

BEFORE THE NEW JERSEY BOARD OF PUBLIC UTILITIES

**IN THE MATTER OF ESTABLISHMENT OF A
UNIVERSAL SERVICE FUND PURSUANT TO SECTION 12 OF THE
ELECTRIC DISCOUNT AND ENERGY COMPETITION ACT OF 1999**

BPU Docket No. EX00020091

PREPARED DIRECT TESTIMONY AND

EXHIBITS OF

ROGER D. COLTON

SUBMITTED ON BEHALF OF

Division of Ratepayer Advocate
Newark, New Jersey

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1 **PART 1: INTRODUCTION AND POLICY OVERVIEW.**

2 **Q. PLEASE STATE YOUR NAME AND ADDRESS.**

3 A. My name is Roger Colton. My address is 34 Warwick Road, Belmont, MA 02478.

4 **Q. FOR WHOM DO YOU WORK AND IN WHAT CAPACITY?**

5 A. I am a principal in the firm of Fisher, Sheehan & Colton, Public Finance and General
6 Economics (“FSC”). I provide technical assistance to a variety of consumer organizations,
7 state agencies and public utilities on rate and customer service issues involving natural gas
8 and electric, telephone and water/sewer utilities.

9 **Q. FOR WHOM ARE YOU TESTIFYING IN THIS PROCEEDING?**

10 A. I am testifying on behalf of the New Jersey Division of Ratepayer Advocate (“Ratepayer
11 Advocate”).

12 **Q. PLEASE DESCRIBE YOUR EXPERIENCE WITH THE DESIGN AND**
13 **IMPLEMENTATION OF LOW-INCOME UNIVERSAL SERVICE PROGRAMS.**

14 A. I have been involved with the design and implementation of low-income energy assistance
15 programs for nearly 20 years. The work that I am currently engaged in includes:

16 **Ē** I am working for the New Hampshire governor's office to help in the design and
17 implementation of that state's Electric Assistance Program (“EAP”).

18 **Ē** I am working for the Pennsylvania Office of Consumer Advocate (“OCA”) on the
19 design of the universal service programs for the ten natural gas utilities in that state. I

1 am also working for the OCA on various cost recovery proceedings for those gas
2 companies.

3 È I am working for the Maryland Office of Peoples Counsel to help with the design and
4 implementation of that state's universal service program.

5 È I am working for the U.S. Department of Health and Human Services to help Low-
6 Income Home Energy Assistance Program (“LIHEAP”) offices nationwide integrate
7 new energy affordability programs created through electric and natural gas retail
8 choice legislation with existing LIHEAP programs.

9 È I am working for Oak Ridge National Laboratory to provide technical assistance on
10 low-income electric and natural gas restructuring issues on an as-needed basis to
11 public officials nationwide.

12 È I am working for the states of Iowa and New Hampshire to design those states’
13 LIHEAP outreach and targeting plans to be developed under new federal directives.

14 È I am working with two different community based organizations to develop utility
15 responses to low-income nonpayment in Washington State.

16 È I am working for the U.S. Department of Health and Human Services (“HHS”) to
17 develop outcome-based performance management systems for state LIHEAP
18 programs nationwide.

19 Aside from these current projects, in the past year, I have worked for the states of Delaware,
20 Wisconsin and Illinois to help them design evaluation systems, implementation plans, and
21 outreach programs for their LIHEAP, energy efficiency, and universal service programs. In
22 each of these instances, the goal, as here in New Jersey, is to develop a program that can be

1 actually implemented on the ground within reasonable resource, time and budget constraints
2 to provide support and benefits for low-income ratepayers' energy needs.

3 **Q. DO YOU WORK ONLY FOR STATE AGENCIES AND COMMUNITY BASED**
4 **ORGANIZATIONS?**

5 A. No. I am currently under contract to Duquesne Light Company (Pittsburgh, PA) to help it
6 redesign its range of universal service programs; to Entergy Services Corporation (Little
7 Rock, AR) to help it design universal service programs in the five states served by its various
8 operating companies; and to Public Service Company of Colorado to design and help
9 implement its Affordable Payment Project ("APP"). In addition, I have been hired by
10 Vermont Energy Futures, an all-fuels energy consumer cooperative, to design its low-income
11 service offerings.

12 **Q. HAVE YOU TESTIFIED BEFORE THIS BOARD BEFORE?**

13 A. Yes. I have testified on behalf of the Ratepayer Advocate before in a variety of proceedings
14 involving low-income energy issues. I have set forth a summary of my experience in Schedule
15 RDC-1.

1 **A. The Low-Income Landscape in New Jersey.**

2 **Q. PLEASE DESCRIBE THE MAKEUP OF THE LOW-INCOME POPULATION IN**
3 **NEW JERSEY.**

4 A. New Jersey has a substantial population of low-income consumers, many of whom live at the
5 lowest subsistence levels of income. Nearly one million persons live with incomes at or
6 below 200 percent of the federal Poverty Level in New Jersey. Of these low-income persons,
7 nearly 300,000 live below 50% of the federal Poverty Level, while another 290,000 live
8 between 50% and 100% of the federal Poverty Level. The federal Poverty Level by
9 household size for the year 2000 is set out in Schedule RDC-2. The distribution of persons by
10 Poverty Level in New Jersey is presented in Schedule RDC-3.

11 **Q. IS THERE A GENERALLY ACCEPTED MECHANISM TO USE IN MEASURING**
12 **THE DIFFICULTY THAT LOW-INCOME CONSUMERS HAVE IN PAYING**
13 **THEIR HOME ENERGY BILLS?**

14 A. The generally accepted measure of inability-to-pay involves energy burden. A household's
15 energy burden is the household energy bill divided by the household income. Energy burden
16 is used as the measure of inability-to-pay at both the state and federal levels. The federal
17 LIHEAP program, for example, is statutorily directed to target the highest level of benefits to
18 households with the lowest incomes and the highest energy burdens. In addition, virtually
19 every state adopting a low-income rate affordability program funded through a system
20 benefits charge uses energy burden as the mechanism to target benefits.

1 **Q. PLEASE EXPLAIN WHY YOU CONCLUDE THAT THESE ENERGY BURDENS**
2 **ARE NON-SUSTAINABLE.**

3 A. The lack of sustainability can be viewed from two different perspectives. First, according to
4 the U.S. Department of Housing and Urban Development (“HUD”), a household
5 experiencing total shelter costs in excess of 30 percent of income is likely to be over-
6 extended. HUD defines total shelter costs to include housing (rent or mortgage) plus the
7 cost of all utilities except telephones. As a practical matter, a consumer who pays 10 percent
8 or more of his or her income for utility costs is not going to experience *total* shelter costs of
9 30 percent or less. Second, the Federal National Mortgage Association (“FNMA” or “Fannie
10 Mae”) has indicated that utility bills should not generally exceed 20% of total shelter costs. If
11 total shelter costs are in the range of 30% (or even 40%) of income, this would yield
12 sustainable energy burdens of from 6% (30% x 20%) to 8% (40% x 20%) of income. The
13 energy burdens of low-income consumers routinely exceed these figures.

1 **Q. WHAT IS THE IMPACT OF BEARING A NON-SUSTAINABLE ENERGY**
2 **BURDEN?**

3 A. One of the primary impacts of non-sustainable energy burdens is the nonpayment of home
4 energy bills. Experience with other states and other utilities demonstrates quite clearly that a
5 relationship exists between low-income status and payment troubles.

6 Nonpayment, however, is not the only impact of inability-to-pay based on non-sustainable
7 home energy burdens. In addition, because of these unaffordable burdens, low-income
8 consumers are forced to make unreasonable budget decisions between competing household
9 necessities (*e.g.*, heat or eat), and be forced to engage in a wide variety of dangerous and/or
10 unhealthy activities in an effort to keep paying their utility bills. In addition, these energy
11 burdens have been found to represent an impediment to low-income consumers taking
12 constructive actions to address their inability-to-pay. In a recent study of low-income
13 inability-to-pay home energy bills, I found:

14 Low-income customers, however, frequently have little incentive, and even fewer
15 choices, to pursue. . .constructive responses to bill unaffordability. Enrolling in an
16 energy efficiency program to reduce high bills on a going-forward basis, for example,
17 does not help pay the existing arrears unless coupled with a reasonable long-term
18 deferred payment plan. Conversely, agreeing to a deferred payment arrangement
19 does not address affordability on a going-forward basis unless some adjustment can
20 be made in either the level of the bill or the level of household resources available to
21 pay for the bill.

22 All too frequently, the customer is faced with an immediate need (*i.e.*, bill payment by
23 a date certain) with the available constructive responses to an inability-to-pay unable
24 to deliver assistance either in the form, the time period, or the magnitude necessary to
25 meet that need. Given the immediate consequences of failing to address the short-

1 term nonpayment crisis, the customer is pushed into the negative actions identified in
2 this research.¹

3 The "negative actions" identified included practices, among others, such as increasing high
4 cost debt by purchasing food and fuel on credit cards; turning down thermostats to
5 dangerously low temperatures; using alternate (and unsafe) energy sources for heating (such
6 as ovens, burners, and charcoal grills); burning "alternative fuels" in fireplaces and wood
7 stoves, including furniture, clothes, siding, used tires, doors, and woodwork; turning off
8 water heaters; abandoning homes for weeks at a time during cold weather; engaging in
9 dishonest or unlawful activities, such as writing bad checks and tampering with meters;
10 foregoing the purchase of food, medical care, dental care and medicine; and foregoing the
11 payment of other bills (such as rent and water).

12 **Q. HAVE YOU QUANTIFIED THE ENERGY BURDEN FACING NEW JERSEY'S**
13 **LOW-INCOME CONSUMERS?**

14 A. Schedule RDC-4 shows electric, natural gas and combined gas/electric burdens for New
15 Jersey's low-income households. This Exhibit shows that natural gas and electric bills for
16 households living below 100% of Poverty are universally unaffordable, both standing alone
17 and in combination with each other. Only when incomes exceed 100% of Poverty Level do
18 average bills become more affordable to the low-income consumer.

¹ See, Roger Colton (May 1999). *Measuring LIHEAP's Results: Responding to Home Energy Unaffordability*, Fisher, Sheehan and Colton, Public Finance and General Economics: Belmont, MA.

1 For a variety of reasons, however, households with higher incomes begin to use higher level
2 of energy. One of the primary reasons for this is not only that households in these higher
3 ranges of Poverty have more appliances, but they tend to live in larger housing units with the
4 associated increased energy consumption. Along with this higher energy consumption will
5 come higher energy burdens as well.

6 **Q. WHAT DO YOU CONCLUDE?**

7 A. The needs of low-income consumers are great in New Jersey, both in terms of dollars and in
8 terms of the number of households in need. The energy problems of New Jersey's low-
9 income customers are not household budgeting problems. There is, instead, an absolute
10 mismatch between household resources and expenses.

11 **Q. WHAT PROGRAMS CURRENTLY EXIST TO ASSIST NEW JERSEY'S LOW-**
12 **INCOME HOUSEHOLDS WITH THEIR ENERGY BILLS?**

13 A. Three primary programs exist to assist low-income consumers with their home energy needs
14 in New Jersey: (1) the federal LIHEAP program; (2) the state Lifeline Assistance Program;
15 and (3) New Jersey SHARES and other hardship funds operated by the utilities. These
16 programs do not alleviate the need for a universal service program in New Jersey.

1 **Q. DO THESE PROGRAMS MEET THE NEEDS OF THE STATE'S LOW-INCOME**
2 **ENERGY CONSUMERS?**

3 A. These programs are not sufficient to meet the needs of New Jersey's low-income consumers.
4 A comprehensive universal service program is needed to fill the gaps in the existing
5 programs.

6
7 **Q. WHY IS LIHEAP NOT AN ADEQUATE SUBSTITUTE FOR A UNIVERSAL**
8 **SERVICE PROGRAM?**

9 A. LIHEAP is a federally-funded low-income home heating assistance program. (Limited funds
10 for medically necessary cooling are also provided in New Jersey.) In New Jersey, LIHEAP
11 serves roughly 110,000 households per year. In Fiscal Year 1999, 41,895 natural gas
12 customers and 8,221 electric space heating customers received LIHEAP benefits. The Fiscal
13 Year 2000 average LIHEAP benefit was \$305.

14 Because LIHEAP funding is limited in several important ways, it is not an adequate substitute
15 for a universal service program. First, LIHEAP is available to a limited number of utility
16 heating customers. In Fiscal Year 1999, LIHEAP served 111,000 households in New Jersey,
17 only 50,000 of whom were electric or natural gas heating customers,² even though nearly
18 400,000 gas and electric utility customers in the state would have been eligible for LIHEAP
19 assistance. As can be seen, LIHEAP serves but a small proportion of the total number of
20 low-income customers.

² An additional 49,000 were renters who paid for home heating as a part of their rent.

1 Second, LIHEAP crisis funding is available only during the period in which LIHEAP
2 applications are being taken. LIHEAP is considered to be primarily a winter heating
3 program. In 1999, while 120,000 households received heating assistance, only 17,000
4 received medically necessary cooling assistance. Moreover, LIHEAP applications are only
5 taken during November through February. Households who face the loss of home energy
6 service in the months during which LIHEAP does not operate, or who face the loss of home
7 electric non-heating service, are not adequately served by the existing LIHEAP crisis
8 program.

9 Third, LIHEAP is almost exclusively a home heating program. It thus addresses only a small
10 part of a low-income consumer's energy affordability problem. Home heating represents only
11 35 to 40% of a low-income customer's total home energy bill. In contrast, electricity
12 represents 60 to 65% of a low-income home energy bill. LIHEAP standing alone, therefore,
13 cannot be an adequate energy affordability program.

14 Finally, many income-eligible households never enter the LIHEAP system. Due to years of
15 decreasing federal funds and limited administrative dollars, the federal LIHEAP program has
16 not done extensive outreach and consumer education to expand program participation. As a
17 result, many low-income consumers do not know of the program or do not know how to
18 access the program.

1 **Q. DOES THE SAME HOLD TRUE FOR THE ENERGY LIFELINE PROGRAM?**

2 A. In addition to the LIHEAP program is the Lifeline program. The Lifeline Program is
3 designed to increase energy affordability to income-eligible households. According to
4 materials provided in this docket by the New Jersey Lifeline Agency, benefits are set at \$225,
5 to be applied in one lump sum credit if the recipient receives gas and electric service from the
6 same company; if the recipient takes gas and electric service from different companies, the
7 benefit is split into two equal parts. No benefits for fuels other than natural gas or electricity
8 are provided. Persons receiving the Lifeline benefit through the Tenant Lifeline Assistance
9 program will be unaffected.

10 Because Lifeline credits are limited to a special portion of the population, the elderly and the
11 disabled, it does not represent a broad-scale energy affordability program.

12 **Q. WHY DO EXISTING CRISIS BENEFITS NOT ADEQUATELY ADDRESS LOW-**
13 **INCOME NEEDS?**

14 A. In 1999, only 9,500 households received LIHEAP crisis assistance, including those
15 households who received crisis assistance for non-utility emergencies. In contrast, assume
16 that roughly 9% of all low-income customers face the disconnection of service for
17 nonpayment in any given year, an assumption consistent with existing data. We know that
18 nearly 300,000 live below 50% of the federal Poverty Level, while another 290,000 live
19 between 50% and 100% of the federal Poverty Level. This counsels that roughly 50,000
20 New Jersey households who live below 100% of Poverty Level face the loss of home energy

1 service due to nonpayment in any given year. Clearly, if we define “crisis” as a household
2 facing the loss of utility service due to nonpayment, the need for increased crisis assistance in
3 New Jersey is evident.

4 In addition, the New Jersey SHARES program does not fill the gaps. In 1999, New Jersey
5 SHARES distributed \$1,094,004 in 4,771 grants. New Jersey SHARES was not designed to
6 fill the gaps between available LIHEAP crisis dollars and actual crisis needs in New Jersey,
7 nor is it capable of doing so.

8 **Q. HOW DOES THE NEW JERSEY UNIVERSAL SERVICE STATUTE RECOGNIZE**
9 **THESE NEEDS?**

10 A. New Jersey's retail choice legislation provides for the creation of a Universal Service Fund
11 (Section 12(b)). The legislation provides that the Board shall determine:

- 12 Ë the level of funding;
- 13 Ë the appropriate administration;
- 14 Ë the purposes and programs to be funded with monies from the fund;
- 15 Ë which programs should be provided as part of the provision of regulated services
16 which provide a public benefit;
- 17 Ë whether certain designated funds should be deposited in the fund; and
- 18 Ë whether new charges should be imposed to fund new or expanded social programs.

1 The legislation is mandatory in nature. The Universal Service Fund is "established," not
2 merely authorized. The Fund is made "nonlapsing." The Board's tasks are stated as
3 mandatory obligations (*i.e.*, "the Board *shall* determine").
4

5 **Q. IN LIGHT OF THIS STATUTE, WHAT PURPOSE SHOULD A UNIVERSAL**
6 **SERVICE PROGRAM PURSUE?**

7 A. A New Jersey universal service program should be directed toward providing low-income
8 consumers with the opportunity to obtain and maintain quality utility service at affordable
9 prices.

10 **Q. WHAT DO YOU MEAN BY "OBTAINING AND MAINTAINING" SERVICE?**

11 A. There is, indeed, a distinction between "obtaining" and "maintaining" service. A universal
12 service program should be directed not simply toward consumers currently on the system, but
13 also to those low-income consumers who might have fallen off the system due to
14 nonpayment. These consumers may be without service (due to disconnects), may be
15 doubled-up with another family (friend or relative), may be homeless, or may lack service of
16 their own for other similar reasons.

17 **Q. HOW DO YOU DEFINE AND OPERATIONALIZE THE TERM "AFFORDABLE**
18 **SERVICE"?**

19 A. The purpose of the USF is to maintain service at affordable prices. This means that the
20 objectives of a universal service programs are not exclusively company-oriented. The

1 purpose is not exclusively to remedy payment problems. Research I have done finds that
2 low-income consumers frequently pay unaffordable utility bills. A bill may be paid because
3 the consumer has taken only three of the five pills he or she was supposed to take during the
4 day; because he or she is living with winter home heating set at 60E rather than 68E; because
5 he or she is making unacceptable trade-offs between utility bill payment and the purchase of
6 food; because he or she has shut off every room of a home except one. My research identified
7 people who have completely turned off their water heaters, who are burning used tires as an
8 alternative heating source, or who are abandoning their homes for weeks at a time during
9 cold weather so they can turn off their heat.

10 In light of these observations, "affordable service" should be defined in the same way the
11 Federal Communications Commission ("FCC") defined the term in its May 1997 "universal
12 service" order to implement the Telecommunications Act of 1996. The FCC decided that the
13 concept of "affordability" includes both an "absolute" ("to have enough or the means for")
14 and a "relative" ("to bear the cost of without serious detriment") component. According to
15 the FCC, "both the absolute and relative components must be considered in making the
16 affordability determination required under the statute."

17 **B. Summary of Recommendations.**

18 **Q. PLEASE DESCRIBE THE PURPOSE OF YOUR TESTIMONY TODAY.**

1 A. Based upon the current needs of the New Jersey low-income population, the purpose of my
2 testimony is to consider the proper design and funding of a universal service program to be
3 funded through a New Jersey Universal Service Fund (“USF”). More specifically, my
4 testimony will:

- 5 Ë Provide an overview of the purposes of the universal service program;
- 6 Ë Identify the necessary components to the universal service program;
- 7 Ë Recommend an administrative structure for the universal service program;
- 8 Ë Recommend a level of funding for the universal service program; and
- 9 Ë Propose a cost-recovery mechanism for the universal service program.

10 In brief, the purpose of my testimony is to bring my experience with the design and
11 implementation of universal service programs in many states throughout the country to bear
12 on advising the Board of the "how to" specifics of a universal service program in New Jersey.
13 My goal is to *not* merely to indicate what is programmatically sound, but also what
14 operationally has worked effectively and efficiently in other states.

15 **Q. PLEASE SUMMARIZE THE RECOMMENDATIONS YOU MAKE.**

16 A. My recommendations can be summarized as follows:

- 17 Ë An appropriate Universal Service structure includes a rate affordability assistance
18 program, which should be available to households with incomes at or below 150
19 percent of the federal Poverty Level. In addition, a reasonable amount of rate
20 affordability assistance should be reserved for households with incomes up to 200%

1 of Poverty having special needs. The rate affordability assistance program should
2 consist of the following components:

3 **Ē Basic rate affordability assistance.** Low-income consumers should receive
4 a fixed credit based on a percentage of household income. The percentage of
5 income considered affordable should be based on a sliding scale, depending on
6 household income.

7 **Ē Arrearage forgiveness.** Arrearages should be forgiven over a period not
8 exceeding two years, and should be subject to affordable customer co-
9 payments.

10 **Ē Crisis intervention assistance.** A crisis intervention fund, coordinated with
11 existing emergency benefits, should be provided.

12 **Ē Customer outreach and intake initiatives.** Specific outreach and intake
13 initiatives are needed, including expanded implementation of the Chronicles
14 computer screening tool (formerly Benefits Outreach and Screening Software
15 (“BOSS”)), and outreach to be provided to all utility consumers as part of the
16 Utility Education Program. Intake and enrollment should be automated to the
17 extent possible.

18 **Ē** The rate affordability assistance program should be administered as a state-wide
19 program by the state LIHEAP office.

20 **Ē** Rate affordability assistance programs should be available to low-income consumers
21 who buy their commodity service from either a utility or from a competitive third-
22 party supplier (“TPS”).

23 **Ē** The Universal Service program should also include the following additional
24 components:

25 **Ē Energy efficiency assistance.** To the extent not funded through the utilities’
26 Societal Benefits Charges (“SBCs”), the low-income energy efficiency
27 programs recommended by the Ratepayer Advocate in the Board’s
28 Comprehensive Resource Analysis proceeding (“CRA”) should be funded
29 through the USF.

- 1 **Ē** **An assistance in aggregation program.** New Jersey should operate an
2 assistance in aggregation program administered by an Independent Statewide
3 Administrator (“ISA”).
- 4 **Ē** **A low-income guarantee pool.** The Board should develop a mechanism to
5 allow third-party suppliers to transfer some of their risks of non-collection to a
6 guarantee pool.
- 7 **Ē** Based on the budget estimates in this testimony, the Universal Service Charge should
8 be set initially at \$0.00061 per kWh and \$0.0056 per therm. If the low-income
9 energy-efficiency program is included in the USF, the initial charge should be
10 \$0.00081 per kWh and \$0.0057 per therm.
- 11 **Ē** The USF should be a statewide fund, which should be funded through a non-
12 bypassable charge, The fund should be administered by the State Treasurer's office.
13
14 , The utilities’s recovery of costs through the USF should be limited to incremental
15 costs, net of savings realized as a result of the the universal service program.
- 16 **Ē** The Board should require the utilities to submit reports tracking both the performance
17 of the universal service program and the impact of competition upon low-income
18 consumers.

1 **PART 2: UNIVERSAL SERVICE RATE AFFORDABILITY**
2 **ASSISANCE PROGRAM COMPONENTS**

3 **A. Eligibility.**

4 **Q. PLEASE EXPLAIN WHO SHOULD BE ELIGIBLE TO RECEIVE RATE**
5 **ASSISTANCE THROUGH A UNIVERSAL SERVICE PROGRAM.**

6 A. The universal service program should be open to enrollment by any low-income consumer.
7 For purposes of this program, a "low-income consumer" is any consumer with gross
8 household income of at or below 150% of the federal Poverty Level. In addition, some
9 households with incomes of up to 200% of Poverty should be considered low-income given a
10 demonstration of special needs.

11 **Q. WHY ARE YOU RECOMMENDING A SPECIAL NEEDS SET-ASIDE FOR**
12 **CUSTOMERS UP TO 200% OF POVERTY?**

13 A. As Schedule RDC-4 demonstrates, even those households with *average* energy consumption
14 are at the limits of affordability. A two-person household in the 151 - 200% Poverty range
15 will pay 8% of income at average consumption, while a three-person household with identical
16 energy consumption would pay 6%. What this shows is that some substantial portion of the
17 households in this range will be above affordable levels. By definition, there will be some
18 households with "above-average" consumption bearing unaffordable energy burdens.

19 In addition, previous work that I have performed indicates that even households in the higher
20 ranges of Poverty have substantial difficulty in paying their bills. I have found that as earned

1 income brings increased taxes and decreased public benefits, disposable income represents a
2 smaller and smaller proportion of total income. Hence, while a move from roughly \$10,000
3 to \$20,000 in total income increases total income by 100 percent, it increases disposable
4 income by only 50 percent. Looked at another way, a household earning \$2,000 has a
5 disposable income of 92 cents for each dollar earned, while a household earning \$20,000 has
6 a disposable income of only 64 cents for each dollar earned.

7 In addition, due to offsets (such as reduced public assistance and increased taxes), increases
8 in disposable income significantly lag behind increases in total income. For example, an
9 increase in earnings from \$9,000 to \$10,000 (+\$1,000) yields an increase in total income of
10 only \$820 and an increase in disposable income of only \$414. A \$5,000 increase in earnings
11 from \$15,000 to \$20,000 yields an increase in *total* income of only \$2,807³ and an increase in
12 *disposable* income of only \$778. As can be seen, households in the 150% to 200% Poverty
13 Level range can be severely budget constrained, just as the lower-income households are.

³ An increase in earnings will yield a decrease in Food Stamp and AFDC benefits. Thus, while *earnings* may increase by \$5,000, when offset by other losses, *total income* will increase somewhat less.

1 **Q. WHAT INCOME NEED EXISTS IN NEW JERSEY SPECIFICALLY?**

2 A. A Fall 1999 study titled, “The Real Cost of Living: The Self-Sufficiency Standard for New
3 Jersey,”⁴ concluded that the income needed to be “self-sufficient” varies based on the location
4 in New Jersey. In Monmouth County, the federal Poverty Level for a three-person family is
5 only one-third the amount actually needed to be self-sufficient. Even in the less expensive
6 rural areas, such as Atlantic County, 100% of the Poverty Level is only about 44% of the
7 amount needed to meet family needs.

8 These higher needs are frequently recognized. A national survey performed in April, 2000
9 found that seven out of ten Americans believe it takes at least \$35,000 -- double the Poverty
10 Level -- for a household to make ends meet.⁵

11 Various programs recognize the need as well. A state is permitted to use welfare dollars to
12 provide child care or transportation subsidies to working families with incomes up to 200
13 percent of Poverty. In addition, the New Jersey Legislature, on June 29, 2000, passed
14 legislation (A-49) to extend the Family Care Health Coverage Program to families with gross
15 incomes up to 200% of the Poverty Level.⁶

⁴ Diana Pearce and Jennifer Brooks (1999). “The Real Cost of Living: The Self-Sufficiency Standard for New Jersey,” Legal Services of New Jersey Poverty Research Institute and New Jersey Center for Economic Policy and Education: Edison (NJ).

⁵ Richard Kazis (2000), “A National Survey of American Attitudes Towards Low-Wage Workers and Welfare Reform,” Jobs for the Future: Washington D.C.

⁶ This legislation is presently awaiting signature by Governor Whitman.

1 **Q. WHY INCUR THE COSTS TO SERVE HOUSEHOLDS IN THESE HIGHER**
2 **POVERTY LEVELS?**

3 A. The program will not bear considerable costs in providing such assistance. The way a
4 percentage of income-based program operates is that those households with affordable
5 energy burdens receive no rate affordability assistance. Only if a household in the higher
6 income ranges bears an unaffordable burden will a fixed credit be provided.

7 **Q. ARE THERE ANY FORMS OF BENEFITS THAT SHOULD NOT BE INCLUDED**
8 **IN DETERMINING A HOUSEHOLD'S INCOME?**

9 A. In deciding upon what income is to be counted as "gross household income," non-cash
10 benefits should not be included. The inclusion of food stamps as income in a state program
11 such as the universal service program, of course, is explicitly prohibited by federal law.⁷ In
12 addition, the inclusion of subsidies such as Medicaid and housing subsidies is not
13 contemplated in the definition of the federal Poverty Level. If non-cash benefits were to be
14 included in income, a redefinition of the Poverty Level underlying eligibility would be
15 required.

⁷ The federal Food Stamp statute, 7 U.S.C. Section 2017(b) (1995) provides that: "The value of benefits that may be provided under this chapter, whether through coupons, access devices, or otherwise, shall not be considered income or resources for any purpose under any Federal, State or local laws, including but not limited to, laws relating to taxation, welfare, and public assistance programs, and no participating State or political subdivision thereof shall decrease any assistance otherwise provided an individual or individuals because of the receipt of benefits under this Chapter."

1 **Q. SHOULD UNIVERSAL SERVICE BENEFITS BE LIMITED TO PAYMENT-**
2 **TROUBLED LOW-INCOME CUSTOMERS?**

3 A. No. Non-income eligibility criteria should not be included as program prerequisites.
4 Specifically, universal service program participation should not be contingent upon a
5 customer being "payment troubled." There are two reasons why "payment troubled" should
6 not be an eligibility criterion. First, as I discuss in detail above, many low-income customers
7 pay their home heating bills at significant personal sacrifice to themselves and the members of
8 their households. These consumers are no less "payment troubled" than their counterparts
9 who simply do not pay their bills.

10 A second reason not to make payment-troubled status an eligibility requirement is that this
11 criterion will create difficulties as New Jersey moves toward a competitive natural gas and
12 electric industry. I have worked now in two states, Maryland and New Hampshire, where
13 consideration has been given to conditioning the payment of benefits on customers making
14 regular monthly electric payments in a competitive retail choice environment. What we have
15 concluded in each instance is that while monitoring complete and regular payments is not
16 difficult in the traditional regulated utility environment, it is difficult, if not impossible, to do
17 in a retail choice environment. A distribution company will have no reason to know whether,
18 when, or to what extent any given low-income customer has made payments to a competitive
19 service provider. A universal service criterion based on a "payment troubled status" is merely
20 the flipside of the same question. A distribution utility (gas or electric) will have no reason to
21 know whether, when or to what extent a low-income customer is in payment trouble,

1 however defined, with a competitive service provider. It is entirely conceivable that the
2 distribution company will not know that a low-income customer has arrears with a TPS, or
3 has entered into a deferred payment arrangement with that TPS, let alone whether the
4 payment plan has failed or not. As can be seen, the use of "payment troubled" status faces
5 serious operational problems in a retail choice environment. For each of these reasons, I
6 recommend that "payment troubled" not be used as an eligibility criterion.

1 **B. Rate Affordability Assistance Components.**

2 ***1. Basic Rate Affordability Assistance.***

3 **Q. PLEASE EXPLAIN THE BASIC MECHANISM THROUGH WHICH RATE**
4 **AFFORDABILITY ASSISTANCE SHOULD BE DELIVERED.**

5 A. Rate affordability assistance should be distributed on a percentage of income basis. Using a
6 percentage of income approach provides a more efficient use of scarce rate affordability
7 resources than an across-the-board percentage discount. This is illustrated in Schedule RDC-
8 5, which compares the distribution of universal service funds using an energy burden
9 approach versus a 40% across-the-board discount. As this Exhibit shows, only when an
10 electric customer has an income in the range of \$9,000, and when a gas customer has an
11 income in the range of \$11,000, will an across-the-board discount come close to equaling the
12 funds necessary to bring low-income bills into an affordable range. For customers with
13 incomes above these amounts, the across-the-board discount pays *more* than is necessary to
14 bring bills into an affordable range. For customers with incomes below these amounts, the
15 across-the-board discount pays them *less* than is necessary to bring bills into an affordable
16 range. Accordingly, I conclude that it is appropriate for the Board to direct that universal
17 service funds be distributed using a percentage of income targeting mechanism.

1 **Q. ISN'T AN ACROSS-THE-BOARD DISCOUNT SIMPLER AND LESS EXPENSIVE**
2 **TO ADMINISTER THAN CREDITS CALCULATED INDIVIDUALLY BASED ON**
3 **EACH CONSUMER'S INCOME LEVEL?**

4 A. No. In a recent review of energy affordability programs, I found that across-the-board
5 discounts programs are more costly in comparison to the benefits actually delivered. I have
6 found that the most expensive component of program administration is not the determination
7 of benefit amounts--it is the cost of identifying potential participants and determining their
8 eligibility for the program. In addition, since an across-the-board discount is less effective in
9 making energy bills affordable than an individually determined credit, there is a greater
10 tendency for participants to be "dropped" from the program due to non-payment of energy
11 bills. This results in a reduced number of participants and correspondingly higher
12 administrative cost per participant.

13 **Q. IS THERE A PREFERRED MECHANISM THROUGH WHICH TO DELIVER**
14 **RATE AFFORDABILITY ASSISTANCE BASED ON A PERCENTAGE-OF**
15 **INCOME APPROACH?**

16 A. Although a variety of percentage-of-income based approaches exists, I recommend the
17 delivery of rate affordability assistance using a fixed credit approach. The fixed credit
18 approach begins as an income-based approach. In order to be eligible for the fixed credit, a
19 household must meet *both* eligibility criteria: (1) that the household income is at or below
20 200 percent of Poverty; and (2) that the expected household energy bill is at or above the

1 required income percent. The required percentage of income payment should be vary in
2 proportion to the Poverty Level at which the household lives.

3 The fixed credit benefits are delivered to the program participants as part of a levelized billing
4 plan. The utility calculates a levelized bill in accordance with its usual levelized billing
5 program, and subtracts the bill credit calculated as described above. The customer receives a
6 fixed credit designed to bring the household's expected energy bill down to a designated
7 percent of income. Calculating the fixed credit involves four steps: (1) calculating an
8 affordable payment; (2) calculating an expected annual bill; (3) subtracting other rate
9 assistance benefits the household is receiving; and (4) calculating the extent of the rate
10 assistance fixed credit necessary to bring the annual bill down to the affordable payment.

11 **Q. WOULD YOU PLEASE ILLUSTRATE HOW A FIXED BILL CREDIT WOULD BE**
12 **CALCULATED?**

13 A. The following is an example:

- 14 1. The first step in the fixed credit model is to calculate an affordable payment. Assume
15 that the household has an annual income of \$6,000 and is required to pay six percent
16 (6%) for its home energy bill. The required household payment is thus \$360. This is
17 simply $\$6,000 \times 6\% = \360 .
- 18 2. The next step is to calculate a projected annual household energy bill. This
19 calculation is made using the same method the utility currently uses to estimate annual
20 bills for purposes of placing residential customers (low-income or not) on a levelized
21 billing plan. Let's assume for purposes of illustration that this existing process results
22 in an estimated annual bill of \$900.

- 1 3. The next step is to determine the level of other basic rate affordability assistance the
2 customer is receiving. For purposes of this example, assume that the customer is
3 receiving a \$300 LIHEAP heating assistance benefit.
- 4 4. The final step is to calculate the necessary fixed credit to bring the annual bill down to
5 an affordable payment. Given an annual bill projection of \$900, a LIHEAP benefit of
6 \$300, and an affordable payment of \$360, the annual fixed credit would need to be
7 \$240 ($\$900 - \$300 - \$360 = \240). The household's *monthly* fixed credit would be
8 \$20 ($\$240 / 12 = \20).

9 **Q. HOW DOES THIS APPROACH DIFFER FROM A “STRAIGHT” PERCENTAGE**
10 **OF INCOME MECHANISM?**

11 A. Under the fixed credit approach, the amount of the credit is calculated based on the
12 consumer's *expected* energy usage. The amount of the credit remains the same regardless of
13 actual energy usage. The “straight” percentage of income approach involves calculation of a
14 credit based each month based on the customer's actual energy bill for that month.

16 **Q. WHAT ARE THE ADVANTAGES TO THE FIXED CREDIT APPROACH,**
17 **COMPARED TO A “STRAIGHT” PERCENTAGE OF INCOME APPROACH?**

18 A. First, a fixed credit provides a strong conservation incentive to the low-income customer.
19 Under the fixed credit model, the utility provides a fixed credit to the low-income household
20 irrespective of the household's actual bill. If the household increases its consumption, and
21 thus has a higher bill, the household pays the amount of the increase. If, in contrast, the
22 household conserves energy and thus lowers its bill, the household pockets the savings.

1 Second, a fixed credit program allows a program to work within a fixed operating budget.
2 Once a low-income customer is enrolled in the universal service program, the maximum
3 possible financial exposure for the time of the enrollment is established. Systems can be
4 easily designed, as we have developed for the New Hampshire Electric Assistance Program
5 (“EAP”), to track funds that are obligated, deobligated and expended to ensure that the
6 budget is not exceeded. In contrast, benefit expenditures through either a straight percentage
7 of income program or a percentage of bill program may vary based upon changes in
8 consumption. Those changes may occur based on weather or based on customer actions.

9 Finally, the fixed credit approach allows for an ease in the universal service billing as well.
10 Using the same process which currently exists to establish a levelized budget billing plan,
11 fixed credits can be subtracted from a customer's levelized annual bill. The monthly bill is
12 then rendered based upon this one-time annual adjustment. The utility does not need to make
13 monthly billing adjustments, as is the case with either the straight percentage of income or
14 percentage of bill approach.

15 **Q. WHAT PERCENTAGE OF INCOME SHOULD BE USED TO CALCULATE A**
16 **FIXED CREDIT IN NEW JERSEY?**

17 A. Ideally, as discussed above in section 1.A above, the energy burden represented by a
18 combined natural gas and electric bill should not exceed eight percent (8%) of income. The
19 percentage of income should vary based upon Poverty Level. Households with incomes at
20 the lowest levels of Poverty may fall somewhat below the general rule, while households at

1 the higher levels of Poverty may fall somewhat above the general rule. My recommended
2 percentages are shown on Exhibit RDC-6.

3 **Q. WHICH BENEFITS FROM OTHER SOURCES SHOULD BE OFFSET AGAINST**
4 **THE CREDIT?**

5 A. I believe that it is appropriate to allow certain existing sources of energy assistance to be used
6 as an offset to the estimated universal service fund costs that I have calculated above. In
7 particular, I recommend that Lifeline Program benefits and LIHEAP benefits be credited to
8 the universal service fund as appropriate.

9 As discussed above, New Jersey's Lifeline Program is designed to increase energy
10 affordability to income-eligible households through an annual benefit of \$225. This benefit is
11 applied in one lump sum credit if the recipient receives gas and electric service from the same
12 company; if the recipient takes gas and electric service from different companies, the benefit
13 is split into two equal parts. Lifeline benefits are directed toward the elderly and households
14 with disabled persons.

15 LIHEAP, also, is designed to increase energy affordability to income-eligible households.
16 New Jersey's LIHEAP eligibility guidelines of 150% of Poverty Level are within the eligibility
17 guidelines which I recommend for New Jersey's universal service program. To the extent that
18 LIHEAP benefits are routinely provided for cooling assistance, those benefits should be
19 credited against the electric fixed credit program as well.

1 In no event, however, should supplemental LIHEAP benefits, provided as a result of
2 extraordinary weather conditions, be used as a credit against the universal service program.
3 Supplemental LIHEAP payments are designed to help pay high bills associated with
4 extraordinarily hot or cold weather. The fixed credits provided to low-income consumers,
5 however, are set on historic consumption. They are specifically designed *not* to reflect
6 increased consumption attributable to hot or cold weather. Accordingly, high bills associated
7 with extreme weather do not contribute to the cost of the fixed credit program. The
8 supplemental payments (sometimes referred to as "contingency payments") are in the nature
9 of crisis payments and, therefore, should be retained for the purposes for which they were
10 intended: to offset the high, weather-related costs that contribute to a crisis situation.
11 Similarly, the utilities' crisis programs such as New Jersey SHARES are not intended to
12 operate to provide underlying bill affordability and thus should not be credited against the
13 basic rate affordability benefit.

14 **Q. UNDER A FIXED CREDIT APPROACH, WILL THERE BE HOUSEHOLDS THAT**
15 **ARE INCOME-ELIGIBLE WHO DO NOT RECEIVE BASIC RATE**
16 **AFFORDABILITY ASSISTANCE?**

17 A. Yes. Under a universal service approach based on energy burdens, if, because of relatively
18 higher income or relatively lower home energy bills, the pre-determined percent of a
19 household's income will exceed its annual gas or electric bill, the household will receive no
20 basic rate affordability benefit. In those instances, the home energy bill is deemed
21 "affordable" and the utility will collect the entire fully-embedded rate.

1 To illustrate, assume a household has an annual income of \$15,000, an annual energy bill of
2 \$700, and is asked to pay eight percent of its income toward its energy bill in an income-
3 based program. This customer's income-based energy bill payment would be \$1,200
4 ($\$15,000 \times .08 = \$1,200$). Hence, this customer would receive no fixed credit benefit, since
5 the fully-embedded bill is \$500 *less* than the bill rendered under the low-income "discount."

6 However, the household may receive benefits through other components of the rate
7 affordability assistance program.

8 **Q. HOW SHOULD ELIGIBILITY AND CREDIT AMOUNTS SHOULD BE RE-**
9 **DETERMINED ONCE A CUSTOMER IS ENROLLED IN THE PROGRAM?**

10 A. Eligibility and credit amounts should be re-determined annually. For some customers, it can
11 be reasonably expected that their income will be fixed over time. For example, a disabled
12 person receiving Supplemental Social Security Income ("SSI") is not likely to experience
13 substantial changes in income over time. For other customers, income should be re-certified
14 annually through a contract with the appropriate state or federal agency. Customers whose
15 income cannot be recertified in this manner should be notified of the need for recertification
16 at the appropriate time before their anniversary dates.

1 **Q. HOW SHOULD BASIC RATE AFFORDABILITY ASSISTANCE BE DELIVERED**
2 **TO CUSTOMERS WHO BUY THEIR COMMODITY SERVICE FROM A TPS?**

3 A. When the customer is enrolled, the LIHEAP office should designate the split between the
4 distribution and supply portions of the fixed credits. If the distribution company is providing
5 both distribution and supply, both components of the fixed credit are received by the
6 distribution company. If the customer is buying energy from a TPS, the TPS is entitled to the
7 supply portion of the credit.

8 **Q. HOW SHOULD PAYMENT OBLIGATIONS BE ENFORCED FOR PARTICIPANTS**
9 **IN THE RATE ASSISTANCE PROGRAM?**

10 A. Payment obligations should be enforced through the traditional credit and collection process,
11 not through a process which automatically removes customers from the universal service
12 program for nonpayment or late payment. This approach has both policy and operational
13 aspects. From a policy perspective, it has been found that subjecting universal service
14 program participants to the collection process (including service termination) for nonpayment
15 is a more effective means of gaining full and timely payment. Through such a process,
16 customers may not use a default from the universal service program as a delaying tactic to
17 retain service without payment. If the sanction for nonpayment is simply removal from the
18 program and default back to the standard residential rate, low-income customers will soon
19 learn that nonpayment of the universal service rate will allow several additional months of
20 service, irrespective of the nonpayment.

1 From an operational perspective, the process of removing customers from the universal
2 service program upon payment default, placing those customers on the standard residential
3 rate, and then reinstating those customers upon cure of the payment default, requires a new
4 and often complicated administrative structure. Instead of creating such a new process, the
5 approach of simply subjecting universal service participants to the same credit and collection
6 process as any other residential customer allows the company to use its pre-existing
7 procedures. Under this approach, the universal service customer would have no fewer, and
8 no greater, rights and responsibilities in the collection process than does any standard
9 residential customer.

10 **Q. WHAT LEVEL OF FUNDING DO YOU RECOMMEND FOR BASIC RATE**
11 **AFFORDABILITY ASSISTANCE?**

12 A. I recommend an initial funding level of \$79.2 million, based on assumption that 50% of
13 eligible consumers participate. This amount consists of an estimated rate affordability
14 assistance costs of \$29.9 million for natural gas customers and \$49.3 million for electric
15 customers, offset by \$31.7 million in existing Lifeline and LIHEAP benefits. It includes \$7.9
16 in administrative costs in addition to the \$79.2 million in credits.

17 **Q. WHY DID YOU ASSUME A PARTICIPATION RATE OF 50%?**

18 A. Assuming a 50% participation rate is a reasonable proposition. The Pennsylvania Public
19 Utility Commission (“PUC”) assumes a 50% participation rate for its low-income Customer
20 Assistance Programs (“CAPs”), that state's rate discount program. The states of Maryland

1 and New Hampshire also have used a 50% participation rate as the basis for their respective
2 universal service programs.

3 **Q. ARE YOU PROPOSING TO LIMIT PARTICIPATION TO 50%?**

4 A. The proper size of a universal service program is to serve *all* eligible low-income customers.
5 No purpose is served by establishing either a minimum number or a maximum number of
6 program participants. My estimate that 50% of eligible customers will participate is solely
7 for the purpose of estimating the potential costs needed to be recovered in the operation of
8 such a program, not to establish an artificial floor or ceiling on participation. If participation
9 rates are higher, program costs will be higher. If participation rates are lower, program costs
10 will be lower. Funding levels should be adjusted periodically to reflect actual experience.

11 **Q. PLEASE EXPLAIN YOUR COST ESTIMATE FOR NATURAL GAS RATE**
12 **AFFORDABILITY ASSISTANCE.**

13 A. The costs of reaching 50% of all eligible low-income natural gas customers in New Jersey
14 with rate affordability assistance would reach \$29.9 million. The U.S. DOE reports that in
15 1996, there were 2,147,622 residential natural gas customers in New Jersey. The U.S.
16 Census Bureau reports that 12.5% of all New Jersey residents live with incomes at or below
17 150% of Poverty. That yields 268,000 total low-income natural gas consumers. I then insert
18 a 1996 New Jersey low-income residential natural gas bill (\$609), escalated to 2000 using the
19 Consumer Price Index for 1996 (115.0) and January 2000 (117.3) for natural gas. This yields
20 a low-income residential natural gas bill of \$621 to use as the basis for making estimates of

1 the cost of delivering natural gas affordability assistance. The natural gas cost estimate is
2 contained in Exhibit RDC-7.

3 **Q. PLEASE EXPLAIN YOUR COST ESTIMATE FOR ELECTRIC RATE**
4 **AFFORDABILITY ASSISTANCE.**

5 A. The costs of reaching 50% of all eligible low-income electric customers in New Jersey with
6 rate affordability assistance would reach \$49.3 million. The U.S. DOE reports that in 1998,
7 there were 3,075,812 residential natural gas customers in New Jersey. The U.S. Census
8 Bureau reports that 12.5% of all New Jersey residents live with incomes at or below 150% of
9 Poverty. That yields 268,000 total low-income electric consumers. The U.S. Census reports
10 that 10% of all customers are electric space heating customers. I then insert a 1996 New
11 Jersey low-income residential electric bill, escalated to 2000 using the Consumer Price Index
12 for 1998 (112.9) and January 2000 (123.0) for electricity. This yields a low-income
13 residential baseload electric bill of \$791 and a residential electric space heating bill of \$1,084
14 to use as the basis for making estimates of the cost of delivering electric affordability
15 assistance. The electric cost calculation assuming a 50% participation rate is set forth in
16 Schedule RDC-8.

17 **Q. WHY DO YOU NOT INCLUDE COSTS FOR SERVING HOUSEHOLDS AT 150%**
18 **TO 200% OF POVERTY LEVEL?**

19 A. On average, while eligible, households at 150% to 200% of Poverty Level will not impose
20 program costs. The affordable payments calculated on a percentage of income basis will

1 generally exceed their actual home energy bills. As a result, these households would receive
2 a fixed credit of \$0.

3 **Q. PLEASE EXPLAIN YOUR RECOMMENDED OFFSET FOR EXISTING LIFELINE**
4 **AND LIHEAP BENEFITS.**

5 A. As discussed in section 2.B.1 above, some existing Lifeline benefits and LIHEAP benefits
6 should be offset against the fixed rate credits provided under the basic rate assistance
7 program. Thus, these existing benefits will reduce the cost of the rate affordability assistance
8 program. The precise extent to which the LIHEAP and Lifeline programs will reduce the
9 need for universal service funding can only be ascertained through experience. In the
10 meantime, however, it is necessary to credit some portion of the Lifeline and LIHEAP
11 revenue to the universal service fund without overestimating the contribution these programs
12 will make.

13 I have included an offset from these programs of 50% of total Lifeline benefits and 50% of
14 the total gas and electric LIHEAP revenues. In Fiscal Year 1999, 50,116 gas and electric
15 customers received an average benefit of \$305. Of the resulting \$15.3 million in benefits
16 ($\$305 \times 50,116 = \$15,285,380$), I propose to allocate 50% (\$7.6 million) to the universal
17 service fund in the first year. Similarly, in Fiscal Year 1999, New Jersey utilities received
18 \$32.7 million in Lifeline benefits in direct vouchers. I propose to allocate 50% (\$16.4
19 million) to the universal service fund in the first year.

1 **Q. MIGHT THESE ALLOCATIONS CHANGE IN SUBSEQUENT YEARS?**

2 A. Yes. As experience reveals what the appropriate level of revenue is that is captured by the
3 universal service program, that level of revenue should be attributed to the USF.

4 **Q. ARE THERE EXTERNAL SOURCES OF FUNDING WHICH YOU HAVE NOT**
5 **INCLUDED IN YOUR RECOMMENDED OFFSET?**

6 A. First, as noted above, in section 2.B.1 above, I have not included LIHEAP supplemental
7 crisis benefits as part of the offset, as they are not a form of basic rate affordability assistance.
8 Similarly, New Jersey benefits provided under the utilities' crisis funding programs such as
9 New Jersey SHARES are not intended to operate to promote underlying bill affordability and
10 thus should not be used to offset the ongoing costs of the basic affordability program.

11 **Q. ASIDE FROM PROGRAM COSTS, WHAT LEVEL OF ADMINISTRATIVE COSTS**
12 **ARE APPROPRIATE FOR A UNIVERSAL SERVICE PROGRAM?**

13 A. No reason exists for a state universal service program to have administrative costs that are
14 substantially higher than existing fuel assistance and/or weatherization programs funded with
15 public monies. In the federal low-income energy assistance arena, LIHEAP administrative
16 costs are required to be no more than 10% of total program costs. Based on this experience
17 with low-income assistance programs, I recommend an administrative cost cap equal to 10%
18 of total program costs.

2. *Arrearage Forgiveness.*

Q. PLEASE EXPLAIN HOW THE ARREARAGE FORGIVENESS PROGRAM SHOULD BE STRUCTURED.

A. I recommend that arrearages be forgiven subject to affordable customer copayments, which should be set at a percentage of income. My recommendations for other programs have set the payments toward preprogram arrears equal to one percent of household income. A customer will enroll in this program for up to two successive 12-month periods. For each period, the customer would contribute the annual affordable copayment, and an amount up to the amount of the customer copayment. Any arrearage remaining after two years would be forgiven. The following examples illustrate this process:

Customer 1 Arrearage = \$400, Affordable copayment = \$120

	<u>Customer Payment</u>	<u>Forgiveness Amount</u>
Year 1	\$120	\$120
Year 2	\$120	\$ 40

Customer 2 Arrearage = \$400, Affordable copayment = \$60

	<u>Customer Payment</u>	<u>Forgiveness Amount</u>
Year 1	\$60	\$60
Year 2	\$60	\$60

Amount forgiven at end of Year 2: \$160

1 **Q. WHY DO YOU RECOMMEND THAT ALL ARREARAGES REMAINING AFTER**
2 **TWO YEARS BE FORGIVEN?**

3 A. My experience with low-income customers is that they have short financial planning horizons.
4 The function of arrearage forgiveness is to provide an incentive to maintain program
5 participation by offering the promise of getting even. Extending forgiveness for more than
6 two years moves beyond the low-income customer's ability to see viable benefits and thus
7 impedes the incentive function.

8 **Q. WOULD ALL UNIVERSAL SERVICE PROGRAM PARTICIPANTS RECEIVE**
9 **ARREARAGE FORGIVENESS?**

10 A. Not necessarily. A household may have preprogram arrears that are sufficiently low such that
11 the household contribution will pay the arrears without need for any "forgiveness." Assume,
12 for example, that a household has an annual income of \$12,000 and a preprogram arrears of
13 \$90. The household pays 1% of its income toward its preprogram arrears (\$120). Since this
14 household's payment can retire its preprogram arrears payment, no arrearage forgiveness is
15 provided. In contrast, if this same household had a preprogram arrears of \$140, the
16 household payment would not retire its arrears and the household would be eligible for an
17 arrearage forgiveness credit.

1 **Q. DO YOU HAVE AN ESTIMATE OF THE ARREARAGES SUBJECT TO**
2 **FORGIVENESS IN A NEW JERSEY UNIVERSAL SERVICE PROGRAM?**

3 A. While there is no truly precise way to estimate the arrears subject to forgiveness in the
4 absence of actual program experience, I recommend for initial funding purposes an estimate
5 of \$3.413 million for electric customers and \$1.422 million for natural gas customers. The
6 estimate I present below is based on the application of general rules based on my experience
7 in other states. There are four steps in the process of estimating the extent of arrearage
8 forgiveness:

- 9 **Ē** Estimate the number of program participants with preprogram arrears.
- 10 **Ē** Estimate the preprogram arrears each participant with arrears will bring into the
11 program;
- 12 **Ē** Estimate the payments which program participants will make toward their own
13 preprogram arrears; and
- 14 **Ē** Annualize the preprogram arrears forgiveness over a reasonable time period.

15 **Q. WHAT IS YOUR ESTIMATE OF THE NUMBER OF PROGRAM PARTICIPANTS**
16 **WHO WILL BRING PREPROGRAM ARREARAGES INTO THE UNIVERSAL**
17 **SERVICE PROGRAM?**

18 A. We begin with the estimated number of participants in the electric (190,000) and natural gas
19 (134,000) universal service programs. Estimating that roughly 40% of those customers will
20 have arrears at the time they enter the universal service program, we can calculate the number

1 of electric customers with arrears ($190,000 \times .40 = 76,000$) and natural gas customers with
2 arrears ($134,000 \times .40 = 54,000$).

3 **Q. WHAT IS YOUR ESTIMATE OF THE AMOUNT OF ARREARS EACH**
4 **HOUSEHOLD WITH ARREARS WILL BRING INTO THE PROGRAM?**

5 A. Making such an estimate is best done with information on average residential arrears (or
6 average low-income residential arrears). In the absence of such information, I will make an
7 estimate based upon my experience with other programs.

8 Discussions of residential arrears generally focus on households with 61 - 90 day arrears
9 (known as 90-day arrears in industry parlance). What this means is that a customer has
10 missed three payments and is thus three months behind on his or her bill.⁸ Given an average
11 New Jersey low-income residential natural gas bill of \$621, I estimate that an average
12 preprogram natural gas arrears will be \$155 ($\$621 / 12 \times 3 = \155). Given an average New
13 Jersey low-income residential electric bill of \$791, I estimate that an average preprogram
14 electric arrears will be \$200 ($\$791 / 12 \times 3 = \198). Given an average New Jersey low-
15 income residential electric space heating bill of \$1,084, I estimate that an average preprogram
16 electric arrears will be \$271 ($\$1,084 / 12 \times 3 = \271).

⁸ This is consistent with the annual findings by the Pennsylvania Bureau of Consumer Services on average residential "bills behind" represented by Pennsylvania utility arrears.

1 **Q. WHAT IS THE TOTAL COST OF THE ARREARAGE FORGIVENESS PROGRAM**
2 **GIVEN THESE ASSUMPTIONS?**

3 A. Given the set of assumptions above, a reasonable arrearage forgiveness cost would be \$6.825
4 million for electric universal service participants and \$2.845 million for natural gas
5 participants. This cost is set forth in Schedule RDC-9. Since these arrears would be subject
6 to forgiveness over a two year period, the annual cost of the arrearage forgiveness program
7 to be included in the universal service charge would be \$3.413 million ($\$6.825 / 2 = \3.413)
8 for electricity and \$1.422 million ($\$2.845 / 2 = \1.422) for natural gas.

9 **3. Crisis Intervention Assistance.**

10 **Q. PLEASE EXPLAIN YOUR PROPOSED CRISIS INTERVENTION ASSISTANCE**
11 **PROGRAM.**

12 A. As explained in section 2.B.2 above, existing crisis intervention funds are inadequate to meet
13 needs of New Jersey's low-income households. I therefore recommend that additional funds
14 be made available for crisis intervention assistance through the USF. The federal LIHEAP
15 statute provides that states are to reserve a "reasonable amount" of their total LIHEAP funds
16 for emergency crisis intervention. In complying with that statute, New Jersey earmarks six
17 percent of its overall heating assistance for those purposes. This provides a reasonable
18 benchmark for deciding what proportion of total universal service funding is necessary to
19 meet crisis situations. I recommend that crisis intervention funding be set at six percent of
20 the total rate affordability credits.

1 **Q. HOW SHOULD THE CRISIS INTERVENTION BENEFITS BE DISTRIBUTED?**

2 A. Crisis benefits should be distributed to income-eligible households that are facing the
3 disconnection of service due to nonpayment, have made a good faith effort to pay their bills,
4 and have exhausted other available means of energy assistance.

5 **Q. WHAT FUNDING LEVEL DO YOU RECOMMEND FOR THE CRISIS**
6 **INTERVENTION COMPONENT?**

7 A. I recommend that crisis intervention funding be set at six percent of the total rate affordability
8 assistance. Given electric rate affordability assistance of \$49.3 million and natural gas rate
9 affordability assistance of \$29.9 million, the total crisis assistance would reach \$4.7 million
10 (($\$49.3 \text{ million} + \29.9 million) x 6% = \$4.8 million).

1 *4. Program Outreach and Intake.*

2 **Q. WOULD YOU PLEASE SUMMARIZE YOUR RECOMMENDED CONSUMER**
3 **OUTREACH AND INTAKE INITIATIVES?**

4 A. As explained above, outreach initiatives are an essential component of a Universal Service
5 program. Program outreach should occur using four different tracks, with each track based
6 on the particular expertise that the institutions can bring to bear on outreach.

7 The first track should involve the enrollment of all LIHEAP participants in the universal
8 service program. The second track, targeting payment-troubled customers, should be
9 assigned to the utilities. The third track, based on other targeting criteria, should be assigned
10 to community-based organizations (“CBOs”). In addition, New Jersey can promote program
11 outreach by expanding its chronicles system (formerly called Benefits Outreach and Screening
12 Software (“BOSS”)), which should be available to CBOs and all utilities. The fourth track
13 should be expanding the Utility Education Program on both the statewide and grassroots
14 levels to educate qualified low-income consumers of the availability of these funds. The
15 fourth track is essential if all eligible New Jersey energy users are to receive the benefits of
16 the Universal Service Fund.

17 In addition to these outreach initiatives, intake and enrollment should be automated to the
18 extent possible. Customers already receiving other benefits can have their eligibility and rate
19 affordability credit amounts determined without the need for a separate application.

1 a. Outreach Initiatives.

2 **Q. WOULD YOU PLEASE EXPAIN YOUR FIRST RECOMMENDED OUTREACH**
3 **TRACK?**

4 A. LIHEAP targets households that should be among the first priorities to serve through a
5 universal service program: households with the lowest incomes and highest energy bills, as
6 well as households with handicapped, elderly, and children under the age of six. Given the
7 eligibility overlap between LIHEAP (up to 150% of Poverty) and the universal service
8 program, and the shared energy affordability program purposes, all households who receive
9 home heating benefits (or home cooling benefits) through LIHEAP should also be enrolled in
10 the universal service program.

11 **Q. WHAT IS YOUR SECOND RECOMMENDED OUTREACH TRACK?**

12 A. Responsibility for the second outreach track should be assigned to the affected public utilities.
13 The utility's outreach for the program should be targeted based on the following order or
14 priority:

15 **Ē** A customer has been disconnected for nonpayment one or more times in the
16 immediately preceding 12 months;

17 **Ē** A customer has defaulted on at least one deferred payment arrangement in the
18 immediately preceding 12 months;

19 **Ē** A customer has failed to make full and timely payment in six or more of the
20 immediately preceding 12 months;

21 **Ē** A customer has failed to make full and timely payment in from three to five of the
22 immediately preceding 12 months;

23 **Ē** A customer has a current arrears of more than 90-days in age.

1 **Q. WOULD YOU PLEASE EXPLAIN YOUR THIRD RECOMMENDED OUTREACH**
2 **TRACK?**

3 A. As I discuss above, what does *not* make sense is to target payment-troubled customers
4 exclusively, or to define eligibility in terms of payment-troubled status. Accordingly, a third
5 outreach track should involve enlisting CBOs to help enroll customers meeting certain
6 targeting criteria. I recommend two primary targeting criteria: (1) extremely low-incomes;
7 and (2) extremely high (40%+) shelter burdens. The universal service program should
8 identify those organizations that can target outreach to particular population groups (*e.g.*,
9 disabled, elderly, school age children, non-school age children) because of the involvement of
10 such organizations with providing different program benefits to those targeted populations.

11 **Q. CAN YOU PROVIDE AN EXAMPLE OF HOW THE COMMUNITY-BASED**
12 **NETWORK MIGHT OPERATE WITH RESPECT TO OUTREACH AND INTAKE?**

13 A. An excellent example involves the incorporation of the disability community into the universal
14 service program. The New Jersey Department of Human Resources, Office of Disability
15 Services, provides counseling, advocacy, intervention, and information and referral services
16 to disabled New Jersey residents. This office represents the first call for help for many
17 disabled consumers. It operates a statewide information and referral service for disabled
18 persons. In addition, the Office of Disability Services works with a statewide network
19 serving the disability community, including twelve separate independent living facilities
20 around the state -- despite their name, disabled persons do not live in these facilities, but

1 rather receive services through them -- and county disability offices in 17 of New Jersey's 21
2 counties.

3 In addition to working on housing and life-skill issues, the office routinely receives inquiries
4 from disabled customers who either cannot afford their current bills or who have accrued
5 arrearages that threaten continued service. In addition, it would seem appropriate to funnel
6 disabled persons who might surface through other intake mechanisms to the Office of
7 Disability Services for universal service intake as well as the provision of other appropriate
8 disability-related services.

9 A second example involves the network of agencies working with welfare-to-work
10 households. As households move off of the Temporary Aid to Needy Families (TANF)
11 program, into employment, they should be provided with information on the universal service
12 program and an opportunity to enroll if income-eligible. A network of agencies is being
13 developed to serve these households, in particular, since serving the health insurance needs of
14 the children in these households poses special issues. This network should be used as a
15 partner to ensure the provision of appropriate information about the home energy universal
16 service program.

17 Other similar networks, outside the traditional fuel assistance delivery network, operate for
18 older persons as well as for children. These include organizations delivering benefits such as

1 free school lunches, SSI, food stamps, Medicaid, supplemental nutrition assistance, and a
2 variety of benefits funded through the Community Service Block Grant program.

3 **Q. PLEASE EXPLAIN YOUR RECOMMENDED EXPANSION OF THE**
4 **CHRONICLES SYSTEM.**

5 A. The New Jersey Universal Service program should expand New Jersey's existing Chronicles
6 system. Chronicles is a computer software screening tool that reduces the complexity and
7 time required to identify assistance programs for which utility customers may be eligible.
8 This system greatly increases the ability of representatives working with low-income
9 household to ensure that eligible low-income utility customers (or those with special needs)
10 obtain all the services to which they are entitled. Nationwide, chronicles has the following
11 capabilities:

12 Ë To screen low-income households for potential eligibility for a wide array of
13 community resources, volunteer services, employment and job training opportunities,
14 and utility assistance programs;

15 Ë Print a resource eligibility report for each person that lists the programs for which that
16 person is eligible, telephone numbers of the contact person, addresses, times to apply,
17 and required documentation; and

18 Ë Use scanning technology to store brochures and other agency forms so that
19 information about any agency is available at any site.

20 Indeed, in some places, chronicles can generate completed applications to selected benefits
21 programs for those persons identified as potentially eligible and electronically transfer the

1 application data to the appropriate agency for processing. In some places, also, Chronicles
2 can use scanning technology to scan client documents (such as birth certificates) into the
3 system and transfer the scanned image along with the completed application to the
4 appropriate agency.

5 **Q. WHY DO YOU RECOMMEND A CHRONICLES SYSTEM?**

6 A. Providing assistance through chronicles is merited because it makes no sense for a customer
7 who is having problems paying his or her utility bill to *not* be getting the benefits for which
8 they are eligible.

9 **Q. PLEASE EXPLAIN HOW CHRONICLES PROMOTES UNIVERSAL SERVICE.**

10 A. Assuring that low-income consumers have ready access to all benefits to which they are
11 entitled is one way to help those consumers pay their utility bills, both current and past-due.
12 Consumers who gain access to additional household resources are more likely to pay current
13 bills and to reduce their arrears. One Edison Electric Institute (“EEI”) staff person cites the
14 Earned Income Tax Credit (“EITC”) as an example of this phenomenon. The EEI staff
15 person noted that the EITC, a tax credit available to the working poor, "can be a vital
16 supplement to families that have difficulty affording basic energy services." He reports that
17 "in a 1993 Gallup survey of callers to New Jersey's EITC Hot Line, more than 90 percent of
18 EITC recipients used the money to pay household bills. Approximately a quarter used part of
19 the refund to pay utility bills, and a third paid overdue bills."

1 **Q. WHAT IS NEW JERSEY'S EXPERIENCE WITH CHRONICLES TO DATE?**

2 A. Chronicles has been implemented in New Jersey to date through the New Jersey SHARES
3 program. As of July 5, 2000, New Jersey operates Chronicles at 60 intake locations through
4 39 community-based organizations. According to New Jersey SHARES, however, the New
5 Jersey Chronicles system can only produce New Jersey SHARES application forms. In other
6 states, other benefit application forms can be produced as well.

7 **Q. WHY DO YOU PROPOSE AN EXPANSION OF THE CHRONICLES SYSTEM IN**
8 **NEW JERSEY?**

9 A. I propose an expansion of Chronicles throughout New Jersey so that Chronicles is available
10 through organizations that extend beyond the existing New Jersey SHARES network. I
11 propose an expansion to 75 additional sites with access to all appropriate benefit programs.
12 The 75 organizations should include the 21 Area Agencies on Aging in New Jersey
13 (operating through the 21 county offices on aging), the 17 county offices on disabilities, and
14 the 12 "independent living facilities" that work with the state.

15 **Q. SHOULD NEW JERSEY UTILITIES HAVE AN IN-HOUSE CHRONICLES**
16 **CAPACITY AS WELL?**

17 A. Chronicles capability should also be available through a utility's customer call center. As a
18 customer service representative takes income information in negotiating a deferred payment
19 plan, for example, that representative should provide referrals to a range of public assistance.
20 The implementation of an in-house Chronicles should be paid through base rates as one

1 element of sound customer service, not as a universal service program funded through the
2 USF.

3 **Q. PLEASE DESCRIBE THE COSTS ASSOCIATED WITH IMPLEMENTING**
4 **CHRONICLES.**

5 A. According to the Portsmouth Group, the organization that designed and implements
6 Chronicles, the first-time set-up costs for a program involving from 25 to 75 sites is \$2,500
7 per site. The ongoing annual maintenance costs are \$500 per site. Implementing Chronicles
8 at 75 sites throughout New Jersey would thus cost \$187,500 to establish and roughly
9 \$37,500 per year thereafter. In addition, based on its experience with GPU in Pennsylvania,
10 the Portsmouth Group recommends that each site be provided with new computer hardware.
11 While they note that “computer hardware is becoming cheaper by the day,” a cost of \$3,000
12 per site is reasonable. Given my recommendation that New Jersey’s universal service
13 program install Chronicles systems at 75 sites, the hardware would cost \$225,000. With a
14 10% administrative provision, the Chronicles installation would cost \$500,000 (75 x (\$2,500
15 + \$500)) x 1.10 = \$495,000).

16 **Q. PLEASE EXPLAIN THE CONSUMER EDUCATION PROGRAM YOU**
17 **RECOMMEND AS A FOURTH OUTREACH TRACK.**

18 A. New Jersey is presently conducting a comprehensive Utility Education Program, consisting of
19 both a statewide mass media campaign and “grassroots” education conducted by the
20 individual utilities, to educate consumers about energy restructuring. The current year’s

1 budget for this campaign is \$13.4. A portion of this budget should be devoted to educating
2 all residential consumers, as well as targeted populations, about the existence and
3 qualifications for universal service benefits, and how and where low-income customers can
4 apply for these benefits. Education on this issue is an important activity for the Utility
5 Education Program as is education on other aspects of customer choice. The inclusion of a
6 Universal Service Fund in EDECA is a clear indication of the Legislature's concern about
7 providing a safety net for consumers who might otherwise have unaffordable bills in the
8 unfolding competitive marketplace. Consumer awareness of universal service programs--and
9 how to apply for them--is essential to assure that *all* of New Jersey resident's will benefit
10 from energy competition. A campaign which includes universal service education is a
11 necessary and appropriate part of the Utility Education Campaign.

b. Intake and Enrollment Mechanisms.

Q. PLEASE EXPLAIN THE MECHANISMS THAT SHOULD BE USED FOR PROGRAM INTAKE.

Applications for the universal service program should be taken at the time that LIHEAP applications are taken. However, since the universal service program is a year-round program, while LIHEAP is not, LIHEAP cannot be the exclusive entry point for the program. Intake should occur through three additional mechanisms. The primary means of intake should be referrals from the utilities and social service agencies through the outreach mechanisms described above. A second source of intake should be mail-in applications. Mail-in (rather than in-person) applications are increasingly being found to eliminate barriers to program participation. Finally, consumers should be given the opportunity to complete an in-person application through a community-based site. This last source of intake, however, is likely to be a relatively minor source of program participation.

Q. HOW SHOULD THE ENROLLMENT PROCESS OPERATE?

A. Enrollment should be automated to the extent possible. In other words, there should be a process for qualifying and enrolling consumers in the USF program without the necessity for the consumer to initiate the application process. The process should operate as follows:

1. All consumers who enroll in LIHEAP, or who are referred by the utilities or CBOs through the outreach mechanisms should be notified that they may be eligible for Universal Service benefits, and that, unless they give notice that they do not wish to participate, they will be automatically enrolled if found to be qualified.

1 2. The names of all such consumers who do not “opt out” will be referred to the
2 State Department of Community Affairs (or other appropriate agencies such
3 as the State Treasurer) to certify their income levels. Consumers whose
4 income levels cannot be certified in this way (*e.g.* because they are not
5 enrolled in other programs), or who do not wish to have their names
6 submitted through the automatic enrollment process, should be given the
7 opportunity to certify their incomes by other means, such as by providing
8 documentation of their qualification for Social Security or Supplemental
9 Security Income.

10 3. The names of consumers whose income levels are determined to be at or
11 below 150 percent of Poverty should then be referred to the utility for
12 determination of their historical billing amounts, which are then provided to
13 the program administrator.

14 4. The program administrator determines the amount of consumer’s fixed credit
15 based on the household’s income level, historical billing amount, as well as the
16 amount and payment terms of any arrearage forgiveness for which the
17 consumer is eligible. Appropriate notices are then provided to the consumer,
18 the utility, and, if applicable, the consumer's TPS. Customers who meet the
19 income standard but are not eligible for a fixed monthly credit or arrearage
20 forgiveness should be notified that they may be eligible for other Universal
21 Service benefits, such as crisis intervention assistance, energy efficiency
22 assistance, or participation in a low-income aggregation pool.

23 **Q. ARE AUTOMATIC ENROLLMENT PROGRAMS SUCH IN EFFECT IN ANY**
24 **OTHER STATES?**

25 A. Yes. PECO Energy's gas and electric CAP Rate Program in Pennsylvania,⁹ for example,
26 relies largely on income verification through the Pennsylvania Department of Public Welfare
27 and the Pennsylvania Department of Revenue. In addition, customers can verify the fact that
28 their income levels qualify them for the CAP Rate benefits by providing federal Social
29 Security letters (regarding Social Security or Supplemental Security Income). The impact is

⁹ Pennsylvania's public utility commission has adopted a low-income rate affordability program which it calls the Customer Assistance Program (CAP). PECO's particular program is called the CAP Rate Program.

1 that the company does not need to devote substantial staff time to enrollment or income
2 verification. The Pennsylvania Department of Public Welfare provides such income
3 verification without cost to the utility. The Pennsylvania Department of Revenue charges a
4 nominal fee. The Pennsylvania PUC has endorsed such approaches. The Pennsylvania PUC
5 has specifically said that "we have found that automatic referrals to CAP¹⁰ when a customer
6 calls to make a payment arrangement and intake certification by government agencies are
7 simple to administer and cost-effective." (1999 CAP Policy Statement, at 6).

8 In addition, utility regulators for both New York and Ohio have adopted "automatic
9 enrollment" processes for their telephone lifeline programs. Through these processes,
10 customers participating in designated programs are automatically enrolled in the telephone
11 lifeline program. In directing expansion of this approach to all telephone companies in 1996,
12 the New York Public Service Commission (PSC) stated that:

13 we support the automatic enrollment/removal programs for Lifeline
14 service being implemented by New York Telephone Company and
15 Rochester Telephone, and we will direct staff to pursue their
16 expansion to other companies. This program provides assistance to
17 eligible consumers in an efficient manner and ensures that only those
18 who are eligible continue to receive assistance.

19 (New York PSC, Opinion and Order 96-13, Docket 96-13, I/M/O Issues Related to
20 Continuing Provision of Universal Service and to Develop a Framework for the Transition to
21 Competition in the Local Exchange Market, at 11, May 22, 1996).

¹⁰ CAP is Pennsylvania's universal service program (the Customer Assistance Program).

1 New Jersey utilities, also, should rely primarily on a process that obtains customer income
2 certification from the Department of Human Services, the State Treasurer, or other
3 appropriate agencies. Upon receipt of a verification that such a payment-troubled customer
4 is low-income, the customer will be enrolled in the universal service program.

5 **Q. ASIDE FROM THESE OPERATIONAL ISSUES, ARE THERE OTHER REASONS**
6 **TO AUTOMATE INTAKE IN THE MANNER THAT YOU PROPOSE?**

7 A. Yes. Automated income certification and intake addresses certain policy issues as well. My
8 experience and research in the field of designing and delivering public assistance programs
9 counsels that a variety of barriers prevent enrollment in programs such as a universal service
10 program. Automated intake helps to overcome these barriers. As discussed above, one of
11 the primary barriers is the lack of information. This lack of information, however, is not the
12 only barrier that impedes full enrollment in universal service programs. Consider that:

13 **Ē Access to program offices:** In some areas, transportation to offices that accept
14 applications may be a problem, especially for the elderly. For those who are
15 homebound or socially isolated, getting to an office may be nearly impossible.

16 **Ē Confusing application forms:** The application forms are often a major barrier to
17 participation. Eligible program participants often view the application form as
18 complex and overwhelming.

19 **Ē Burdensome and complex processes:** Many potential recipients do not enroll in
20 public programs because, among other things, the application process is burdensome
21 and complex.

1 **Q. CAN YOU SUMMARIZE THE NEED FOR AUTOMATED ENROLLMENT**
2 **PROCEDURES?**

3 A. As can be seen, there is an abundance of information about how nonparticipation in benefit
4 programs can result from barriers to participation rather than from a lack of need, or a lack of
5 desire to participate. The automated enrollment and income certification processes help to
6 address this problem. As the General Accounting Office said about Food Stamp enrollment:

7 From a policy viewpoint, an informed decision on the part of an eligible
8 household not to participate in the program is not an issue. Lack of
9 information about the program, however, and at least some program and
10 access problems can and should be remedied.¹¹

11 I would say *exactly* the same thing about energy universal service programs. As the GAO
12 found with respect to the Food Stamp program, "since more than three fifths of the eligible
13 households gave these reasons for nonparticipation --36.8 percent gave a lack of information,
14 and 25.0 gave program or access problems as reasons for nonparticipation-- it is clearly
15 important to address those problems."

¹¹ General Accounting Office, *Food Stamp Program: A Demographic Analysis of Participation and Nonparticipation*, at 22 (January 1990).

1 **C. Administration of Rate Affordability Components.**

2 **Q. WHO SHOULD BE RESPONSIBLE FOR THE OVERALL ADMINISTRATION OF**
3 **THE RATE AFFORDABILITY COMPONENTS OF THE NEW JERSEY**
4 **UNIVERSAL SERVICE PROGRAM?**

5 A. The universal service program should be administered through a single state administrator.
6 The need for uniform eligibility criteria, the need for uniform intake procedures, and the need
7 for effective and efficient consumer education are not well-served by a variety of independent
8 programs operating under separate administration.

9 I further conclude that the appropriate state administrator for the universal service program
10 would be the state's LIHEAP office. The LIHEAP office is the single state agency with the
11 expertise, the experience, and the delivery network to effectively and efficiently oversee
12 outreach, intake and enrollment in the rate affordability assistance programs outlined above.

13 **Q. IS THERE ANY FINAL REASON WHY YOU CONCLUDE THE STATE LIHEAP**
14 **OFFICE SHOULD ADMINISTER A SINGLE UNIFORM STATE PROGRAM?**

15 A. Yes. In 1999, I chaired a national symposium for the U.S. Department of Health and Human
16 Services ("HHS"), Administration for Children and Families, on the integration of state
17 LIHEAP programs with universal service programs created by state electric and natural gas
18 restructuring legislation. The symposium brought together utility regulators, technical
19 consultants, fuel assistance providers, and industry representatives to discuss the appropriate

1 integration, if any, of these programs.¹² Among the important factors identified at the
2 symposium, were the following:

- 3 1. Existing program linkages: The existing linkages which the LIHEAP office has with
4 its existing delivery network, as well as with other programs serving households
5 eligible for the universal service program, counsel the use of the LIHEAP office as the
6 state administrator.
- 7 2. The natural synergies: The combination of a universal service program with the
8 existing fuel assistance office would offer natural synergies, not only in the
9 administrative processes of delivering the program, but in the identification and
10 targeting of households in need of assistance.
- 11 3. Potential program conflicts: The *absence* of program linkage through the state
12 LIHEAP office might give rise to program conflicts that would not otherwise exist.
13 One of those potential conflicts, that would be minimized through LIHEAP
14 administration, is the potential that the state universal service program would not
15 want to target the same three populations that federal law requires be targeted for
16 LIHEAP (*i.e.*, handicapped, elderly, families with children under age 6).
- 17 4. The program components where linkage might occur: If administered through the
18 state LIHEAP office, program linkages will occur with respect to outreach, intake,
19 program delivery, and program oversight.

¹² The symposium resulted in a paper titled: *Integration of LIHEAP with Energy Assistance Programs Created through Electric and/or Natural Gas Restructuring*, U.S. Department of Health and Human Services, Administration for Children and Families (February 2000).

1 5. The desired outcomes: The desired outcomes from the existing fuel assistance and the
2 proposed universal service programs are entirely consistent. "Outcomes" measure
3 program results (e.g., reduced service disconnections, reduced heat-or-eat decisions).
4 They are to be distinguished from (1) activities, which measure the things that
5 programs "do" (dollars delivered, households served); and (2) outputs, which measure
6 the things that programs produce (reductions in home energy burden, reductions in
7 energy consumption). By federal law, LIHEAP is to be targeted to the households
8 with the lowest income and the highest heating bills relative to income in order to
9 improve energy affordability. This is precisely the outcome sought by the New Jersey
10 universal service program.

11 **Q. WHAT DO YOU CONCLUDE?**

12 A. Program policy, as well as program economics, call for a single statewide program to be
13 administered by the state LIHEAP office in New Jersey.

1 **PART 3: ADDITIONAL UNIVERSAL SERVICE PROGRAM COMPONENTS.**

2 **A. Energy Efficiency.**

3 **Q. HOW DOES YOUR ENERGY EFFICIENCY RECOMMENDATION IN THIS**
4 **PROCEEDING RELATE TO THE RATEPAYER ADVOCATE'S ENERGY**
5 **EFFICIENCY RECOMMENDATION IN THE COMPREHENSIVE RESOURCE**
6 **ANALYSIS PROCEEDING?**

7 A. In the CRA proceeding, the Ratepayer Advocate has recommended specific energy efficiency
8 initiatives to be funded through the utilities' SBCs. To the extent these initiatives are not
9 fully funded through the SBC, they should be funded through the USF.

10 **Q. WHY DO YOU RECOMMEND AN ENERGY EFFICIENCY COMPONENT?**

11 A. According to the U.S. Department of Energy ("DOE"), while low-income households use
12 less energy in their homes overall, their *rate* of consumption is much higher than their higher
13 income counterparts. A DOE study found that low-income households consumed 14% more
14 energy per square foot than the average household, while spending 11% more per square foot
15 on energy than higher income households (Schedule RDC-10). Addressing this inefficient
16 energy use yields two results: (1) increasing the affordability of energy bills by decreasing
17 consumption (and thus bills); and (2) decreasing the costs of rate affordability programs.

18 **Q. WHAT MEASURES SHOULD BE FUNDED THROUGH THE ENERGY**
19 **EFFICIENCY COMPONENT OF A UNIVERSAL SERVICE PROGRAM?**

1 A. The energy efficiency component of New Jersey's universal service program should fund any
2 measure that is allowed to be installed pursuant to DOE regulations for the low-income
3 Weatherization Assistance Program (WAP). While WAP is funded with public dollars, the
4 utility-provided dollars through the universal service program are appropriately directed
5 toward similar measures. The source of funds should not dictate different applications.

6 **Q. WHAT IS YOUR RECOMMENDED FUNDING LEVEL FOR LOW-INCOME**
7 **ENERGY EFFICIENCY PROGRAMS?**

8 A. Consistent with the Ratepayer Advocate's recommendations in the CRA proceeding, New
9 Jersey utilities should be required to devote a *minimum* of 0.2% of jurisdictional revenues in
10 the 12 months immediately preceding the implementation of retail choice to energy efficiency
11 funding. In making this calculation, jurisdictional revenues include more than sales revenue.
12 Instead, the jurisdictional revenues should include both sales and transportation.

13 **Q. WHY SHOULD THE .2% BE TIED TO JURISDICTIONAL REVENUES IN THE 12**
14 **MONTHS IMMEDIATELY PRECEDING THE IMPLEMENTATION OF RETAIL**
15 **CHOICE?**

16 A. Retail choice, of course, will reduce a distribution utility's jurisdictional revenues. As
17 customers switch to competitive third party suppliers, the jurisdictional revenues of local
18 utilities will correspondingly decrease. In order to maintain energy efficiency funding at
19 reasonable levels, there is a need to tie required funding to something other than jurisdictional
20 revenues under retail choice.

1 **Q. SHOULD ENERGY EFFICIENCY FUNDING INCREASE IN THE FUTURE?**

2 A. Yes. Future energy efficiency funding should escalate to reflect any increase in end-use
3 natural gas consumption in New Jersey. Schedule RDC-11 shows that, on a statewide basis,
4 both the number of customers and total sales have expanded in the last ten years. As total
5 end-use consumption grows, the total energy efficiency budget should grow proportionately.

6 **Q. HOW SHOULD THE RATE AFFORDABILITY ASSISTANCE AND ENERGY**
7 **EFFICIENCY ASSISTANCE BE COORDINATED WITH THE UNIVERSAL**
8 **SERVICE PROGRAM?**

9 A. One beneficial impact of the energy efficiency program should be to reduce the amount of the
10 rate affordability fixed credit that is needed to make up the difference between the customer's
11 universal service bill payment and the low-income bill at standard residential rates. As a
12 result, the intake for the low-income energy efficiency program should be coordinated with
13 the rate affordability component. Customers eligible for energy efficiency assistance in New
14 Jersey should be screened and, if eligible, enrolled in the rate affordability program.
15 Conversely, as consumers are admitted into the rate affordability program, they should also
16 be screened for usage that would place them into the preferred status for receiving energy
17 efficiency treatment. In this fashion, a reduction in consumption from among high use rate
18 affordability program participants would improve the affordability of that program
19 component to all ratepayers.

1 **Q. WHAT SHOULD BE THE FUNDING LEVEL OF A UNIVERSAL SERVICE**
2 **ENERGY EFFICIENCY PROGRAM?**

3 A. If energy efficiency programs are included in the universal service program, rather than being
4 funded through the utilities' SBC, the funding level is \$20.434 million, based on my
5 recommended 0.2 percent of jurisdictional revenues in the twelve months preceding retail
6 choice.

1 **B. Assistance in Aggregation Project.**

2 *1. The Benefits of Low-Income Aggregation.*

3 **Q. WHY SHOULD NEW JERSEY PROMOTE AGGREGATION AS A UNIVERSAL**
4 **SERVICE STRATEGY?**

5 A. Advocates of restructured energy markets put much stock in the process of competition
6 delivering benefits to consumers. If a competitive supplier of electricity offers poor quality
7 service, offers service at high rates, or engages in consumer abuses, consumers will simply
8 switch to another company. As a result, abusive suppliers of high cost poor quality service
9 will not survive in the competitive marketplace.

10 If, however, competition does not exist, consumers will *not* be protected. That is precisely
11 the case for small user consumers. Residential utility consumers are not well-positioned to
12 take advantage of competition in the energy industry. Residential customers are simply not
13 big enough for competitors in the energy industry to aggressively solicit. Aggregation is one
14 means to improve small consumers' bargaining positions in a competitive market.

15 Many of the concerns that low-income consumers express about energy industry
16 restructuring arise from their inability to exercise any market power. In addition to being
17 perceived as "hard-to-serve," low-income consumers are small users, which makes them less
18 attractive from the perspective of a competitive energy supplier. As a result, a move to a
19 restructured energy industry is likely to end up delivering fewer benefits, and greater harms,

1 to low-income consumers. Individual low-income consumers simply do not carry the market
2 power to attract sufficient competitive attention to bring the benefits of competition to them.

3 **Q. WHAT SPECIFIC ROLE WOULD AGGREGATION PLAY IN HELPING TO**
4 **PROMOTE UNIVERSAL SERVICE IN NEW JERSEY?**

5 A. While the purpose of aggregation in the energy industry is generally spoken of in terms of
6 acquiring market power by grouping enough "small" users together to become a "big" user,
7 in fact, aggregation should serve multiple roles. In addition to the acquisition of market
8 power, aggregation allows consumers to pool their resources to pay for search costs and
9 other fixed administrative costs.

10 **Q. WHAT DO YOU MEAN BY SEARCH COSTS?**

11 A. One of the primary roles of aggregation is to reduce each individual's cost of acquiring and
12 exercising shopping expertise by spreading it over a group. To do this, the need of the
13 aggregated group is not simply to become bigger, but rather to increase the sophistication of
14 bargaining by pooling information and analyzing data on price, service and quality measures.
15 Without aggregation, most small consumers lack the resources (or the financial incentive)
16 needed to gather the information to make good choices and thus make the market work.

1 **Q. WHAT DO YOU MEAN BY OTHER FIXED ADMINISTRATIVE COSTS?**

2 A. Another primary role for an aggregator is to gain the efficiencies created by larger groups.
3 The purpose of the aggregator in this regard is to achieve economies of scale. Aggregators
4 are essentially purchasing cooperatives that allow small users to benefit from the economies
5 of scale in bargaining and in implementation that are available to large users. In addition,
6 aggregated groups allow competitive suppliers to reduce their marketing costs on a per-
7 customer. Since marketing costs are typically included in prices, consumers benefit from the
8 reduced marketing costs.

9 **Q. IS THERE ANY OTHER ROLE THAT AGGREGATION PLAYS IN PROMOTING**
10 **UNIVERSAL SERVICE?**

11 A. A third role for an aggregator is to spread the risks from high cost or hard-to-serve groups of
12 customers over a broader customer base. This can be done in different ways. An aggregator
13 can simply dilute the high costs of some consumers by including them in much larger pools.
14 This can occur through public or private mechanisms. With public employee health insurance
15 pools, for example, some states use their existing public employee insurance system as a small
16 group purchasing cooperative.

17 **Q. HAS THE AGGREGATION OF LOW-INCOME CONSUMERS BEEN**
18 **SUCCESSFULLY ACCOMPLISHED?**

19 A. Yes. Consider that the State of Ohio has been active in its promotion of low-income natural
20 gas aggregation. The percentage of income payment plan (“PIPP”) customers of Columbia

1 Gas, for example, were pooled together and bid out to competing suppliers. Columbia
2 purchased the gas for its PIPP customers and retained the meter reading and billing functions.
3 It also continued to provide and charge for transportation services. Arrearages went on
4 Columbia's books, not the supplier's. The winning bid for the Columbia Gas PIPP customers
5 was 12 percent below Columbia's Expected Gas Cost. In a report on the initial eight months
6 of the pilot, Columbia said that PIPP customers saved an average of 7.1 percent off the bill
7 they otherwise would have received. (The total savings is less than 12 percent since the 12%
8 is off the Expected Gas Cost portion of the bill, not off of the total bill.) According to state
9 LIHEAP officials, the aggregation project works "seamlessly" with LIHEAP and PIPP. While
10 PIPP customers still pay their required percentage of income, the lower gas price means the
11 LIHEAP benefit goes further and more households can be served.

1 *2. The Need for Assistance in Aggregation.*

2 **Q. PLEASE EXPLAIN THE NEED FOR AN ASSISTANCE IN AGGREGATION**
3 **PROJECT.**

4 A. While no formal research yet exists defining what minimum size an aggregated group must be
5 to be effective, it is becoming increasingly clear that electric competitors are not queuing up
6 to serve aggregated groups of hundreds of low-use customers. The larger the aggregated
7 group of customers must be, however, the greater the need for a formal administrative
8 structure to service those customers, making it less likely that aggregation will happen.

9 In addition, aggregation is not a simple endeavor. Several layers of expertise are required,
10 including an expertise: (1) to determine load characteristics for solicitations of proposals; (2)
11 to review RFP responses; (3) to negotiate contracts; and (4) to develop and review contract
12 documents. In addition, New Jersey's government aggregators must comply with complex
13 procedures and standards contained in EDECA and the BPU's implementing regulations.

14
15 The Minnesota state LIHEAP office considered whether its network of local agencies
16 delivering LIHEAP benefits could aggregate low-income customers given these activities.

17 The Minnesota report concluded that the LIHEAP agencies had neither the in-house
18 resources to support aggregation nor the resources to procure the necessary expertise.

1 **Q. WHAT ARE THE POTENTIAL POLICY RESPONSES TO THESE BARRIERS TO**
2 **LOW-INCOME AGGREGATION?**

3 A. One way to achieve low-income aggregation is to promote community choice such as was
4 done in Massachusetts. Community aggregation involves having a local government
5 aggregate all consumers within its geographic boundaries. Community choice is akin to the
6 type of shopping that many communities use to purchase solid waste collection services
7 today.

8 Allowing community aggregation benefits low-income consumers in several ways. The size of
9 the total customer base dilutes the adverse impacts of credit risks associated of any particular
10 sub-class. The aggregation of all classes of consumers allows the peaks of the residential class
11 to be smoothed by complementary loads or made less significant by the size of the total load.
12 The larger size of the load allows the community to exercise greater bargaining power than
13 any given individual low-income customer. Finally, the fixed search costs of seeking out
14 competitive suppliers can be spread over a larger number of customers thus lowering costs on
15 a per customer basis.

16 **Q. IS THERE A SECOND POLICY OPTION?**

17 A. Creating a state purchasing pool is a second response to issues involving low-income
18 aggregation. The Connecticut electric restructuring legislation provides that when the state
19 buys electricity for state facilities, any household with at least one member receiving a means-
20 tested public assistance benefit will be allowed to buy electricity at that same price. Like a

1 municipal aggregation pool, the state purchasing pool allows for the dilution of credit risks; a
2 mix of load factors; greater bargaining power due to size; and the spreading of fixed
3 administrative costs over larger numbers of customers.

4 Connecticut's state electric purchasing pool is akin to the state health care purchasing pools
5 that have become so popular. In those pools, small businesses are allowed to purchase health
6 care insurance as part of the contract that providers negotiate to serve a state's Public
7 Employee Retirement System ("PERS"). The primary purpose of health care aggregation has
8 been to spread the cost of acquiring shopping expertise over many consumers. Rather than
9 simply becoming bigger for market power purposes, health care co-ops seek to increase the
10 sophistication of employee bargaining by pooling and analyzing information. Without
11 aggregation, consumers would lack the resources needed to gather the information to make
12 good choices. In addition, state-sponsored health care aggregation initiatives have generated
13 the efficiencies of larger groups. Small groups of consumers, for example, experience high
14 marketing costs. Because one-time marketing costs are spread over fewer persons, the per
15 enrollee cost of marketing is quite high. Indeed, in the eyes of many, the core idea of health
16 care purchasing cooperatives for small groups of individuals is to streamline marketing.

17 **Q. IS THERE A THIRD POLICY OPTION THAT MIGHT BE AVAILABLE**
18 **THROUGH WHICH TO PROMOTE LOW-INCOME AGGREGATION?**

19 A. New Jersey should require its electric and natural gas utilities to operate programs through
20 which to aggregate low-income households who are receiving means-tested benefits through

1 such providers. This type of aggregation initiative is similar to a state purchasing pool except
2 that it is pursued through private sector organizations. Organizations that might be involved
3 with such aggregation efforts include:

- 4 Ë Local housing authorities;
- 5 Ë Community action agencies delivering an array of public benefits;
- 6 Ë Organizations that are delivering health insurance benefits through the Children's
7 Health Insurance Program (“CHIP”);
- 8 Ë Affordable housing developers that use state or federal funds, including Low-Income
9 Housing Tax Credits, HOME Investment Partnership funds, or state Mortgage
10 Revenue Bond or Mortgage Revenue Certificates;
- 11 Ë Municipalities or county governments.

12 This list of potential partners is intended to be illustrative, not comprehensive.

13 **Q. HOW DOES AN ASSISTANCE IN AGGREGATION PROJECT ADDRESS THE**
14 **BARRIERS TO AGGREGATION THAT YOU HAVE IDENTIFIED ABOVE?**

15 A. Just as many state housing agencies provide legal, technical and administrative support to
16 negotiate housing tax credits, work through bonding requirements, and the like, an office
17 providing aggregation assistance can help draft RFPs, analyze responses, and negotiate
18 contract terms. Providing technical assistance in aggregation, in Colorado, was found to be
19 similar to some of the existing affordable housing activities of the Colorado Department of
20 Local Affairs (“CDLA”). In 1998, the specific activities undertaken by CDLA included: (1)
21 providing training on techniques for packaging of housing projects; (2) coordinating local

1 housing seminars that brought together local government agencies, housing providers,
2 developers, realtors, and private lenders; (3) assisting the development of one Community
3 Housing Development Organization; and (4) providing information to help housing
4 developers navigate the local and federal regulatory environment.

5 Funding an independent system administrator could provide similar services. It would
6 provide training on techniques of packaging energy projects; provide seminars and help to
7 identify specific aggregation opportunities; assist in the development of small user
8 aggregation entities; and help aggregators navigate the regulatory and contractual
9 environment.

10 **Q. PLEASE SUMMARIZE THE NEED FOR AN ASSISTANCE IN AGGREGATION**
11 **PROJECT.**

12 A. In sum, it is not likely that the aggregation of low-income consumers will arise spontaneously
13 as a market phenomenon. If low-income consumers are to be expected to participate in a
14 competitive market through aggregation, a state will need to adopt specific programs to both
15 enable and encourage such participation.

16 **Q. HOW DO YOU DECIDE UPON A FUNDING LEVEL FOR YOUR PROPOSED**
17 **ASSISTANCE IN AGGREGATION PROJECT?**

18 A. The purpose of the assistance in aggregation project is to provide the necessary legal and
19 technical assistance to both enable, and promote, the aggregation of low-income consumers.

1 As I discuss in more detail above, the type of assistance which is needed is very similar to the
2 types of legal and technical assistance that the state provides to affordable housing
3 developers. Relying on that housing Training and Technical Assistance (“T&TA”) model,
4 New Jersey's draft Five Year Consolidated Plan (June 30, 2000) estimates that the Office of
5 Housing Advocacy, in New Jersey's Department of Community Affairs, will have an annual
6 T&TA budget of \$2.250 million. This initiative is designed to provide training and technical
7 assistance to 87 groups per year. I have rounded this figure down to \$2.0 million for the
8 proposed assistance in aggregation project.

1 **C. Guarantee Pool as a POLR Supplement.**

2 **Q. PLEASE EXPLAIN THE BASIS FOR YOUR GUARANTEE POOL.**

3 A. New Jersey's electric and natural gas retail choice legislation has assigned the responsibility
4 for serving as Provider of Last Resort (“POLR”) to the incumbent utility for at least an initial
5 transition period. If a customer, for example, has his or her competitive natural gas supply
6 service terminated for nonpayment, that customer is assigned to the POLR. If a customer
7 shops for natural gas service and finds no-one willing to make such service available, he or
8 she is assigned to the POLR.

9 One mechanism that has been adopted around the country to promote active competition for
10 low-income and payment-troubled customers is, in effect, to guarantee the payment of TPS
11 bills by allowing TPSs to charge their uncollectible accounts uncollectible accounts to the
12 local distribution utilities. The theory is that this mechanism provides the third party supplier
13 an incentive to serve residential customers that they might otherwise avoid because of credit
14 risks. States such as Georgia (in its natural gas retail choice legislation) and Massachusetts
15 (in its electric retail choice legislation) have adopted this treatment of TPS uncollectibles.

16 While the underlying theory of this process is good, the means of implementation is flawed,
17 because it does not provide TPSs with incentives to properly manage and control their
18 uncollectible accounts. The treatment of TPS uncollectibles, along with the credit and
19 collection expenses, as well as the working capital expenses, associated with non-payment
20 should be treated through a universal service guarantee pool.

1 **Q. PLEASE DESCRIBE HOW A UNIVERSAL SERVICE GUARANTEE POOL**
2 **SHOULD BE STRUCTURED.**

3 A. A universal service guarantee pool allows a TPS to cede the risk of serving a residential
4 customer to the pool. If, after ceding that risk, the TPS incurs a collection cost in serving the
5 customer, the TPS may be reimbursed for those costs. Through such a pool, a TPS may
6 notify the guarantee pool administrator at any time that it wishes to include a customer in the
7 pool. A TPS should have an absolute right to include a customer in the guarantee pool. The
8 only criterion will be that the supplier does not want to serve the customer otherwise and is
9 willing to incur the costs associated with including the customer in the pool. This transaction
10 is transparent to the customer, who is otherwise treated in the same way as any other
11 customer of the supplier. The guarantee pool would cover the TPS for uncollectible
12 accounts for the customers included in the pool. The fee structure for the pool can be
13 structured to encourage its use, but to discourage its over-use.

14 **Q. WHAT DO YOU RECOMMEND FOR THIS PROCEEDING?**

15 A. Within 60 days of its final order in this proceeding, the Board should initiate a proceeding
16 dedicated to the structure and operation of a universal service guarantee pool.

1 **PART 4: REASONABLENESS OF UNIVERSAL SERVICE PROGRAM COSTS.**

2 **Q. WOULD YOU PLEASE SUMMARIZE YOU TOTAL PROPOSED UNIVERSAL**
3 **SERVICE FUNDING LEVELS?**

4 A. Electric universal service costs are as follows (million \$s):

5		Rate assistance:	\$49.3
6		Rate assistance administration:	\$ 4.9
7		Arrearage forgiveness:	\$ 3.4
8		Crisis assistance:	\$ 3.0
9		Aggregation assistance:	\$ 1.2
10		BOSS/Chronicles:	\$ 0.5
11		Total expenses:	\$62.3 million

12 Natural gas universal service costs are as follows (million \$s):

13		Rate assistance:	\$29.9
14		Rate assistance administration:	\$ 3.0
15		Arrearage forgiveness:	\$ 1.4
16		Crisis assistance:	\$ 1.8
17		Aggregation assistance:	\$ 0.8
18		BOSS/Chronicles:	\$ 0.0
19		Total expenses:	\$36.9 million

20 After netting LIHEAP and Lifeline revenues against these costs, the total universal service
21 cost to be included in the universal service charge is as follows:

1 Ĕ Electric: \$41.3 million

2 Ĕ Natural gas: \$26.2 million

3 The derivation of these costs is set forth in Schedule RDC-12.

4 **Q. HAVE YOU INCLUDED ANY UNIVERSAL SERVICE PROGRAM START-UP**
5 **COSTS IN YOUR PROPOSED FUNDING LEVELS?**

6 A. No. There may not need to be a separate funding stream to fund program start-up costs. Just
7 as the start-up of a universal service program will generate one-time costs, the start-up will
8 generate one-time expense savings as well. In New Hampshire, for example, I am working
9 with the Governor's Office of Energy and Community Services (“ECS”) to implement that
10 state’s Electric Assistance Program (“EAP”).. No specific dollars were budgeted for start-up
11 costs.

12 The program implementation working group, recognized that the program would not be fully
13 subscribed starting on Day 1 of the program operation. Even setting aside the fact that the
14 physical act of enrolling customers will take time, it is reasonable to assume that not all
15 eligible customers will apply for the EAP on Day 1. Thus, there will be a certain sum of
16 budgeted funds (given full enrollment) that will not be spent in the first year of program
17 operation. The unexpended program funds resulting from the ramp-up of the universal
18 service program provide a sum of money that can be devoted to program start-up costs
19 without increasing the total program budget. Given the total program budget recommended

1 above (\$41.3 million + \$26.2 million = \$67.5 million), the ramp-up savings should be
2 sufficient to fund the program start-up costs.

3 **Q. HAVE YOU ASSESSED THE REASONABLENESS OF YOUR PROPOSED**
4 **UNIVERSAL SERVICE COSTS?**

5 A. Yes. The reasonableness can be assessed through two measures. First, I convert the total
6 universal service costs into a cost per unit of energy. Second, I convert the total universal
7 service costs into a percentage of revenue. Schedule RDC-13 sets out the results of this
8 analysis. This Schedule shows that electric costs are less than one percent (0.6%) of revenue
9 and less than one mil per kWh (\$0.0061/kWh). In addition, the natural gas universal service
10 charge is less than 1.0% of revenue and less than one cent per therm (\$0.056/therm). Each of
11 these impacts are well within the range of reasonableness evidenced by other universal service
12 programs around the nation.

1 **PART 5: FUND ADMINISTRATION AND COST RECOVERY**

2 **A. Fund Administration.**

3 **Q. WHAT ARE YOUR RECOMMENDATIONS REGARDING THE**
4 **ADMINISTRATION OF THE UNIVERSAL SERVICE FUND?**

5 A. The fund should be a state-wide fund under the jurisdiction of the State Treasurer. The
6 independent system administrators for each program component would draw down on these
7 state funds pursuant to the same procedures as other state funds are drawn against. The BPU
8 would translate the budgets of the program administrators each year into a universal service
9 charge calculated on a per unit of energy basis. In addition, the BPU would retain
10 jurisdiction over the annual proceedings through which offsetting savings are quantified and
11 passed through to ratepayers. In this fashion, each part of state government --the Treasurer,
12 the program administrators, and the BPU-- is charged with performing the tasks for which it
13 has historical experience and expertise.

14 **Q. WHY DO YOU RECOMMEND A SINGLE STATE-WIDE FUND?**

15 A. It is important that the benefits I have described above be available on a uniform basis for all
16 of New Jersey's low-income consumers, and that ratepayers throughout the State bear a fair
17 share of the costs of the program. This would not be achieved if there were a separate fund
18 for each of New Jersey's seven electric and gas utilities.

19 **B. Collection of Funds in Rates.**

1 **Q. HOW SHOULD THE REVENUE STREAM BE CAPTURED IN RATES?**

2 A. I propose that the universal service fund should be collected as an undifferentiated
3 component of base rates. In this fashion, while the universal service charge generates an
4 earmarked stream of revenue, it will not appear as a separate line item on the customer's bill.

5 **Q. WHY SHOULD THE UNIVERSAL SERVICE CHARGE BE AN**
6 **UNDIFFERENTIATED PART OF BASE RATES RATHER THAN A SEPARATELY**
7 **STATED LINE ITEM?**

8 A. Several reasons lead to this conclusion. First, there is no reason why the expenditures on
9 low-income programs should be segregated out for greater scrutiny than the collection
10 activities directed towards other ratepayers. Since not all collection expenditures appear as a
11 separate line item, the low-income expenditures should not so appear either.

12 Even more importantly, however, little question exists but that, as discussed in the section
13 immediately below, responses to low-income nonpayment will generate not only expenses,
14 but will generate expense offsets as well. Given existence of expense offsets, it would be
15 inappropriate to include the universal service charge as a separate line item on a customer's
16 bill. To do so would be misleading to the consumer. It would identify the expenditures on
17 universal service, but it would not identify the savings.

18 **Q. HOW SHOULD THE UNIVERSAL SERVICE CHARGE BE ALLOCATED**
19 **AMONG THE UTILITIES' CUSTOMERS?**

1 A. Universal service fund charges should be allocated among utility customers on a volumetric
2 basis. Exceptions may be made for special contract customers who, prior to the enactment of
3 the retail choice statute, entered into agreements with the state specifically prohibiting any
4 additional charges or assessments.

5 **Q. WHEN SHOULD NEW JERSEY UTILITIES BEGIN TO COLLECT THIS**
6 **SURCHARGE?**

7 A. The Board should establish the surcharge such that New Jersey's utilities can begin its
8 collection at least one month before the universal service programs are to begin operation.
9 Assuming the "start date" of November 1, 2001, therefore, I recommend that the surcharges
10 be included on customer bills be no later than October 1, 2001.

11 **C. Cost Recovery Mechanism.**

12 **Q. HOW DO YOU RECOMMEND THAT STATE AGENCIES RECOVER THEIR**
13 **UNIVERSAL SERVICE PROGRAM COSTS?**

14 A. State agencies responsible for administering components of the Universal Service program,
15 such as the LIHEAP office and the administrator of the Assistance in Aggregation program,
16 should recover their costs through an annual budgeting process. Each agency should submit
17 an annual budget to the BPU. The budgeted amount would be included in the BPU's
18 determination of the USF charge for the following year. The state would disburse the funds
19 to each administrator in accordance with its budget and existing state procedures.

1 **Q. WHAT UNIVERSAL SERVICE COSTS SHOULD BE RECOVERABLE BY THE**
2 **UTILITIES THROUGH THE USF.**

3 A. Cost recovery should be limited to *incremental* costs, and they should be *net of the savings*
4 realized by the utilities as a result of Universal Service program

5 **Q. WHAT DO YOU MEAN BY “INCREMENTAL” COSTS?**

6 A. For costs to be incremental, they must not be currently collected in rates. Arrearage
7 forgiveness is one example of a cost that is not entirely incremental. In the absence of an
8 arrearage forgiveness program, some portion of low-income arrears would have become
9 uncollectable. Those dollars would be currently embedded in the uncollectable rate. If the
10 entire arrearage forgiveness were collected through the USF, without making any adjustment
11 for those arrearages that would have been collected through a bad debt reserve in any event,
12 there would be a double recovery of some costs. The same would be true of the fixed credits
13 on a going-forward basis.

14 **Q. WHAT TYPES OF SAVINGS WILL RESULT FROM THE UNIVERSAL SERVICE**
15 **PROGRAM?**

16 A. While many utilities dispute the notion that the cost savings from a universal service program
17 are sufficient to *entirely* offset the costs of a universal service program, there can be little
18 serious dispute that there will be some level of offsetting savings. If nothing else, if a
19 customer who is constantly 60 days in arrears, receives a fixed bill credit, funded by other
20 ratepayers, which allows the customer to stay current, there will be a reduction in revenue lag

1 days. With a reduction in revenue lag days, there will be a reduction in working capital.
2 Further, with the rate of return provided on working capital, there will be an equity
3 component that will have a tax component to it. The revenue requirement impact of this
4 reduction thus could be substantial. The offset must be calculated.

5 In addition to the working capital, that low-income programs do, in fact, generate credit and
6 collection savings has been confirmed by impact evaluations of other efforts. for example,
7 the Columbia Gas CAP impact evaluation found that CAP customers had 61% fewer
8 disputes, 53% fewer new payment agreements, and 67% fewer credit hold requests. In
9 addition, the Columbia Gas impact evaluation found further that, for CAP customers,
10 cancellation of payment plans was reduced by 69%, termination notices declined by 48%, and
11 shutoff orders were printed 74% less often.

12 The revenue enhancements arising from a stabilized low-income customer base also should be
13 captured. My analysis of a Washington state utility, for example, found that given an average
14 annual electric bill of \$577 and an average annual natural gas bill of \$388, each day of lost
15 electric revenue cost the company \$1.60 and each day of lost natural gas revenue cost the
16 company \$1.10. This lost revenue results not simply from customers off the system due to
17 service disconnections for nonpayment. It includes, also, customers who engage in frequent
18 mobility because of unaffordable home energy bills.¹³

¹³ A study of Head Start families in Missouri found that nearly two-fifths were "frequently mobile." Of those households, forty-five percent lived at or below 50% of Poverty. More
(continued...)

1 The Pennsylvania Public Utility Commission (“PUC”) has recognized the importance of
2 offsetting savings in a recent policy statement concerning its Customer Assistance Programs
3 (“CAPs”):

4 Cost recovery. In evaluating utility CAPs for ratemaking purposes, the
5 Commission will consider both revenue and expense impacts. Revenue impact
6 considerations include a comparison between the amount of revenue collected
7 from CAP participants prior to and during their enrollment in the CAP. CAP
8 expense impacts include both the expenses associated with operating the
9 CAPs as well as the potential decrease of customer utility operating expenses.
10 Operating expenses include the return requirement on cash working capital for
11 carrying arrearages, the cost of credit and collection activities for dealing with
12 low-income negative ability to pay customers and uncollectible accounts
13 expense for writing off bad debt for these customers.¹⁴

14 For this reason, the Pennsylvania PUC provided that "program funding" should be derived
15 from the following sources:.. (iii) operations and maintenance expense reductions." (CAP
16 Policy Statement, at Section 69.265(1)).

17 **Q. HOW SHOULD THE UTILITIES’ COST SAVINGS BE CALCULATED?**

18 A. New Jersey should require the “top down” approach which has been mandated by the
19 Pennsylvania PUC. This approach to estimating savings was first introduced in the Equitable

(...continued)

than half of the frequently mobile households listed unaffordable home energy as a major contributing cause to their decisions to move. Moreover, "The data reveals, also, that it is, indeed, *unaffordable* energy bills and not merely the disconnection of service which contributes to the forced mobility of the low-income Missouri households. Three-fourths (71 of 96) of the low-income households who moved because of unaffordable energy bills did so notwithstanding the fact that they either had been paying their bills, or had at least not fallen so far behind as to warrant the disconnection of service."

¹⁴ Pennsylvania PUC, *Order Re. Revisions to the Customer Assistance Program Policy Statement Made Pursuant to 52 Pa. Code Chapter 69*, at Section 69.266, Docket No. M-00991232 (March 31, 1999).

1 Gas evaluation of its Customer Assistance Program (“CAP”). Under the typical “bottom up”
2 approach, savings are calculated based on specifically identified cost elements. Among other
3 flaws, the “bottom up” approach fails to capture all of the administrative costs of traditional
4 credit and collection activities. According to the Pennsylvania PUC’s Equitable Gas
5 evaluation, the “bottom up” approach captures only about one-fourth of these costs. The
6 “top down” approach which is based on evaluation of changes in the utilities’ total
7 departmental budgets, more accurately reflects the total savings resulting from a universal
8 service program. This approach, which is described in detail in Pennsylvania’s universal
9 service program reporting regulations, should be adopted in New Jersey.¹⁵

10 **Q. WHAT COST RECOVERY PROCEDURES DO YOU RECOMMEND FOR THE**
11 **UTILITIES?**

12 A. I recommend a two-phase process. The first phase is recovery of the fixed rate affordability
13 credits and arrearage forgiveness credits provided to low-income consumers. These amounts
14 should be billed on a monthly basis to the state LIHEAP office and approved as appropriate.
15 The state should then reimburse the utility for approved amounts within a time certain.

16 The second phase is an adjudicatory proceeding to determine each utility’s savings and
17 revenue enhancements resulting from the universal service program. On an annual basis, each
18 utility should submit its estimate of its universal service related savings and revenue

¹⁵ Pennsylvania Public Utility Commission, Re Guidelines for Universal Service and Energy Conservation Programs, Docket No. M-00960890 (July 11, 1997).

1 enhancements, relative to a base period (the year before the implementation of Universal
2 Service program). The actual savings and revenue enhancements are determined by the BPU
3 following an adjudicatory hearing, and the savings are reflected in the Universal Service
4 charge.

1 **PART 6: REPORTING REQUIREMENTS.**

2 **Q. WOULD YOU PLEASE SUMMARIZE YOUR RECOMMENDED REPORTING**
3 **REQUIREMENTS?**

4 A. I have proposed a series of remedies to promote universal service in New Jersey. In addition
5 to undertaking these activities, however, the program's *performance* should be tracked. I
6 would propose that "satisfactory" performance occurs when performance relative to the low-
7 income population is no worse than performance relative to the total residential customer
8 population. I further recommend that the State track both the performance of the Universal
9 Service program, and the overall impact of competition on low-income consumers. I
10 recommend a reporting mechanism consisting of three components.

- 11 1. At present, none of the New Jersey utilities has a mechanism for identifying
12 and tracking low-income consumers. In order to evaluate the impact of the
13 Universal Service program and competition on low-income consumers, it is
14 necessary to establish a process of for identifying and tracking these
15 consumers.
- 16 2. The objective of the Universal Service program should be that low-income
17 consumers will have customer service outcomes, such as disconnections for
18 non-payment, negotiated deferred payment arrangement, and successful
19 deferred payment arrangements, which are comparable to the population of
20 residential consumers as a whole. I recommend that New Jersey's utilities be
21 required to report on four outcome-based measures that measure the
22 program's achievement of this objective.
- 23 3. In a study I conducted in 1999 under contract with the U.S. Department of
24 Health and Human Services ("HHS"), Administration for Children and
25 Families, Division of Energy Assistance, I concluded that low-income
26 consumers seek, on a non-degraded basis, access to reasonable adequate
27 service at prices reflecting least cost, both on a per unit and total bill basis. I
28 recommend that the utilities report on fourteen indicators of these factors.

29 **A. Identifying Low-Income Consumers.**

1 **Q. PLEASE DESCRIBE THE PROCESS YOU PROPOSE THROUGH WHICH LOW-**
2 **INCOME CONSUMERS CAN BE IDENTIFIED AND TRACKED.**

3 A. At present, there is no uniform information system that allows the utilities and the Board to
4 track customer service outcomes for low-income consumers. New Jersey should establish an
5 affirmative, proactive process that provides for all utilities to uniformly identify and track
6 low-income consumers. I propose that, within 90 days after entry of a final order in this
7 proceeding, each New Jersey utility submit a proposed plan setting forth a process through
8 which low-income consumers can be identified and tracked.

1 **B. Indicators of Universal Service Program Performance.**

2 **Q. PLEASE DESCRIBE YOUR PROPOSED OUTCOME-BASED UNIVERSAL**
3 **SERVICE PERFORMANCE REPORTING SYSTEM.**

4 A. I propose an outcome-based performance reporting system (“OPRS”) for customer service
5 relative to low-income payment troubles. More specifically, I propose that New Jersey's
6 utilities be required to report on four outcome-based performance for residential consumers
7 as a whole, and for participants in the Universal Service program:

- 8 1. **Rate of disconnection for nonpayment (“DNP Rate”).** If the Universal Service
9 program is performing well, low-income consumers will be disconnected for
10 nonpayment at rates no higher than the general population of residential consumers.
- 11 2. **Rate of arrearage accounts placed on deferred payment arrangements (“DPA**
12 **Rate”).** If a the program is performing well, the utilities should be identifying low-
13 income consumers and placing them on the universal service program. As a result,
14 customers needing deferred payment arrangements should decrease.
- 15 3. **Rate of unsuccessful deferred payment arrangements (“DPA Failure Rate”).** If
16 the program is performing well, low-income consumers will fail to complete deferred
17 payment arrangements at rates no higher than residential consumers as a whole.
- 18 4. **The "bills behind" statistic for accounts in arrears (“Bills Behind Statistic”).**
19 The “bills behind” statistic is a weighted average of arrears for households not in
20 deferred payment arrangements. This statistic is calculated by dividing the total
21 monthly arrears not subject to deferred payment arrangements by the average monthly
22 bill. (An illustrative example for a single customer is as follows: if the customer has an

1 arrears of \$400 and an average monthly bill of \$200, he is 2.0 “bills behind.” A high
2 “bills behind” statistic is indicative of a practice of allowing household arrears to
3 persist without placing the households on deferred payment arrangements or
4 otherwise placing them in the collection cycle. If the Universal Service program is
5 performing well, this statistic should be no higher for low-income consumers than for
6 the general population of residential consumers.

7 **Q. WHAT IS THE SOURCE OF DATA FOR ESTABLISHING THE BASELINE**
8 **PERFORMANCE TO BE USED IN YOUR PROPOSED OPRS?**

9 A. The data needed to determine the baseline residential performance for each of these measures
10 should be easily extractable from a company's existing Computer Information System
11 (“CIS”).

12 **Q. WHAT IS THE SOURCE OF DATA FOR ESTABLISHING THE "LOW-INCOME**
13 **RESIDENTIAL" PERFORMANCE TO BE USED IN YOUR PROPOSED OPRS?**

14 A. Data should be collected for all customers who have been identified on a company's customer
15 information system as recipients of assistance through LIHEAP or any other program that
16 might lead a company to identify and track a customer as low-income. In addition, as I
17 recommend above, all companies should be required to develop and periodically exercise
18 proactive processes through which low-income customers can be identified on a company's
19 system.

1 **Q. PLEASE EXPLAIN WHY THE DNP RATE IS AN APPROPRIATE OUTCOME-**
2 **BASED PERFORMANCE MEASURE.**

3 A. Every residential involuntary termination of service for nonpayment represents a failure of a
4 company and its customer to adequately address the customer's payment problems. The
5 disconnection of service represents not only a social problem for those households
6 disconnected, but represents a business problem for the utility as well. A company must
7 spend money on the physical act of disconnecting service. Moreover, the disconnection of
8 service represents a loss of a future revenue stream to help offset fixed company costs.

9 If a company is performing well with respect to identifying its low-income customers in
10 arrears, negotiating reasonable deferred payment plans, providing effective outreach for
11 participation in LIHEAP, and doing related activities, no reason exists that the DNP Rate for
12 the low-income population should differ from the DNP Rate for the residential population as
13 a whole.

14 **Q. PLEASE EXPLAIN WHY THE DPA RATE IS AN APPROPRIATE OUTCOME-**
15 **BASED PERFORMANCE MEASURE.**

16 A. When customers become delinquent on their bills, a company has an incentive to either obtain
17 immediate payment or to place those customers on deferred payment arrangements (DPAs)
18 through which the arrears may be retired over time. Households that are in arrears to a
19 company, but which have *not* entered into a deferred payment agreement, represent a serious

1 risk of loss to a company. Moreover, by entering into a deferred payment plan, the risk that
2 the household will ultimately lose its utility service is lessened. If a company is performing
3 well, it will be identifying its low-income customers in arrears and negotiating DPAs with
4 those customers. No reason exists that the DPA Rate for the low-income population should
5 differ from the DPA Rate for the residential population as a whole.

6 **Q. PLEASE EXPLAIN WHY THE DPA FAILURE RATE IS AN APPROPRIATE**
7 **OUTCOME-BASED PERFORMANCE MEASURE.**

8 A. The successful completion of a deferred payment agreement involves a household which
9 retires its arrears without need for renegotiation of the agreement and without need for the
10 disconnection of service. Given that a company presumably only enters into *reasonable*
11 deferred payment agreements, virtually all DPAs should be successfully completed. More
12 importantly for this measure, if a company is entering into reasonable DPAs with its low-
13 income population, no reason exists that the DPA Failure Rate for the low-income population
14 should differ from the DPA Failure Rate for the residential population as a whole.

15 **Q. PLEASE EXPLAIN WHY THE “BILLS BEHIND” STATISTIC IS AN**
16 **APPROPRIATE OUTCOME-BASED PERFORMANCE MEASURE.**

17 A. The "bills behind" statistic calculates a weighted arrears for all households who are not in
18 deferred payment agreements. This statistic calculates the number of average bills contained
19 in an average arrearage by dividing the total monthly arrears not subject to deferred payment
20 agreements by the average monthly customer bill. Hence, if one customer has an arrears of

1 \$400 and an average monthly bill of \$200, that customer has a weighted arrears of 2.0 "bills
2 behind." If a different customer has an arrears of \$400 and an average monthly bill of \$140,
3 that customer has a weighted arrears of 2.86 bills behind. The second customer is considered
4 to be in more serious payment trouble. A high "bills behind" statistic points to a practice of
5 allowing household arrears to persist without placing such households on to deferred
6 payment agreements or otherwise placing them in the collection cycle. If a company is
7 reasonably reaching its low-income population, and offering the same type and quality of
8 customer service as it offers to its total population, no reason exists that the Bills Behind
9 Statistic for the low-income population should differ from the Bills Behind Statistic for the
10 residential population as a whole.

11 A weighted "bills behind" statistic is calculated to account for the potential difference in bills
12 between time periods. Without such a weighted statistic, a comparison of arrears between
13 time periods can be misleading because of a difference in bills (whether due to rates or
14 weather or some other factor). A weighted statistic is calculated, in other words, so that the
15 effect of different average bills is taken into consideration. As the Bureau of Consumer
16 Services (BCS) of the Pennsylvania Public Utility Commission observes, use of a weighted
17 arrears measure "permits comparisons to be drawn between companies by eliminating the
18 effects of different customer bills on arrearages." Without such a measure, "the
19 interpretations of average arrearages, either over time or in comparison between companies
20 presents some difficulties." (Bureau of Consumer Services, *Utility Payment Problems: The*

1 *Measurement and Evaluation of Responses to Customer Nonpayment*, Pennsylvania Public
2 Utility Commission:Harrisburg, PA (October 1983)).

3 **Q. WHY DO YOU INCLUDE FOUR MEASURES IN YOUR PROPOSED OPRS?**

4 A. The four parts are designed to avoid creating unintended incentives. Thus, for example, if one
5 were to look only at whether a company minimizes service terminations, the company would
6 have an incentive to reduce terminations while not improving its collections. If one were to
7 look only at whether a company minimizes arrearages, the company would have an incentive
8 to disconnect customers rather than to place them on deferred payment arrangements. If one
9 were to look only at DPAs without looking also at DPA success, the company would have an
10 incentive to place delinquent customers on DPAs without regard for the affordability of such
11 plans. The four-part structure is necessary for New Jersey utilities to address *each* aspect of
12 the OPRS.

13 **Q. IS THE PURPOSE OF YOUR PROPOSED OPRS TO DETERMINE WHETHER**
14 **NEW JERSEY COMPANIES ARE DOING A "GOOD" OR "BAD" JOB RELATIVE**
15 **TO UNIVERSAL SERVICE FOR LOW-INCOME CUSTOMERS?**

16 A. No. The proposed OPRS provides only that low-income customers will have customer
17 service outcomes (e.g., disconnections for nonpayment, negotiated deferred payment
18 arrangements, successful deferred payment arrangements, and arrearage levels) that are no
19 worse than the population as a whole. If a company does a "good" or a "bad" job relative to
20 its total population, the proposed OPRS will not capture that. Instead, the OPRS is

1 structured to capture only a divergence in the outcomes for low-income customers relative to
2 the outcomes for the total residential customer population.

3 **Q. DO YOU PROPOSE TO IMPOSE FINANCIAL PENALTIES OR INCENTIVES**
4 **BASED ON THE RESULTS OF THE DATA REPORTING?**

5 A. Not at this time. The purpose of the reporting mechanisms at this time is simply to track the
6 customer service outcomes for low-income customers. However, if customer service
7 outcomes begin to degrade over time, it would be appropriate to consider financial rewards
8 and penalties. That, however, is a future issue to be considered if, and only if, the need
9 arises and I do not make that proposal in this proceeding. It is, however, important that the
10 reports be filed for tracking purposes. Daily penalties, pursuant to *N.J.S.A. 48:2-42*, would
11 be appropriate in the event that New Jersey utilities failed to timely file the required reports.

12 **Q. WHAT SHOULD THE BOARD DO WITH THE ANNUAL OPRS DATA?**

13 A. The Board should analyze the data and publish an annual report on the status of universal
14 service in New Jersey. Based on that data, the Board, on its own motion, the Ratepayer
15 Advocate, or other interested parties might seek appropriate remedies.

1 **C. Indicators of Retail Competition Impacts.**

2 **Q. HAVE YOU HAD OCCASION TO DEVELOP A MECHANISM FOR**
3 **MONITORING THE IMPACTS OF RETAIL COMPETITION ON LOW-INCOME**
4 **CONSUMERS?**

5 A. Yes. In 1999, under contract with the U.S. Department of Health and Human Services,
6 Administration for Children and Families, Division of Energy Assistance, I was retained to
7 identify information deemed by state LIHEAP directors to be necessary to monitor the
8 impact of electric and natural gas retail choice on low-income consumers.¹⁶ The purposes of
9 the HHS paper were four-fold:

- 10 1. To identify, define and explain a set of quantifiable indicators to use in tracking how
11 restructuring the electric industry affects low-income consumers;
- 12 2. To propose a set of specific data through which these indicators can be measured
13 (both currently and at periodic intervals into the future);
- 14 3. To suggest a methodology for collecting the proposed data; and
- 15 4. To explain the use to which the performance measures can be put.

16 The report concluded that low-income consumers seek, on a non-degraded basis, access to
17 reasonably adequate service at prices reflecting least-cost. My report took the three distinct
18 components in this statement and developed performance measurements for each.

19 **Ë** **Access:** My report concluded that "access" to service involves the universal
20 opportunity to connect to and take advantage of the competitive electric system. It
21 proposed reporting measures including, but not limited to, tracking the involuntary
22 disconnection of service, the service (or lack thereof) entering the winter heating
23 season, and the types of service taken by low-income consumers, among others.

¹⁶ The final report was titled *Monitoring the Impact of Electric Restructuring on Low-Income Consumers: The What, How and Why of Data Collection* (June 1999).

1 **Ē** **Reasonably adequate service:** My report concluded that "reasonably adequate
2 service" encompasses a broad range of requirements involving the supply of kWh and
3 the provision of supplemental customer services. It proposed reporting measures
4 including, but not limited to, tracking contributions to hardship funds, the availability
5 of affordable rate programs, the availability of low-income energy efficiency
6 programs, the extent of extreme weather protections, the extent of customer service
7 contacts, among others.

8 **Ē** **Least-cost service pricing:** Finally, my report concluded that least-cost service
9 pricing involves the dollars paid, not only on a per unit basis, but on a total bill basis
10 as well. It proposed reporting measures including, but not limited to, tracking per unit
11 prices, fixed monthly charges, supplemental customer fees, and provider of last resort
12 participation, service loss, and bills, among others.

13 **Q. HOW WAS THIS REPORT PREPARED?**

14 A. Over the course of a six month period, I worked with individual consultants, as well as
15 individual state LIHEAP directors and the staff of the National Energy Assistance Directors
16 Association (NEADA) to identify the concerns which low-income energy assistance service
17 providers have with respect to electric and natural gas retail choice. My job was to then
18 translate those concerns into measurable objectives and to determine whether there is
19 reasonably accessible data through which to measure performance on these objectives. As
20 the report states, the purposes of the project were four-fold:

- 21 1. To identify, define and explain a set of quantifiable indicators to use in tracking how
22 restructuring the electric industry affects low-income consumers;
- 23 2. To propose a set of specific data through which these indicators can be measured
24 (both currently and at periodic intervals into the future);
- 25 3. To suggest a methodology for collecting the proposed data; and
- 26 4. To explain the use to which the performance measures can be put.

1 The report indicates that while focused on the electric industry, it is equally applicable to a
2 restructured natural gas industry as well.

3

4 I recommend the report to the New Jersey BPU for reference in developing reporting
5 requirements to track the impact of competition on low-income ratepayers. A copy is
6 attached to this testimony as Appendix A.

1 **D. Funding.**

2 **Q. DO YOU PROPOSE FUNDING FOR IMPLEMENTATION OF THE OUTCOME-**
3 **BASED REPORTING MECHANISM?**

4 A. Regulatory agencies routinely impose reporting requirements on the companies which they
5 oversee. To the extent that there are costs associated with these universal service reporting
6 requirements, those costs should be recovered through a base rate proceeding. These
7 reporting requirements should no more be subject to separate cost recovery than are any
8 other reporting requirement. This is not to say that these reporting costs are not subject to
9 recovery. It is merely to conclude that the universal service fund is an inappropriate
10 mechanism for such recovery.

11 **Q. DO YOU PROPOSE COST RECOVERY FOR IMPLEMENTATION OF THE**
12 **REPORTING THE IMPACTS OF RETAIL COMPETITION?**

13 A. No. The need for reporting the impacts of retail competition is not a need attributable to the
14 universal service programs and should not be subject to cost recovery through the universal
15 service fund. The need for this reporting is caused by the move to retail competition.
16 Accordingly, as recommended above for the OPRS, these reporting requirements should no
17 more be subject to separate cost recovery than are any other reporting requirement. As, too,
18 with the OPRS, this is not to say that these reporting costs are not subject to recovery. It is
19 merely to conclude that the universal service fund is an inappropriate mechanism for such
20 recovery.

CONCLUSION.

Q. DOES THIS CONCLUDE YOUR TESTIMONY?

A. Yes it does.

**COLTON TESTIMONY EXPERIENCE
1988 - PRESENT**

CASE NAME	ROLE	CLIENT NAME	TOPIC	JURIS.	DATE
I/M/O Northeast Utilities Merger with Consolidated Edison	Witness	New Hampshire Legal Assistance	Merger impacts on low-income	New Hampshire	00
I/M/O UtiliCorp Merger with St. Joseph Light & Power	Witness	Missouri Dept. of Natural Resources	Merger impacts on low-income	Missouri	00
I/M/O UtiliCorp Merger with Empire District Electric	Witness	Missouri Dept. of Natural Resources	Merger impacts on low-income	Missouri	00
I/M/O PacifiCorp	Witness	The Opportunity Council	Low-income energy affordability	Washington	00
I/M/O Merger of PECO Energy and Commonwealth Energy	Witness	Office of Consumer Advocate	Merger impacts on low-income	Pennsylvania	00
I/M/O Public Service Co. of Colorado	Witness	Colorado Energy Assistance Foundation	Natural gas rate design	Colorado	00
I/M/O Avista Energy Corp.	Witness	Spokane Neighborhood Action Program	Low-income energy affordability	Washington	00
I/M/O TW Phillips Energy Co.	Witness	Office of Consumer Advocate	Universal service	Pennsylvania	00
I/M/O PECO Energy Company	Witness	Office of Consumer Advocate	Universal service	Pennsylvania	00
I/M/O National Fuel Gas Distribution Corp.	Witness	Office of Consumer Advocate	Universal service	Pennsylvania	00
I/M/O PFG Gas Company	Witness	Office of Consumer Advocate	Universal service	Pennsylvania	00
I/M/O UGI Energy Company	Witness	Office of Consumer Advocate	Universal service	Pennsylvania	00
Re. PSCO/NSP Merger	Witness	Colorado Energy Assistance Foundation	Merger impacts on low-income	Colorado	99 - 00
I/M/O Peoples Gas Company	Witness	Office of Consumer Advocate	Universal service	Pennsylvania	99
I/M/O Columbia Gas Company	Witness	Office of Consumer Advocate	Universal service	Pennsylvania	99
I/M/O PG Energy Company	Witness	Office of Consumer Advocate	Universal service	Pennsylvania	99
I/M/O Equitable Gas Company	Witness	Office of Consumer Advocate	Universal service	Pennsylvania	99
Allerruzzo v. Klarchek	Witness	Barlow Allerruzzo	Mobile home fees and sales	Illinois	99
I/M/O Restructuring New Jersey's Natural Gas Industry	Witness	Division of Ratepayer Advocate	Universal service	Pennsylvania	99
I/M/O Bell Atlantic Local Competition	Witness	Public Utility Law Project	Lifeline telecommunications rates	New Jersey	99
I/M/O Merger Application for SBC and Ameritech Ohio	Witness	Edgemont Neighborhood Association	Merger impacts on low-income consumers	Ohio	98 - 99
Davis v. American General Finance	Witness	Thomas Davis	Damages in "loan flipping" case	Ohio	98 - 99
Griffin v. Associates Financial Service Corp.	Witness	Earlie Griffin	Damages in "loan flipping" case	Ohio	98 - 99
I/M/O Baltimore Gas and Electric Restructuring Plan	Witness	Maryland Office of Peoples Counsel	Consumer protection/basic generation service	Maryland	98 - 99
I/M/O Delmarva Power and Light Restructuring Plan	Witness	Maryland Office of Peoples Counsel	Consumer protection/basic generation service	Maryland	98 - 99

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CASE NAME	ROLE	CLIENT NAME	TOPIC	JURIS.	DATE
I/M/O Potomac Electric Power Co. Restructuring Plan	Witness	Maryland Office of Peoples Counsel	Consumer protection/basic generation service	Maryland	98 - 99
I/M/O Potomac Edison Restructuring Plan	Witness	Maryland Office of Peoples Counsel	Consumer protection/basic generation service	Maryland	98 - 99
VMHOA v. LaPierre	Witness	Vermont Mobile Home Owners Association	Mobile home tying	Vermont	98
Re. Restructuring Plan of Virginia Electric Power	Witness	VMH Energy Services, Inc.	Consumer protection/basic generation service	Virginia	98
Mackey v. Spring Lake Mobile Home Estates	Witness	Timothy Mackey	Mobile home fees	State ct: Illinois	98
Re. Restructuring Plan of Atlantic City Electric	Witness	New Jersey Division of Ratepayer Advocate	Low-income issues	New Jersey	97-98
Re. Restructuring Plan of Jersey Central Power & Light	Witness	New Jersey Division of Ratepayer Advocate	Low-income issues	New Jersey	97-98
Re. Restructuring Plan of Public Service Electric & Gas	Witness	New Jersey Division of Ratepayer Advocate	Low-income issues	New Jersey	97-98
Re. Restructuring Plan of Rockland Electric	Witness	New Jersey Division of Ratepayer Advocate	Low-income issues	New Jersey	97-98
Appleby v. Metropolitan Dade County Housing Agency	Witness	Legal Services of Greater Miami	HUD utility allowances	Fed. court: So. Florida	97 - 98
Re. Restructuring Plan of PECO Energy Company	Witness	Energy Coordinating Agency of Philadelphia	Universal service	Pennsylvania	97
Re. Atlantic City Electric Merger	Witness	New Jersey Division of Ratepayer Advocate	Low-income issues	New Jersey	97
Re. IES Industries Merger	Witness	Iowa Community Action Association	Low-income issues	Iowa	97
Re. New Hampshire Electric Restructuring	Witness	NH Comm. Action Ass'n	Wires charge	New Hampshire	97
Re. Natural Gas Competition in Wisconsin	Witness	Wisconsin Community Action Association	Universal service	Wisconsin	96
Re. Baltimore Gas and Electric Merger	Witness	Maryland Office of Peoples Counsel	Low-income issues	Maryland	96
Re. Northern States Power Merger	Witness	Energy Cents Coalition	Low-income issues	Minnesota	96
Re. Public Service Co. of Colorado Merger	Witness	Colorado Energy Assistance Foundation	Low-income issues	Colorado	96
Re. Massachusetts Restructuring Regulations	Witness	Fisher, Sheehan & Colton	Low-income issues/energy efficiency	Massachusetts	96
Re. FERC Merger Guidelines	Witness	National Coalition of Low-Income Groups	Low-income interests in mergers	Washington D.C.	96
Re. Joseph Keliikuli III	Witness	Joseph Keliikuli III	Damages from lack of homestead	Honolulu	96
Re. Theresa Mahaulu	Witness	Theresa Mahaulu	Damages from lack of homestead	Honolulu	95
Re. Joseph Ching, Sr.	Witness	Re. Joseph Ching, Sr.	Damages from lack of homestead	Honolulu	95
Joseph Keaulana, Jr.	Witness	Joseph Keaulana, Jr.	Damages from lack of homestead	Honolulu	95
Re. Utility Allowances for Section 8 Housing	Witness	National Coalition of Low-Income Groups	Fair Market Rent Setting	Washington D.C.	95
Re. PGW Customer Service Tariff Revisions	Witness	Philadelphia Public Advocate	Credit and collection	Philadelphia	95
Re. Customer Responsibility Program	Witness	Philadelphia Public Advocate	Low-income rates	Philadelphia	95
Re. Houston Lighting and Power Co.	Witness	Gulf Coast Legal Services	Low-Income Rates	Texas	95

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CASE NAME	ROLE	CLIENT NAME	TOPIC	JURIS.	DATE
Re. Request for Modification of Winter Moratorium	Witness	Philadelphia Public Advocate	Credit and collection	Philadelphia	95
Re. Dept of Hawaii Homelands Trust Homestead Production	Witness	Native Hawaiian Legal Corporation	Prudence of trust management	Honolulu	94
Re. SNET Request for Modified Shutoff Procedures	Witness	Office of Consumer Counsel	Credit and collection	Connecticut	94
Re. Central Light and Power Co.	Witness	United Farm Workers	Low-income rates/DSM	Texas	94
Blackwell v. Philadelphia Electric Co.	Witness	Gloria Blackwell	Role of shutoff regulations	Penn. courts	94
U.S. West Request for Waiver of Rules	Witness	Wash. Util. & Transp. Comm'n Staff	Telecommunications regulation	Washington	94
Re. U.S. West Request for Full Toll Denial	Witness	Colorado Office of Consumer Counsel	Telecommunications regulation	Colorado	94
Washington Gas Light Company	Witness	Community Family Life Services	Low-income rates & energy efficiency	Washington D.C.	94
Clark v. Peterborough Electric Utility	Witness	Peterborough Community Legal Centre	Discrimination of tenant deposits	Ontario, Canada	94
Dorsey v. Housing Auth. of Baltimore	Witness	Baltimore Legal Aide	Public housing utility allowances	Federal district court	93
Penn Bell Telephone Co.	Witness	Penn. Utility Law Project	Low-income phone rates	Pennsylvania	93
Philadelphia Gas Works	Witness	Philadelphia Public Advocate	Low-income rates	Philadelphia	93
Central Maine Power Co.	Witness	Maine Assn Ind. Neighborhoods	Low-income rates	Maine	92
New England Telephone Company	Witness	Mass Attorney General	Low-income phone rates	Massachusetts	92
Philadelphia Gas Co.	Witness	Philadelphia Public Advocate	Low-income DSM	Philadelphia	92
Philadelphia Water Dept.	Witness	Philadelphia Public Advocate	Low-income rates	Philadelphia	92
Public Service Co. of Colorado	Witness	Land and Water Fund	Low-income DSM	Colorado	92
Sierra Pacific Power Co.	Witness	Washoe Legal Services	Low-income DSM	Nevada	92
Consumers Power Co.	Witness	Michigan Legal Services	Low-income rates	Michigan	92
Columbia Gas	Witness	Penn. State Office of Consumer Advocate (OCA)	Energy Assurance Program	Pennsylvania	91
Mass. Elec. Co.	Witness	Mass Elec Co.	Percentage of Income Plan	Massachusetts	91
AT&T	Witness	TURN	Inter-LATA competition	California	91
Generic Investigation into Uncollectibles	Witness	Penn OCA	Controlling uncollectibles	Pennsylvania	91
Union Heat Light & Power	Witness	Kentucky Legal Services (KLS)	Energy Assurance Program	Kentucky	90
Philadelphia Water	Witness	Philadelphia Public Advocate (PPA)	Controlling accounts receivable	Philadelphia	90
Philadelphia Gas Works	Witness	PPA	Controlling accounts receivable	Philadelphia	90
Mississippi Power Co.	Witness	Southeast Mississippi Legal Services Corp.	Formula ratemaking	Mississippi	90
Kentucky Power & Light	Witness	KLS	Energy Assurance Program	Kentucky	90
Philadelphia Electric Co.	Witness	PPA	Low-income rate program	Philadelphia	90
Montana Power Co.	Witness	Montana Ass'n of Human Res. Council Directors	Low-income rate proposals	Montana	90
Columbia Gas Co.	Witness	Penn. OCA	Energy Assurance Program	Pennsylvania	90

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CASE NAME	ROLE	CLIENT NAME	TOPIC	JURIS.	DATE
Philadelphia Gas Works	Witness	PPA	Energy Assurance Program	Philadelphia	89
Southwestern Bell Telephone Co.	Witness	SEMLSC	Formula ratemaking	Mississippi	90
Generic Investigation into Low-income Programs	Witness	Vermont State Department of Public Service	Low-income rate proposals	Vermont	89
Generic Investigation into Dmnd Side Management Measures	Consultant	Vermont DPS	Low-income conservation programs	Vermont	89
National Fuel Gas	Witness	Penn OCA	Low-income fuel funds	Pennsylvania	89
Montana Power Co.	Witness	Human Resource Develop. Council District XI	Low-income conservation	Montana	88
Washington Water Power Co.	Witness	Idaho Legal Service Corp.	Rate base, rate design, cost-allocations	Idaho	88

Schedule RDC-2

2000 Poverty Levels (48 contiguous states)						
	Number of Household Members					
	1	2	3	4	5	6
100% Poverty	\$8,350	\$11,250	\$14,150	\$17,050	\$19,950	\$22,850
<p>NOTES:</p> <p>/a/ Each additional person: add \$2,900.</p> <p>SOURCE: Federal Register, February 15, 2000, at pages 7555 - 7557.</p>						

Schedule RDC-3

Distribution of Persons in New Jersey By Poverty Range		
	No. of Persons	Percent of Households
Under 50%	286,059	3.8%
50% - 74%	129,466	1.7%
75% - 99%	157,627	2.1%
100% - 124%	184,210	2.4%
125% - 149%	186,274	2.5%
Total below 150%	943,636	12.5%
150-200 %	459,242	6.1%
Total below 200%	1,402,878	18.6%

SOURCE: Table 121, Summary Tape File 3A, 1990 U.S. Census.

Electric Burdens at Various Levels of Poverty New Jersey: 1998				
Poverty Range /a/	Household Size			
	1	2	3	4
Under 50	41%	31%	24%	20%
50-100	14%	10%	8%	7%
100 - 150	8%	6%	5%	4%
151 - 200	6%	4%	3%	3%

NOTES:

Poverty range income calculated at the mid-point. Hence, for example, "under 50%" is calculated at 25%.

New Jersey electric bills obtained from U.S. Department of Energy, Energy Information Administration, *Electric Sales and Revenue: 1998* (October 1999).

Natural Gas Burdens at Various Levels of Poverty New Jersey: 1995				
Poverty Range /a/	Household Size			
	1	2	3	4
Under 50	36%	26%	21%	17%
50-100	12%	9%	7%	6%
100 - 150	7%	5%	4%	3%
151 - 200	5%	4%	3%	2%

NOTES:

Poverty range income calculated at the mid-point. Hence, for example, "under 50%" is calculated at 25%.

New Jersey natural gas bills obtained from U.S. Department of Energy, Energy Information Administration, *Historical Natural Gas Annual: 1930 through 1996* (October 1997).

Combined Natural Gas/Electric Burdens at Various Levels of Poverty New Jersey				
Poverty Range /a/	Household Size			
	1	2	3	4
Under 50	77%	57%	45%	38%
50-100	26%	19%	15%	13%
100 - 150	15%	11%	9%	8%
151 - 200	11%	8%	6%	5%

NOTES:

Poverty range income calculated at the mid-point. Hence, for example, "under 50%" is calculated at 25%.

Schedule RDC-5
(page 1 of 2)

Comparison of Percent of Income-Based Program (Electric) and Straight Discount SBC Distribution							
Income Range	Mid-Point	Percent of Income-Based				Straight Discount	
		Affordable Pct	Affordable Bill	Actual Bill	Shortfall	Pct Discount	Shortfall
\$0 - \$1,999	\$1,000	6%	\$60	\$860	\$800	40%	\$344
\$2,000 - \$3,999	\$3,000	6%	\$180	\$860	\$680	40%	\$344
\$4,000 - \$5,999	\$5,000	6%	\$300	\$860	\$560	40%	\$344
\$6,000 - \$7,999	\$7,000	6%	\$420	\$860	\$440	40%	\$344
\$8,000 - \$9,999	\$9,000	6%	\$540	\$860	\$320	40%	\$344
\$10,000 - \$11,999	\$11,000	6%	\$660	\$860	\$200	40%	\$344
\$12,000 - \$14,999	\$13,500	6%	\$810	\$860	\$50	40%	\$344
\$15,000+	\$15,000	6%	\$900	\$860	\$(40)	40%	\$344

Schedule RDC-5
(page 2 of 2)

Comparison of Percent of Income-Based Program (Natural Gas) and Straight Discount SBC Distribution							
Income Range	Mid-Point	Percent of Income-Based				Straight Discount	
		Affordable Pct	Affordable Bill	Actual Bill	Shortfall	Pct Discount	Shortfall
\$0 - \$1,999	\$1,000	4%	\$40	\$740	\$700	40%	\$296
\$2,000 - \$3,999	\$3,000	4%	\$120	\$740	\$620	40%	\$296
\$4,000 - \$5,999	\$5,000	4%	\$200	\$740	\$540	40%	\$296
\$6,000 - \$7,999	\$7,000	4%	\$280	\$740	\$460	40%	\$296
\$8,000 - \$9,999	\$9,000	4%	\$360	\$740	\$380	40%	\$296
\$10,000 - \$11,999	\$11,000	4%	\$440	\$740	\$300	40%	\$296
\$12,000 - \$14,999	\$13,500	4%	\$540	\$740	\$200	40%	\$296
\$15,000+	\$15,000	4%	\$600	\$740	\$140	40%	\$296

Proposed Affordable Energy Burdens by Poverty Range			
	0 - 50% of Poverty Level	51 - 100% of Poverty Level	101 - 200% of Poverty Level
Electric base load	4%	6%	8%
Electric space heating	7%	10%	13%
Natural gas	3%	4%	5%

Schedule RDC-7

Costs of Natural Gas Fixed Credit Program (50% participation rate)							
Natural Gas Space Heating							
	2000 LI Bill	No. LI Customers	Affordable Burden	Affordable Bill	Per HH Cost	Aggregate Cost	50% Participation
0-49	\$621	81,610	3.0%	\$102	\$519	\$42,355,076	\$21,177,538
50-100	\$621	81,610	4.0%	\$407	\$214	\$17,437,614	\$8,718,807
101-150	\$621	105,233	5.0%	\$848	(\$227)	\$0	\$0
Total natural gas space heating cost						\$59,792,689	\$29,896,345

Schedule RDC-8

Costs of Electric Fixed Credit Program (50% participation rate)							
Baseload Electric Use							
Poverty Range	2000 LI Bill	No. LI Customers	Affordable Burden	Affordable Bill	Per HH Cost	Aggregate Cost	50% participation
0-49	\$791	105,193	4.0%	\$136	\$655	\$68,902,645	\$34,451,322
50-100	\$791	105,193	6.0%	\$611	\$180	\$18,941,338	\$9,470,669
101-150	\$791	135,643	8.0%	\$1,357	(\$566)	\$0	\$0
Total baseload electric cost						\$87,843,983	\$43,921,991
Electric Space Heating							
Poverty Range	2000 LI Bill	No. LI	Affordable	Affordable Bill	Per HH Cost	Aggregate Cost	50%
0-49	\$1,084	11,688	7.0%	\$237	\$847	\$9,897,242	\$4,948,621
50-100	\$1,084	11,688	10.0%	\$1,018	\$67	\$777,321	\$388,661
101-150	\$1,084	15,071	13.0%	\$2,205	(\$1,121)	\$0	\$0
Total electric space heating cost						\$10,674,564	\$5,337,282
Total electric affordability assistance cost						\$98,518,547	\$49,259,273

Schedule RDC-9

(page 1 of 2)

Electric Arrearage Forgiveness Cost (given \$240 beginning arrears and 2% household payment)								
Baseload Electric Use								
	Beginning arrears	No. LI HHs	# LI HHs in Arrs	% LI HHs in Arrs	HH Payment (%)	HH Payment (\$)	Per HH Cost	Aggregate Cost
0-49	\$200	105,193	40%	42,077	2.0%	\$68	\$132	\$5,560,490
50-100	\$200	105,193	40%	42,077	2.0%	\$204	\$0	\$0
101-150	\$200	135,643	40%	54,257	2.0%	\$339	\$0	\$0
Total base load electric:								\$5,560,490
Electric Space Heating								
	Beginning arrears	No. LI HHs	# LI HHs in Arrs	% LI HHs in Arrs	HH Payment (%)	HH Payment (\$)	Per HH Cost	Aggregate Cost
0-49	\$271	11,688	40%	4,675	2.0%	\$68	\$	\$949,774
50-100	\$271	11,688	40%	4,675	2.0%	\$204	\$	\$315,345
101-150	\$271	15,071	40%	6,029	2.0%	\$339	\$0	\$0
Total electric space heating:								\$1,265,118
Total electric arrearage forgiveness cost								\$6,825,608

Natural Gas Arrearage Forgiveness Cost (given \$240 beginning arrears and 2% household payment)								
Natural Gas Space Heating								
	Beginning Arrears	No. LI HHs	% LI HHs in Arrs	# LI HHs in Arrs	HH Payment (%)	HH Payment (%)	Per HH Cost	Aggregate Cost
0-49	\$155	81,610	40%	32,644	2.0%	\$68	\$87	\$2,844,912
50-100	\$155	81,610	40%	32,644	2.0%	\$204	\$0	\$0
101-150	\$155	105,233	40%	42,093	2.0%	\$339	\$0	\$0
Total natural gas costs:								\$2,844,912

Schedule RDC-10

Annual Household Energy Use Intensity		
	Low-Income	Others
Btu (000)/SqFt	57	50
Dollars/SqFt	\$0.69	\$0.62

SOURCES:
A.D. Lee, *et al.* (1995). *Affordable Housing: Reducing the Energy Burden*. Pacific Northwest Laboratory, Battelle Memorial Institute, U.S. Department of Energy: Richland, WA.

Number of New Jersey Natural Gas Customers (1987 - 1996)				
	Residential	Commercial	Industrial	Total
1987	1,869,903	200,387	6,265	2,076,555
1988	1,918,185	206,261	6,123	2,130,569
1989	1,950,165	212,496	6,079	2,168,740
1990	1,982,136	217,548	5,976	2,205,660
1991	2,005,020	215,408	8,444	2,228,872
1992	1,032,115	212,726	11,474	1,256,315
1993	2,060,511	215,942	11,224	2,287,677
1994	2,089,911	219,061	10,608	2,319,580
1995	2,123,323	222,632	10,362	2,356,317
1996	2,147,622	224,749	10,139	2,382,510

SOURCE: Energy Information Administration, *Historical Natural Gas Annual: 1930 - 1996*
(October 1997)

Total New Jersey Natural Gas Sales (million cubic feet) (1987 - 1996)				
	Residential	Commercial	Industrial	Total
1987	168,641	94,459	79,779	342,879
1988	181,506	101,325	77,581	360,412
1989	195,542	117,385	84,771	397,698
1990	171,660	115,591	90,376	377,627
1991	176,640	121,240	100,768	398,648
1992	198,462	130,891	174,669	504,022
1993	195,569	128,942	188,889	513,400
1994	216,873	132,008	190,845	539,726
1995	194,432	138,965	209,014	542,411
1996	222,619	150,432	200,933	573,984

SOURCE: Energy Information Administration, *Historical Natural Gas Annual: 1930 - 1996*
(October 1997)

Universal Service Program Component	Universal Service Costs (million \$s)	
	Electric	Natural Gas
Universal Service Expenses		
Rate Assistance	\$49.3	\$29.9
Rate Assistance Administration	\$4.9	\$3.0
Arrearage forgiveness	\$3.4	\$1.4
Crisis Assistance	\$3.0	\$1.8
Aggregation Assistance	\$1.2	\$0.8
BOSS/Chronicles	\$0.5	\$0.0
Total Expenses:	\$62.3	\$36.9
External Funding Sources		
LIHEAP	\$12.8	\$2.5
Lifeline Program	\$8.2	\$8.2
Total external funds	\$21.0	\$10.7
Total universal service charges included in rates	\$41.3	\$26.2

New Jersey Universal Service Surcharge to be Included in Rates (First Year Funding)		
	Electric	Gas
Residential use (kwh/ccf)		2,226,190,000
Commercial use (kwh/ccf)		1,504,320,000
Industrial use (kwh/ccf)		2,009,330,000
Total use (kwh/ccf)	68,161,512,000	5,739,840,000
Residential revenue		\$1,593,952,040
Commercial revenue		\$923,652,480
Industrial revenue		\$767,564,060
Total revenue	\$6,932,014,000	\$3,285,168,580
Universal service costs	\$41,300,000	\$26,200,000
Cost per unit of energy (kwh/ccf)	\$0.00061	\$0.0046
Cost as percent of revenue	0.60%	0.80%