

## State Report – New Jersey

This Appendix furnishes detailed information for New Jersey, including:

- Statistical Overview – Key characteristics for New Jersey households and housing units.
- Needs Assessment – Statistics for New Jersey low-income households and estimates of the need for energy affordability and energy efficiency programs.
- Legal and Regulatory Framework – A description of the legal and regulatory framework for low-income programs and identification of any legal or regulatory barriers to program design enhancements.
- Low-Income Affordability Programs – Information on New Jersey’s publicly funded affordability programs, the ratepayer-funded affordability programs targeted by this study, and an assessment of the share of need currently being met.
- Affordability Program Evaluation – A summary of the available evaluation findings regarding the performance of New Jersey’s affordability programs.
- Energy Efficiency Programs – Information on New Jersey’s publicly funded energy efficiency programs and the ratepayer-funded energy efficiency programs targeted by this study.
- Energy Efficiency Program Evaluation – A summary of the available evaluation findings regarding the performance of New Jersey’s energy efficiency programs.

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### I. Statistical Overview

New Jersey is the 10<sup>th</sup> largest state in terms of population. It is relatively wealthy (2<sup>nd</sup> in median family income in 2005) and has a relatively low poverty rate (48<sup>th</sup> in individuals below poverty). An important challenge for low-income households in New Jersey is the high cost of living. In 2005, the median housing value was \$333,900 and the median rent was \$935.

Most housing units (81%) in New Jersey are heated with regulated fuels, predominantly natural gas (70%). Energy prices are relatively high, with electric 24% above the national average and gas 5% above the national average. The weather is cold in the winter (5,443 heating degree days compared to the national average of 4,524) and moderate in the summer (768 cooling degree days compared to the national average of 1,242). Households are most at risk from the cold during the months of November through April, and are most at risk from the heat during the months of July and August.

The following population and housing statistics were developed using data from the 2005 American Community Survey (ACS).

| <b>Population Profile</b>  |                                  |
|--|----------------------------------|
| Total Population.....  | 8.5 million                      |
| Individuals 65 and Over.....   | 1.1 million (13%)                |
| Individuals Under 18.....  | 2.2 million (25%)                |
| Individuals 5 & Over Who Speak a Language Other than English at Home.... | 2.2 million (27%)                |
| Individuals Below Poverty.....   | 9% (48 <sup>th</sup> nationally) |

| <b>Household Profile</b>     |  |
|------------------------------|--|
| Total Households.....        | 3.1 million                            |
| Median Household Income..... | \$61,672 (1 <sup>st</sup> nationally)  |
| <i>Homeowners</i>            |  |
| Total Homeowners.....        | 2.1 million (67%)                      |
| Median Value.....            | \$333,900 (5 <sup>th</sup> nationally) |
| Median Housing Burden.....   | 24%                                    |
| <i>Renters</i>               |  |
| Total Renters.....           | 1.0 million (33%)                      |
| Median Rent.....             | \$935                                  |
| Median Rental Burden.....    | 29%                                    |

The following energy statistics were derived from a number of sources, including the 2005 American Community Survey (ACS), the Energy Information Administration's (EIA) supplier data collection, and NOAA's National Climatic Data Center (NCDC).

| <b>Energy Profile</b>                                       |          |
|---|----------|
| <i>Home Heating Fuel</i> (Source: 2005 ACS)                 |          |
| Utility gas.....  | 70%      |
| Electricity.....  | 11%      |
| Fuel Oil.....   | 16%      |
| Other.....  | 3%       |
| <i>2005 Energy Prices</i> (Source: EIA)                     |          |
| Natural gas, per ccf.....                                   | \$1.344  |
| Electricity, per kWh.....                                   | \$0.1174 |
| Fuel oil, per gallon.....                                   | \$1.978  |
| <i>Weather</i> (Source: NCDC)                               |          |
| Heating Degree Days.....                                    | 5,443    |
| Months of Winter (i.e., average temperature below 50°)..... | 6        |
| Cooling Degree Days.....                                    | 768      |
| Months of Summer (i.e., average temperature above 70°)..... | 2        |
| Days with Temperatures Over 90°.....                        | 24       |

[Note: Updates are available for energy prices and weather for 2006. Population statistics updates for 2006 will be available in August 2007.]

## II. Profile of Low Income Households

New Jersey policymakers have chosen to target the publicly funded and ratepayer-funded low income programs at households with incomes at or below 175% of the HHS Poverty Guideline. For 2005, the income standard for a one-person household was about \$16,750 and the income standard for a four-person household was \$33,900. For the analysis of low-income households in New Jersey, we will focus on households with incomes at or below 175% of the HHS Poverty Guideline.

[Note: New Jersey has a special program for elderly (age 65+) and disabled (receives SSD) households. The Lifeline Program income standards are about 200% of poverty for a one-person household and about 225% of poverty for a two-person household.]

Table 1 furnishes information on the number of New Jersey households with incomes that qualify them for the LIHEAP program and the ratepayer-funded programs. About 18% of New Jersey households are income-eligible for these programs.

**Table 1  
Eligibility for Ratepayer Programs (2005)**

| Poverty Group           | Number of Households | Percent of Households |
|-------------------------|----------------------|-----------------------|
| Income At or Below 175% | 578,545              | 18%                   |
| Income Above 175%       | 2,562,744            | 82%                   |
| ALL HOUSEHOLDS          | 3,141,289            | 100%                  |

Source: 2005 ACS

Tables 2A and 2B furnish information on main heating fuels and housing unit type for New Jersey low-income households. Table 2A shows that about 64% of low-income households use natural gas as their main heating fuel, somewhat less than the 70% for all New Jersey households. Low-income households are more likely to heat with electricity than the New Jersey average. Table 2B shows that one of the reasons for the higher rate of electric main heat is that 35% of low-income households are in buildings with 5 or more units. Many multiunit buildings use electric space heating rather than natural gas or fuel oil. About 38% of low-income households live in single family homes, while 25% live in buildings with 2-4 units. Very few households (2%) live in mobile homes.

**Table 2A  
Main Heating Fuel for Low-Income Households (2005)**

| Main Heating Fuel | Number of Households | Percent of Households |
|-------------------|----------------------|-----------------------|
| Electricity       | 99,132               | 17%                   |
| Fuel Oil          | 89,341               | 15%                   |
| Other Fuels       | 19,159               | 3%                    |
| Utility Gas       | 368,531              | 64%                   |
| No Fuel Used      | 2,382                | 0%                    |
| ALL LOW INCOME    | 578,545              | 100%                  |

Source: 2005 ACS

**Table 2B**  
**Housing Unit Type for Low-Income Households (2005)**

| <b>Housing Unit Type</b> | <b>Number of Households</b> | <b>Percent of Households</b> |
|--------------------------|-----------------------------|------------------------------|
| Building with 2-4 Units  | 142,888                     | 25%                          |
| Building with 5+         | 202,995                     | 35%                          |
| Mobile Home              | 11,203                      | 2%                           |
| Single Family            | 221,459                     | 38%                          |
| ALL LOW INCOME           | 578,545                     | 100%                         |

Source: 2005 ACS

About 578,000 New Jersey households are categorized as low-income. However, only those households that directly pay an electric bill or a gas bill are eligible for the New Jersey ratepayer-funded programs. Table 2C shows that about 87% of low-income households directly pay an electric bill and that about 59% of low-income households directly pay a gas bill.

**Table 2C**  
**Low-Income Households**  
**Direct Payment for Electric and/or Gas Bill (2005)**

| <b>Poverty Group</b>           | <b>Number of Households</b> | <b>Percent of Households</b> |
|--------------------------------|-----------------------------|------------------------------|
| Electric Bill - Direct Payment | 504,361                     | 87%                          |
| Gas Bill - Direct Payment      | 342,071                     | 59%                          |
| ALL INCOME ELIGIBLE            | 578,545                     | 100%                         |

Source: 2005 ACS

Tables 3A and 3B show the distribution of electric bills and burden for low-income households that do not heat with electricity and reported electric expenditures separately from gas expenditures.<sup>1</sup> Table 3A shows the distribution of electric expenditures for households that do not have electricity as their main heating fuel and Table 3B shows the electric energy burden.<sup>2</sup> Among these households, about 61% have electric bill that is less than \$1,000 per year while about 23% have an annual electric bill of \$1,500 or more. Electric energy burden is less than 5% of income for about 39% of these households, while it is greater than 15% of income for 23% of households.<sup>3</sup>

<sup>1</sup>The ACS allows respondents who have a combined electric and gas bill from one utility to report the total for both fuels. Those households are not included in these tables.

<sup>2</sup> Electric energy burden is defined as the household's annual electric bill divided by the household's annual income.

<sup>3</sup> About 13% of households have their electric usage included in their rent. These households have a nonzero electric energy burden, since part of their rent is used to pay the electric bill. However, since there is no way to measure the share of rent that is used to pay the electric bill, electric energy burden is unknown for these households.

**Table 3A**  
**Electric Bills for Low-Income Households without Electric Heat (2005)**

| <b>Electric Bill</b>         | <b>Number of Households</b> | <b>Percent of Households</b> |
|------------------------------|-----------------------------|------------------------------|
| \$1 to less than \$500       | 103,764                     | 30%                          |
| \$500 to less than \$1,000   | 108,230                     | 31%                          |
| \$1,000 to less than \$1,500 | 55,843                      | 16%                          |
| \$1,500 or more              | 82,019                      | 23%                          |
| <b>TOTAL</b>                 | <b>349,856</b>              | <b>100%</b>                  |

Source: 2005 ACS

**Table 3B**  
**Electric Burden for Low-Income Households without Electric Heat (2005)**

| <b>Electric Burden</b> | <b>Number of Households</b> | <b>Percent of Households</b> |
|------------------------|-----------------------------|------------------------------|
| 0% to less than 5%     | 134,844                     | 39%                          |
| 5% to less than 10%    | 93,907                      | 27%                          |
| 10% to less than 15%   | 40,001                      | 11%                          |
| 15% or more            | 81,104                      | 23%                          |
| <b>TOTAL</b>           | <b>349,856</b>              | <b>100%</b>                  |

Source: 2005 ACS

Tables 4A and 4B show the distribution of electric bills and burden for low-income households that heat with electricity. Table 4A shows the distribution of electric expenditures and Table 4B shows the electric energy burden. Among these households, about 44% have an electric bill that is less than \$1,000 per year while about 38% have an annual electric bill of \$1,500 or more. Electric energy burden is less than 5% of income for about 23% of these households, while it is greater than 15% of income for 35%.

**Table 4A**  
**Electric Bills for Low-Income Households with Electric Heat (2005)**

| <b>Electric Bill</b>         | <b>Number of Households</b> | <b>Percent of Households</b> |
|------------------------------|-----------------------------|------------------------------|
| \$1 to less than \$500       | 15,373                      | 21%                          |
| \$500 to less than \$1,000   | 16,815                      | 23%                          |
| \$1,000 to less than \$1,500 | 13,157                      | 18%                          |
| \$1,500 or more              | 27,642                      | 38%                          |
| <b>TOTAL</b>                 | <b>72,987</b>               | <b>100%</b>                  |

Source: 2005 ACS

**Table 4B**  
**Electric Burden for Low-Income Households with Electric Heat (2005)**

| <b>Electric Burden</b> | <b>Number of Households</b> | <b>Percent of Households</b> |
|------------------------|-----------------------------|------------------------------|
| 0% to less than 5%     | 16,621                      | 23%                          |
| 5% to less than 10%    | 19,474                      | 27%                          |
| 10% to less than 15%   | 11,505                      | 16%                          |
| 15% or more            | 25,387                      | 35%                          |
| <b>TOTAL</b>           | <b>72,987</b>               | <b>100%</b>                  |

Source: 2005 ACS

Tables 5A and 5B show the distribution of gas bills and burden for low-income households that heat with gas and report their gas bills separately from their electric bills. Table 5A shows the distribution of gas expenditures and Table 5B shows the gas energy burden. Among these households, about 58% have a gas bill that is less than \$1,000 per year while about 27% have an annual gas bill of \$1,500 or more. Gas energy burden is less than 5% of income for about 41% of these households, while it is greater than 15% of income for 26%.

**Table 5A**  
**Gas Bills for Low-Income Households (2005)**

| <b>Gas Bill</b>              | <b>Number of Households</b> | <b>Percent of Households</b> |
|------------------------------|-----------------------------|------------------------------|
| \$1 to less than \$500       | 91,567                      | 35%                          |
| \$500 to less than \$1,000   | 61,054                      | 23%                          |
| \$1,000 to less than \$1,500 | 36,297                      | 14%                          |
| \$1,500 or more              | 71,472                      | 27%                          |
| <b>TOTAL</b>                 | <b>260,390</b>              | <b>100%</b>                  |

Source: 2005 ACS

**Table 5B**  
**Gas Burden for Low-Income Households (2005)**

| <b>Gas Burden</b>    | <b>Number of Households</b> | <b>Percent of Households</b> |
|----------------------|-----------------------------|------------------------------|
| 0% to less than 5%   | 106,332                     | 41%                          |
| 5% to less than 10%  | 54,869                      | 21%                          |
| 10% to less than 15% | 32,689                      | 13%                          |
| 15% or more          | 66,500                      | 26%                          |
| <b>TOTAL</b>         | <b>260,390</b>              | <b>100%</b>                  |

Source: 2005 ACS

Tables 6A and 6B show the distribution of total electric and gas expenditures for low-income households that pay bills directly to a utility company. Table 6A shows the distribution of electric and gas expenditures and Table 6B shows the electric and gas energy burden. About 88% of households have an electric bill, a gas bill, or both. About one-third of low-income households have a total electric and gas bill that is less than \$1,000 per year while almost one-fourth have

an annual bill of \$2,500 or more. Electric and gas energy burden is less than 5% of income for 16% of low-income households, while it is greater than 25% of income for more than one in five low income households. [Note: As discussed later in this section, the NJ ratepayer-funded programs target a combined burden of 6% of income for program participants.]

**Table 6A**  
**Electric and Gas Bills for Low-Income Households (2005)**

| <b>Electric and Gas Bill</b> | <b>Number of Households</b> | <b>Percent of Households</b> |
|------------------------------|-----------------------------|------------------------------|
| \$1 to less than \$500       | 65,293                      | 11%                          |
| \$500 to less than \$1,000   | 112,385                     | 19%                          |
| \$1,000 to less than \$1,500 | 80,224                      | 14%                          |
| \$1,500 to less than \$2,000 | 58,620                      | 10%                          |
| \$2,000 to less than \$2,500 | 54,357                      | 9%                           |
| \$2,500 or more              | 136,039                     | 24%                          |
| No Bill                      | 71,627                      | 12%                          |
| ALL INCOME ELIGIBLE          | 578,545                     | 100%                         |

Source: 2005 ACS

**Table 6B**  
**Electric and Gas Burden for Low-Income Households (2005)**

| <b>Electric and Gas Burden</b> | <b>Number of Households</b> | <b>Percent of Households</b> |
|--------------------------------|-----------------------------|------------------------------|
| 0% to less than 5%             | 93,189                      | 16%                          |
| 5% to less than 10%            | 125,071                     | 22%                          |
| 10% to less than 15%           | 79,775                      | 14%                          |
| 15% to less than 20%           | 52,443                      | 9%                           |
| 20% to less than 25%           | 35,648                      | 6%                           |
| 25% or more                    | 120,792                     | 21%                          |
| No Bill                        | 71,627                      | 12%                          |
| ALL Income Eligible            | 578,545                     | 100%                         |

Source: 2005 ACS

We have developed a series of demographic tables for households that pay an electric or gas bill. Table 7 furnishes information on the presence of vulnerable members in the household and illustrates what share of the population might be particularly susceptible to energy-related health risks. Table 8 shows the household structure for these households, and Table 9 presents statistics on the language spoken at home by these households. Over one-third of the low-income households with utility bills are elderly. Almost one-third do not have any vulnerable household members. Some programs choose to target vulnerable households with outreach procedures and may offer priority to these households.

**Table 7**  
**Vulnerability Status for Low-Income Households with Utility Bills (2005)**

| <b>Vulnerability Type</b> | <b>Number of Households</b> | <b>Percent of Households</b> |
|---------------------------|-----------------------------|------------------------------|
| Disabled                  | 74,953                      | 15%                          |
| Elderly                   | 181,372                     | 36%                          |
| No Vulnerable             | 152,000                     | 30%                          |
| Young Child               | 98,593                      | 19%                          |
| <b>Total</b>              | <b>506,918</b>              | <b>100%</b>                  |

Source: 2005 ACS

Over one-third of the low-income households have children, about one-third are headed by a person 65 or older, and about one third are other household types. Single parent families with children represent about one-fifth of low-income households with utility bills.

**Table 8**  
**Household Type for Low-Income Households with Utility Bills (2005)**

| <b>Household Type</b>    | <b>Number of Households</b> | <b>Percent of Households</b> |
|--------------------------|-----------------------------|------------------------------|
| Married with Children    | 65,953                      | 13%                          |
| Other                    | 157,418                     | 31%                          |
| Senior Head of Household | 173,300                     | 34%                          |
| Single with Children     | 110,247                     | 22%                          |
| <b>TOTAL</b>             | <b>506,918</b>              | <b>100%</b>                  |

Source: 2005 ACS

Almost one-fourth of low income households speak Spanish and about 10% speak an Indo-European language (e.g., Russian, Polish). In total, program managers might find that almost four out of ten eligible households speak a language other than English at home.

**Table 9**  
**Language Spoken at Home by Low-Income Households with Utility Bills (2005)**

| <b>Language Spoken</b> | <b>Number of Households</b> | <b>Percent of Households</b> |
|------------------------|-----------------------------|------------------------------|
| English                | 315,986                     | 62%                          |
| Spanish                | 115,439                     | 23%                          |
| Indo-European          | 52,227                      | 10%                          |
| Other                  | 23,266                      | 5%                           |
| <b>TOTAL</b>           | <b>506,918</b>              | <b>100%</b>                  |

Source: 2005 ACS



### III. Legal and Regulatory Framework

The New Jersey Universal Service Fund (USF) is a creature of statute. In directing the state to move to retail choice,<sup>4</sup> the New Jersey legislature also provided that “there is established in the Board of Public Utilities a non-lapsing fund to be known as the Universal Service Fund.”<sup>5</sup> The legislation provided that the Board of Public Utilities (hereafter utility commission or commission) was to determine:

- The level of funding and appropriate administration of the USF;
- The “purposes and programs” to be funded with monies from the fund;
- Which “social programs” should be provided by an electric utility “as part of the provision of its regulated services”;
- How to integrate the other state funds available for low-income energy assistance with the USF;<sup>6</sup>
- How to integrate federal energy assistance provided through the Low-Income Home Energy Assistance Program (LIHEAP) with the USF;
- How to offset funds already included in rates for uncollectible electricity and natural gas bills against the USF; and
- Whether “new charges should be imposed to fund new or expanded programs.”<sup>7</sup>

#### ***A. The Design of the New Jersey Universal Service Fund (USF)***

The New Jersey commission established the Universal Service Fund through a proceeding devoted exclusively to this issue.<sup>8</sup> The New Jersey commission further determined that the implementation of the USF should occur in two steps, with the first step involving an “interim” program for the immediately coming heating season<sup>9</sup> and the second step involving a “full” program during the next heating season.<sup>10</sup>

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<sup>4</sup> The Electric Discount and Energy Competition Act, NJSA §§ 48-3-49, et seq. (1999) (EDECA).

<sup>5</sup> NJSA §48:3-60(b) (2007).

<sup>6</sup> Two primary programs existed. First, New Jersey funded the “Lifeline Credit Program” established pursuant to Public Law 1979, chapter 197 (C.48:2-29-15, et seq.). In addition, New Jersey funded the “Tenants’ Lifeline Assistance Program,” established pursuant to Public Law 1981, Chapter 210 (C.48:2-29.31 et seq.)

<sup>7</sup> NJSA §48:3-60(b) (2007).

<sup>8</sup> In the Matter of the Establishment of a Universal Service Fund Pursuant to Section 12 of the Electric Discount and Energy Competition Act of 1999, Docket No. EX00020091. The commission considered whether the proceeding to determine the design of the USF should be a “fully litigated” proceeding. The commission determined not. “In view of the participation of other State agencies and non-profit groups that may have limited legal resources and experience with administrative proceedings before the Board, we believe a less formal approach, yet one that still provides for the filing of initial and reply comments, the issuance of discovery, and the holding of Public/Legislative hearings at which testimony can be filed, is warranted.” In the Matter of the Establishment of a Universal Service Fund Pursuant to Section 12 of the Electric Discount and Energy Competition Act of 1999, Docket No. EX00020091, Order Establishing Procedural Schedule, at 1 (June 7, 2000).

<sup>9</sup> The commission adopted an “interim” program that substantively differed from the final program design. See, In the Matter of the Establishment of a Universal Service Fund Pursuant to Section 12 of the Electric Discount and Energy Competition Act of 1999, Docket No. EX00020091, Interim Order, at 20 (October 25, 2001). (hereafter Interim Order). The commission found that “the record in this USF proceeding clearly indicates that additional resources need to be made available to assist customers who are unable to afford their utility bills.” It continued to find that “in order to quickly establish an interim program, the Board” orders that the interim Universal Service Fund be in the form of a one-time fixed credit to customers.” Interim Order, at 20- 21. These fixed credits in the interim order would be provided to existing LIHEAP customers. “The Board finds that a two-phased approach will provide for immediate funding to meet the needs of this heating season, while providing additional time to develop a permanent plan.”

### *Basic Program Design Components*

The purpose of the USF, the commission said, was to “ensure that low-income customers have access to affordable energy” under the terms of the statute.<sup>11</sup> Stating that the USF would be “an ongoing, evolving program, subject to review and amendment as necessary,”<sup>12</sup> the commission determined that the program design should:

- Operate on a statewide basis;
- Be funded through a uniform volumetric charge;
- Be funded through the electric and natural gas bills of all customers;<sup>13</sup>
- Be available to households with income at or below 175% of the Federal Poverty Level; and
- Be available to customers “with automatic screening for eligibility from means-tested financial assistance programs.”<sup>14</sup>

The commission considered establishing a “crisis” component for the USF, but rejected that idea for the early years of the program.

### *The Rate Affordability Component*

The basic affordability benefits provided through the New Jersey USF are delivered through an income-based “fixed credit” program.<sup>15</sup> “No actual monetary benefit will be given to ensure that the benefit is utilized specifically for utility expenses.”<sup>16</sup> The fixed credit provided through the New Jersey USF was designed to reduce participant natural gas and electric bills to an affordable percentage of income, deemed to be 6%. For customers taking natural gas and electric service from different utilities, no more than 3% of income would be devoted to each service respectively.<sup>17</sup> Through this approach, the commission said,

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Interim Order, at 21. The commission utilized this interim approach to adopt other discrete program components, ordering temporary measures while allowing the development of permanent processes. See, e.g., In the Matter of the Establishment of an Interim Portability Policy for Universal Service Fund Credits, Docket EX000200091, Order (December 17, 2003); In the Matter of the Establishment of a Universal Service Fund Pursuant to Section 12 of the Electric Discount and Energy Competition Act of 1999—Interim Arrears Policy,, Docket No. EX00020091, Decision and Order Approving Working Group Recommendations (September 24, 2003).

<sup>10</sup> In the first “full” year of the program, the New Jersey USF enrolled roughly 133,000 accounts (or about 100,000 households, since some households have separate natural gas and electric accounts). According to the commission, “this extremely high enrollment for a new program was attributable both to the success of the automatic enrollment process and the high energy burdens that thousands of low-income customers had to pay each month. Specifically, the data indicates that roughly 22,000 of the initial households were paying more than 20% of their pre-tax income on energy bills, even after LIHEAP and Lifeline credits were applied. Another roughly 35,000 families were paying between 15% and 20% of their pre-tax income on energy. Without USF, it would be very difficult for any of these customers to consistently pay their energy bills.” In the Matter of the Establishment of a Universal Service Fund Pursuant to Section 12 of the Electric Discount and Competition Act of 1999, Docket No. EX00020091, Universal Service Fund Order Approving New USF Program Year Rates and New Lifeline Rates, at 1 – 2 (June 23, 2004).

<sup>11</sup> Docket No. EX00020091, Order, at 3, citing NJSA §48:3-51 (2007) (March 20, 2003). (2003 USF Order).

<sup>12</sup> 2003 USF Order. at 3.

<sup>13</sup> The commission decided, however, that “some large industrial customers have special existing contracts limiting their rate exposure, and these will be honored until their expiration. This issue may be raised in future renegotiations pertaining to these particular contracts.” 2003 USF Order, at 4.

<sup>14</sup> The commission said that “a one-stop application process is the long-term goal for the USF, and other assistance programs.” 2003 USF Order, at 3.

<sup>15</sup> “Eligibility will be determined based on one’s income and their relative energy burden (under the PIPP).

Participants will receive their USF benefit in the form of a credit on their electric or gas bills.” 2003 USF Order, at 3.

<sup>16</sup> 2003 USF Order, at 4.

<sup>17</sup> 2003 USF Order, at 5.

the Percentage of Income Payment Plan (PIPP) will be designed to provide low-income customers with a credit based on assessments of income and consumption that reflect their ability to make affordable monthly payments to the utility. . . The PIPP will be structured on the premise that eligible customers with lower incomes and higher energy burdens will receive a higher credit than those with higher income and a lower energy burden.<sup>18</sup>

The benefit is calculated by estimating what a participant's annual energy bill would be. The participant's LIHEAP (and Lifeline) payment is subtracted from the bill and the credit necessary to reduce the bill to an affordable percentage of income is calculated. Under the New Jersey program, the credit is fixed rather than the customer payment. If bills increase, either due to price increases or weather that deviates from the norm, the customer bears the burden of paying the increased bill.<sup>19</sup>

The commission capped allowable credits at \$1,800 per household. However, the commission continued, "utilities are expected to make every effort to include low-income customers with bills exceeding \$1,800 in their weatherization programs."<sup>20</sup> Eligible participants with an annual bill of over \$1,800, the board said, "will be referred to the New Jersey Comfort Partners part of the New Jersey Clean Energy Program for free weatherization measures."<sup>21</sup>

### *The Arrearage Forgiveness Component*

The New Jersey commission finally approved an arrearage forgiveness component for the state's Universal Service Fund. The commission noted that approximately 54,000 participants, or about 40% of the USF enrollees entered the USF program with an arrearage.<sup>22</sup> Noting that these customers brought roughly \$17 million of pre-program arrears into the USF, the commission acknowledged the "need to address this problem."

The primary goals of the [Arrearage Payment Program—APP] are to give customers an opportunity to get out of debt and to create an incentive structure to become regular bill payers. The basic premise of the APP is that any customer who pays his/her bills for one year will receive full forgiveness of any remaining pre-USF arrearages.<sup>23</sup>

The New Jersey commission established an arrearage program under which USF participants with arrears greater than \$60 could participate. Under the program, if a program participant pays his/her monthly utility bill for a 12-month period, then all of his/her remaining arrears will be

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<sup>18</sup> 2003 USF Order, at 5.

<sup>19</sup> The New Jersey commission deviated from this approach in response to Katrina-related spikes in natural gas prices. At the request of all stakeholders, the commission approved a mid-year adjustment in benefits to account for the increase in natural gas bills attributable to Hurricane Katrina. See generally, In the Matter of the 2006/2007 Annual Compliance Filings for the Universal Service Fund Program Factor within the Societal Benefit Charge Rate Pursuant to Section 12 of the 1999 Electric Discount and Competition Act, Docket No. ER06070525, Order Approving Interim USF Rates and Lifeline Rates, at 2 (October 23, 2006). ("In its June 22, 2005 Order in Docket No. EX00020091, the Board approved the 2005/2006 USF and Lifeline rates. . . Shortly after the June 22, 2005 Board Order, Hurricane Katrina and Rita struck the Gulf Coast contributing to a rapid and significant increase in wholesale natural gas costs. . . the Board approved a recalculation of gas benefits on February 15, 2006, for all customers who were enrolled in USF as of December 14, 2005, and screened for USF eligibles for all current USF beneficiaries and all Low-Income Home Energy Assistance Program (LIHEAP) applicants for the November 1, 2005 through December 14, 2005 period. This one-time adjustment was done in order to reflect the most recent gas increase in the calculation of USF benefits."

<sup>20</sup> 2003 USF Order, at 5.

<sup>21</sup> 2003 USF Order, at 6.

<sup>22</sup> In the Matter of the Establishment of an Arrearage Payment Program for the Universal Service Fund, Docket No. EX00020091, Order, at 1 (February 18, 2004). (hereafter Arrearage Payment Order).

<sup>23</sup> Arrearage Payment Order, at 2.

forgiven at the end of the 12 months. The program does not require a customer to make 12 consecutive on-time payments. Instead, customers will be evaluated at the end of the 12-month period to see if they have made the required payments. Customers that do not receive forgiveness after the 12-month period will have a 3-month grace period to make-up the payments.<sup>24</sup>

The New Jersey commission allows utilities to grant forgiveness for periods less than a full 12-months. Under such an approach, utilities are allowed to grant forgiveness credits on either a monthly or quarterly basis.<sup>25</sup> According to the commission:

Utilities will grant partial forgiveness periodically as customers work toward the goal of full forgiveness at the end of the year. It is anticipated that more frequent forgiveness awards will positively reinforce consistent payments by customers and allow customers to start seeing the “light at the end of the tunnel” with respect to their arrears.<sup>26</sup>

Utilities awarding arrearage credits on a monthly basis will forgive 1/12<sup>th</sup> of the customers’ preprogram arrears, up to a maximum of \$100 per month. Utilities that award quarterly forgiveness credits may forgive 1/4<sup>th</sup> of the total preprogram arrearage each quarter, up to a maximum of \$300. Whether the utility grants partial forgiveness on a monthly or quarterly basis, the commission decided, is not to be decided by policy, and rather would be “based on the different capacities of utilities’ billing and computer systems.”<sup>27</sup> If a customer does not receive forgiveness in any given month or quarter, the forgiveness will not be foregone, but instead simply delayed until the account is current.<sup>28</sup> At the end of the 12-month period, any unpaid or unforgiven arrears are subject to forgiveness, with no cap on the forgiveness amount.<sup>29</sup>

The arrearage forgiveness program will result in positive benefits to the utility in both the near- and long-term, the commission found. The commission found that:

. . .this program will encourage bill payment by USF customers; will reduce the amount of write-offs and expenses on collections that ratepayers were already paying for, and will give customers who have faced unaffordable bills prior to USF a way to eliminate their pre-USF arrearages.<sup>30</sup>

### *Cost Recovery*

The New Jersey commission approved the collection of universal service costs through a system benefits charge. Under this SBC, the difference between actual SBC costs and SBC recoveries will be subject to deferral. The SBC will be reset annually to amortize the over- or under-recovered balances and to provide for current program cost recovery over the ensuing year.<sup>31</sup>

New Jersey’s utilities have repeatedly requested the authority to implement “self-implementing” intra-year changes in the SBC, under which the SBC could be changed on 30-days notice. The

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<sup>24</sup> Arrearage Payment Order, at 4.

<sup>25</sup> Arrearage Payment Order, at 4.

<sup>26</sup> Arrearage Payment Order, at 2.

<sup>27</sup> Arrearage Payment Order, at 2.

<sup>28</sup> Arrearage Payment Order, at 5.

<sup>29</sup> Arrearage Payment Order, at 4 - 5.

<sup>30</sup> Arrearage Payment Order, at 3.

<sup>31</sup> See, e.g., In the Matter of Rockland Electric Company’s Rate Unbundling, Stranded Cost and Restructuring Filings, BPU Docket No. EO97070464, EO97070465 and EO97070466 (consolidated), Final Decision and Order, at 34, 63 (July 22, 2002); In the Matter of Public Service Electric and Gas Company’s Rate Unbundling, Stranded Costs and Restructuring Filings, BPU Docket Nos. EO97070461, EO97070462 and EO97070463 (consolidated), Final Decision and Order, at 111 (August 24, 1999).

utilities have argued that “it has been difficult to arrive at the proper level for USF rates because a number of variables that impact the calculations have a high degree of uncertainty. These uncertain variables include the rate at which customers will be successful in earning forgiveness under the arrearage payment program, known as the Fresh Start program; the number of customers who will be enrolled during the final automatic enrollment sweep; and the rate at which customers will apply for the program once the direct application system, formerly called the manual enrollment system, is complete.”<sup>32</sup> The New Jersey commission has yet to approve that self-implementing cost recovery mechanism.<sup>33</sup>

Finally, the commission decided that it would “segregate the USF revenues and benefits for gas and electric customers such that the total USF recoveries from gas customers will be used to provide payment assistance to gas customers and the total revenue recoveries from electric customers will be used to provide payment assistance to electric customers.”<sup>34</sup>

## **B. Summary and Conclusion**

The New Jersey Universal Service Fund is a creature of statute. While the legislature directed the state utility commission to create such a program, however, the commission has relied heavily on a collaborative “work group” process to generate operating details. The commission established the overall direction of the program. The New Jersey USF includes both a rate affordability component, based on percentage-of-income principles, and an arrearage forgiveness program. While the low-income energy efficiency program operates as a separate and distinct program, the commission has ensured that the rate affordability and usage reductions programs work in collaboration with each other.

New Jersey has focused not only on developing appropriate benefit levels – the rate affordability benefits are designed to reduce home energy bills to no more than 6% of household income — but also on developing the mechanisms needed to promote widespread availability of the USF program. New Jersey has implemented an automatic enrollment program for LIHEAP participants, and a categorical eligibility for recipients of other public assistance programs such as Food Stamps.

The New Jersey USF program is available statewide, is available to both electric and natural gas customers, and is paid for by all customer classes.

## **IV. Low-Income Affordability Programs**

The three major affordability programs available to low-income households in New Jersey are the LIHEAP Program, the Lifeline Assistance Program, and the USF Program.<sup>35</sup>

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<sup>32</sup> In the Matter of the Establishment of a Universal Service Fund Pursuant to Section 12 of the Electric Discount and Energy Competition Act of 1999, Docket No. EX00020091, Universal Service Fund Order Approving New USF Program Year Rates and New Lifeline Rates, at 2 (June 23, 2004).

<sup>33</sup> See e.g., In the Matter of the 2006/2007 Annual Compliance Filings for the Universal Service Fund Program Factor within the Societal Benefits Charge Rate Pursuant to Section 12 of the 1999 Electric Discount and Energy Competition Act of 1999, Docket No. ER06070525, Order Approving Interim USF Rates and Lifeline Rates, at 9 (October 23, 2006). (“The Board is not convinced that there is any reason why an adjustment would need to be self-implementing. If the [electric distribution companies] or [gas distribution companies] believe it is necessary to adjust USF rates prior to the annual July 1<sup>st</sup> filing period, they may make appropriate filings with the Board, with a copy to Rate Counsel, and the Board will consider such adjustment.” Id., at 9.

<sup>34</sup> 2003 USF Order, at 7. “Any excess or deficient revenues for either sector based on the benefits paid out would be carried forward to the subsequent year’s budget for the corresponding group of customers, which would more directly match payments made to gas customers with the associated recoveries from gas customers.” Id.

<sup>35</sup> Other energy programs in New Jersey include the NJ SHARES fuel fund program and the NJNG Gift of Warmth fuel fund program.

- LIHEAP Program – In 2005, the New Jersey LIHEAP program received about \$84.1 million in funding from the Federal government.<sup>36</sup> Since about 81% of low-income households use natural gas or electricity for their home heating fuel, we will estimate that about \$68.1 million was made available to gas and electric customers for LIHEAP benefits.
- Lifeline Assistance Program – In 2005, the New Jersey Lifeline program furnished about \$71.1 million in electric and gas benefits to elderly and disabled households.<sup>37</sup>
- USF Program – In 2005, the New Jersey USF program furnished about \$110.8 million in electric and gas benefits to low-income households who directly pay an electric or gas bill.<sup>38</sup>

In total, about \$250 million was available to help pay the electric and gas bills for low-income households. Using the ACS data, we estimated the following statistics regarding the aggregate electric and gas bills for low-income households in New Jersey.

- Aggregate Electric and Gas Bill – The total electric and gas bill paid directly by low-income households is estimated to be about \$939 million. The available funding of \$250 million in benefits would cover about 27% of the total bill for low-income households.
- 5% Need Standard – Some analysts suggest that 5% of income is an affordable amount for low-income households to pay for the energy needs. The aggregate value of electric and gas bills that exceeds 5% of income is estimated to be about \$632 million. The available funding of \$250 million in benefits could cover about 40% of the unaffordable amount for low-income households. [Note: If benefits from any of the three programs are allocated to households with an energy burden less than 5% of income, the program would not cover 40% of the estimated need.]
- 15% Need Standard – Some analysts suggest that 15% of income is an affordable amount for low-income households to pay for the energy needs. The aggregate value of electric and gas bills that exceeds 15% of income is estimated to be about \$301 million. The available funding of \$250 million in benefits could cover about 83% of the unaffordable amount for low-income households if it were targeted to only those households with energy bills greater than 15% of income.
- 25% Need Standard – Many low-income households pay more than 25% of income for energy service. Among the ratepayer-funded low-income programs that have used a percent-of-income guideline in their benefit determination process, none have been as high as 25% of income for combined use of electric and gas. The aggregate value of electric and gas bills that exceeds 25% of income is estimated to be about \$176 million. The available funding of \$250 million in benefits could cover all of the unaffordable amount for low-income households if it were targeted to households with energy bills greater than 25% of income.

These statistics demonstrate that the New Jersey programs cover a significant share of the total low-income need, and that they meet the need under the 25% standard. However, since we know that the LIHEAP and Lifeline Programs do not require households to exceed these need thresholds to receive benefits, some of the funding is being allocated to households that do not exceed these need standards.

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<sup>36</sup> Source: LIHEAP Clearinghouse

<sup>37</sup> Source: LIHEAP Clearinghouse

<sup>38</sup> Source: LIHEAP Clearinghouse

The New Jersey Universal Services Fund (NJ USF) is the program targeted for analysis by this study. The program was authorized by utility restructuring legislation (EDECA) in 1999. The current program design was first implemented in October 2003 when over 133,000 LIHEAP and Lifeline households were enrolled in the program through an automated screening process. Additional households were screened for the program in April 2004 and September 2004. Procedures for direct application to the NJ USF program were implemented in December 2004.

Some important features of the administration of the NJ USF Program include:

- BPU Oversight – The NJ Board of Public Utilities maintains overall responsibility for making policy decisions with respect to the NJ USF Program.
- LIHEAP Office Operations – The State LIHEAP Office is responsible for operation of the program, including the development of systems for program intake, benefit determination, and financial reporting.
- Utility Company Participation – The State’s seven investor-owned utilities are active partners in the NJ USF operations. The work with the State LIHEAP Office and the Office of Information Technology to develop the automated systems for determining a customer’s benefits, for issuing credits on customer bills, and for preparing financial reports on program expenditures.
- Other Interest Groups – Other interest groups, including low-income advocates and the Ratepayer Advocate participate in setting USF policy through the USF Working Group. While the Working Group does not have decision-making authority, it does provide a forum for the discussion of USF program issues among all interest parties.

In general, the NJ USF program is administered through an active partnership among all interested parties.

Some important features in the design and implementation of the NJ USF program include:

- Energy Burden Targeting – The NJ USF program attempts to limit the energy burden for electric and gas usage to 6% of income.
- Direct Bill Analysis – The NJ USF program estimates the energy burden of a household directly by measuring energy usage for the last 12 months and projecting the customer’s energy bill for current prices and a normal weather year.
- LIHEAP/Lifeline Analysis – The NJ USF benefit is computed by comparing the customer’s net energy bill (accounting for LIHEAP and/or Lifeline benefits received) to the household’s income.
- 12-Month Fixed Credit – The NJ USF benefit is distributed to the customer as a 12-month fixed credit benefit. The customer continues to receive the benefit as long as he/she is a customer of the utility company.
- Portability – The NJ USF benefit is portable to any of the seven New Jersey IOUs.
- Fresh Start – A customer who receives a NJ USF benefit can have 100% of preprogram arrearages forgiven by making 12 payments in 15 months.

The following table furnishes detailed information on the program.

|   |  |
|---|--|
| <b>Program State</b>  | New Jersey   |
| <b>Program Name</b>   | Universal Services Fund  |
| <b>Utility Company (If Applicable)</b>                              | n/a  |
| <b>Program Goals</b>  | Assists in making electric and gas service more affordable to low-income households in New Jersey.   |
| <b>Funding Source (SBC or Rates)</b>                                | SBC – Universal Service Fund charge.   |
| <b>Annual Program Funds – Allocated (2007)</b>                      | \$156,400,000 (October 2006 – September 2007).   |
| <b>Annual Program Funds – Expended (2004-2005)</b>                  | \$102 million (FY2004 – 2005).   |
| <b># of Households Served (2004-2005)</b>                           | 162,490 (FY2004 – 2005).   |
| <b>Participation Limit (Maximum # of Enrollees)</b>                 | None.  |
| <b>Eligibility – % of Poverty Level</b>                             | 175% of federal poverty level.   |
| <b>Eligibility – Other Criteria</b>                                 | <p>A household receives electric or gas service from one of the seven BPU-regulated utilities.<br/> A household must spend more than 3% of its income for electric service or more than 3% of its income for natural gas service.</p> <p>Households who heat with electricity must spend more than 6% of their income on electricity.<br/> USF recipients must reside at the address provided on their utility account.<br/> USF benefits are offered only to the person named on the utility account.<br/> Municipal utilities and the services they provide are not covered by USF.</p>  |
| <b>Targeted Groups</b>  | None   |
| <b>Benefit Calculation Type (% of Income, Benefit Matrix, etc.)</b> | Fixed credit percent-of-income.  |
| <b>Benefit Calculation (Document Formula)</b>                       | <p>Determine a Household's Affordable Electric Bill / Affordable Gas Bill. The household is assigned an affordable electric bill amount that is computed as 3 percent of the household's annual income (6 percent if the household heats with electricity). The affordable gas bill amount is computed as 3 percent of the household's annual income.</p> <p>Assign HEA Benefit. The household is assigned a HEA benefit based on the HEA benefit determination procedures.</p> <p>Lifeline Benefit – Lifeline files are checked to determine whether the household has received a Lifeline benefit in the most recent fiscal year.</p> <p>Determine Electric Energy Burden / Gas Energy Burden. An information request is sent to the household's utility companies for information on the projected annual energy burden for the household.</p> <p>Calculate Net Electric Energy Burden / Net Gas Energy Burden. OIT computes the household's net electric energy burden as the reported electric energy burden minus any assistance amounts (HEA or Lifeline) that were credited to the household's electric account. The household's net gas energy burden is computed as the reported gas energy burden minus any assistance amounts (HEA or Lifeline) that were credited to the household's gas account.</p> <p>Annual USF Electric / Gas Benefit. OIT computes the annual USF electric benefit as the net electric energy burden minus the affordable electric bill. The annual USF gas benefit is computed as the net gas energy burden minus the affordable gas bill. A household is eligible for a USF benefit if the computed benefit is greater than \$0.</p> <p>Maximum Annual Benefit. The maximum annual combined electric and gas USF benefit is \$1,800 per year. A household with a higher computed benefit is capped at \$1,800.</p> <p>Monthly USF Electric / Gas Benefit – The monthly benefit is computed by dividing the annual benefit by 12. If the monthly benefit is less than \$5, the benefit is set at \$5.</p> <p>Here is an example of how a USF benefit would be calculated for a sample natural gas bill:</p> <p>Annual Income, Household of Four = \$24,000 (130% of poverty)<br/> Annual Natural Gas Bill = \$1,500<br/> Annual LIHEAP Benefits = \$ 400</p> |



|   |  |
|---|--|
|   | <p>Step #1: Determine the customer's current natural gas burden.</p> <p>Annual Natural Gas Bill: \$1,500<br/>         Minus LIHEAP Benefit: \$400<br/>         Actual Natural Gas Burden: \$1,100 (more than 3% of income)</p> <p>Step #2 - Determine what the customer should be paying for natural gas under USF.</p> <p>Annual Household Income: \$24,000<br/>         Maximum Natural Gas Bill Burden Under USF: 3% of income<br/>         Customer's Maximum Natural Gas Burden: \$720</p> <p>Step #3 - USF will pay the difference.</p> <p>Actual Natural Gas Burden: \$1,100<br/>         Customer's Maximum USF Natural Gas Burden: \$720<br/>         Annual USF Benefit: <math>\\$380 \div 12 = \\$31.67</math> per month.</p> <p>[NOTE: A similar calculation would be made using a customer's electricity costs. However, the LIHEAP credit is not counted a second time. It is applied only once to the utility providing energy for heating purposes. If a customer also receives a Lifeline benefit, that benefit is applied to the natural gas and/or electric utility bill based on the information provided to the state.]</p> |
| <b>Benefit Amount (Mean Subsidy)</b>  | \$626 per year in USF credits; \$540 arrearage forgiveness through Fresh Start program.  |
| <b>Benefit Limit</b>  | \$1,800 annually.  |
| <b>% of Program Dollars Spent on Administrative Costs</b>   | 4.76%, using current budgeted costs of \$4,862,967.  |
| <b>Benefit Distribution (Fixed Payment, Fixed Payment with a Limit, Fixed Credit, Fixed Credit with Budget Billing, etc.)</b> | Fixed monthly credit on a household's electric and/or gas bill.  |
| <b>Arrearage Forgiveness Plan – Y/N</b>   | Yes – Fresh Start.<br>If a household has a balance of \$60 or more on their utility bill when they're first enrolled in the USF program and are found to be program-eligible, they are automatically enrolled and will receive additional information about how the program works from their utility.  |
| <b>Amount Eligible for Forgiveness (Dollars, %, or Unlimited)</b>   | Up to 100% of preprogram arrears if the customer pays the first 12 months' bills within 15 months. After 15 months, any Fresh Start credits that have not been retired are restored to a customer's active account.  |
| <b>Forgiveness Requirement (Payments, On-Time Payments)</b>   | Customer receives forgiveness on a monthly or quarterly basis for bills paid in full and on-time.  |
| <b>Forgiveness Period (One-Time, 12 months, 24 months, etc.)</b>  | <u>One</u> twelve-month period.  |
| <b>Program Manager (PUC, State, Utility)</b>  | The New Jersey Board of Public Utilities (BPU) has fiscal and regulatory responsibility for the program.<br>The New Jersey Department of Community Affairs is the USF program administrator.   |
| <b>Data Manager (PUC, State, Utility, Other)</b>  | The New Jersey Office of Information Technology (OIT) supports DCA through the development and operation of the USF/HEA computer system.   |
| <b>Enrollment Responsibility (Utility, CAP, etc.)</b>   | Local community-based agencies.  |
| <b>Application Method (Mail, In-Person, Phone)</b>  | Complete a USF/HEA application in person at a USF/HEA intake agency.<br>Mail a USF/HEA application to a USF/HEA intake agency.<br>Complete a food stamp application at a county social services office.  |
| <b>Joint Application</b>  | Yes, with food stamps and LIHEAP. There is also a separate USF-LIHEAP application. Outside of the period when LIHEAP is accepting applications, the USF application will not apply to LIHEAP.<br>Any household that applied for food stamps and completed the HEA application information on the food stamp form is screened for USF eligibility. A household is assigned USF benefits if the USF screening process determines that the household is eligible for benefits.  |
| <b>Recertification Required – Y/N</b>   | Yes.   |
| <b>Recertification Frequency</b>  | Annual.  |
| <b>Recertification Method (Agency, Automatic Enrollment,</b>  | A household can complete a USF/HEA application and mail or take it along with verification documents to a local USF/HEA intake agency.   |

|  |   |
|--|---|
| <b>Self-Certification)</b>                                   |   |
| <b>Recertification Procedures</b>                            | USF recipients must reapply in the manner of their choosing and provide proof of income.  |
| <b>Removal Reasons</b>                                       | Recertification was not completed.  |
| <b>Other Communications</b>                                  | Reminder to reapply for USF benefits.   |
| <b>Budget Counseling</b>                                     | A couple of pilot programs were undertaken by PSE&G and JCP&L.  |
| <b>Evaluation Frequency</b>                                  | An evaluation was completed after program initiation.   |
| <b>Coordination with LIHEAP</b>                              | The USF program is directly linked to the LIHEAP program.   |
| <b>Coordination with WAP</b>                                 | The USF/LIHEAP application allows clients to simultaneously apply for WAP services.   |
| <b>Coordination with Energy Efficiency Programs</b>          | There is currently no formal linkage with the New Jersey Comfort Partners program but such a link is being established.<br>Program linkages do occur when Comfort Partners program contractors request lists of potential customers from utilities. Utilities often use USF or Fresh Start status as criteria in generating lists of potential customers. |
| <b>Coordination with Other Energy Affordability Programs</b> | The USF program had a one-time linkage to the Lifeline Program in its initial stage but currently is not linked to new Lifeline Program applications other than to ensure that Lifeline benefits are deducted before calculating a USF benefit.   |

## V. Affordability Program Evaluation Findings

The New Jersey Board of Public Utilities contracted with APPRISE to conduct an independent evaluation of the New Jersey Universal Service Fund Program.<sup>39</sup> The evaluation objectives were to furnish information to the BPU regarding the benefits and costs of the USF and to identify potential program alternatives that could improve the program's benefits and/or cost-effectiveness. The evaluation focused on customers who enrolled in the USF between the start of the program in October 2003 and November 2005.

The evaluation had the following key findings:

- About 177,000 households received USF benefits during the study period.
- Prior to enrollment, the average electric and gas burden was over 18 percent of income. After enrolling in the program, many customers had burdens of 6 percent of income, the program target.
- Average customer payment sources are shown in the table below. The table shows that USF credits are a large benefit for program participants, making up 39 percent of their payments on average.

**Table 10  
Customer Payment Sources**

| <b>Customer Payment Source</b> | <b>Amount</b>  | <b>Percent</b> |
|--------------------------------|----------------|----------------|
| Customer payments              | \$705          | 44%            |
| USF credits                    | \$626          | 39%            |
| HEA credits                    | \$206          | 12%            |
| Lifeline credits               | \$61           | 5%             |
| <b>TOTAL</b>                   | <b>\$1,598</b> | <b>100%</b>    |

<sup>39</sup> Impact Evaluation and Concurrent Process Evaluation of the New Jersey Universal Service Fund, APPRISE, April 2006.

- Participants in Fresh Start, the arrearage reduction component, eliminated about 90 percent of their preprogram arrearages. The arrearage reduction averaged \$540.
- Utility collection reports show that the utilities are cautious about disconnecting service for USF participants. While 20 to over 40 percent of USF participants have arrearages, most utilities shut off only about one percent of customers in June 2005.
- About 64 percent of clients attempt to reenroll in the program. About 44 percent successfully reenrolled in the program.

The following program recommendations were made.

- The program needs to more effectively inform customers that they need to reapply for HEA benefits.
- High usage households should be targeted by Comfort Partners and WAP to ensure that their bills are affordable.
- The program needs to develop strategies to work with payment-troubled USF clients.
- Customers have payments that vary significantly over the course of the year. An equal monthly payment plan that accounts for all program benefits may make it easier for customers to meet their bill payment obligations.
- The system for contacting clients who have incomplete applications needs to be improved.

## **VI. Low-Income Energy Efficiency Programs**

The three major sources of funding for energy efficiency programs available to low-income households in New Jersey are the DOE Weatherization Assistance Program (WAP), the LIHEAP Program, and the NJ Comfort Partners Program.

- DOE WAP Program – In 2005, New Jersey received about \$5.1 million in funding for the Weatherization Program. These funds were distributed to local agencies to deliver weatherization services to low-income households.<sup>40</sup>
- LIHEAP Program – In 2005, New Jersey elected to use \$3.6 million (5%) of its LIHEAP funding for weatherization.
- NJ Comfort Partners Program – In 2005, the New Jersey Comfort Partners program was funded at a level of about \$13.7 million.<sup>41</sup> [Note: NJ Comfort Partners receives funding as part of the NJ Clean Energy Program.]

In total, about \$22.4 million was available to help furnish energy efficiency services to low income households in New Jersey.

It is a little more challenging to estimate the need for energy efficiency programs. In general, we would suggest that energy efficiency programs should be used in place of affordability programs when the energy efficiency programs result in cost-effective savings to the household. The literature on energy efficiency programs demonstrates that programs that target high users

<sup>40</sup> Source: LIHEAP Clearinghouse

<sup>41</sup> Source: LIHEAP Clearinghouse

achieve the highest savings levels and are the most effective. For electric baseload, programs that target households that use 8,000 kWh or more are most cost-effective. For electric heating, programs that target households that use 16,000 or more kWh are most cost-effective. For gas heating, programs that target households that use 1,200 or more therms are most cost-effective.

Our primary state-level data source, the ACS, does not ask respondents to report on the amount of electricity or natural gas that they use. However, we can develop a proxy for usage based on the respondent's estimate of the household's electric and gas bill. [Note: kWh price = 11.74 cents, therm price = 1.344].

Using the ACS data, we developed estimates of the number of households that would be eligible for energy efficiency programs using the cost-effectiveness targets. Table 11 shows that 45% of households could be targeted for high baseload bills, 29% could be targeted for high electric heat bills, and 27% could be target for high gas usage.

**Table 11**  
**Need for Energy Efficiency Programs for Low-Income Households (2005)**

| <b>Group</b>                             | <b>Number of Households with Bills</b> | <b>Number of Households with High Bills</b> | <b>Percent of Households with High Bills</b> |
|--|--|---|--|
| Electric Baseload Services <sup>42</sup> | 425,517                                | 189,850                                     | 45%  |
| Electric Heating Services                | 72,987                                 | 21,258                                      | 29%  |
| Gas Heating Services                     | 273,964                                | 73,430                                      | 27%  |

Source: 2005 ACS

In general, low income weatherization programs spend about \$3,000 per unit, including all costs for administration and service delivery. With the available funds, New Jersey could serve about 7,500 low-income households, or about 8% of the high usage homes needing weatherization assistance and about 4% of the homes that need electric baseload services.

The New Jersey Comfort Partners Program is the program targeted for analysis by this study. The program was authorized by utility restructuring legislation (EDECA) in 1999. This legislation required continued funding of the demand side management (DSM) programs that were in place prior to the utility restructuring, including the low-income energy efficiency programs. All of the DSM programs were placed under the umbrella of the New Jersey Clean Energy Program. The Comfort Partners Program was implemented in May 2001.

Some important features of the administration of the NJ Comfort Partners Program include:

- Utility Program Administration – The seven investor-owned utilities jointly manage the Comfort Partners Program under the direction of the NJ BPU.
- WAP Office Collaboration – The Comfort Partners Program collaborates with the NJ WAP programs to coordinate the delivery of services to eligible households.

Some important features in the design and implementation of the NJ Comfort Partners program include:

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<sup>42</sup> For households that report electric and natural gas expenditures as one bill, we allocated half of the cost to electricity and half of the cost to natural gas.

- USF Participant Targeting – The Comfort Partners program targets USF program participants.
- Usage Level / Services Budget – The Comfort Partners program serves all eligible customers who apply. However, the budget for energy efficiency services is directly related to the amount of electric and natural gas usage in the home.
- Contractors – The Comfort Partners program contracts with a number of energy services firms to deliver the program services.

The following table furnishes detailed information on the program.

|   |  |
|---|--|
| <b>Program State</b>                                    | New Jersey.  |
| <b>Program Name</b>                                     | New Jersey Comfort Partners.   |
| <b>Utility Company (If Applicable)</b>                  | n/a  |
| <b>Program Goals</b>                                    | <p>1) Obtain the maximum level of cost-effective energy savings in each home.</p> <p>2) Allow for persistence of savings through the use of appropriate protocols and the provision of energy education.</p> <p>3) Improve utility bill payment capability and behavior among participants.</p> <p>4) Improve the comfort, health, and safety of participants.</p> <p>5) PY2007 goals are to achieve at least 10% average electric savings for participants with electric space heat and 15% average natural gas savings for participants with natural gas heat.</p> |
| <b>Funding Source (SBC or Rates)</b>                    | SBC – Universal Service Charge.  |
| <b>Annual Program Funds – Allocated (2006)</b>          | \$21,330,000 (PY2006).   |
| <b>Annual Program Funds – Expended (2006)</b>           | \$16,557,000 (PY2006).   |
| <b># of Households Served (2006)</b>                    | 7,190.   |
| <b>Participation Limit</b>                              | None.<br>[NOTE: Participation goal for all utilities for PY2006 was 7,530].  |
| <b>Eligibility – % of Poverty Level</b>                 | At or below 175% of the federal poverty guidelines (PY2006 and PY2007).  |
| <b>Eligibility – Home Type</b>                          | All residential 1- to 4-unit structures.<br>[NOTE: Services to 5+-unit buildings are on hold until June, but customers in these buildings can still apply to the program.]   |
| <b>Eligibility – Energy Usage</b>                       | Home's primary heat source must be electricity or natural gas.   |
| <b>Eligibility – Participation in Energy Assistance</b> | n/a  |
| <b>Eligibility – Other Criteria</b>                     | A household is eligible if they participate in the Pharmaceutical Assistance to the Aged and Disabled (PAAD) program, HEAP, New Jersey Universal Service Fund, Lifeline, SSI, and/or TANF.<br>The customer must also use the home as a primary residence and be the ratepayer of record with the electric or gas utility.  |
| <b>Targeted Groups</b>                                  | All utilities target high-use USF customers or high-use customers who have participated in HEAP.   |
| <b>Measure Determination</b>                            | The service provider completes an energy audit and determines what measures to install based on program procedures, testing results, usage history, and spending guidelines.   |
| <b>Mean Costs per Home (2006)</b>                       | \$2,303 (PY2006).  |

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| <b>Targeted Average Cost (2006)</b>                       | The program has no targeted average cost per job.<br>The service provider is required to call the utility company for authorization to spend more than \$500 over the calculated spending guideline for each participating home.  |
| <b>Cost Limit</b>   | None.   |
| <b>Landlord Contribution</b>                              | None (currently), but landlord contributions are being considered by the BPU.   |
| <b>% of Program Dollars Spent on Administrative Costs</b> | 4%.<br>(\$628,000 includes training, marketing, etc.).  |
| <b>Efficiency Measures</b>                                | Efficiency measures could include: <ul style="list-style-type: none"> <li>▶ Efficient lighting products</li> <li>▶ Hot water conservation measures (i.e., water heater replacement, insulation, water heater pipe insulation, and energy-saving showerheads and aerators)</li> <li>▶ Replacement of inefficient refrigerators and freezers</li> <li>▶ Thermostats</li> <li>▶ Insulation upgrades (e.g., attic, wall)</li> <li>▶ Blower-door guided air sealing</li> <li>▶ Duct sealing and repair</li> <li>▶ Heating and/or cooling equipment repair or replacement, including window and wall units.</li> <li>▶ Other dwelling-specific measures.</li> </ul> <p>The program also provides comprehensive, personalized energy education and counseling.</p> |
| <b>Customer Education – Y/N</b>                           | Yes.  |
| <b>Education as Part of Service Delivery – Y/N</b>        | Yes.  |
| <b>Education Separate from Service Delivery – Y/N</b>     | Yes, for some customers, as follow-up to service delivery.  |
| <b>Follow-Up with Customers – Y/N</b>                     | Yes.  |
| <b>Program Manager (PUC, State, Utility)</b>              | The seven New Jersey investor-owned utilities, under the guidance of the New Jersey BPU.  |
| <b>Data Manager (PUC, State, Utility, Other)</b>          | The seven New Jersey investor-owned utilities, using the CP System web-based application and database.  |
| <b>Enrollment Responsibility (Utility, CAP, etc.)</b>     | The seven NJCEC utilities target and enroll customers in different ways.<br>JCP&L sends out direct mail to customers, then the contractors follow up with telemarketing.<br>PSE&G provides Honeywell with direct access to their customer system. Honeywell downloads lists of potential program participants and markets to them.<br>The other utilities target high-use USF customers in their database and download lists for the NJCP contractors with whom they are working. The contractors then market the program to these customers.   |
| <b>Number of Provider Agencies and/or Contractors</b>     | Three service delivery contractors – Honeywell, EIC Comfort Homes, and CMC Energy Services.<br>One third-party quality assurance inspector – Pure Energy.<br><br>Several subcontractors.  |
| <b>Type of Provider (For-Profit, CAA, etc.)</b>           | For-profit.   |
| <b>Application Method (Mail, In-Person, Telephone)</b>    | Customers can apply by mail (in response to a direct mailing or brochure), or phone; online at New Jersey Clean Energy's website; or in-person at a CAP agency, service contractor, or utility office.<br><br>All contractors also take applications over the phone, verify eligibility, and have customers sign their application (if needed) at the time of service delivery.   |
| <b>Joint Application</b>                                  | Yes, for both electric and gas, but not across programs.  |
| <b>Reasons for Service Denial</b>                         | Landlord refusal.   |

|   |   |
|---|---|
| <b>Type of Follow-Up</b>                                  | <p>Utilities conduct follow-up with 10-26% of customers, depending on utility:</p> <ul style="list-style-type: none"> <li>▶ Quality assurance, where Pure Energy Company conducts telephone calls or site visits to check on customer satisfaction, the quality of work done, materials used, and any missed opportunities for energy saving.</li> <li>▶ All contractors also conduct quality assurance of crew and subcontractor work prior to invoicing utilities.</li> </ul> <p>JCP&amp;L conducts customer quality assurance surveys by mail and phone. Resuming in 2007 – usage-based follow-up reports to contractors and congratulatory letters mailed to customers.</p> |
| <b>Quality Control (Inspections?, etc.)</b>               | <p>All service providers complete some measure of quality assurance before an inspection is done by the third-party quality assurance inspector.</p> <p>All utilities use a third-party quality assurance contractor to provide systematic inspection of the work done on 10-26% of the homes.</p> <p>All service providers ensure quality assurance through on-site observation by field supervisors, post-completion inspection by quality assurance specialists, and customer satisfaction phone calls to served customers.</p>  |
| <b>Evaluation Frequency</b>                               | <p>The last evaluation was done by APPRISE in August 2002.</p> <p>The BPU is considering another evaluation in PY2007.</p>  |
| <b>Coordination with LIHEAP</b>                           | None.   |
| <b>Coordination with WAP</b>                              | Any Comfort Partners application with primary heat source other than electricity or natural gas are provided to WAP. WAP has access to CP System to look up work completed in homes back to 2001 to avoid overlap.  |
| <b>Coordination with Energy Affordability Programs</b>    | None.   |
| <b>Coordination with Other Energy Efficiency Programs</b> | The NJCP Energy Education and Procedures Manuals are shared with the WAP program.   |

**NOTE**

Following are the seven investor-owned, BPU-regulated New Jersey utilities:

- |                                 |                           |
|---------------------------------|---------------------------|
| Public Service Electric and Gas | Atlantic City Electric    |
| Jersey Central Power and Light  | Rockland Electric Company |
| New Jersey Natural Gas          | South Jersey Gas          |
| Elizabethtown Gas.              |                           |

**VII. Energy Efficiency Program Evaluation Findings**

The New Jersey Clean Energy Collaborative hired APPRISE and M. Blasnik & Associates to conduct a comprehensive evaluation of the Comfort Partners program in November 2001. The objective of the evaluation was to determine how well program goals were being met and to recommend program refinements that would allow for improved attainment of program goals.

The impact analysis focused on customers who were served between January 2002 and September 2003. M. Blasnik & Associates conducted the usage impact analysis.<sup>43</sup> The key findings from this evaluation are summarized below.

- Energy savings averaged 82 ccf or 6.9 percent of pretreatment usage for gas, 787 kWh or 11.7 percent of pretreatment usage for electric baseload, and 1,082 kWh or 8.3 percent of pretreatment usage for electric heat.

<sup>43</sup> NJ Comfort Partners Impact Evaluation Report, M. Blasnik & Associates, January 2004.

**Table 12  
Usage Impact Results**

|                         | # of Households | Usage  |        | Gross Savings |         | Net Savings |         |
|-------------------------|-----------------|--------|--------|---------------|---------|-------------|---------|
|                         |                 | Pre    | Post   | Amount        | Percent | Amount      | Percent |
| Gas (ccf)               | 528             | 1,195  | 1,101  | 94            | 7.9%    | 82          | 6.9%    |
| Electric Baseload (kWh) | 756             | 6,705  | 6,011  | 694           | 10.4%   | 787         | 11.7%   |
| Electric Heat (kWh)     | 64              | 13,067 | 12,184 | 883           | 6.8%    | 1,082       | 8.3%    |

- The cost of conserved energy is the cost per total energy saved over the lifetime of the measure. In 2005, gas prices averaged \$1.34/ccf and 11.74¢/kWh in New Jersey. The analysis shows that the program cost compare favorably to these retail rates for the gas heating and electric baseload customers.

**Table 13  
Cost Effectiveness Analysis**

|                         | Cost  | Savings | Measure Life | Cost of Conserved Energy |
|-------------------------|-------|---------|--------------|--------------------------|
| Gas (ccf)               | \$794 | 76      | 17.7         | \$0.97/ccf               |
| Electric Baseload (kWh) | \$399 | 756     | 12.6         | 6.1¢/kWh                 |
| Electric Heat (kWh)     | \$706 | 500     | 18           | 13¢/kWh                  |

APPRISE conducted the affordability impact analysis.<sup>44</sup> Table 14 displays gross and net changes in energy bills after participants received efficiency services. The table shows that electric baseload customers and combination customers had reductions in their energy bills after receiving efficiency services.

**Table 14  
Affordability Analysis**

|                   | # of Households | Charges |        | Gross Savings | Net Savings |
|-------------------|-----------------|---------|--------|---------------|-------------|
|                   |                 | Pre     | Post   |               |             |
| Gas               | 430             | \$992   | \$1124 | \$131         | \$78        |
| Electric Baseload | 453             | \$793   | \$721  | -\$72         | -\$95       |
| Electric Heat     | 137             | \$1341  | \$1360 | \$19          | \$24        |
| Combination       | 315             | \$1656  | \$1685 | \$29          | -\$234      |

Based on the findings, the evaluation made the following recommendations.

- The program could achieve greater savings by targeting higher usage households.
- Technical procedures and implementation could be adjusted to increase program savings.

<sup>44</sup> NJ Comfort Partners Affordability Evaluation Final Report, APPRISE, February 2004.