

Models for Partnerships Between Local Governments and Investor-Owned Utilities: A Typology of Strategies

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ABSTRACT

Cities are often considered the laboratories of policy innovation. This is especially evident within sustainability broadly, and energy efficiency specifically. In the buildings and transportation sectors, there is a natural role for local governments to advance energy efficiency, as they often adopt or enforce building and zoning codes and oversee local transportation policy in addition to operating their own assets. Less clear is the role for local government in energy utility policy and programs. The challenges are particularly acute for cities served by investor-owned utilities regulated at the state level. Today, numerous cities are engaging directly with their utilities to improve delivery of energy efficiency programs to their residents and businesses and to better support their sustainability goals and initiatives. Cities benefit from additional resources to help them meet their energy goals, while utilities can achieve higher participation and energy savings to help meet their policy obligations. The options for partnerships are varied and range from formal funding agreements, such as those included in utility franchise agreements, to informal marketing and outreach partnerships. As a result, the selection of partnership activities should be made with an understanding of the local institutional context, one important element of which is state policy support for utility energy efficiency. This paper explores the benefits for both cities and utilities of partnerships on energy efficiency, presents a typology of the types of engagement between local governments and investor-owned utilities, highlights successful examples of each, and explains major considerations for choosing the most locally appropriate model.

Introduction

The American Recovery and Reinvestment Act (ARRA) of 2009 provided an unprecedented level of funding to local governments to advance energy efficiency in their communities. With federal funding support now winding down, many localities have sought to partner with their energy utilities in order to leverage ratepayer-funded energy efficiency programs and other utility efficiency efforts to continue and expand their initiatives. In addition to providing financial support for community energy efficiency efforts, utilities can offer cities access to energy usage data to inform local energy planning, technical expertise and support for energy management strategies, and support for the development of an energy efficiency workforce.

Utilities also stand to gain, especially those subject to state policies that require them to meet energy efficiency goals.² By leveraging local outreach efforts, utilities can achieve greater

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² The utilities subject to state regulation are primarily investor-owned utilities, which are also the primary focus of this paper. Some, but not all, of the partnership types identified herein are still relevant to municipally and cooperatively owned utilities even though their governance and incentive structures differ. Throughout this paper the terms “utilities” and “utility-sponsored programs” are used to include utility ratepayer-funded energy efficiency

participation and energy savings in their programs, reach new sectors with programs, improve customer satisfaction, and gain new community-based allies. Cities are particularly well suited to help with program outreach and coordination, particularly when it involves groups they reach through other city services such as city-run utilities (e.g., solid waste, water, and wastewater), public safety, permitting, or programs for small businesses or low-income residents (DOE 2013a). Even utilities not subject to energy efficiency requirements can improve their relationships with their customers by supporting popular local programs and visible energy efficiency efforts. These utilities can also accrue benefits through avoiding risky capital expenditures such as new infrastructure in urban areas.

With the potential for mutually beneficial partnerships, it is no surprise that local governments are actively partnering with their energy utilities in myriad ways. The actions by cities identified in the first edition of *City Energy Efficiency Scorecard* (Mackres et al. 2013) included engaging in state legislative and regulatory proceedings, partnering on a variety of jointly funded and administered programs, and the use of procurement policies such as municipal aggregation and franchise agreements to drive greater local investment in energy efficiency. The actions of many of these cities are described as examples in the sections that follow. The diversity of these examples underscores the need for a greater understanding of the strategies and partnership models available to local governments, especially those without direct oversight over their energy utilities.

Background: Utility Ownership and State and Local Regulatory Authority

The policies that shape the energy efficiency efforts of investor-owned utilities are largely determined at the state level by public utility regulatory commissions. These commissions, often guided by policies established by state legislatures and/or governors, set energy savings targets for utilities and approve detailed energy efficiency program plans and budgets to achieve them. Generally, the exceptions to state authority over utility policy regulation are cities where the electric or gas utility is municipally owned and communities that are served by a utility cooperative. Local governments with municipally owned utilities can more directly influence utility energy efficiency policy and programs. These utilities are often exempt from state regulation or subject to different state policies than investor-owned utilities. This paper focuses on cities served by investor-owned utilities, where opportunities for local governments to influence utility energy efficiency policy and programs are less clear.

Local governments have a few, but limited, formal authorities over their investor-owned utilities. Localities served by investor-owned utilities may have authority to charge franchise fees for using public rights-of-way to distribute electricity and gas to customers. The authority to charge these fees and what municipalities can require of utilities vary by state (EPA 2009). Similarly, in several states with deregulated energy markets, municipal aggregation agreements allow local governments to arrange for the bulk purchase of electricity or gas from a third-party supplier.³ Such bulk purchasing enables a local government to negotiate rates, often lower than current rates, for all customers within the city. In addition to lowering rates and saving local

programs that are administered by nonmunicipal third parties such as the Energy Trust of Oregon, Focus on Energy in Wisconsin, and Efficiency Vermont.

³ Municipal aggregation (also known as community choice aggregation) is allowed in six states that have deregulated their electric and/or gas utilities: Massachusetts, New Jersey, Illinois, Ohio, California, and Rhode Island (Local Energy Aggregation Network 2012).

customers money, municipal aggregation can often allow local governments to negotiate renewable energy or energy efficiency requirements as responsibilities of the supplier (Local Energy Aggregation Network 2012).

Most of the ability of local governments to influence and leverage the investments of investor-owned utilities derives not from formal authorities, but from demonstrating the value that they can provide to the utilities and developing partnerships based on a shared understanding of mutual benefit. The policy levers available to local governments, the level of utility ratepayer funding available for energy efficiency, and the strength of existing energy efficiency programs will all influence which strategies are most effective for local governments to use to engage and build beneficial partnerships with their utilities. The following sections describe the various models cities are currently using and provide guidance for identifying the best strategies for a locality given the context of the state energy efficiency policies and programs to which it is subject.

Effective Strategies for Local Governments to Engage with Utilities

We organize the models, or “tactics,” that local governments can use to engage with investor-owned utilities to meet energy efficiency objectives into five broad strategic categories: energy improvements in municipal operations, program partnerships, participation in state regulatory processes, improvement of access to energy data, and energy procurement policies.

Reducing Energy Use in Municipal Buildings, Facilities, and Infrastructure

Local governments can often leverage utility incentives and expertise to reduce the energy used in their own buildings and facilities to lower operation costs. Utilities benefit from the opportunity to work with a small number of decisions makers on multiple projects with high energy savings potential. Three of the largest municipal energy uses are streetlights, municipal buildings, and water and wastewater treatment infrastructure.

Street lighting and other outdoor public lighting. Improving the energy efficiency of streetlights and other outdoor lighting presents unique opportunities for local government collaboration with electric utilities. The ownership and operation arrangements between utilities and municipalities vary considerably. This makes an assessment of the local context essential in order to identify the best options for upgrading streetlights to improve their efficiency. In many cases, utilities own the streetlights and local governments, as well as residential and commercial utility customers, bear the cost through utility rates and operations and maintenance fees. In cities where this is the case, a partnership between the utility and the city is necessary to fund systematic street lighting upgrades, often through a utility rate tariff (Arnold et al. 2012). In Vermont, municipalities and the statewide energy efficiency program administrator, Efficiency Vermont, worked together to encourage the state’s three electric utilities to file rate tariffs to fund the installation of LED streetlights statewide. These tariffs were approved by the utility commission in 2011. Utility customers (including the municipalities) and Efficiency Vermont will benefit from the energy savings while the utilities are able to provide the necessary capital for the new LED fixtures as a result of the tariff (Arnold et al. 2012).

In Asheville, NC, the city worked with Duke Energy, the owner and operator of their streetlights, to establish a new rate structure to allow for the adoption of LED streetlights. Under the old structure, the city paid a flat monthly fee for the operations and maintenance of their

streetlights. Under the new structure, the city now owns the LED fixtures and pays Duke a 50% lower operating fee. In return for the lower fee, the city raised the capital required to purchase the new fixtures through a bond issuance. The city benefits from the lower fee and the project will accomplish one-third of the city's goal to reduce its greenhouse gas emissions by 20%. Duke Energy, which was facing the need to replace its aging streetlight infrastructure, was able to secure capital at a lower cost through the city's ability to borrow at a lower rate (Cleveland and Ullman 2013).

Wastewater treatment and water infrastructure. According to the Environmental Protection Agency, 10% energy savings can be readily achieved by upgrading municipal water supply and wastewater systems to minimize leaks and improve the efficiency of pumps and motors. If these improvements were made nationwide, it would result in collective savings of about \$400 million and 5 billion kilowatt-hours annually (EPA 2013). Electric utilities can be valuable partners in these upgrades, as they may offer discounted auditing services, rebates for energy efficiency equipment, and programs to assist with improving operating efficiency at wastewater treatment plants. They can also provide the data necessary to benchmark water facilities and measure progress. Finally, as large energy consumers, wastewater treatment facilities may qualify for utility incentives related to reducing peak demand through load management and demand response programs (EPA 2013). The City of Sheboygan, WI, has reduced energy consumption at its wastewater treatment plant by 20% through a series of energy efficiency upgrades. Focus on Energy, the statewide energy efficiency program administrator, provided valuable technical support to identify and implement the upgrades in addition to providing grants to lower the cost (ACEEE 2011).

Municipal buildings. The energy used in municipal buildings accounts for a large and often growing portion of city operating budgets. Utilities can be valuable partners for cities seeking to better manage their building portfolio. An important first step to reduce energy use is to benchmark the energy currently used by municipal buildings in order to identify those buildings that could benefit the most from energy audits and retrofits. Going a step further, the District of Columbia's Department of General Services (DGS) worked with its investor-owned utility, Pepco, to provide real-time electricity data for municipal facilities through the Build Smart DC online platform.⁴ This platform allows DGS to evaluate the impact of efficiency projects, identify operational issues, and encourage competition across agencies and facilities. The District is working with Washington Gas to provide gas data in the near future.

As large power purchasers, cities can often negotiate directly with their utilities or power providers to support energy efficiency projects. New York, for example, has negotiated a contractual agreement with its power provider, the New York Power Authority, to provide funding for energy efficiency projects in city-owned buildings. The electric-bill savings (more than \$55 million to date) are shared between NYPA and the City, allowing NYPA to recover its costs. Over two decades, NYPA has partnered with the City of New York on projects at more than 1,000 public facilities (NYPA 2013).

⁴ <http://www.buildsmartdc.com>.

Program Partnerships

Program partnerships refer to opportunities to jointly market, implement, or fund energy efficiency programs, including both those administered by utilities and those established by local governments. All cities have relationships with their citizens as a result of their core service delivery responsibilities (waste, water, permitting, public safety, etc.) that can provide valuable channels of communication to potential utility program participants. These partnerships can range from working together on one specific building or energy efficiency project to formal arrangements where local governments administer programs using utility ratepayer funds.

Joint efforts to improve the energy efficiency of specific buildings or facilities. Even in states where utilities do not consistently offer energy efficiency programs, local governments can partner with their utilities to target large buildings and facilities. By highlighting the joint effort, and providing positive attention for the utility, these marquee projects can be a jumping-off point for ongoing collaboration. For example, in Atlanta, the city and its gas utility, Atlanta Gas Light (AGL), partnered on an energy efficiency retrofit project at the Atlanta Civic Center. This partnership was partially prompted by the city's commitments under the U.S. Department of Energy's Better Buildings Challenge. AGL continues to support the Challenge by offering participants in-kind technical support.

Marketing utility programs through existing local networks. The primary role of local governments is service delivery to their residents and businesses. As a result, municipalities have service delivery relationships—which are typically parallel with but separate from those of investor-owned utilities—with nearly every energy utility account holder in their jurisdictions. Additionally, many cities have developed networks of residents and businesses interested in energy and sustainability issues as part of their related initiatives. Local governments can help utilities market their programs by using these existing networks and relationships. For example, Columbus GreenSpot, the City of Columbus, Ohio's sustainability-related outreach initiative, provides households, businesses, and community groups with information about the available utility energy efficiency programs along with information about the city's various green initiatives. Through this network, utilities can market their programs to a ready audience of 775 businesses, over 6,000 households, and 84 community groups that have all pledged to save energy (City of Columbus 2014). To reach an even broader audience, local governments can leverage their building permitting, municipal utilities, and other service delivery networks to inform homeowners, businesses, and developers about utility energy efficiency incentives that are available.

Challenge programs, competitions, and neighborhood-based approaches. Local challenge programs and competitions can also help to build relationships among local governments, building owners, and utilities. They can be an ideal channel for marketing utility incentive programs. For example, the Baltimore Energy Challenge, sponsored by the City of Baltimore, promotes the Smart Energy Savers Program of the local utility, Baltimore Gas and Electric (BGE). Using peer-to-peer education and networking, "energy captains" share information on free and subsidized programs provided through BGE. In Chicago, the local electric and gas utilities, Commonwealth Edison (ComEd) and Peoples Gas, were involved with Retrofit Chicago's Commercial Buildings Initiative from its inception. The initiative is a voluntary effort to improve the energy efficiency of large commercial buildings. The utilities, along with the City

of Chicago and other partners, are able to offer participants a combination of financial incentives, technical support, and public recognition. ComEd and Peoples Gas, meanwhile, are able to achieve large-scale energy savings to help them meet policy obligations (City of Chicago 2013).

Neighborhood-based approaches acknowledge that energy savings potential is not equally distributed across cities or utility service territories because of differences in building stock as well as social characteristics (Fuller et al. 2010). Neighborhood-based approaches can also leverage targeted outreach through neighborhood canvasses and working with community groups (Mackres et al. 2011). For example, the Better Buildings Neighborhood Program, a competitive grant program funded by ARRA, has supported dozens of local programs testing innovative outreach strategies. One of these programs, Energize Phoenix, a partnership between the City of Phoenix, other local institutions, and Arizona Public Service—the investor-owned electric utility that serves the city—is targeting Phoenix neighborhoods along the city’s new light rail line. The neighborhood approach has allowed the program to drive participation through targeted marketing and continuous outreach at community events. The most effective strategies have been connecting directly with neighborhood associations, local bloggers, program ambassadors, and homeowners to present and discuss program details (Dalrymple & Bryck 2012).

Identify pipelines of ready-to-go projects. Cities are well positioned to help utilities identify and recruit potential participants in their programs. In addition to managing their own portfolios of municipal buildings, public housing, and schools, city agencies are also connected to developers and building owners through their development review and building permitting processes. This allows cities to identify projects with large energy savings potential at the point of new construction or redevelopment. Recognizing this potential, NSTAR and National Grid, the electric and gas utilities serving Boston, provide funding and staffing support for the city’s Renew Boston building retrofit program. As part of this partnership, Renew Boston has a utility manager paid by the utilities to coordinate energy efficiency promotion to large energy users (Mackres et al. 2013).

One-stop shops for energy efficiency services. Even with generous utility incentives, there are additional barriers that prevent homeowners and businesses from investing in energy efficiency. “One-stop shop” programs provide individuals with technical support to help them choose the right energy efficiency projects, assistance with finding and hiring contractors to complete the work, and access to up-front incentives as well as financing. These programs often involve public–private partnerships among local governments, community organizations, energy service providers, and utilities. Cities are uniquely positioned to bring these partners together and deliver energy efficiency services through one easy-to-access channel. In Denver, for example, through the Denver Energy Challenge, initially funded by the U.S. Department of Energy Better Buildings Neighborhood Program, the city provides loans and free technical support from energy advisors to Denver residents and businesses. Xcel Energy partnered with the Challenge to train the city’s energy advisors to promote and help guide participants through Xcel’s various energy efficiency incentive programs. More than 7,000 businesses and residents have participated in the program to date, delivering energy savings that help Xcel meet its obligations and helping the city surpass its goal of reaching 6,000 homes and 1,200 businesses (Denver Energy Challenge 2014).

In a more formal arrangement, the California Public Utilities Commission directed the state's investor-owned utilities to form partnerships with local governments. In several cities, the local governments are now jointly administering and implementing energy efficiency programs with their utilities. The San Francisco Energy Watch program, for example, provides comprehensive energy efficiency services to commercial and multifamily buildings throughout San Francisco. It is funded by utility customers and administered by Pacific Gas and Electric in collaboration with the city (Mackres et al. 2013).

Engaging In State Regulatory and Legislative Processes

As representatives of their residents and businesses, cities can engage in state public utility commission proceedings and energy-related issues taken up by the state legislature. Whether through submitting formal public comments, by advocating for legislative changes, or by participating in stakeholder groups organized by the commissions or the utilities themselves, cities often have several opportunities to influence the energy efficiency programs that utilities offer.

Coalitions of cities and other energy efficiency advocates can organize themselves to jointly intervene in legislative and regulatory proceedings and support new energy efficiency policies. Staying up to speed on these proceedings and submitting written comments can take time and resources that can be shared across a coalition. The City of Portland, for example, is a founding member of the Fair and Clean Energy Coalition, which is affiliated with the Citizens' Utility Board of Oregon and advocates for energy efficiency and renewable energy policy on behalf of ratepayers. State municipal associations can also be effective forums for organizing multiple municipalities with shared interests.

State legislatures or utility commissions may also create formal advisory committees to provide input on energy efficiency policies and programs. In Massachusetts, the statewide Energy Efficiency Advisory Council has the authority to review and approve utility energy efficiency program plans. Boston has successfully advocated for the committee to include a seat for a city or town representative, which the city currently holds.

Cities can also reach out directly to their utilities to encourage new policies and programs. For example, Indianapolis advocated for its utilities to offer on-bill financing for both utility- and city-sponsored energy efficiency programs. As a result, Citizens Energy implemented an on-bill financing option and made this service available to customers participating in the city's EcoHouse loan program for middle- and low-income homeowners. While the on-bill option as designed did not prove to be popular with program participants and has been discontinued, the process of its development resulted in a city-utility collaboration that continues in other forms (Trovillion and Murphy 2014).

Improving Access to Utility Data

Information about energy consumption is necessary to enable better energy management in homes, large buildings, and entire communities. Utilities are critical partners in providing easy-to-use energy usage data to stakeholders, including customers, building owners, and local planners, for a variety of uses (DOE 2013b). Customers can benefit from easy, electronic access to their own consumption data in a standardized format through platforms such as Green Button.⁵

⁵ <http://greenbuttondata.org>

Managers or owners of multitenant commercial and residential buildings need access to energy usage information aggregated at the building level to allow them to measure and improve the performance of their buildings. These data are also critical for the success of local energy benchmarking and disclosure ordinances that require large building owners to report the energy consumed in their buildings. Local governments also require data on community-wide energy usage for community planning purposes and should be proactive in working with their utilities to develop systems for delivering these data to building owners as well as policymakers.

There are numerous utilities now providing aggregated building energy data to their customers. Many of these are using automated benchmarking services to upload data directly to Portfolio Manager, ENERGY STAR®'s free online benchmarking platform (ENERGY STAR 2012). The Better Buildings Challenge Energy Data Accelerator, launched in 2013, is encouraging partnerships between cities and their utilities to demonstrate new approaches to further streamline the delivery of energy data to commercial building owners (DOE 2013c).

In cities with established benchmarking and disclosure programs, energy usage data are allowing for a new level of analysis of the state of the city's building stock and the greatest opportunities for energy savings. The cities of New York, Seattle, and Washington, D.C., have published the energy data reported for private buildings through their benchmarking programs allowing outside groups and stakeholders to analyze these valuable data (New York 2013; Seattle 2014; DC 2014).

Integrate Energy Efficiency into Procurement Agreements and Policies

Local governments (in some states) can require their energy utilities to invest in energy efficiency using two types of energy procurement policies: franchise agreements and municipal aggregation.

Franchise agreements. Franchise agreements are negotiated between cities and privately owned energy utilities to allow the utilities to use public rights-of-way to provide energy services to residences and businesses. Utilities typically pay a fee for the use of public space. Fee structures vary from flat fees to those based on utility revenues. In lieu of paying fees, some utilities may agree to provide cities with free electricity or gas for municipal operations (EPA 2009). These arrangements can provide cities with a tool to require their investor-owned energy utilities to invest in energy efficiency or renewable energy, or the city can use the proceeds from fees to invest in energy efficiency. However, local authority over franchise fees varies by state. For example, Minneapolis is exploring ways to encourage greater investment in energy efficiency and renewable energy through the upcoming renewal of franchise agreements with its electric and gas utilities. A review of existing authority revealed that while that city can determine the amount and formula for collecting fees as well as how to use the funds raised, it does not have the authority to impose energy savings targets because that would impact rates and services, which are under the sole authority of the state utility commission (City of Minneapolis 2012).

Municipal aggregation. The bulk purchase of energy supply using municipal aggregation agreements allows for a local government to negotiate rates, often ones lower than existing rates, for all customers within the city. In addition to often saving customers money, municipal aggregation can allow local governments to negotiate how much of the supplied electricity is renewable or how much the supplier needs to invest in energy efficiency (Local Energy Aggregation Network 2012). For example, the Northeast Ohio Public Energy Council (NOPEC)

is one of the largest public aggregation organizations in the country, representing ten counties. As part of its supply agreement with FirstEnergy Solutions, NOPEC secured \$16 million in funding for energy conservation and renewable energy project grants to local communities (NOPEC 2012). Chicago recently signed a municipal aggregation agreement with Integrys Energy requiring the firm to fund energy efficiency programs in addition to supplying energy from sources other than coal (City of Chicago 2012). As with franchise agreements, the legal authority to use municipal aggregation varies by state.

Discussion and Typology

The strategy areas and tactics identified above can be organized into a typology based on their effectiveness given the level of state and utility support for energy efficiency. Our typology identifies three levels of support: limited, supportive but ramping up, and robust. While other methods of organizing these partnership opportunities are possible and could be valuable, we chose this typology because it overlays areas of opportunity or interest with institutional factors that can enable or limit success. We hope this gives some useful, structured guidance to local governments and utilities looking to identify mutually beneficial opportunities for partnership.

“Limited” policy and programs refers to states where there is little state policy encouraging or requiring utilities to invest in energy efficiency and few if any utility ratepayer-funded energy efficiency programs. In addition to engaging in state regulatory processes and advocating for energy efficiency policies at the state level, local governments in these states can seek out utility support for specific projects (especially high-level projects that can improve the utility's relationships with its customers) and, in states where it is allowed, incorporate energy efficiency into the procurement of energy supply through franchise and municipal aggregation agreements.

“Supportive but ramping up” states have a policy framework conducive to utility energy efficiency, but are in the process of developing mature programs and utility business models. Typically in these states, an Energy Efficiency Resource Standard has been adopted or efficiency is well incorporated into utility resource planning practices, but utilities are still in an early stage of developing and implementing programs and regulatory mechanisms for efficiency continue to be refined. In these states, cities and utilities can work together to design effective programs and then jointly market them to local residents and businesses through existing local networks and through challenge programs.

“Robust” states have policies in place to encourage efficiency investments and have established, successful energy efficiency programs that are consistently being evaluated and improved to increase savings and reach new markets. In these states, cities can be valuable partners in identifying new opportunities for energy savings by connecting utility programs with pipelines of projects, creating one-stop shops, and incorporating utility energy usage data into local planning efforts.

Table 1 describes tactics for each strategy based on the levels described above. The tactics should be thought of as building upon one another. Those in the first two columns will still be effective in robust energy efficiency states, but there are certain strategies that will be most effective when strong energy efficiency programs can be leveraged.

Table 1. Summary typology of partnership strategies and tactics

Strategy		Level of State and Utility Support for Energy Efficiency Policies and Programs		
		<i>1. Limited</i>	<i>2. Supportive but Ramping Up</i>	<i>3. Robust</i>
Reduce Municipal Energy Use	Public Buildings	Use energy performance contracting to fund retrofits of individual (or groups of) buildings	Use energy data to benchmark public building portfolio and systematically assess savings opportunities	Partner with utility to provide data, financial, and technical support for a comprehensive retrofit strategy
	Streetlights and Outdoor Public Lighting	Identify the current ownership and fee structure for the city's streetlights Coordinate efforts with other cities in the same utility territory	Explore options to finance streetlight upgrades through rate tariffs, municipal financing, or energy service contracts	
	Water and Wastewater Infrastructure	Work with utility to obtain data to benchmark water facilities	Identify applicable incentives for equipment upgrades and peak load reduction	
Program Partnerships		Partnerships to retrofit specific building/facilities Challenge programs and competitions	Market utility programs through local networks and information channels Neighborhood-based outreach Identify a pipeline of ready-to-go projects	Create a one-stop shop for technical services coupled with utility incentives
Engage in State Regulatory Process		Advocate for energy efficiency and intervene in the utility planning process Build partnerships with other cities and local stakeholders to influence state policy	Form or join formal advisory groups or task forces to inform program strategy and planning	Help identify and secure resources for sectors currently underserved by energy efficiency programs
Improve access to utility data		Encourage utilities to provide customers and third-party service providers with digital access to energy data Use community-wide utility data to facilitate local energy planning	Encourage utilities to provide aggregated whole-building data to multitenant building owners	Work with utility to analyze community data to target energy efficiency initiatives
Procurement Agreements and Policies		Franchise agreements (depending on state laws)		
		Municipal aggregation (depending on state laws)		

Future Research

The examples provided above barely scratch the surface of the varied and evolving ways that local governments and utilities are working together to advance energy efficiency. Other important topics not directly addressed here include the role of third-party energy service providers in these local government–utility partnerships, electric vehicle adoption and charging infrastructure, microgrids, district energy, and other distributed energy. Most of the examples we cite, drawn from the *City Energy Efficiency Scorecard*, come from the largest U.S. cities, but there are also small and midsized local governments engaging their utilities in innovative ways, as well as cities working with their municipal utilities and cooperatives.

The emergence of these new partnerships raises several questions for future research as the most effective models are tested and evaluated. While this paper focused on the benefits of partnerships, as with any investment, there are also costs. Partnerships can have many benefits that generally outweigh the costs, but in some places and for some topics, partnerships may not be appropriate or cost-effective to meet desired goals. More research is needed on the best formulations of these partnerships to maximize cost-effective energy savings and mutual benefits to all parties. One key issue is the potential for unnecessary competition between the growing number of local government–supported energy efficiency programs and utility-sponsored programs. While coordination can bring mutual benefits, failure to do so could lead to market confusion and redundant programs. True coordination will often involve acknowledging and incorporating the subtle differences in goals between utility programs, which typically focus primarily (if not exclusively) on achieving energy savings in the most cost-effective way possible, and local programs that may focus on job creation and training, affordable housing preservation, and environmental goals in addition to energy savings. Many of these benefits are not well captured in the cost–benefit calculations used by utilities and utility regulators to evaluate programs.

Evaluations of the many programs funded by the Better Buildings Neighborhood Program could shed further light on the areas where cities and other local partners are particularly well suited to improve and supplement the effectiveness of traditional energy efficiency programs based on their outreach capabilities and existing roles in workforce development, planning, and other buildings-related activities.

Another area for ongoing research and evaluation is the impact of municipal aggregation and community choice agreements on energy efficiency investment. As these agreements mature, are they resulting in additional investment in energy efficiency and renewable energy, or are they replacing existing funding from traditional utility programs?

Conclusions

Partnerships between local governments and utilities to deliver energy efficiency can be mutually beneficial. The options for partnership strategies and tactics are varied. As a result, the selection of partnership activities should be made with an understanding of the local institutional context, one important element of which is state policy support for utility energy efficiency. In order to foster these partnerships and develop appropriate strategies, cities should reach out to their utilities as well as to state utility commissions and policymakers in order to build relationships and identify opportunities to collaborate. Utilities should be similarly proactive in seeking input from cities as they evaluate their energy efficiency program portfolios and develop new programs. Finally, state policymakers at utility commissions as well as state energy offices

can help to facilitate these partnerships by encouraging cities and utilities to work together in formal or informal task forces and stakeholder groups.

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