

**IN THIS ISSUE****Three "Myths" about Affordable Low-Income Rates****NOTE TO READERS****ON-LINE DELIVERY**

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**Debunking "Myths" about Affordable Low-Income Rates**

In proposing affordable low-income rates for low-income energy consumers, a series of objections are frequently presented based on certain characterizations of the impact and empirical support offered in support of the program proposal. In a recent report with respect to a proposed affordability program for Manitoba Hydro, Fisher, Sheehan and Colton (FSC) directly addressed three of those "myths."

**THE MYTH OF DISTORTED "PRICE SIGNALS"**

Manitoba Hydro expressed concern about whether the offer of discounted rates to low-income customers would "distort" price signals to those customers. The thrust of the Company's comments was the assertion that "assistance should not distort price signals to consumers. The commodity price should continue to reflect the true cost of energy used by low-income energy consumers. . ."

***The Failings of that Argument***

Energy bills represent an ineffective means to send price signals to low-income customers. The notion of sending a "price signal" assumes that the customer has the ability to *receive and act upon* the signal. When a customer has an inability-to-pay, however, that inability-to-pay distorts the price signal far more than a rate discount would. Low-income customers, particularly customers with energy burdens exceeding a prescribed level, pay less than their entire bill. Under such circumstances, it is the unaffordability of the bill that distorts the price signal.

A low-income discount program that reduces bills to an affordable level actually *improves* the

price signaling of utility rates rather than distorting that price signaling function. This is particularly true if the low-income program is appropriately designed.

For example, an analysis presented to the Manitoba utility commission by FSC recommended a percentage of income “fixed credit” mechanism for delivering low-income discounts in Manitoba. Under a fixed credit program, low-income customers receive a fixed dollar credit applied to their bills at standard residential rates. To the extent that a customer’s bill changes, whether due to changes in price or due to changes in consumption, the customer’s payment obligation either increases or decreases accordingly. Reduced bills attributable to energy conservation, just like increased bills due to higher consumption, are immediately reflected in the low-income customer’s payment obligation.

This immediate change in the customer’s affordable bill presents a far more cogent “price signal” than the customer would receive without the fixed credit program. Without the program, the impact to the customer might well be only whether the customer has an arrears of \$800 or an arrears of \$900,<sup>1</sup> hardly a compelling price signal mechanism in that both mean that the bill for current usage will not likely be paid in a full and timely fashion.

Despite the theoretical concern expressed by Manitoba Hydro about a low-income rate affordability program distorting price signals, the reality is that a low-income rate affordability program improves rather than distorts the price signaling function of utility bills.<sup>2</sup> From an em-

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<sup>1</sup> The average residential arrears of a Manitoba Hydro residential account with an arrears 60-days old or older is \$900.

<sup>2</sup> From an economic theory perspective, it is easy to understand this result. From a price theory perspective, price signals “work” only if there is adequate information about price and quality. The inability-to-pay, and the resulting arrears, impedes this information process. By improving this information process, while maintaining the task of reflecting increases and decreases in a bill, the rate affordability program improves rather than distorts the price signal. See generally, R.Colton (1990). “Customer

pirical basis, despite the operation of low-income discount programs in the United States for more than 20 years, and repeated impact evaluations of those programs by numerous different evaluators, not one impact evaluation has found that the rate discount resulted in a systematic increase in consumption.

Quite aside from the fact that neither economic theory nor empirical evaluations support the concern that Manitoba Hydro has expressed about how low-income discounts would “distort” price signals, the Company has not expressed similar concerns with respect to other billing programs that primarily benefit customers other than low-income customers. For example, the Company does not express concern about whether, or how, its Levelized Budget Billing program distorts price signals.

FSC examined basic information about the Equal Payment Plan program offered by Manitoba Hydro.<sup>3</sup> Roughly 20% of the Company’s total residential customer base was in the levelized budget billing program in 2009. Participation ranged from 90,000 to 100,000 residential customers.<sup>4</sup>

By its nature, levelized budget billing is intended to cost-shift utility bills so customers do not see the full impact of their consumption decisions in their monthly bills. As a result, by design, levelized budget billing distorts the “price signals” to residential customers, especially in

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Consumption Patterns within an Income-Based Energy Assistance Program.” 24 *Journal of Economic Issues* 1079.

<sup>3</sup> An Equal Payment Plan program does not provide substantive affordability benefits to low-income customers with high energy burdens. High energy burdens are calculated on an annual basis. No matter how a home energy burden is spread over a year, a burden of more than 6% will still be unaffordable. Equal Payment Plans are designed to help customers whose bills may be affordable on an annual basis, but whose monthly variability in the billing pushes any particular month into an unaffordable range for that month.

<sup>4</sup> For administrative reasons, customers are removed from budget billing in the settlement month (August) and re-enrolled the following month. Participation rates in August and September thus do not reflect the annual rate.

the high cost months when consumption decisions would have the biggest impact on usage and bills. Indeed, data provided by the company showed, in the high cost months of January through March, between 65% and 90% of residential customers on the levelized budget billing plan are not billed the full cost of their monthly consumption.

Given an average residential bill of more than \$80, the budget billing customers are being billed somewhere between 30% and 75% less than their actual usage in those high cost months. Nonetheless, Manitoba Hydro does not express concern about any resulting distortion of price signals for these budget billing customers.

FSC concluded that “when coupled with the failure of Manitoba Hydro to perform any “return on investment” for its budget billing program, or to assess the extent to which, if at all, budget billing helps to reduce either bad debt or residential arrears, the added failure of Manitoba Hydro to evidence concern about the price distortion of levelized budget billing makes the concern that Manitoba Hydro now expresses about the impact that a low-income discount might have on “price signals” ring hollow.”

#### **THE MYTHS REMAINING FROM “LIFELINE” RATES.**

In reviewing the empirical analysis of low-income energy assistance programs, several myths should be noted with respect to frequent critiques of “Lifeline” rates. These “myths,” while they have been repeated for more than two decades, are worthy of repetition. With grateful acknowledgement to Professor Michael Hennessy,<sup>5</sup> his observations are presented somewhat condensed, but more or less intact.<sup>6</sup>

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<sup>5</sup> Through the power of the Internet, even though these comments were authored over 25 years ago, Professor Hennessy was located and interviewed. These comments are presented herein with his permission.

<sup>6</sup> Michael Hennessy. “The Evaluation of Lifeline Electricity Rates: Methods and Myths,” 8 *Evaluation Review* 327 (1984).

#### ***The Myth of Complete Knowledge and Perfect Research***

This first myth often translates into a discussion of not how much we know, but how much residual error there remains to be explained. More importantly, the myth of perfect knowledge is often used as an implicit criticism of a particular research effort rather than a measure of our general ignorance. The implication is often given that *other* researchers, *other* data bases, or *other* methodologies would have provided a more accurate, more complete, or more valid set of results. Of course, these alternative researchers, data or methods are never produced, so the actual research is always compared with some idealized concept of the possible – a sort of ideal type research design with no flaws. Given this theoretical comparison, obviously any particular research study can be found seriously defective.

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Such techniques of research defamation have two negative consequences. First, they give the misleading impression that unflawed research is possible. McGrath has cogently argued that given the constraints of the research process and the inherently contradictory demands of “good research,” it is impossible to maximize all positive features in any single research design. Hence, all research will be flawed. In fact, it is not possible to do an unflawed study. . . The power of the idealized study is contrasted nicely with the flawed (but empirical) method when McCloskey discusses theory testing. He says, “a conceivable but practically impossible test takes over the prestige of the real [but flawed] test, but free of its labor.”

The apparent perfection of simulation studies is another case in point here. Of course, in these studies, there are no flaws at all

since the studies are not sullied by authentic (but recalcitrant) empirical data. The appeal of simulations is exactly that they remain pristinely abstract and quite amenable to the will of the researcher. McCloskey, however, also points out that the difference between simulations being *amenable* to the will of the researcher and simply *being* the will of the researcher is often vanishingly small. (emphasis added).

However, the Myth of Complete Knowledge and Perfect Prediction is more than just an academic parlor game. If that were all, the myth would be merely amusing rather than pernicious. But if policy makers accept the premise of this myth, their reliance on the flawed, incomplete and partial knowledge provided by empirical research will ever decrease. And this will inevitably change the basis of rational decision making over to other even more incomplete, error-filled and partial methods like [special favors based on political connections], special pleading by interest groups, and bureaucratic rationales of system maintenance.

### ***The Myth of Maximum Benefit and Minimum Burden***

The second “myth” identified by Professor Hennessey is that sufficiently detailed inquiry will result in the discovery of “a potential policy that benefits all and burdens none.” He dismisses the search for such a policy as not only bound to fail, but also as being harmful in the meantime.

The pervasiveness of this particular myth in the lifeline literature is quite amazing. The review of survey simulations. . . shows that in virtually every case lifeline rates are superior to the alternative rate structure, with greater percentages of targeted households benefiting and lesser proportions of non-targeted households burdened. Yet lifeline rates are routinely criticized (and rejected) for always producing some proportions of the targeted who are burdened and some

proportions of the non-targeted who are benefited. As Berg states; “opportunities are missed when our lack of complete understanding causes unnecessary delays. The goal of perfect policies is one of the greatest enemies of the achievement of good policies.”<sup>7</sup>

### **SUMMARY AND CONCLUSIONS**

Policy debates regarding the need for and effectiveness of affordable low-income rate programs should be based on sound theory and adequate empirical analysis. The ideological “myths” identified above should be recognized for what they are and discarded.

For more information about the impact of low-income affordable rate discounts on the efficacy of “price signals,” or for a complete copy of Professor Hennessey’s article, please contact:

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<sup>7</sup> Methods and Myths, at 340. Contrast this discussion of “research myths” to the decision of the Minnesota Public Service Commission, which held in approving a Conservation Rate Break for customers consuming less than 300 kWh per month: “There is no question that lifeline is a blunt edged sword in attacking the utility problems faced by low-income users. The Commission readily admits that it will favor some persons who do not need the favor and provide only modest assistance to others who need much more. However, the Commission believes that these infirmities are far outweighed by the overall benefits to the large number of needy persons who are able to conserve energy usage. . . We are not required to choose between issuing an order which reduces all evils or issuing no order at all.” Cleveland State University (1980). *Lifeline Electric Rates and Alternative Approaches to the Problems of Low-Income Ratepayers: Ten Case Studies of Implemented Programs*, at 253, National Technical Information Center: Washington D.C.

Fisher, Sheehan and Colton, Public Finance and General Economics (FSC) provides economic, financial and regulatory consulting. The areas in which *FSC* has worked include energy law and economics, fair housing, affordable housing development, local planning and zoning, energy efficiency planning, community economic development, poverty and telecommunications policy, regulatory economics, and public welfare policy.