

BEFORE THE NEW MEXICO PUBLIC REGULATION COMMISSION

**IN THE MATTER OF STAFF’S PETITION)
FOR THE DOCKETING OF CASES TO)
ADDRESS THE REQUIREMENTS OF THE)
EFFICIENT USE OF ENERGY ACT)
_____)**

Case No. 05-00189-UT

COMMENTS OF COMMUNITY ACTION NEW MEXICO

Community Action New Mexico (CANM) files these comments in response to the New Mexico Public Regulation Commission (“Commission”) Order for Workshops in the above-captioned proceeding. As that Order noted, the Governor of the State of New Mexico signed the Efficient Use of Energy Act (“the Act”) on April 7, 2005. The Act requires this Commission to direct public utilities to evaluate and implement cost-effective programs that reduce energy demand and consumption. The Act, § 5(B). Public utilities must obtain Commission approval of energy efficiency and load management programs before they are implemented. *Id.*, § 5(E).

CANM files these comments particularly in light of Section 5(C) of the Act, which provides that “before the commission approves an energy efficiency and load management program for a public utility, it must find that the portfolio of programs is cost-effective and designed to provide every affected customer class with the opportunity to participate and benefit economically.” (emphasis added). CANM will focus its comments on the implementation of the Act in light of the Act’s applicability to low-income customers.¹

According to the Commission’s Order, in Phase I of the workshops to be used to inform implementation of the Act, it will consider, amongst other things, the creation of “guidelines to be followed by public utilities in developing energy efficiency and load management programs.” This Phase will include, but not be limited to, issues identified by the Natural Resources Defense Council (NRDC), which include, amongst others “policies for program filings. . .”

¹ For purposes of these comments, CANM defines a “low-income” customer as a customer that lives with an annual household income of at or below 200% of the Federal Poverty Level. The generally accepted measure of “being poor” in the United States today indexes a household’s income to the “Federal Poverty Level” published each year by the U.S. Department of Health and Human Services (HHS). The Poverty Level looks at income in relation to household size. This measure recognizes that a three-person household with an annual income of \$6,000 is, in fact, “poorer” than a two-person household with an annual income of \$6,000. The federal government establishes a uniform “Poverty Level” for the 48 contiguous states. Since 100 percent of Poverty Level is generally considered to be too low to be a reasonable demarcation of “being poor,” other estimates range from 150 to 200 percent of Poverty, or more. A household’s “level of Poverty” refers to the ratio of that household’s income to the Federal Poverty Level. For example, the year 2005 Poverty Level for a two-person household was \$12,830. A two-person household with an income of \$6,415 would thus be living at 50% of Poverty. A two-person household with an income of \$19,245 is said to be living at 150% of Poverty.

In sum, the comments of CANM below are directed toward identifying the components of a program filing needed to ensure that the portfolio of programs offered by each utility is designed to provide every affected customer class with the opportunity to participate and benefit economically,” particularly as those programs affect low-income customers.

CANM proposes six specific program components below, which the Commission should address. These issues include:

1. Whether the portfolio of programs offered by each utility adequately identify and address barriers that tend to exclude low-income households from participation;
2. Whether the programs adequately fund low-income energy efficiency;
3. Whether the programs adequately identify and incorporate the full range of “avoided costs” into their cost-effectiveness determinations;
4. Whether the programs reasonably consider, adopt and implement a targeting principle;
5. Whether the programs take adequate advantage of reasonably available program partnerships to increase the effectiveness and efficiency of the delivery of program measures; and
6. Whether the programs are administered on an appropriate geographic basis (statewide rather than specific to a utility’s own service territory).

Each of these specific issues is discussed in more detail below. In addition, CANM provides, as Appendix A to these comments, a list of topics and expert commentators that can help the Commission develop energy efficiency programs that appropriately serve low-income customers.

Before turning to a discussion of the guidelines that CANM recommends the Commission to adopt to govern implementation of utility energy efficiency programs, CANM will first briefly review the need for, and benefits from, low-income efficiency programs. In addition, CANM provides an overview of the existing low-income weatherization program in New Mexico.

Overview

The need for and structure of New Mexico's existing low-income weatherization program.

Home energy is a crippling financial burden for low-income New Mexico households. New Mexico households with incomes of below 50% of the Federal Poverty Level pay 39.3% of their annual income simply for their home energy bills. Home energy unaffordability, however, is not simply the province of the very poor. Even bills for households between 75% and 100% of Poverty take up 11.2% of income.

Poverty Level	Home Energy Burden
Below 50%	39.3%
50 – 74%	15.7%
75 – 99%	11.2%
100 – 124%	8.7%
125 – 149%	7.1%
150% - 185%	5.8%

The number of households facing these energy burdens is staggering. According to the 2000 Census, more than 51,000 New Mexico households live with income at or below 50% of the Federal Poverty Level and thus face a home energy burden of 39.3%. More than 33,000 New Mexico households live with incomes between 50% and 74% of Poverty (home energy burden of 15.7%). And nearly 38,000 *more* New Mexico households live with incomes between 75% and 99% of the Federal Poverty Level (home energy burden of 11.2%).

According to the Energy Information Administration's short term price predictions for 2005, US households with income below 150% of the Federal Poverty Level – which is \$23,505 for a family of three – will spend an average of \$1,470 for all their energy bills and will have to use nearly 19% of their income to do so. To understand the magnitude of this burden, consider that if a middle-class household with an income of \$50,000 had a comparable energy burden of 19%, it would spend nearly \$10,000 on energy costs each year.

Existing sources of energy assistance do not adequately address the energy affordability gap in New Mexico. Actual low-income energy bills exceeded affordable energy bills in

New Mexico by \$147 million at 2003/2004 winter heating fuel prices. In contrast, New Mexico received a gross allotment of federal energy assistance funds of \$9.2 million for Fiscal Year 2004.

New Mexico's LIHEAP allocation has lost ground relative to its Home Energy Affordability Gap. From 2002 to 2004, the total Home Energy Affordability Gap increased by \$7.0 million. In comparison, the federal LIHEAP allocation to New Mexico increased \$0.5 million.

	Home Energy Affordability Gap	Gross LIHEAP Allocation
2002 (base year)	\$139,682,359	\$8,695,571
2004 (current year)	\$146,680,588	\$9,161,206
Change	\$6,998,229	\$465,635

The Home Energy Affordability Gap Index in New Mexico was 105.0 for 2004. This Index indicates that the Home Energy Affordability Gap has increased 5.0% between 2002 and the current year. The Home Energy Affordability Gap Index uses the year 2002 as its base year. In that year, the Index was set equal to 100. A current year Index of more than 100 thus indicates that the Home Energy Affordability Gap for New Mexico has increased since 2002. A current year Index of less than 100 indicates that the Home Energy Affordability Gap has decreased since 2002.

THE WEATHERIZATION ASSISTANCE PROGRAM

The Weatherization Assistance Program (WAP) was created by the U.S. Department of Energy (DOE) in 1976 to assist low-income families who lacked resources to invest in energy efficiency. WAP is operated in all 50 states and the District of Columbia. The funds provided by Congress are used to improve the energy efficiency of low-income dwellings using advanced technologies and testing protocols. The energy conservation resulting from the efforts of state and local agencies reduces air and water pollution, lessens national dependency on imported oil and gas, and decreases the cost of energy for families in need while improving the health and safety of their homes. Each year, DOE-funded weatherization:

- saves an average of \$218 in energy costs per household;

- weatherizes 100,000 homes;
- creates \$1.39 in benefits for each \$1 invested;
- creates 8,000 jobs;
- reduces costs of gas heating by an average of 31%; and
- reduces carbon dioxide emissions by 1 metric ton per home weatherized.

Collectively, former DOE weatherization program participants will avoid \$1.55 billion in energy bills in 2005.

At a state level, the Weatherization Assistance Program is coordinated by the New Mexico Mortgage Finance Authority (MFA), which contracts with a network of local, community-based agencies to deliver weatherization services. Currently, four sub-grantees employ their own crews to provide weatherization services throughout the state. Three are private non-profit organizations; one is a Community Action Agency:

- Los Amigos Educational Resource Center
- Siete del Norte Community Development Corporation
- Central New Mexico Housing Corporation
- Community Action Agency of Southern New Mexico

According to DOE rules, WAP funds may be used for the following:

- Leakage reduction, including repair or replacement of broken glass or thresholds, packing cracks, caulking or weather-stripping, installation of door sweeps, fireplace dampers, water heater insulation blankets, thermostat controls, exterior doors, exterior windows;
- incidental repairs including lumber to frame or repair windows and doors, roofing materials to patch or repair leaks, protective materials (paint), or repair materials;
- health and safety measures including stove pipes, smoke and carbon monoxide detectors, space heaters, furnace repair/replacement, moisture related problems, wiring problems; ceiling, wall and floor insulation;
- measures for mobile homes; and
- electric base load measures like new refrigerators.

Like most states, New Mexico is generally able to leverage DOE weatherization funds with allocations from the Low Income Home Energy Assistance Program (LIHEAP) and from the state general fund. In program year 2004-2005, with a base DOE grant of \$1.91 million and combined total funding of \$4.12 million, WAP weatherized 1,335 homes. In program year 2005-2006, with a base DOE grant of \$2.13 million and an estimated combined total budget of \$5.9 million, program administrators expect to weatherize 1,279 homes, based on an average per unit cost of \$2,744. State allocated “special needs funds” allow a slightly higher per-unit cost of \$3,500 and can be used with somewhat more flexibility than federal dollars, giving weatherizers more leeway for necessities such as building repairs or replacement of inefficient appliances.

Though not adequate to the need, DOE funding has remained relatively stable for the past five years. This stands in contrast to funding from other sources, which have not been as predictable. In 2003, when the WAP received no LIHEAP allocation, New Mexico suffered a sharp drop in the number of homes weatherized. With weatherization resources slashed to 80% of what they were in 2002, agencies were forced to lay off crews, underlining the critical importance of a stable funding source. Program administrators believe that with adequate and consistent funding, which would include administrative costs and necessary equipment, the state's weatherization providers have the capacity to substantially increase how many units are weatherized annually.

The number of homes New Mexico weatherizes each year is a tiny fraction of those eligible. The 2000 Census identified 328,933 New Mexicans with incomes at or below the poverty level, equaling 18.4% of the state's population. Using the typical estimated average of 3.3 persons per household, this population translates into 99,678 households eligible for weatherization assistance. Because income level for eligibility for the WAP rests at 150% of the Federal Poverty Level, the number of households eligible for WAP assistance easily surpasses the 100,000 mark.

The Confluence of Low-Income and Environmental Objectives

The implementation of low-income energy efficiency programs in New Mexico will serve to achieve both environmental and affordability objectives.

The environmental consequences of traditional forms of energy generation and transmission frequently have a disproportionate effect on low-income households.

Environmental impacts can be imposed on low-income communities in any one of a number of ways. They may involve the physical taking of property for facility location; the splitting of neighborhoods by transmission lines; exposure to electromagnetic fields; or the creation of noise, air and water pollution associated with fossil fuel extraction and generating plants.

These serious impacts, alongside the urgent need for affordable energy bills, doubly compel low-income advocates to consider the multiple benefits – economic, social, and environmental – that properly-designed energy efficiency programs can bring to New Mexico.

Proposed standard #1: New Mexico's utility-funded energy efficiency programs should ensure the direct participation in such programs by low-income customers.

Utility-funded energy efficiency programs should provide for the direct participation of low-income customers. Direct participation in such programs does not “just happen.” Low-income customers can be systematically excluded in any number of ways:

MARKET BARRIERS AND PHYSICAL BARRIERS

Market barrier issues are of particular importance to the low-income community. Low-income households inherently tend to be non-participants in utility-financed energy efficiency programs. Accordingly, even though the savings generated by energy efficiency measures are "system" benefits, and even though the low-income ratepayers are paying "their share" of the costs, they are systematically excluded from receiving "their share" of the benefits.

The assertion that low-income households tend to be systematically excluded from receiving the direct benefits of utility energy efficiency measures has a clear basis in fact. In addition to market barriers common to all residential ratepayers, low-income households have market barriers that are different from, and more extensive than, residential households in general. The result of these market barriers is to more severely restrict the availability of energy efficiency measures to low-income households than to residential households in general.

Three illustrative “market barriers” are discussed below: (1) discount rates/payback periods; (2) liquidity; and (3) tenancy.

- **Discount Rates:** Low-income households tend to have extremely high implicit discount rates (also sometimes known as hurdle rates or internal rates of return). In a report for the Electric Power Research Institute (EPRI), Cambridge Systematics found that the implicit discount rate for low-income households ranged up to the 80 - 90 percent level. For residential households in general, however, the hurdle rate for energy efficiency investments was 30 percent; that translates into a payback period of roughly three years. To the extent that an efficiency program thus strives to bring an energy efficiency investment only within the 30-percent range, it excludes by implication all households which have a higher hurdle rate. One entire category of excluded households consists of low-income households.
- **Liquidity:** Low-income households tend to have extremely low liquidity. In these circumstances, the payback period for any particular energy efficiency measure becomes irrelevant if the household does not have the investment capital with which to begin. The impact of this market barrier, for example, is often ignored in the reliance on appliance rebate programs. Such a program may pay the incremental cost of moving a customer from the purchase of a less energy efficient new refrigerator to a more energy efficient new refrigerator. In

such a program, if the less efficient refrigerator costs \$600 and the more efficient refrigerator costs \$700, it may well be cost-effective for the utility to pay the \$100 difference to prompt the purchase of the more efficient appliance. This program, however, will automatically exclude households that are not in the market to purchase new refrigerators with which to begin. It is axiomatic to note that not many low-income households recently spent \$600 for a new refrigerator.

- **Tenancy:** Low-income households tend to live in rental dwellings. Research in a variety of states has found, for example, that from 60 - 75 percent of all LIHEAP² recipients tend to be tenants. This finding has significance in two respects for the design of energy efficiency programs. First, tenants have little or no incentive to improve their landlord's property. They do not receive any of the increased value of the property and, in fact, may face rent hikes as a result of the improvements. Second, these low-income tenants tend to be more mobile. U.S. Census data demonstrates quite clearly that, compared to the roughly twelve percent of the total population that change residences each year, nearly one-quarter of the low-income population moves. As a result, even in those instances where a tenant may wish to invest in an energy efficiency measure, and assuming a financial ability (*e.g.*, sufficient liquidity) to do so, the payback period required to justify such an investment would need to match the household's tenure. A low-income household, in other words, will not invest in a measure with a two-year payback if that household tends to move to a different dwelling every 12 months.

A second type of barrier to low-income energy efficiency participation involves the physical quality of housing. Research in Arkansas found, for example, that from 20 to 40 percent of households at 30 to 50 percent of HUD Adjusted Median Family Income (HAMFI) had physical problems that would prevent effective energy efficiency improvements (if energy was viewed in isolation from other programs). This research is consistent with reports by the agency administering utility energy efficiency programs in Philadelphia that 40 percent of the otherwise eligible low-income households were rejected for the utility insulation program due to structural problems with the roofing.

There are serious impacts of failing to recognize and affirmatively compensate for the barriers that are unique to the poor in the offer of utility-sponsored energy efficiency measures. More particularly, there are two impacts.

- First, distributional inequities arise. In effect, without compensating for these market barriers, a utility would have created an income transfer in the wrong direction. Low-income customers would be paying for the efficiency programs, but would be excluded from participating in those programs.
- Second, from a resource planning perspective, the full potential of energy efficiency measures would not be exhausted. If there are energy efficiency

² LIHEAP is the Low-Income Home Energy Assistance Program, the federally-funded energy assistance program.

measures to be implemented, but which are not being implemented because the market and physical barriers that prevent their implementation have not been addressed, there remains some inefficiency on the utility's system.

The first guideline that should be adopted to govern utility-funded energy efficiency programs in New Mexico is one requiring an assurance that utility programs will provide for appropriate participation by low-income customers.

Proposed standard #2: New Mexico's utility-funded energy efficiency programs directed toward low-income customers should be adequately funded before such programs are approved. Program funding should be set at 0.20% of total utility revenues. Any subsequent determination of the adequacy of funding should involve a periodic inventory of the institutional capacity to deliver low-income efficiency measures as well as an inventory of lost opportunities to making low-income efficiency investments.

Low-income energy efficiency programs in New Mexico should be adequately funded. Conceptually, "adequate" funding of a utility's low-income energy efficiency program means that the utility's low-income energy efficiency budget should increase until the company exhausts its cost-effective measures.

While, in theory, a utility should continue to fund its energy efficiency programs until the programs' marginal costs equal the marginal benefits, in reality, no such "full" funding is ever provided. In light of this, there may seem to be no principled basis upon which to set a low-income energy efficiency budget. Nonetheless, *one* principle does seem appropriate for regulators to adopt. The extent of low-income energy efficiency funding should be sufficient to ensure that there are no lost opportunities in any given year.

Lost opportunities arise when the accomplishment of some given task precludes the future accomplishment of additional work at that same dwelling. Some of the lost opportunities involved with existing programs include:

- **WAP weatherization:** To the extent that the federal Weatherization Assistance Program (WAP) invests \$1,800 in a home that has the potential for \$3,000 of cost-effective energy efficiency, there is a lost opportunity. It is highly unlikely that the home will be revisited by the local utility to subsequently "finish" the remaining \$1,200 of energy efficiency improvements. Moreover, federal regulations generally prohibit WAP from retrofitting a home in which WAP dollars have previously been invested.
- **Low-income housing developments:** Decisions made by low-income housing developers represent decisions that will hold for the useful life of the measures. Accordingly, if a developer installs a relatively inefficient furnace or hot water heater, or fails to install the most cost-effective level of insulation, it is not likely that a utility will soon revisit that home to install more energy efficient measures. The opportunity to install high efficiency measures is lost at the time of the developer's initial decision.
- **Unused institutional capacity:** Assume the institutional capacity of low-income service providers is 8,000 homes per year in a given utility service territory. These service providers might include local contractors, Community Action Agencies (CAAs), Community Development Corporations (CDCs), and other for-profit or non-profit institutions. If the combined budget of low-

income programs funds only 6,000 homes a year, there is a lost opportunity to increase the energy efficiency in 2,000 homes. By assumption, the maximum capacity is 8,000 homes per year. That capacity thus cannot be pushed to 10,000 for a year to “make up” the earlier lost opportunity.

Clearly, the two parts of this analysis would need to be combined. There will be unused capacity both in the number of units done per year and in the investment per unit.

As can be seen, one component of a utility low-income energy efficiency program is a periodic inventory of the institutional capacity to deliver low-income energy efficiency measures. The inventory should cover the planning period of the utility. If the utility files three-year energy efficiency plans with state regulators, in other words, its inventory should include the existing and projected capacity to deliver low-income services over that three-year period. The budget for low-income energy efficiency should be sufficient to finance full utilization of the inventoried capacity.

A second component of a utility low-income energy efficiency program is a periodic inventory of the lost opportunities inherent within the existing delivery of energy and housing services. As with the institutional capacity inventory, if a utility files a three-year energy efficiency plan with state regulators, its inventory of lost opportunities should cover a three-year period.

In sum, the proposed decision rule is that utility funding should be of sufficient magnitude to ensure that there is no unused institutional capacity to deliver cost-effective low-income energy efficiency service. Stated another way, funding should be adequate such that no lost opportunities occur within the realm of cost-effective low-income energy efficiency. A utility’s low-income energy efficiency budget should increase until the company exhausts its cost-effective measures, or until it exhausts the institutional capacity to deliver cost-effective measures, whichever comes first.

States such as Pennsylvania have established a funding principle that low-income efficiency improvements should be capped at a certain level. The Pennsylvania cap of 0.20% of total company revenue for that state’s Low-Income Usage Reduction Program (LIURP) has generated sufficient funding for low-income efficiency programs and should be adopted in New Mexico. A copy of the Pennsylvania Public Utility Commission’s (PUC’s) LIURP regulations is attached as Appendix B.

Proposed standard #3: New Mexico’s utility-funded energy efficiency programs directed toward low-income customers should consider the full range of avoided costs in any assessment of “cost-effectiveness.”

In assessing the cost-effectiveness of low-income energy efficiency programs, New Mexico utilities should appropriately quantify the full range of “avoided cost” savings, as well as other benefits, uniquely arising from low-income energy efficiency. Avoided costs commonly associated with low-income energy efficiency would include savings such as reduced arrears, reduced working capital, reduced credit and collection expenses, and the like.

The existence of direct financial benefits to utilities arising from energy efficiency programs targeted specifically to low-income households has been recognized for nearly 20 years. The presence of such avoided costs was first postulated in 1987 by Colton and Sheehan. In that analysis, they stated that targeted energy efficiency programs had advantages that went beyond the traditional energy and capacity savings associated with energy efficiency measures:

The cost-effective reduction of system costs is relevant and important in every part of the business operations of the utility, not simply to the power supply function. Accordingly, a utility should be concerned with the problem of nonpayment, overdue payment, and partial payment of utility bills. Bad debt arises when ratepayers demand power from the system and then do not pay for it on a timely basis. * * * [A] new conservation program [can be proposed] that is justified on an avoided cost basis. The proposal rejects the historical view that avoided costs include only an energy and a capacity component. Instead, it introduces the notion of avoided bad debt. As long as the energy efficiency program costs less than the bad debt it will avoid, the program is cost-justified.³

In this article, “bad debt” was a defined term, defined to include all aspects of costs associated with payment troubles. The term was used to include not only written-off accounts, but credit and collection expenses, working capital expenses, and the like.

Since that time, the existence and importance of such expanded avoided costs has become generally-accepted. Analysts nationwide have confirmed that low-income energy efficiency generates benefits beyond simply energy and capacity savings.

NON-ENERGY BENEFITS

These avoided costs are in addition to the social benefits generated by low-income energy efficiency programs. Analysts such as Colorado’s Lisa Skumatz, as well as national evaluations of the federal WAP program by Oak Ridge National Laboratory, have found

³ Roger Colton and Michael Sheehan (1987). “A New Basis for Conservation Programs for the Oiiir: Expanding the Concept of Avoided Costs,” 21 *Clearinghouse Review* 135, 139.

a wide-range of “non-energy benefits” (NEBs) generated by low-income energy efficiency programs. These NEBs include social impacts such as reductions in illness, reductions in forced mobility, and the like.

In addition, low-income energy efficiency programs have been found to have a high economic development multiplier effect. Low-income efficiency programs generate both social and direct utility benefits by improving the affordability of housing. Each of these benefits is independent of the additional utility avoided costs associated with the ability to use energy efficiency measures as a strategy to help prevent payment troubles as first postulated in 1987.

“BALANCE-TIPPERS”

Finally, an appropriate review of a utility’s low-income energy efficiency program should assess whether the utility has adequately and appropriately considered any “balance tippers” in those instances where programs might be close to being cost-effective while still having a benefit-cost ratio of less than 1.0. The “balance tipper doctrine” recognizes that while the costs of low-income energy efficiency are reasonably easy to identify and quantify, the benefits are often difficult, if not impossible, to quantify and may flow back to the utility in indirect and consequential ways. The doctrine states further, however, that the benefits are no less real or substantial because they may be indirect rather than direct in nature.

In a “close call” situation, therefore, a balance-tipper should be qualitatively considered as a further justification for a program. Two illustrations of “balance tippers” are provided below. These are intended to be only examples, and do not represent a comprehensive list.

- The first example involves the advantages of providing energy efficiency improvements to low-income rental housing. Providing utility capital for energy efficient low-income housing should be given particular consideration by utilities. Because buildings are occupied by primarily low-income tenants, this financing is severely needed and difficult to obtain. Low tenant income is generally accompanied by low rent rolls and low rents are generally only available in older, deteriorated building stock. Antiquated and deteriorated building energy components and systems are inefficient and expensive to operate. These economic conditions conspire to weaken the net operating income and cash-flow and threaten the future of the building as a source of habitable housing.
- A second example, involves the advantages of providing energy efficiency improvements from an economic development perspective. Well designed energy efficiency programs have been shown to produce substantial economic benefits for local and state economies. For most states the electric and gas utilities are poor performers in terms of their ratios of in-state jobs to sales and sales to in-state income generation. By comparison, the industry that does most of the home energy efficiency work – the maintenance and repair construction industry – has

almost four times the jobs-to-sales ratio of the utility industry, and a 20 percent higher ratio for in-state income generation per dollar of sales.

The “balance tipper” impacts of these considerations should be evident. To the extent that reduced operation costs through energy efficiency improvement can help make these buildings “bankable,” or can help expand the debt service which the building owners can carry, the efficiency improvements help contribute to maintaining the economic viability of neighborhoods, and the source of affordable, stable, long-term housing for its customer base. In this sense, the energy efficiency not only benefits the owners and tenants, but helps contribute to the utility’s own long-term economic viability. To the extent that low-income energy efficiency helps create additional jobs and economic activity within the utility service territory, the utility will directly benefit by increased sales (and increased revenues).

The guideline that should be adopted to govern utility-funded energy efficiency programs in New Mexico is one requiring an assurance that all appropriate benefits are accounted for in a cost-benefit analysis. These benefits include not only traditional energy and capacity impacts, but impacts on costs associated with avoided payment-troubles as well. In addition, the non-energy benefits (NEBs) of utility efficiency investments should be quantified and considered.

Proposed standard #4: New Mexico's utility-funded energy efficiency programs directed toward low-income customers should be explicitly targeted to help advance the resolution of payment troubles and improve the affordability of home energy in addition to generating traditional avoided costs.

Maximizing benefits to all utility customers, whether through reduced traditional energy and capacity costs or through the reduction of costs associated with low-income payment troubles, is depend upon an appropriate targeting of the low-income program. Two primary alternative decision rules exist to guide targeting a low-income efficiency program:

- To target those with the highest energy usage, believing that these households present the greatest potential for energy savings; or
- To target those with the greatest payment problems, believing: (a) that payment problems and high usage are positively associated; and (b) that these households present the greatest potential for improved energy affordability.

The adoption of either one of these decision rules could be justified by reasonable planning. Rather than mandating a particular decision rule, the review of low-income targeting for energy efficiency should thus consist of the following inquiries:

1. Has a targeting principle has been consciously considered and adopted?
2. Is the targeting principle that has been adopted based upon a reasonable planning principle; and
3. Does the planning and design both of the programs and of the delivery mechanisms consciously incorporate the targeting principle.

To a certain extent, the difference between the two principles is artificial if one accepts the premise that energy efficiency can not only generate traditional avoided costs, but can generate avoided costs associated with a reduction in payment troubles as well. It has become well-established over the years that payment-troubles are often associated with higher than average utility consumption. By targeting customers with payment troubles, in other words, a utility implicitly targets its high use customers as well.

The Pennsylvania PUC has explicitly considered the tie-in between high usage and payment-troubles and the use of each for implementation of the Pennsylvania Low-Income Usage Reduction Program (LIURP). The Pennsylvania PUC found as follows:

In our response to CLS, we would like to clarify the distinction between LIURP eligibility criteria and the prioritization criteria for the receipt of program services. LIURP eligibility criteria has evolved into a two-part

requirement. First, income must be at or below 150% of the federal poverty guidelines. There is an exception to this rule. Up to 20% of the LIURP budget may be spent on customers with an income level in the range 150% to 200% of the federal poverty level. Second, the LIURP experience over the past nine years has shown that high usage is the strongest predictor of high energy savings. Consequently, each of the major electric companies has established company specific minimum usage requirements for each of the three major job types for electric jobs: heating, water heating and baseload. The bottom line is that all income eligible customers do not have a usage profile that warrants the provision of LIURP services.

Prioritization for the receipt of program services is as follows. Most importantly, usage is the driver. Once again, we emphasize that in the actual delivery of LIURP services, each electric company has established minimum usage guidelines for each of the three electric job types. It is only after the usage requirement is met that the prioritization scheme is applied. The prioritization process follows two steps. First, among customers meeting the threshold for usage, participation is further prioritized from highest arrearage to no arrearage. Second, a further prioritization is done to further delineate equal usage and equal arrearage candidates. This is done by prioritizing from lowest to highest income.

We have provided this explanation to illustrate that we do not need to specify negative ability-to-pay customers because ability to pay is neither an appropriate eligibility requirement nor a prioritization issue for LIURP. Instead, high usage is the most important eligibility requirement for customers who meet the income guidelines.

* * *

The primary goal of LIURP is to achieve bill reduction through usage reduction. We have elaborated above that high usage is the best indicator for achieving this primary goal of LIURP. Another LIURP goal states that the reduction in energy bills should decrease the incidence and risk of customer payment delinquencies and the attendant utility costs associated with uncollectible accounts expense, collection costs and arrearage carrying costs. In view of this program goal, arrearage prioritization has been appropriately listed as the first prioritization among the highest users.⁴

CANM commends the above-quoted Pennsylvania PUC language to the Commission for its consideration.

⁴ Pennsylvania Public Utility Commission, Re Guidelines for Universal Service and Energy Conservation Programs, No. M-00960890, 178 P.U.R.4 508 (July 11, 1997).

One corollary to the targeting of energy efficiency to high use, payment-troubled customers, is the benefits derived by a utility that seeks to fully integrate its energy efficiency functions with other low-income initiatives pursued by the company, itself. This integration may well most commonly fall within the marketing stage of the energy efficiency program.

The way to operationalize this inquiry is to inventory the non-energy efficiency programs that a utility offers to its low-income customers, and then to assess whether targeted energy efficiency can help make those programs more effective, or more cost-effective.

Again, this process is best explained by illustration. The issue of a utility's obligation to integrate its offer of energy efficiency measures with its deferred payment plans for low income households, for example, was raised in a 1991 rate case involving Central Maine Power company (CMP) before the Maine Public Utilities Commission (PUC). In that proceeding, the staff of the PUC submitted testimony concerning CMP's marketing of "energy management services" to low-income customers. The company, according to the staff testimony, was not effective in its marketing.

According to information presented in that proceeding, there is a positive correlation between high arrears balances and high usage. The company, according to the PUC staff, "should pursue the implications of the [recent study of payments plans] and undertake a marketing effort that targets high use, low-income customers. The company, according to the staff testimony, was not effective in its marketing.

The state Office of Public Advocate agreed. According to that office, CMP could significantly reduce its write-offs and collection costs by providing energy management services to high usage customers on special payment arrangements. The Public Advocate said that the utility could save as much as \$2 million a year "if CMP ha(d) been successful in delivering its Insulation Plus and Bundle Up programs to its special payment arrangement customers."

The Maine PUC acted favorably on the criticisms of the lack of action by Central Maine Power. According to the Commission:

The successful marketing of energy management programs to low-income customers, particularly low-income customers on special payment arrangements, has a clear benefit above and beyond the capacity or energy savings generally associated with demand-side management programs. Low income customers that see a reduction in their bills will be able to manage their bills better. The Company's carrying costs associated with late-paid bills and uncollectibles, which are generally passed on to other ratepayers, should be reduced.

The PUC directed the company to take remedial action.

In sum, aside from the issue of appropriately targeting its low-income energy efficiency program, one final question to be pursued in an evaluation of a utility-funded low-income

energy efficiency is whether the utility has adequately integrated its low-income energy efficiency program into all aspects of the company's operation. As illustrated by Maine's special payment arrangements, it is possible for a company to use low-income energy efficiency to improve the efficiency and effectiveness of other customer service activities directed toward low-income payment-troubled customers.

Proposed standard #4: New Mexico's utility-funded energy efficiency programs directed toward low-income customers should be piggy-backed with non-utility-funded efficiency programs.

A utility's low-income energy efficiency programs should implement appropriate piggyback initiatives to help increase a program's cost-effectiveness and scope. These piggyback initiatives should involve the federal Weatherization Assistance Program (WAP), as well as affordable housing initiatives. Both of these recommendations are discussed below.

THE NEED FOR, AND BENEFIT FROM, PIGGYBACK INITIATIVES

A utility low-income energy efficiency program should not operate in parallel with the federal WAP program, but rather the utility program and WAP should combine so as to maximize utility investment in cost-effective energy savings measures and maximize WAP investment in the non-energy savings measures that depress utility benefit-cost ratios. Through such a combined effort, utility-financed programs that might be *not* cost-effective from the perspective of the company and its ratepayers may be made cost-effective. Moreover, by targeting its funding in a joint effort with local utilities, WAP subgrantees can leverage millions of dollars in additional low-income energy efficiency funds.

Two particular challenges are presented by low-income energy efficiency programs: (1) the high relative transaction costs; and (2) the need for non-energy-saving home repairs. If a utility raises either of these two issues, it is ripe for a proposal to pursue piggyback opportunities.

High transaction costs: A minimum amount of energy savings is considered necessary in order for the utility providing the energy efficiency measures to recoup sufficient cost savings to overcome the fixed costs of program outreach and administration. Experience shows that the costs of program outreach and administration do not vary depending upon the amount of savings generated at a particular dwelling unit. The time devoted to intake is the same, the time devoted to oversight and monitoring is the same, the time devoted to travel is the same. If anything, transaction costs for low-income households may be somewhat higher than for moderate and upper income households. These fixed costs are referred to as transaction costs. With the small energy savings potential for low-income households, utilities often find that there is insufficient potential for savings to overcome the transactions costs of providing the energy efficiency measures to the low-income household in the first instance.

Non-energy-savings repairs: A second problem experienced by low-income energy efficiency programs is the frequent need for home repairs to occur before energy savings measures will have any impact. It makes no sense, in other words, to install insulation into a roof when there are holes in the roof with which to begin. Similarly,

installing a new or repaired heating system will have no impact if there are structural problems with the house that eliminate the new system's effectiveness.

The problem is that while these home repairs may be a necessary precondition to the effective installation of energy savings devices, they do not save energy unto themselves. Every dollar spent on such repairs, therefore, adds a dollar of expense that must be offset by the energy savings generated by the energy efficiency measures themselves. Given the problem first discussed above – that low-income households most often present small savings potential with which to begin – the probability is remote that the cost of home repairs can be added to the utility program and have that program remain cost-effective.

The utility is thus caught in a classic Catch-22 with low-income households. Without the home repairs, the energy efficiency measures will not be effective, and thus cannot meet the cost-effectiveness tests. However, with the home repairs, the overall cost of the program will likely outstrip the overall savings, again with the program thus failing a cost-effectiveness test.

PIGGYBACK WITH WAP EFFORTS.

One solution to this dilemma is for WAP dollars to be combined with utility dollars to form a single comprehensive program. In this fashion, utility funds can be used on cost-effective energy savings measures. In contrast, WAP dollars can be used as the source of financing for the non-energy savings components of the total program.

Since WAP funds are under no necessary constraint to be spent only in a cost-effective fashion, these funds can be earmarked for funding administration, outreach and intake, as well as non-energy-saving home repairs.

The combination of WAP and utility dollars will thus eliminate parallel programs by the utility and the government. Instead, a single program can be created serving the combined populations of what the two programs would have served separately. The allocation of particular expenses to WAP responsibility or to utility responsibility will be an accounting function of which the low-income household is not aware.

The Oak Ridge National Laboratory (ORNL) published a report titled *Standard Practice: Estimating the Cost-Effectiveness of Coordinated Energy Efficiency Programs* (December 1994). According to ORNL, it is possible to identify three distinct types of WAP/energy efficiency piggyback programs (called “coordinated programs” by ORNL):

- A *parallel program*, in which a government agency runs two programs, one funded and designed by the agency and a parallel one funded and designed by an electric or gas utility;

- *A supplemental program*, in which the program relies on utility funding to support a government agency’s ongoing program, with no changes in the program’s design or operation; and
- *A coupled program*, in which a government agency and electric or gas utility fund, design, and implement the energy efficiency efforts.

According to ORNL, a parallel program is implemented by the government agency, but its design is heavily influenced by the utility. The utility program may differ significantly from the design of the agency-funded program. In contrast, the supplemental program involves no changes to the agency’s design and operation. The result of the utility participation is to allow the program to reach more people, to allow the program to more comprehensively treat those persons reached, or a combination of the two. Finally, a coupled program involves a discernible impact of the utility on program design. Different types of customers may be served, according to ORNL. In addition, different measures may be installed and the amount invested per participant may be different than in the pre-existing government program. New Mexico should pursue a coupled-program.

PIGGYBACK WITH AFFORDABLE HOUSING INITIATIVES.

In addition to developing a piggyback program with WAP, utilities should seek to piggyback their energy efficiency programs along with affordable housing initiatives. The term “low income housing developers” encompasses a wide range of for-profit and non-profit institutions using a wide range of public and private dollars. This discussion is not intended in any fashion, to be a comprehensive review of the potential of utilities to work with low-income housing developers. Indeed, the proposal above is that one basic component of any utility low-income energy efficiency program is to do an “institutional inventory” of the capacity to deliver low-income energy efficiency to housing developments (whether new construction, moderate, or substantial rehabilitation).

New Mexico utilities should focus on the state’s federal HOME funds. New Mexico is awarded federal HOME (Home Investment Partnerships Program) funds each year. These funds may be used for rental rehabilitation, assistance to homebuyers and homeowners, and community housing development organizations (CHDOs). HOME funds can only be used to serve low- and very-low- income families.

A utility partnership with local affordable housing programs funded with state and local HOME dollars could operate in one of two ways. First, the utility efficiency program could fund a final blower-door-aided energy audit on all new construction and substantial rehabilitation. Efficiency professionals recognize that even new construction leaves substantial air leakage that would generate energy loss for occupants (and thus decrease the affordability of the newly-constructed home). In addition, a utility could provide efficiency rebates that would move a home newly constructed (or substantially rehabbed) using affordable housing program funds to Energy Star (or higher) standards.

The guideline that should be adopted to govern utility-funded energy efficiency programs in New Mexico is one requiring utilities to take advantage of all reasonably available partnerships that will leverage the utility efficiency dollars, improve cost-effectiveness and/or generate substantive program benefits to the utility and its low-income customers.

Proposed standard #5: New Mexico's utility-funded energy efficiency programs directed toward low-income customers should be administered on a statewide basis rather than on a utility-specific basis.

Utility-funded energy efficiency programs are best operated through a central state administration and oversight. The benefits arising from a statewide administration are several-fold.

Statewide program management creates the opportunity to achieve comprehensive and coordinated weatherization more easily than would be the case with multiple utility programs and structures. As is discussed elsewhere in these comments, utility-funded efficiency programs will work best when integrated with the federal Weatherization Assistance Program (WAP) and other sources of public (e.g., Community Development Block Grant, LIHEAP block grant transfers) and private funds. Statewide program management fosters the opportunity to integrate the entire spectrum of energy efficiency resources to ensure cost-effective client identification and benefit delivery.

A second advantage of the statewide administration of low-income efficiency programs is that it removes the burden from the utilities of administering programs that will reduce their sales and, therefore, their profits. Many utilities have been reducing staff support for consumer services in order to reduce costs in the emerging competitive environment. An independent statewide administration can ensure that funding is properly allocated for effective program management and oversight.

A third advantage is the ability to leverage various program funds to meet the total efficiency needs of a low-income household (see our discussion of lost opportunities above). The joint delivery of program benefits can result in an increase in benefits being delivered to low-income households. Joint program delivery in Illinois and Ohio has found, for example, that households have access to more sources of funds to address specific needs. Specific needs, however, can often be served through specialized programs. Matching those needs with the appropriate specialized program can free up general program dollars to be spread further. In addition, the duplication of effort (e.g., income verification) is minimized resulting in a more efficient and cost-effective program delivery.

Finally, creating a single statewide program administration provides for substantive efficiencies in program administration. Efficiencies will occur in at least the following program areas:

- **Oversight:** "Oversight" has four different components: (1) oversight of day-to-day program operation; (2) periodic program monitoring on such things as participation levels, expenditures, and turn-over; (3) program impact and process evaluation; and (4) fiscal auditing.
- **Administration:** Program administration involves program design and implementation.

- Outreach: Program outreach involves the provision of program information to potential participants and the solicitation of program participation.
- Delivery: Program delivery involves the actual interface between the low-income customer and the program. Program delivery can involve program intake, energy efficiency audits, conservation education, budget counseling, and the like.

A reasonable entity to use in administering a statewide low-income efficiency program is the statewide Weatherization office. The state WAP office already has mechanisms in place statewide to delivery energy efficiency services. These mechanisms include the full range of program management requirements from client selection and housing audit, to job performance and verification, to crew technical training.

The Ohio model, for example, under which LIHEAP/weatherization administration (both state and local) is mandated, deserves consideration by New Mexico. Centralized statewide program administration provides an ability to plan how to best serve the population as a whole. In addition, statewide administration provides a greater potential for involvement and "buy-in" from related social service agencies, such as those delivering energy assistance (LIHEAP), Temporary Aid to Needy Families (TANF) (formerly AFDC) and housing programs through the U.S. Department of Housing and Urban Development (HUD). The statewide agency can, in general, bring to the table a broader range of experience with utilities, the demographics of the poor, energy characteristics of poor, and how to define "need" (than do utility companies or state utility regulators). Finally, since New Mexico utilities likely do not have information on the incomes of their customers, a statewide program administrator such as Ohio's will have an ability to reach more low-income households than would New Mexico utilities offering independent company-operated programs.

Summary and Conclusion:

New Mexico utilities should design and implement energy efficiency programs that include an explicit low-income efficiency component.

For all the reasons stated above, the Community Action New Mexico recommends that New Mexico utilities design and implement energy efficiency programs with an explicit low-income efficiency component. CANM urges that to adequately and appropriately fulfill the statutory requirement that that “the portfolio of programs [be] cost-effective and *designed to provide every affected customer class with the opportunity to participate and benefit economically*, the programs presented to (and ultimately approved by) the New Mexico commission should incorporate each of the design guidelines stated above.

To the extent that the Commission schedules workshops on specific issues involved with the appropriate design and implementation of low-income efficiency programs, CANM urges the Commission to incorporate the topics, and call upon the resource people, identified in Appendix A to these comments.

Respectfully submitted,

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Proposed Workshop Topics and Expert Commentators	
Topic	Presenter
Need for statewide administration of low-income efficiency	Blair Hamilton, Vermont Energy Investment Corporation (VEIC)
	Elliott Jacobsen, Low-Income Energy Network (LIEN) (Massachusetts)
	Sara Ward, Ohio Department of Community Development
Cost-effectiveness tests for low-income programs	John Howat, National Consumer Law Center (NCLC) (Boston)
	Roger Colton, Fisher, Sheehan & Colton (Boston)
	Lisa Skumatz, Skumatz Economic Research Associates (Colorado)
Piggy-back programs with WAP/others	Joel Eisenberg, Oak Ridge National Laboratory (Washington D.C.)
	Jeff Schlegel, Southwest Energy Efficiency Project (Arizona)
	Gene Brady, Commission on Economic Opportunity (Lancaster, PA)