All that Glitters is Not Gold
Electric Utility Municipalization and How the Regulated Utility Model Can Further Community, State, and National Energy Goals

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I. INTRODUCTION

Recently, some cities on each coast—and a handful in between—have entertained the idea of entering the electricity business by leaving their investor-owned utilities in a process called municipalization. In California, San Francisco and San Jose are primarily motivated by dissatisfaction with their incumbent utility, Pacific Gas and Electric (PG&E), arising most recently from the rolling blackouts that PG&E used in an effort to mitigate catastrophic wildfire risk. Meanwhile, in Pueblo, Colorado, residents have complained of higher power prices and are pushing to form a municipal utility in an attempt to cut power prices. Just up I-25 in Colorado, Boulder believes municipalizing could provide a pathway for deep decarbonization. While political promises of a “better” municipally run utility are cheap and easy, the reality of running an actual utility is much harder.

Simply changing the ownership structure of the electric provider does not address the root causes of constituent concerns. As a result, municipalization would likely fail to address the underlying challenges, while exposing customers to an entirely different set of risks they currently do not face. In that light, this paper should not be read as a criticism of existing municipal utilities, but rather as a call for communities that are discussing municipalization to be clear-eyed about tradeoffs associated with switching ownership models.

The paper first describes the criticisms leveled at investor-owned utilities—issues that can be effectively addressed through thoughtful, cost-effective, and reasonable solutions arrived at through either cooperation with, or reformed regulation of, the electric utility, in lieu of outright municipalization. Next, it explains how regulatory mechanisms available in the traditional utility regulatory model with state commission oversight generally are not available to solve potential problems associated with municipal utilities. It then proceeds to discuss why—as a matter of economics—regulated, investor-owned utilities are well-positioned to continue to provide safe, reliable power, at low cost, and from increasingly clean sources of generation. Last, the paper observes that the transition from one model to another likely incurs expenses that may be better spent improving the outcomes achieved by the existing utility.

For these reasons, a more customer-friendly outcome for cities and regions frustrated by the state of their investor-owned utilities may well be to focus on improving the regulation of their existing

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utilities, while increasing the dialogue and cooperation between cities, regulators and their utilities to better achieve the outcomes that customers desire. While the allure of a municipal utility may be hard to resist, one must remember that an alternative often appears more attractive until one tries it and discovers its shortcomings firsthand. Indeed, in the rush to address local concerns about utility service, the benefits of the investor-owned utility model are often overlooked. In short, while municipalization may have an illusory shine, not all that glitters is gold.

II. CRITICISMS OF TRADITIONAL INVESTOR-OWNED UTILITY REGULATION

To be sure, traditional utility regulation, as often expressed through cost of service regulation, is imperfect. But in certain “natural” monopoly-tending industries, well-structured cost of service regulation delivers on public policy goals to provide safe and reliable power, at just and reasonable prices, and from increasingly carbon-free generation sources. Investor-owned utilities are rate-regulated by public utility commissions within their respective states. Traditionally, these rates have been regulated based on a cost of service model in which the utility is permitted to recover prudently incurred expenses, including an opportunity to earn a reasonable return on capital investments, at rates established by their regulatory commissions. Unchecked, this model would produce an incentive to maximize the total quantity of capital investments and disincentivize energy efficiency investments. That is, by investing in capital assets, investor-owned utilities can earn a greater return on a larger undepreciated balance of investments, thereby achieving greater earnings. This over-investment has often been referred to as the “gold-plating” problem, and it raises customers’ costs because they must pay for investments that a company in a market facing competition would not have made.

Economists, lawyers, and policymakers, however, have long identified this issue, and developed a series of mechanisms to remedy it. First, to determine what rates traditional utilities may charge in the cost-of-service regulatory model, the utilities must go through a rigorous, open and transparent process in which all sides may present their cases before independent regulatory commissions. These proceedings—known as “rate cases”—allow interested parties with varying viewpoints to participate, which allows customer groups and other interested parties to closely examine the evidence the utility presents in support of its rate requests. Through this mechanism, state commissions can ensure that utilities make prudent investments to best serve customer interests. Next, when a utility chooses to invest in a large new capital asset, it must receive approval from its commission. In addition, regulators have implemented various mechanisms to further protect customers such as requiring the filing of integrated resource plans to inform a utility’s long-term decision-making processes and competitive solicitations of third-party bids to meet supply needs.

Other mechanisms also exist outside of the traditional cost-of-service model to ensure that utilities benefit their customers. For example, some states have adopted models of alternative

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6 These negative incentives of cost-of-service regulation are not new. Whether identified as “Averch-Johnson” effects, see Harvey Averch & Leland Johnson, Behavior of the Firm Under Regulatory Constraint, 52 AM. ECON. REV. 1052 (1962), to over-invest in capital, George Stigler’s account of regulatory capture, see George J. Stigler, The Theory of Economic Regulation, 2 BELL J. ECON. & MGMT. at 3 (1971), or Richard Posner’s notion of “taxation by regulation,” see Richard Posner, Taxation by Regulation, 2 BELL J. ECON. & MGMT. at 3 (1971), concerns with cost-of-service regulation have an extensive academic taxonomy. Nevertheless, the relevant question for regulation and regulators on the ground and charged with overseeing utilities should be “compared to what?,” not “regulatory system [A] has shortcomings, therefore something different must be tried.”

7 See Averch & Johnson supra, note 6.
regulation or performance-based regulation. Alternative regulation comes in various forms, but in general it encompasses regulatory models that attempt to align shareholder or investor incentives with customer outcomes. Various mechanisms, such as performance-based regulation and price cap regulation (to name just two) have been deployed successfully as regulatory tools to address perceived inefficiencies in traditional cost of service regulation. Cost-of-service regulation has its challenges and potential shortcomings. But awareness and vigilance about those shortcomings is the solution, not rejection of the vertically integrated model altogether.

III. BENEFITS OF INVESTOR-OWNED UTILITIES

Proponents of municipalizing electric utilities often cite two main goals: lowering costs and increasing the share of renewable energy on the grid. In these proponents’ view, municipal utilities are best positioned to deliver on these goals.

But a bit more consideration on what sets investor-owned utilities apart from municipal utilities helps explain why this is not necessarily the case. Investor-owned utilities are often much larger and serve far more customers than municipal utilities, and this scale provides important benefits that we explain in more detail below. These utilities, moreover, have deep experience in the electricity sector from generation all the way to a customer’s electric outlet and everything between; this experience manifests itself in important ways.

Beginning with cost, investor-owned utilities can more easily capture economies of scale to serve their customers at lower rates. An example illustrates the point. First, imagine an isolated wind storm causes extensive infrastructure damage in a medium-sized city with 50,000 homes. If that city is served by an investor-owned utility that serves many similar cities across a large service area, the utility can pool its financial, equipment, and employee resources to more quickly and efficiently rebuild the infrastructure needed to bring power back on line in the city. The larger scale of an investor owned utility ensures that as a percentage of its system, any one natural disaster comprises a smaller portion of its service territory, relative to a single municipal operation because it would be spread over a larger number of customers. Under this a scenario, a municipal utility, which is to say the city’s citizens, shoulder all the risk and cost of such a catastrophe.

Second, the same economies of scale can also give investor-owned utilities a comparative advantage for increasing renewable energy penetration. While a handful of municipal utilities are relatively large entities (think Los Angeles), the vast majority are smaller operations that lack the scale and resources of their investor owned counterparts. Investor-owned utilities, on the other hand, can more easily construct renewable generation at a cost-effective scale and plan both supply and demand

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resources across their relatively larger service territories to help balance the fluctuations in generation capacity at individual production facilities. Investor-owned utilities also offer the opportunity to move the needle on clean generation far more than cities. When a utility serves, for example, ten times more customers than a city would, moving to fifty percent renewables would have more of an impact on total emissions than the city could achieve alone, even if it moved to an entirely renewable generation portfolio.\textsuperscript{11} Economies of scale matter, and if the goal is to have cost-effective power and an increasingly clean generation mix, then investor-owned utilities present many advantages for achieving that goal.

As it relates to opportunities for renewable power, there is nothing to suggest that municipal utilities are inherently greener than utilities with any other ownership structure.\textsuperscript{12} Some municipal utilities have gone green or have formal plan to do so, others have not.\textsuperscript{13} Across the whole electricity sector, carbon emissions have fallen 33 percent from 2005 to 2019,\textsuperscript{14} as compared with only a 14 percent decline in all sectors combined over the same period.\textsuperscript{15} Meanwhile, many investor-owned utilities are much further down the decarbonization path than many municipal utilities and these investor-owned utilities are the utilities leading the power sector in an industry-wide transition towards a 100 percent carbon free generation mix.\textsuperscript{16} Indeed, these investor-owned utilities’ emissions levels have fallen 45 percent between 2005 and 2019.\textsuperscript{17} The pivotal variable in the equation is not whether a utility is investor-owned or government-owned; rather it is the public policy incentives, customer demands, and resource options available to the respective utilities. There simply is not a correlation between ownership model and “greenness” of the utility.

Instead of spending considerable time and financial resources arguing over utility ownership structures, it would seem a more prudent and productive path for communities looking to decarbonize, or for customized clean energy solutions, to work with—not against—their utilities. This

\textsuperscript{11} For this reason, cities that would like to go green would be better served by working with their utilities to increase the renewable percentage in the utility’s portfolio.

\textsuperscript{12} See MASS. CLIMATE ACTION NETWORK, WHAT’S THE SCORE: A COMPARATIVE ANALYSIS OF MASSACHUSETTS MUNICIPAL LIGHT PLANTS’ CLEAN ENERGY AND CLIMATE ACTION PERFORMANCE 26 (Jan. 29, 2019) (Concluding that the forty-one municipal utilities in Massachusetts have less renewable energy content than the investor-owned utilities in the state).

\textsuperscript{13} In 2018 power from coal composed 18% LADWP’s power mix, whereas the rest of California only relied on coal generation for 3% of its total. L.A. DEPT WATER & POWER, 2018 POWER CONTENT LABEL (Oct. 7, 2019), https://www.ladwp.com/powercontent. See also Sarah Shemkus, Mass. climate group says municipal utilities moving too slow on clean power, ENERGY NEWS NETWORK (Feb. 27, 2019), https://energynews.us/2019/02/27/northeast/mass-climate-group-says-municipal-utilities-moving-too-slow-on-clean-power/.


\textsuperscript{15} See id. at 197 tbl. 11.1 (own calculations derived from data shown on Table 11.1 6 comparing emissions in 2005 with emissions in 2019).


\textsuperscript{17} Internal calculation using U.S. Envtl. Prot. Agency CEMS data and ABB Velocity data.
would support public policies that drive clean energy investments and decarbonization strategies, while leveraging the experience and strengths of existing utility ownership structures.18

Investor-owned utilities’ scale and their deep experience in operating complex electric grids also offers another relative strength, especially in light of the challenges the electric grid may face from growing cybersecurity threats and the need to modernize the grid in coming years. Customers across the country have demonstrated interest in grid modernization, and investor-owned utilities have made important inroads in this area of growing importance. The issue of cybersecurity offers an example—in August 2019, the U.S. Government Accountability Office published a report identifying cybersecurity as a pressing concern for the electric grid—especially as smart grid infrastructure is deployed more broadly.19 Unfortunately, many smaller utilities, especially those in the nonprofit space, such as municipal and cooperative utilities, may struggle with the cost and regulatory complexity of complying with the multitude of requirements being promulgated in the interest of safeguarding the country’s critical infrastructure.20 This observation does not question their commitment—but it is an acknowledgment of the advantages brought by scale. This is a problem not just for the individual utilities alone. Because they are interconnected to the broader grid, exploiting a vulnerability of one utility’s infrastructure could create a cascade of problems beyond that individual utility’s service area.21

IV. GOVERNANCE AND OVERSIGHT

Unlike investor-owned utilities, municipal utilities are not regulated by state public utility commissions.22 Because the utility is government-owned, the rationale holds that it will not have incentives to exploit its unrestrained monopoly power, and that municipal political supervision will restrain negative pricing and service incentives. As described in this section, however, a transition away from the investor-owned utility model means losing many of the benefits associated with the independent commission approach to utility regulation.

Investor-owned utilities have historically been regulated by independent regulatory commissions at the state (and federal) level. The value and reliability that American customers have received from their utilities stacks up favorably against any other system of electricity delivery in the world, and independent regulatory commissions have played a crucial role in balancing the interests

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18 State legislatures around the country have been debating a number of such proposals. Virginia offers one particularly high-profile example, wherein the state legislature adopted a sweeping package of utility laws that will dramatically reshape the environmental profile of Virginia’s electricity generation portfolio, while keeping in-place the basic regulatory structure of utilities operating in the Commonwealth. See: Virginia Clean Economy Act at https://lis.virginia.gov/cgi-bin/legp604.exe?201+ful+HB1526ER


20 See Sherina Maye Edwards, Caitlin Shields, Anne McKeon, & Nakhia Crossley, Cybersecurity, Part 1: Opportunities and Challenges for State Utility Regulators, PUB. UTIL. FORT. (Feb. 2017), https://www.fortnightly.com/fortnightly/2017/02/cybersecurity-part-1authkey=e4869ac2fb271e063b09306302835ae7aba2cbb161060eadf9e85121803ca5f (“For smaller municipal utilities and electric cooperatives with limited resources, investing in cybersecurity may be especially difficult, particularly if they serve lower income rural areas.”)

21 Id.

of utilities and other stakeholders and ensuring rates and practices are, in industry parlance, just and reasonable—also known as fair.

Municipalization advocates often tout the benefit of direct oversight by elected city officials. While this paper acknowledges the fine work done by many of the nation’s municipal utilities and recognizes the dedicated service of the elected local officials that oversee them, there are several reasons why communities considering municipalization might pause to reflect on the relative strength of the independently regulated investor-owned utility model. First, utility operation and investment decisions necessarily involve complex questions of accounting, engineering, and resource planning. These technical subjects are often difficult for voters to appreciate, much less become passionate about. Consequently, voters in municipal elections may often not prioritize these issues with great sophistication. This can make utility decisions susceptible to politicization, whereas an independent, expert administrative agency is more likely to be insulated from the sort of politics that may work against customer interest in the provision of essential energy services. Further to this point, many utility assets are long-lived (meaning generation, transmission, and distribution assets have useful lives longer than the period between elections and often longer than voters will live in a city), and accordingly there are incentives to sacrifice long-term viability for short-term payoffs.

Finally—indeed perhaps most important—independent utility commissions are focused on the business of utility regulation. Mayors and city councils lack that luxury. This is not a criticism of local elected officials; the point is simply that the portfolio of a municipal official is often extensive. They are responsible for issues ranging from crime, public safety, fire protection, roads, education, economic development, property taxes, and zoning regulations, to name just a few. They can be forgiven for not being able to devote their full attention to learning and analyzing the intricacies of the electricity industry—one of the most complex sectors of the economy.

In utility commission proceedings, by contrast, the parties and commissions involved typically have deep expertise in the regulatory accounting, engineering, and other issues that confront them. Because of this, the parties can engage substantively on the complicated issues involved through an active proceeding, and the utility commission decides after having heard from parties with the necessary understanding of the complex issues involved. These proceedings are open to both public observation and participation. This feature allows utility decision making to be closely scrutinized and ensures broad customer benefits, including reliability, safety, just and reasonable rates, and investment in cost-effective generation assets.

Next, and relatedly, city governments are typically responsible for a multitude of decisions in differing policy spheres. Consequently, even if a voter disagrees with the city council on a utility matter, she might have some policy preferences on which he or she aligns with the city council, and

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24 Cf. Note, Lousy Lawmaking Questioning the Desirability and Constitutionality of Legislating by Initiative, 61 S. CAL. L. REV. 733, 740 (1988) (explaining that in the direct democracy context, “most citizens simply do not have the amount of time or interest necessary to study and understand the numerous complex issues with which they are faced.”). 

25 Cf. id.


27 See REGULATORY ASSISTANCE PROJECT, supra note 8, at 27–28.
her energy preference may therefore be dominated by another policy choice. By contrast, in the
traditional regulated utility model, state commissions are charged with making decisions in only a
limited policy domain, and so these political tradeoffs do not occur to the same extent.

V. TRANSITION OF THE REGULATORY MODEL

So far, this paper has addressed the relative institutional merits of the investor-owned utility
model and has described how both economies of scale and a tried-and-true regulatory mechanism can
ensure that investor-owned utilities deliver important customer benefits. When the details of
transitioning from one model to another are added to the analysis, it further shows the potential
advantage of retaining investor-owned utilities. As noted above, some municipalities are evaluating
whether to convert from an investor-owned utility to a municipal utility, meaning that the real question
policymakers should be asking is whether it is worth switching between them. The potentially large
costs of changing the model, the sheer amount of time required, and the potential uncertainties
involved should give cities considerable pause in their consideration of whether to municipalize.

The costs of transition can be large, in part, because cities must purchase the investor-owned
utilities’ assets that they wish to use.28 The city must, of course, pay fair market value to do so under
the Takings Clause, and this purchase can be quite expensive even on a per-capita basis. For instance,
Boulder, Colorado’s opening bid to acquire its existing utility’s infrastructure within the city was $94
million.29 And the city would need to pay its fair share of the generation assets that the utility invested
in to serve the cities’ customers. Next, the city may also need to build redundant infrastructure to
properly separate from the broader distribution and transmission grid. Again, using Boulder as an
example, “significant construction will be required to separate the existing distribution electric systems
into two independently operating systems.”30 As with any multimillion-dollar transaction (or hostile
takeover, as the case may be), decisionmakers considering municipalization should also consider the
substantial costs involved in negotiating or litigating the particulars of transferring ownership.

Besides the cost of transition, those who consider municipalization should also recognize the
significant amount of time and uncertainty involved. Though cities can solicit bids to determine
alternative power supply options, the price they receive may not be certain until they ultimately reach
an agreement with their supplier. Besides such price uncertainties, cities often need to hire a third-
party contractor to run their utility or bring the utility operations completely within city government
operations. Both these options involve complex reliability matters because a new entity will be
charged with maintaining the city’s distribution lines and other power supply infrastructure without
the benefit of experience in that area. When combined with the fact that agreeing to a separation plan,
receiving necessary state and federal regulatory approvals, and designing and constructing necessary
new distribution infrastructure can take years—during which time the city’s customers remain in

28 A city could certainly also build its own redundant distribution system, but it is hard to imagine
circumstances where this approach would be more cost effective than paying fair market value for a utility’s existing
assets.

29 City Offers Xcel Energy Nearly $94 Million for Assets Necessary for Local Electric Utility, CITY OF BOULDER (Nov. 22,

limbo—cities need to calculate whether the resulting municipal utility will provide a net value greater than a properly regulated incumbent investor-owned utility.

VI. CONCLUSION

Municipalizing investor-owned utilities has a glittery allure that can be hard to resist, but we encourage municipalization proponents to consider the aphorism: “all that glitters is not gold.” Customers of an incumbent investor-owned utility will be well acquainted with perceived faults of its existing electricity provider; whereas, the municipal utility of some indefinite future—perhaps owing to optimism bias—can be imagined without those faults and with all the positive attributes one can imagine. Although investor-owned utilities are not without problems, the scale at which they operate, and the time-tested mechanisms developed to regulate them, ensure that investor-owned utilities offer a way to achieve many customers’ goals, while affording them advantages not always present in other ownership structures.

In short, there is little to suggest that simply municipalizing a utility will successfully address concerns being voiced in various communities. Cities and states concerned about one or more attributes of their investor-owned utilities may find it more productive to focus on better aligning the regulation of their existing investor-owned utilities with the policy goals of their communities. If the concern is related to environmental or clean energy attributes of a utility’s resource portfolio, there are numerous ways to address that within the regulated utility model. Similarly, are there ways to prioritize cost-related issues, if that is the primary concern of citizens. In addressing these matters through existing mechanisms, they will be in a position to leverage the strengths of the regulated investor-owned utility model, while achieving their policy goals in a way that limits the risks associated with disrupting an ownership structure that has, by and large, worked well for the benefit of consumers nationwide for over a century.