URA EXHIBIT NO. _____

BEFORE THE PUBLIC SERVICE COMMISSION OF UTAH

In the Matter of the Division's Annual Review and Evaluation of the Electric Lifeline Program, HELP	**)**	**Docket No. 03-035-01**
In the Matter of: HELP, Electric Lifeline Program Evaluation	**)**	**Docket No. 04-035-21**

DIRECT TESTIMONY OF

DR. HUGH GILBERT PEACH

ON BEHALF OF

SALT LAKE COMMUNITY ACTION PROGRAM
AND
CROSSROADS URBAN CENTER,
COLLECTIVELY
UTAH RATEPAYERS ALLIANCE

SEPTEMBER 16, 2005

Testimony of Dr. Hugh Gilbert Peach

I. Qualifications

Q. Please state your name and address.

A. My name is Hugh Gilbert Peach and my address is H. Gil Peach & Associates LLC, 16232 NW Oakhills Drive, Beaverton, OR 97006.

Q. On whose behalf are you testifying?

A. I am testifying on behalf of the Salt Lake Community Action Program and Crossroads Urban Center.

Q. Please state your academic background and training.

A. My academic background and training is in Sociology (Ph.D., New York University, 1985) and Economics (M.A., New School for Social Research, 1972). Within these traditional academic disciplines, I have concentrated primarily in two areas of study:

- My primary area of study is what economists call "political economics," involving the way economic institutions including corporations and government operate to solve the fundamental economic problems of production and distribution, both in ways that *reinforce and reproduce* inequalities of income, class, race, and ethnicity and in ways that *mitigate and modify* historic inequality to provide economic opportunities to individuals, families, and social groups. Sociologists call this area of study "the sociology of economic life," and focus on the social consequences of how the structuring of

markets and other economic institutions reinforce, increase or reduce inequalities of income, class, status, race, and ethnicity.

- My second area of study is quantitative analysis, both social statistics and economic analysis (econometrics).

Q. Do you have other areas of academic background and training?

A. Yes, the social study of technology, as represented in my doctoral dissertation study on the *Social Construction of Social Statistics* (1985) and my essays on "Public Perceptions of Technology," and "Global Development of Technology" in the *Oxford Encyclopedia of Science and Technology* (2005). I am also a student of deviance and social control, and have completed the equivalent of an undergraduate minor in physics; also metropolitan urban services training.

Q. What is your current position?

A. I am a consultant primarily to corporations and government, providing management consulting services primarily to the gas, electric, and water utility industries.

One focus of my practice is the area of customer service, particularly as it concerns low-income and 'payment troubled' customers. In this area, I work with problems of inability to pay, policies and procedures regarding credit and collection practices, problems of rate design, the design of low-income projects, energy conservation, and evaluation of low-income programs with the goal of 'honest policy learning.'

Q. What is the level of your consulting practice?

A. It is primarily a North American practice with almost all engagements within the United States and Canada. Currently, for example, I am serving as evaluation advisor to the District of Columbia Energy Office in Washington, DC, where responsibility for programs has been removed from the gas and electric utilities and assigned to the city; I am also in the third year of a four-year series of evaluations of the State of Nevada's low-income payment assistance and weatherization services programs as mandated by the Nevada legislature; I am completing a verification study of residential performance contracting weatherization for Southern California Edison and Southern California Gas; I am finishing an evaluation of a Joint Utility Low-Income Photovoltaic and Solar Water Heater programs for the Energy Association of Pennsylvania, FirstEnergy companies in Pennsylvania, Allegheny Power, and Pennsylvania Power & Light; I am also developing a new generation of program designs for a technical potential study in Indiana for Vectren, a mid-Western utility that is ramping up its DSM efforts.

I own, and have been employed by H. Gil Peach & Associates LLC for approximately fifteen years. Evaluation of low-income programs has been a continuing focus of work during that period, with a constant stream of low-income program evaluation engagements as well as more general management audits, DSM evaluations, verifications, and policy studies.

Q. Please describe your prior employment history prior to H. Gil Peach & Associates LLC.

A. Prior to 1989, I was Evaluation Manager at Pacific Power & Light (PP&L). At PP&L I was responsible for all of the company's load and energy conservation related evaluation research, overseeing a $7 million dollar evaluation research budget. From 1983 to 1986, I oversaw evaluation for the Hood River Conservation Project, the most ambitious community-oriented weatherization effort in the United States during the decade of the 1980s. From 1980 to 1983, I served in the company's Rate Department, where I worked on load research and also supported the company's analysis of various low-income issues.

Prior to 1980, I was employed by the Fund for the City of New York, a small 501(c)(3) operating foundation created and funded by the Ford Foundation. The focus of this work involved management studies and evaluation research designed to improve the efficiency and effectiveness of government agencies, "to do more with less." The projects included performance studies of pediatric medical care in the emergency wards of city hospitals, the subway system, taxi regulation, employment and job training, and the case management system for dealing with child abuse. From 1969 to 1978, I carried out program research for the City of New York in housing and urban renewal, helped develop training programs, and carried out evaluation of substance abuse programs. Prior to that, I worked at the New York Stock Exchange and the New York Public Library.

Q. To which professional or industry associations do you belong?

A. I am member of the American Evaluation Association (AEA), the American Statistical Association (ASA), the American Association for the Advancement of Science (AAAS), and the Society for Social Studies of Science (4S), and the Union of Concerned Scientists (UCS). I am a past President of the Oregon Chapter of the American Statistical Association. Also, I am a member of the American Association of Energy Service Professionals (AESP).

Q. Have you carried out studies for Public Utility Commissions?

A. Yes, I have served directly as an independent evaluation expert for the New York and Massachusetts Commissions. In addition, in several states and in Ontario, Canada I have carried out Commission mandated evaluations for gas, water, or electric utilities that are submitted to Commissions and follow state or provincial evaluation requirements.

II. Focus of Testimony

Q. Please summarize the focus of your testimony.

I have been asked to (a) review the Home Electric Lifeline Program (HELP) in the context of similar programs with which I am familiar in other states; (b) briefly discuss the distribution of income in Utah and what is happening to income in the United States; and (c) to review the program evaluation.

The structure of my testimony follows the criteria set out by the Public Service Commission and incorporated in the Stipulation:

(1) The program is efficient and simple to administer.
(2) The need for the program is real and unmet by direct-payment programs.
(3) The program targets only low-income household and does not raise rates for low-income households based upon electricity consumption.
(4) The program's benefits continue to offset any impacts on the ratemaking objective because the program results in just and reasonable rates based on the economic impact of charges on a category of customers.
(5) The program is in the public interest.

In my testimony, I review the program and the evaluation in the context outlined above. Based on this review, I find that the Home Electricity Lifeline Program (HELP) is effective and should be continued and improved in accord with the Stipulation.

III. Low-Income Payment Assistance Programs

Q. Please define what is meant by a low-income payment assistance program.

A. Low-income payment assistance programs are programs that provide assistance to families and households in paying gas, water, and/or electric bills. There are different ways to categorize the types of low-income payment assistance programs, but there are basically four types. These are

the early programs, the federal program, the regulatory commission utility rate programs similar to the Home Electric Lifeline Program (HELP), and the new legislatively mandated programs (for example, the New Jersey and Nevada programs).

IV. Simple and Easy to Administer

Q. Are the procedures adopted for recruitment and screening for eligibility in the Home Electric Lifeline Program (HELP) simple and easy to administer?

A. Yes. Participation is simple and easy to administer because the steps of recruitment and screening for certification of eligibility for participation (which require information on income, household size, and utility data) are already in place. These procedures are required and carried out under the federal Low Income Home Energy Assistance Program (LIHEAP, which in Utah is the HEAT program).

Administration is *simple* because it almost entirely follows existing procedures. And, by intelligently structuring the Home Lifeline Electricity Program (HELP) to operate primarily in parallel, as an "add-on" to HEAT, the Home Lifeline Electricity Program (HELP) is *easy* to administer.

Q. Is the program also simple and easy to administer on the utility side?

A. Yes. Payment assistance programs based on rate designs or billing credits are the easiest to administer for a utility. This type of program is the

simplest and easiest to administer to achieve a balance of effectiveness and efficiency.

V. Real Need, Unmet by Direct Payment Programs

Q. Is the need for this program real and unmet by direct payment programs?

A. Yes. While important, neither the "early types" of payment assistance programs, nor the federal HEAT program can possibly come close to meeting the extent of real need.

Q. Why is the Home Electric Lifeline Program (HELP) needed in addition to the earlier types of voluntary and state programs, prior to the development of the Home Electric Lifeline Program (HELP)?

A. Prior to approval of forms of payment assistance programs by state public utility commissions similar to the Home Electric Lifeline Program (HELP), assistance was either *not available* or was *provided through helping agencies* such as religious institutions, or, in some cases by state welfare departments. In some states, the major component of significant help was provided through state public welfare departments (for example, in Michigan utility bills for low-income families receiving welfare assistance were directly paid by the state welfare department).

Also, utilities, civic groups, and some businesses have cooperated in many jurisdictions to provide limited payment assistance through voluntary contribution "fuel funds." In Utah the Lend a Hand and REACH Programs are programs of this kind. Such funds are typically managed by the utility,

and include a limited matching contribution of shareholders' funds. In some cities (for example Madison, Wisconsin) the fuel fund is managed by a non-profit helping agency, with the assistance of one or more utilities, labor unions, and state officials in running campaigns and securing voluntary donations. These early voluntary and state program approaches, while important, are unable to meet the degree of need.

There are five factors that cause the earlier program forms to grossly fail to meet need:

- **Energy costs increase --** First, electricity, natural gas, and water costs have been increasing and are likely to increase further in price per unit.

- **Burnout and overstress of voluntary institutions and people** -- Second, there has been an over-reliance on voluntary assistance over the past thirty years such that helping agencies are generally overstressed. What we need is intelligence in institutional structures and programs so that they operate more or less automatically to prevent and solve problems to households and families. To keep voluntary institutions viable, utility and government programs must be made increasingly effective and efficient.

- **Loss of income and income security** -- As real incomes have declined and the pay, income security, and benefits of available jobs have degraded, the proportion of families and households and families in need has grown.

- **Weakening of safety nets** -- Fourth, the welfare reform movement has generally resulted in a radical reduction in society's safety nets and denial of help when it is needed.

- **"Rational" cost assignment to families and children** -- Fifth, even as household incomes have decreased and help has decreased, more and more costs have been transferred from institutions (such as big block stores, banks, and schools) to families and especially to families with children. Today, in contrast to the 1950's many costs that would have been covered by institutions have been broken out and assigned to families, and to low-income families.

By analogy, we might wish for the problem of payment to be like the effort required to swim across a quiet lake, but it is more like the effort required to swim against a strong current that is getting gradually stronger.

To summarize, in comparison to – say 1965 – energy prices are up dramatically, real incomes are lower, families with children are assigned many costs that were previously treated as embedded costs of operations and previously shared out among all individuals and households using social and economic institutions, and all kinds of social and medical services have been gradually withdrawn over the intervening years so that the safety nets are but a shadow of what the were in the years immediately following the national emphasis on reducing poverty (in the 1960s to early 1970's).

Some writers liken this change to the United States re-entering its earlier status of what we now call a "third world" country.

When the problem was smaller, voluntary efforts could make a difference. When welfare assistance was substantial, welfare payment of utility bills could make a difference. When jobs were more secure and typically paid a living wage, the same kind of assistance that can produce a marginal help today could provide a much more substantial amount of help in the past.

Q. You have described a general trend towards difficult times. Is the Home Electric Lifeline Program (HELP) also needed to mitigate an immediate and more critically difficult problem for payment for the coming winter?

A. Yes. Here is the most recent statement from the federal Energy Information Administration (EIA) on what happening now to energy costs at the end of summer and looking toward the coming winter. (Source: EIA Short Term Energy Outlook, September 7, 2005)

> Dramatic increases in domestic energy costs, assisted by everything from tight world oil markets, to blistering summer heat, to the ravages of Hurricane Katrina, have made for an exasperating summer for many consumers and have set the stage for a potentially expensive winter heating season beginning a month or two from now. Taking into account current data and projections from this Outlook, aggregate domestic expenditures for key energy sources for the summer (April through September) are expected to show the following changes from 2004: petroleum: +35 percent; natural gas: +20 percent; coal: +21 percent. Summer expenditures by all consumers on electricity are expected to be up 5 percent for that period. The current outlook for the upcoming winter (October

2005 through March 2006) yields expectations for energy expenditures as follows: petroleum: +34 percent; natural gas: +52 percent; coal: +16 percent. Electricity expenditures for the winter are expected to be up 11 percent. For all of 2005, energy expenditures in the United States are expected to be $1.08 trillion , approximately 24 percent above the 2004 level. This level of expenditures represents approximately 8.7 percent of annual gross domestic product, compared to 6.2 percent as recently as 2002, and is the highest percentage since 1985 (10.4 percent). Source: From EIA Short Term Energy Outlook, September 7, 2005.

These are national statistics and projections. Effects in Utah may not be as severe because Utah has lower cost energy providers than some other parts of the United States. And, although price increases tend to spread through related markets, Utah gas supply is not directly affected by the disaster in the Southeast states. Also, an increase of about 52% for gas and 11% for electricity cost in the coming winter are not direct increases because commodity cost is only a portion of bills. Still, we are in for an energy shock this winter based on the projections. This is on top of substantial increase in energy costs (particularly for gas but also for electricity) over the past five years.

Clearly, this fall is the season in which preparations for heating and fuel emergencies need to be thought through by the Commission and agencies, and payment assistance programs need to be maintained and strengthened in anticipation of the winter ahead.

Q. **Why is the Home Electric Lifeline Program (HELP) needed in addition to direct payment from the federal assistance program? That is, if there is a**

federal program, why does Utah need the Home Electric Lifeline Program (HELP)?

A. HEAT is a direct payment program sponsored under the federal Low Income Home Energy Assistance Program (LIHEAP), authorized by Congress in 1981 as a response to the energy crisis. LIHEAP went into operation in 1982. Its purpose is "to assist low-income households, particularly those with the lowest income, that pay a high proportion of household income for home energy, primarily in meeting their immediate home energy needs."

The HEAT program can carry a good bit of the load, but it is *neither adequate nor reliable* for the following four reasons:

- **Uncertain funding** -- First, the federal program is very valuable and useful to Utah; it is however, variable in funding and timing from year to year making it difficult to connect customers to the program.

- **Inadequate funding** -- Second, the federal program is funded far below the level of need.

- **Favoring the Northeast** -- Third, the funding formula for LIHEAP is permanently tilted towards the needs of the Northeastern states. Even at its peak, LIHEAP could only meet a fraction of the actual need in Utah.

Pattern of LIHEAP Funding (1982-2004)
(Prepared by Ryan N. Miller using Federal LIHEAP Data and a standard Deflator)

Fiscal Year	Appropriated	Contingency Funds	Total Available	2004 (Constant) Dollars	% of 2004	% of 1982
1982	$1,875,000		$1,875,000	$3,703,692	196%	100.00%
1983	$1,975,000		$1,975,000	$3,673,467	194%	99.18%
1984	$2,075,000		$2,075,000	$3,739,792	198%	100.97%
1985	$2,100,000		$2,100,000	$3,628,811	192%	97.98%
1986	$2,009,700		$2,009,700	$3,352,097	177%	90.51%
1987	$1,825,000		$1,825,000	$2,987,267	158%	80.66%
1988	$1,531,840		$1,531,840	$2,420,275	128%	65.35%
1989	$1,383,200		$1,383,200	$2,099,354	111%	56.68%
1990	$1,443,000		$1,443,000	$2,089,805	111%	56.42%
1991	$1,415,037	$195,177	$1,610,214	$2,212,495	117%	59.74%
1992	$1,500,000	$0	$1,500,000	$1,977,982	105%	53.41%
1993	$1,346,030	$0	$1,346,030	$1,723,251	91%	46.53%
1994	$1,662,392	$300,000	$1,737,392	$2,159,506	114%	58.31%
1995	$1,319,202	$100,000	$1,419,202	$1,719,307	91%	46.42%
1996	$900,000	$180,000	$1,080,000	$1,276,466	68%	34.46%
1997	$1,000,000	$215,000	$1,215,000	$1,394,198	74%	37.64%
1998	$1,000,000	$160,000	$1,160,000	$1,308,836	69%	35.34%
1999	$1,100,000	$175,299	$1,275,299	$1,416,268	75%	38.24%
2000	$1,100,000	$744,350	$1,844,350	$1,994,373	106%	53.85%
2001	$1,400,000	$455,650	$1,855,650	$1,959,562	104%	52.91%
2002	$1,700,000	$100,000	$1,800,000	$1,870,862	99%	50.51%
2003	$1,788,300	$200,000	$1,988,300	$2,034,031	108%	54.92%
2004	$1,789,380	$99,410	$1,888,790	$1,888,790	100%	51.00%

Note: Deflator at http://www.westegg.com/inflation/

- **In decline** -- Fourth, Federal LIHEAP funding has been on a general decline since the mid-1980s. Although funding is heading up from a low point during the "boom" period of the mid-1990s and has almost recaptured its dollar level in unadjusted dollars, total funding is still far below the current real dollar equivalent of the mid-1980s. The pattern of funding (table prepared by Ryan N. Miller for H. Gil Peach & Associates LLC using federal data and a standard deflator) illustrates that states cannot rely on the federal government in this area. Although the federal HEAT dollars provide real and necessary support, the federal commitment in this area is neither consistent nor reliable. As problems intensify, the federal commitment wimps out.

Q. Do you recommend continuation of the Home Electric Lifeline Program (HELP)?

A. Yes, with the improvements included in the Stipulation.

Q. What is the underlying rationale for such recommendations?

A. For both utilities and governments, programs like the Home Electric Lifeline Program (HELP) are essential to provide continued access to electricity, gas, and water services. These services are essential to life and it is better not only for families and households served through payment assistance programs but for all households and for utilities and governments that access to electricity, gas, and water be planned in such a way as to insure that all families and households can maintain continued service.

VI. Targeting only Low-Income Households

Q. Does the program target only low-income households?

A. Yes. The program targets only low-income households and does not raise rates for low-income households based upon electricity consumption. Because the Home Energy Lifeline Program (HELP) is substantially an "add-on" to the federal HEAT program, its "catchment" is largely the same as for HEAT. The checking of income, household size, and utility information that is required for HEAT is thorough. This means that only low-income households are targeted. The program can also offer assistance to households under 125% of poverty if the household is not in the HEAT program.

VII. Cost of the Home Energy Lifeline Program

Q. Who pays for the Home Energy Lifeline Program (HELP)?

A. Non-participants pay. This includes non-residential customers (subject to a very low cap) and residential customers who are not in the program. It is the non-participants who must pay for the program, because those who do not have money cannot pay.

Q. What is the per customer residential cost impact of the program?

A. Historically, the cost impact per residential customer of the Home Energy Lifeline Program (HELP) has been about 12 cents per month or $1.44 per year. With the new stipulation, the cost impact will be reduced to about 10 cents per month or about $1.20 per year. The cost of this program is so moderate as to be negligible. The cost is less than the cost of a sandwich, or less than the cost of a soda from many vending machines.

Q. Does the program raise rates for low-income customers based on energy consumption?

A. The program raises rates on some low-income customers (those above 125% of poverty and at or below 250% of poverty, above which it may be reasonably agreed that the "low-income" designation may not apply). This is a problem with all programs, in that persons just above the qualification level for the program are usually treated the same as person far above the qualification level for the program. However, the cost for residential

customers is approximately 12 cents per month historically, and now dropping somewhat.

VIII. Benefits Offset Impacts (Just and Reasonable)

Q. Do the benefits of this program exceed the costs?

A. Yes. The Quantec study showed ratepayer impact Benefit to Cost ratio of 1.05 for the combination of HEAT and HELP. HELP was designed for the context in which the federal HEAT program already exists. It uses the features of the HEAT program to administer participant screening and qualification, thus it was designed as an "add-on" and should not be tested individually as a separate program. The most important information in the Quantec study (Table ES.1: Program Cost Effectiveness; Page ES-7) is enough to underwrite a decision to continue and to improve the program in accordance with the Stipulation.

Q. Is there reason to believe the cost-benefit results are better than reported in the Quantec study?

A. Yes. If the combined HEAT and HELP program is cost beneficial at about 12 cent per month per non-participant residential customer, it will be more cost beneficial at about 10 cents per month per non-participant residential customer according to the new Stipulation.

Q. Is there another reason to believe the cost-benefit results are better than reported in the Quantec study?

A. Yes. Quantec was asked to develop a comparison group. The comparison group developed was based on subsequent entrants to the Home Electricity Lifeline Program (HELP) -- a year later. A good aspect of this design is that the treatment (HELP) and comparison group (non-HELP) includes the same calendar months of the same year.

However, a reasonable presumption would be that the household was doing considerably or at least slightly better economically in the year before they entered the program, and that there was some precipitating incident or downward change in economic status during the pre-program year. If so, the comparison group will inherently do somewhat better overall than the treatment group due to a difference in fundamental social and economic variables between the two years. This will cause the net results to understate the size of the positive impacts produced by the program. In effect, the somewhat less needy comparison group (or else, why was it not in the program already) will cancel out some of the positive program effect.

Q. You have noted that the program is cost effective, and that there is reason to believe that the benefit to cost ratio is actually better than demonstrated in the Quantec program evaluation. Do you further expect the program to improve?

A. Yes. From an evaluation perspective, the program is a practical investment. It is first necessary to have a payment assistance program such as the Home Electricity Lifeline Program (HELP), and to maintain it for several years to

gain actual experience with program operations and effects. This has been done.

But, then, second, a time comes to further optimize the program, and then again to take further incremental steps – with care – to make the program work better.

The improvements specified in the Stipulation are designed to make the program work better. To me the point of the work so far is that an initially good program will be made to work better. Eventually, I expect incremental changes from the next evaluation to result in an even better program. By the seventh year, assuming continued incremental change to optimize collection from participants within ability to pay, the program can mean more "dollars in the door" to the utility than the "no-program" alternative and this benefits all customers, the utility, and the state.

The non-participant customers bear essentially the same costs with or without the program. A carefully tuned program provides a rational structure of trust relationship for the utility to work with low-income payment troubled customers. Besides furthering relationship and mutual cooperation to the extent possible, it will eventually result in lower overall costs and more "dollars in the door" than a "no-program" alternative.

IX. Public Interest

Q. Could you be more specific about other advantages to non-participants (who share in the funding of the payment assistance program)?

A. Yes. When I worked as a Senior Quantitative Analyst for the Health Department in New York City a major focus was always on providing health services (such as immunizations) in free clinics to families who could not pay for them. This is, at root a 'health and safety' benefit to the whole of the City. In nearly anything to do with health, we are all interdependent. If a disease gets a solid start in one portion of a community, the whole community is at risk. Similarly, we don't ask the fire department to look at payment before they put out a fire. We ask the police to maintain law and order everywhere within their jurisdiction for similar reasons.

Similarly, if, this year, we are able to pay our full energy bills and our neighbor cannot -- it is to our advantage that the neighbor family can remain connected to the utility without interruption of service. Beyond the benefits of keeping power on to all homes in our neighborhoods, there is a benefit to having a program that provides a way to make a partial payment. The payment of about $32 on a total monthly bill of about $40 helps cash flow at the utility and either covers or almost covers the variable cost of service on the account, probably with a contribution to fixed cost. The benefits to non-participants from rate designs that make it possible for participants to maintain service can be accomplished by optimizing the rate structure subject to the constraint to respect the ability to pay.

Q. So, if maintaining connected service is in the public interest, is this a service quality issue?

A. Yes. This is actually a general public interest service quality or performance issue. We penalize a utility in a performance system if technical or internal funding allocation (such as cutting back on tree-trimming along the lines) or internal management problems result in system problems leading to interruption of service. However, the material consequence of service interruption or curtailment in an essential service such as electricity, gas, or water is the same whether the interruption or curtailment of service is due to technical or management problems in the utility or to customer inability to pay for essential service.

This material reality places a responsibility on utilities to continue to work towards efficiency and to design intelligent rate structures and collections procedures.

The utility must, overall, recover the necessary revenue, but – at the same time – make a *focused* and *reasonable* effort to provide flexibility (that is, payment assistance or modified rate structures) when households have a temporary or permanent inability to pay. For example, Section 6, Universal Service, of the National Association of Regulatory Utility Commissioners study, *Performance-Based Regulation in a Restructured Electric Industry*, prepared by Synapse Energy Economics, Inc, suggests utility performance measures include a measure of homes connected, a measure of termination for non-payment, and a measure of frequency of bills above a certain percent of household income.

Q. How do you present the benefits of programs like the Home Electric Lifeline Program (HELP) to utility managers and executives?

A. In much the same way. I talk with executives about how there are not two kinds of people, the secure and the poor but that we are all one family and time and chance happens to all of us (this perspective is Ecclesiastes 9:11) -- that with the contingencies of life today, none of us, not even a company officer, knows what lies beyond the next corner.

Q. What type of response do you obtain from utility managers and executives?

A. General agreement. One CFO, for example, called me across the country for a special meeting to strategize on how to improve a low-income payment assistance program to win Board approval. A VP told me about the time right after college when she had been on welfare, and needed payment assistance similar to the Home Electric Lifeline Program for a few years. Another VP told me about a son who was currently unemployed and whose family was experiencing a rough time. But the striking thing that I would like to bring to your attention is that when we think of persons and families differentially experiencing the contingencies of the weather of life, and are able to see the problem in terms of ourselves and our families, then, by extension to other families, we would generally like payment assistance programs such as the Home Electric Lifeline Program (HELP).

It may be somewhat surprising, but all of the changes in utilities over the last several years with deregulation, re-regulation, mergers, acquisitions, diversifications followed by return to core business, downsizing, rightsizing, and the like have provided experiences in which even officers and top managers are not secure. I have been in meetings where officers talk about their own economic insecurity, and the same is true of top and middle management ranks. I have worked in parts of the country where utility downsizing in the context of continuing withdrawal of regional management positions across businesses due to globalization have resulted in formerly secure utility staff needing payment assistance programs following downsizing.

Q. Please describe the problem of customer payment trouble for utilities.

A. Let me caution that the basic story is not a pretty one. Due to a number of external constraints and internal policy choices, the United States is "under-developing" both economically and socially. From a pattern of increasing economic democracy beginning with World War II and the end of the Great Depression and reversing in about 1972, income inequality has returned t approximately the level of the age of the Robber Barons (the late 1800's). In political economics this general economic situation is referred to as a return to "primitive capitalism," and the rough rules of work and family life prior to the development of the union movement, the labor-management compact and the "mature capitalism" we were taught in undergraduate and graduate school. The reversion is particularly dramatic in terms of jobs, benefits, wages, and security.

My work takes me to city after city all over the United States, where I often work for one to seven years on one or a set of program evaluations. What I see from the ground up, and particularly from interviewing households experiencing payment trouble is very different from the America portrayed in news programs or at the level of official federal government perspectives. Jobs are disappearing, life is generally becoming rougher and less secure, and household problems are made worse by misguided attempts to punish families experiencing payment problems. Even executives and managers are not sure what tomorrow will bring.

These trends are driven by attempts to maximize efficiency without taking community, families, and children into account (for example, by big box stores or individual corporations maximizing efficiency at the level of the firm at the expense of the community) and by new rules that promote globalization. These trends, among others are resulting in damaged job structures, increased costs to families with children, growing impoverishment and lowering of the quality of life (and what sociologists call "life chances" and opportunity structures).

A second set of trends has to do with the weakening of complex supply systems. In the area of gas supply, residential customers now compete with gas generation of electricity and also turn to electricity when they are unable to pay their escalated gas bills. In the past few years as gas costs have risen and remained high, a secondary effect has been an increase in use of

electricity when households cannot pay their gas bills. This creates an increase in electric bills. The net effect at the household level is that energy bills become difficult and then impossible to pay. *Both gas and electric utilities in much of the US are now experiencing payment problems unprecedented since the 1930s. These problems will intensify.*

In the area of electricity supply, global warming, about which knowledge is non-controversial in scientific circles, is affecting us with an encroaching problem of physical limits. As an illustration of what this means, recently, a travel magazine urged travelers to see Glacier National Park now, because soon there will be no glaciers. Already, tourist observation points in Glacier National Park and in the Swiss Alps no longer provide the view they once did. Similarly, when Scanada Consultants Ltd., our companion company in Canada co-sponsored a repeat of the Sverdrup polar expedition, the team reported people falling through the ice that had been rock solid about 100 years ago at the time of the original expedition. Current climate research is reporting a decline in Sierra Nevada snow pack and Cascade snow pack. Loss of free water storage in the form of snow pack will require greatly increased attention to problems of water supply (Welch, Craig, "Global Warming Hitting Northwest Hard, Researchers Warn," *Seattle Times*, Saturday, February 14, 2004; Luers, Amy Lind, "A Tale of Two Futures, California Feels the Heat," Pp. 8-9, *Catalyst*, Fall 2004).

The primary effect on electricity is in the projected depletion of hydro-generation resources, leading to scarcity and up-pricing in neighboring

jurisdictions. This is the classic problem of physical limits. The climate studies show the problem is occurring on the electric side due to global warming. Accordingly, electricity price will continue to increase.

On the gas side, current industry publications generally accept that the depletion of current fields has occurred -- roughly as was projected thirty or forty years ago. Accordingly, gas price will continue to increase.

These problems of price increase due to supply constraint will be exacerbated by the effects of the hurricane in the Gulf region. This may be a difficult winter ahead. If there are problems with gas pricing and gas supply, they will interact to drive up electricity bills for low-income families who cannot pay their gas bills and turn to electric heaters.

Utilities cannot change these factors. Globalization is supported by the federal government, and both global warming and gas depletion are physical realties that edit our existence. It is unlikely that states can do much about them either.

What this means for the electric, gas, or water utility is that low-income and payment troubled customers will be a growing market within the residential customer class.

Q. So, to be able to serve a growing market segment (or segments) increasingly unable to pay for service at the standard rate, a structured

payment assistance program such as the Home Electricity Lifeline Program (HELP) is necessary for the utility?

A. Yes. At root, this is a problem that has to be solved pragmatically in material practice. The core problem is that neither market-based (deregulated) rates nor regulated cost of service rates can work on their own for low-income households and for many moderate income households.

For many households, changes in the structure of jobs, rapidly increasing housing prices, and decreasing real incomes are causing increasing numbers of households to gradually lose ability to consistently pay their utility bills. Even if full traditional regulation is used, the logic of allocating rates based on cost of service only works if incomes are generally adequate to pay bills.

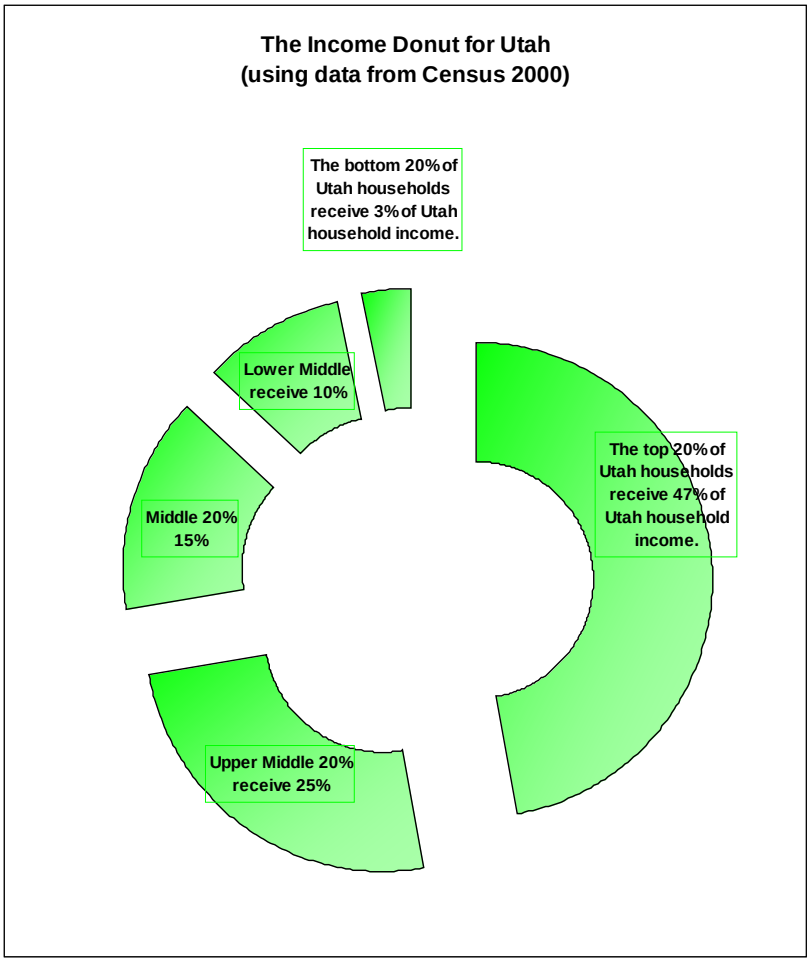
Q. Are you questioning the philosophies of *market based* and *cost of service based* rates?

A. No. It is important to note that there is nothing wrong, in principle, with market based rates if (and only if) all members of the community have the income necessary to participate in the markets and meet their energy needs. Also, basing rates on cost of service is technically rational.

But, in practice, neither market based rates nor cost of service base rates can work in and of themselves. The pragmatic and incremental solution is the Home Electric Lifeline Program (HELP). It is only that as households increasingly lack ability to pay, prices continue to increase (as they will) and real household income declines from year-to-year (as it will), cost based

rates and traditional payment policies will not permit essential electricity and gas service for an increasingly large number of low-income and moderate income households.

The "income donut" chart shows directly that cost of service rates simply do not pass a "straight face" test. If this were an engineering diagram, no engineer would put the same stress on a portion with 3% of the strength of the wheel as on the portion with 25% or 47%. Similarly, since incomes policy is outside the ability of the utility or of the Commission to



influence, the only possible pragmatic adjustment for continuation of service

is an incremental payment assistance program such as the Home Electric Lifeline Program (HELP). [Income donut prepared by Ryan N. Miller using Census 2000 data.]

Q. Given the realities of increasing payment-trouble, what do you advise utilities and governments to do?

A. First establish, and then carefully and incrementally optimize programs to maximize customer payment by asking only for payment amounts that are within the reasonable possibility for customers to pay.

The remainder to reach cost of service totals must be recovered from other customers. It is inherently to the advantage of the utility to structure a program that recovers the "assistance" portion of payment through an automatic mechanism (that is, as payments become due) and to ask the low-income customer to pay only the customer portion of the bill. This structure maximizes cost-effectiveness.

X. The Relative Size of the Home Electricity Lifeline Program (HELP)

Q. Where does the Home Electricity Lifeline Program (HELP) fit into the spectrum of payment assistance programs?

A. It is a necessary program. It goes beyond the early kinds of programs such as helping by religious institutions, voluntary fuel funds, and the now largely weakened state welfare programs. It is a necessary "add-on" to the federal HEAT program.

It is a type of serious program that can meet need beyond the ability of the earlier program types, and requires Commission approval. While a serious and necessary program, it is also a low-cost option compared with the full-scale assistance programs of a different type that have been approved by state legislatures in the past few years.

Q. **So the type of program represented by the Home Electric Lifeline Program (HELP) is a necessary step beyond the earlier types of programs, but very moderate in size and cost compared to the newest programs?**

A. Yes. The newest program type is keyed to energy burden. For example, in New Jersey gas and electric utilities are now mandated to provide service to low-income customers such that their combined gas and electricity payment is not more than 6% of income. One of the best program in the US is currently in Nevada, where each year the state calculates the median energy burden of households in the state. The payment level of low-income customers of gas and electric utilities is set at the median level for households in the state. This level is approximately 3% of income for combined gas and electric payment. Similar programs are implemented in other states, including Maryland (for electricity only), and New Hampshire.

These new programs now being established by state legislatures in the West, the Northeast, and Middle Atlantic states are a response to radically increasing income inequality in the US and generally deteriorating economic conditions for all families below the upper parts of the income distribution.

Q. Are the newest set of state payment assistance programs in other states keyed to energy burden set at 125% of poverty and below?

A. No. They are set at 150% of poverty (Nevada) or higher. This is another difference between the new set of programs and the Home Electric Lifeline Program (HELP), which is set at 125% of poverty.

- Low-income payment program eligibility is set at 150% of poverty in Pennsylvania while state mandated weatherization is set at 200% of poverty and in November of 2004, Pennsylvania extended protections against utility shutoffs to 250% of poverty up from the 150% standard that was set in 1992.

- The New Jersey Universal Service payment assistance program is set at 175% of poverty.

- California went to 250% of poverty for eligibility for its low-income rate program beginning in 2004.

- One (small) component of the low-income weatherization program in Massachusetts, the Good Neighbor Program goes to 275% of poverty to be able to provide services to households in which one or more persons are working full time at less than a living wage.

These examples illustrate that the Home Electric Lifeline Program (HELP) is set for a lower eligibility level than many other state programs, and particularly lower than the newest set of programs that to some extent take current economic changes more fully into account.

As a rule of thumb, mathematically recalibrating the Federal Poverty Level to a conservative assessment of income self-sufficiency would result in a minimum criterion of criterion of 200% of the current FPL today. (Calculation performed based on data presented in Figure 2, P. 11. Pearce, Diana & Jennifer Brooks, "The Self-Sufficiency Standard for Pennsylvania, Summary Report." Swarthmore, Pennsylvania: Women's Association for Women's Alternatives: 1998.) This, then, is the minimum adjustment required to recapture the coverage of the programs in the 1960s during the War on Poverty and compensate for economic erosion. That is, 100% of poverty in 1965 is approximately equivalent to 200% of poverty today, using a conservative adjustment.

However, 250% of poverty is the level at which poverty is no longer experienced if we take into account additional needs such as a car, the ability to deal with medical needs, or the ability to put aside some resources for retirement, all of which are reasonable needs but not taken into account in the self-sufficiency projections. To make sense of this, 100% of poverty as defined in 1965 is about the same as 150% of poverty in 1992 or 200% of poverty in the fall of 2005. But, in terms of what people mean when they talk about poverty – income required for self-sufficiency to adequately meet

family needs if one is careful – the correct approximate percentage is 250% of poverty in the fall of 2005. These calculations, developed by our team for evaluations of payment assistance programs in Pennsylvania and Nevada, tie closely to the similar result for Utah.

The 2004 HHS Poverty guideline was $15,650 for a family of three and $18,850 for a family of four for 2004. The self-sufficiency standard for a family of four in Salt Lake City or Ogden area in 2004 was $48,182 or about 256%. [Source data: See tables 1.2 and 1.4 and associated discussion in Poverty in Utah 2004, Annual Report on Poverty, Economic Insecurity and Work, published by the Center for Poverty Research & Action.]

XI. Conclusion

Q. Do you have a final statement summarizing your testimony?

A. Yes. Based on a review of the program and of the evaluation, and in reference to concerns of the Public Service Commission as expressed in the Stipulation, the Home Electricity Lifeline Program (HELP) is effective and should be continued and improved in accord with the Stipulation. The "per customer" residential cost of the program is small and will be smaller, following the Stipulation. The Quantec evaluation shows the combined program (HELP plus HEAT) is cost effective. A continued program with the improvements in the Stipulation will be even more so.

The circumstances that require the Home Electricity Lifeline Program (HELP) are external to the utility and to the state, and there is little that can be done to control the "drivers" that are lowering income and increasing energy prices. Particular in this year, it is important to anticipate the needs of the coming winter and provide for program implementation to mitigate these needs.

Q. Does this conclude your testimony?

A. Yes.