Some of the people who are most fervent about the environment these days describe themselves as socialists. But is socialism actually a good thing for the environment? That seems like a significant question in a political context where people on both sides are throwing around the word "socialist" so much, so I decided to see if there's any actual evidence on the question.

Before looking at the evidence, we first have to decide what we mean by "socialism." An illuminating column by a political scientist in the Washington Post distinguishes among three strands of socialism: communism, democratic socialism, and social democracy. In terms of the first category, the people describing themselves as socialists these days all embrace democracy, so that excludes communism – a good thing from an environmental perspective, since the Soviet-era communist regimes were environmental disasters. In the third category, social democracy, the economy is largely market-driven, but with substantial government regulation and income redistribution. As implemented in Scandinavian countries, that seems to go along with strong environmental policies. It's the middle category that I'd like to focus on here: government ownership of industry.

As it happens, the energy sector provides a nice testing ground. Most U.S. utilities these days are privately owned – investor owned utilities or IOUs in industry jargon. But a number of utilities are owned by municipalities, one is owned by the state government, and a couple of big ones are owned by the federal government. People don't think of these as examples of socialism, but they surely are. How do they compare with the private utilities (IOUs)?

In terms of their overall performance, energy law scholar Shelley Welton has made a substantial case for the benefits of publicly owned utilities. In terms of economic performance, she points out that the evidence suggests "public power is frequently cheaper from an end-consumer perspective—that is, public power has a 'rate advantage'," with rates averaging about 13% lower than private utilities. In terms of environmental performance, she points to a number of cities such as Boulder, Austin, and San Antonio whose publicly owned utilities are on the cutting edge of climate action. She argues that in an era where utilities need to satisfy multiple goals, including efficiency, sustainability, and equity, public ownership is more advantageous than in an earlier era.

Public ownership is not, however, an environmental panacea. The Los Angeles Department of Water and Power serves over a million customers. (LADWP is probably most famous for its role as villain in the movie *Chinatown*.) A March 2018 report said it got 16% of its power from coal-fired facilities, about half its power from natural gas, and around 35% from zero-carbon sources (hydro and renewables). LADPW planned a massive investment to update three natural gas plants that provide over a third of its total power, but under heavy

public pressure agreed to use clean power to replace them. As of 2016, nearby privately owned Southern California Edison (SCE) reported getting 25% of its power from renewables and used less natural gas and no coal. So the public-private comparison doesn't look great in SoCal. An important caveat is that SCE gets a lot of its power from sources that can't be classified, I'm guessing because the power is purchased on the California grid operator's auction market so the generation source isn't as easily traced, as opposed to long-term contracts (called PPAs in the trade) where tracing is easy. (The California grid as a whole doesn't use that much coal power, so it's unclear that this would really change the results.) But at least any environmental superiority of the publicly owned LADWP doesn't jump out at you.

All utilities in Nebraska are publicly owned or nonprofit. According to the federal Energy Information Agency, in 2017, "Nebraska obtained about three-fifths of its net electricity generation from coal, about one-fifth from nuclear power, and nearly all of the rest from renewable resources, mostly wind and hydropower." Neighboring South Dakota, where only about 15% percent of the population is served by municipal utilities,, gets 40% of its power from hydro and 30% from wind according to the same federal agency.

Probably the best known government utility in the country is the Tennessee Valley Authority (TVA), a product of FDR's New Deal. TVA, which was founded to exploit the area's rich hydroelectric resources, does not have a sterling environmental reputation. It says its energy mix is " 37% nuclear, 24% coal, 20% natural gas, 9% hydro, 3% wind + solar and 7% energy efficiency." That's actually not at all bad for that part of the country, but it's not great either. It's surprising that TVA hasn't made more use of renewables, and it says it doesn't plan to invest in any new solar until 2023. On the other hand, to its credit, TVA refused to bow down to Trump tweets demanding it keep some unneeded coal plants in operation. Overall, TVA doesn't appear to be a villain in terms of carbon emissions but isn't exactly leading the charge to address climate change.

So what do we learn from this survey of "socialism" in action? These are limited case studies, both in number and in depth. As an academic, I have to be tentative in what I say based on this impressionistic survey. (Give me funding for an army of research assistants and I promise I can do much better!) Still, the evidence does bear on whether government ownership is good for the environment. Based on U.S. experience with government-owned utilities, the relationship between government ownership and environmental performance seems variable. If the public wants environmental protection, government ownership makes that easier. But if the public doesn't care, neither does the government. This seems quite consistent with Welton's view of municipal ownership of utilities:

“In those cities that manifest a political desire to respond to climate change more aggressively than their surrounding jurisdictions, public control or ownership of energy may be a particularly effective tool in accomplishing these objectives. Conversely, many localities with different political predilections will never outperform their states on climate change, irrespective of public control over their electric utility.”

In short, the answer to the question “Is socialism, in the form of government ownership of utilities, good for the environment?”, seems to be “Yes, but only to the extent that the government entity in question cares about the environment.” At least based on what evidence I’ve been able find, eliminating the profit motive does not by itself foster great environmental virtue.