

Remunicipalization, the Low-Carbon Transition, and Energy Democracy

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The term “remunicipalization” has become associated with a global trend to reverse the privatization wave that swept many countries—both industrialized and developing—in the 1980s and 1990s. Outside of Germany, the trend is associated primarily with the water sector; however, the push to take back formerly privatized resources and services into local forms of public ownership and control is happening in other sectors as well, including transport, waste management, energy, housing, and cleaning.¹

What is behind these developments? A simple answer is generalized dissatisfaction with the consequences of global privatization initiatives, which on the whole have not delivered the cost efficiencies, performance improvements, and infrastructure investment and modernization that their advocates had promised. At a time when local governments around the world face deteriorating public finances, and in a context of continuing recession and broader global economic austerity, bringing vital utilities, sectors, and revenue streams back under public ownership and control is increasingly popular.²

In addition to these more pragmatic considerations, advocates of remunicipalization (and of public ownership more generally) suggest that it holds the possibility for renewing public engagement and democratic accountability in the economy. Linked to this are claims that the processes of decentralization that are inherent in remunicipalization can challenge the power of vested interests (such as large private corporations) and provide local actors with the tools to effect more progressive forms of public policy. This is especially relevant for efforts to develop integrated local strategies to

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tackle climate change, encourage energy efficiency, and advance renewable energy solutions.³

In particular, remunicipalization processes in the energy sector have the potential to create significant momentum in combating climate change. If the climate challenge is to be tackled seriously, the evidence suggests that forms of public ownership—at the national level and increasingly at the local scale—are likely to be critical. Across the energy sector, privatization not only is creating security-of-supply problems for many locales, but it fails to address the long-term investment needs required to convert energy infrastructure to low-carbon systems. In Germany, remunicipalization (*Rekommunalisierung*) has played a key role in facilitating the country's energy transition (*Energiewende*), with implications for emerging remunicipalization processes around the world.

Remunicipalization as a Global Push-Back Against Privatization

The concept of “remunicipalization” describes a growing trend by local and regional governments to take back utility sectors into public ownership, following growing resistance to the global privatization agenda that international bodies such as the International Monetary Fund, the World Bank, and the European Commission have promoted as part of their conditions for loans or other external support. Although the term has been used broadly to define any reversals of privatization (even where assets and resources remain partly in the private sector), remunicipalization is best understood as a process describing “the passage of services from privatization in any of its various forms—including private ownership of assets, outsourcing of services, and public-private partnerships (PPPs)—to full public ownership, management, and democratic control.”⁴

So far, the remunicipalization debate has focused mainly on the water and sanitation sectors, where, since 2000, 235 towns and cities worldwide have taken back services and assets into local public ownership. Although the trend is global, it has been especially prominent in France (94 cases) and the United States (58 cases), with some of the early iconic examples happening in Latin America. In Bolivia, after privatization efforts in the late 1990s resulted in the raising of water rates, the outbreak of “water wars” in Cochabamba and La Paz spurred local remunicipalization efforts, which then spread to other cities and regions throughout the region.⁵

Worldwide, cities as diverse as Berlin (Germany), Bordeaux (France), Dar es Salaam (Tanzania), Houston (Texas, United States), Paris (France), and

various municipalities in Malaysia have followed suit. In Mali and Uruguay, national water services have been returned to public hands after failed privatization experiments. In many Latin American cities, new and more-participatory models of local public ownership have been developed with the support of hybrid organizations that combine local government, trade unions, and sometimes residents' cooperatives. (See Box 17–1.)⁶

Remunicipalization has been on the increase in other sectors as well, although so far it has become a major trend only in Germany's energy sector. Worldwide, in sectors as diverse as electricity, transport, waste management, cleaning, and housing, local government authorities have been able to bring services back "in-house," typically following the expiration of an existing contract. (See Table 17–1.)⁷

Perhaps the most celebrated example of remunicipalization is the successful 2013 referendum in Hamburg, Germany, where a grassroots citizens' campaign won the vote to take back the city's electricity grid from the Swedish utility Vattenfall. The initiative also will buy back the city's natural gas and district heating system by 2019. Other examples include the cancellation of two public-private partnerships to run parts of London's public transport system, and the buying back of the local public transport system in Kiel,

Box 17–1. Hybrid Public Ownership in Buenos Aires Province

In 1999, the province of Greater Buenos Aires in Argentina, home to some 10 million people, signed a concession agreement to hand over its water services to Azurix, a company owned by the U.S. energy utility Enron. Opposition to the privatization scheme developed quickly as water rates to customers increased, water quality suffered, and promised investments in infrastructure failed to materialize.

When Enron went bankrupt in 2001 and Azurix pulled out of the concession, the provincial government decided to establish a new public company with support from the water employees' cooperative (5 de Septiembre), which already held 10 percent of the organization's shares. The cooperative, through the support of the Water and Sanitation Workers' Trade Union, was able to provide valuable technical expertise that had been lost through the privatization debacle.

The hybrid organization has been highly successful, reducing technical costs by 75 percent compared to the privatization regime. The cooperative also has provided expertise and consulting support to other local public water authorities in Latin America that are seeking alternatives to privatization.

Source: See endnote 6.

Table 17–1. Examples of Remunicipalization Campaigns in Various Sectors

City	Sector	Details
Paris, France	Water	After the city's contract with the private companies Veolia and Suez was not renewed in 2010, the public entity Eau de Paris was able to reap €35 million (\$37 million) in savings in its first year and to reduce water tariffs by 8 percent in its second year.
Berlin, Germany	Energy	Following a successful campaign to remunicipalize the water sector, citizens launched a grassroots initiative to take back the city's privatized electricity grid concession from the Swedish company Vattenfall. Although a 2013 referendum in favor of the takeback garnered 83 percent of the vote, the attempt failed because voter turnout was below 25 percent. The ruling political coalition has responded by creating its own public energy company with a view to taking control of the grid.
Boulder, Colorado, United States	Energy	In 2013, the city voted by two-thirds majority to take back the city's electricity supply into public hands from the private utility Xcel Energy. Continuing legal battles over pricing of assets and compensation have slowed the process of remunicipalization, however.
Islington Council (London borough), U.K.	Cleaning services	Following the expiration of a private cleaning contract in 2010, the Council made the decision to take back services in-house, including paying workers a "living wage."

Source: See endnote 7.

Germany. In the United Kingdom, a study in 2011 found that 80 out of 140 local authorities surveyed had taken back in-house private contracts for services as diverse as housing management, waste management, street cleaning, and information technology.⁸

Beyond the local level, re-nationalizations have included oil and gas in Argentina, Bolivia, and Venezuela; the energy system as a whole in Lithuania; and the Finnish government's decision to buy back 53 percent of the country's national grid.⁹

A leading driver of remunicipalization has been the failure of privatization to deliver the improvements in performance that its adherents promised. Research shows that many cities and regions that pursue privatization are faced with deteriorating services and receive none of the investment, modernization, or "know-how" that they expect from private ownership; meanwhile, users frequently face rising rates and become aware that their local taxes are subsidizing private profits, often at great public expense. A 2013 analysis of the

effects of rail privatization in the United Kingdom could be applied easily to the privatization experience worldwide, describing a situation whereby “risk- and investment-averse private companies positioned themselves as value extractors, thanks to high public subsidies.”¹⁰

In a time of fiscal austerity, many cash-strapped city councils and other local authorities that have the power to operate and manage utilities and public services are bringing back critical assets and revenue streams under public control. Some of the most significant developments in countries that have decentralized political systems have been in the United States and France in the case of water (where governance remains largely the preserve of towns and cities) and Germany in the case of energy. But even in the United Kingdom, where privatization has resulted in highly centralized forms of utility regulation and provision, new forms of local public and community ownership are emerging in some sectors.

The Climate Change Imperative: Remunicipalization in the Energy Sector

In addition to the problems related to performance and value capture, privatization has been associated with growing concerns about energy security and supply, as electricity blackouts from Auckland (New Zealand) to California have demonstrated. In the United States, Superstorm Sandy in 2012 reminded people about the perils of relying on older, centralized utility models after more than 8 million people in 21 states lost their electricity, whereas many local and decentralized power sources stayed on during the storm.¹¹

In the European Union, the push to introduce competition in the energy sector was a strong driver for privatization in the 1990s, with internal market directives for energy and gas aiming to achieve “a complete opening of the markets while at the same time guaranteeing high public service standards and maintaining universal service obligations.” However, privatization failed to deliver on its promises, as large privatized utilities were able to use their dominant market positions to enhance profitability and short-term efficiencies at the expense of investing in new capacity and infrastructure. The result has been a series of crises in supply, culminating in grid overload and power cuts across large parts of Europe in November 2006.¹²

Remunicipalization in the energy sector also has been driven by obligations to tackle climate change. As powerful government and corporate interests create obstacles to the low-carbon transition at a national scale, new urban

and regional coalitions are forming to drive the environmental agenda within regions and municipalities. This is leading not only to the taking back of privatized energy companies into public hands, but also to the setting up of new public companies and community-owned enterprises, as well as to the revitalization of many existing public energy companies.

In the United States, many municipal initiatives involve new forms of public and community ownership related to clean energy and climate change mitigation. Hoping to replicate the success of Boulder, Colorado, the city of Minneapolis, Minnesota, considered remunicipalizing its power system, although it opted for a partnership agreement with the private operator Xcel Energy rather than taking full control. There also have been two failed attempts at remunicipalization: in South Daytona, Florida, and Thurston County, Washington. The Center for Social Inclusion has highlighted public- and community-owned energy schemes to encourage renewable power and energy

efficiency in marginalized urban areas—ranging from the City of St. Paul’s district heating system to Delaware’s Sustainable Energy Utility.¹³

Other notable U.S. initiatives include local public-private partnerships such as the EcoDistricts concept of multi-modal, low-carbon neighborhoods that was pioneered by Portland, Oregon, but that is spreading to cities such as Boston, San Francisco, Seattle, and Austin. These partnerships offer an important contrast with top-down public-private finance initiatives by attempting to involve local

community actors rather than outside corporations, an approach described as “rooted in authentic collaboration that honors and respects a community’s collective wisdom.”¹⁴

The United Kingdom, too, has seen a growth in municipal energy companies



Vision for the SW Ecodistrict Initiative in Washington, D.C., which aims to transform an isolated federal precinct into a highly sustainable workplace and livable neighborhood.

in cities as diverse as Aberdeen, Nottingham, Woking, and, most recently, Bristol, the largest British city (population of 440,000) to establish its own public energy company. Although privatized utilities still dominate the country's energy market, the emergence of decentralized forms of energy, often linked to new district heat and power schemes, is offering the possibility for cities to both meet climate change obligations and tackle fuel poverty (a situation in which residents cannot afford to adequately heat their homes) through more-efficient heating systems. However, the most significant developments in remunicipalization worldwide have occurred in the energy sector in Germany, where they are linked to the country's ongoing energy transition.

*Germany's *Rekommunalisierung* Wave and the *Energiewende**

In recent years, Germany has seen a massive process of remunicipalization in the energy sector. In various parts of the sector, authorities have reversed local and regional privatization contracts and reinstated public ownership. Additionally, a new generation of local energy companies is taking advantage of the opportunities provided by renewable energy to develop more decentralized and locally autonomous forms of power. These two elements sometimes overlap: in some cases, new companies are created to take over contracts as part of remunicipalization, whereas in other cases the services revert to existing public utilities.

Reversing Privatization

Since 2000, more than 100 contracts for energy distribution networks or service delivery in Germany have returned to the public sector. As elsewhere, dissatisfaction with the consequences of privatization has accounted for most of the return of local utility companies to public hands. Many German towns and cities had privatized in response to deteriorating public finances and rising debt levels in the 1990s, only to find that the privatized services were even more expensive on a rented-back basis.¹⁵

An equally important driver has been Germany's strong environmental agenda. The country's retreat from nuclear power and the setting of strong national renewable energy objectives as part of the energy transition, or *Energiewende*, has led many policymakers and activists at the local level to challenge the power of the "big four" private utilities (E.ON, Vattenfall, RWE, and EnBW) and their links to carbon-based energy, particularly natural gas and coal. Fulfilling Germany's climate change obligations requires estimated

investments of €25–42 billion (\$27–45 billion) in infrastructure improvements alone. The more-progressive local politicians are realizing that only a renewal of public ownership and investment will achieve this. The country's remunicipalization efforts range from big-city campaigns, to small town and rural district initiatives, to the takeover of larger regional concerns.¹⁶

As mentioned earlier, the most celebrated example of a big-city campaign is in Hamburg, Germany's second largest city, with a population of 1.7 million. Hamburg was the first large city to take back its electricity grid into public ownership, following privatization by Vattenfall in 2002. After a local referendum vote in September 2013, the city council was forced to buy back the grid and to set up a new public utility to manage it. The remunicipalization campaign was particularly impressive because it was opposed by the two main political parties, the CDU and SPD, and originated from a grassroots coalition of green and left activists (*Unser Netz*, or "Our Network").¹⁷

Campaigns for remunicipalization in other major cities—notably Berlin, Bremen, Dresden, and Stuttgart—have had mixed results. In the case of Berlin, the referendum to return the grid to public ownership failed to secure enough votes. Yet these efforts all have propelled momentum for local authorities and citizens' groups to extend existing public and community-owned energy companies, or to establish new ones.¹⁸

Equally significant have been remunicipalization campaigns in smaller German towns and cities (see Box 17–2), with the first return to public ownership occurring in Nürnbrecht in North-Rhine Westphalia in 1996. Researchers Oliver Wagner and Kurt Berlo with the Wuppertal Institute have identified strong clusters of remunicipalization in many rural areas, such as in the countryside close to Munich, the Bodensee and Black Forest regions in the south, the Rhineland in the west, and East Westphalia-Münsterland in the north. Often, these are grassroots campaigns led by local residents that push local governments into taking action.¹⁹

A final form of remunicipalization involves the taking back of regional or pan-regional entities by German states. One of the most high-profile and controversial examples was the decision by the Christian Democrat (CDU)-led administration in Baden-Württemberg to buy back EnBW (Energie Baden-Württemberg) from the French utility *Électricité de France*, which had owned a 45 percent controlling share. The decision likely reflected narrow political self-interest rather than any broader ideological or environmental agenda, but it did not stop the CDU from being ejected from office after nearly 60 years in power and being replaced by a Green-led administration.²⁰

Box 17–2. The Pioneering Remunicipalization Town of Wolfshagen

An oft-quoted German example of remunicipalization is the town of Wolfshagen (population of 14,000) in the state of Hessen, which has won a federal government award as an “energy-efficient town.” The local town council took back the grid from the private utility E.ON Mitte in 2006. Although the original contracts were for 20 years, a break clause in the contract allowed the town to bring the network back into public ownership after 10 years. As in many parts of Germany, Wolfshagen retained a small energy-producing public company, which gave it the technical expertise both to strike a tough bargain with E.ON and to devise a new strategy to promote renewables.

The town initially had a contract with an Austrian hydroelectric supplier to produce 100 percent of its electricity from renewables, but Wolfshagen’s aim is to be self-sufficient in renewable energy by the end of 2015, realized through the construction of five wind turbines and a 42,000-panel solar park, completed in 2012. Two-thirds of the town’s energy now comes from wind, with the remainder from solar and biomass. The form of public ownership—part local council and part cooperative (with a community cooperative created to give local residents a 25 percent stake) is also typical of the demand to share revenues and encourage greater civic engagement.

Source: See endnote 19.

Two other large utilities, Steag and Thüga, have been remunicipalized through trans-municipal alliances: in the case of Steag, the Rhine-Ruhr region involving Dortmund, Duisburg, Bochum, Essen, Oberhausen, and Dinslaken, and, in the case of Thüga, a consortium of municipal utilities led by the cities of Frankfurt, Hannover, and Nuremberg. Another example of regional remunicipalization is the purchase of E.ON Mitte by the states of Hessen, Niedersachsen, and Rheinland-Pfalz for €617 million (\$656 million). Such examples are not without their problems and seem less aligned to energy transition objectives than to the need for hard-pressed local and regional governments to recapture lost revenue streams.²¹

A New Generation of Local, Collectively Owned Energy Companies?

Alongside the return of privatized assets to local public sector control, Wagner and Berlo identified 72 new public energy companies that have been established in Germany since 2005. As impressive as the scale of new enterprises is the diversity and innovation in forms of collective ownership. These range from the creation of new local state-run entities, such as Hamburg Energie, set up in 2009 by the Green Party in coalition with the CDU in the city government; to

Stuttgart's new municipal utility, created in 2011; to smaller-scale rural cooperatives (*Genossenschaft*) throughout the former West Germany. Fewer examples exist in the former East Germany, where a lack of a history of civic engagement and local mutualism seems to be an important barrier to the emergence of more-grassroots energy initiatives.²²

Hamburg Energie (HE) offers a good example of how state action can supplement effective grassroots mobilization to facilitate a low-carbon transition locally. In the six years since HE was established, the utility has grown its electricity supply business to more than 100,000 customers and is now operating at a small profit. Envisaged as the vehicle to shift Hamburg toward a 100-percent-renewable electricity and heat supply, HE has begun to invest in its own power sources, including six wind farms within the city's boundaries and 10 megawatts of solar photovoltaic capacity. However, HE also represents an example of the continuing political and economic interests that can block energy transition. Despite the successful referendum campaign to take back the grid, the ruling Social Democrats (SPD) and energy trade unions still have strong vested interests in coal-based power plants and strong ties with Vattenfall. The new company that the Social Democrats established to operate the grid is not integrated with HE, posing potential problems for creating more-holistic energy policies that also address energy efficiency, carbon reduction, and fuel poverty issues.²³

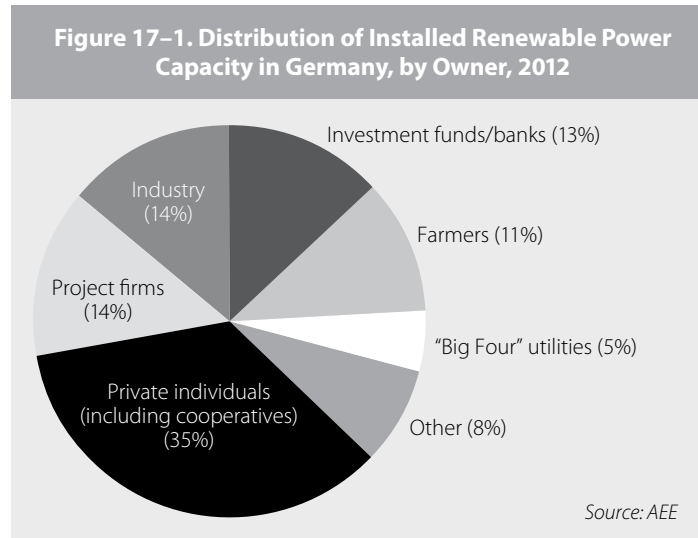
Similar blockages are frustrating efforts elsewhere in Germany, where many local and even state governments, especially in the most populous state of North Rhine-Westphalia, have strong interests in carbon and nuclear industries. The trade unions and SPD in particular are viewed as playing regressive roles in frustrating both remunicipalization and the energy transition. As one activist involved in the Berlin remunicipalization initiative remarked, "The big energy firms are basically in bed with the Social Democrats in much of the established energy sector in Germany and are very cosy with the main unions."²⁴

More promising are a number of cross-communal initiatives that have created new utilities at the regional level. These include Hochsauerland Energie GmbH, created in 2009 and involving four smaller towns in North Rhine-Westphalia, and the Regionalwerk Bodensee, created in 2008 by seven municipalities along Germany's southern border with Switzerland. Rather different, but equally interesting, are ongoing discussions—involving medium-sized towns such as Marburg and Göttingen—about creating new hybrid municipal and cooperative energy companies by breaking up the newly remunicipalized E.ON Mitte.²⁵

Below the municipal level, more than 800 smaller community cooperatives have been created in recent years, investing some €1.3 billion (\$1.4 billion) in new renewable energy projects. The German government’s feed-in tariff has provided a major boost to individual ownership—which in 2012 represented 35 percent of the country’s installed renewable power capacity, of which cooperatives represented 21 percent—whereas the big four privatized utilities accounted for a much smaller share (around 5 percent). (See Figure 17–1.)²⁶

A final key ingredient of the remunicipalization process has been Germany’s decentralized and largely socially owned banking sector, with funding for renewable energy projects coming primarily from local state-owned banks (Sparkassen and Landesbanken) and cooperative banks (Volksbanken). Cooperative banks in particular have been natural supporters of community energy schemes, sharing many of the same values and ethics to promote local and community-centered forms of development and providing up to €30 million (\$32 million) for local cooperative renewable energy schemes.²⁷

Regional state banks also have played an important role in providing investment funding for larger-scale environmental and renewable energy projects. In Frankfurt, the city’s municipal utility, Mainova, received a loan of €100 million (\$106 million) from the state Landesbank for a project to “couple” and integrate the city’s varied power sources to improve efficiency and storage. The ability to borrow at interest rates of less than 2 percent means a level of “patient capital” and long-term stability for investment planning that is not available to companies that trade on stock exchanges or that are reliant on private bank loans. Similarly, the impressive expansion of the Munich municipal utility’s renewable energy portfolio to become self-sufficient in renewables by 2025, including its participation in offshore wind



consortia in the North Sea, has been underpinned by local and regional state bank support, which has allowed it to embark on a €9 billion (\$9.6 billion) investment strategy.²⁸

The German Experience and Broader Lessons

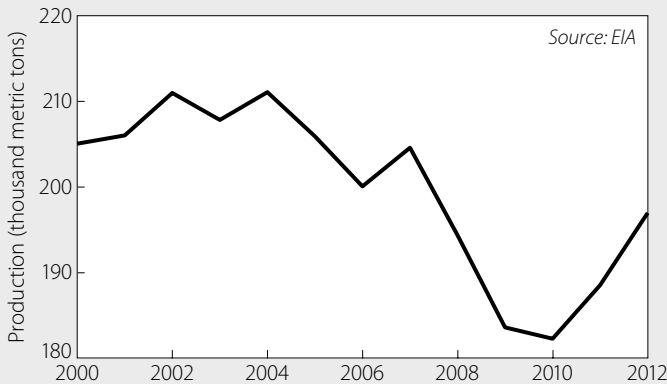
It is important not to over-romanticize Germany's process of energy remunicipalization or to take for granted its ability to continue to deliver important renewable energy objectives in the fight against climate change. Although the share of renewable energy has risen through national energy policies and the emergence and revival of local individual and cooperative ownership in recent years, there are still some major obstacles in the way of achieving transition. New municipal companies are playing an important part in sustaining and deepening the energy transition, but coal generation is still the largest contributor to the

country's electricity supply, and the retreat from nuclear energy has resulted in the big four utilities increasing their production of coal. (See Figure 17-2).²⁹

The *Energiewende* has been described as “coming to a standstill,” in the sense that a recent federal government bill to impose a carbon levy on the oldest coal-fired power stations was blocked by the main coal-producing regions of North Rhine-Westphalia,

Brandenburg, and Sachsen, and a policy u-turn resulted in a subsidy being negotiated. At the same time, not all municipal utilities are playing progressive and enabling roles in facilitating the energy transition. Many of them, particularly in old industrial regions such as North Rhine-Westphalia, have shareholdings and therefore considerable financial interests in the four big utility companies, complicating the simple binary between public and private ownership. One also should not over-emphasize the importance of the environmental agenda: for many city and local governments, remunicipalization

Figure 17-2. German Primary Coal Production, 2000–12



is aimed first and foremost at regaining control of revenue-producing assets during a period of heightened fiscal austerity and welfare retrenchment.³⁰

Nevertheless, decentralized and locally owned energy systems have played a positive role in facilitating the growth of renewable energy in Germany. Unlike in the United Kingdom, where there is a very centralized grid structure and a concentrated industry structure with an effective private oligopoly throughout the energy supply chain, Germany's historically decentralized energy system based around municipal utilities and rural cooperatives has meant that local initiatives have the space to mobilize both civic support and infrastructure to enable the shift toward a low-carbon model.³¹

At the same time, the growth in local collective ownership, through both new municipal utilities and smaller cooperatives, has had a positive effect in facilitating public engagement and participation in the transition process. Again, it is important not to overstate the degree of commitment of the average citizen to a radical environmental politics in a country where the large BMW or Mercedes is still a strong symbol of consumer identity and where the income-generating aspects of renewable energy ownership have been an important draw for private households. Nevertheless, the growth of massive campaigns and movements attest to the degree to which individual and collective ownership do draw citizens into the movement for low-carbon transition and the battle against climate change, forging both a personal commitment as well as important socialized and collective learning processes around environmental goals. This, again, can be contrasted with more centralized and privatized systems, notably in the United Kingdom, where, as one commentator describes it, "the depoliticisation of energy policy has resulted in embedded corporate power, a widening disjuncture between experts and majoritarian institutions and limited knowledge structures."³²

Although many of the political and economic features of Germany's experience reflect a distinctive national flavor, there are broader themes that can be deployed elsewhere. Most countries have cooperative traditions—both in the banking sector and in other aspects of society, particularly in rural and agricultural areas—that can be enrolled in transition policies, give the right state levers and regulatory support. In Denmark, for example, massive advances in renewable energy have been achieved through the combination of national government subsidies, market incentives, and legislation to promote both small-scale and localized production and ownership. Even the United States has strong cooperative and mutualist traditions that can build momentum—with the right government support.³³

Conclusion

The global remunicipalization wave has important potential for enhancing public engagement with climate change and achieving key targets in the form of low-carbon transition and renewable energy production. At its most progressive, it offers more democratic and participatory forms of public and collective ownership of essential resources such as water, energy, and transport that can challenge marketized and commodified values and provide more humane and environmentally driven agendas around social need and the common good. As the damaging effects of privatization become evident, beyond attempts by hard-pressed local governments to regain control of key services and assets, there also is the potential for the emergence of new and innovative models of public organization and ownership. The global extent of remunicipalization processes indicates the potential of the phenomenon across geographical boundaries and among very different national political-economic cultures and trajectories.

The example of Germany's *Rekommunalisierung* process in the energy sector provides inspiration for what can be achieved with the right institutional structures, support mechanisms, and political mobilization. But it also highlights the continuing blockages that exist at the national level, where—as in many large and advanced countries—strong vested interests in privatized and corporatized carbon-based economic sectors can thwart the progress toward lower-carbon and clean energy transitions. On the positive side, remunicipalization highlights the potential for local actors to initiate important energy transition projects, as well as the trend toward growing trans-local collaboration among cities and towns to in part sidestep, but also push, national and state actors along more progressive pathways.

Notwithstanding such developments, important battles remain to be fought in the years ahead, not least in tackling the continuing neo-liberal marketization and competition agenda that dominates national and supranational government policy agendas within the European Union, the United Nations, and other key institutions. It is important to develop new and decentralized forms of public ownership that engage citizens and social movements in the battle against climate change from the bottom up, rather than allowing public agendas to be captured by vested interests. Older forms of centralized and top-down state ownership—such as those developed in France and the United Kingdom—effectively closed down public debate and set in train devastating nuclear and carbon-based solutions to the problem of energy supply. Although

remunicipalization and other forms of local collective ownership, such as cooperatives, do not hold all the answers, and higher-level state strategic planning is still required, they do at least encourage public engagement, collective learning, and vibrant discussion about the future of the utility sectors and how they might be reorganized to tackle climate change.³⁴

Chapter 17. Remunicipalization, the Low-Carbon Transition, and Energy Democracy

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