

## **Best Practices in Community Energy Efficiency Programs Local Energy Alliance Utility Interaction**

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Local utilities are important partners and stakeholders for all LEAs. One of the primary reasons LEAs work with utilities is to build energy efficiency programs and strategies on utility platforms and incentives. But LEAs should also interact with utilities for other reasons. Utilities also support LEA goals by funding and implementing energy efficiency programs, and providing data and marketing support. Utilities are invaluable to the work of LEAs, and it is critical that LEAs continuously work to foster positive relationships with their local utilities. And two to four years from now, LEAs can and should be contracted with utilities to provide services to small building customers for marketing, quality assurance, and program management.

While it has the potential to be a complex and sometimes challenging relationship, there are many ways LEAs can approach working with the local utility that will ensure the relationship will be successful.

Keep in touch on both sides. Know the “Customer Rep” for the municipality and each class of smaller customers. Help them with their jobs. (See “help the utility with its customers” below). This is playing right field: not much happens from pitch to pitch or even inning to inning, but you had better know the hitter and the pitcher and where the runners are, and watch them all without interruption; to be successful, you must be part of the action before it happens.<sup>1</sup>

Remember that “your customers” were first the utility’s customers, and are seen that way (often fiercely) by the utility. It’s the utility crews that are out in the storm. The utility can’t choose its customers, and has an “obligation to serve.” A good relationship has to start with respect for that obligation. A collaborative approach, rather than a competitive one, is essential.

Follow what the regulators are doing and planning, what kind of incentive compensation utilities can earn, where decoupling stands and how it works, what rate cases are pending, how public benefit charges work and may change, what “smart grid” requirements are being considered, what are the contentious issues. Utilities answer to the regulators in each state. In some cases, you may want to be a regular participant in open forums, or even an official intervener. Don’t be just an occasional supplicant for utility funding; be a helper.

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<sup>1</sup> A stark case study of a breakdown in utility/LEA/customer communication that lost a major customer opportunity in New England is being prepared.

### *Help the utility with its customers:*

- Support communication, describe what is going on behind the meters
- Be a partner in meeting the utility's DSM targets. Utilities hate to lose "load," but they make annual commitments to supporting energy efficiency. The LEA can substantially boost the "uptake" of their programs. Give them credit.
- If you must reduce the utility's load, by local generation or renewable supply or fuel switching (e.g., replacing electric boilers with gas), don't surprise them. They have to approve your interconnection and accommodate the two-way power flow that you will be imposing on them, and you will need their back-up.
- Keep the interconnection clean and safe.
- Make the utility a partner in any positive publicity.
- Protect the utility from negative publicity.
- Help on the customer side of the meter when "smart grid" advances are considered.
- Help the utility earn its incentive compensation.
- If your customers install power resources on either the demand side (load shifting or shedding capability) or the supply side (conventional or renewable energy), help the utility arrange dispatching so they can count on the resource when needed.

### *Help customers with their utility:*

- Support communications with their utility representative (Good communications are rare between these parties.
- Maximize rebates and other utility supports.
- Analyze the customer's utility bills, check for errors. Consider the tariff and whether a better rate might be arranged. Participate in peak-hour demand shedding programs.
- Look for opportunities to reduce electric demand during peak hours, where the electric supplier or distribution utility bills for peak demand.
- Take advantage of "smart grid" features, including real-time consumption displays, appliance controls, dispatching of loads where appropriate, consumption analyses, etc.
- If renewable energy of other local generation is cost-effective, work with the utility rep to set up the transfer switch, interconnection, safety relays, etc. and to arrange the best tariff for back-up (standby) power. This may involve a feed-in tariff or "net metering," depending on the jurisdiction and regulatory progress.
- Consider offering an LEA service procuring, financing, installing, and servicing emergency generators. This can earn a profit and be a valuable service. Work with the utility in planning and implementing; in some cases, the utility will see self-interest in participating on a commercial basis.

- Over the long-run, For larger customers with critical loads, consider local generation in more aggressive configurations, bringing in the utility early because these are certain to be contentious:
  - CHP
  - District heating and cooling among multiple customers
  - A Propane-air plant to allow purchase of interruptible gas at advantaged prices
  - Large PV installations with storage
  - Inertial storage (flywheels) for full-time power quality regulation
  - Outsourced energy plant, selling power, heating, cooling, refrigeration, compressed air, and demand-side efficiency maintenance (priced as commodities, at reduced rates)
  - Customer Micro-grids, owning transformers and local distribution
  - Sell Attributes to the utility, or to others with their help. (see notes on attribute revenues below)

### *Revenue from Attributes*

Most utilities were quick to recognize that the value of “attributes” of energy efficiency and renewable energy were valuable. NSTAR inserted a Clause 19 in their customer agreements (for any user of utility rebates), and Duke a Clause 30, shortly after forward capacity markets admitted demand-side resources to their auctions. LEAs have not yet had much success negotiating around these contract terms, but each case is different and an early meeting with customer and utility representatives should be held to forecast the resource and work out its sharing. Regulatory intervention may be necessary where large volume is anticipated.

### *Retail aggregation and supply*

Most states have ended the traditional vertically-integrated utility monopolies and allowed competitive supply at the retail level (with the utility retaining its distribution franchise). The more ambitious LEA may want to consider aggregating a large number of customers and buying electricity or gas as their wholesaler. An obvious form of this aggregation would include municipal facilities (where there is not already a municipal utility in place).

### *Cogeneration and district energy*

Onsite combined heat and power (CHP) generation, or cogeneration, offers significant energy efficiency improvements and emissions reductions by recovering waste heat generated during electricity production and using it for thermal energy. Although industrial customers own the largest share of CHP plants in the US, the market for district energy systems and smaller-scale residential and commercial projects is growing. All of

these projects require back-up power supply through a local utility. Some require the ability to sell excess energy back to the grid, although generally the LEA will want to limit its sponsorship to plants “behind the fence” that follow the thermal load. Utilities can erect barriers to cogeneration projects such as high back-up rates and cost-prohibitive “exit fees.” These are usually negotiable, especially if the LEA works with the utilities early and finds some common ground (e.g., dispatchability, reliability assurances, staying behind the fence, interconnection standards).

### *Pay-for-performance*

LEA sponsorship of utility and ISO payments for peak-hour demand reductions are discussed elsewhere. The LEA may also be able to convince the utility to engage in at least a pilot program of actually paying its customers per kWh or therm saved from historical use or other baseline—which has the great advantage of letting the customer decide the means and time of reducing consumption (including sacrifices that could not be requested publicly). For more information about this concept, see the separate best practice document “*Pay for Performance*” in this series. It also rewards behavioral measures instituted by facility managers and occupants.

Another form of the pay-for-performance incentive pays customers for energy efficiency improvements based on projected energy savings. This type of incentive program is in place in New Jersey, funded through the state public benefits fund (PBF). The program provides incentives based on achievement of specified milestones. For example, existing buildings with annual peak demand greater than 200 kW are offered three separate payment levels based on achievements, such as completing an energy reduction plan, installing the plan’s measures, and verifying realized energy savings. Payments are calculated based on anticipated or realized energy savings.<sup>2</sup> As described in Section B.1., leveraging utility incentive programs for energy efficiency is a key strategy for most LEAs.

### *Access to customer data*

LEAs need both market characterization data in formulating their marketing plans, and customer participation and contractor performance data in managing implementation. The former are available only in aggregate form from utilities and suffer from not characterizing accurately the real function of the energy use. (Data are collected by meter, and names are the billing addresses.) The LEA can correlate utility data with municipal data, however, to produce a good picture of both demand and consumption by market sector.

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<sup>2</sup> More information on New Jersey’s pay-for-performance incentive program can be found at: <http://www.njcleanenergy.com/commercial-industrial/programs/pay-performance>

Usually LEAs work with contractors who are already approved as deliverers of utility DSM services. Since the LEA is inserting itself as a trusted supplier of advice and expedited service, its access to data on the performance of these contractors is critical. The LEA should work out early with them and the utility the protocols for what is being promised, what additional LEA-sponsored service will be offered, how customers can communicate, and what recourse they have when service is slow or deficient. This should be tied into the LEA's customer-access Web site, and into the IT and M&V system (see IT Solutions paper).

### *Co-marketing and co-branding*

LEAs should also seek out utilities as partners for marketing and branding efforts. Collaborative marketing through joint participation in events, cross-promotion of initiatives, and coordination on production and distribution of marketing materials extends the reach of energy efficiency efforts, benefiting both LEAs and utilities. Co-branding is also co-beneficial. Being associated with LEAs helps brand utilities as being environmentally-forward thinking and socially conscious, generating positive PR. For LEAs, being linked to utilities gives legitimacy to efforts and helps improve relationships with the utility.

### *Portfolio Standards*

Renewable portfolio standards (RPS) establish requirements for electric utilities to source a specified percentage of electricity with renewable resources. RPS are one of the most widely used policy mechanisms to increase renewable energy production—as of 2010, 29 states, plus the District of Columbia and some municipalities had RPS requirements.<sup>3</sup> RPS are perceived as a key driver for new renewable energy generation. EPA found that 60% of non-hydro renewable energy capacity additions in the US from 1998 to 2008 were in states with RPS policies.<sup>4</sup> LEA efforts to increase renewable energy sources can help utilities meet their RPS requirements.

A related mechanism is an Energy Efficiency Resource Standard (EERS), which requires utilities to achieve a specified energy savings relative to a baseline. The standard can be achieved through customer energy efficiency programs, improved efficiency in distribution systems, or by purchasing energy savings from other utilities or third parties. As with RPS requirements, LEAs can work with utilities to help them meet their EERS. As of 2009, 22 states have enacted an EERS.<sup>5</sup>

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<sup>3</sup> Renewable Energy and Energy Efficiency Partnership (REEP), Alliance to Save Energy, American Council on Renewable Energy (ACORE), Compendium of Best Practices: Sharing Local and State Successes in Energy Efficiency and Renewable Energy from the United States. (April 2010).

<sup>4</sup> US EPA, Webpage: Renewable Portfolio Standards Fact Sheet. Accessed August 2010, from [http://www.epa.gov/CHP/state-policy/renewable\\_fs.html](http://www.epa.gov/CHP/state-policy/renewable_fs.html)

<sup>5</sup> American Council for an Energy-Efficiency Economy (ACEEE), State Energy Efficiency Resource Standard (EERS) Activity. (January 2010)

### ***Public Benefit Charges for Funding Energy Efficiency Programs***

Utilities have the ability to raise funds to finance the energy efficiency and renewable energy programs that are integral to many LEA efforts. Because some states use utilities as a channel for energy efficiency programs, utilities may have sole access to state grants and contracts thus serving as a vital link between state resources and LEA goals. Public Benefit Funds (PBFs), which are capitalized by a small fixed fee (a “systems benefit charge”) on customer utility bills, are another funding source for which utilities are an intermediary. Some 16 states have established PBFs, which can be administered by a utility, a state agency, or a third party, such as a LEA.<sup>6</sup>

The local marketing of utility PBF programs in the short run, and quality assurance and program management in the longer run, should be a primary revenue-producing option for an LEA. Since marketing is typically 25-30% of the budget for a utility incentive program, an LEA should be able to convince its utility that its marketing resources, credibility, and proximity to the customer (especially small customers) can be more cost-effective than the traditional utility reliance upon bill stuffers, direct mail, and paid media advertising to advance customer uptake.

What an LEA can produce from neighborhood canvasses, utilization of community partners, telemarketing, local workshops and the credibility of its brand should be compelling to most utility program administrators.

### ***Decoupling and Utility Incentives***

Because reducing energy use decreases energy sales, promoting energy efficiency is counter to the standard utility operating practice to increase throughput. There are financing mechanisms being used in states across the country to remove disincentives for utility promotion of energy efficiency. Removing these disincentives (“decoupling”) is obviously beneficial to LEAs, who should work with their local governments and utilities to encourage these initiatives. As of 2006, seven states have some form of decoupling in place, with California and Oregon as the lead examples.<sup>7</sup> Several states including MA, RI, CT, MN, and VT, use performance incentives to help utilities recover “lost revenues” associated with reduced energy use and to earn a return on their energy efficiency activities.<sup>8</sup> Performance incentives can be in the form of a return, or increased return, on investment on energy efficiency investments; a specific financial award for meeting targets; or an incentive equal to a proportion of overall program benefits, and can be combined with negative financial penalties for poor performance.

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<sup>6</sup> US EPA, Clean Energy-Environment Guide to Action: Policies, Best Practices, and Action Steps for States. (April 2006). Available at: <http://www.epa.gov/statelocalclimate/resources/action-guide.html>

<sup>7</sup> Ibid.

<sup>8</sup> Martin Kushler, Ph.D., Dan York, Ph.D., and Patti Witte, M.A., Aligning Utility Interests with Energy Efficiency Objectives: A Review of Recent Efforts at Decoupling and Performance Incentives. (ACEE: October 2006). ADD CITATION

### *Financing Customer Investments*

Utilities are also experimenting with financing for customer investments in energy efficiency and renewables. On-bill financing, for example, allows customers to pay for energy efficiency upgrades through a charge on their monthly electric bill. Utilities pay upfront for the upgrades, removing barriers of initial capital costs and loans from third-party lenders. There are two mechanisms of on-bill financing, utility tariffs and on-bill loans. In a tariff, the charge is assigned to a meter, not an individual, and remains when the customer moves, making the program attractive to renters. Because the tariff does not involve debt obligation, it is also attractive to low-income customers and government clients. On-bill loans, which typically have below-market or 0% interest rates, require customers to take on debt, but may be easier for utilities to implement because they do not require the regulatory approval of a tariff. Although on-bill financing is relatively rare at this time, in the future it could provide an attractive financing option that LEAs could market to program participants. These options are discussed further in Sections B.7 and B.9.

### *Feed-In Tariffs*

Another utility regulation that has implications for LEA efforts are Feed-in Tariffs (FITs), through which utilities are required to pay renewable energy producers a fixed price for electricity produced over a fixed period of time, as opposed to net metering. By removing production barriers and providing a stable funding source, FITs help increase renewable energy production. FITs are common throughout the world, adopted in 50 countries as of 2009, and are beginning to be adopted at the state and local level in the US.<sup>9</sup>

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<sup>9</sup> Miguel Mendonça and David Jacobs. Feed-in Tariffs Go Global: Policy in Practice. (Renewable Energy World Magazine: September 2009). Available at:  
<http://www.renewableenergyworld.com/rea/news/article/2009/09/feed-in-tariffs-go-global-policy-in-practice>