Utility Energy Efficiency Programs and Manufacturing Facilities

Connections in the Great Lakes Region

September 2013
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Project Manager

Scott Scheutter

Acknowledgements

The project was possible as a result of grant support from the Joyce Foundation.
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INTRODUCTION

Energy efficiency programs stimulate economic activity. Utility programs, in particular, not only help people pay less for energy, giving them more disposable income to spend in the general economy, but they also generate business for companies that provide energy efficiency products and services. These businesses may include contract program administrators, trade allies or other consultants, suppliers or wholesalers and manufacturers. The purpose of this study is to examine the effects of energy efficiency programs on manufacturers. Our goal in this effort is to give a first cut look at the breadth of manufacturers who benefit from just a narrow slice of active utility efficiency programs.

To this end, we investigated the reach of a small number of active utility sponsored efficiency programs in Illinois and Michigan to find the link between offered incentives and regional manufacturers. While our emphasis is on manufacturers, they are just a fraction of the businesses involved with supplying energy efficiency services and products, and so represent just a portion of the economy that benefits from energy efficiency programs.

APPROACH

The information gathering methods used for this project were modified during the project execution. We originally planned to contact administrators for utility programs for commercial building retrofits and get listings or samples of some of their top trade allies providing advanced lighting, HVAC and building shell services. We would then contact those trade allies and find out which wholesalers or distributors they worked with most often. Finally, we would contact those wholesalers or distributors and get information on which manufacturing facilities were making the products used in those programs. We saw this process as important for identifying manufacturers that were directly connected to these specific utility programs rather than those that merely manufacture efficiency products in the region. The study was not designed to provide a comprehensive listing of manufacturers in the region.

This approach proved unworkable when we encountered reluctance from some utility program administrators to share information on these activities. We were forced to seek information through alternate routes which limited the number of participating manufacturers we were able to identify as being linked with the programs. Therefore, prominent manufacturers in the region that may supply products for these programs are undoubtedly missing from our list solely because they were not identified as a supplier to a specific program through the sources with whom we were able to connect.

Study design, resources and information access issues all served to limit the number of manufacturers we could identify. Figure 1 below illustrates how these factors narrowed our scope and affected the list of manufacturers we produced.
Each ring shows how our focus was narrowed so that our eventual list of manufacturers was derived from a much smaller source pool. From the outset, limited resources for this study required us to narrow our potential sources of information to a subset of efficiency programs in Illinois and Michigan, as shown by the four largest rings in Figure 1. Our sources were then further limited due to issues in getting access to information, as represented by the three smaller rings in Figure 1.

Criteria for narrowing our sources of information are described in more detail below.

Out of the population of all existing efficiency programs in Illinois and Michigan, we focused on active commercial retrofit programs offered by six utilities. These included:

- ComEd – Smart Ideas for Your Business,
- NICOR Gas – Business Energy Efficiency Rebate Program,
- Peoples Gas/North Shore Gas – Commercial and Industrial Prescriptive Rebate Program,
- Consumers Energy – Commercial Energy Efficiency Program, and

We narrowed our focus within these programs to those that offered incentives for advanced lighting, HVAC and building shell measures.

Our greatest challenge in identifying manufacturers of equipment that might benefit from these programs was finding contact information for trade allies who could connect us with these manufacturers. A small number of program administrators helped direct us to some of the more active contractors working with their programs. For others we used Web listings offered on program sites and used activity rankings, if they were available, to identify likely candidates.
For our searches for manufacturers linked to the Illinois utility programs and to Consumers Energy in Michigan we used Web-based databases supplied by the utilities which required us to focus on specific areas of the states. In Illinois, we focused on the Chicago area and portions of north-central and northwestern Illinois. For Consumers Energy in Michigan, we focused on the Bay Area in central Michigan.

Whenever we were able to obtain contact information for trade allies associated with these programs, and an indication of how active they were in the program, we contacted some or all of those ranked as most active. Some from this group responded and in turn agreed to share information on some of their suppliers and manufacturers. We then contacted or researched this final group of companies to find out where their products were made resulting in our list of manufacturers.

Following are some details on the methods we used to acquire the trade ally contact information for the programs we examined.

**ComEd – Smart Ideas for Your Business**: A combination of Web resources and input from program representatives enabled us to connect with some higher activity service providers.

**NICOR Gas – Business Energy Efficiency Rebate Program**: A combination of Web resources and input from program representatives enabled connection with some higher activity service providers.

**Peoples Gas/North Shore Gas – Commercial and Industrial Prescriptive Rebate Program**: A combination of Web resources and input from program representatives enabled us to connect with some higher activity service providers.

**Consumers Energy – Commercial Energy Efficiency Program**: The administrator declined to provide input and also declined to provide a list of companies qualifying for the **Buy Michigan Program** (which encourages participants to buy from manufacturers in Michigan). Therefore, we relied solely on a utility Web resource and contacted some of the most active contractors.

**DTE Energy – Energy Efficiency Program for Business**: The administrator declined to provide input and directed us to a Web resource. Although this resource had hundreds of contractors listed, we were unable to get information on activity levels rendering this resource unusable for this study. Manufacturers we identified as associated with this program are limited to the DTE Energy listing of qualifying **Michigan Made** program manufacturers.

The two Michigan utilities have incentives built into their efficiency programs encouraging participants to choose products from Michigan-based manufacturers for their efficiency projects. Consumers Energy Business Solutions has the **Consumers Energy Buy Michigan Program**, and DTE Energy offers the **Michigan-Made** bonus. Both programs offer a 15 percent higher incentive for choosing products from Michigan-based manufacturers, and they require that at least 50 percent of the cost to manufacture and assemble the product is performed in the state. These programs may increase the concentration of economic activity generated in Michigan, but information on whether these companies were actually selling products into the two utility programs was not available.

The scale of these steps limiting our pool of manufacturers is unknown. Therefore, the manufacturers identified in our list represent some unknown portion of the actual total population of manufacturers that supply utility programs in the region. We know that this list is incomplete, and would no doubt grow if we cast a wider net (e.g., looked at more utilities, more programs, more measures, or more trade allies), or
continued efforts at getting responses from known allies. A full accounting of suppliers would be best accomplished with utility cooperation in sharing information on qualified products used in each program.

**FINDINGS**

Although the information we gathered was not quantified in terms of economic value, and the sources likely represent an extremely small portion of the program activities, we uncovered a large number of manufacturing operations that supply efficiency products used in the narrowly-defined segments of these utility programs.

We identified 46 manufacturing facilities located in the Great Lakes region that supply qualifying products to these utility programs. When we remove the regional limitation, we identified 82 manufacturing locations, throughout the United States and the world, that supply products to these programs. Some other countries making products used in these programs include Canada, China, Germany and Italy. Table 1 below lists the number of manufacturing locations we found by associated utility program.

**Table 1 - Number of identified manufacturers supplying each program**

<table>
<thead>
<tr>
<th>Utility</th>
<th>Manufacturers</th>
<th>Great Lakes* Manufacturers</th>
</tr>
</thead>
<tbody>
<tr>
<td>ComEd</td>
<td>29</td>
<td>18</td>
</tr>
<tr>
<td>Nicor/Peoples/North Shore Gas</td>
<td>36</td>
<td>15</td>
</tr>
<tr>
<td>Consumers Energy</td>
<td>6</td>
<td>2</td>
</tr>
<tr>
<td>DTE Energy**</td>
<td>13</td>
<td>13</td>
</tr>
<tr>
<td>Net Totals (less two duplicates***)</td>
<td>82</td>
<td>46</td>
</tr>
</tbody>
</table>

*Great Lakes region includes: IL, IN, MI, MN, OH, PA and WI.
**This list only includes qualified manufacturers for the Michigan Made Program as of April 2013. Actual participation via contractor contact was not confirmed.
***Some manufacturers supply to multiple programs.
Figure 2 below shows where these facilities are located in the region.

**Figure 2 - Map of Great Lakes region manufacturing facilities**

![Map of Great Lakes region manufacturing facilities](image)

Manufacturers located from Minneapolis, MN, to Philadelphia, PA, are supplying products to the programs we studied in Illinois and Michigan. Those 46 locations plotted on the map represent a fraction of the overall manufacturers supplying these programs.

Table 2 shows the number of manufacturers by general product category.

**Table 2 - Great Lakes manufacturers by product type**

<table>
<thead>
<tr>
<th>Product Category</th>
<th>Number of Manufacturers</th>
</tr>
</thead>
<tbody>
<tr>
<td>HVAC and controls</td>
<td>16</td>
</tr>
<tr>
<td>Lighting and controls</td>
<td>28</td>
</tr>
<tr>
<td>Building shell (insulation)</td>
<td>2</td>
</tr>
<tr>
<td>Total</td>
<td>46</td>
</tr>
</tbody>
</table>

The most common category of manufacturer identified was advanced lighting products, followed by HVAC systems and controls.

**LESSONS AND NEXT STEPS**

This study would have generated a much larger and more comprehensive list if we had successfully engaged with the utilities from the start and sought their active participation through information sharing. Any similar future efforts should start with these conversations.

The finding that, at a minimum, dozens of manufacturing operations in the Great Lakes Region benefit from the small group of utility programs we examined suggests that the economic effects are widespread and could be substantial.
The next step is to find ways of quantifying the economic benefits in terms of jobs or other economic activity. Obtaining more solid and comprehensive purchasing data from the utilities would provide the basis for a regional input-output analysis. This type of study would allow analysts to estimate the influence of these programs on manufacturing and other jobs, and provide a better understanding of how these programs contribute to the state and regional economies.