

Summary of Ratepayer-Funded Electric Efficiency Impacts, Budgets, and Expenditures

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Summary of Ratepayer-Funded Electric Efficiency Impacts, Budgets and Expenditures (2010-2011)

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INTRODUCTION

In mid-2011 the Consortium for Energy Efficiency (CEE), in coordination with the Institute for Electric Efficiency (IEE) and the American Gas Association (AGA), collected industry-wide data on ratepayer-funded energy impacts, expenditures, and budgets for energy efficiency programs from utility and non-utility administrators in the U.S. and Canada.

This IEE report is focused on U.S. electric efficiency results based on information from 195 organizations – 172 electric and combined utilities, 10 non-utility energy efficiency (EE) administrators, and 13 organizations that declined to release their data at the organizational level. For information on Canadian electric efficiency results and/or gas utility efficiency information please reference the most recent CEE report at www.cee1.org.

MAJOR HIGHLIGHTS INCLUDE:

- U.S. ratepayer-funded electric efficiency <u>budgets</u> totaled over \$6.8 billion in 2011, a 25 percent increase from 2010 levels.
- Electric utilities are by far the largest providers of EE in the U.S., with utility budgets comprising 84 percent of the total ratepayer-funded electric efficiency budget nationwide.
- Given that state energy efficiency resource standards are established in half of all U.S. states, covering two-thirds of the nation's population, and that several of these standards have scheduled increases, IEE believes that ratepayer funded electric efficiency budgets are highly likely to exceed the Lawrence Berkeley National Laboratory's (LBNL) "high case" scenario projection of \$12 billion by 2020.
- The 2011 budgets for six states are more than double their 2010 budgets Indiana, North Dakota, South Dakota, Virginia, Washington D.C., and West Virginia. Over the next 10 years, as different states develop new and, in some cases, first time programs, we can expect many new states to become leaders in energy efficiency.
- U.S. ratepayer-funded electric efficiency <u>expenditures</u> totaled over \$4.8 billion in 2010, a 28 percent increase from 2009 levels. In 10 states, 2010 electric efficiency expenditures more than doubled from their 2009 levels.
- Overall, electric efficiency programs saved over 112 TWh in 2010, enough to power over 9.7 million U.S. homes for one year, and avoided the generation of 78 million metric tons of carbon dioxide.² Electric efficiency savings (including both traditional energy efficiency as well as load control programs) were achieved at an average cost of 4.3 cents per kWh saved in 2010. Focusing on energy efficiency only (excluding and assuming no savings from load

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¹ The Shifting Landscape of Ratepayer-Funded Energy Efficiency in the U.S. LBNL – 2258E. October 2009.

² Environmental Protection Agency Greenhouse Gas Equivalencies Calculator; http://www.epa.gov/cleanenergy/energy-resources/calculator.html

control programs), savings were achieved at an average cost of 3.5 cents per kWh saved in 2010. The actual cost is likely between 3.5 and 4.3 cents per kWh saved.

- IEE projects total electric savings from ratepayer-funded electric efficiency programs to meet or exceed 125 TWh in 2011.³
- States with regulatory frameworks that support utilities in their efforts to pursue electric
 efficiency as a sustainable business tend to be leaders in annual electric efficiency
 expenditures and budgets.

³ Note: This projection is internally derived and assumes equal or greater participation in the survey administered by CEE along with realized 2011 expenditures equal to or exceeding 2011 budgets.

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ELECTRIC EFFICIENCY BUDGETS INCREASE IN 2011

As shown in Table 1, based on the CEE/IEE database, U.S. ratepayer-funded electric efficiency budgets totaled over \$6.8 billion in 2011 – including energy efficiency (EE), demand response (DR), and evaluation, measurement, and verification (EM&V) – a 25 percent increase over the \$5.4 billion budget in 2010.^{4,5} Electric utilities are by far the largest providers of EE in the U.S., with budgets comprising 84 percent of total ratepayer-funded electric efficiency budget nationwide.

Table 1: U.S. Ratepayer-Funded Electric Efficiency Budgets (2007-2010)

| Electric Efficiency 2007-2011 U.S. Budgets | | | | | | | | |
|--|-----------------|-----------------|-----------------|---------------|----------|--|--|--|
| | | | | Utility Share | Percent | | | |
| - | Total | Utility | Non-Utility | of Total | Increase | | | |
| 2007 | \$2,722,788,884 | \$2,413,639,443 | \$309,149,441 | 89% | | | | |
| 2008 | \$3,165,329,920 | \$2,704,072,429 | \$461,257,491 | 85% | 16% | | | |
| 2009 | \$4,370,445,097 | \$3,796,110,308 | \$574,334,789 | 87% | 38% | | | |
| 2010 | \$5,433,087,642 | \$4,789,681,107 | \$643,406,535 | 88% | 24% | | | |
| 2011 | \$6,812,079,691 | \$5,750,298,200 | \$1,061,781,491 | 84% | 25% | | | |

Source: CEE

Notes: 2010 values include non-survey data provided by Arkansas Public Service Commission. CEE survey total for 2010 budget is \$5,422,548,158.

From 2007 to 2011, the average annual growth rate for electric efficiency budgets was approximately 25 percent (see Figure 1). The rapid rate of growth is indicative of the recent dramatic increase in budgets for energy efficiency as a result of new state regulatory policies supporting ratepayer-funded energy efficiency programs as well as new state energy efficiency goals and targets.⁶

Over the past 5 years, U.S. ratepayer-funded electric efficiency budgets increased from \$2.7 billion in 2007 to \$6.8 billion in 2011. A 2009 report by LBNL forecasts \$12.4 billion in ratepayer funded electric efficiency by 2020 under its "high case" scenario (see Figure 1). Given that state energy efficiency resource standards are established in half of all U.S. states, covering two-thirds of U.S. population, and that several of these standards have scheduled increases, IEE

⁴ The demand response (DR) category includes budgets for direct load control, interruptible demand, price response, and other programs. DR budgets account for 18 percent of total electric efficiency budgets in 2011.

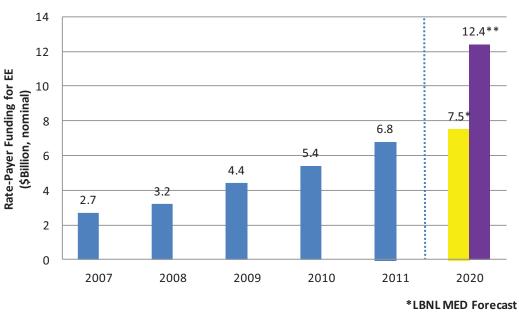
⁵ Program budgets were primarily provided in calendar year format. In some instances the program administrator was unable to provide budgets for the calendar year and program/fiscal year budgets were used.

⁶ State Electric Efficiency Regulatory Frameworks. IEE. June 2011.

believes that ratepayer funded electric efficiency budgets are highly likely to exceed \$12 billion by 2020.⁷

Figure 1: U.S. Electric Efficiency Budgets (2007-2011) and 2020 LBNL Forecast

Electric Efficiency Budgets (2007-2011 and 2020 LBNL Forecast)



**LBNL HIGH Forecas

Source: CEE (2011), LBNL (2009)

As shown in Table 2, the 2011 budgets for six states are more than double their 2010 surveyed budgets –Washington D.C., Indiana, North Dakota, South Dakota, Virginia, and West Virginia. This is due in part to state regulatory policies supporting utility energy efficiency investments. Hence, over the next 10 years, as different states develop new and, in some cases, first time programs, we can expect many new states to become leaders in energy efficiency.

Energy efficiency investments in the six states with 2010 budgets more than double their 2009 budgets will occur in areas that consume roughly 15 percent of all electricity in the U.S.⁸ In most of these states, a major source of electricity generation is coal. *The increases in electric efficiency budgets will help these states reduce their carbon footprint.*

⁷ The Shifting Landscape of Ratepayer-Funded Energy Efficiency in the U.S. LBNL – 2258E. October 2009.

⁸ Energy Information Administration, Form 861, Retail Sales of Electricity by State by Sector by Provider.

Table 2: Size of 2011 Electric Efficiency Budget Relative to 2010 Budget

| | Change in Electric Efficiency Budgets, 2011 relative to 2010 | | | | | | | | | |
|----------------|--|-------|--------|-------------|--------|---------|-------|--|--|--|
| Percent Change | <0% | 0-20% | 20-40% | 40-60% | 60-80% | 80-100% | >100% | | | |
| # of States | 11 | 8 | 8 | 5 | 2 | 5 | 6 | | | |
| States | CO | CA | AL | AZ | HI | AR | DC | | | |
| | СТ | FL | KS | MA | PA | MD | IN | | | |
| | GA | IL | MI | OK | | MS | ND | | | |
| | IA | KY | MO | RI | | NY | SD | | | |
| | ME | MN | NC | *Pacific NW | | TN | VA | | | |
| | NE | TX | NJ | | | | WV | | | |
| | NH | VT | NM | | | | | | | |
| | ОН | WY | NV | | | | | | | |
| | sc | | | | | | | | | |
| | UT | | | | | | | | | |
| | WI | | | | | | | | | |

Source: CEE Survey (2011)

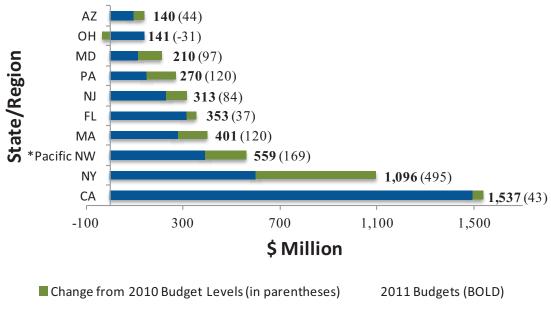
Notes: *Pacific NW is the sum of Bonneville Power Administration (BPA), Northwest Energy Efficiency Alliance (NEEA), Idaho, Montana, Oregon, and Washington state program efforts. An alternate definition of the Pacific NW is used by CEE in their Annual Report, consisting only of BPA and NEEA activities in the four-state area.

Thirty-seven states reported an increase in 2011 budgets relative to 2010 budgets; eleven states reported a reduction. The overall increase in 2011 budgets relative to 2010 budgets is a robust 25 percent.

Figure 2 presents the ten states with the largest 2011 electric efficiency budgets. These ten states account for 74 percent of U.S. electric efficiency budgets in 2011. Arizona and Maryland are new additions, displacing Connecticut and Texas that were part of the 2010 top ten budget states.

Figure 2: 2011 Electric Efficiency Budgets - Top Ten States



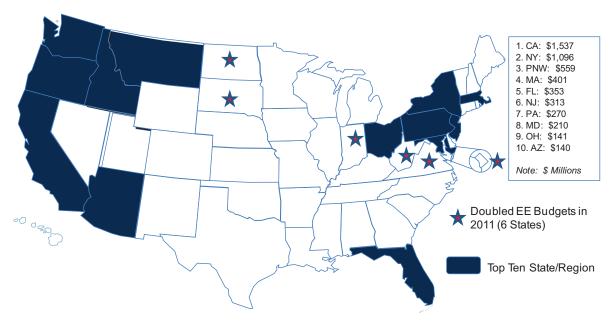


Source: CEE Survey (2011)

To provide geographic context, Figure 3 highlights the top ten states/regions by 2011 budgets and the six states with 2011 budgets that are more than double their 2010 levels.

Figure 3: 2011 Electric Efficiency Budgets—Top Ten States and Doubling of Budgets

State Level Electric Efficiency Budgets (2011)



2010 ELECTRIC EFFICIENCY EXPENDITURES

Table 3 shows aggregate electric efficiency program expenditures of \$4.8 billion in the U.S. in 2010, based on a combination of electric utilities and non-utility administrators. Electric utilities were responsible for administering \$4.3 billion, or 88 percent of all energy efficiency expenditures. The reported 2010 electric efficiency expenditures increased by slightly more than \$1 billion, a 28 percent increase from 2009 levels. *IEE believes that the large increase in expenditures can be partially attributed to sharp upticks in energy savings goals associated with state energy efficiency resource standards*.

Table 3: U.S. Ratepayer-Funded Electric Efficiency Expenditures (2008-2010)

| Electric Efficiency 2008-2010 U.S. Expenditures | | | | | | | | |
|---|-----------------|-----------------|---------------|----------|----------|--|--|--|
| | Utility | | | | | | | |
| | Total | Utility | Non-Utility | of Total | Increase | | | |
| 2008 | \$3,395,273,063 | \$3,009,521,643 | \$385,751,420 | 89% | | | | |
| 2009 | \$3,776,011,406 | \$3,312,287,327 | \$458,110,923 | 88% | 11% | | | |
| 2010 | \$4,831,868,289 | \$4,271,690,924 | \$560,177,365 | 88% | 28% | | | |

Source: CEE Survey (2011)

Notes: 2009 values include non-survey data provided by Arkansas Public Service Commission. CEE survey total for 2009 expenditure is \$3,770,398,250.

Table 4 shows how 2010 state-level electric efficiency expenditures changed relative to 2009 expenditures. In ten states, 2010 electric efficiency expenditures more than doubled from their 2009 levels. The large growth observed in several Midwestern and Southeastern states will likely continue given 2011 budgets. Additionally, the doubling of electric efficiency expenditures in these ten states has an impact on the long-run demand for electricity because these areas consume approximately 22 percent of all electricity in the U.S.

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⁹ Program expenditures were primarily provided in calendar year format. In some instances the program administrator was unable to provide expenditures for the calendar year and program/fiscal year expenditures were used.

¹⁰ DR expenditures account for 19 percent of total electric efficiency expenditures in 2010.

Table 4: Size of 2010 Electric Efficiency Expenditure Relative to 2009 Expenditure

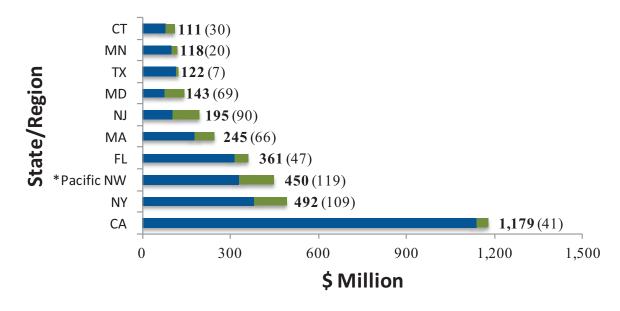
| | Change in Electric Efficiency Expenditures, 2010 relative to 2009 | | | | | | | | | |
|----------------|---|-------|-------------|--------|--------|---------|-------|--|--|--|
| Percent Change | <0% | 0-20% | 20-40% | 40-60% | 60-80% | 80-100% | >100% | | | |
| # of States | 8 | 8 | 6 | 3 | 3 | 5 | 10 | | | |
| States | HI | CA | CT | AL | IL | AR | MS | | | |
| | IA | CO | KY | MO | KS | AZ | NC | | | |
| | IN | FL | MA | NM | MI | MD | ND | | | |
| | ME | GA | NY | | | NJ | ОН | | | |
| | NE | MN | VT | | | SC | OK | | | |
| | NV | NH | *Pacific NW | | | | PA | | | |
| | UT | RI | | | | | SD | | | |
| | WI | TX | | | | | TN | | | |
| | | | | | | | VA | | | |
| | | | | | | | WY | | | |
| | | | | | | | | | | |

Source: CEE Survey (2011), *Pacific NW is the sum of BPA, NEEA, ID, MT, OR, WA program efforts

Figure 4 lists the ten states with the largest 2010 electric efficiency expenditures. These ten states account for 71 percent of U.S. electric efficiency expenditures in 2010. Connecticut and Maryland are new additions, displacing Iowa and Wisconsin that were part of the 2009 top ten expenditure states.

Figure 4: 2010 Electric Efficiency Expenditures—Top Ten States

2010 Expenditures: Top Ten States



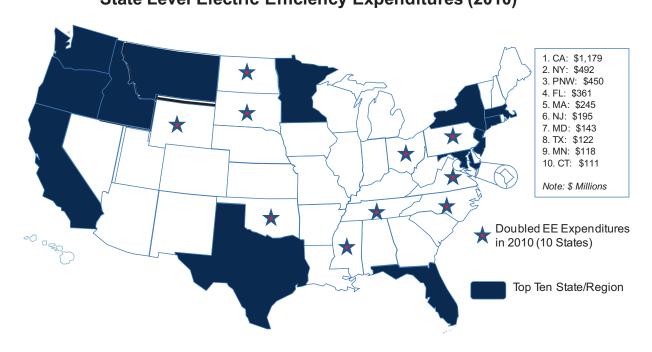
■ Change from 2009 Expenditure Levels (in parentheses) 2010 Expenditures (BOLD)

Source: CEE Survey (2011), *Pacific NW is the sum of BPA, NEEA, ID, MT, OR, WA

To provide geographic context, Figure 5 highlights the top ten states/regions by 2010 expenditures and the 10 states with 2010 expenditures that are more than double their 2009 levels.

Figure 5: 2010 Electric Efficiency Expenditures—Top Ten States and Doubling of Expenditures

State Level Electric Efficiency Expenditures (2010)



Although expenditures grew strongly in 2010, even under recessionary pressures, IEE believes that the relationship between realized expenditures and projected budgets is highly variable and somewhat idiosyncratic. Of greater importance is the continued increase in electric efficiency expenditures and budgets that enable program administrators to deliver energy savings. In 2008, expenditures exceeded projected 2008 budgets by 7 percent, while in 2009 and 2010, expenditures fell approximately 14 and 11 percent below annual budget projections.

Table 5 shows 2010 electric efficiency expenditures, 2011 electric efficiency budgets, population by state, and the state's relative share of U.S. electric efficiency budgets, population, and electricity consumption. *To provide some sense of relative magnitude it is important to consider spending on electric efficiency in both absolute terms and in relation to the state's share of the nation's total population and electricity consumption.*

Several relative measures are detailed in Table 5. Of note, six states have 2011 electric efficiency budget shares that are at least double their share of U.S. electricity consumption—California, Massachusetts, New Jersey, New York, Rhode Island, and Vermont. The funding of electric efficiency programs in these states has delivered substantial cumulative energy savings, thus lowering the per-capita consumption of electricity.

For example, the California electric efficiency budget represents 22.6 percent of total U.S. ratepayer-funded electric efficiency budgets (\$1.5 billion of \$6.8 billion in budgets), but electricity consumption in California is only 6.9 percent of total U.S. consumption, while California's share of population is 12.1 percent.

Table 5: Summary of U.S. Ratepayer-Funded Electric Efficiency Efforts, by State

| | | 1 | | % of Total | | % of U.S. |
|--------------|---------------------------|--------------------------------|-------------|------------|------------|-------------|
| | 2010 Electric | 2011 Electric | Population | 2011 U.S. | | Electricity |
| | Efficiency | Efficiency | (2010 U.S. | EE | % of U.S. | Consumption |
| State/Region | Expenditures | Budgets | Census) | Budgets | Population | (MWh) |
| AK | | | 710,231 | 0 | 0.2% | 0.2% |
| AL | \$75,482,702 | \$82,145,446 | 4,779,736 | 1.2% | 1.5% | 2.4% |
| AR | \$12,837,976 | \$25,818,551 | 2,915,918 | 0.4% | 0.9% | 1.3% |
| AZ | \$91,800,925 | \$139,907,484 | 6,392,017 | 2.1% | 2.1% | 1.9% |
| CA | \$1,179,237,092 | \$1,536,928,330 | 37,253,956 | 22.6% | 12.1% | 6.9% |
| CO | \$60,754,855 | \$77,474,392 | 5,029,196 | 1.1% | 1.6% | 1.4% |
| СТ | \$110,972,477 | \$103,461,552 | 3,574,097 | 1.5% | 1.2% | 0.8% |
| DE | | | 897,934 | 0.0% | 0.3% | 0.3% |
| DC | \$5,808,000 | \$905,000 | 601,723 | 0.0% | 0.2% | 0.3% |
| FL | \$360,913,968 | \$353,465,797 | 18,801,310 | 5.2% | 6.1% | 6.2% |
| GA | \$32,767,912 | \$31,689,101 | 9,687,653 | 0.5% | 3.1% | 3.7% |
| HI | \$19,291,177 | \$32,271,389 | 1,360,301 | 0.5% | 0.4% | 0.3% |
| IA | \$98,118,383 | \$112,887,359 | 3,046,355 | 1.7% | 1.0% | 1.2% |
| IL | \$93,147,700 | \$123,695,812 | 12,830,632 | 1.8% | 4.2% | 3.9% |
| IN | \$8,374,292 | \$81,128,069 | 6,483,802 | 1.2% | 2.1% | 2.8% |
| KS | \$20,278,492 | \$17,608,512 | 2,853,118 | 0.3% | 0.9% | 1.1% |
| KY | \$36,587,430 | \$48,390,183 | 4,339,367 | 0.7% | 1.4% | 2.5% |
| LA | | | 4,533,372 | 0.0% | 1.5% | 2.3% |
| MA | \$245,322,405 | \$401,495,709 | 6,547,629 | 5.9% | 2.1% | 1.5% |
| MD | \$143,147,288 | \$210,110,809 | 5,773,552 | 3.1% | 1.9% | 1.7% |
| ME | \$11,055,627 | \$13,315,334 | 1,328,361 | 0.2% | 0.4% | 0.3% |
| MI | \$75,072,301 | \$106,900,019 | 9,883,640 | 1.6% | 3.2% | 2.8% |
| MN | \$118,134,478 | \$120,284,984 | 5,303,925 | 1.8% | 1.7% | 1.8% |
| МО | \$43,090,444 | \$54,227,669 | 5,988,927 | 0.8% | 1.9% | 2.3% |
| MS | \$30,054,466 | \$33,203,982 | 2,967,297 | 0.5% | 1.0% | 1.3% |
| NC | \$84,987,718 | \$106,411,931 | 9,535,483 | 1.6% | 3.1% | 3.6% |
| ND | \$567,554 | \$540,000 | 672,591 | 0.0% | 0.2% | 0.3% |
| NE | \$13,276,572 | \$4,791,000 | 1,826,341 | 0.1% | 0.6% | 0.8% |
| NH | \$18,315,644 | \$17,877,460 | 1,316,470 | 0.3% | 0.4% | 0.3% |
| NJ | \$195,294,054 | \$312,805,574 | 8,791,894 | 4.6% | 2.8% | 2.1% |
| NM | \$24,553,878 | \$30,781,261 | 2,059,179 | 0.5% | 0.7% | 0.6% |
| NV | \$44,629,895 | \$75,232,000 | 2,700,551 | 1.1% | 0.9% | 0.9% |
| NY | | \$1,096,104,122 | 19,378,102 | 16.1% | 6.3% | 3.9% |
| OH | \$73,388,644 | \$140,899,474 | 11,536,504 | 2.1% | 3.7% | 4.1% |
| OK | \$22,501,360 | \$43,150,292 | 3,751,351 | 0.6% | 1.2% | 1.5% |
| *Pacific NW | \$450,424,087 | \$559,159,664 | 13,112,611 | 8.2% | 4.2% | 4.6% |
| PA | \$110,511,901 | \$270,130,083 | 12,702,379 | 4.0% | 4.1% | 4.0% |
| RI | \$28,866,977 | \$47,043,175 | 1,052,567 | 0.7% | 0.3% | 0.2% |
| SC | \$21,419,497 | \$27,888,907 | 4,625,364 | 0.4% | 1.5% | 2.2% |
| SD | \$402,727 | \$507,165 | 814,180 | 0.0% | 0.3% | 0.3% |
| TN | \$88,375,335 | \$116,698,335 | 6,346,105 | 1.7% | 2.1% | 2.8% |
| TX UT | \$122,089,162 | \$132,943,568 \$52,415,007 | 25,145,561 | 2.0% | 8.1% | 9.5% |
| | \$49,409,362 | \$52,415,907 | 2,763,885 | 0.8% | 0.9% | 0.7% |
| VA VT | \$655,000 \$36,132,339 | \$1,338,000 | 8,001,024 | 0.0% | 2.6% | 3.0% |
| | | \$38,073,500 | 625,741 | 0.6% | 0.2% | 0.1% |
| WI | \$79,013,640 | \$17,779,533 | 5,686,986 | 0.3% | 1.8% | 1.8% |
| WV WY | ¢2.040.200 | \$7,380,000 | 1,852,994 | 0.1% | 0.6% | 0.9% |
| | \$2,919,328 | \$4,813,257 \$6,813,070,601 | 563,626 | 0.1% | 0.2% | 0.5% |
| Total | \$4,831,868,289 | ntary responses to | 308,745,538 | 1 : C- | . 1 | |

Notes: This database reflects voluntary responses to the CEE survey and is therefore not comprehensive and may not reflect all electric efficiency spending/budgets by state. Please see Appendix B for discussion of possible limitations of the database. *Pacific NW is the sum of BPA, NEEA, ID, MT, OR, WA.

SUMMARY OF IMPACTS

Based on the CEE/IEE database, Table 6 provides aggregate data for 2010 ratepayer-funded electric efficiency savings by NERC region and sector.¹¹

• Overall, EE programs saved over 112 TWh in 2010, enough to power 9.7 million homes for one year, and avoided the generation of 78 million metric tons of carbon dioxide. ¹² Electric efficiency savings were achieved at an average cost of 4.3 cents per kWh saved in 2010. Excluding demand response programs, which are aimed at shifting peak demand, EE savings were achieved at an average cost of 3.5 cents per kWh saved.

Table 6: Aggregate EE Savings (MWh) by U.S. Census Region (2010)

| 2010 U.S. Electric Efficiency & DR Impacts (MWh) | | | | | | | | |
|--|-------------|------------|------------|-----------|-------------|--|--|--|
| Region | Residential | Commercial | Industrial | Other | Total | | | |
| MW | 4,595,296 | 7,665,865 | 4,653,539 | 305,296 | 17,219,997 | | | |
| NE | 8,796,515 | 27,393,747 | 934,313 | 734,166 | 37,858,741 | | | |
| S | 7,798,980 | 5,512,989 | 891,100 | 16,928 | 14,219,998 | | | |
| W | 13,531,884 | 19,047,552 | 6,753,106 | 3,837,036 | 43,169,578 | | | |
| Total US | 34,722,675 | 59,620,154 | 13,232,059 | 4,893,426 | 112,468,314 | | | |
| Percentage of total | 31% | 53% | 12% | 4% | | | | |

Source: CEE Survey (2011)

In 2010, U.S. aggregate electric efficiency impacts increased by nearly 20 TWh, a 21 percent increase in savings from 2009 levels. All U.S. Census regions experienced an increase in electric efficiency savings with the largest percent increases in the Midwest (38.9 percent) and the Northeast (38.5 percent), followed by the South (19.8 percent) and West (5.3 percent). A few reasons for the increased savings include the growth in energy efficiency program spending between 2009 and 2010 along with technological improvements in the products and technologies that are installed to achieve energy savings.¹³

2011 is poised to be a stellar year for ratepayer-funded energy efficiency and demand response programs. As shown in Figure 6, energy efficiency savings are on a growth path in the U.S. The

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¹¹ Low income programs impacts are included in the Residential sector.

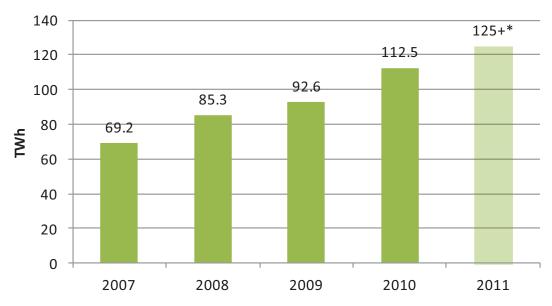
¹² Environmental Protection Agency Greenhouse Gas Equivalencies Calculator; http://www.epa.gov/cleanenergy/energy-resources/calculator.html

¹³ 2010 impact figures were influenced by a change in reporting by one program administrator. In prior surveys, the administrator had only provided incremental impacts—defined as all energy savings that accumulated from new participants in existing programs and all participants in new programs in 2010—and for the first time the organization reported annual impacts—defined as all energy savings that accumulated from participation in existing or previously implemented programs (including those terminated since 1992) during program year 2010 and the annualized impacts from new programs, or new participants in existing programs, during program year 2010.

increase in 2011 electric efficiency budgets of roughly \$1.4 billion (from \$5.4 billion in 2010 to \$6.8 billion in 2011) will continue to transform the ways in which electricity is used by households, businesses, and institutions across the U.S. *As presented in Figure 6, IEE projects* 2011 total electric savings from ratepayer-funded electric efficiency and demand response programs to meet or exceed 125 TWh. ¹⁴

Figure 6: U.S. Electric Efficiency Savings (2007-2009) & IEE 2010 Projection

U.S. Electric Efficiency Impacts (2007-2010 & 2011 Forecast)



Source: CEE, IEE

¹⁴ This projection is internally derived and assumes equal or greater participation in the survey administered by CEE along with realized 2011 expenditures equal to or exceeding 2011 budgets.

APPENDIX A

ENERGY EFFICIENCY REGULATORY FRAMEWORK

The regulatory environment in each state is a large factor that determines the size of ratepayer-funded energy efficiency programs. Over the past two years, state regulatory frameworks have changed significantly in support of energy efficiency programs. Table 7 indicates whether the current regulatory framework by state allows for some type of fixed cost recovery (either decoupling or a lost revenue adjustment mechanism), or performance incentives. *States with regulatory frameworks that support utilities in their efforts to pursue electric efficiency as a sustainable business tend to be the leaders in annual electric efficiency expenditures and budgets.*

Table 7: Regulatory Framework and 2011 Electric Efficiency Budgets (Sorted by Budget)

| | | | Fixed Cos | t Recovery | | |
|------|--------------|-----------------|------------|------------|-------------|---------|
| | | 2011 Electric | | Lost | | Virtual |
| | | Efficiency | | Revenue | Performance | Power |
| Rank | State/Region | Budgets | Decoupling | Mechanism | Incentive | Plant |
| 1 | CA | \$1,536,928,330 | Yes | | Yes | |
| 2 | NY | \$1,096,104,122 | Yes | | Pending | |
| 3 | *Pacific NW | \$559,159,664 | Yes | Yes | | |
| 4 | MA | \$401,495,709 | Yes | | Yes | |
| 5 | FL | \$353,465,797 | | | Pending | |
| 6 | NJ | \$312,805,574 | Pending | | | |
| 7 | PA | \$270,130,083 | | | | |
| 8 | MD | \$210,110,809 | Yes | | | |
| 9 | ОН | \$140,899,474 | | Yes | Yes | Yes |
| 10 | AZ | \$139,907,484 | Pending | | Yes | |
| 11 | TX | \$132,943,568 | | | Yes | |
| 12 | IL | \$123,695,812 | | | | |
| 13 | MN | \$120,284,984 | Pending | | Yes | |
| 14 | TN | \$116,698,335 | | | | |
| 15 | IA | \$112,887,359 | | | | |
| 16 | MI | \$106,900,019 | Yes | | Yes | |
| 17 | NC | \$106,411,931 | | Yes | Yes | Yes |
| 18 | СТ | \$103,461,552 | Yes | | Yes | |
| 19 | AL | \$82,145,446 | | | Yes | |
| 20 | IN | \$81,128,069 | | Yes | Yes | Pending |

Source: State Electric Efficiency Regulatory Frameworks. IEE. June 2011.

Table 7: Regulatory Framework and 2011 Electric Efficiency Budgets (cont.)

| | | | Fixed Cos | t Recovery | | |
|------|--------------|----------------|------------|------------|-------------|---------|
| | | 2011 Electric | | Lost | | Virtual |
| | | Efficiency | | Revenue | Performance | Power |
| Rank | State/Region | Budgets | Decoupling | Mechanism | Incentive | Plant |
| 21 | СО | \$77,474,392 | | Yes | Yes | |
| 22 | NV | \$75,232,000 | Yes | | | |
| 23 | MO | \$54,227,669 | | | | |
| 24 | UT | \$52,415,907 | Pending | Pending | Pending | |
| 25 | KY | \$48,390,183 | | Yes | Yes | |
| 26 | RI | \$47,043,175 | Pending | | Yes | |
| 27 | ОК | \$43,150,292 | | Yes | Yes | |
| 28 | VT | \$38,073,500 | Yes | | Yes | |
| 29 | MS | \$33,203,982 | | | | |
| 30 | HI | \$32,271,389 | Yes | | Yes | |
| 31 | GA | \$31,689,101 | | | Yes | |
| 32 | NM | \$30,781,261 | Pending | | Yes | |
| 33 | SC | \$27,888,907 | | Yes | Yes | Yes |
| 34 | AR | \$25,818,551 | | Pending | Pending | |
| 35 | NH | \$17,877,460 | Pending | | Yes | |
| 36 | WI | \$17,779,533 | Yes | | Yes | |
| 37 | KS | \$17,608,512 | | | Pending | |
| 38 | ME | \$13,315,334 | | | | |
| 39 | WV | \$7,380,000 | | | | |
| 40 | WY | \$4,813,257 | | Yes | | |
| 41 | NE | \$4,791,000 | | | | |
| 42 | VA | \$1,338,000 | | Yes | | |
| 43 | DC | \$905,000 | Yes | | | |
| 44 | ND | \$540,000 | | | | |
| | SD | \$507,165 | | | Yes | |
| 46 | AK | | | | | |
| 47 | DE | | | | | |
| | LA | Dagulatany Eng | | | | |

Source: State Electric Efficiency Regulatory Frameworks. IEE. June 2011.

Table 8: Summary of U.S. State Regulatory Frameworks: June 2011

| Summary of State Regulatory Frameworks: June 2011 | | | | | | |
|---|-----------------------|---------|---|--|--|--|
| | , | | | | | |
| Energy Efficiency Inc | States | Pending | | | | |
| Fixed-Cost Recovery | Lost Revenue Recovery | 10 | 2 | | | |
| Mechanisms | Revenue Decoupling | 13 | 9 | | | |
| Performance Incentives | 21 | 7 | | | | |
| Virutal Power Plant | 3 | 1 | | | | |

Source: State Electric Efficiency Regulatory Frameworks. IEE. June 2011.

APPENDIX B

DATA AND SURVEY ADMINISTRATION

The 2010 CEE survey was sent to 246 electric program administrators, which comprised electric utilities, combined electric and gas utilities, and non-utility administrators in the U.S. and Canada. The recipients consisted of CEE members, IEE member companies, and several administrators who had responded to CEE's surveys in the past. Out of the 246 electric administrators that received the survey, 236 were U.S. administrators. CEE received results from 157 electric efficiency program administrators in the U.S.

Respondents were asked to fill out a survey instrument which included questions on the overall organization, 2010 program expenditures, 2010 program impacts (both incremental and annual), 2011 budgets, state regulatory policies related to efficiency, and efficiency products offered. The survey requested that information on program expenditures, impacts and budgets be delivered in calendar year format. The majority of program administrators provided calendar year information, while some administrators provided information based on their non-calendar year program/fiscal year. CEE managed all aspects of the survey administration and developed a database using the voluntary responses from the survey. IEE received a final version of the database and post-processed data to construct this report.

In addition to the survey responses, CEE obtained publicly available data and data from state offices on electric efficiency programs for 38 utilities. This non-survey information was incorporated into the database by its respective state, program, and customer class definitions. In total, the results detailed in this report represent the electric efficiency activities of 195 organizations in 47 states and the District of Columbia. All survey results were voluntarily provided and the total reported figures should be considered conservative given the survey's coverage and response rate.

We encourage participation from all program administrators, their staff, and the respective state commissions. We kindly request that all requests for clarifications and other comments regarding the findings contained in this report be sent to Adam Cooper, Manager, Electric Efficiency, Institute for Electric Efficiency, at acooper@edisonfoundation.net.

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