Money Well Spent: 2010 Industrial Energy Efficiency Program Spending

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Contents

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Executive Summary

Investments in industrial energy efficiency are smart investments to make, as industrial energy efficiency is one of the most cost-effective energy resources available. Energy efficiency reduces emissions, saves consumers money, and yields a number of other non-energy benefits to all users of a given energy system. Interest in the industrial sector as a primary target of energy efficiency programs appears to be growing.

In 2010, we estimate industrial energy efficiency programs run by utilities, state agencies, federal agencies, public benefit fund organizations, and nonprofit entities spent over $1 billion on industrial energy efficiency projects. This funding includes incentives and rebates, grants, loans, technical assistance, energy audits and assessments, and a variety of other services that help encourage greater industrial energy efficiency. These spending numbers, however, exclude most research and development activities conducted at federal agencies and laboratories or universities, which are not viewed as direct deployment programs but are of course of substantial importance to the long-term energy efficiency improvements of the industrial sector. Funds disbursed as part of the implementation of the *American Recovery and Reinvestment Act of 2009* (ARRA, also referred to as the federal stimulus) added another $109 million to that total.

These investments in industrial energy efficiency programs are made for a variety of reasons. Utilities make them because they are tasked with making cost-effective investments in efficiency with publicly collected dollars; state governments make them because such investments are good for the environment and economy; and the federal government makes them (and made them especially as part of the federal stimulus) because they move money into the market immediately and offer tremendous ancillary benefits.

Table ES-1 shows the top ten states in terms of industrial energy efficiency program spending. In 2010, programs in the state of New York made the largest collective investment in industrial energy efficiency, spending nearly $193 million on industrial energy efficiency statewide. Additional metrics and detailed information about each state can be found in the tables in the report as well as Appendices A and B.

The federal ARRA funds jump-started a number of new industrial energy efficiency programs and augmented the offerings of a number of existing ones. They primarily increased the offerings at the state level, though utilities and public benefits funds still represent the vast majority of overall industrial energy efficiency program spending.

Table ES-1. Estimated Total Industrial Energy Efficiency Program Spending, 2010

Rank	State	2010 Total Spending	Spending per Capita
1.	New York	$193 million	$10
2.	California	$143 million	$4
3.	Pennsylvania	$65 million	$5
4.	Washington	$49 million	$7
5.	Massachusetts	$41 million	$6
6.	Oregon	$41 million	$11
7.	Tennessee	$33 million	$5
8.	New Jersey	$28 million	$3
9.	Wisconsin	$24 million	$4
10.	Arizona	$21 million	$3

Sources: Chen 2012, EIA 2011, ETO 2011, Kliemisch 2012, Levy 2012, Love 2012, Lin 2012, MassDOER 2012, NASEO 2012, Platt 2012, SCG 2011, SDGE 2011, Sheil 2012, Stipe 2012, Wood 2012
Notes: These numbers do not include spending as part of the ARRA. All spending amounts are estimates and have been rounded.

Though ARRA-funded programs are closing or scaling back as funds are used up, it appears that budgets for industrial energy efficiency programs at utilities especially will increase in the near future. It remains to be seen what the long-term impact of the brief increase in industrial energy efficiency program spending due to stimulus funds will be, but energy efficiency programs of all types plan to continue funding their industrial efforts due to the high levels of interest by industrial customers and the substantial benefits of industrial energy efficiency.

Spending by utilities in particular on industrial energy efficiency is robust, in no small part due to the desire of states to encourage their regulated utilities to acquire energy efficiency in the industrial sector to benefit all energy consumers. With rising energy efficiency goals as states look to meet future energy demands with clean and cheap energy efficiency, the industrial sector will continue to be viewed as a cost-effective target of energy efficiency program funds.

Introduction

Energy efficiency investments are highly cost-effective and provide additional environmental and economic benefits that outweigh those of new energy generation resources. In addition to its low cost, energy efficiency can be installed much faster than traditional energy generation because the technology is already available. Energy efficiency also offers an entity a hedge against future price volatility and reduces all airborne pollutants. In particular, industrial energy efficiency investments are some of the most cost-effective energy efficiency investments (Chittum 2011). Industrial facilities offer tremendous "bang for your buck" in energy efficiency because their energy use is highly concentrated. Additionally, the industrial sector has the largest potential for energy savings of all major energy-using sectors in the U.S. (Glatt and Schwentker 2010).

There are many different types of entities that support and deploy industrial energy efficiency, each with its own motivation. Regulated utilities embrace energy efficiency for their own business interests or in order to meet goals or standards imposed by their regulators; industrial companies may be encouraged by state and local agencies to invest in energy efficiency due to the overall benefits to the local economy; and nonprofit entities often view industrial energy efficiency investments as critical to achieving public or environmental goals.

All of these different programs are driven by a variety of policy and economic factors. Attributing the spending of each program to the state in which it operates does not yield a perfect metric by which to gauge how a state government feels about industrial energy efficiency. However, some states clearly prioritize such program spending as a matter of policy and as a result see high levels of program spending across a number of different entities.

These entities directly or indirectly fund industrial energy efficiency projects through a variety of means, including direct grants, low-interest loans, technical assistance, rebates, tax credits, and customer incentives. Some of this money may go directly to industrial companies that make energy efficiency investments, while some may go to third-party contractors who make the investments. In addition, funding goes to engineering professionals who help identify potential industrial energy efficiency opportunities, and some may go to universities to provide a suite of technical services to local industrial companies, including energy efficiency advice.

Due to the wide variety of different organizations and governmental agencies that invest in or otherwise support industrial energy efficiency projects, there has never been a comprehensive assessment of the type, scope, and scale of these programs. This report represents a first attempt to describe the spending levels of current industrial energy efficiency *program* activities in each U.S. state, providing a snapshot of these programs at a point in time—in this case, 2010. It does not specifically address energy efficiency investments made directly by the private sector, which we suspect are far greater than those of the public sector and regulated utility programs discussed herein. Most industrial companies are highly motivated to make energy efficiency investments on their own, and the programs discussed in this report use their program funds to leverage substantial additional

investment by the participating industrial companies themselves that is not captured nor reflected by this research.

This report also does not attempt to describe investments in industrial energy efficiency research development, in which the federal government and universities are heavily engaged. Such research is critically important to continued industrial energy efficiency progress, but was not within this report's scope of *deployment* programs.

This information is important because there is an ever-growing need to capture more energy efficiency and the industrial sector is increasingly viewed as a sector full of highly cost-effective opportunities. In order to maximize the industrial energy efficiency potential, policymakers must first understand where the money has historically gone before determining where future investments should be made. It is also useful to step back and assess the extent to which each U.S. state has already invested in industrial energy efficiency programs because we may be able to draw conclusions about the scope or types of programs and the resultant investments in industrial energy efficiency.

A Note About Research Precision

This report represents the first time the American Council for an Energy-Efficient Economy (ACEEE) has attempted to capture this spending data. ACEEE plans to continue to track this data over time, and to continue to refine the methodology used so we can better make spending estimates even when precise data is not available. Every attempt has been made to fully explain the report's methodology in the hopes that others interested in replicating the research in the future may be able to do so.

The base year for this research, 2010, was a highly unusual year due to the significant influx of "stimulus" dollars, mostly as a result of the *American Recovery and Reinvestment Act of 2009* (ARRA). We have attempted to separate this funding from other sources, but here are likely some interactions that we have not been able to capture. Due to the lack of precise data for many programs and the heavy reliance on estimates by program managers, all spending numbers reported in this report should be viewed as informed estimates based on the best available information. Appendix C describes particular methodological approaches in greater detail and highlights additional caveats of this report's findings.

The Research

Research Goal

The primary research question that motivated this report was: *How much money does each U.S. state spend on industrial energy efficiency programs*? Recognizing that the "state" itself is often not the primary actor in energy efficiency program deployment, we chose to cast a wide net within each state. We sought industrial energy efficiency program spending data from utilities, state agencies, nonprofit organizations, public benefit fund organizations, universities, and other programs that use public dollars, public benefit fund dollars, or donated dollars to fund their programs.

The mission of this research is to continually compare the results over different time periods to reflect temporal changes. For that reason, 2010 was selected as the base year, with the assumption that spending in 2010 could then be compared to spending in future years. We selected 2010 because of the wide availability of data from both calendar and fiscal year 2010, especially data provided by the federal Energy Information Administration (EIA). 2010 appeared to be the most recent year for which significant data could be collected. Many organizations that support or fund industrial energy efficiency programs have not yet released their annual reports for 2011, limiting our ability to construct a comprehensive picture for 2011. In one significant case we had to go back an additional year for our data: EIA industrial energy consumption data disaggregated by state was only available for 2009, and so we used the 2009 data.

Industrial energy efficiency spending in 2010 was influenced by federal stimulus funds, and so it was an interesting year to observe and track spending. Programs that had never before existed were ramping up, and local and state governments were learning that it is not always easy to distribute "free" money, especially to the industrial sector. Many programs did not disbursed as much money in 2010 as they had planned, and for that reason we attempted, wherever possible, to reflect actual spending instead of budgeted spending, in order to make a more accurate and conservative estimate of overall program spending.

As noted earlier, energy efficiency *programs* were the primary target of this research. While industrial facilities have long invested in energy efficiency projects as a matter of smart business practice, this research did not attempt to estimate the spending by such individual businesses on energy efficiency projects. This research also did not attempt to estimate spending on industrial energy efficiency projects by energy service companies (ESCOs) or other third-party vendors that pursue industrial energy efficiency as their primary business. This research focused solely on four types of spending: public dollars, including federal and state dollars disbursed through third parties; public benefit dollars paid by ratepayers to utilities to fund energy efficiency investments; spending by publicly owned utilities such as public utility districts; and direct spending by other nonprofit groups on industrial energy efficiency programs.

Methods and Data Sources

This report relies on both primary and secondary data. Primary data was gathered from administrators or regulators of industrial energy efficiency programs, via telephone calls or e-mail messages. Secondary data was gathered from publicly available reports and other publications specific to certain utilities, states, or programs.

This report relies substantially on two specific sources of secondary data. For data on industrial energy efficiency spending by electric utilities, the EIA's data file for form EIA-861 for the 2010 calendar year provided enough data to derive industrial energy efficiency spending amounts or estimates for all reporting utilities in the United States (EIA 2011). For data on spending by state programs on industrial energy efficiency and the impact of ARRA stimulus funds, a 2012 report published by the National Association of State Energy Officials (NASEO) profiling industrial energy

efficiency programs administered by state energy offices was very valuable for state-level data (NASEO 2012). Additional details of the report's methodology can be found in Appendix B.

The target sector was "industrial," though there appears to be no consistent definition for "industry" used by programs. If a program is specifically targeted at industrial facilities, it is likely that its definition of industrial will vary from that of another program in another state or region. The NASEO and EIA data do not clearly delineate the category "industrial," as such a distinction is typically defined at the program level, or by the entity administering the program (EIA 2012a). The U.S. Census Bureau uses the North American Industrial Classification System (NAICS) to define "industry" and includes agriculture, mining, construction, utilities, and manufacturing. Some state-run programs use NIACS or Standard Industrial Classification (SIC) codes, but have a more narrow definition. Meanwhile, some utilities define a customer as "industrial" if they are engaged in manufacturing with raw materials or if they consume a certain amount of energy within a given time period. While manufacturing is a constant across all program definitions, there is much more variability in whether the programs target sub-sectors such as water treatment and distribution, warehouses, and data centers. Because manufacturing consists of the bulk of both industrial energy use and "industrial" program spending, this report accepts the definition of "industrial" used by the program in question.

Spending amounts reflect actual or estimated annual spending on grants, rebates, incentives, technical assistance, and plant audits. Where possible, these spending amounts include relevant direct administrative costs as well as other minor indirect costs that could, for some programs, be attributed directly to industrial energy efficiency projects. For loan programs, the spending amounts reflect exact or estimated annual loan disbursements and related administrative costs, though the loan program itself may be much larger, with disbursements of the full loan pool spread out over the course of several years. Spending amounts also reflect actual or estimated spending on *industrial* projects and programs only. Every effort was made to separate spending on commercial sector and public sector energy efficiency programs and projects from those in the industrial sector.

Programs run by the federal government, state governments, and other entities reported spending numbers that predominately reflected both natural gas and electric efficiency programs. However, while electric utilities' energy efficiency programs are fully represented in this data, many if not most of those administered by natural gas utilities are not. Though many natural gas utilities offer energy efficiency programming, most are not regulated in the same manner as electric utilities and thus report far less data on energy efficiency spending than electric utilities. Spending data for natural gas utilities' energy efficiency programming in 2010 was not available for this report, though 2009 spending on commercial and industrial natural gas efficiency programs by utilities was over $170 million according to the American Gas Association. This data is not included in this report's overall findings because a disaggregation between commercial and industrial spending was not available (AGA 2010).

The dearth of industrial energy efficiency program data is well known to the energy efficiency community. A single program often addresses both commercial and industrial energy efficiency projects. Data is then kept for the program as a whole, so data specific to uniquely industrial projects within such blended programs is difficult to obtain. Many programs do not collect identifying information that would allow classification of a business as either industrial or not industrial. In such cases, program administrators were asked to estimate the percentage of funding that supported industrial projects versus those in other sectors, and those percentages were applied to the program's overall spending across all sectors.

Findings

SPENDING

During 2010, we estimate approximately $1.1 billion was spent on industrial energy efficiency programs. Table 2 shows the types of programs administering industrial energy efficiency offerings and their 2010 spending estimates.

Table 2: Breakdown of Industrial Energy Efficiency Programs and Spending by Type, 2010

Type of Program	2010 Estimated Total Spending, U.S.-Wide	Percentage of Total
Utilities and Public Benefit Fund Organizations	$737,000,000	84%
State Agencies and Public Universities	$74,000,000	8%
Nonprofit Organizations and Other Group	$39,000,000	4%
Federal National and Local Deployment	$29,000,000	3%
Total, non-ARRA	**$879,000,000**	
2010 ARRA Spending	$228,000,000 additional	
Total, including ARRA	**$1,107,000,000**	

Sources: Data collected from sources as listed in Appendix B.
Notes: First four categories do not include any ARRA funding. All spending amounts are estimates and have been rounded.

Despite the significant impact of ARRA funds in 2010, the industrial energy efficiency programs run by utilities and public benefit organizations were the overwhelming spenders among all industrial energy efficiency programs. Nationwide these kinds of programs spent more than all other types of industrial energy efficiency programs combined.

ARRA funds disbursed through federal, state, and regional programming contributed an estimated $228 million to the nation's industrial energy efficiency offerings. Though a few ARRA-funded programs specifically targeted just the industrial sector, ARRA funds were most frequently disbursed through programs targeting the industrial and commercial sector concurrently. The influx of ARRA funds was very important to a number of organizations in 2010, particularly state energy offices that

used them to greatly enhance their energy efficiency program offerings to all sectors. While future years will see a decrease in overall ARRA spending, many state agencies will continue to run industrial energy efficiency programs with original funding from ARRA as well as new or continued funding from state operating budgets. Separating ARRA funding that went to state programs from those that came out of state coffers, we found that state agencies still spent about $74 million of their own funds on industrial energy efficiency, which could persist in future years.

Certain states stood out for their very high levels of industrial energy efficiency program spending. As seen in Table 3, New York was the biggest spender on industrial energy efficiency programs, spending nearly $193 million in 2010—about $50 million more than California, which came in second place in overall non-ARRA spending. At the top of the scale, a total of six states spent more than $40 million on industrial energy efficiency programs while at the bottom of the scale, nine states spent less than $1 million. See Appendix A for a full list of spending per state and Appendix B for a detailed listing of the types of programs administered in each state. Table 3 shows the absolute total amounts spent on industrial energy efficiency programs in each state, not including ARRA funds.

While absolute spending is a good indicator of the level of industrial energy efficiency program activity in a state, states have vastly different levels of industrial activity. A state with a higher degree of industrial activity would likely benefit from greater deployment of industrial energy efficiency programs, since so many more efficiency opportunities could be found. By comparing total industrial energy efficiency program spending to a measure of the size of a state's industrial activity, we can derive a metric that is more comparable between states and represents the amount of program resources targeted at the industrial sector per amount of industrial activity. We selected total industrial energy consumption as a proxy for state industrial activity. Using industrial economic activity instead would not have accounted for the fact that certain industries in certain areas of the country are far more energy-intensive than others. Figure 1 displays the spending on industrial energy efficiency programs in each state per total energy consumption of that state's industrial sector, on an absolute British thermal unit (BTU) basis. Appendix A lists each state and its per BTU spending in detail.

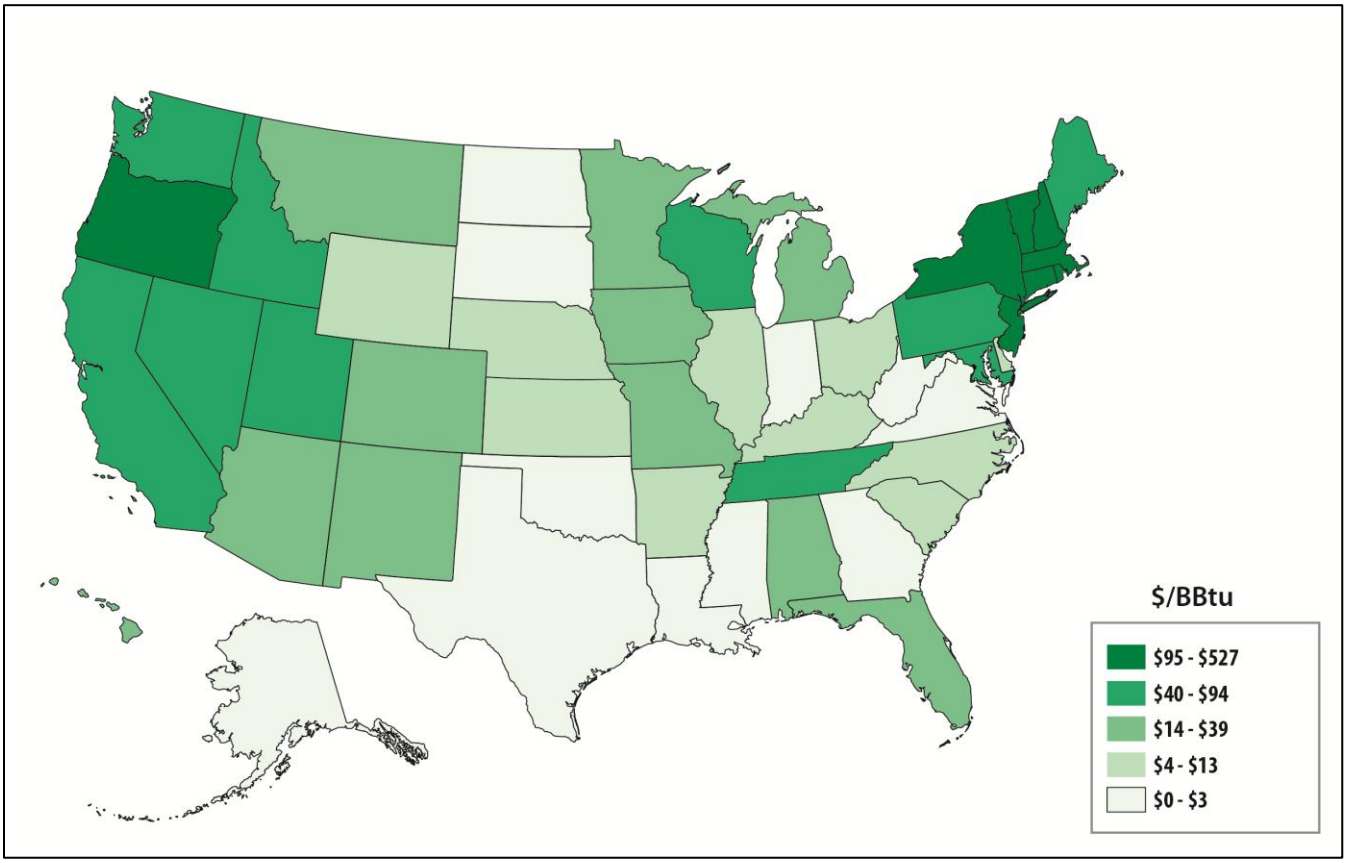
Table 3. Estimated Total Industrial Energy Efficiency Program Spending per State, 2010

Rank	State	2010 Total Spending	Rank	State	2010 Total Spending
1	New York	$192,940,000	27	Missouri	$7,560,000
2	California	$142,550,000	28	Maryland	$6,900,000
3	Pennsylvania	$64,810,000	29	Illinois	$4,880,000
4	Washington	$49,270,000	30	North Carolina	$4,360,000
5	Massachusetts	$41,020,000	31	New Mexico	$3,870,000
6	Oregon	$40,830,000	32	Montana	$3,780,000
7	Tennessee	$33,440,000	33	Nebraska	$3,260,000
8	New Jersey	$27,870,000	34	Vermont	$2,750,000
9	Wisconsin	$23,630,000	35	Kansas	$2,620,000
10	Arizona	$21,300,000	36	South Carolina	$2,110,000
11	Minnesota	$20,920,000	37	District of Columbia	$1,900,000
12	Idaho	$15,660,000	38	Arkansas	$1,790,000
13	Iowa	$15,510,000	39	Indiana	$1,780,000
14	Colorado	$13,270,000	40	Georgia	$1,750,000
15	Ohio	$12,580,000	41	Wyoming	$1,250,000
16	Alabama	$12,020,000	42	Mississippi	$1,030,000
17	Michigan	$11,250,000	43	Hawaii	$900,000
18	Rhode Island	$9,450,000	44	Virginia	$850,000
19	Nevada	$9,070,000	45	West Virginia	$760,000
20	Florida	$9,010,000	46	Delaware	$640,000
21	Connecticut	$8,510,000	47	Oklahoma	$610,000
22	Texas	$8,480,000	48	Louisiana	$460,000
23	Maine	$8,110,000	49	Alaska	$400,000
24	Utah	$8,000,000	50	North Dakota	$220,000
25	Kentucky	$7,830,000	51	South Dakota	$160,000
26	New Hampshire	$7,660,000			
Total					**$871,580,000**

Source: Data collected from sources as listed in Appendix B

Notes: These totals do not include any ARRA spending and do not include an estimated $8 million in non-ARRA spending on the national level that could not be disaggregated by state. All spending amounts are estimates and have been rounded.

Figure 1. Total Industrial Energy Efficiency Program Spending per Total Industrial Energy Consumption (BBtu), per State



Source: EIA 2012b, data collected from sources as listed in Appendix B
Notes: These figures do not take into account ARRA spending. Industrial energy consumption data is from 2009, the most recent year available disaggregated by state.

It is noteworthy that many of the country's most heavily industrial states rank quite low when their spending is compared to in-state industrial activity. This perhaps points to a need to better target additional industrial energy efficiency program spending in certain industrially-intensive areas.

Who Funds and Administers These Programs?

A variety of entities fund and administer industrial energy efficiency programs across the country. Following are the major categories of program administrators.

Utilities and Public Benefit Organizations

Utilities have long sought to capture energy efficiency savings in their industrial sectors for the overall cost benefits to industrial facilities and society as a whole. Utilities have done this in part because regulators have required them to fund energy efficiency programs and to seek out the most cost-effective projects and programs when doing so. In states where policymakers have decided to prioritize energy efficiency, ratepayers pay a small percentage fee or charge on their bills to fund energy efficiency programs or utilities recover the cost of efficiency programs through their rates.

Those collected funds are then used either by the utilities themselves or other public benefit organizations to fund energy efficiency, including programs in the industrial sector.

A typical example of these kinds of industrial energy efficiency programs can be found at Pacific Gas and Electric (PG&E), which offers energy efficiency programming to its industrial customers in California. PG&E uses the collected funds paid by all of its ratepayers to offer incentives for custom projects, rebates for a variety of technologies and other services including on-site audits to its industrial customers. Similarly, the Wisconsin Focus on Energy program uses the collected funds to provide incentives, technical assistance, rebates, and other services to its industrial sector.

State Governments

State energy offices, economic development entities, and environmental departments have historically viewed industrial energy efficiency as a pragmatic way to stimulate economic growth and strengthen the industrial sector while reducing environmental burdens. Funds for state-level programs typically come from state tax dollars but can be augmented by environmental settlement funds or federal funds. For example, through the University of Louisville, Kentucky's Pollution Prevention Center offers technical assistance to industrial facilities interested in pursuing energy and water efficiency improvements. The Center is funded by both federal and state-level resources, relying heavily on funding from the state's environmental protection department for general support.

The Washington State University Energy Extension Program provides engineering services, trainings, plant assessments, and other services to Washington industrial facilities. The program is self-funding, acting much like a traditional consulting entity, but is hosted within the university. State offerings such as the Extension Program were substantially impacted by federal ARRA money, as discussed below.

Nonprofit Organizations

A number of other organizations support industrial energy efficiency programming for its environmental and economic benefits. The Southwest Energy Efficiency Project (SWEEP) supports two industrial energy efficiency programs in Colorado and Utah that offer technical assistance, recognition events, and training opportunities for industrial facilities in those states. The Illinois-based Gas Technology Institute funds energy efficiency deployment activities around the country to encourage greater natural gas efficiency. Though in the aggregate these nonprofit organizations do not spend a significant amount of money on industrial energy efficiency compared to the entities above, they often serve geographic areas or niches of the industrial economy that would otherwise not benefit from any industrial energy efficiency programming.

The Federal Government

Primarily through the Department of Energy (DOE)'s industrial-focused efforts, the federal government has historically supported industrial energy efficiency investments in the field. For example, Industrial Assessment Centers, which provide free energy assessments for manufacturing facilities, conducted assessments in almost every state in 2010. Clean Energy Application Centers

(CEAC, formerly the CHP Regional Application Centers), promote combined heat and power (CHP) and waste heat recovery and provide technical assistance to entities considering such technologies. These eight Centers have a broad regional reach and have been critical partners in a number of industrial energy efficiency projects throughout the years.

The DOE also funds technical assistance and audit services administered through universities and regional collaborations, such as the Minnesota Technical Assistance Program at the University of Minnesota, which also receives state-level funds. The Environmental Protection Agency (EPA) funds pollution prevention activities that in many cases are used for energy efficiency services in the industrial sector. Finally, though not captured in this research, the DOE also plays a very significant role in industrial energy efficiency research and development activities as well as in the development of training materials.

THE IMPACT OF ARRA SPENDING

In 2009, many of these industrial energy efficiency programs received a substantial boost when ARRA appropriated hundreds of millions of dollars to states around the country to implement energy efficiency projects in the industrial, commercial, and public sectors. Many programs that had already been offering financial or technical assistance to industrial energy efficiency programs suddenly saw their budgets rise considerably in 2009 and 2010. State energy offices in particular were conduits through which substantial amounts of funding for industrial energy efficiency were channeled (NASEO 2012).

The federal stimulus funds augmented programs that already existed but also funded a number of brand new industrial energy efficiency programs. State energy offices established grant and loan programs specifically targeting industrial energy efficiency investments. For example, the *AlabamaSAVES* program, sponsored by the state's Department of Economic Development, was developed specifically to disburse ARRA funds. The program uses ARRA funds to provide "credit enhancements" to financing packages for industrial companies, allowing them to borrow money at 2% to fund energy efficiency investments. *AlabamaSAVES* is designed as a revolving loan program, allowing it to leverage substantial additional private dollars and persist well beyond the typical ARRA program lifetime.

Some states used ARRA funds to issue direct grants to industrial companies, which burned through ARRA funds faster than loan programs, in general. However, the overall goal of the federal stimulus funds was to move money into the market, and ARRA grant programs did that immediately. Other states used the ARRA funds to establish or enhance revolving loan funds, such as the Florida Opportunity Fund, which offers loans to encourage businesses to adopt new energy efficiency and renewable energy technologies. Loan programs generally have more persistence than grant programs since loan programs can be self-funding in perpetuity.

ARRA funds appeared to stimulate industrial energy efficiency savings in many areas where there had not previously been strong industrial energy efficiency programming. However, this increase in

number of programs and projects will likely be a one-time anomaly in some areas as programs spend out their ARRA funding and close out their operations.

Discussion and Conclusions

Over $879 million was spent on industrial energy efficiency programs in the U.S. in 2010 by federal entities, state governments, utilities, public benefit organizations, and nonprofit entities. An additional $228 million in federal ARRA funds was directed in 2010 toward programs designed specifically to encourage industrial energy efficiency. Many different organizations administer industrial energy efficiency programs, but spending on such programs is overwhelmingly done by utilities and other entities using ratepayer funds. State programs and some programs run by nonprofit entities continue to target industrial energy efficiency opportunities in geographic areas underserved by other energy efficiency programming. While this is a relatively small amount of funding, it is important in these areas.

As noted earlier, a state government itself is not wholly responsible for the scale and scope of industrial energy efficiency programs run within its borders. However, states that rank particularly high in their spending are often those that have policies in place that encourage or require industrial energy efficiency programming. The substantial differences in both absolute spending as well as spending per measure of industrial energy consumption indicate that factors beyond basic economics are contributing to the amount invested by each state's industrial energy efficiency programs. That spending does not appear to be concentrated in areas heavily dependent on industrial economic activity may indicate that there are substantial additional industrial efficiency program opportunities in certain states.

A significant aspect of these programs, and one not addressed by this research, is the vast amount of private dollars leveraged by existing industrial energy efficiency programs. ARRA-funded programs and some programs run by utilities and public benefit organizations have done some preliminary analysis of the amount of private dollars leveraged by their programs. For instance, a program run by the New York State Energy Research and Development Authority (NYSERDA) designed to support the demonstration of CHP systems and energy efficiency equipment in the industrial sector leveraged an additional $3.5 million in private funds with about $2.7 million in NYSERDA program dollars (Levy 2012). In Oregon, the Business Energy Tax Credit program provided over $6.5 million in tax credits to industrial customers for energy conservation investments totaling over $18.7 million (Stipe 2012).

Energy efficiency, and industrial energy efficiency in particular, is a rare bipartisan issue. In a time when energy policy discussions are increasingly stymied by a lack of consensus among legislators around the country, industrial energy efficiency enjoys significant popularity among policymakers who recognize both its economic and environmental benefits. In the past two years, the federal government has requested significantly more money for its industrial energy efficiency programming than in previous years, and budgets for the federal government's major industrial energy efficiency programs have risen consistently for the past five years (Trombley 2011, 2012).

All signs point to a continued increase in industrial energy efficiency program spending at the state level as well. While the ARRA funds made a significant short-term impact on the overall amount of spending, utilities and other public benefit fund programs are still the primary entities administering industrial energy efficiency programs. Though ARRA funds will largely dry up in the coming years, increased spending by other programs will likely dampen any impact of a short-term reduction in overall industrial energy efficiency spending. Utilities and public benefit fund programs have increased their industrial program budgets and scopes in recent years. This trend applies beyond the industrial sector, as total energy efficiency program spending by utilities and public benefit organizations has steadily increased over the years.[1] As more states prepare to meet rising targets for energy efficiency, it appears utility and public benefit programs will continue to seek substantial savings from their industrial sectors, benefitting customers in all sectors of the economy.

[1] See CEE (2011) for additional information about total energy efficiency program spending by utilities and public benefit organizations.

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Appendix A: State Industrial Energy Efficiency Program Spending

Table A-1: Estimated Total Industrial Energy Efficiency Program Spending, Spending per Capita, and Spending per Total Industrial Energy Consumption, by State

Rank	State	Total State Spending	Percent of U.S. Total	2010 Spending per Capita	2009 Industrial Energy Consumption, BBTU	Program Spending: $/BBTU
1	**New York**	$192,940,000	22%	$9.96	366,004	$527
2	**California**	$142,550,000	16%	$3.83	1,769,997	$81
3	**Pennsylvania**	$64,810,000	7%	$5.10	1,071,772	$60
4	**Washington**	$49,270,000	6%	$7.33	529,222	$93
5	**Massachusetts**	$41,020,000	5%	$6.26	243,058	$169
6	**Oregon**	$40,830,000	5%	$10.66	252,067	$162
7	**Tennessee**	$33,440,000	4%	$5.27	666,512	$50
8	**New Jersey**	$27,870,000	3%	$3.17	291,581	$96
9	**Wisconsin**	$23,630,000	3%	$4.15	548,413	$43
10	**Arizona**	$21,300,000	2%	$3.33	207,760	$102
11	**Minnesota**	$20,920,000	2%	$3.94	576,723	$36
12	**Idaho**	$15,660,000	2%	$9.99	169,853	$92
13	**Iowa**	$15,510,000	2%	$5.09	682,536	$23
14	**Colorado**	$13,270,000	2%	$2.64	409,873	$32
15	**Ohio**	$12,580,000	1%	$1.09	1,124,392	$11
16	**Alabama**	$12,020,000	1%	$2.51	788,524	$15
17	**Michigan**	$11,250,000	1%	$1.14	611,811	$18
18	**Rhode Island**	$9,450,000	1%	$8.98	29,615	$319
19	**Nevada**	$9,070,000	1%	$3.36	191,129	$47
20	**Florida**	$9,010,000	1%	$0.48	486,591	$19
21	**Connecticut**	$8,510,000	1%	$2.38	83,628	$102
22	**Texas**	$8,480,000	1%	$0.34	5,502,161	$2
23	**Maine**	$8,110,000	1%	$6.10	139,687	$58
24	**Utah**	$8,000,000	1%	$2.89	201,518	$40
25	**Kentucky**	$7,830,000	1%	$1.80	811,058	$10
26	**New Hampshire**	$7,660,000	1%	$5.81	39,362	$194
27	**Missouri**	$7,560,000	1%	$1.26	348,075	$22
28	**Maryland**	$6,900,000	1%	$1.19	155,332	$44
29	**Illinois**	$4,880,000	1%	$0.38	1,108,038	$4
30	**North Carolina**	$4,360,000	0%	$0.46	546,716	$8
31	**New Mexico**	$3,870,000	0%	$1.88	227,361	$17
32	**Montana**	$3,780,000	0%	$3.82	140,003	$27
33	**Nebraska**	$3,260,000	0%	$1.78	300,991	$11

Rank	State	Total State Spending	Percent of U.S. Total	2010 Spending per Capita	2009 Industrial Energy Consumption, BBTU	Program Spending: $/BBTU
34	**Vermont**	$2,750,000	0%	$4.39	24,449	$112
35	**Kansas**	$2,620,000	0%	$0.92	386,021	$7
36	**South Carolina**	$2,110,000	0%	$0.45	515,989	$4
37	**District of Columbia**	$1,900,000	0%	$3.15	3,885	$488
38	**Arkansas**	$1,790,000	0%	$0.61	372,526	$5
39	**Indiana**	$1,780,000	0%	$0.27	1,150,053	$2
40	**Georgia**	$1,750,000	0%	$0.18	719,962	$2
41	**Wyoming**	$1,250,000	0%	$2.22	290,166	$4
42	**Mississippi**	$1,030,000	0%	$0.35	388,864	$3
43	**Hawaii**	$900,000	0%	$0.66	63,301	$14
44	**Virginia**	$850,000	0%	$0.11	440,018	$2
45	**West Virginia**	$760,000	0%	$0.41	274,027	$3
46	**Delaware**	$640,000	0%	$0.71	60,296	$11
47	**Oklahoma**	$610,000	0%	$0.16	518,626	$1
48	**Louisiana**	$460,000	0%	$0.10	2,079,171	$0
49	**Alaska**	$400,000	0%	$0.56	325,355	$1
50	**North Dakota**	$220,000	0%	$0.32	210,133	$1
51	**South Dakota**	$160,000	0%	$0.20	138,644	$1
	TOTAL	**$871,580,000**				

Sources: EIA 2012b, Data collected from sources as listed in Appendix B

Notes: This spending does not include any ARRA funding. All spending amounts are estimates and have been rounded. Energy consumption data is from 2009, the most recent year from which we could derive disaggregated data by state.

Appendix B: State Summary Table

Table B reflects the total amount of industrial energy efficiency program spending for each state, including ARRA funding. Spending is further broken down by program type.

- *Federal* expenses include: spending directly administered by a federal agency, federal "matching" dollars for programs at universities, and federal programs run at a national level.
- *State* spending includes programs run by state agencies using state budgets and programs run at other organizations using predominately state money.
- *Nonprofit/ Other* spending includes spending on programs by not-for-profit organizations, trade associations, and other organizations that did not fit into any of the other categories.
- *Utilities/Public Benefit Funds* spending includes any spending by investor-owned utilities, publicly owned utilities, and programs funded by public benefit funds or other funds collected from ratepayers to pay for energy efficiency programming.
- *ARRA* spending is any spending at the federal or state level that directly uses funds appropriated by the *American Recovery and Reinvestment Act of 2009*. Much of this spending was done on the state level, and ARRA funds spent at the state level are in this category rather than the "State" category.

Table B-1: Estimated Amount of Industrial Energy Efficiency Program Spending by Type of Program, by State, 2010

State	Federal	State	Nonprofit/ Other	Utilities / Public Benefit Funds	ARRA	TOTAL, Including ARRA
Alabama	$309,000	$11,667,000	$0	$41,000	$8,450,000	$20,467,000

State	Federal	State	Nonprofit/ Other	Utilities / Public Benefit Funds	ARRA	TOTAL, Including ARRA
Alaska	$0	$320,000	$0	$76,000	$0	$396,000

State	Federal	State	Nonprofit/ Other	Utilities / Public Benefit Funds	ARRA	TOTAL, Including ARRA
Arizona	$25,000	$0	$10,000	$21,259,000	$912,000	$22,206,000

State	Federal	State	Nonprofit/ Other	Utilities / Public Benefit Funds	ARRA	TOTAL, Including ARRA
Arkansas	$107,000	$0	$0	$1,682,000	$4,269,000	$6,058,000

State	Federal	State	Nonprofit/ Other	Utilities / Public Benefit Funds	ARRA	TOTAL, Including ARRA
California	$314,000	$433,000	$0	$141,803,000	$0	$142,550,000

State	Federal	State	Nonprofit/ Other	Utilities / Public Benefit Funds	ARRA	TOTAL, Including ARRA
Colorado	$307,000	$750,000	$10,000	$12,197,000	$3,667,000	$16,931,000

State	Federal	State	Nonprofit/ Other	Utilities / Public Benefit Funds	ARRA	TOTAL, Including ARRA
Connecticut	$29,000	$0	$0	$8,472,000	$0	$8,501,000

State	Federal	State	Nonprofit/ Other	Utilities / Public Benefit Funds	ARRA	TOTAL, Including ARRA
Delaware	$87,000	$0	$0	$547,000	$0	$634,000

State	Federal	State	Nonprofit/ Other	Utilities / Public Benefit Funds	ARRA	TOTAL, Including ARRA
District of Columbia	$0	$0	$0	$1,896,000	$0	$1,896,000

State	Federal	State	Nonprofit/ Other	Utilities / Public Benefit Funds	ARRA	TOTAL, Including ARRA
Florida	$194,000	$0	$0	$8,811,000	$12,030,000	$21,035,000

State	Federal	State	Nonprofit/ Other	Utilities / Public Benefit Funds	ARRA	TOTAL, Including ARRA
Georgia	$307,000	$75,000	$120,000	$1,243,000	$967,000	$2,712,000

State	Federal	State	Nonprofit/ Other	Utilities / Public Benefit Funds	ARRA	TOTAL, Including ARRA
Hawaii	$0	$0	$0	$896,000	$0	$896,000

State	Federal	State	Nonprofit/ Other	Utilities / Public Benefit Funds	ARRA	TOTAL, Including ARRA
Idaho	$254,000	$0	$1,400,000	$13,999,000	$117,000	$15,770,000

State	Federal	State	Nonprofit/ Other	Utilities / Public Benefit Funds	ARRA	TOTAL, Including ARRA
Illinois	$481,000	$0	$0	$4,397,000	$4,833,000	$9,711,000

State	Federal	State	Nonprofit/ Other	Utilities / Public Benefit Funds	ARRA	TOTAL, Including ARRA
Indiana	$286,000	$143,000	$0	$1,344,000	$0	$1,773,000

State	Federal	State	Nonprofit/ Other	Utilities / Public Benefit Funds	ARRA	TOTAL, Including ARRA
Iowa	$58,000	$0	$0	$15,442,000	$500,000	$16,000,000

State	Federal	State	Nonprofit/ Other	Utilities / Public Benefit Funds	ARRA	TOTAL, Including ARRA
Kansas	$68,000	$0	$0	$2,545,000	$0	$2,613,000

State	Federal	State	Nonprofit/ Other	Utilities / Public Benefit Funds	ARRA	TOTAL, Including ARRA
Kentucky	$29,000	$0	$1,231,000	$6,565,000	$1,467,000	$9,292,000

State	Federal	State	Nonprofit/ Other	Utilities / Public Benefit Funds	ARRA	TOTAL, Including ARRA
Louisiana	$144,000	$293,000	$0	$16,000	$115,000	$568,000

State	Federal	State	Nonprofit/ Other	Utilities / Public Benefit Funds	ARRA	TOTAL, Including ARRA
Maine	$0	$0	$0	$8,105,000	$0	$8,105,000

State	Federal	State	Nonprofit/ Other	Utilities / Public Benefit Funds	ARRA	TOTAL, Including ARRA
Maryland	$750,000	$0	$0	$6,144,000	$117,000	$7,011,000

State	Federal	State	Nonprofit/ Other	Utilities / Public Benefit Funds	ARRA	TOTAL, Including ARRA
Massachusetts	$278,000	$3,915,000	$0	$36,818,000	$167,000	$41,178,000

State	Federal	State	Nonprofit/ Other	Utilities / Public Benefit Funds	ARRA	TOTAL, Including ARRA
Michigan	$371,000	$195,000	$0	$10,683,000	$17,377,000	$28,626,000

State	Federal	State	Nonprofit/ Other	Utilities / Public Benefit Funds	ARRA	TOTAL, Including ARRA
Minnesota	$96,000	$2,547,000	$0	$18,269,000	$4,483,000	$25,395,000

State	Federal	State	Nonprofit/ Other	Utilities / Public Benefit Funds	ARRA	TOTAL, Including ARRA
Mississippi	$331,000	$295,000	$0	$401,000	$117,000	$1,144,000

State	Federal	State	Nonprofit/ Other	Utilities / Public Benefit Funds	ARRA	TOTAL, Including ARRA
Missouri	$117,000	$0	$0	$7,443,000	$2,100,000	$9,660,000

State	Federal	State	Nonprofit/ Other	Utilities / Public Benefit Funds	ARRA	TOTAL, Including ARRA
Montana	$100,000	$40,000	$610,000	$3,028,000	$33,000	$3,811,000

State	Federal	State	Nonprofit/ Other	Utilities / Public Benefit Funds	ARRA	TOTAL, Including ARRA
Nebraska	$19,000	$307,000	$0	$2,927,000	$3,667,000	$6,920,000

State	Federal	State	Nonprofit/ Other	Utilities / Public Benefit Funds	ARRA	TOTAL, Including ARRA
Nevada	$0	$0	$10,000	$9,058,000	$0	$9,068,000

State	Federal	State	Nonprofit/ Other	Utilities / Public Benefit Funds	ARRA	TOTAL, Including ARRA
New Hampshire	$0	$172,000	$0	$7,479,000	$250,000	$7,901,000

State	Federal	State	Nonprofit/ Other	Utilities / Public Benefit Funds	ARRA	TOTAL, Including ARRA
New Jersey	$39,000	$0	$0	$27,829,000	$6,117,000	$33,985,000

State	Federal	State	Nonprofit/ Other	Utilities / Public Benefit Funds	ARRA	TOTAL, Including ARRA
New Mexico	$29,000	$0	$10,000	$3,825,000	$0	$3,864,000

State	Federal	State	Nonprofit/ Other	Utilities / Public Benefit Funds	ARRA	TOTAL, Including ARRA
New York	$407,000	$0	$0	$192,529,000	$0	$192,936,000

State	Federal	State	Nonprofit/ Other	Utilities / Public Benefit Funds	ARRA	TOTAL, Including ARRA
North Carolina	$87,000	$0	$0	$4,263,000	$3,049,000	$7,399,000

State	Federal	State	Nonprofit/ Other	Utilities / Public Benefit Funds	ARRA	TOTAL, Including ARRA
North Dakota	$0	$0	$0	$214,000	$0	$214,000

State	Federal	State	Nonprofit/ Other	Utilities / Public Benefit Funds	ARRA	TOTAL, Including ARRA
Ohio	$2,010,000	$1,947,000	$0	$8,614,000	$6,850,000	$19,421,000

State	Federal	State	Nonprofit/ Other	Utilities / Public Benefit Funds	ARRA	TOTAL, Including ARRA
Oklahoma	$107,000	$0	$0	$494,000	$0	$601,000

State	Federal	State	Nonprofit/ Other	Utilities / Public Benefit Funds	ARRA	TOTAL, Including ARRA
Oregon	$107,000	$6,549,000	$1,000,000	$33,165,000	$0	$40,821,000

State	Federal	State	Nonprofit/ Other	Utilities / Public Benefit Funds	ARRA	TOTAL, Including ARRA
Pennsylvania	$309,000	$41,250,000	$12,000,000	$11,249,000	$4,117,000	$68,925,000

State	Federal	State	Nonprofit/ Other	Utilities / Public Benefit Funds	ARRA	TOTAL, Including ARRA
Rhode Island	$0	$0	$0	$9,449,000	$0	$9,449,000

State	Federal	State	Nonprofit/ Other	Utilities / Public Benefit Funds	ARRA	TOTAL, Including ARRA
South Carolina	$255,000	$141,000	$0	$1,705,000	$705,000	$2,806,000

State	Federal	State	Nonprofit/ Other	Utilities / Public Benefit Funds	ARRA	TOTAL, Including ARRA
South Dakota	$10,000	$0	$0	$149,000	$0	$159,000

State	Federal	State	Nonprofit/ Other	Utilities / Public Benefit Funds	ARRA	TOTAL, Including ARRA
Tennessee	$15,097,000	$0	$17,500,000	$837,000	$0	$33,434,000

State	Federal	State	Nonprofit/ Other	Utilities / Public Benefit Funds	ARRA	TOTAL, Including ARRA
Texas	$513,000	$181,000	$300,000	$7,476,000	$0	$8,470,000

State	Federal	State	Nonprofit/ Other	Utilities / Public Benefit Funds	ARRA	TOTAL, Including ARRA
Utah	$0	$0	$10,000	$7,984,000	$100,000	$8,094,000

State	Federal	State	Nonprofit/ Other	Utilities / Public Benefit Funds	ARRA	TOTAL, Including ARRA
Vermont	$10,000	$0	$0	$2,735,000	$0	$2,745,000

State	Federal	State	Nonprofit/ Other	Utilities / Public Benefit Funds	ARRA	TOTAL, Including ARRA
Virginia	$312,000	$15,000	$0	$520,000	$0	$847,000

State	Federal	State	Nonprofit/ Other	Utilities / Public Benefit Funds	ARRA	TOTAL, Including ARRA
Washington	$544,000	$2,125,000	$1,000,000	$45,594,000	$4,288,000	$53,551,000

State	Federal	State	Nonprofit/ Other	Utilities / Public Benefit Funds	ARRA	TOTAL, Including ARRA
West Virginia	$434,000	$322,000	$0	$3,000	$167,000	$926,000

State	Federal	State	Nonprofit/ Other	Utilities / Public Benefit Funds	ARRA	TOTAL, Including ARRA
Wisconsin	$76,000	$284,000	$0	$23,262,000	$18,017,000	$41,639,000

State	Federal	State	Nonprofit/ Other	Utilities / Public Benefit Funds	ARRA	TOTAL, Including ARRA
Wyoming	$0	$0	$10,000	$1,240,000	$0	$1,250,000

Sources: Chen 2012, Crabtree 2012, Dutrow 2012, Glatt and Shields 2010, Glatt 2012, Edelstein 2012, EIA 2011, ETO 2011, Fangman 2012, Ferland 2012, Kansfield 2012, Kliemisch 2012, Kolwey 2012a and 2012b, Levy 2012, Love 2012, Lin 2012, Malmgren 2012, Marsh 2012, MassDOER 2012, Mauney 2012, Meisenhelder 2012, Moushegian 2012, MPSC 2011, NASEO 2012, O'Neill 2012, Platt 2012, SCG 2011, SDGE 2011, SEU 2010, Sheil 2012, Simmonds 2012, Stevens 2012, Stipe 2012, Takanishi 2012, Usibelli 2012, Wallner 2012, Wolf 2012, Wood 2012, WSU 2011.

Notes: All spending amounts are estimates and have been rounded.

Appendix C: Methodological Details

The goal of this research was to capture the amount of money spent by industrial energy efficiency programs. Therefore, assumptions about actual spending were made when actual spending amounts were not available. While budgeted funds were more easily obtainable, it is clear that actual spending is often very different from (and often much smaller than) initial program budgets. Tracking the amount of money that actually entered the market (both directly through incentives and indirectly through services such as energy assessments) allows us to make correlations between future reported energy savings and current program spending. Below are some details of how spending amounts were derived for specific types of programs.

General Time Period Assumptions

For a number of programs, particularly those funded with federal funds, spending amounts were often reported in multi-year installments. Assumptions were made for all programs like this, and estimated annual amounts were developed. If, for instance, a program spent $900,000 within a 3-year period, we attributed only $300,000 to 2010-year spending. If no specific time period was known, we only attributed anywhere from 25% to 50% of the known spending to the 2010 year. In this way many of the estimates of program spending can be viewed as conservative. The choice of drilling down to a single year was made due to the fact that a desire to track this spending from year to year was expressed by the industrial energy efficiency community.

While 2010 was the established base year, the actual time periods ranged from July 2009 to June of 2011. This is because some organizations operate on fiscal years that start and end in months other than January and December. We generally sought data from the time period most closely aligned with the 2010 calendar year and, as described in the next section, made annual estimates of spending when only multi-year data was available. The U.S. federal fiscal year ran October 2009 – September 2010, and most federal program spending reported here reflects fiscal year 2010. As the goal was to establish an annual spending amount in order to compare spending between years, every spending amount for a time period greater or less than one year was prorated to derive an estimated annual spending amount.

DOE Industrial Assessment Centers (IACs)

In fiscal year 2010, the DOE-funded Industrial Assessment Centers (IACs) conducted nearly 400 assessments program-wide. To develop an estimate of how spending on assessments was experienced in each state, we first developed an approximation of an average assessment cost. We divided the federal spending on all IACs by the number of assessments completed in a year, and derived an average amount spent per assessment. We assumed this helped fund the related student and staff time and other administrative costs. Then, rather than attribute a single IAC's annual spending amount to the state in which the center is located, we attributed spending to the states in which assessments were actually conducted. Using the IAC's own assessment database, we totaled the number of IAC assessments made in each state and used that number to make an overall state-level spending estimate.

Electric Utilities

The base assumptions made about spending by electric utilities on industrial energy efficiency efforts were largely derived from the publicly available U.S. Energy Information Administration's data from form EIA-861, the Annual Electric Power Industry Report. Most utilities reported at least a total amount of spending associated with efficiency programs for all sectors, and a much smaller number reported these amounts for individual subsectors, including industrial.

We determined industrial energy efficiency spending to be the sum of all "costs" associated with industrial energy efficiency programs and industrial energy efficiency incentive payments, as well as a prorated portion of a utility's reported indirect costs, which could include administrative, marketing, and evaluation activities. In instances where a utility did not report separate and distinct industrial energy efficiency costs, we took a two-fold approach to estimating its industrial energy efficiency spending.

First, we developed regional averages of the percentage of total energy efficiency spending done in the industrial sector by the utilities in that region. We applied those region-based percentages to any utility that only reported total energy efficiency spending to then yield a proportional estimate of industrial spending.

Second, we isolated the top 88 utilities (those with total energy efficiency spending of over $1.5 million) and further isolated the utilities within that group that did not report industrial energy efficiency spending to EIA. We contacted each of these utilities individually to request the missing data and tried where possible to use other resources, such as annual reports or reports to regulatory commissions, to fill in the missing industrial spending numbers. In many of these cases, program administrators could not deliver exact industrial spending figures, but could verify a rough estimate of the percentage of all energy efficiency spending that could be attributed to the industrial sector. We used such estimates coupled with the utility's EIA-reported total energy efficiency spending to derive industrial spending estimates and replace the estimates made using the above-mentioned regional average method.

State-Level Programs

ARRA funds were largely reported via the National Association of State Energy Officials (NASEO), as NASEO had recently conducted research and issued a report on industrial energy efficiency programs supported by state energy offices. Most of the ARRA funds directly encouraging industrial energy efficiency were funneled through the State Energy Program and thus state energy offices. NASEO reported spending totals over multi-year time periods, and so we prorated these funds over the number of years during which the program had operated in order to derive an annual spending estimate.

NASEO also reported spending levels for programs that served multiple sectors. For these programs, we researched the types of program offerings online and made estimates about whether 50%, 33%, or

25% of the spending seemed to be geared toward industrial programs. Where possible, we used statistics about the program available in annual reports or press releases issued by the program.

Other Federal Programs

The DOE funds industrial energy efficiency activities at the state level through its Save Energy Now program as well as other efforts. Spending was derived from NASEO data as well as primary data collected directly from DOE. Reported spending also typically covered a multi-year period and so spending was prorated to derive an annual estimate for 2010.

Multi-State Nonprofits

Energy efficiency-focused nonprofit organizations, such as the Northwest Energy Efficiency Alliance, administer programs that directly support and encourage industrial energy efficiency. These programs were asked to estimate the spending of their programs in each state they serve. If that was not possible, the total amount of industrial spending was added to the nationwide total but no specific amounts were attributed to a specific state.