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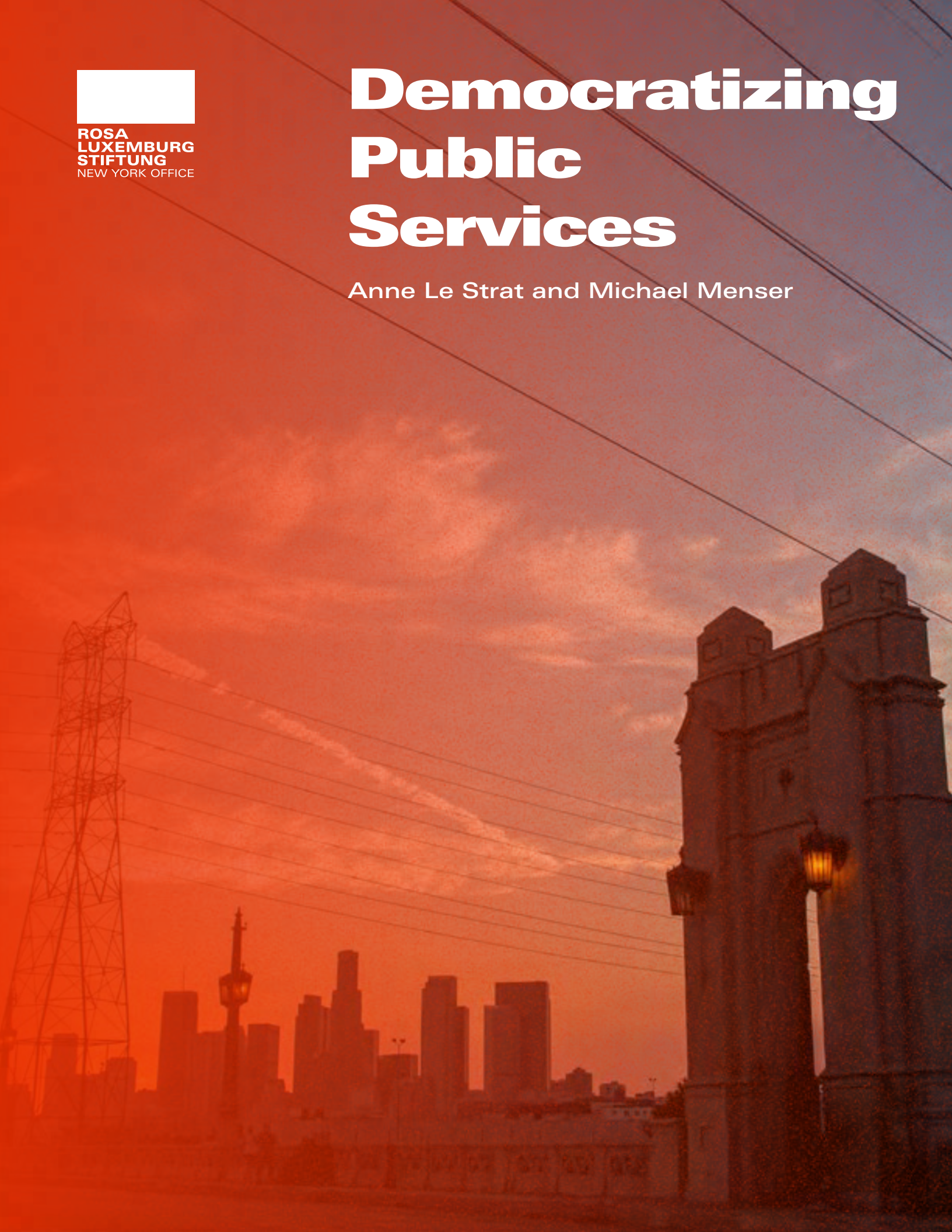
# Democratizing Public Services

Anne Le Strat and Michael Menser

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# Democratizing Public Services

## by Anne Le Strat and Michael Menser

# Editor's Note

As the Green New Deal framework has taken off, many efforts have tried to envision the Green New Deal world. This has brought about a bevy of new thinking around public ownership. Campaigns have flourished around the world, seeing public ownership as the pathway toward the Green New Deal future. However, public ownership alone is not enough; it must be democratic, accountable and resilient. Much has been written on how to achieve public ownership, but much less has been articulated for what it looks like after public ownership has been won. These very real questions of democracy and governance are not easy, but they are necessary.

Both Anne Le Strat and Mike Menser have dedicated their careers to thinking about this topic. While they have different experiences and focuses, they have come together for this. They try to lay out what key principles are needed for successful democratized public services to become a reality.

This paper is meant to spur a more in-depth conversation within this space. As movements continue the fight for economic, social, climate and ecological justice, there is an urgent need for more creative, nuanced and extensive conversations. It is for this reason and in this spirit that this piece was written.

The hope is that activists will engage with the fundamental questions of participatory democratic governance in practice and learn from these case studies. The other hope is for other practitioners to build upon and engage with this piece in dialogue to forward the project of a just transition. Le Strat and Menser focus on the electricity system in the US and the case study of water in Paris directly, but have takeaways and conclusions that have broad implications for activists, practitioners, and scholars worldwide.

Due to the authors' disparate knowledge, and disparate work experiences inside and outside of governments in different countries, this paper's structure is unorthodox. In the introduction, both Le Strat and Menser explain their project, the essay, and how it came to existence. The first chapter is written solely by Menser and focuses on the past and present of the electricity system in the US. The second chapter is written solely by Le Strat, who gives a firsthand account of the overhaul of the Parisian Water Utility. For the first time in English, she shares her personal account based upon her experience of how the remunicipalization occurred and key insights of the new governance implemented. In Chapter 3, Menser draws upon the innovations of Paris and modifies and applies them to the US electricity system. In the conclusion, Le Strat and Menser write together and share key takeaways that can guide movements through these difficult questions, institutional challenges and strategic possibilities.

We welcome any and all responses to this paper and hope it can be helpful to practitioners, academics and movements alike.

*—Aaron Eisenberg*

# List of Abbreviations

AC: alternating current

AMB: Barcelona Metro Area

AMI: advanced meter infrastructure

APPA: American Public Power Association

ARCEAU-IdF: Association Recherche Collectivités dans le domaine de l'EAU en Ile-de-France (Research Communities Association in the water sector in Ile-de-France).

BIPOC: Black, Indigenous and People of Color

BWT: Berliner WasserTisch

BWB: Berliner Wasserbetriebe

CJ: Climate Justice

DC: direct current

DER: distributed energy resources

DOE: Department of Energy US

EDP: Eau De Paris

EPA: Environmental Protection Agency

EJ: Environmental Justice

FAMA: World Alternative Water Forum

FDR: Franklin Delano Roosevelt

FERC: Federal Energy Regulatory Commission

IOU: investor owned utility

IRP: integrated resource plan

LADWP: Los Angeles Department of Water and Power

MAPiD: Moviment per l'Aigua Pública i Democràtica

MCAN: Massachusetts Climate Action Network

NGO: non-governmental organizations

NREL: National Renewable Energy Lab

NYPA: New York Power Authority

OMA: Observatori Ciutadà Metropolità de l'Aigua (Metropolis Water Observatory of Bar-celona)

ONDAS: Observatório Nacional dos Direitos à Água e ao Saneamento (National Obser-vatory on the Rights to Water and Sanitation) (Brazil)

OPE: Observatoire Parisien de l'Eau (Paris Water Observatory)

OAT: Observatorio del Agua de Terrassa (Terrassa Water Observatory)

OPEC: Organization of the Petroleum Exporting Countries

PAR: participatory action research

PB: participatory budgeting

PBP: Participatory Budgeting Project

PDIS: Public Digital Innovation Space

PG&E: Pacific Gas and Electric

PILOT: payments in lieu of taxes

POU: publicly owned utility

PPP: public-private partnership

PUC: public utility commission

PURPA: Public Utilities Regulatory Policies Act

PSC: public services commission

REA: Rural Electrification Administration

RTO: regional transmission organizations

SAGEP: Société Anonyme de Gestion des Eaux de Paris

SMUD: Sacramento Municipal Utility District

SRIJB: Science and Resilience Institute at Jamaica Bay

TVA: Tennessee Valley Authority

UNB: University of Brasília

# Acknowledgments

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# Introduction—What Does "Democratizing Public Services" Mean and Why Now?

As technological innovations continue to proliferate, new modes of shared decision-making and inclusive empowering public engagement have not. Too many put their faith in new apps, algorithms and the internet of things, and talk excitedly about a green transition, but where is the enthusiasm and curiosity for new mechanisms of accountable democratic governance and creative multi-stakeholder collaborations?

In this essay, we argue that democratizing public services, especially water and electricity, is essential for a just, sustainable and resilient production and allocation of the public goods needed to promote human flourishing and a healthy planet. We believe that democratizing public utilities can help to address our political institutions' legitimacy crisis by showing that democracy can be innovative and empowering, and a trust-enhancing alternative to an increasingly oligopolistic economy and political authoritarianism.

Our current political economic system is failing us. The impacts of climate change, the loss of biodiversity and depletion of natural resources are increasingly tangible and devastating for people. Furthermore, the uneven impacts of the COVID pandemic and an unrelenting series of ecological disasters—from storms to heat waves to droughts—further highlight the already present, glaring, social inequalities. Although the public has become more aware of the problems and risks, and government leaders (occasionally) make great speeches, there is too little action and next to no systemic change. Instead, we endure continued bureaucratic inertia, increasing partisanship and disinformation campaigns alongside a rise of big tech and corporate power that is even more unaccountable.

The challenges we collectively face to avert the worst of the climate crisis and ensure sustainable, fair and equal living conditions for all of us are enormous. Yet, the actions of the existing political institutions are meager and meek. Instead, we protest, presenting our problems to the same old institutions that caused the problems in the first place. Yet these political and economic institutions lack the vision and values we need. These institutions are predicated on top-down decision-making processes that feign giving the public a voice; they are not guided by inclusive democratic principles. They ask us to "share data," but we need to demand and design systems that share power.

The transition to a just, sustainable, resilient society demands an accountable, competent and creative public sector. Public services are crucial to address the challenges our societies are facing. The mission of utilities, of water and energy systems, is to fulfill the essential needs of the population and maintain decent living conditions for all on this planet. In this era of climate change, there is no greater mission.

Yet, even amid incredible technical innovations, there are too few innovative models of democratic governance. Public services continue to operate according to the old organizational patterns. At the level of administration and service delivery, these institutions and utilities must be democratized. To ensure a just, sustainable and resilient economic model, we must redesign public institutions and build broad-based support through wider participation in decision-making and management. The democratic transformation of public utilities is a great place to start.

It is this shared belief that brought us together to write this essay. We hope to bring the passion for innovation into the governance of public goods and services in order to equitably facilitate the "green transition," and even more fundamentally, to promote justice and democracy. In this paper, we

will focus on the democratic governance of public services,[1] focusing on the water and electricity sectors. However, the insights and field experiences presented in this paper can be relevant for other public policy areas as well.

## Defining Democratization, Engagement and our Values

Following many others in movements for energy and water democracy, environmental and climate justice, and municipalization and public power, we argue that the private ownership of water and electricity is not adequate to the demands of sustainability or justice. Ownership of the utilities and other public services should be public. However, public ownership in and of itself is not enough. Utilities must be democratically governed, collaborative and connected to an ecosystem of supporting institutions.

Still, "more democracy" is not the end of the argument; for us, it is the beginning. What does democratization actually look like for a public utility? What institutional redesigns need to happen? What values should shape it? Which actors should participate? Should certain groups be privileged in specific topics or projects? Should a utility run engagement processes or should a partner in civil society? These are key questions in any design of a model public utility. Not to mention questions of who pays for what? Who defines and sets the agenda? And, who oversees the board? These questions must be debated not merely in theory but with respect to the limits and pragmatic demands of real-life governance.

Public ownership and democratization must go hand in hand. Concretely, we have to think about how to implement public service delivery for essential goods that is equitable in terms of access, quality and pricing. It must take into account climate, biodiversity and ecosystem issues. Moreover, it must enable meaningful and empowered participation of different stakeholders in the decision-making process, including end users, citizens, workers, NGOs, academics, schools, universities, businesses and other public and private actors.

For us, democratization is based on participatory governance and sustained public engagement aiming to promote the values of justice, sustainability and resilience. The scope of this democratization should apply not just to service delivery as such, but the entire value chain and operations including who gets to use the service and how.[2] For us, democracy is not

1 We use the terms "public services" and "public utilities" synonymously throughout our essay.

2 We are not arguing that utilities and governments can control all processes of extraction and supply chains, but they do have very specific powers with respect to how and what they purchase and from

simply "government by the majority," it must be inclusive and directly address inequalities of all kind. By participatory governance, we mean the empowered involvement of recipients of the public service in decision-making processes pertaining to planning, service delivery and monitoring. This requires much more than our current models of consultation. Empowered means that the participation can make a difference, it is consequential, and those participating are supported. Sustained means that the engagement processes are ongoing, interactive and deliberative, with a regularized and easy to access calendar of events and programs over the course of a year. Sustained engagement is comprehensive and multidimensional, occurring in education and training, research and knowledge production, planning and monitoring, and project formation and implementation. We believe that participatory democracy in the form of participatory governance and sustained engagement is the best medium for guaranteeing rights and promoting justice in public services.

Though there is always an element of unpredictability in any democratic process and good results are not guaranteed, we, like so many communities and movements, see participatory democracy as the best way forward especially given the failures and injustices perpetrated by existing hierarchical technocracies. For us, justice means a fair distribution of costs and benefits (economic justice), a dismantling of structural racism and redress for past and present wrongs in those places where it has occurred (environmental justice), and a centering of disadvantaged groups and frontline communities in the decision-making processes, from the local to the global (climate justice).3 Like climate justice advocates, we also believe that justice and participatory democracy require economic democracy—the promotion of collective and/or distributed ownership and/or management of assets and infrastructure as well as financial instruments and profits.[4]

Lastly, public services and utilities should operate in ways that are socially and ecologically sustainable and resilient. The delivery of public services also affects non-humans, species and ecosystems at multiple levels. Those dimensions must also figure in the governance process. This includes mitigation, from reducing emissions to more sustainably using resources, and also adaptation, the capacity to learn and adjust systems and behavior quickly in the face of extreme and hard-to-predict events. To pursue sustainability and resilience means modifying investments, management

whom. In addition, they especially have control over how and at what cost services are delivered and to whom (e.g., who receives subsidies, discounts, and/or tax breaks).

3 For more on environmental and climate justice in the energy space, see Fairchild and Weinrub 2017; Baker 2021.

4 For more on economic democracy, see Menser 2018, 107-8.

and operations to deal with changing conditions, balance the needs of multiple stakeholders, from human to nonhuman, and understand the complex interconnections and interdependencies between social and ecological systems. Democratized utilities will need to institutionalize adaptive processes and create new sustained partnerships to experiment and quickly learn from failures and mistakes made in attempting to deal with the climate calamities already here and getting worse.

We argue for participatory democracy not just in production and distribution of these goods but also in determining priorities for their use.5 Participatory governance for allocation and use is crucial to justice and resilience during these times of political division, economic inequality and climate chaos. The ways in which we use our water resources and how we produce energy must be subject to the values of equity and justice. With inevitable scarcities, we must rethink the economy itself and organize around what is important for well-being. The democratization of public services projects should also be conceived by movements as a tangible way to impact and remake local economies. As has been said about electricity, and could just as easily be said of water: "it is sometimes useful to think of electricity as less of a commodity and more of an infrastructure—a system of provisioning that allows energy services to be made available to those connected to the grid, thereby providing a platform for other forms of economic activity" (Boyd 2014, 1627-8). As we argue throughout this paper, water and electric utilities should be thought of as platforms for promoting justice, sustainability and resilience in governance, the economy and society.

## Why Do This Project Now? (Mike Menser)

The first time I really believed government could actually be democratized in a genuinely participatory manner was after listening to a lecture by Oscar Olivera and Pablo Mamani. It was on the efforts by movements, communities and workers in their home country of Bolivia during the so-called water war of Cochabamba that led to the deprivatization and remunicipalization of the city's water utility. The successes and limits of the Bolivian and other efforts to remunicipalize changed the way I thought about governance in both policymaking and service delivery.

In my book, We Decide!, I lay out a general theory for this kind of participatory democratic governance that reconstructs the relationship between government and community. I call it "social public" in contrast to the neoliberal "public-private" model. I argue too much time has been spent whining about privatization and neoliberalism, and not enough collaborative

5 We build upon work done by the Transitional Institute (2021).

thinking, research and formulating has been done on an alternative model with distinct concepts, practices and institutional forms. I have focused much of my career on this.

The other, related, background for this comes from work I did with a nonprofit I cofounded called the Participatory Budgeting Project (PBP), which brought the participatory budgeting process from South America to the United States. Ten years as president of the board of PBP and working with community members, elected officials, experts and government staff across the country has taught me much about what does and does not work when it comes to engagement and participation. I have learned quite a bit about what it takes to create a sustained, empowering and impactful process. While PBP has successfully spread participatory budgeting (PB) to several cities across the US, it was not easy! Struggle is part of the nature of the game, along with cooperation. That is how learning happens and relationships are built.

Further, it is majorly under-appreciated how hard it is to create the organizations (e.g., PBP itself) to do the work of participatory governance; it can be more difficult than doing actual engagement. That work also got me focused on the challenge of democratic institutional design.

The other space in which I learned about how to create multi-tiered collaborations was in the social and ecological resilience sphere. After Superstorm Sandy struck the US East Coast and did so much damage at an unprecedented scale, I worked with a coalition to bring about a "just rebuilding." It was an amazing group, and so many did incredible work, but fundamentally, we failed to have much of an impact on the New York City's rebuilding process. It was a humbling experience. However, because of that work and my work at PBP and research on participatory democracy, I was asked to join a new institute that was created to connect climate scientists with government agencies and communities to enhance ecological and social resilience, the Science and Resilience Institute at Jamaica Bay (SRIJB). It was working with SRIJB—especially with an engagement process called "Cycles of Resilience"[6]—and building on my work with PBP and drawing upon the research and thinking I did for my book We Decide! that set up my work for this paper. When I read about the incredibly innovative remunicipalization of the Paris Water Utility, I thought here was a real-world example of participatory governance that was working not just "on paper" but also in the messiness of the real world. Shortly thereafter, I was fortunate enough to meet my now co-author, Anne Le Strat, and we agreed that we needed to do this project.

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6 For more on this program see https://www.srijb.org/cycles/

## Why the Need for This Project Now? (Anne Le Strat)

I have now been engaged in politics for nearly thirty years in various different ways (party, movement, institutional, etc.). I joined the French party, the Greens (now Europe Ecologie-Les Verts), after my master's degree in political science focused on them. Previously, I was active in feminist movements, a member of several collectives in the world of political ecology, and president of a think tank of the French radical left.

While I was finishing my university training with a doctorate on the geopolitical stakes of water in the Israeli-Palestinian conflict, I ran for the 2001 municipal elections as head of the Green Party list in a Paris district. Elected as a Paris City Councilor in 2001, I was re-elected in 2008 and appointed as Deputy Mayor of Paris in charge of water, sanitation and canals. During this period, I also held several positions among the various major players of the water sector in Paris and its region. I was Vice President of the Syndicat métropolitain de l'assainissement de l'agglomération parisienne (Metropolitan Sanitation Syndicate of the Greater Paris Region), and on the board of directors for Seine Grand Lacs, the Association of Mayors of the region, the Seine-Normandy Water Agency and the Ports of Paris company. As an elected official, I was appointed President and CEO of the mixed economy company in charge of water production for the city of Paris. After successfully leading the remunicipalization reform and creating a new single public water operator, Eau de Paris, on January 1, 2010, I chaired the new operation until 2014.

I also co-founded and chaired for seven years the first European association of public water operators (Aqua Publica Europea), which brings together public water and sanitation utilities and other stakeholders seeking to promote public water management at the European and international level. Now a fully recognized network, it facilitates the exchange of best practices among its members with the aim of consolidating and extending public management in this sector.

After these two posts, I worked for the Fondation France-Libertés Danielle Mitterrand in order to carry out a configuration study with a view to creating a National Institute for Water and Environmental Issues. Since 2015, I have lived abroad (first in Taiwan and now in New York), working as a consultant and lecturer while continuing to participate in water policy events around the world. I have authored or co-authored several books and papers about water management and water policy.

All these years in the water sector, holding various positions, have provided me with a broad understanding of its issues and players. In particular, my

experiences from my thirteen years spent in Paris City Hall and as the head of Eau de Paris were extremely formative. They allowed me to know from the inside, the ins-and-outs of the decision-making process, whether it be at the level of a local authority or an operator. I had the opportunity to deal with technical and industrial subjects and to understand the different phases of realization of a project and a public policy, from the conception of an idea to its implementation. Having managed several hundred people with very different backgrounds, I had to learn how to run an organization, what it means to accommodate different interests, how to negotiate, how to get decisions accepted, and how to implement policy changes. This gave me exposure to differing points of view and an understanding that consultation and participation are necessary to legitimize a decision, and more importantly, to carry it out. I learned a more participatory democracy was necessary for people to accept changes, especially when they are radical. This has informed my vision for what a public service operating in the interest of all communities and living ecosystems can look like.

## Our Proposal

We have undertaken this paper because there is very little written about the details of democratization or about how to make it happen.[7] We must understand how to make it work in existing institutions, with government staff, labor unions, civil society/community members, community-based organizations, scientists and researchers. What are the roles of these different groups, and how should they relate to one another? While there is a literature about public and private service delivery, and about the successes and failures of both, there are far fewer that address these institutional design questions and political aspects.

What makes our view distinctive even among proponents of democratization is that we call for a model of engagement that is much more multidimensional and sustained than traditional practices. In order to make this work we propose a different type of organization.

Our view is that democratized public-owned utilities require the following:

- public ownership and control of the profits and financial instruments;
- a multi-stakeholder governing board with diverse representation in terms of demographics, interests and expertise;

7 Works that do address these issues in detail and are critical contributions to this emerging discussion include Bozuwa et al (2021) on the New York Power Authority and how it could be further democratized, and Cumbers and Hanna's (2021) paper which was written as part of the UK's Labor Party consultation process on why and how to democratize public services or "enterprises."

- a participatory democratic coordinating body or "Observatory" partnered with universities and community-based organizations to promote the collaborative knowledge production that is necessary for participatory governance and to support community proposals and the monitoring of the utility; the observatory should have a formal relationship with the utility but its agenda should be independent and set by the public;

- and, if needed, a reconstructed governmental regulatory apparatus that allows for appropriate public and/or stakeholder participation in monitoring and planning at the local, state, regional, national and/or international levels.

This kind of sustained empowered and inclusive engagement requires an ecosystem of actors to develop and maintain the civic infrastructure necessary for it to function. While public utilities must be involved and support these efforts, they should not lead them. Even now, many utilities contract out engagement and surveys to third parties or consultants that are themselves not accountable to the public. We are calling for an independent institute or "Observatory" to conduct sustained public engagement, do research, promote projects and partnerships in civil society and the local or regional economy, and monitor the utility. We base this view on the already existing Paris Water Observatory (OPE) discussed at length in Chapter 2, and then extrapolated to the energy system in the US and to public services more broadly in Chapter 3.

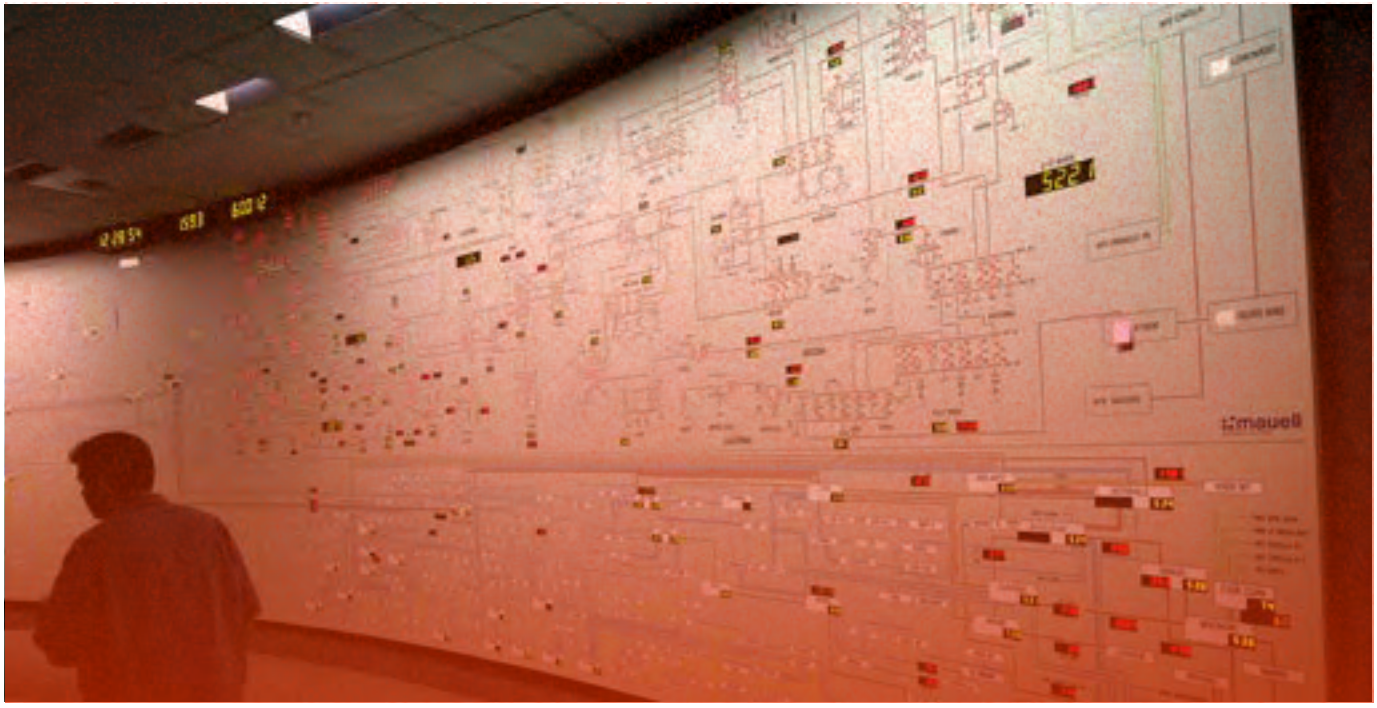
We are not naive about this. Engagement, much less participatory democracy, is much easier to talk about then do. Any call for democratization must recognize these challenges. We do not claim to solve all of these problems, but we do believe our more multidimensional and nuanced model moves us much farther along in the pursuit of just, sustainable, and resilient democratized public services.

The structure of the essay is as follows. After this co-authored introduction, Mike Menser lays out in Chapter 1 the basics of the electricity system: its origins, evolution and current state with a focus on how it is governed and regulated in the US. To understand why we argue for democratizing public utilities in this sector, we must first understand the particular regulated private model that dominates and the relative strengths but persistent limits of the public power model in the US. This chapter contextualizes the current system. Chapter 2 moves on from the limits discussed in Chapter 1 to the innovative remunicipalization of the Paris Water utility. In this chapter, Anne Le Strat writes an in-depth account of how the remunicipalization happened, the new utility and Observatory that emerged, and the successes and limitations of this model, then discussing other democratization initiatives in

the water world. In Chapter 3, Menser returns to draw from the innovations of Paris to show that this model's potential not only goes beyond the water sector but also beyond the political boundaries of Paris and Europe as he applies them to the context of the electricity system in the US.[8] In the Conclusion, we come back together to offer a more general model for the democratization of public services more broadly.

8 Menser is active in a remunicipalization campaign in his home of New York and is in dialogue with many other movements and researchers in these efforts in the US.

# Chapter 1—The Limits of Regulation: The US Electricity System



Investor-owned utilities, energy markets and their public regulators have failed in regard to the climate crisis and considerations of justice. Publicly owned utilities are generally better in terms of affordability, accountability, reliability and public benefit. Nevertheless, as the climate crisis has intensified, they, too, have not been able to provide the leadership for a just green transition. The entire system has too often unfairly distributed the costs of running and fueling its operations in racist and classist ways. Now, despite rapid technological innovations and the decreasing costs of solar and wind, the climate crisis is worsening. We are truly running out of time. While there has been legislation to accelerate the transition and bring in environmental justice frameworks in a handful of countries from Costa Rica and Uruguay to US states such as New York and California, there is still much confusion—and we argue, a lack of focus and creativity—when it comes to ideas about democratizing institutions to speed up and steward this transition to meet the goals of sustainability, resilience and justice.

How did we get there? In addition, how might we build upon the strengths and success of the comparatively better, but crucially limited, publicly

owned utility (POU) model? In this chapter we look at the current energy systems, the history of its emergence in the US, the rise and dominance of the private investor-owned utility (IOU) plus public utility commission (PUC) regulatory model. We also look at why this IOU-PUC model cannot deliver on justice, sustainability and resilience. Then we interrogate the public ownership (POU) model, its strengths and weaknesses, and why even though they offer advantages, they are inadequate to the challenges and must be democratized as quickly as possible for any chance at meeting our climate challenge.

## The Current Electricity System

To transform the electricity system, we must have an understanding of how the current system works, not just in terms of governance but also operations and mechanics. Across the world, electricity is generated using many different energy sources and technologies, most of them fossil fuel based. Depending on the country, the grid is owned either by a POU (owned by a national government, state or province), an IOU (owned by shareholders), or a collective of private households, i.e., a cooperative numbering from a few dozen to tens of thousands of members.

In the development of the electric system[9] in the 20th century, coal was the most frequent fuel source along with hydroelectric, oil, nuclear and more recently natural gas. Most electricity is generated by burning the aforementioned fossil fuels and generating heat to boil water to produce steam that turns turbines (e.g., steam turbines). The cleanest of the first generation of power sources, hydroelectric, uses the water flow to turn the turbines and generate the electric current. While there are other ways of fueling steam turbines, from solar thermal to biomass, most so-called renewable energies—such wind and solar photovoltaics—use different methods of energy production that do not turn turbines. Instead, they generate a direct current (DC) that is transformed by an inverter to become an alternating current (AC), the type transmitted and distributed by grids to homes and businesses.

In terms of the author's two home countries, as of 2020, natural gas is the largest source of electricity generation supplying about 40% of US electricity generation. Natural gas is used in steam turbines and gas turbines to generate electricity. Nuclear is second, coal third, and rounded out by the

9 Following standard practice in English (and with the US Department of Energy); the term "electric system" refers to the entirety of generation, transmission, distribution, storage and end use. Strictly speaking, the term "electric grid" refers to the electricity infrastructure that lies between the generation sources and the consumer (i.e., transmission and distribution, or electricity delivery).

renewables of wind 8%, solar 2.3%, and biomass 1.4%.[10] In contrast, France gets more than 70% of its fuel from one source: nuclear (the most of any country in the world). Solar is distant second at 13.7%, wind a close third, and hydroelectric fourth. Although IOUs usually receive most of the wrath from climate activists, globally, most humans who have access to developed electricity systems are served by POUs.[11] In the US, publicly owned utilities serve about 15% of the customer base. IOUs serve 66.9% and cooperatives about 13%.[12] The largest POUs have more than a million customers and are in Puerto Rico, Long Island (New York), Salt River (Arizona) and San Antonio (Texas). Publicly owned and run utilities have existed in the United States since the 1880s, and now they operate in 49 states and 5 territories, supplying power to more than 2,000 communities and roughly 50 million people. These utilities power communities as small as Hammond, Wisconsin, home to about 2,000 people, and as large as Los Angeles, California, serving four million businesses and residents. The largest of them all is the Tennessee Valley Authority power market, which provides electricity to approximately 10 million people across seven Southern states. In many countries, the government leaders set the business model and agenda for the electric system. For example, in the Canadian province of Quebec, the state took over and municipalized[13] a range of private electricity generators and providers creating single province-wide publicly owned entity called Hydro-Quebec in 1944. The purpose and mission of Hydro-Quebec is not just to produce clean, affordable and reliable power for the citizens of Quebec; it is an enterprise aimed to benefit the people of Quebec and provides significant economic returns with billions of dollars of profits routinely going into the general fund of the province.[14] Due to the quantity and inexpensive nature of hydroelectric electricity, Quebec is able to attract industries and power-intensive businesses to the province thereby considerably impacting its overall economic development. Indeed, Hydro-Quebec is also a source

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10 https://www.eia.gov/energyexplained/electricity/electricity-in-the-us.php

11 For this essay, state-owned utilities or enterprises (often called SOEs) are considered part of the class of publicly owned utilities. The majority of the world is largely served by SOEs or PUCs, and many of the most populated countries of the world use them, including China, India, Mexico, Brazil, Russia, Mexico and South Africa.

12 Power marketers serve most of the remaining, about 5%, almost all of which is in the uniquely deregulated and isolated Texas grid.

13 "Municipalize" is another term for making a private firm into a public one, or as we sometimes say, "make public."

14 Although the policy of a utility contributing money to the general fund of its local government may have largely played out well and for the public benefit in Quebec, we do not endorse such a practice for democratized public utilities. Such contributions could become subject to political deal making, corruption and/or patronage, and from an operations standpoint could interfere with a utility's ability to do long-term planning re its revenue stream and forecasts. We will return to this issue in Chapter 3.

of national pride[15] as it is recognized as a global expert in the generation of hydroelectric power as well as the construction, operation and maintenance of transmission lines. It also has a renowned technical institute that studies and develops new technologies for these purposes.

While many of the largest electric utilities in Canada are publicly owned, in the United States, private shareholders own most of the large US based utilities. These investor-owned utilities do not set their own policies nor determine their business plans. Instead, regulatory bodies at the federal and state levels do. These regulatory bodies are called public utility commissions (PUCs) or public services commissions (PSCs) and are separate from the local and state governments and are either appointed by elected officials or, less frequently, elected by the public.[16] In sum, electricity in the US is highly regulated, especially by individual states but also by the federal government and regional groups of states. Roughly speaking, the current US system is composed of three different types of markets. The oldest is the "cost-of-service" model in which vertically integrated IOUs provide service to captive customers through regulated monopoly franchises. In this model, the IOUs own the generation (the power plants), transmission (the high-voltage lines that travel long distances) and distribution (the lines that bring power to your home, school or business). This model remains dominant in the Southeast US and much of the Western US.

The second model, created through regulatory changes starting in the 1970s, is the state level and regional market, where the utilities do not have a monopoly in generation. Instead, there are separate, privately owned generators that compete on state and regional markets. The idea behind this was to lower prices through competition while increasing efficiency. Utilities, though, are still (usually) monopolies when it comes to distribution. In these restructured regional markets, power is generated and sold across a region and/or in several states. This is the situation in Texas and the Northeast, including the authors' home state of New York. Here the IOUs (mostly) do not own the generation. This means that in this second model, distinct bodies called "regional transmission organizations" (RTOs), must coordinate and combine diverse wholesale power markets that are managed by independent system operators (ISOs) with retail electric competition in the individual states.17 A third model is a hybrid model in which there

15 It is also a source of past and continued conflict with indigenous peoples and nations.

16 In the US, states' electric system regulatory bodies are called PUCs or PSCs (public service commissions). For simplicity, we will use the term PUC for both since they are both of the same type.

17 "About 60% of US electric power supply is managed by RTOs or ISOs: independent, membership-based organizations that ensure reliability and usually manage the regional electric supply market for wholesale electric power. In the rest of the country, electricity systems are operated by individual utilities or utility holding companies. RTOs/ISOs engage in long-term planning that involves identifying effective,

are still monopoly franchises, but with wholesale power markets regulated by ISOs with retail service provided by IOUs.18 This is the model for the rest of the country, including the massive, intensely challenged systems of California (Boyd 2014, 56; Rivera and Bozuwa 2021, 8-10). In this third model, publicly owned utilities are largely in a different situation than the IOUs because they can own generation and are not regulated by the public utility commissions, nor do they have to abide by much of the federal regulation through FERC (Federal Energy Regulatory Commission). Instead, their boards are theoretically beholden to the local governments that control them, or they are directly accountable to the ratepayers in jurisdictions where the boards are elected.

In terms of renewable energy in their portfolios, POUs are not always better than IOUs. Indeed, it is crucial to not assume that simply because an electric utility is publicly owned, or becomes publicly owned, that it will be sustainable and renewable. Indeed, in the US, IOUs own about twice as much renewable generation capacity as POUs. However, IOUs have more than three times as many customers as IOUs. Most of the non-hydroelectric renewable generating capacity (e.g. solar, wind) is owned by neither IOUs or POUs but by independent privately owned firms that sell on markets that PUCs and IOUs then purchase and distribute to businesses and homes. Sadly, since the onset of the climate crisis in the 1980s, POUs have not been leaders in building new renewable generation.[19] So how did we get to this point?

## History of the Electric System

Unlike water and fuel infrastructures, which date back thousands of years on many continents, electricity infrastructure is much more recent in origin. Starting with research and invention in the 18th century, an international group of scientists, inventors and entrepreneurs created a range of new technologies and, learning from each other, sought ways to interconnect them into a system. From the early experiments involving Leyden's jar and Franklin's kite to the development of the battery by Volta (Bakke 2016, 240), the invention of the electricity system was not the work of a single country much less an individual genius but rather a multinational collective effort. Its turning point is in many ways understood as that famous battle between

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cost-efficient ways to ensure grid reliability and system-wide benefits. Coordination and cooperation between utilities, state PUCs and RTOs/ISOs is often required to advance energy efficiency goals" https://www.epa.gov/statelocalenergy

18 Yes, the current system is complicated, maybe so complicated that the transition will have to transform or eliminate it. See former California state regulator Kristov's view on this in Kristov 2019 as well as Farrell 2014, 2018.

19 One partial exception is Texas where five POUs did take the lead in the adoption of utility scale solar but this was recent and after many IOUs in other states had acted (Stokes 220, 139).

two technology icons: the relentless and ruthless inventor-entrepreneur Thomas Edison and the eclectic and imaginative humanist Nikola Tesla. Yet, this battle was not between two solitary geniuses, it was a battle between two different systems driven by competing value frames.

The profit-oriented and oligopolistic Edison wanted to create new business sectors and dominate each, while Tesla saw technology as a commons, as a means to develop human capacity, abolish poverty and promote world peace. Despite their differences, both were dependent upon a very particular form of oligopolistic capitalist finance (Edison had JP Morgan and Tesla's sponsor was Westinghouse). In the end, elements of the technical systems fused together, with Tesla's revolutionary AC motor and Edison's revolutionary light bulbs, but the grid was more Tesla (AC). Yet, the business model that emerged was not Tesla's free clean wireless electricity for all, but Edison's messy coal-fired generators owned by competition-crushing, anti-labor and hyper-private-profit-oriented robber barons (Hughes 1983; Bakke 2016, Brynner 2016, 1, 12-18).

These new electricity systems of generation, wires and electric motors jumped city to city, from New York and Chicago to Berlin and London, and forever transformed our conception of the urban (Hughes 1983). Electric lighting revolutionized the interiors of workplaces, electric motors forever changed manufacturing and, combined with power grids, reshaped transportation, remade the home and set the stage for consumer society with all of its outlets for devices and appliances (Tobey 1996, 3).

Initially the electric revolution was only for the well off and elite sections of cities. Smaller towns and the great masses were left out. The large corporations focused on where they could make money. But, a backlash ensued, and small towns in states from Wisconsin to California, Nebraska to New York, created municipal-owned power stations, lighting systems and grids. An eloquent expression of this counter-model came from New York governor Charles Evans Hughes. In 1907, in stark opposition to the holding companies and oligopolies, declared amid the rise of progressivism that the undeveloped water power of New York "should be preserved and held for the benefit of the people and should not be surrendered to private interest" (Brynner 2016, 1). Hundreds of small publicly owned utilities emerged. Despite this, in the US, the POU model did not become dominant. There was certainly opposition to the robber baron model, and indeed the progressive movement arose to combat it and improve the regulatory capacities of government (Tobey 1996, 55-61). However, this led to the emergence of a different model, a uniquely American hybrid model, the government-regulated privately owned utility, which soon became the standard.

## "The Social Control of Business" or the Investor-Owned Utility Regulated by Government (IOU-PUC) Model

While Edison and others were able to create and interlink many of the elements that came to constitute the US electric system—from coal-powered generation to distribution lines to lighting—the model was polluting, inefficient, wasteful, vulnerable to disruption and, ultimately, not very profitable. To bring the US electric system to the next phase, a different type of figure emerged in the form of British businessperson Samuel Insull.

Insull moved to the US at age 21 to work for Edison, and stayed on for years learning much from his technical successes and as well as his business failures. He created a system that could reach more households, be reliable and turn a profit. Key to his model was growth, growth, and more growth. Growth in generation capacity and output, growth in customers and usage per customers, and growth in the number of utilities across the US and the world. Insull's genius was twofold. On the financial-technical side, he realized that for a system to grow and be profitable a utility needed not just lots of little users (households) but big (industrial) users to create an economy of scale (Hughes 1983; Bakke 2016, 57-72). He also realized that to insure the profitability and stability of this model, government regulation should not be opposed, it should be courted. The Progressive Era had arrived. Government was asserting itself against corruption in the name of customers, workers and the general welfare. Regulation was here to stay. Insull's originality was that he realized that regulation could be used not only benefit customers and citizens, it could be used by firms to protect themselves and benefit shareholders.

> "A product of the Progressive Era, public utility was a distinctively American approach to the 'social control of business'—a third way between unregulated markets and outright public ownership that promised to harness the energy of private enterprise and direct it toward public ends" (Boyd 2014, 1616).

The model that Insull helped to build worked as follows. To address the problems of monopoly utilities charging too much and customers having no recourse on prices or for lack of reliability, states created PSC's and PUC's to regulate prices to insure affordability. These regulators required utilities to provide universal access and reliable service. What did utilities get out of it? In return, utilities received a franchise to be the exclusive provider. In other words, in this model, utilities became government-protected monopolies. In addition, rates were set to be profitable for firms and affordable for (most) customers. For PUCs, the current standard guarantees utilities about an

average of 8% to 10% profit every year. To further foster profitability and affordability for customers, the PUCs made available low-cost financing for the creation of the infrastructure to create powerful and reliable infrastructure for the electric systems (Rivera and Bozuwa 2021).

This emergent IOU-PUC model even attracted public power advocates such as the pioneering economist and public servant Richard Ely. Ely was from a state that was pioneering public power (Wisconsin) and was a leading early-20th-century proponent of municipal ownership of public utilities. His student John R. Commons drafted the public ownership provision in the Wisconsin Public Utilities Act of 1907. Yet, "after evidence of widespread corruption in municipal governments came to light, Ely, along with other supporters of municipalization, switched to support regulation by independent commission" (Boyd 2014, 1636-7). For IOU-PUC advocates, not only did this hybrid model create an alternative to the robber baron model, it avoided the problems of patronage-filled, corrupt local politics. Another virtue of the IOU-POU model was that it was able to channel the spirit of the Progressive Era ethos by implementing a sliding-scale rate-structure that allowed low-income customers to pay less, while allowing profit sharing that led to a sharing of the surplus between the utility and its customers (Boyd 2014, 1646).

## The Early 20th-Century Critique of the IOU-POU Model

> "The public utility concept retained and reaffirmed the basic fallacy of the late 19th century—namely, that private privilege can be reconciled with public interest by means of public regulation. [...] Henceforth, the public utility status was to be the haven of refuge for all aspiring monopolists who found it too difficult, too costly or too precarious to secure and maintain monopoly by private action alone" (Gray 1940, 9).

From its start in the 1890s and its rise in the 1920s–50s, the IOU-PUC model had its problems. Because profits were guaranteed, IOUs did not need to be the most responsive of "public" organizations. Indeed, despite those like Ely who argued private ownership was less corrupt that public ownership, this was not always the case. Due to a mix of rent-seeking and "regulatory capture," private utilities figured out how to maximize profits by manipulating the so-called public interest through lobbying and other forms of political influence, some more sundry than others. They often acted in wasteful ways to increase return to shareholders by engaging in unneeded infrastructure investments that would bring them profits without regard to the public benefit. This meant upgrades that did not improve efficiency,

reliability or affordability. PSC's allowed this to happen. Many "bemoaned the lack of adequate resources," qualified personnel and "increasing judicialization" of the utility commissions"20 as reasons (Boyd 2014, 1635; see also Tobey 1996, 59). The public interest had gotten lost. Consider this comprehensive and vitriolic takedown by the influential academic and utility expert Horace M. Gray in 1940:

> "Enough perhaps has been said to demonstrate the 'institutional decadence' of the public utility concept. It originated as a system of social restraint designed primarily, or at least ostensibly, to protect consumers from the aggressions of monopolists; it has ended up as a device to protect the property, i.e., the capitalized expectancy, of these monopolists from the just demands of society and to obstruct the development of socially superior institutions [my emphasis]" (Gray 1940, 15).

Was there another option? What might such "socially superior institutions" look like?

## From Muscle Shoals to the TVA: The Rise of Public Power, and Its Limits

Although the IOU-PUC model ascended and became dominant in the United States in the early 20th century, another model persisted. That model was public ownership. As noted above, the first wave of municipalization occurred in the late 1800s but stalled when faced with robber baron opposition and then the rise of the IOU-PUC model. In this period, municipalization was a kind of "last resort when local markets or local capital failed to attract private investors" (Tobey 1996, 45). Nevertheless, in 1913, public power finally made it to the national policy stage when Senator George Norris of Nebraska, and others pushed for it and a series of new hydroelectric projects. These projects were not for corporate profit but public benefit, including Hetch Hetchy Valley in California, Great Falls on the Potomac River, Muscle Shoals on the Tennessee River, Boulder Canyon on the Colorado River, and a dam on the St. Lawrence River in New York State.

In the 1920s, the battle between public and private ownership came to a head with a battle against Henry Ford. While it took a few years to play out, this very public conflict sent shockwaves across the US political system, transformed the energy sector and created a new kind of US political culture against the "social control" (or government protection) of private business and for public ownership for the social good.

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20 We shall argue against "judicialization" (i.e., relying on lawsuits and court orders to bring about accountability) and for democratization of electric utility regulation thru the Observatory model in Chapter 3.

During WWI, the US built a nitrate plant to make munitions in Muscle Shoals, Alabama. After the war, it sat idle. In 1921, Henry Ford made a proposal to purchase and develop the site. Ford proposed to use the cheap and plentiful hydroelectric power in the area to create manufacturing facilities and even a new city. Of course, Ford was already an American icon by this time, and his proposal attracted public attention with its promise of technological modernization of a very poor rural area in the iconic region of Appalachia (Tobey 1996, 47-9). Many were suspicious. Ford was bringing investment, but also demanding that the purchase price of the munitions facility be below productive value. Was the private development of a rural region blessed with natural resources the best way to go? Was there another way?

Senator Norris argued there was. The public power movement was gaining (hydro-generated) steam. From the Northwest to the Midwest to the Northeast, thousands of towns had created their own power systems. Indeed, Norris's home state of Nebraska was fully public, and its brilliant and influential Senator helped thwart Ford's privatization plan. This set the stage for the public alternative that became the Tennessee Valley Authority created during the Presidency of Franklin Delano Roosevelt (FDR) and the New Deal (Tobey 1996, 46).

FDR, too, was a public power advocate. As governor of New York (1928–1932), he continued the New York State tradition of seeking to develop hydroelectric power not only in the name of the public good but owned by the public itself. He was also a fierce critic of holding companies that dominated electricity like the General Electric–run "Power Trust" that Senator Norris investigated in the 1920s. Electric utilities owned by such holding companies overcharged customers and did not even pretend to service to poor and rural communities. The reality of the IOU-PUC model discussed above did not match the ideals. Norris and FDR pushed the public option, and FDR made it one of the lead issues in his first presidential campaign (Tobey 1996, 60). As President, FDR created the Rural Electrification Administration (REA), which supported the community ownership of generation through the formation of consumer cooperatives. The REA also created and managed a federally owned transmission grid throughout the rural US, particularly in the Great Plains and West. FDR also supported a number of public power projects, including the Bonneville Power Administration in Washington State. Created in 1937 to supply hydro-electric power to industry and farmers in the region in an equitable manner, it also intersected with another of FDR's central New Deal programs, the Works Progress Administration, since it was built by 3,000 previously unemployed men (Brynner 2016, 86). In this period, a number of cities and states created public power authorities. The best known, the TVA offered more than simply electricity provision, it was a

new model of inclusive regional development and aimed to reduce poverty and empower communities not just economically but civically and politically (Lilienthal 1945; Tobey 1996, 47-48). Striking against the public-private model of the IOU-PUC, the New Deal promoted federally funded and financed public-public and public-community partnerships (e.g., coops) aiming to serve the economic and social good.

Although Norris and FDR helped to expand public power, the opposition from the private utilities was considerable. A compromise was struck and public power's geographic spread was restricted to the areas the IOUs did not want to serve and the already existing places where the public had won. This compromise, of course, did little to undermine the dominance of the private model. Even worse, some POUs even had built-in internal limitations to their own growth opportunities. We can see this today in New York, with respect to the New York Power Authority (NYPA). While innovative in so many ways, from transmission to creating efficiency programs and recently even fully digitalizing its operations (Bozuwa et al. 2021), it is also constrained in terms of growth. Although it developed and continues to hold the franchise for the incredibly powerful Niagara Falls power generation facilities, it is not able to develop or hold more than six utility scale projects at a time. This prevents it from being a protagonist in the renewable transition despite its expertise, trustworthiness and incredible financial advantage.[21]

Despite the incredible innovation during the FDR administration, after WWII, as the US began its incredible economic expansion, it was the IOU-PUC model that powered most of it and grew along with it. On the view of many, the dominant IOU-PUC model did well during the post-War period into the 1960s. For the most part, more and more of the US was covered with electricity service, and customers enjoyed affordable rates and reliable service. The US continued to industrialize, the population grew, and utilities got bigger as they served more customers who wanted more power. As consumer culture proliferated, household, commercial and industrial electric use continually increased, and utilities built more generation and distribution infrastructure to keep up with demand.

From another angle though, the IOU-PUC model was unaccountable and became stagnant from the standpoint of innovation and service. Individual IOUs struck it rich with their Insull-shaped bureaucratic infrastructure that protected them from competition (and from customers). However, with a PUC-set pricing structure that incentivized growth, the increased usage

21 For a history of NYPA see Brynner 2016; for how to remake NYPA in some ways that parallel our own—but without the Observatory model—see Bozuwa et al. 2021.

occurred with little consideration of the effects (Bakke 2014, 69). This made utilities a great stock to buy for consistent long-term returns, but it also led to waste and pollution that has poisoned soil, air and water and wreaked havoc upon the climate. More specifically, their focus on profits and low rates led to a disproportionate allocation of harms to Black, Indigenous and People of Color (BIPOC) communities, especially in the form of dirty power plants sited primarily in environmental justice communities.

By the 1960–70s, the IOU-PUC model hit a wall. Escalating maintenance costs in the early 1960s created the first tremor. Then in the 1970s, the ecological and pollution crises and the rise of the environmental movement, in addition to the passage of the Clean Air and Clean Water Acts and the formation of the Environmental Protection Agency (EPA), sent the second tremor (Bakke 2014, 73-87). But the event that changed the energy sector forever, and sent shockwaves across the entire global economy, was the Organization of the Petroleum Exporting Countries (OPEC) oil embargo of 1973–1974, which caused prices to quadruple, countries to go into debt, commodity shortages, economic decline and stagflation. Although this energy crisis is mostly remembered for its long lines at the gas pump in the US, the crisis highlighted how oil dependent the American electricity system was as well. It became clear that the electricity sector needed a drastic accountability and innovation overhaul.

## Reforming the IOU-PUC Model: The Social Control of Business, Act II

It might surprise renewables advocates to know that the legislative and regulatory opening for renewables was not created by the environmental movement, nor by innovation from public utilities, but rather by-product of a geopolitical struggle in the Middle East. The OPEC oil embargo was precipitated by the US siding with Israel during the Six-Day War, and the world was never the same. Renewables and reducing consumption became desirable in the US not so much to reduce emissions, but to reduce oil imports. Energy independence and conservation became a patriotic duty. Americans responded by driving less, turning off unneeded lights and appliances, turning down the thermostat and donning sweaters inside their homes when it was cold. President Carter himself famously wore a cardigan and put solar panels on the roof of the White House as he pushed for new regulations (Bakke 2016, 85). This led to the passing of the game-changing Public Utilities Regulatory Policies Act (PURPA) of 1978. This bill broke the utilities' monopoly on generation and required them to buy energy from other operators, which opened up markets for wind and solar to enter. This was followed by the Energy Policy Act of 1992, which promoted

conservation and efficiency improvements. This led to new organizational forms (the ISOs and RTOs mentioned above) that operated emerging regional market systems. For some, this reboot that started in 1978 and continued into the 2000s shows that, while the IOU-PUC model had stagnated, it could become innovative and accountable again (Boyd 2014, 1659-69).

The key takeaway here is anyone looking to transform the electricity system cannot just focus on the utilities and the regulatory commissions. They must also focus on the ISOs and RTOs, as well as the independent generators that sell on the power markets.[22] Indeed, most of the renewable generation is owned by these independent generators. Some regard this as more "participatory," but it is not clear at all that it is more democratic. Instead, it relied on the introduction of competition, which did lead to some innovation but was unable to become accountable and meaningfully address the central crisis of our time—climate change. Although the US electricity system did start to emphasize conservation and efficiency, it did not prioritize adding renewables. Instead, its focus on "energy independence" was geopolitical. Unfortunately, from a climate perspective, the innovation that finally brought the US a great deal of independence—fracking for natural gas—contributed massively to the emissions crisis and created a host of additional ecological issues. The IOU-POU reboot did not pave the way for renewables, it intensified the climate crisis as US electricity system emissions did not decline but rose into the 21st century. Furthermore, it continued the environmental injustice crisis by repeatedly ignoring BIPOC communities and concerns for public and ecological health. Even though reliability increased in the first half of the 20th century under the IOU-PUC model, in the 21st century, the electricity system has become more vulnerable and unreliable as climate change has intensified, and infrastructure has not been adequately maintained much less upgraded (NAS 2021). Despite the warnings, utilities have been slow to integrate climate resilience into their planning no matter the incredible array of research and models, and with deadly consequences (Webb et al 2020, 2).

## What About Currently Existing Publicly Owned Utilities (POUs)?

So what about public power as it currently exists in the US? Is it any better? Does it offer another path forward in the quest for a just, resilient and renewable energy system?

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22 As we shall argue below, if one wants to municipalize the local IOU or democratize the POU, then we will have to figure out what to do with these other entities, not just the PUC but the ISO and RTO.

Across the US, when compared with actually existing IOUs regulated by PUCs, public power is on average more affordable and reliable.[23] If you are served by a POU in the US, you are more likely to pay less and to have the lights go out less than if you are a ratepayer for an IOU. Additionally, POUs tend to be much more supportive of local communities, local jobs and local public goods. This is because public power is nonprofit, so profits do not go to shareholders; instead they go back into the utility or to the community. POUs are more equitable, renewable, and accountable. They are more equitable because like most public sector institutions, POUs overall have significantly lower wage differentials between executives and average workers, and have much more racially and gender equitable employment practices than the private sector.

They do not send their profits to shareholders nor pay lobbyists to influence policy makers and regulators to make decisions to place profits over community, workers and the environment. We have seen too many examples of this in the private sector from PG&E in California to Entergy in Louisiana (Bozuwa 2019, 3; Hanna 2018, 53-9). Relatedly, because POUs are oriented around the public good and part of the nonprofit public sector, they have access to lower-cost municipal bonds. This reduces capital costs and rates for POU customers, in comparison with IOUs who are permitted by PUCs to pass on the additional costs to their consumers.[24]

As for their energy portfolio, public power is more renewable. We noted at the beginning of this chapter that on average publicly owned utilities had more renewable energy in their mix then did IOUs. Perhaps more impressive though is that all of the fully renewable utilities in the US are publicly owned. There are five: Georgetown, Texas; Burlington, Vermont; Aspen, Colorado; Rock Port, Missouri; and Greensburg, Kansas. (Adesanya et al. 2020).

On accountability, POU boards are often elected or composed of elected officials, thereby making them more accessible and responsive than their IOU-PUC counterpart. In Nebraska, with its all-public and cooperative utility system, communities across the state elect their board members, and have electricity districts to promote more local control. In contrast, PUC boards are appointed by the governor and/or legislator and can feel quite distant from actual towns and counties where the utilities operate. Indeed, as Horace Gray warned us back in the 1940s, the PUC model has led to layers of bureaucracy that separate the decision-making processes of utilities and

23 See the American Public Power Association (APPA)'s website for data on US POUs, MCAN for POUs in the state of Massachusetts and why POUs are regarded as preferable to IOUs. (MCAN 2021, 23) For New York State, see Brynner (2016).

24 https://www.publicpower.org/policy/municipal-bonds-and-public-power

their regulators from the public broadly and from residential ratepayers in particular. This leads to ratepayers having to resort to lawsuits as a means to accountability (e.g., the "judicialization" problem). While lawsuits can play an important role from both a justice or renewable transition perspective, they are usually reactive and do not promote deliberation or collaboration. Nor, of course, it is an option for the average person given the costs and time required for such action. Lastly, unlike IOUs, POUs have to follow open meetings and records laws, and some even promote public engagement.

Across the US, POUs employ a range of mechanisms for public engagement. Some publicly owned utilities such as the Sacramento Municipal Utility District (SMUD) have citizen review boards that allow ratepayers from the jurisdiction to be actively involved in giving feedback on specific policy proposals and/or rate increases. Seattle's POU has a public advisory council that advises on rates and the strategic plan and includes an economist, a financial analyst, a nonprofit energy efficiency advocate, a residential customer, commercial customer, an industrial customer, low-income customer, at-large customer and a suburban franchise customer. SMUD also has a business advisory board with a focus on racial justice. Austin (Texas) Energy sponsors a regional science festival to invite racially diverse youth to learn about the energy sector and also generate new knowledge.[25] Indeed, SMUD and Austin along with publicly owned utilities including the New York Power Authority, Holyoke Gas and Electric Department and Los Angeles Department of Water and Power (LADWP) are among the top 10 utilities in the US in both equity and renewable energy.[26] One of the most impressive recent examples of engagement occurred in Los Angeles. LADWP did a two-year-long engagement process that had an advisory group dedicated to environmental justice. What was significant about this LA100 process[27] is that the utility itself admitted that the racial justice group actually changed the way that they think about the different pathways to 100% renewable energy.

The stakeholder advisory group made them realize that black and brown communities in particular saw the energy transition from a perspective that was deeply concerned about air pollution, urban heat island effect, transportation access and quality, and economic justice. In other words, the transition to renewables is not just about installing as many solar panels and batteries as possible, it is about air quality, clean, reliable and affordable public buses, and jobs. Here public participation did not just inform the

25 https://austintexas.gov/page/community-climate-ambassadors

26 https://dailyenergyinsider.com/news/29930-sepa-surveys-135-utilities-clean-energy-transformation-efforts-names-top-10-to-a-leaderboard/

27 https://www.nrel.gov/news/features/2021/la100.html

public, it informed the strategic plan.[28] However, while the above shows many reasons for preferring publicly owned to investor-owned utilities, there are several problems with the existing POU model as well as, of course, actually existing public power utilities. When it comes to boards, many of the large utilities do not have elected boards and instead are appointed by the mayor (e.g. LADWP) or city council. This kind of partisan political appointment can cause accountability problems with as well as issues of who is represented or not represented on such boards. However, even when there are elected boards, that does not mean that all critical constituencies are present in terms of demographics (race, income, age, etc.), geography (all the parts of a jurisdiction) or in terms of expertise (e.g., climate resilience, distributed energy resource development, consumer protection, etc.). A deficit in any of these can lead to negative outcomes with respect to justice and/or resilience.

When it comes to advisory boards, most POUs do not have them,[29] but even when they do, the impactful public input in LA100 seems like the exception. Based on the limited studies that have been done and ad hoc and newspaper accounts, it seems that many advisory boards only last for a limited amount of time and/or have little impact on utility policy. Overall, though, our knowledge is limited. There is a lack of research about the efficacy of civilian review boards and other ad hoc advisory councils on specific issues including those mentioned above. While there is some evidence showing that such boards do give the public more control over rate increases, there is not a lot of research on the efficacy of many of the others. In other words, do the utilities actually listen to the advisory board? Are the policy decisions impacted by their recommendation? *Should* the utilities listen to the advisory board? Is service improved, or some other value enhanced? Whether or not such boards have any impact, there are also cases where such boards are subject to political capture themselves and/or corrupt and misspent funds. We argue that this does show the need for more research on what has been and what is being done, and the successes and failures. It also clearly points toward the need for a much more robust transparent participatory democratic inclusive multi-stakeholder model. Building upon this we will propose our own in the Conclusion.

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28 https://www.latimes.com/business/story/2021-03-24/los-angeles-now-has-a-roadmap-for-100-renewable-energy

29 "10% of respondents reported that there is a citizens' advisory committee or board that serves in an advisory capacity to the governing body. Utilities governed by city councils are more likely than those governed by independent utility boards to have a citizens' advisory board: 14% of respondents governed by a city council reported having a citizens' advisory board, as compared to 5% of respondents governed by an independent utility board. The incidence of electric utilities with a citizens' advisory board increases by customer size class, with the percent ranging from 7% of respondents in the smallest size class to 26% of respondents in the largest size class" (APPA 2015, 3).

## Research and Evaluation: How to Evaluate Public Power to Make It Better?

One exception to the lack of research on public utilities in general and engagement processes in particular was a recent study of the municipal-owned electric utilities in Massachusetts. Conducted by the Massachusetts Climate Action Network (MCAN), the scorecard evaluates POUs with respect to four themes: their efforts in the energy transition, energy efficiency, transparency and community engagement, and policy context. The study relies on multiple sources of information, from reports issued by the utilities to questionnaires submitted to them, and impressively 40 of the 41 public utilities across Massachusetts are evaluated (one was too small). The study shows that many POUs are leaders in transition and efficiency but some are not, and compared to IOUs, the POUs do not put in as many resources to efficiency, which is a negative for ratepayers especially. It showed that in Massachusetts, POUs do not focus on justice and equity in their operations, whether in terms of race or class (MCAN 2020).

The MCAN report scorecard also looks at the types of engagement that different POUs undertake. The metrics constructed to measure engagement are: 1) Are websites updated with the information necessary for residents to engage in decision-making? 2) Do the POUs provide more opportunities for community involvement in decision-making? 3) Are they transparent on their transition to clean energy and not misrepresenting their actions to the public? (MCAN 2020, 15). As for the results, less than half of them received a passing grade. That makes them better than the average IOU, which offers very little re: engagement, but it is nowhere near adequate to the moment. The report goes on to make recommendations to the POUs to do the following: work with towns to establish climate action plans; participate in statewide programs focused on increasing efficiency and transitioning to clean energy; and reduce barriers for ratepayers to participate in statewide programs (MCAN 2021, 16).

In sum, while existing POUs do better overall on engagement, affordability, reliability and renewables, they are not adequate to the moment, especially in this time of massive transition where public import could really matter. As such, current POUs to the best of our knowledge do not take us to the level of democratic participation that we laid out and called for in the Introduction. While some boards are accountable and representative of their communities, they are the exceptions. While the MCAN scorecard praises POUs that enable customer's access to information, simply making it publicly available through reports on a website is not enough. Electricity infrastructure is incredibly technical and multidimensional with a range

of impacts that need to be examined. Informing the public so that they are empowered to participate requires much greater two-way channels of communication as well as sustained engagement practices to develop knowledge and relationships over time.

When this happens, ratepayers or representatives of ratepayers can play meaningful roles in key questions around strategic planning, integrated resource plans, questions about where to site new infrastructure, and developing sustainability and resilience plans for towns in the catchment area of the utility. Is such a model of sustained and empowering participation possible? Could boards really be accountable and diverse and representative? Our next chapter provides an example of just such a case.

# Chapter 2—The Case of Paris: Water Utility Municipalization and Democratization, the Innovation of the Observatory


This chapter will present the global overhaul of the water policy implemented in Paris. This reorganization was based on the values of democracy, justice, and resilience. In order to fully understand the ins and outs of the democratization process of the Parisian water service that went along with its remunicipalization, it is necessary to put this major reform in the political context of the time.[30]

## The New Political Configuration of Municipal Power

In 2001, for the first time since the Paris Commune, a left-wing mayor, Bertrand Delanoë (Socialist Party), was elected Mayor of Paris. Assuming office with a left-leaning political coalition (Socialists, Greens, and Communists) represented a real political turning point. Before that, only the right wing had reigned over Parisian municipal affairs, creating, a network of

30 In a book published in France and translated into Spanish, I reported on my experience at the head of the Paris water utility, See Anne Le Strat, 2015.

collusion and connections between the different spheres of power. They did this by creating and maintaining a network of economic and political players driven by cronyism, backroom deals and lobbying.

The radical political change was embodied by the arrival of new elected officials, including many younger people and women. For the first time, there was not only a group of Green Party legislators within the City Council but also as the second in number of elected officials in the municipal coalition. This coalition was essentially made up of newly elected officials, most of whom did not have any institutional experience but made up for it with backgrounds in activism and NGOs. Created in 1984, the French Green Party is a young party compared to the others. It was formed by many from grassroots, social and environmental struggles. This created the opportunity for an alternative societal vision to flourish in power spaces. This vision was less hierarchical and much more open to civil society and social movements. This horizontalist orientation explains why the party was not only more committed to environmental issues, but also to issues of common goods, public services and the fight against cronyism.

This different way of thinking and doing politics has been reflected through innovations in public policies and democratic practices implemented in Paris. The break between the former mandates of the preceding right-wing governments and those established under a left-wing environmentalist coalition have much to do with the arrival of the Greens in office. This resulted in the passage of municipal reforms, in particular leading the fight against some industrial lobbies. The Greens—never having received funding from private organizations and especially not from large special interest groups and corporations—allowed this fight to happen. All the other parties that have been in a position of power at the national or local level, including the Communist Party, had benefited for decades—and of course without any transparency—from the financial support of large private groups, whether for electoral campaigns or for day-to-day party business. Until 1988, there were no laws governing French party financing, leaving the door open for all kinds of abuse. Fortunately, several subsequent pieces of legislation sought to respond to cases of proven corruption and, in 2005, corporate donations to political parties were prohibited.

Nevertheless, these practices created lasting relationships and ties of dependence between the political class and the private sector. Today, such support from large groups to politicians has not totally ceased. Now it goes through different, and very diverse, channels, sometimes visible and public, sometimes bordering on corruption. Some examples include jobs offered to a politician after a political defeat or patronage positions, gifts in kind

or financial support for communication operations or events organized by the city, and more. It is undeniable that the financial independence of the Greens from private groups since their inception, explains in large part the freedom of attitude they have toward large multinationals.

Among the French political class, the Greens (now Europe Ecologie-Les Verts) have always been at the forefront of the fight for public water management, very often alone against large corporations. More than any other party in France, the Greens have made the greatest contribution to deprivatize water services, mainly by their local government fights against contracts delegated to the French multinationals. The first prominent case of water remunicipalization in a large city in France is Grenoble. In the '90s, a Green elected official initiated a battle against the then mayor of Grenoble, exposing a major system of corruption concerning the privatization of the water service decided by the latter in 1989. With a new Left-Green coalition coming to power in 1995, the municipality decided to establish a mixed-share company to gain time and handle the ongoing legal disputes. Eventually, after five years of legal proceedings and the sentencing of the former mayor to five years of jail, the City Council approved the full remunicipalization in 2000 and the transition to a fully publicly owned operating company started.

## The Parisian Water Players and Organization

To understand the revolution that was the remunicipalization of Paris, it is necessary to bear in mind that the Parisian water world reflected the water sector in France, with the two main multinational water corporations Veolia and Suez as the main protagonists. Paradoxically for a country perceived as a champion of public services, France has outsourced more of its water and sanitation services to multinationals in its large- and medium-size cities than any other country.

For both Veolia (established as Générale des Eaux in 1853) and Suez (established as Lyonnaise des Eaux in 1880), links were forged very early on with the banking sector and public authorities. Formed at the end of the 19th century when the agricultural and domestic water supply had become a major economic and social issue, and amid an acceleration of urbanization and developments of hygiene, these corporations rapidly recognized the potential for lucrative markets. The decentralization of the French state implemented in the 1980s by enlarging the legal and political competencies of local authorities only accelerated the privatization of the water market. With the assistance of the state administration, local authorities began delegating public services (leasing or concession contracts) to a private

operator for the provision of a service. This contractual mechanism has increased the profitability of the multinationals by guaranteeing them long-term operating income and allowing them to develop by increasing and diversifying their activities.

In contrast to neoliberal principles championed by the multinationals, market-based principles have not been followed: no transparency, no accountability and no competition occur. While the consumer has no choice for tap water supplier, the multinationals have agreed to divide the service contracts across the French territory in order to avoid competition. For decades, there was no legal obligation to call for tenders before signing contracts, most of which were of very long duration (25 to 30 years) and renewed by the local authority with the same service provider company in more than 95% of cases. Veolia and Suez have positioned themselves to capture the entire value chain in the water and sanitation sector, allowing them to provide many services to local authorities without any competing bids. Deploying increasingly sophisticated financial engineering, Veolia and Suez have used the revenues from local services for purposes other than the operations of the service. Water incomes did not only pay for the water supply. It is worth noting that unlike other large French companies, these two succeeded in escaping periodic waves of post-War nationalizations including the one in the early 1980s.[31]

To complete the picture, there is another important characteristic of the water sector: no national regulatory authority, unlike the other sectors such as energy, railway and telecommunications. As there is also no local regulatory body, there is no mechanism for regulating and monitoring public service delegation contracts.[32] In the French model of public service delegation, the local authority is the organizing authority for the service, managed internally or outsourced. For instance, in theory, the local authority determines tariffs. In reality, the private operator is the one who has control over the operations, from the building of infrastructure to the choice of treatment processes and prices. Only the quality of the water is externally controlled and monitored by the Ministry of Health.

The industrial and financial power gained by the French water multinationals

31 Among the few books that analyze water capitalism in France, see Martine Orange, 2003.

32 The delegation of public services is a French legal concept and refers to a contract by which a legal entity under public law entrusts the management of a public service for which it is responsible to a private delegate whose remuneration is substantially linked to the operating result of the service. This delegation contract can be operated as a concession or lease contract in which a private company enters into an agreement with a local or national government to have the exclusive right to operate, maintain and carry out investment in a public utility for a given number of years. Ownership of the infrastructure remains public, unlike in cases of full privatization. In this paper, we will use the term of public service delegation in that definition.

is both a consequence of this situation and reason for its continuance. Over many decades, multinationals have built up an empire in the world of water, sanitation and waste services provided to local authorities, in France and abroad. The global water management market, while fragmented, is still largely dominated by French companies. The global water issue is crucial for the environmental services industry. The water management market alone represents more than 40% (€600 billion) of all environmental services provided by the heavyweights in the sector (such as Suez, Waste Management, Veolia, etc.). By merging with Suez, Veolia, the world's largest environmental services company (water, waste, recycling, energy), would have revenues of more than €40 billion (based on cumulative revenues in 2019), of which €18 billion would be dedicated to water management alone. The current dismantling of Suez in favor of its sole French competitor Veolia contradicts the most basic rules of competition, employee rights and the interests of local authorities. This makes the public management model implemented in Paris even more relevant.

Before the breakthrough represented by remunicipalization, the Paris water service was managed according to the aforementioned French model. Since its creation in the late 19th century, Paris water has been managed directly by the municipal administration, aside from the billing and marketing activities that had been entrusted to the private sector. The 1980s were the golden years for the public service delegation in France. Paris was also no different from the rest of the world swept up in the privatizations. In this context, the dismantling of the direct water company of Paris took place in 1984, when the then mayor of Paris made the political decision to delegate its management to three operators through 25-year concession and leasing contracts. The distribution and the billing were split between two private operators—subsidiaries of the major corporations Suez and Veolia—one for the "Left Bank" of Paris, the other for the "Right Bank." The water production (catchment, transportation and treatment plants) was assured by SAGEP (Société Anonyme de Gestion des Eaux de Paris), a mixed-ownership company shared between the city government (70%) and the two private distribution companies. These contracts signed between the municipality of Paris and the private operators were written according to the interests of the private distributors. The part listing the technical obligations of the distributors remained sparse, while the part concerning the price included several pages of mathematical formulas. This led to a continuous increase in the price of water but did not provide the municipality with accurate information on the network's assets.

Despite criticism of this organization in favor of the two multinationals, it

continued until a new political coalition came to power in the city.

## The Remunicipalization of the Parisian Water Utility

Elected in 2001 as a Paris City Councilor for the Green Party, I was appointed Executive Chair of SAGEP, the mixed-ownership company in charge of water production. Since the municipality owned the majority of the shares, the Chairperson was an elected official. Reelected in 2008, I was not only reappointed Chair of SAGEP but also nominated Deputy Mayor in charge of water and sanitation policy.

One of the most important reforms carried out during these two mandates was a complete overhaul of Paris water policy. Guided by the vision to manage water as a common good, we wanted to ensure a democratic and transparent management of the service and to implement a policy following the principles of sustainability and the rights to public services.

This complete overhaul was implemented not only at the organizational level but also in terms of vision and perspectives, taking a holistic and inclusive approach committing to all the stakeholders. The political decision was taken to carry out deep transformations of the institutional framework and to define new structuring orientations for the water policy. One of the main measures taken was to take back control of the water system through remunicipalization and the creation of a publicly owned company.

When our Left and Green political coalition took office, we discovered more of the dysfunctions of the existing operation. This operation had significant disadvantages not listed extensively here, but here the main ones: first, the multinationals enjoyed the most lucrative share of the service while investing relatively little in the water distribution network. The main investments were financed by SAGEP, which managed the production infrastructure (aqueducts, treatment plants, catchment areas, reservoirs, etc.). Second, the fragmentation between three different operators caused a splintering of responsibilities that made the evaluation of the quality of the service extremely complicated. There was also an asymmetry of information, and lack of transparency in favor of the multinationals. Even if the municipality of Paris was, in principle, the organizing authority of the service, it did not have an accurate overview on the financials, the technical aspects and the assets of this service; generally speaking, it did not have the means to exercise real monitoring and control over the operations of the service. In addition, during the 25 years of delegation, the price of water rose sharply without technical and economic justification.

## A Single Publicly Owned Operator: A Proposition Shared with the Employees

During my first term in office, and although the water companies' failures and dysfunctions were unquestionable, the decision to remunicipalize was still in limbo. The Mayor preferred rather to renegotiate with the two distribution providers. In 2003–2004, these negotiations launched with the goal of enhancing control and demanding greater investment. As a result, the municipal water department did gain some monitoring capacity over the service, and the two multinational corporations were forced to increase investment in network maintenance. However, the results did not meet expectations; as a consequence, the idea of a proper remunicipalization gained traction in the political discourse. Two years later, the decision was taken to initiate several studies concerning the future of the water service. Specifically, this called for a study on the end of the current delegations (in 2009 for distribution and 2011 for production) as well as a comparative analysis of different possible organizational schemes, and a national and international comparative survey on various aspects of the organization and functioning of water services.

In 2006, I decided to launch an internal consultation within SAGEP, called Eau de Paris Demain, to help shape the future organization of the Parisian water service. In order to accompany the municipality's reflection, the insights of the staff seemed extremely relevant to reflect on the best possible operational organization. The objective of involving staff was to solicit their skills and operational experience, but also to ensure that they could accompany the change as major actors in a possible reconfiguration of the service. It should be said that the scenario of creating a public company in charge of all activities was far from evident at the time, not only at the political level but also at the organizational level as SAGEP staff worried such an upheaval would negatively influence their jobs.

This new approach to staff consultation was set up and implemented with the help of experts in public decision-making. In an organization traditionally accustomed to a culture of hierarchy and top-down decision-making, many employees were initially suspicious of the process. They believed it was simply for show and that the results of their consultation would not be taken into account. Once it was clear that nothing had yet been decided at the political level, the staffers quickly embraced the process.

For nearly two years, workshops and working groups were set up with employees representing all the professions, sectors of activity, and levels and profiles within the company. This entire brainstorming process took

place during normal working hours and outside the legally established meetings with employee representatives and unions. It was a unique experience of large-scale staff consultation on the future of the utility.

This participatory work proved essential in many ways. Because they had operational knowledge of the field, the staff members were best able to identify the strengths and weaknesses of different scenarios. They analyzed the advantages and disadvantages from a technical and industrial point of view and drew up a vision of what a new organization could be, predicated on a single public water operator. In parallel with the external audits launched by the municipality to identify the different options, this staff participation process led to the design of what would be implemented later in the remunicipalization process. The precise model for a single public operator emerged from these collective brainstormings and served as the basis for the programmatic campaign proposal in the March 2008 municipal elections.

## The Creation of Eau de Paris, a Proven Success

Because of our extensive internal consult and the ensuing confidence in our plan, during the mayoral race in 2008, the incumbent Mayor of Paris made the commitment to remunicipalize the water service a key campaign promise. Reelected as City Councilor, I was appointed Deputy Mayor in charge of water, sanitation and canal management while remaining chair of the water production operator. With the same political coalition, the municipal majority took the decision not to renew the Suez and Veolia contracts and to instead create a new publicly owned operator, Eau de Paris (EDP), which took over all water operations. The challenge was huge; we had to merge three private entities into a public one within an eighteen-month timeframe. On January 1, 2010, EDP became fully operational and took control of the Parisian water service, from the catchment through to billing and end-consumer service.

We had to deal with a range of complex administrative, juridical, technical, and financial and human resources challenges. We succeeded to accomplish this merger process thanks to an exceptional mobilization of the staff at every level and despite the various obstacles deployed by the multinationals to hinder the transition to public control.

The transition to a publicly owned company consolidated the economic balance of EDP for several reasons: the operational pooling made possible by the establishment of a single operator instead of the previous three; the recovery of the private operators' financial margins; the substantial reduction in the cost of works that was made possible by the public control

operated by the new operator; and the internalization of certain activities (subscriber management and invoicing, among others). Insofar as all operating profits are reinvested in the activities of the new service, unlike in the previous concession scheme, the economic gains are significant: The first year, they amounted to around $40 million (USD) a year. The profits generated made it possible to undertake major investment programs, such as developing an ambitious policy for the protection of water resources, and to offer staff good salary, benefits, and working conditions. Following tense negotiations with the two private operators, 228 employees were transferred to the new public structure, which would also hire nearly a hundred employees for the new jobs created by the public company.

Suez and Veolia, two companies among the biggest French corporations and leading multinationals in the global water market, had been using their Parisian contracts as their best commercial showcase nationally and abroad. They, and their network of supporters, were therefore under enormous pressure to maintain the public service delegation model in place. On the other hand, we were under strong pressure to demonstrate not only that the process of remunicipalization could be a success but that it could also improve the quality and efficiency of the service.

Today, Eau de Paris is currently a 100% publicly owned stand-alone water municipal utility, without any private shareholders. It has managerial autonomy, operating as a separate legal entity with financial independence based on its own revenues for operation and with the legal obligation to have a balanced annual budget.

Most of the staff (around 900 employees) have permanent employment contracts and contracting is kept to a minimum. The municipality of Paris, as the water authority, defines the objectives and the political framework, and ensures assessment and control of its water operator. Eau de Paris guarantees high-quality water, at true cost, and with a high level of service provision performance; the price paid by the consumers now reflects transparently the sole cost of water. The economic choice of a sole public authority operator favors financial balance, and all profits are systematically reinvested in the whole utility's activities. Unlike the previous system of delegation to the private sector, there is an entirely transparent purchasing and procurement policy, due to bidding procedures that guarantee ethics and best value for money. The new Parisian utility also quickly demonstrated its ability to deploy ambitious policies to raise awareness on water issues, to increase water accessibility for all, to carry out strategic plans for resource preservation and biodiversity conservation, and to undertake numerous innovative climate-related actions.

This successful transformation of the Parisian water service into a model of public management was recognized nationally and internationally as well. That recognition created momentum for many local authorities in France to take over public management of their own water services. In June 2017, Eau de Paris was awarded the United Nations' Public Services Award in the category "Promoting transparency, accountability and integrity in public services."

The creation of Eau de Paris in 2010, the largest public water utility in France to date, has had a considerable influence on the French water market. As the capital city showed that it could supply water to its residents with such success and without the big corporations, many other cities realized that they, too, could and should take back control of their service. This abrupt change of mind created an electroshock for the multinationals, which suddenly saw their contracts called into question. Many medium and large cities announced they wanted to return to public management. At the same time, existing public utilities, consistently under threat of privatization, felt emboldened. According to the researcher Emanuele Lobina, the example of Paris accelerated the process of deprivatization; one can speak of a "before" and "after Paris."[33]

One of the key consequences of the Parisian reform was to make the option of public management credible and to install it as a real alternative in the water sector. At the same time, the demand for public consultation from citizens, and the pressure to regain public control of services, has increased considerably. Collectives and associations have been launched to require more democracy regarding the management of their local water services and to call for more transparent public policy. This new civil society pressure has forced many local authorities to renegotiate their contracts or even to reopen them to competition, causing substantial tariff cuts and closer control of the activities of private operators. This citizen pressure, reinforced by the example of Paris, has also supported many changeovers to public management in important cities and metropoles.

This landscape of the French water world has undergone further upheaval with the latest municipal elections in June 2020. These elections saw a very strong push by the Greens, who won the largest cities after Paris, including Marseille, Lyon, Bordeaux and other important medium-size cities. In the wake of these victories, the newly elected officials in charge decided to remunicipalize the water services in Bordeaux and Lyon, managed for decades by Suez and Veolia respectively. These are two brilliant victories

33 His demonstration is based on the number of remunicipalization cases in high-income countries between 2010 and 2015, which doubled compared to the period 2005–2009 (from 56 to 111). In France, this number tripled, from 20 to 62. See S. Kishimoto, E. Lobina and O.Petitjean (2015).

for the public management advocates, as these contracts are, after Paris, major historical contracts for both multinationals. The reference to the creation of the public water company Eau de Paris was explicitly highlighted in both with respect to the transition process and to the expectations of the new utilities. In particular, governance issues have been put in the core of the new model. In the case of Lyon, the clear intent is to set up governance bodies open to civil society, following the Parisian model, by granting an important place to citizens, end users and other stakeholders in the decision-making process. Concretely, the remunicipalization of the Paris service has had a strong influence in weakening the hegemony of the private sector in the water market, and in innovating new forms of governance.

Indeed, the Parisian remunicipalization process came along with new water policy orientations, involving a more inclusive, democratic and sustainable design in order to give a voice to the different stakeholders, guarantee access to water for all, and intersect water issues with urban, agricultural and territorial planning challenges. In the design of a new model of public policy for the Parisian water service, governance was a key question. The guiding principle was to set up new governance structures under the aegis of elected representatives to allow public participation and the active engagement of all water service stakeholders in the policymaking process. Encouraging participatory democracy in water policy in Paris aimed to increase transparency and accountability, but beyond that, to include different points of view, focuses and demands from all stakeholders connected to or interested in the water sector. This political commitment to establish innovative forms of participatory democracy has had a strong impact on the organization of the water service and the policies implemented.

## The Governance of the New Public Company: A Board Open to All the Stakeholders

With the creation of the new public operator came a clear mandate to include civil society in decision-making, in particular in the board of directors. Like the remunicipalization, this was a political decision. I initiated this process as president of Eau De Paris (EDP) and discussed it with the Mayor's office before receiving his political approval. All the varying political groups of the City Council agreed. The municipal opposition had unsuccessfully taken legal action against the municipal decree that created the publicly owned company. Therefore, they thought that they could play a counter power game within the board. The municipal majority supported this important reform to open up the board on the condition

that it would keep the majority of votes within it. The number of directors and the distribution among the different groups (elected officials, civil society, employees) were subject to scrutiny by the Mayor's office. The fear was that the municipal majority could lose its majority on the board if the elected representatives of the right allied with the other administrators. The size of the board ensured that the city government would retain the majority in case of a dispute, taking into account that the chair, nominated by the mayor, could cast the deciding vote in case of a tie. Two additional nonvoting members also participate in board meetings as experts: a scientist and a specialist of local participatory methods. No member of the board, not even the chair, receives financial compensation.

Breaking with the traditional composition of boards of directors that are composed solely of elected officials; we decided to set up a governing board that would gather different types of stakeholders, with the goal to make the voice of users and associations heard. Besides the City Councilors (nine from the municipal majority and four from the opposition), the board was expanded to include representatives of civil society (three seats) and of Eau de Paris's staff (two seats), with all board directors having the same voting rights. The Eau de Paris staff representatives are elected within the company's work council: They represent all the employees, not just trade union members. Among the three representatives of civil society: one represents the Parisian Water Observatory and is elected by their peers; the two others are not elected but rather appointed by the City Council and represent the consumers' association UFC Que Choisir, and the environmental association France Nature Environnement, two most important associations in the fields of consumer rights and environmental conservation.

It is worth noting that these associations never requested participation; we came to them and asked for their involvement in order to open the governance. These two major civil society associations initially accepted seats on the new board, but both refused to have voting rights, preferring to remain in a consultative position. They were not willing to be accountable for decisions taken by the board, which they felt could undermine their independence with respect to both Eau de Paris and the municipality. After working on the board, however, they realized and appreciated their absolute freedom of speech and position and soon changed their mind, requesting to have the same voting rights as staff and political representatives.

The board position allows members access to all the information they need to carry out their duties as independent administrators. They can request that any item, be it very specific or wide and strategic, be put on the agenda

and discussed in the board. The core democratic principle that underpins the new governance of Eau de Paris is to associate the staff and the civil society in the long-term and strategic decisions. Specifically, it means that the business plan, the multi-annual investment programming and strategic policies like water resource protection policy are discussed and determined by the board. Hence, the workers' representatives, the citizens and associations all play a role in structural decisions and the major issues faced by the company. Day-to-day operational management (technical, industrial or administrative) remains in the hands of the employees of EDP.

The presence of the civil society is anything but symbolic; it substantially modifies the course of board meetings. Two telling examples show this new board of EDP is not a rubber-stamp body filled with token representation. The first was an important debate held immediately in 2010 about the commitment taken by the municipality to decrease the price of water in the context of the remunicipalization. Both the Parisian Water Observatory and the board were divided about it. The proposal on the table was a decrease of the price of water by 8%. Representatives of civil society supported the proposal, but representatives of staff were opposed, as they worried that lower revenue for EDP would damage the employees' interests. Elected officials were also divided on this issue. Eventually, after a long and interesting debate, with strong arguments exchanged among all board members, the proposal was adopted by a majority of the board, and as it turned out, this decision had no impact on salary negotiations within EDP.

Another example concerns the scope of Eau de Paris's operational activities. In my view, the purpose was to set up a new publicly owned utility enabling the most comprehensive technical and financial management possible. The opponents of the reform, including the incumbent private corporations, hoped that the newly created utility would remain an empty shell in which the multinationals would continue to handle part of the service through subcontracts. To counter this, I advocated for it to be designed to take on the whole set of services and to insource some activities previously contracted out (even at the time of the municipal service from 19$^{th}$ century until early 1980's). This key question focused on billing and call centers. Taking the control over billing meant gaining control of the revenues of the service (100% coming from the water billing), and managing the call center allowed for direct contact with end-users. However, the top management of EDP and the water municipal department were not convinced about both the need to insource and the capacity of the public company to handle these activities. As chair, I decided to ask for the board's opinion. In July 2011, after a substantive debate, all members voted unanimously in favor of the proposal, even the

municipal opposition. The main argument shared by all was that these activities were too sensitive to be managed by the private sector.

This decision marked an important milestone in the governing structure, as the board overruled management. Bringing the service in-house allowed EDP to establish a new relationship with its users. This insourcing created a qualitative leap in terms of service delivery, recognized by all. Eau de Paris also innovated by carrying out a new range of free services that everyone could access, including real-time information to consumers, leak and over-consumption alerts. A single entry-point center answers any question from all users and subscribers. These changes proved so successful that the new customer service, based on public service principles, ended up winning the Best Customer Service of the Year award (water distribution) seven years in a row, with 97% customer satisfaction.

This board structure was a first in France for a public service. The new board functions as a true decision-making and oversight body. Transparency, accountability and a checks-and-balances system are principles that still guide the governance today. All members of the board have access to all data and information, can express their priorities and request a debate on any topic related to EDP's activities. The purpose is to take into account the point of view and expectations from the company's employees and civil society as well. This power and counter-power is viewed as an exercise of participatory democracy in economic sphere as it allows a broader stakeholder governance than usual and sustains the legitimacy of the decisions taken. Thanks to the presence of civil society and experts, new points of view, demands and topics are taken into consideration by Eau de Paris. In particular, the associations push to ramp up ambitious water protections already implemented, and are demanding quality and accessibility of the service to users. The introduction of associations and qualified personnel has allowed for more lively debates within the council. They are often the ones who animate the sessions, asking for explanations and clarifications, flagging potential problematic aspects of a given decision or putting in the spotlight issues previously not taken into account. There is also a very low turnover among these particular board members. Staff and civil society representatives are very assiduous at the board's meetings, more than the officials elected, and the quorum is very often secured thanks to them. This loyalty is a tangible sign of the interest they have in serving on the board, in particular civil society directors, even in the absence of any financial compensation.

Admittedly, this new governance arrangement was not immediately accepted by all within the company. The main reason for this initial

reluctance stemmed more from complicated and time-consuming decision-making processes, which compel in particular EDP teams to make available all documentation and draft resolutions discussed by the board in a way that is easily understandable by non-experts. Another reason is that they have to take into account the inputs and requests from these new board members, and are accountable to them for their decisions and management. Over time, this innovative and open governance model has become an integral part of Eau de Paris's identity. Eleven years after the utility's inception, this governance has both changed the culture of the organization and enabled it to handle new challenges. It has allowed EDP to contribute to a wide array of public policies, not just water delivery (climate change adaptation, ecological improvement transition, social inclusion and so on. The way EDP dealt with COVID-19 exemplifies this, with the governance strongly influencing the decisions made by the utility's management during the crisis. Far from suspending this integrated approach to public service, the pandemic actually reinforced its commitment, with the support of all stakeholders, by taking different actions inspired by a broad conception of general interest (water access, research program, etc.).

## The Birth of the Parisian Water Observatory

One of the outcomes of the renegotiations of the 2004 contracts was that the municipality still could not truly monitor the system. Activist associations at the time began to voice demands for more transparency about the negotiations process and for a real public debate about the remunicipalization of the service. In 2005, one association proposed to create an open consultative body overseeing the municipal water policy. As City Councilor (not yet Deputy Mayor at the time), I submitted this proposal to the vote of the Council. Hence came to birth in 2006 the Parisian Water Observatory (OPE).[34]

Initially, the Observatory was a simple municipal platform involving a few associations engaged in public services or environmental conservation. Both the incumbent Deputy Mayor in charge of water and sanitation and the corresponding municipal department were not keen to give too much power to civil society on water-related issues, with the topic seen as politically sensitive. Two years before the municipal elections, and three years before the end of the contracts, the political debate had become a hot topic among the municipal majority regarding the future organization of the service. The Socialists (who held the majority of the municipal coalition) were divided but more inclined to incremental improvements than a radical change. Whereas, the Communists and the Greens were proponents of remunicipalization,

34 See www.observatoireparisiendeleau.fr

particularly the latter. At the level of the political executive and the top management of the city administration, the objective was clearly to deal with this sensitive issue while avoiding public debate as much as possible.

Therefore, the Observatory was designed as a means of communication from the municipality toward the associations; it was not viewed nor meant to be a bottom-up platform for citizens and activists to actually engage in the remunicipalization process. Despite this, the majority of the associations and activists who participated in the Observatory advocated a return to public management. The main demands of the associations were access to information and transparency in the negotiations with the multinationals, plus a consultative role in the decision-making process. While they expected the Observatory to be a place for open democratic debate, the municipality was very reluctant to accede to these demands and wanted full control over negotiations with the two private operators. This first configuration of the Observatory therefore was not designed to be a body of participatory democracy and was limited to only being a forum where associations could request some information and data, subject to the administration's willingness to provide it. Nor did it allow citizens to participate in the thinking process about a new organization of the water service.

Following my appointment as Deputy Mayor in charge of water in 2008 as part of the reelection of our political coalition, the decision to remunicipalize the water service was taken along with new policy guidelines for this sector. A new, more democratic governance framework for the entire service was developed. This led to the transformation of the structure of the Observatory. It became an extra-municipal commission for information and debates on water issues, providing an actual support (including through oversight functions) to the municipality in defining and implementing its water policy.

## What Were the Goals Pursued in Creating This Observatory?

Paris's water policy involves a number of technical and political players. Yet, consumers have traditionally played no role in the decision-making. It took a high level of political ambition to involve Parisians in the water service and to strengthen the public management by building more democratic and inclusive governance.

There was a clear will to broaden the audience and bring in other stakeholders to the table. Historically, water management is left in the

hands of expert technicians, who were not eager to open it up and share knowledge with other actors. The Parisian Water Observatory, on the contrary, is designed to foster diversity of insights and inputs on the city's water policy. The purpose was to *Think of water out of the pipes!*, in a crosscutting and interdisciplinary approach.

Another objective was to allow end-users to be actors in the world of water politics playing a counterweight role to elected representatives, the municipal administration and the technical operator. This effort was to recognize that end-users were the consumers financing the entire operation. Thus they deserved monitoring and oversight into their water service.

Finally, the idea was to foster interest in the water systems among Parisian citizens. Several reasons explain the inhabitants' relative low interest in water services. The network and the infrastructure is underground, so it is not visible on a day-to-day basis. Overall, Parisians benefit from quality water that flows from their taps every day without incident; citizen involvement is more difficult in the absence of a crisis. Lastly, the water bill is usually included in rent charges and therefore does not appear clearly to a majority of tenants. In that context, the access to information and knowledge about activities and issues of the Parisian water policy provided by the Observatory was crucial. In sum, the OPE aims to bring citizens closer to the decisions that affect them by organizing consultation and debates on water-related issues concerning Paris.

## Structure and Functions

The Observatory is an extra-municipal commission attached to the City of Paris. Its last status, renewed in 2013, is fixed by a municipal decree:

> "The Observatory is a link between citizens and the municipality on water-related topics. It is a place where citizens can raise concerns and transmit their requests to the municipality regarding water issues (resource protection, water production, waste water treatment, rain water management…)."

Its membership comprises four constituencies, formally established by municipal by-law:

- Representatives of water users (associations of tenants, consumers, housing management agencies, trade unions, environmental associations, fisher people, etc.);
- Members of the Council of Paris and of local Councils (elected officials);

- Operational and institutional actors linked to Paris's water service (River Basin Agency, Greater Paris Sanitation Service, Ministry of Health, Ministry of Environment, etc.);

- Relevant universities and research organizations.

All members of these constituencies participate on a voluntary basis, and any Parisian interested in water issues can actually become a member of the Observatory. The President is elected by its fellow members, not chosen by the municipality. The Observatory's assembly establishes also selects some of their own members to form a bureau to coordinate its activities, draft its work for the year and liaise with the municipal water department. The water department is in charge of the secretariat handling the OPE's logistics (mail, website, etc.) without interfering with its work plan and orientations. The annual work covers all water-related issues on which the Paris City Council is supposed to take a decision, as well as any other topics that its members judge appropriate.

A minimum of four public meetings a year, open to all, are organized: These are preceded by the sending or online posting of documents on the issues to be discussed, and as far as possible, by organized visits to projects or installations to inform debate. The municipality can also request the Observatory work on a specific issue in order to provide input to municipal debate and decision-making.

The Observatory provides expertise on policy and governance issues and can present new items for the City Council to debate and decide. It promotes conservation and convenes stakeholders to monitor the water policy being implemented or developed. All acts, reports and official proceedings related to water policies must be submitted to the Observatory before they are considered by the City Council. The Observatory has no voting right on the municipal deliberations but can give opinions that are taken into account before the vote of City Councilors.

Through its seat in Eau de Paris's board, the Observatory can access all information regarding EDP and its activities. All reports and documents are available and readable for it and the broader public. Therefore, any member (in practice, any Parisian) can get data, figures, and so forth regarding all of the activities of the operator and the water policy in Paris. The representative of the Observatory, like the other administrators, takes part in any vote of the EDP board and informs the Observatory about the EDP's activities. The performance contract (including many fixed objectives) signed between the municipality of Paris and EDP every five years, is reviewed monthly by the water municipal department on very detailed technical points, but also every

year by the OPE's assembly to make sure that all the terms of the contract are being fulfilled.

## What Tangible Results Can Be Drawn from These First Years Since Setting Up the Observatory?

The creation of the Observatory and the installation of a practice of open debate within it has clearly widened the audience and the issues debated. New institutional and associative actors have become interested in water issues, and this has encouraged transversal and crosscutting debates. New thematic consultations, beyond the usual and highly technical ones linked to the water network, have thus been initiated on topics such as water governance. In very concrete terms, a growing number of district committee members, public housing provider representatives, and researchers have been involved in these meetings. OPE's creation stemmed from a governmental process, but its support and recognition among civil society has grown due to raising awareness about water issues among "non-technicians" of water world.

The sharing of knowledge and experiences created a highly valuable system-wide view on participatory democracy. For each debate organized within the OPE, guests from other communities were included to share their experience and best practices concerning water services. Discussions on strategic water policy issues such as resource protection and access to water, as well as more technical issues such as pricing and zoning, were very informative, according to the attendees and members themselves who regularly provided positive feedback.

On the administrative side, the Observatory's contributions were also important both in terms of content and information delivered. For instance, the many working groups set up proposed sensible improvements to EDP's annual report in order to make it more intelligible and more complete. Certain examples include adjustments to the water bill to make it more understandable and informative and suggestions regarding the control of rental charges and billing problems. These were concrete steps taken in the operational activities of the Paris administration and EDP's teams.

While it is safe to say that the overall evaluation is positive, the Observatory did encounter some real operating difficulties after 2014, as a new administration took power in Paris and the political will to ensure the autonomy of the Observatory eroded. In this period, the Observatory faced financial obstacles to organize events.

Building genuine democratic participation is difficult. One of the reasons is

asymmetry of information, which is always in favor of management over stakeholders, giving management greater power. Therefore, appropriate financial and technical training is key to addressing the partial lack of knowledge and/or technical skills of some stakeholders. Sharing the data and information means sharing some power. This means accepting civil society as an efficacious partner.

The difficulties encountered in the course of the Observatory's expansion provide a lesson on the conditions needed for success with this type of participatory democracy structure. The choice of an extra-municipal commission was for legal and administrative reasons. This allowed the Observatory to benefit from the city's resources for its operation; however, this ultimately limited its autonomy, insofar as it made it rely on the political will of the current administration.

This raises the question of its true autonomy vis-à-vis the municipality and third parties. How can one gain true independence if one depends on the financing of the community or other institutions to function? How can the independence and the means of operation for this type of participatory democracy structure be guaranteed within a public policy framework? How can knowledge and power be shared among all the players of a public service? Furthermore, how can public participation be sufficiently embedded in the management of the service that it endures beyond electoral contingencies?

While the experience is not without weaknesses, it nevertheless influenced several cities pushed by citizens' groups to introduce more public participation in government. Large metropolises like Nice and Montpellier have remunicipalized their water services after Paris and have created a water utility similar to EDP, opening up their boards of directors to end-users. They too have ensured that political representatives safely retain a majority of votes. In the case of Montpellier, an Observatory, the OMME, was created on the Parisian model with a very similar structure and objectives. However, it quickly encountered operating difficulties due to a lack of interest on the part of political and administrative levels. It was subject to the same criticisms leveled against this type of democratic innovation. According to the local authority, the observatory was generating too much work for the water and sanitation department of the metropolis, and it wanted to work too autonomously from officials.

## Beyond Paris

Beyond the Parisian experience, in order to feed our reflection on the democratization of public services, it is interesting to look at other examples

inspired by Paris for grassroots fights and/or for public policy reforms.

Berlin experienced a remunicipalization process of its water utility, one the largest in Europe, after a very active citizen campaign. The Berliner WasserTisch (BWT; Berlin Water Table) was born of activists engaged against the privatization of public services, and more specifically water, seeking to create a social movement opposing private management of Berliner Wasserbetriebe (BWB), the utility in charge of supplying drinking water and recycling wastewater.

In 1999, the multinationals Veolia and RWE had bought 24.9% each in a public-private partnership (PPP). Berlin retained the majority of the shares but had completely outsourced the operational management to Veolia. Like all PPP agreements, the terms of this agreement remained secret. For that reason, the activist coalition decided in 2006 to launch a request for a referendum to demand transparency and public access to information about the private contract between the operator BWB and two multinationals RWE and Veolia. Although a left-wing political coalition (SPD-Die Linke) ruled Berlin, activists did not get support from the parties. On the contrary, the population strongly supported this initiative, and many people with no political or activist experience carried this referendum and collected signatures. Eventually, this first popular referendum "Unser Wasser" won in 2011. The authorities were forced to make the PPP contract public, which highlighted the large profits made by the multinationals. This created so much pressure on Berlin politicians that they bought out RWE's shares in 2012 and Veolia's in 2013, leading to the remunicipalization of BWB in 2014.

Since that time, the BWT movement continues to fight for what they call "a transparent, socially just and ecologically sustainable water management in Berlin." It has developed a draft Water Charter for Berlin,35 as a basis for statutory regulations and as a guide for the Berliner Wasserbetriebe, which they would like to discuss with the population and the various stakeholders in the water sector.

One of their battle topics is to apply the principle of "water pays for water," i.e., that the water bill should be used exclusively for the production and treatment of water and not for the general budget of Berlin, which is the case now. Indeed, BWB, now a public-owned company, still pays back part of its income to the Berlin budget, funding other local public policies. The claim of transparency about finance and budget was and still is the driver for the activists of Berliner WasserTisch.

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35 See Berliner Wassertisch, Wasser gehört in BürgerInnenhand, Demokratisierung der Wasserversorgung, www.berliner-wassertisch.de.

According to the BWT movement, remunicipalization and democratization have to be together, remunicipalization being the first step before democratization. They believe that transparency and access to information are key elements to democratize the service, and that a different business model can only come from the pressure of the Berlin population. They call for a more participatory governance, with the formation of a new board of directors open to civil society and employees, alongside establishment of citizen's council to discuss the orientations and issues of water policy. In fact, no political party in Berlin is willing to give the population a say in the structure of BWB. Nor is this demand taken up by the company's trade unions.

However, for many Berliners who voted in 2011 for the referendum, the goal was achieved with remunicipalization, and there is therefore very little current mobilization on water. That is why BWT is looking to raise awareness again on this issue, making connections with the Fridays for Future movement, using the "Blue Community" project initiated by Maude Barlow as a lever for action and to make itself heard by BWB.36 Unlike in Paris, the political struggle to remunicipalize the utility and now to implement participatory democracy tools is the result of a very strong citizen mobilization and not originating from politicians. Nevertheless, in Berlin, like in Paris, it is difficult to maintain citizen engagement over time, beyond a one-time social mobilization, without crisis events. The mobilization of citizens and associations very often ends up relying on the same people. This only confirms the need to create the conditions for this citizen engagement through a lively participatory democracy and not a facade. This implies having tools for real public participation in the various decision-making bodies.

In Spain, battles for public and democratic water have taken place in several cities. The region Catalonia is particularly active on this subject. In 2011, the Aigua és Vida (Water is Life) regional platform was set up in Catalonia by a wide variety of civil society organizations to advocate for municipalization and democratization of water. The aim is both to push municipalities to place the management of the water cycle in public hands and to establish a new governance of water with strong public participation. The biggest battle is over Barcelona's water service, managed for decades by a private group, AGBAR, and now fully owned by Suez. Like Berlin, this social water movement decided to launch a

36 See www.bluecommunityberlin.de and www.berliner-wasserrat.de.

petition to request for a local referendum on the management of the service. Following the collection of more than 25,000 signatures in 2018, the Barcelona City Council announced a referendum. AGBAR has initiated a range of legal and administrative remedies and mobilized its powerful networks to prevent the referendum from taking place. The citizen's mobilization came up against the system locked by the multinational with its multiple networks of collusions and cronyism. Faced with this institutional impasse, the movement has resumed the battle, focusing on a draft proposal to ensure democratic public management of water in the Barcelona metropolitan area. In early 2019 more than 260 entities, including neighborhood, social, environmental and trade union associations, foundations, universities, schools and institutes, hospitals, libraries, businesses and all other entities gathered in the Moviment per l'Aigua Pública i Democràtica (MAPiD). They agreed to promote the signing of the Commitment for Public and Democratic Water in the metropolitan area of Barcelona (AMB).

From this commitment, an important work of reflection and writing has begun by activists from Enginyeria Sense Fronteres, Ecologists in Action and Aigua és Vida,[37] to outline the creation of a water Observatory for the metropolis of Barcelona called the Observatori Ciutadà Metropolità de l'Aigua (OMA). It is a work in progress but has already taken shape with days of participatory workshops to discuss the principles and missions, the modalities of operation, and so forth of the Observatory. At the end of this extensive preparation work, the Observatory proposal will be submitted to a wide debate with civil society actors committed to this topic. The issues of autonomy, financing and governance will be discussed with an eye to the successes and limitations of the Observatories already set up.

While the battle has not yet been won in Barcelona, it has been won in Terrassa, the second largest city in Catalonia, after Barcelona. In 2013, an activist network was created to request public management of the water service by 2016, the year when the concession was due to end. Taula de l'Aigua de Terrassa (Water is Life Terrassa) organized many information and discussion events and campaigned to collect signatures for remunicipalization and for a "Social Pact for Public Water" during the municipal elections in 2015. They claimed from the politicians a commitment to implement a public, integrated and participatory management of the whole water cycle. Eventually, in June 2018, following a motion approved by Terrassa's City Council in July 2016, Taigua, Aigua Municipal de Terrassa was created as a publicly owned enterprise. A month later, the by-laws were approved for the Terrassa Water Observatory

37 See https://www.aiguaesvida.org.

(Observatorio del Agua de Terrassa),[38] mandating it to facilitate citizen participation in order to define policies and guide strategic decisions affecting the municipal water supply service.

Thanks to the social water movement, Terrassa has successfully carried out both a remunicipalization and democratization of its water service. Inspired by the Parisian model, they have set up a structure that also avoids the pitfalls encountered by the Parisian Observatory, notably regarding its autonomy from the political and administrative levels. In addition to the position of Secretary of the Observatory, which is filled by an employee of the town hall, there is a coordination position to organize all the work of the Observatory with its various thematic groups. Initially it was supposed to be a position offered to someone outside the municipality but paid for by the latter. Ultimately, it became someone chosen from within the administration. The municipality initially had a desire to control its work, and this situation created frictions with the Observatory, which apparently faded with time. In contrast to the Parisian case, Terrassa Observatory benefits from a budget that allows it to launch studies, information and education campaigns, and to support the established working groups. Many activities are organized thanks to this budget, which is managed with transparency and accountability. So far, Terrassa experience is very positive in terms of public and democratic governance for water.

38 See www.oat.cat.

# Chapter 3—Learning from Paris: Democratizing Public Power in the US


In the introduction, we laid out the need to democratize public services and sketched out our project for how to do so. In Chapter 1, we looked at the history of the electricity system in the United States, the rise of privately owned utilities and why even they have failed us with respect to the climate crisis and justice. In contrast, we noted that publicly owned utilities perform better on many measures but still were inadequate to the challenges of climate change and justice. In Chapter 2, we went into a specific case study, the remunicipalization of the Paris water utility and the institutional innovation of the Observatory. We argued that we must understand the details of this case because it represents a breakthrough for how to think about and how to democratize a public utility. Now, in this chapter, we look at how the innovations of Paris can go beyond both Europe and the water sector to inspire and inform the transformation of the electricity system in the United States.

## Democratizing a Publicly Owned Electricity System

Building on the case of the Paris remunicipalization, and understanding the strengths and weaknesses of existing publicly owned utilities in the US, a truly democratized electricity system requires the following:

1. Public ownership and control of assets, profits and financial instruments;[39]

2. a multi-stakeholder governing board with representation from workers, customers and community-based organizations as well as traditional members skilled in management, policy, law, science, cybersecurity and engineering;

3. an independent institute or "Observatory" to conduct research, do sustained public engagement, watchdog the utility and promote projects and partnerships in civil society and the local or regional economy. It should be connected to universities and made up of community-based organizations and separate from both the utility and the government;[40]

4. a reconstructed governmental regulatory apparatus that allows for appropriate public and/or stakeholder participation in monitoring and planning at the national,[41] state and local levels.

### 1) Public ownership

Around the world, the benefits of publicly owned services across sectors are well documented. Compared to the private sector, POUs are more egalitarian in their structure and operations, workforces are better paid, with greater job security and without the extreme gaps in pay between executives and average workers that we see in the corporate world. POU's workforces are more diverse and equitable with regard to race and gender

39 Our notion of "public ownership and management" here includes both POUs and cooperatives. Our view is consistent with the pluralism in the Energy Democracy, Climate Justice and Public Power movements in the US, which all call for the abolition of IOUs but recognize the need for multiple types of decentralization of ownership and management, especially given the potentials of distributed energy resources (DER) like small-scale solar and battery storage owned at the household, building and/or community level. We cannot go into details of the role of coops and community ownership in this essay, though it does come up below in the discussion of DERs. For more on the technical side of these matters, see Kristov 2019 and Farrell 2018; on the social-political framework and debates see TUED 2017, Fairchild and Weinrub 2017 and Baker 2021 as well as Hanna 2018, and Lenhart et al. 2020.

40 In this regard, we follow the Terrassa model where the Observatory is located in civil society more so than the Paris one in which it is part of the government/utility.

41 The Federal Energy Regulatory Commission or FERC created an office of public engagement in 2020: https://www.ferc.gov/news-events/news/ferc-establishes-office-public-participation; its efficacy is not yet clear.

and other employment practices. POUs also tend to be more responsive to low-income customers. As not-for-profits, whatever they make usually goes back into the utility rather than to shareholders and/or lobbying efforts that promote deregulation and undermine the broader democracy both culturally and institutionally.[42] Furthermore, public ownership is more resistant to financialization in management and promotes the value of economic justice much more than private ownership (Hanna 2018, 51-71).

### 2) A multi-stakeholder governing board with an explicitly public goods mission

While public ownership is crucial, it is not enough. The governance of POUs must become much more inclusive and democratic to hasten the green transition, enhance justice and socio-ecological resilience. This means we must remake governing boards.

The mission of electricity utility boards is "to enable clean, reliable and affordable electric service for customers" (Boyd 2014, 1619). Their main duty is to "supervise, regulate and make policy for the Authority and appoint the Chief Executive Officer."[43] Boards oversee planning processes, where the power supply comes from and what types of generation are best, as well as the transmission and distribution system operations. They are in charge of setting rate structures and programs for customers and making sure that the utility is complying with all relevant laws and regulations. They also oversee the increasingly important areas of call centers, information technology and cybersecurity, as well as advertising, marketing and customer engagement. Additionally, there are the duties and committees of the board that handle policy, audits, oversight of management, finance, clean energy resources, board governance and development, and planning and personnel.

Given the urgent challenges of climate change and utilities' impact on its public, the mission and structure of a board must focus less narrowly on costs and reliability and more comprehensively on public goods better oriented to the challenges of climate resilience, economic and racial justice. We already see movement on some of these at the state level in New York and California and at the federal level with the Biden administration's "Justice 40" requirement that 40% of the funding and or benefits of renewable energy projects go to frontline communities or communities already disadvantaged by fossil fuel Industries. Utility boards should be

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42 In addition, in the US and some other countries, they have access to lower-cost municipal bonds, driving down capital costs (which IOUs pass on to their consumers).

43 For a private board example, see https://www.conedison.com/en/about-us/corporate-governance/board-of-directors. For a public board mission that is above average in its goals and values and has an elected board see: https://www.smud.org/en/Corporate/About-us/Company-Information/Strategic-Direction.

explicitly committed to these kinds of values and possess the structure needed to implement these goals.

We recommend two additional committees as well: "public engagement" and "ecological and social resilience and/or environmental justice." For example, we noted in Chapter 1 that Sacramento's POU SMUD, has an advisory board for minority businesses, and other POUs have committees on equity. There also should be board members that are experts on each of these topics. These members could either be in voting or nonvoting positions; the crucial thing is that both topics are part of all the core duties of the board. If the board is not explicitly required to think about the above, then most likely they will not.[44]

To realize these goals and operationalize this structure requires the right board composition. This means the board must explicitly be multi-stakeholder in terms of both constituencies and expertise. It means having representation from traditional members skilled in management, policy, law and engineering and technology, but also workers, customers and community-based organizations and persons with expertise in justice, resilience and engagement.

Small POU boards are often made up of members of the local government who are themselves elected. Large POU boards are often not elected but instead appointed by mayors or legislators, and thus vulnerable to being stocked with non-expert political appointees via cronyism. If boards are elected, that should reduce cronyism, but it may not solve the problem of diverse representation and expertise. In our view, for all boards, large and small, most board members should be elected by the public. However, mixed models in which some members are elected, and some are appointed may make sense for reasons of demographic diversity and/or the necessity of particular types of expertise.[45]

We recognize the drawbacks of having the majority of board members elected; however, the benefits outweigh the difficulties. Questions for sure will arise: how to make sure there is an adequate range of candidates both in terms of expertise and demographic constituency? Furthermore, electricity is quite technical, will voters be informed enough to make a good decision even based on their own interests? How can we motivate informed turnout? Relatedly, a democratized POU will need to do much more engagement, but how will that happen? We recommend the explicit creation of a separate entity to take on a specific range of these tasks, particularly around the issues

44 Both of us have served on boards and can affirm this claim based on personal experience as well.

45 It is also possible that these appointed members could be nonvoting members of the board as in the case of the Paris Water Utility.

of engagement, research, resilience and economic and racial justice.

Looking at utilities in the United States depending on the state, sometimes there are organizations external to the utility that do research, run programs for efficiency, fund new technologies and provide models for climate adaptation planning. Despite this, there is a lack of consistent focus and coordination in almost all states, particularly when it comes to research, development, planning, implementation and monitoring.

This is especially the case when it comes to public engagement. IOUs and PUCs currently do not take engagement seriously. They may do the occasional survey, and the law may require them to hold hearings and town halls on specific issues depending on the state—e.g., the siting of new infrastructure, rate increases, issuing a bond—but there is no plan or program nor consistent support for sustained engagement, much less deliberative collaboration. More often than not, utilities struggle just to inform their customers of existing programs they are running for their benefit! By not sharing this information with ratepayers, they are locking out of the system people who could benefit. In addition, some programs cost money, and even understanding the financing options or the consequences of entering into programs is not always clear. At worst, partners running the programs or delivery energy services may not be adequately vetted and deliver lower-quality products or services. How can we remake the electricity system if there is not trust in the utilities, organizations or government? The situation must change quickly. Innovation is essential not just for technologies (e.g., better battery storage and smart meters) but for institutions, governance, partnerships, collaborations and engagement.

### 3.1) The energy observatory model: mission and structure

Democratization of public services requires not just the restructuring of existing entities like utilities, but also the creation of new institutions capable of cultivating and supporting the ecosystem of relationships necessary for participatory governance, economic and racial justice, resilience and a timely green transition. The aim of the Observatory is to be a respected convener of communities, experts, government agencies and utility staff to promote inclusive adaptive management and planning, projects and monitoring, with a special focus on equity and economic and environmental justice. The Observatory would have paid staff who are experts in and have workloads dedicated to research, planning and/or engagement. Ideally, its funding would come from a separate ratepayer fund (it could be a fixed amount or a percentage of revenue) to insure a steady, independent stream of money that is not subject to political interference.

To enhance accountability, trust and competence, the Observatory would be situated at organizations in civil society, separate from the government. Possible hosts include universities, nonprofits, non-governmental organizations and local businesses. The Observatory would be partnered with organizations working in the sectors of renewable energy, social and ecological resilience, economic democracy, environmental and climate justice, and others deemed appropriate by the local public (e.g., schools, religious institutions, local businesses, etc.). Its governing board would be composed of local stakeholders, including ratepayers, utility workers, researchers, experts, community leaders, youth and/or students and members of disadvantaged communities. Its advisory board would include individuals and organizations working in the aforementioned sectors and areas from across the utility jurisdiction but also from outside the utilities' official borders as appropriate. It would have a director and staff to manage the work areas of research, public engagement and education, partnerships, proposal generation, project implementation, evaluation and monitoring. The Observatory may decide to have formal membership criteria for the organizations wanting to participate in it and/or to be open to anyone, as in the case of the Paris Observatory. If it did have formal members, they could elect the governing board and/or executive director.

Ideally, the Observatory would have a formal relationship with the public utility and/or enter into contracts with the utility to deliver specific services for outreach, research, convening stakeholders, and/or monitoring. For example, the Observatory would be charged with convening key stakeholders and do broad outreach to provide comment on the budget, infrastructure siting and payments in lieu of taxes (PILOTs). It would work with the board on long-term planning, and support communities and stakeholders to make informed proposals for projects and policies. Following the Paris model, all materials, reports and data that the utility board utilizes for decision-making would be accessible to the Observatory before decisions are made (by the utility board). Also, following the Paris model, the energy Observatory would have the right to put forward proposals and recommendations to the board and to have those proposals and recommendations responded to by the board in public during board meetings. Relatedly, the Executive Director of the Observatory could be a member of the utility board. If the rest of the utility board is elected, the Observatory Director could serve as a nonvoting member.

If the local utility board is elected, the Observatory could be a place to educate candidates and elected officials,[46] or host forums for the candidates

46 Colorado State University has an intensive summer program to educate elected officials and their staff on energy and the green transition issues.

and/or develop materials for potential board members to endorse. Due to political variations among jurisdictions, it may or may not be appropriate for an Observatory to directly engage in campaigns for board member positions. In other words, the Observatory may choose to be independent of or neutral in elections.

As a watchdog, the Observatory would assist in making sure that the utility is abiding by its obligations to ratepayers and obeying relevant laws and statutes. This in itself is a very important task, and there might be other governmental and non-governmental bodies engaged in this watchdog role that the observatory could partner with or watch over. The Observatory could collaborate with these other actors, or if it regards them with suspicion, it may take on a more active role in the watchdog space.[47] However, if there is already a competent trusted watchdog operating in the jurisdiction, the Observatory may choose to focus much more on convening the public, not just re: the official business of the utility (e.g., board meetings, planning) but for implementing projects with respect to renewables, economic democracy, environmental justice, and/or social and ecological resilience.

### 3.2) Convening and engagement

Another function of the Observatory would be to directly assist the utility in carrying out activities it does not have the time nor competence to do. For example, many times utilities seek input from customers about the annual budget, new policies or programs but have little to no capacity, no plan, nor a network to do the outreach. Other times, utilities could benefit from inputs on new programs that are struggling to attract participants or are not delivering benefits as intended. Another has to do with public meetings (board meetings, hearings, etc.), where the utility desires input from ratepayers and/or local residents about an issue (the siting of infrastructure, or a new fee, or a change in rates, etc.). Here the observatory would have dedicated staff and expertise that could develop programs and processes to assist the utility in these activities.

There are many best practices from the world of civic engagement that could be implemented or utilized. There are also a range of new technologies and platforms that can increase engagement, creating better channels for two-way communications between the utility and customers, and allow the public to better understand specific issues. One innovative program in Austin, Texas,

47 In the US, POUs are not regulated by PUCs but are sometimes "gently" overseen by departments of public service, however, the latter do not have the power to fine or punish utilities the way that public utility commissions can do to investor-owned utilities. See for example discussion on this issue in MCAN 2020.

created a fellowship program for youth of color to learn about energy and climate issues and communicate back to their communities. This "community climate ambassadors" program was part of the Austin Climate Equity Plan, sponsored by the city's department of sustainability, but would be a great engagement program for utilities as well.[48]

Informing communities is generally regarded as the simplest and most basic form of engagement (Menser 2018, 59-63), but existing utilities rarely even do this. Granted, the electricity system is a difficult-to-understand sector, but in abdicating this space, utilities are exacerbating the divide between the public and the utility, which undermines trust and increases the chances for conflict over controversial issues such as siting of new infrastructure. For example, there are research bodies that are well respected, have incredible competence and have a long record of accomplishment in specific areas.[49] Their reports are incredibly valuable to communities, but they are often technical, long and when they are released, the public is not even made aware of the fact. To get through these reports requires expert guidance. This is a key role that the Observatory could fulfill both in holding workshops, and by training community members to be informed interlocutors.

Indeed, many of these reports are not even fully understood by elected officials and their staff. Thus, the Observatory could assist governments as well drawing upon existing examples such as the Austin Texas Climate Justice ambassadors program and the Clean Energy Legislative Academy at Colorado State University, a kind of boot camp for elected officials and their staff to learn more about the energy transition.[50]

Programs to inform the public not only improve the atmosphere and efficacy of hearings and public comment, they set the stage for discussion and deliberation and the creation of different spaces and venues for debate and decision-making. Perhaps the most prominent technology of concern connected to utilities are those that make possible the monitoring of customer energy usage and the "internet of things." These include smart meters, and the software and algorithms that shape how they operate, and decide who determines how costs and benefits are allocated. Smart meter devices, which are located in households and provide real-time information to the utility about customers' energy use, can also provide information to customers about the cost of their energy usage. Smart meters can also allow customers to reduce their bill by signing up for programs that

48 See the report "Community Climate Ambassadors Report" by the Department of Sustainability for the City of Austin, Texas.

49 Here, we are thinking of the National Renewable Energy Lab (often called NREL) and the Argonne National Lab in the US.

50 Note also the Pace Energy & Climate Center in New York State.

give utilities control over their thermostat or by enabling them to make decisions to put off using energy intensive appliances (e.g., dryers or charging your electric car) until costs are lower. While such devices and programs could save individual customers money, crucially for utilities (and for all customers!), it could enable the local electricity system and grid to be cleaner and more reliable by forgoing the use of expensive and polluting peaker plants during times of peak usage. This is one of the most significant problems that energy utilities are facing, especially with climate change making temperatures hotter and last longer into the early evening (a big issue for utilities as the sun sets on solar power) and as heat waves themselves last more days (DOE 2016).

However, for the smart grid and "advanced meter infrastructure" (AMI) to happen, customers must participate! In the existing model of unaccountable IOUs and slow-moving POUs, some customers are defecting from the grid altogether, giving credence to the notion of a "utility death spiral."[51] If utilities could transition to a participatory democratic version of the Utility 2.0 of AMI, this could be a breakthrough that goes beyond the energy sector. We need utilities to digitize their services and operations to enhance efficiency and resilience and reduce costs, and for that smart meters are essential. But the question remains, who will own this data? If it is a POU, then the ratepayers should. Even then, questions emerge on who will determine how it is used and in accordance with what principles and safeguards? It is crucial that the data not be privatized and, rather, be deployed ethically and in the service of the public good and the values of the democratized POU discussed throughout. POUs should explicitly reject the "surveillance capitalism" model in which firms collect data without customer knowledge or consent and then manipulate customers and/or sell the data to third parties.[52] Smart meters have already helped to shrink outage times, and empowered consumers hoping to decrease consumption to save money (Bakke 2016, 152). To be of use for demand response and further evolve the grid to permit better balancing and stability as renewables are added, the smart meter must become a device that embodies the trust and accountability of POUs and the public goods nature of their mission.

Furthermore, if POUs do become trusted on smart meters, we could imagine a situation where new technologies and software in this space is owned not by private firms oriented toward maximizing profits but by POUs themselves or by subsidiaries spun off by POUs aiming to enhance resilience and promote racial and economic justice utilizing an economic democracy model.

51 Kristov 2019.

52 For a discussion of surveillance capitalism and its implications for the energy sector see De Godoy et al. 2021.

Such ventures could create significant revenue streams for POUs. That would not only ward off the utility death spiral, it could make utilities important economic actors in the energy system and in the digital tech space.

These services could then enhance resilience and further benefit the public in sectors such as transportation, broadband, sanitation and economic democracy–oriented business development. Indeed, there is precedent for this. The POU Hydro-Quebec has developed high expertise units within itself that it then spun off as distinct firms that are recognized for their excellence across the world. More recently, the city of Los Angeles and its POU LADWP founded the Los Angeles Cleantech Incubator to help spur an "inclusive green economy." The incubator is a separate nonprofit from the utility which funds and supports firms critical to the green energy transition in Southern California. It has helped create startups that promote the internet of things, improve water quality, install charging stations, manufacture electrified transportation, improve battery storage, promote energy conservation, and support the proliferation of a more sustainable and efficient materials economy. In the past eight years, the incubator has helped 78 portfolio companies raise $221 million dollars in funding and make the same amount in revenue. The incubator has led to the creation of 1,750 jobs and more than $393 million in long-term economic value.[53] Its programs also promote the goals of racial, gender and economic justice.[54]

The example of the Clean Tech Incubator shows how engagement and collaboration can benefit both a utility and communities. One reason LADWP became directly involved in business development was they could not find existing businesses to deliver the services that they were looking for. Thus, they were able to negotiate the public procurement process by themselves, which can be onerous and financially difficult for typical small businesses. A key benefit to the community is not just the reduced pollution from such efforts but the economic opportunities provided (e.g., jobs), economic contributions to the local economy (spending for services) and benefits to the social and ecological environment (e.g., less pollution and quieter transportation).

Another example of a community-driven program the Observatory could support apart from the utility is an emergency response plan. While outside the formal purview of utilities, towns often fail to do this kind of planning that requires specialized knowledge and lots of labor time. Others projects may

53 https://laci.smapply.org/

54 "LA's transition to green energy is driven by this inclusivity-focused cleantech incubator," Akiko Fujita, October 10, Yahoo Finance. The only value that is missing from our perspective is economic democracy, which would encourage a focus on creating worker-owned businesses and community-owned infrastructure.

relate to the grid, such as community solar projects, or battery storage or other energy services.[55] Again, the community and energy system would benefit from such projects, but the utility may not consider such efforts its responsibility.

### 3.3) Research and engagement

Electric utilities in the US already have access to a number of institutes, departments, offices, labs and consultants that do a range of research on issues from economic costs and benefits, to engineering ones on reliability and the technical requirements for the integration of specific technologies. IOUs and POUs sometimes draw upon reports from regional and state-level bodies like RTOs, ISOs, departments and agencies. They also hire business-level consultants and partner with universities or other research centers to make reports. These reports cover everything from climate modeling, to implement AMI and smart meters, to best practices for board governance. So why the need for the Observatory to do research?

The answer is clear, programs and collaborations discussed in the previous section require research that is not only "expert" but also serves the utility in the context of the needs of the community. The existing research arrangements are, with some notable exceptions, inadequate. This is especially clear with regard to how to make the transition happen in the timeframe necessary and considering the impact of existing and future operations and programs on environmental justice communities.

The first set of research activities that the Observatory could undertake would be for the POU. That is, while the Observatory would not replace all of the existing consultants and partners, there are specific studies that would be well suited for the Observatory that could help improve the operations for the utility for both staff and customers. For example, a study could assess the impacts and reach of programs for customers and communities from energy conservation programs to the pricing around net metering. While some programs may be successful, they might be underutilized by specific groups, especially marginalized or vulnerable groups, and the Observatory with its partnerships could be much more effective in reaching such groups.

There are other situations, though, where the Observatory may do research for the community. Currently, studies often exclude groups or do not have the same values as the community. For example, when it comes to adding Distributed Energy Resources (DER) or undergrounding lines, IOUs and POU studies are often not trusted by ratepayers and communities since they inflate the costs, overstate the risks, and do not properly factor in the

55 Electricity expert Lorenzo Kristov thinks that towns must play much more of a role in the green transition in electricity especially for resilience reasons (Kristov 2019).

benefits (Kristov 2019). When it comes to community health and pollution from facilities, communities are oftentimes suspicious of government or utility-backed studies even when they do happen and seek independent researchers for more comprehensive and legitimate assessments.

Another venue for research occurs in the context of planning. A key planning process in the US energy system is the Integrated Resource Plan (IRP). IRPs are done every five years or so and produce detailed documents that lay out generation assets to be phased out or added, infrastructure projects to be closed, developed, and sited, programs to be phased out or added, and rates, debt, and financing plans. Currently, there is much dissatisfaction and controversy about how this planning is done across the US. Independent Observatories are essential to funding and carrying out research that can promote a just transition in the short time we have left to ward off the worst impacts of climate change. This is true both on the technical side of how to increase the amount of renewables and integrate DERs as well as on the social and political side, on how to do so justly. There are incredibly few examples of this, but we do want to hold up one such case that could serve as a model to build upon.

A more robust example of a public- and community-oriented research project is the LA100 study carried out by LADWP utilizing the incredible capabilities of National Renewable Energy Lab (NREL).[56] This study plots Los Angeles's transition to clean energy by 2035, one of the fastest plans nationwide. Crucially, this planning process also had a robust community-engagement committee and a process that clearly impacted the priorities laid out in the plan. For example, the community-engagement committee and its research for and with communities revealed that low-income BIPOC communities are not just concerned about adding renewable energy but with reducing pollution while increasing economic opportunity. Because of this input, these concerns were made more central in the plan to bring about the transition.

LA100 also seems to overcome the problem of silos and fragmentation that so often limits the scope and ambition of other plans and IRPs. Too many plans and programs do not coordinate with each other, or are disconnected (e.g., the utility is not planning with the transportation planners), which is both negligent and dangerous during this time of system change. We have already seen multiple failures in this regard with some states that have closed down

56 For more on LA100 see https://www.nrel.gov/analysis/los-angeles-100-percent-renewable-study.html and on how environmental justice figured in see LA100 (2021, 51). The National Renewable Energy Laboratory (NREL), which was created during the Carter Administration with its game-changing 1978 PURPA legislation and raises the question of institutional innovation needed at the federal level for the current crisis and transition. We have some just happening with respect to transmission located in FERC.

fossil fuel infrastructure. Despite closing these facilities, due to not having new clean energy to replace them on the grid, they have turned to peaker plants. What kind of studies justified these bad decisions? We see the need for a much better funded and powerful coordination of research repeatedly.

Examples of research projects a democratized POU plus Observatory could support include the following:

- participatory action research (PAR) to better address the needs of communities, individuals and businesses, and inform the planning process (rather than only "after the disaster" hearings);
- the deployment of interactive technologies and "civic tech" (e.g., pol. is, Mentimeter) to gather ideas about programs and comment on the utility budgets and proposals, do deliberation-promoting discussions and facilitated conversions for input on key policy issues (from rates to siting);
- sustained engagement and collaboration with local governments to promote more comprehensive and inclusive emergency response planning;
- special councils to promote worker safety, and sustainability, inclusion and diversity in the supply chain;
- working groups for solar, charging stations and storage developers—especially enabling community-owned infrastructure—to access data and maps that allow for such projects to interconnect with the grid in a manner that is cost effective, resilience-enhancing and can lower rates for low-income and BIPOC communities;
- a ratepayer fund[57] to finance an Observatory-run participatory budgeting process where groups of residents and/or community-based organizations can collaboratively create proposals for projects that enhance affordability, resilience, environmental justice, new technological development, youth education and so on. Topics for the PB could be chosen by both the utility to address its needs (e.g., enhanced energy conservation in business districts) and by the community to address its priorities (e.g., to address urban heat island and subsidize clean mass transit).

Together, these could help the utility to do more effective and equitable

57 In Porto Alegre, Brazil, the birthplace of participatory budgeting, there used to be a PB that was funded by the profits of the water utility, for projects to benefit the public re: the water system. A full 15% to 25% were allocated to the PB over a year based in the mid to late 2000s (Cumbers and Hanna 2021, 7).

planning, give residents and community opportunities to become more informed and have their voices heard. It could also improve the reach and effectiveness of utility programs. By increasing trust and communication between the utility and its stakeholders, it could make the transition to the new grid, however "distributed" it is, much more efficacious and equitable.

### 4) A reconstructed governmental regulatory apparatus that allows for appropriate public and/or stakeholder participation in monitoring and planning at the national,[58] state and local levels

Many of Horace Gray's warnings from the 1940s have proven true: bureaucracy in the energy field has all too often impeded participation, accountability and innovation, and enabled waste. Recent examples of this unfortunately include utilities financing new infrastructure projects not to increase reliability, renewables or efficiency but to boost profits. In New York State, we saw this with the approval of unneeded gas pipelines and gas plants and infrastructure. In New Orleans, we saw this with a new gas plant created to increase the resilience of the electricity system. Yet, when Hurricane Ida hit in August of 2021, the plant failed during the storm and took more than three weeks to get back online. Meanwhile, a humble community solar installation was back up and running just hours after the storm passed.[59] Regulatory bodies, too, have failed us. While it is beyond the scope of this essay to address in depth the deep complexities of the US regulatory model, regulatory reconstruction is an absolute necessity for democratization to work. Indeed, a nightmare situation would be for a democratized utility to work with an Observatory to create amazing new projects only to have a higher up regulatory body or state agency stop the projects for unjustified reasons.

In sum, a democratized public energy utility working with an Observatory could anchor an ecosystem of institutions and communities to educate and collaborate, and promote justice, sustainability and resilience in the electricity system. Because of the expected expansion of this system due to further electrification in areas such as home heating and transportation, this democratized ecosystem could enhance these values broadly across the economy and society. With the onset of evermore-intense climate events alongside supply chain disruptions and epidemics, this ecosystem of institutions and communities could better mitigate the damage and justly adapt to the shifting planetary ecology poisoned by the present system.

58 The Federal Energy Regulatory Commission or FERC just recently created an office of public engagement: https://www.ferc.gov/news-events/news/ferc-establishes-office-public-participation; its efficacy is not yet clear.

59 https://www.propublica.org/article/entergy-resisted-upgrading-new-orleans-power-grid-when-ida-hit-residents-paid-the-price

# Conclusion—Democratizing Public Services Across Sectors: Opportunities and Challenges

In the preceding chapters, we laid out the importance of public services and the urgent need to make them not only publicly owned, but also democratized. We went in depth into the innovations of the Paris Water system municipalization and showed that this model is a breakthrough when it comes to participatory governance and the equitable and sustainable management and allocation of water. We then showed how this model could inform and inspire those seeking to municipalize public services in another sector and continent: the US electricity system. In this chapter, we go beyond those specific sectors to sketch a more generalizable framework that could apply to others such as broadband, sanitation, transportation and others.

## The first lesson is that there is no "one structure fits all" model for democratized publicly owned services

Differences among sectors and local regulatory regimes, as well

as variations in size, political systems, history, climate and location of jurisdictions, means that mechanisms for and even the goals of democratization will vary. Indeed, not only is there no general model of democratized public services across sectors, even within sectors there can be major differences among utilities because of their size or local ecology. Therefore, different institutional structures and arrangements will likely be required just as the US-electricity-system-proposed Observatory has several differences from the original one of Paris.

## For a public service to be truly democratic, just and resilient, democratization must occur in all four dimensions: ownership, management, knowledge production, and engagement

There are plenty of examples of POUs that are publicly owned but not accountable. Making the board elected does not totally solve this problem either. If the actors that shape the research agenda regarding the utilities' operations are not accountable to the public, but dominated by business associations and private corporations, that will impair the POUs' ability to pursue the general/public interest. And if the engagement process is not inclusive of diverse constituencies, it is unlikely to adequately address issues of equity even if the intentions of the dominant group are good (Hunold and Young 1998). Relatedly, the public must have access to expertise. It should not be held behind closed doors by the POU and wielded without the public who are then deemed "uninformed." A research study or planning process may have genuine inclusive participation, and if the board is not accountable, the POU may not act on it.

We can see this in the case of climate resilience plans and utilities. The case of LADWP and the LA100 study will be fascinating to watch. The research and planning processes were inclusive of EJ communities; will the board—which is not elected, but appointed by the mayor—act on those recommendations? Will the follow-up be inclusive? Will disadvantaged communities be left behind once again? The need for continued monitoring and research on this and other engagement efforts is critical.

## Every democratized public utility needs a partner institution (e.g., "Observatory") to conduct independent research, engage diverse publics and coordinate non-state actors to implement projects

The Observatory should be a place for dialogue between academics,

practitioners, and laypeople, allowing for interdisciplinary and crosscutting research to be applied to public policy issues.

The values of justice and resilience require inclusive, sustained engagement and utilities cannot do this alone. These kinds of activities and the development of civic infrastructure require the support of organizations outside government. Universities are well situated to do this work, especially public ones if they exist in the area. While some utilities do have partnerships with universities, they usually are limited to specific areas such as workforce training or reliability research. However, these types of partnerships between academics and operators are not currently developed enough for the project of participatory governance.

The need for competent, independent research in public service delivery is crucial for community well-being. In the water sector especially, due to the poor track record of both utilities and government regulators in some cases, independent studies are not only desirable, they can be an urgent matter of public safety and health. We saw this in the case of Flint, Michigan, where thousands were poisoned by lead because of the outright lies of regulators and the state government itself. If an independent body, like the Observatory, had existed, it would have been much better positioned to overcome for the inadequacies of the monitoring and regulatory bodies, and to obtain independent research for the protection of end users.

There are examples of a community-driven and public-goods-oriented process that bring together researchers, government and community. Founded in April 2013, ARCEAU-IdF[60] is a nonprofit organization that aims to share both scientific data and pioneering actions in the water sector, promoting transversal and multi-scale efforts in the Paris region. It facilitates the determination of research priorities, the dissemination of information, and debate on public issues in the water sector. All key issues concerning water are discussed, such as storm water pollution, land use planning in connection with basin planning, the consequences of new pollutants, natural risks, and climatic phenomena and more. This network engaged all the different stakeholders in research work and an exchange of views in an effort to establish a way of addressing together the water issues the Paris region is facing. For that purpose, there are national thematic working groups and an international one dedicated to scientific and technical monitoring of water management in megacities within a worldwide network. The goals are to share analyses and best practices, to organize every four years an international conference on Water, Megacities

60 Association Recherche Collectivités dans le domaine de l'EAU en Ile-de-France (Research Communities Association in the water sector in Ile-de-France).

and Global Change, and to implement the Megacities Alliance for Water and Climate.

In South America, in Brazil, a new initiative to create an Observatory with the goal of being a channel for the production and dissemination of knowledge and political action directed to the right to water and sanitation and the provision by public entities of these services has launched. This idea emerged during the last World Alternative Water Forum (FAMA) in 2018 in Brasilia. In its continuation, under the same slogan of FAMA—"Water is a right and not a commodity"—the political launch of the National Observatory on the Rights to Water and Sanitation (ONDAS) took place at the University of Brasília (UnB)[61] in April of 2018. Social movements, unions, experts and academics decided to unite in this platform in order to defend the public management of services with participation and social control amidst a privatization push in Brazil. ONDAS was also created in response to Trata, a neoliberal Brazilian water think tank financed by numerous multinationals that actively supports the privatization movement. The objective is to conduct research to enhance public services, propose social innovations (e.g., social pricing of water) and provide legal assistance to counter privatization.

Some universities also have event series and certificate programs where members of the public can receive continuing education, like the Colorado State program for legislators discussed in Chapter 3. These kinds of programs can be used to develop a more informed and empowered public—e.g., community members, business owners, elected officials, government workers. Indeed, educating the utility workers themselves is crucial from both the standpoints of service quality and participatory democracy (empowering critical stakeholders) (See also Cumbers and Hanna 2021, 7-8). Because universities often have ongoing relationships with particular actors in a community, they are better situated than utilities to do the outreach needed for such sustained engagement.

Universities working with nonprofit partners are also well equipped to try out novel modes of engagement, including those integrating new technologies designed to enhance democratic communication. We have to break out of the model of engagement as one-off events or the idea that watching a PowerPoint presentation makes a community informed. In this time of mis- and dis-information, civic technologies are crucial. Civic tech practitioners are doing considerable experimentation and innovation with respect to the methods of public engagement, public deliberation and collaboration.[62]

61 One of the co-founder and project coordinator of ONDAS is Ana Lucia Britto, full professor in Universidade Federal do Rio de Janeiro.

62 One of the more advanced governance processes that utilizes these tools and methods is in Taiwan and is called vTaiwan. See the Participedia entry on vTaiwan and links and resources there: https://

An exemplary experiment of using civic tech for improving public policies is Taiwan. After living under a highly repressive dictatorial government for decades, Taiwan was able to quickly build democratic institutions but also invent new ones under citizen pressure, especially the youth, following the Sunflower social movement in 2014. Under the leadership of Audrey Tang,[63] appointed in 2016 as a minister without portfolio, the PDIS (Public Digital Innovation Space) was set up to rethink the government culture and design more open policymaking processes. Taiwan also created a new network of participation officers across all the national ministries to implement changes within the government. This helped to improve the administrative culture by decompartmentalizing departmental cultures and opening them up to external viewpoints. These actions helped to support a deliberation platform trusted by citizens. Through an online platform (join.gov.tw), citizens can submit ideas and proposals via petitions that theoretically have to receive at least 5,000 votes to be debated. Then, after a selection made among petitions, officials discuss one case every week, speaking to the petitioners, experts in the area and other stakeholders before deciding how to respond. Many of the citizens' requests result in legislative amendments that are then voted on in parliament. Often, the executive branch, which is very much in favor of the proposed amendments, opposes the parliament. Here, too, conflicts between levels of political decision-making can paralyze the demand for change. It is also sometimes difficult to implement the proposals discussed at the local level because other interests and actors come into play. Nevertheless, it is an innovative and inspiring tool for public participation and consultation and democratizing utilities and Observatories could definitely learn from them.

Right now in the US, the toolbox for engagement with utilities and public service delivery departments generally consists of the following: attending and testifying at board meetings and hearings, commenting on plans or proposals, and filling out the occasional survey. If a member of the public is highly skilled or has considerable resources, they can appeal to the regulatory body or local government committee in charge of the utility or service by filing a legal motion or suing. In all of these situations, interaction is too often stymied or becomes unproductive or confrontational where one side poses a question and/or makes a statement and the other at best responds or, more likely, sits in condescending silence. We need more two-way fora where information can be exchanged and discussed, where

participedia.net/method/7387 and "vTaiwan: Public participation methods on the cyberpunk frontier of democracy," Civicist 2017

63 Cf. our interview with Audrey Tang on April 14th, 2021 here: https://sayit.pdis.nat.gov.tw/2021-04-14-interview-with-anne-le-strat-and-mickae

deliberation can occur and where learning and collaboration can take place (Menser 2018, 62-3).

Research is crucial for all utilities and should made available to the public. Utilities usually contract out research or rely upon the studies done by other parts of the government. This model is inadequate for the multiple crises that we face. The demands of environmental and social justice and resilience require the integration of expert knowledge regarding changes in climate and weather patterns, loss of biodiversity, local economic issues, engineering and sectoral technical expertise (e.g., water quality, battery storage and so on). What is crucial is that communities be engaged in ways that enable them to set their research agendas. (See Chapter 2 on water, Chapter 3 on electricity.) There is a need for co-production of knowledge and collaboration in research. While surveys have a role to play, there are other methods that can create much deeper models of engagement and set the stage for collaboration that is relevant for improving service in dealing with the challenges noted above.

One such robust engagement process is called "participatory action research" or PAR. In this methodology, a research goal is established that creates a process to find out what matters to the community while educating the community, inviting them into the process and training them to develop capacities and be empowered. One of us is an active supporter and partner of a PAR in New York City, which aims to understand the social determinants of health and how to address them. In this PAR, the organizational lead had advanced college students study the issues and learn how to do civic engagement. Those advanced students then worked with high school students and trained them how to engage and talk to community members, survey them and obtain the information necessary for the report. This creates a situation where it is not researchers external to the community who are talking to the community but informed young people from the community. Crucially, the college students are paid or receive meaningful stipends so that they can fully engage in the project in a way that does not negatively impact them or their family by taking them away from paid work. After four years, this PAR has created three reports that have already had an impact on policy as well as nonprofit programming in the community. Some of the high school student participants have gone on to get their college degrees and obtain jobs in the field while others have become more involved in doing the work in their community.[64]

64 See Brooklyn Communities Collaborative research and publication page. https://brooklyncommunities.org/par/

Every POU could work with its Observatory to do a series of PARs on topics central to their constituents. Not only would this be an impactful example of a democratic process of knowledge production, it could create a pipeline of new community activists and leaders. Imagine if students from the PAR went onto the local university and/or got jobs with the utility or Observatory. PARs are not only research projects that train young people and generate relevant useful knowledge, they are relationship builders that create civic infrastructure for sustained engagement.

The PAR reports could also feed into other engagement processes such as a participatory budgeting (PB). PB enables the community to have control over a pot of money to be spent to address some need in the community. The process is co-designed by community leaders, civic organizations and members of the local government. Many PBs throughout the world have supported water utilities (Menser 2018, 71-2, 90-1, 227, 235-6, 244-51) and energy projects, and many more have created projects to enhance sustainability and resilience (Cabannes 2020).

The strength of a PAR-informed PB is that when community members sit down to discuss and deliberate what kind of proposals to construct, the PAR gives them a detailed report about the issues in their community from an equity perspective. Not only does this help reduce the likelihood that a well-off group will dominate the PB process, it also helps the utility meaningfully engage with its more disadvantaged members. We could see a PAR-informed PB oriented around green infrastructure to address storm water and improve air quality, to shape a mass transit electrification program in ways that enhance mobility-restricted persons, environmental justice communities, and/or for community-owned solar or gray water infrastructure. We could also see PARs play a critical role in grounding planning in the electricity system akin to the water sector planning processes described above. Robust participatory processes like PAR and PB could then educate, generate new knowledge, and create new projects so as to expand, deepen and sustain relationships among community members, the Observatory and its partners.

## Democratized Public Services should fracture silos and act as anchors to promote transparency, environmental and social justice, sustainability and public-public partnerships in their local and regional communities

Public services are not only economic activities that are essential for human well-being, they may also have dramatic impacts on the rest of the local economy, society and natural ecosystems. Providing basic needs for the population, public services are an element of social development, gender and race equality, environmental resilience and *buen-vivir*.[65] They impact infrastructure policies, economic activities, the quality and quantity of local jobs, and more generally land-use planning. When talking about democracy and how public services can contribute to economic and social development and resilience, people may disagree on what type of public service activities should be carried out. For instance, the point that utilities could also act to support other social public projects outside of their specific sectors remains open for discussion. Another is financing utilities and the use of revenues drawn from utilities' operations. Opponents of water privatization have always denounced both the monopolization by the private sector of the service's revenues and the pursuit of profit itself, which they deem incompatible with the objectives of public interest and management of water as a common good. Through contracts multinationals obtained from local authorities to manage public services, these multinationals developed creative financial engineering to extract as much money as possible from the contracts, this money was then used for activities other than managing the service provided. That is why financial transparency is one of the main demands from social movements against water privatization. They also want to reclaim revenues from water bills so funds are used only for water service in a closed budgetary loop.

In France, as in other countries, the use of revenues for other purposes has clearly been a major factor of underinvestment in the service, which then is used as a reason to justify privatization. In the Berlin case, the claim on transparency about finances and budget remains the main cause for the activists of Berliner wassertisch.[66] For the Berlin activists, they can look to Eau de Paris for inspiration, now managed according to social, environmental and democratic purposes, and successful in lowering the price of water while investing and innovating much more, and within a balanced budget framework (which is an obligation for public utilities in France). One of the main reasons for this success is the absence of private shareholders and short-term returns on capital constraints. Today, all the water revenue of Eau de Paris is reinvested in the water service. This allows

65 Eduardo Gudynas, a leading scholar on the subject declares that "With buen vivir, the subject of well-being is not [about the] individual, but the individual in the social context of their community and in a unique environmental situation." (Balch 2013)

66 For more details on their initiative and proposals, see Berliner Wassertisch,Wasser gehört in BürgerInnenhand, Demokratisierung der Wasserversorgung, www.berliner-wassertisch.net.

For analyses of efforts to democratize the Berlin electricity system see Wenderlich 2016 and 2021.

it to develop a long-term vision, integrate wider social and environmental concerns and place the general interest at the core of decision-making.

This is also possible due to a separation between the utility's budget and the municipal budget. The pressure to maximize profits and return dividends undermines public service obligations, including social and environmental sustainability. Yet a utility under public management may still have profitability pressures and commercial goals. It is difficult to reproach the private sector for seeking to make a profit when the public sector adopts the same approach. It is also difficult to truly monitor and have real budgetary and financial transparency when budgets are not separate and therefore traceable.

This does not mean that utilities cannot use part of their budget for other public policies if they are related to the resources they provide. A public service must be part of a public policy within public orientations, and utilities are de facto instruments of policy. In the water sector, water preservation, farming, biodiversity, climate change, land and urban planning are very connected issues. The new design of the water policy in Paris was built on this approach, in a crosscutting and multi-stakeholder perspective. For example, protecting the groundwater and rivers that supply Paris with water is a crucial issue for improving water quality, limiting the need for water treatment and preserving ecosystems. This is why, in addition to its regulatory obligations, Eau de Paris has been pursuing for years a very ambitious strategy of monitoring and protecting the resource, in conjunction with other local stakeholders, primarily farmers. To protect the quality of the groundwater it collects, Eau de Paris forges partnerships with agricultural actors in its catchment areas outside of Paris, supporting farmers committed to adopting sustainable and/or organic farming methods in return for technical advice and financial support.

Additionally, last year Eau de Paris took a new step by proposing its own financial aid scheme. For the first time in France, a water utility is adopting a financial aid scheme for farms, specifically designed to protect its water catchments. The specifications and associated remunerations were developed in conjunction with several technical partners (Seine-Normandy Water Agency, agricultural experts, etc.) and the farmers themselves, with a rationale to "payment for environmental services."[67] With the support of the Ministry of Agriculture and Food, the project was presented to and validated by the European Commission after a process lasting several months. Going forward, approximately 200 farms should be able to benefit in four Eau de

67 Aides agricoles Eau de Paris : le succès d'un dispositif pionnier http://www.eaudeparis.fr › actualites › actualite › news

Paris catchment areas. This scheme is 80% financed by the Seine-Normandy Water Agency, which has set aside a budget within the framework of the national plan for biodiversity that establishes "payments for environmental services" tools, and 20% by Eau de Paris. Parisian users will thus contribute directly to the agricultural transition in the territories that supply Paris with water, in a mutually beneficial partnership with farmers.

This new approach also concerns urban planning policies put in place by the Parisian municipality. Green and blue corridors—green infrastructures allowing the circulation of water and including vegetation—are part of new public spaces. There are green roofs, green "belts," "oases" and others that address in particular the increasing phenomenon of heat waves and heavy rainfall events. These developments are urban responses to improve the living environment while taking into account the risks associated with climate change. In this context, Eau de Paris is an involved player insofar as it remains within its prerogative as a water supplier.

We noted in earlier sections, that jurisdictions with cheap consistent electricity often seek to attract industries and other power-intensive businesses with subsidies and reduced rates. Even in less dramatic settings, the decisions and pricing mechanisms of utilities can shape the local economy in different ways. For example, a water utility may enable unsustainable agricultural practices, or it may seek to subsidize greenhouse growers as is done in Quebec, which increases the resilience of the local food system and decreases transportation emissions. Building on the recent work of Catalan Network for Energy Sovereignty and Transnational Institute (2021), we think that utilities should convene publics to have more conversations about what water and energy could and should be used for and how subsidies, tariffs and taxes can be used to promote social and environmental justice and ecological resilience.

The same is true for the social spheres and the residential sector. Water and electricity prices, taxes and subsidies can impact what kind of homes are encouraged or discouraged, their size, and zoning. Some water utilities tax pavement because it puts additional stress on the storm water management system, decreasing water quality if the utility relies on a nearby underground aquifer. Utilities may also issue bonds to finance or even community projects that enhance well-being, or sustainability, or racial justice or resilience beyond the core business of the utility but still in its actual sector as noted with Paris above (see also Hopman et al. 2021).

## Challenges and Possibilities

While utilities paired with an Observatory offers real democratizing

potential across sectors, an Observatory dependent model also faces many challenges. These could include but are not limited to:

- capture by a political elite;
- capture by a particular constituency that is supportive of the democratized public services project but privileges itself and excludes others;
- lack of competence or expertise on technical or policy matters that would undermine the trust of the public, the utility or other actors in the Observatory;
- inability to maintain the public's interest in oftentimes technical subjects over long periods of time and in the absence of a serious crisis;
- and lack of consistent funding that would undermine its capacity and mission.[68]

Democracy is not easy nor is its outcome guaranteed. Participatory democracy in public services allows a new player in the game, the non-governmental sector, which also happens to be fragmented. This adds complexity in the decision-making process, not to mention the potential for more conflict among stakeholders. However, these relationships between specific government bodies and social actors and communities, this "social-public" governance, is a critical part of the project of a remunicipalization movement (Menser 2018, 227-256; Wenderlich 2021, 75-6, 310-8). Public ownership and management along with the democratization process can be a virtuous cycle. Through this approach, utilities can improve their efficacy by taking into account different points of view and interests, thus strengthening their legitimacy and sustainability.

Breaking out of these silos, and creating resilient management, is a long and difficult process. It requires the involvement of a wide variety of stakeholders, and the creation of different coalitions. It also involves lengthy consultations and debate to make compatible very different interests and uses of the service. It is in such a context that a structure like the

68 Indeed, in our home of New York State, a New York Energy Policy Institute (NYEPI) was established more than a decade ago. Its mission sounds impressive and inspiring: "to bring together the knowledge-base and expertise found at New York's public and private institutions of higher education to provide analysis, insights and guidance to State decision makers on important energy technology and policy issues." It was awarded to one of the most prestigious universities in the entire state, the State University of New York campus at Stony Brook on Long Island. It did some good research early on, and then the founding director left and it floundered. It has had no funding for years and now sits idle. This is in a state with one of the largest economies in the world and considered by many to be at the forefront of the renewable transition due to legislation passed over the last five years.

Observatory can be useful and needs to operate. The goal is to start a dynamic that allows for raising people's awareness of all these aspects. By tackling the multiple perspectives on the service, the structure can open up the area to other institutions, other professions, and other associations. Yes, it is a gamble, however, it is one that is based on an urgent need for resilience, the inclusive management of resources, and a livable future.

Democratized public services can tangibly promote the decommodification of public goods, halt privatization and financialization of natural resources and common goods, break the mentality of "growth for growth's sake" and fend off the relentless onset of surveillance capitalism. They can set the stage for the transformation of the economy from one of unstable boom and busts to a more sustainable, resilient system centered on meeting human needs and promoting ecosystem conservation.

We can see the importance of both democratizing the governance structures of the utilities as well as the need to create an accompanying partner institution capable of multi-sectoral collaboration. We also see that the so-called stakeholders are not just people from different groups giving input about their needs, rather, they are active agents in the collaboration. Passive customers can become engaged participants in their local energy and water systems. The employees of the utility can break the mold of workers solely interested in their own interests (i.e., wages and benefits) and become active decision-making agents of the future of the utility. Academics can go from being idle spectators viewing communities and their members as "objects of study" to developing sustained accountable relationships with workers and members of the public, collaborating to produce research that meets community needs and fosters the social public model.

Many of these ideas are not new. The problem is that the coordinated implementation of them is elusive. What we are proposing is a novel institutional configuration and ecosystem for this collaborative work to take place, and for this work to be informed by the values of gender and racial equality, social justice, sustainability, and ecological resilience. The logic of this institutional configuration is a participatory democratic form of inclusive resilience-enhancing management that is fueled by adaptive learning and shaped by a sharing of authority that aims to inform, empower and activate. Let's learn from the inspirational models discussed above and proliferate the municipalizations and create the collaborations to democratize public services.

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