



Where your power comes from: Electric Utilities 101

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EXECUTIVE SUMMARY

This report briefly summarizes the types of electric utilities and energy markets in the United States and examines some of the policy reforms that are open to local communities for each utility type and energy market. The report also outlines two additional alternative utility structures, Community Choice Aggregation and the Sustainable Energy Utility, and details how communities can form their own, if it aligns with their policy goals. Understanding electric utilities and who controls them is increasingly important as energy affordability and access to renewable energy sources becomes a top policy priority for many communities. The goal of this report is to serve as an introduction to electric utilities for local communities in order to better inform them about the policy options that are available. We also aim to show various ways for communities to achieve public control of their power grid.

INTRODUCTION

An electric utility is a corporation, agency, authority, or other legal entity that distributes electric energy for the public.¹ The three main electric utility structures in the United States are Investor-Owned Utilities (IOUs), Publicly Owned Utilities (POUs), and Cooperative Utilities (also known as electric co-ops or rural energy cooperatives [RECs]).²

As of 2024, IOUs serve the majority of energy customers in the US at around 62% of all electricity customers, while POUs and co-ops serve around 13% and 15%, respectively. Despite serving a small percentage of total customers, 55% of all electric utility companies in the US are POUs; meanwhile, IOUs and co-ops represent only around 6% and

27% of US electric utilities. The remainder of customers receive their electricity through rooftop solar or retail energy providers. In Texas, this latter group is made up entirely of independent energy suppliers.³

In addition to the main three utility structures, we will also discuss two newer policy frameworks that are designed to upend the traditional utility structure: Community Choice Aggregations (CCAs) and Sustainable Energy Utilities (SEU). Both have unique approaches meant to give communities more control over their energy supply and help achieve their climate action goals.

KEY FINDINGS

- The type of energy market a state or community is in (regulated or deregulated) affects the available policy options for local communities.
- Public power is becoming more popular across the country despite the decrease in the number of publicly owned utilities, and communities are implementing vastly different strategies to achieve public power while providing affordable, clean energy to their customers.
- Energy prices and consumer costs are the driving factors for many electric utility policies across the country.

ENERGY MARKETS

There are two types of energy markets in the US, and their differences drastically affect the energy policies available to communities.

In a **regulated market**, electric utilities are vertically integrated, meaning that they control the total flow of electricity from generation to consumers' homes.⁴ Around two thirds of states have regulated utility markets. The remaining states, including Michigan, have a deregulated (a.k.a. "restructured") market.

In a **deregulated market**, electric utilities are prohibited from owning the generation resources and are responsible only for distribution, operations, transmission, and billing ratepayers. The goal of this deregulation was to allow the market, rather than the monopolist utility, to set the price for electricity. Depending on the form of restructuring, utility companies either have to purchase power from independent power producers that compete in the wholesale electricity market, or electricity customers have the choice to purchase power from other electric suppliers. There is significant variation among the states in the type of restructuring and level of deregulation, so very few states fit cleanly into one category or the other.⁵

UTILITY STRUCTURES

Investor-Owned Utilities

IOUs, like DTE and Consumers Energy, are for-profit companies that operate as regulated monopolies on the distribution, transmission, and—in regulated markets—generation infrastructure. These are "traditional" utilities that have existed for decades and were granted their monopolies by the state.⁶

IOUs make their money not by selling electricity to consumers but from an allowed rate of return on capital expenditures (e.g., building new distribution lines, generating plants, etc.). Most operating costs are passed to customers, without profit for the utility, into their electricity rate. Typically, rate cases occur every 3–5 years, but utility companies or consumer groups can initiate a rate case earlier.⁷



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This system results in what is known as capital expenditure or CapEx bias. When faced with the choice to spend capital to build a power plant or to spend their operating budget to help customers conserve energy, utilities are biased toward building the power plant. As such, utility companies are incentivized to ignore or avoid cost-effective activities, like efficiency or operating improvements, as they don't bring in any profit.⁸

There is also mounting evidence that the rates of return are increasing more quickly in recent years compared to previous periods, with IOUs estimated to collect around \$7 billion per year from excess rates. Evidence suggests that IOUs are able to achieve this by strategically varying the timing and duration of rate cases. This means that utility companies can choose to initiate rate cases when the financial or policy environment is favorable for capital investments. They can also choose to "flood-the-zone" with long and repetitive rate cases to deter pushback from consumer advocacy groups. This suggests that regulators are more responsive to pressures from utilities than from consumer interests. There is additional evidence that suggests that regulators are more responsive to the overall level of energy prices than to changes in capital costs, which further incentivizes utility companies to overbuild.⁹

Such overbuilding runs counter to climate action goals by potentially creating more energy infrastructure than will be needed in a cleaner, more energy efficient economy. This point is more salient today as the potential increases in energy demand from data centers offers a perfect excuse for IOUs to build out even more. It also leads IOUs to oppose or delay projects like community and distributive energy resources and net metering, as these projects directly undercut the utilities' ability to make money.¹⁰

The current rate of return structure is an artifact of the origin of electric utilities known as the “regulatory compact.” It was built under the urgent need to expand access to electricity across the country. To do so, electric utilities needed to attract investors in order to build out their distribution and transmission lines and their generation sources.¹¹ Now that a vast majority of the country has access to power, there is less need to incentivize building more infrastructure. In order to continue to extract this extra value, IOUs have used their guaranteed returns to fund candidates that will pass favorable laws and block legislation that would change the status quo.¹²

Attempts at Reform

Governments have attempted to change the incentives of IOUs through performance-based regulation (PBR). This is a regulatory approach that aims to align a utility's profit motives with societal goals like decarbonization, reliability, resilience, and cost control through a series of policy reforms. Some examples of these reforms include: decoupling revenue from sales, multi-year rate plans, and performance metrics for desired outcomes.¹³

PBR represents an alternative to the traditional “cost of service” regulation by compensating utilities for how they perform (e.g., reducing emissions or improving reliability) rather than for selling more electricity or making new infrastructure investments. Many states are experimenting with different PBRs, including Michigan.

Publicly-Owned Utilities

Publicly-Owned Utilities are not-for-profit entities owned by taxpayers and run as divisions of government or independent public utility districts. POUs can operate at various levels of government, from the federal level (like the Tennessee Valley Authority), to the state level (like Omaha Public Power District in Nebraska), and down to the local level (like the Los Angeles Department of Water and Power). When they are run by city governments, they are called municipal utilities (“munis”).¹⁴

Most of the POUs in existence today have their origins in the early 20th century.¹⁵ Small communities that were not fully serviced by the newly created IOUs chose to start their own electric utilities. Some larger cities formed POUs when they brought streetlighting to their communities.¹⁶ In other cases, the POUs were created by federal laws as a part of the New Deal, like the Tennessee Valley Authority.¹⁷ The last POU was created in 2013.¹⁸

POUs are managed by governing boards or councils who are elected or appointed by elected officials. As such, they are required to follow local and state transparency and disclosure laws as well as follow any state laws governing electric utilities, government entities, and nonprofits. Despite not being governed by public utility regulators, some POUs, as a matter of industry practice, continue to follow the safety standards established by their state's utility regulators, with whom they work closely.¹⁹ Perhaps as a result of this, POUs tend to have lower electricity rates and more reliable electricity service than other utility company structures.²⁰

Since a vast majority of the country is electrified, the process of creating a POU today involves a local or city government's buying out the local transmission and distribution lines and any other infrastructure from the utility company through a long and complicated legal process.²¹ This can cost local governments hundreds of millions of dollars, which has resulted in the creation of few POUs in the past few decades.²²

States have differing legal requirements and rights that local governments have to follow in order to form POU. Generally, as is true for Michigan, the decision to form a POU is up to the voters in local communities.²³ In these cases, however, the municipalization would only apply to energy infrastructure that is within the municipal boundaries of the city.²⁴

Municipalization

States have differing laws that dictate the formation of POU. However, the process of forming one is fairly similar for most communities. To start, a political movement to form a POU must exist within the community. This movement must recruit voters, lawmakers, and other stakeholder groups in order to create the necessary base needed to support the municipalization process. Once a strong enough movement exists, the local government can follow the process below:

1. The local government conducts a feasibility study to answer the question: is forming a POU economically feasible? The study will look at all of the costs and benefits associated with a new utility as well as the value of the electric distribution system in the community.
2. The local government next conducts a legal analysis of local and state laws to identify any potential legal hurdles.
3. A referendum is held to allow voters to weigh in on the results from the feasibility study and legal analysis.
4. If voters pass the referendum, the local government can begin negotiations with the incumbent utility company, but if the utility refuses to negotiate or asks for an exorbitant price, local governments can pursue legal action.
5. Once an agreement is reached, and the state utility regulator has given its approval, then the local government can pursue financing options and begin operations in accordance with the agreement with the incumbent utility.²⁵

The most recent successful municipalization effort was in 2013 when Jefferson County Public Utility District in Washington acquired the electric assets of Puget Sound Energy.²⁶ However, the vast majority of municipalization efforts in the past 25 years have failed, mostly due to high costs or failed voter referendums. Of the 65 attempts that have occurred in the last 25 years, only seven resulted in the creation of a utility, and two were subsequently sold back to the IOU because of rising electric rates for customers.²⁷



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Rural Energy Cooperatives

Co-ops are private, not-for-profit providers of power owned by the people they serve and operate as businesses.²⁸ Most were created with the passage of the Rural Electrification Act in 1936 to expand electricity to rural homes in the US. They function similarly to POU, except that rather than being contained in one or more municipalities, they serve customers across a wide region, primarily in rural areas. Members of the co-op have a say in the governance of the utility by electing representatives to serve on the governing board.²⁹

Co-ops must follow all state and federal laws that pertain to electric cooperatives. This includes state utility regulators, but depending on state laws, cooperatives are not always required to answer to their state utility regulators.³⁰

ALTERNATIVE UTILITY STRUCTURES

Community Choice Aggregation

Primarily occurring in states with deregulated wholesale markets, Community Choice Aggregators are not-for-profit local government entities that take over an IOU's responsibility for buying wholesale power from generators.³¹ They are also referred to as: municipal energy aggregations, community choice energy, energy aggregators, and government aggregations.³²

Unlike a POU, CCAs do not require the local government to buy and manage a utility's distribution and transmission infrastructure.³³ However, the local government still relies on the utility's infrastructure and systems for transmission, distribution, and billing. CCAs are managed by local government officials and are overseen by elected and appointed boards of directors. As such they are subject to stricter laws and norms of transparency and accountability than IOUs, and they are still governed by their states' utility regulators.³⁴

Moreover, by aggregating the electricity demand, CCAs can purchase their own power through short- or long-term contracts with independent energy suppliers, usually leading to cost savings. In some markets, CCA customers pay prices that are 15 to 20 percent lower than the rate for power provided by IOUs.³⁵ CCAs can also allow communities to be more proactive in their climate policy goals by acquiring cleaner power than what is offered by IOUs. Many CCAs already offer 100 percent renewable energy to their customers.³⁶ Municipalities can also choose to pay an added fee that can be dedicated to funding energy efficiency or renewable energy projects through tiered rates to the energy supplier.³⁷

State-level legislation is needed to authorize the creation of a CCA. The local government must also hold public hearings and pass a law authorizing the CCA within its jurisdiction. Resident participation in the CCA is voluntary. Some states have an opt-out structure that enrolls customers automatically after an advance notice is sent, securing more buying power than the CCA would have if enrollment were on an opt-in basis.³⁸

Some other potential benefits of CCAs include: enabling a swifter shift to greener power resources, expanding consumer choices, and enabling more policy options for local government through greater local control of electricity generation.³⁹

CCAs also have some potential costs or downsides: Cost savings are not always durable; opt-in versus opt-out clauses can be confusing to consumers; CCAs may discourage residents from investing in community and distributive energy resources; and implementation depends on state legislation.⁴⁰

Sustainable Energy Utility

SEUs are a form of municipal utility created for the express purpose of providing cleaner energy; SEUs neither replace nor use the distribution wires of the incumbent utility.⁴¹ Instead, through an opt-in program, SEUs slowly build out a new decentralized power system alongside the current centralized one. In practical terms, this involves installing more rooftop solar and batteries on participating residents' homes as well as increasing the energy efficiency of those homes through home audits and remediation plans. This new type of utility is run by the local government and is subject to the same laws and oversight as any other local government agency.⁴²

In the long term, the SEU may focus on developing larger community solar and networked geothermal systems in order to include non-homeowners and increase home electrification rates. As more homes and neighborhoods begin to join the program, the SEU can connect participating homes into a microgrid, a group of interconnected customers and distributed energy resources that acts as a single controllable entity with respect to the grid. This allows residents to pass excess generated or stored power to their neighbors. More advanced microgrids enable local power generation assets to keep the local grid running even when the larger grid experiences interruptions.⁴³ The end goal of the SEU is to create a decentralized power grid that is more locally controlled, clean, and resilient for communities. However, participants in the program can still receive power from their incumbent utility if they need it, and they can sell excess generation back to the main grid.⁴⁴

Only the residents who opt in to the program pay for the services provided by the SEU. The utility can help buy equipment for residents by purchasing solar panels and batteries in bulk and by financing the upgrades with its municipal credit rating. This allows residents to access these sources at a far lower cost than they could independently. In addition, participating residents don't have to pay cash up front or take on debt in order to access the solar panels and batteries; instead the SEU sells the power at cost to the residents without a markup in order to pay off the equipment.⁴⁵

This system runs counter to the current business model based on centralized power distribution and maximizing short-term profit. There are currently two functional SEUs in the United States, one in Delaware and the other in the District of Columbia.⁴⁶ In November 2024, voters in Ann Arbor approved the launch of an SEU.⁴⁷



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The US energy system is currently undergoing a dual crisis. Aging infrastructure, rising energy demand from data centers, and corporate greed are contributing to the growing levels of energy insecurity across the country.⁴⁸ Additionally, our energy system is currently in the process of undergoing a massive transition away from fossil fuels in the hope of preventing the worst effects of climate change. Our current system, mostly reliant on vertically integrated, monopolistic utility companies, is not able or fully willing to address these issues. However, this is not the only choice communities have.

One potential avenue is pursuing more public control over the energy system. This brief outlined a few ways in which a community can pursue public power, namely through municipalization, CCAs, and SEUs. While there is not a single policy or utility structure that is one-size-fits-all, the public power models described above offer communities multiple paths to an energy system that better suits their needs and goals.

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