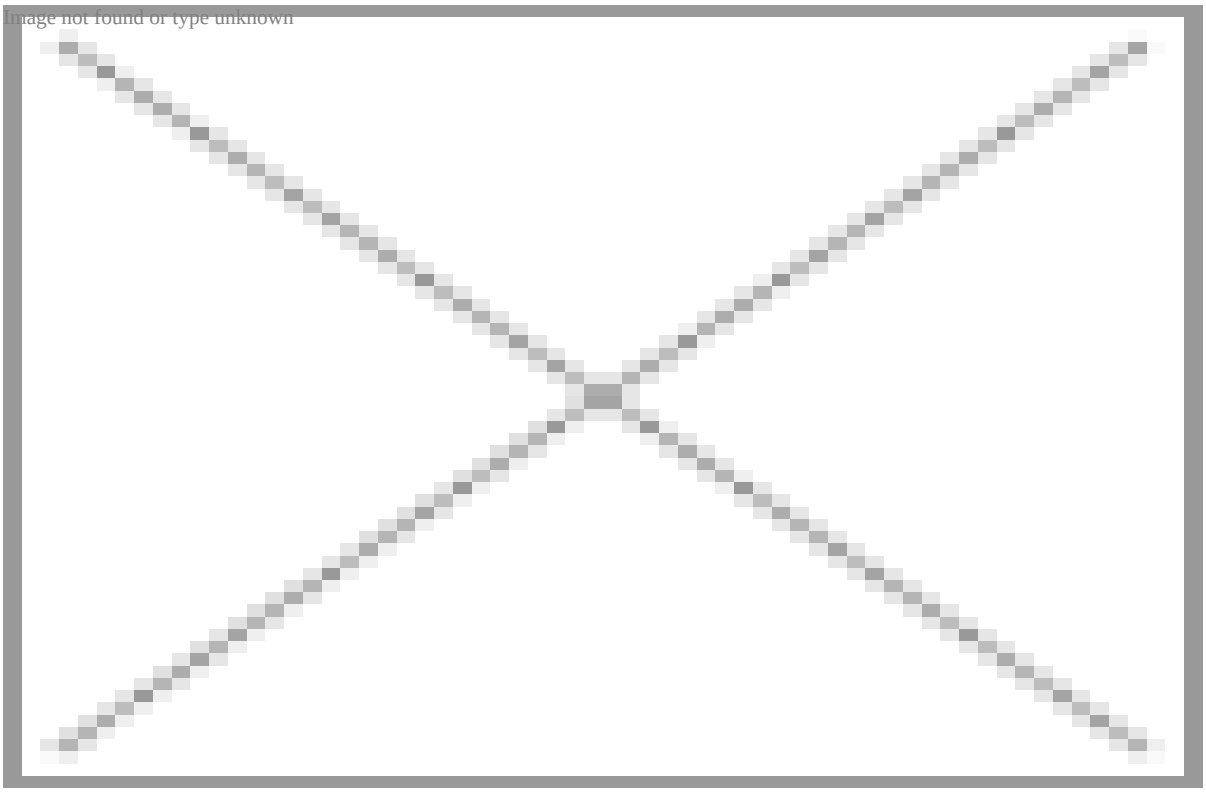
With the release of another round of greenhouse gas regulations (GHG) for power plants, the American Action Forum (AAF) examined the possible impact for small businesses. We found that regulation would affect more than 50 private small utilities across 26 states. Combined, these small businesses employ more than 9,100 workers, produce 71.7 million megawatts hours of power, and provide electricity for 3.3 million American customers and households. Although many presume environmental regulation only forces larger companies to pay for remediation, the data show more than 50 small businesses would bear a disproportionate share of the compliance costs.



METHODOLOGY

There are three main components for a utility to qualify as a small business subject to EPA's new regulation. First, it must meet the Small Business Administration's (SBA) criteria, which states, "A firm is small if, including its affiliates, it's primarily engaged in the generation … of electric energy for sale and its total electric

output for the preceding fiscal year did not exceed 4 million megawatt hours." The data on megawatt hours is subject to some variability year-to-year; AAF used Energy Information Administration data from 2012 but also supplemented with EPA's data, which is from 2009. We focused solely on generation, not transmission or distribution. Therefore, this study examines only the owners and operators of small power plants directly affected by new regulation. Obviously, those who transmit, distribute, and consume electricity will also face possible compliance costs.

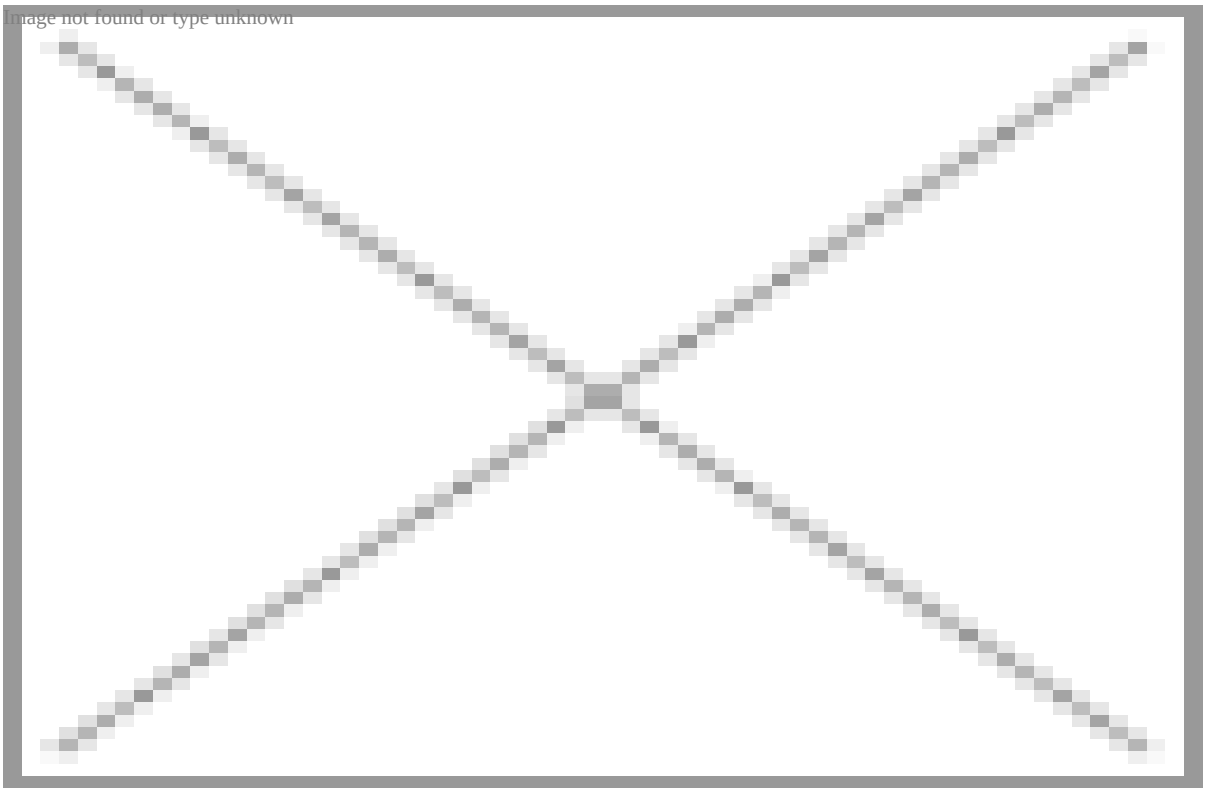
Second, a utility must be small enough under SBA's definition but large enough under EPA's regulatory threshold. According to EPA, a covered regulated entity must have "more than 25 MW net-electric output (MWe)." Thus, all entities in AAF's sample must produce less than 4 million megawatt hours of power and have a total output of more than 25 MWe.

Third, and perhaps most self-evident, these utilities must burn fossil fuels, which in turn produce carbon dioxide. EPA regulated only "CO_2 and not other constituent gases of the air pollutant GHG." For individual facilities, we used EPA's "Greenhouse Gas Emissions from Large Facilities" database for CO_2 data. AAF's list is not intended to be exhaustive, merely a significant sample of utilities likely affected by new regulation.

FINDINGS

AAF found 53 small utilities that meet SBA's definition and that EPA will likely regulate under the new rule. Combined, these utilities manage 138 locations across the U.S. and employ more than 9,000 workers.

The utilities produce about 50 million tons of CO_2e, or six-tenths of one percent of total U.S. emissions. The average facility emits approximately 330,000 tons of CO_2e per year; this compares to the largest emitter in the U.S., which produces 22 million tons annually.



For generation, the average facility generates just 444,000-megawatt hours (MWh) annually. The average small utility company in the sample produces 1.3 million MWh, with a low of 4,231, to a high of 3.9 million MWh. Thirty-one companies operated just one facility, according to EPA data.

Below is a table that outlines the distribution of entities by state, with data on average generation for a small utility, total small business employment, and average emissions for facilities.

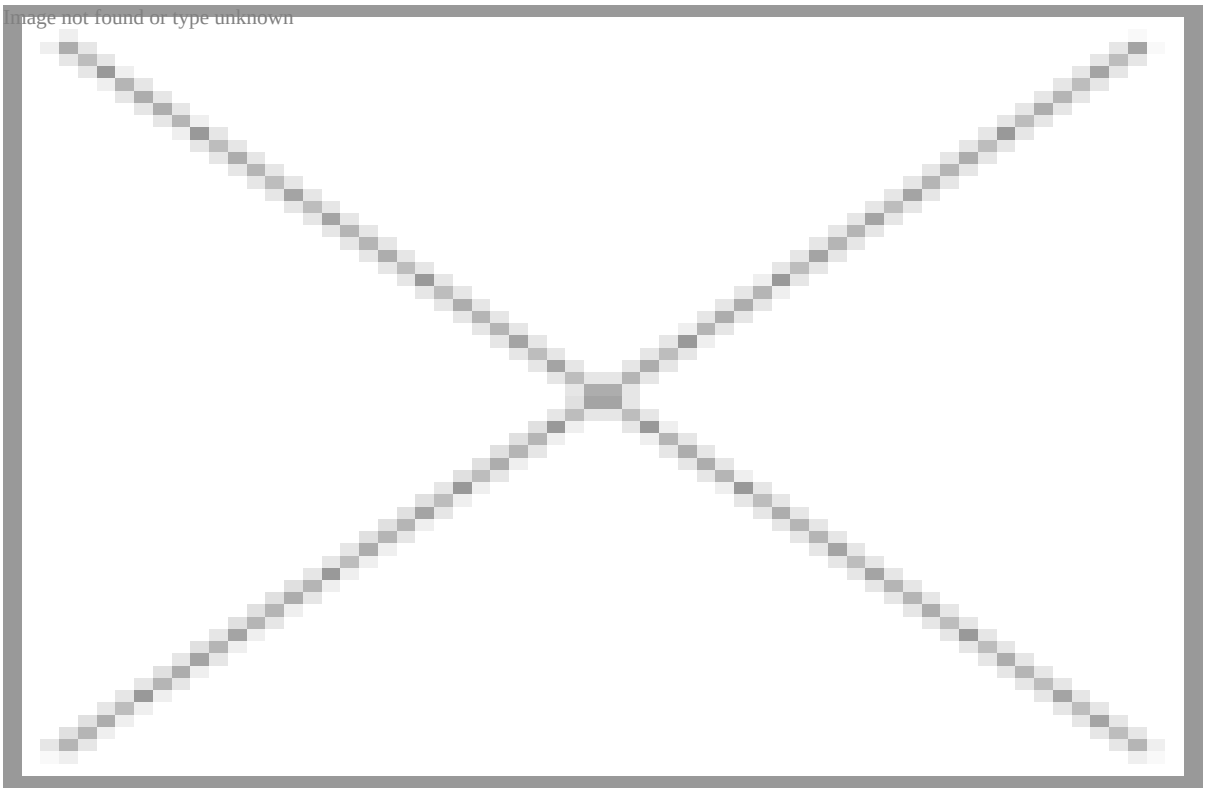
State	Average Generation (MWh)	Total Employment	Average Emissions (Tons of CO_2e)
Alaska	701,226	658	1,507,609
Alabama	107,123	23	128,919
Arizona	2,681,731	320	1,311,159
Arkansas	990,183	248	3,819,728
California	988,601	43	497,708

Colorado	243,084	11	217,636
Florida	270,548	43	131,547
Georgia	1,347,206	584	80,086
Iowa	1,326	120	13,208
Illinois	619,447	186	772,911
Kansas	2,999,848	1,105	242,095
Michigan	222,728	140	68,010
Missouri	1,557,392	722	263,716
Montana	454,974	10	842,689
North Carolina	538,142	150	125,904
Nebraska	3,195,412	450	9,486
New Hampshire	3,912,071	50	1,532,116
New Mexico	3,515,488	1,000	449,665
New York	1,715,918	1,287	729,703
Oklahoma	3,890,298	360	2,797,027
Rhode Island	1,610,946	18	627,405
Texas	1,292,681	593	829,407
Virginia	1,275,374	331	2,782,823

Washington	1,075,813	10	383,571
Wisconsin	2,850,562	586	141,671
West Virginia	349,906	58	466,723

Texas has the largest number of small utilities, with seven. The state is known for its coal and refining industry, but six of seven facilities actually burn natural gas. Combined, these seven companies employ 593 employees. New York, a state not known for fossil fuels, has five small utilities, all of which burn natural gas.

Regarding the mix of fuels nationwide, it is not exclusively coal-fired plants. In fact, a vast majority (39) employ natural gas; 11 use coal, while the other two burn diesel and oil, respectively. The average coal utility emits roughly 2.1 million tons of CO_2e annually, compared to natural gas emitters, which produce 387,000 tons of CO_2e each year.



A CASE STUDY

One company likely affected by new regulation is San Miguel Electric Cooperative, which owns a single facility in Christine, Texas. The 36 year-old company employs 183 workers and produces 2.9 million MWh of power to Texans in rural areas. Its facility is approximately 60 miles south of San Antonio, Texas.

According to the CEO, Mike Kezar, without shareholders and the ability to raise large sums of capital, regulatory compliance costs from greenhouse gas regulation "will be borne directly by the cooperative consumers/members." San Miguel Coop might bear the initial retrofit costs, but those burdens will eventually find their way to the ratepayers in the area. Mr. Kezar called the effect of GHG regulation on small entities "catastrophic."

With a small compliance staff, and an even smaller generation portfolio (one), San Miguel will face higher relative compliance costs than its larger competitors in the energy market. It is unlikely that EPA will provide regulatory exemptions for small facilities like San Miguel. In its last two major rulemakings for stationary sources, Utility MACT and the Cross-State Air Pollution Rule, the latter of which the D.C. Circuit Court of Appeals later vacated, EPA did not provide special treatment for small entities, other than the aforementioned 25 MWe generation threshold.

It is clear that small facilities with sparse capital reserves will be the most impacted by stringent GHG standards. Even thought they contribute less than one-percent of U.S. emissions, small entities will face the same regulatory hurdles that large utilities encounter.

REGRESSIVE IMPACT

It's unlikely EPA institutes exemptions for small entities, and there is a strong chance the agency will deny a significant regulatory impact on small businesses. The Regulatory Flexibility Act directs agencies to certify whether a regulation will have a "significant economic impact on a substantial number of small entities" (SISNOSE). There is no quantified definition for SISNOSE and few agencies even concede a regulation will significantly burden small businesses.

Although EPA rarely uses the SISNOSE label, it has admitted the regressive effect of regulation. In its Utility MACT analysis, it acknowledged some small entities would face costs exceeding "3 percent of base revenue," with a handful of other facilities that would shut down as a result of the regulation. Instead of certifying that the regulation would impose a SISNOSE, EPA noted, "it cannot certify that there will be no significant economic impact on a substantial number of small entities (SISNOSE)."

In EPA's GHG reporting rule, its analysis went a step further and analyzed the "cost-to-sales ratios." With costs per entity from 14,000 to 17,000, the regressive effects were apparent. EPA found an entity with 1-20 employees would bear a cost-to-sales ratio of 1.32 percent, compared to 0.05 percent for a business with 100-499 employees. The largest entities, 1,000-1,499 employees, would bear the lowest ratio of cost-to-sales, 0.02 percent. In other words, the smallest businesses bear a regulatory burden 65 times greater than their largest competitors do.

These relative compliance cost differences aren't directly attributable to nefarious lobbying by special interests. More likely, they result from simple economies of scale. Take for example the collection of information for the Acid Rain Program. The reporting contains 19 different forms, imposes 2 million hours of paperwork and costs $150 million annually. On average, it takes each respondent 1,249 hours, or 52 continuous days of work, to complete the required paperwork.

For a large entity with a team of lawyers and regulatory compliance staff, 1,200 hours might be trivial, but for a small company, that time represents a serious investment. Some extremely small entities have executives engage in regulatory compliance because they don't have a dedicated regulatory affairs department. The regressive effects of regulation are well known, and the energy industry can expect similar results once GHG regulation is finalized.

CONCLUSION

Regulation, especially the control of greenhouse gases, has profound implications for small entities. Many of the establishments described above don't have shareholders or massive capital reserves to spend millions of dollars under a new regulatory regime. More than 50 small businesses and 9,000 employees directly affected are hoping that EPA understands their economic reality. If history is any guide, regulators will likely give short shrift to the impact of GHG regulation on small utilities.