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Energy Efficiency Utility Allowances for Public and Assisted HUD Housing

NOTE TO READERS

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Fisher, Sheehan & Colton
Public Finance and General Economics
34 Warwick Road, Belmont, MA 02478
(voice) 617-484-0597 *** (fax) 617-484-0594
(e-mail) roger@fsconline.com

UTILITY ALLOWANCES FOR PUBLIC/ASSISTED HOUSING CAN BE USED TO PROMOTE ENERGY EFFICIENCY INVESTMENTS

As Pennsylvania policymakers formulate and implement the state's Act 129 energy efficiency plans, they should pay particular attention to opportunities for pursuing energy efficiency in housing that cut across traditional notions of what constitutes an "efficiency" program. In a report prepared by Fisher, Sheehan & Colton (FSC) for the Pennsylvania Utility Law Project (PULP), FSC said that Pennsylvania should pursue ways through which to promulgate energy efficient utility allowances for the state's Section 8 housing units.

Section 8 is a federal housing subsidy program. Through the largest component of the program, involving the most units of housing, Section 8 provides housing "vouchers" to participating tenants. Those tenants use their Section 8 vouchers to find housing in the private market. Within certain limits not relevant to this discussion, Section 8 tenants pay 30% of their income toward their contract rent. The difference between their full "contract rent" and this percentage of income payment represents the housing subsidy paid by the Section 8 program. For example, if a tenant's contract rent is $600 per month, and the percentage of income-based rent is $250 per month, the property owner receives a $350 monthly housing subsidy through the Section 8 program.

Local public housing authorities, which administer the Section 8 program, have an allocated number of Section 8 vouchers that they can use to provide low-income housing. As of May 31, 2009, Pennsylvania had 84,339 Section 8 vouchers throughout the state.

AN OVERVIEW OF SECTION 8 UTILITY ALLOWANCES

In addition to the housing subsidy, Section 8 tenants receive what is termed a "utility allowance" each month (assuming the tenant pays his or her own utility costs). The utility allowance is designed to cover the tenant's entire utility bill.[1] Rather than being simply a heating allowance, in other words, a utility allowance is designed to pay for all utilities (energy, water/sewer, trash) except telephone service.[2] Since by law the tenant's total shelter expenses (which are to include contract rent plus all utilities except telephone) are to be limited to 30% of income, and since the household's contract rent is set *equal* to 30% of income, in order for the Section 8 program to comply with the federal statute, the utility allowance must pay a tenant's entire utility bill to keep total shelter costs under the statutory ceiling.

Utility allowances are promulgated for each specific end-use. Different dollar allowances are, for example, promulgated for space heating, water heating, cooling, refrigerators, lighting and electric appliances.

Utility allowances further vary by fuel. Each local housing authority would, in other words, have a natural gas heating allowance, an electric heating allowance, and a fuel oil heating allowance (assuming the presence of oil heat in the jurisdiction).

Utility allowances also vary by the size of the house (measured by number of bedrooms) and type of building structure (e.g., a single-family attached home would have a different utility allowance from a single-family detached home which would have a different allowance from an apartment in a multi-family building).

The utility allowance is, in other words, not a single number. They are referred to as utility allowance "schedules" that identify the dollar amount by end-use and fuel.

A Section 8 utility allowance is generally not paid directly to the utility company.[3] Instead, utility allowances are paid as a credit against percentage-of-income based contract rents that would otherwise be the out-of-pocket responsibility of the Section 8 tenant. In the example above, if the tenant was entitled to receive a monthly utility allowance of $150, the percentage of income-based rent for which the tenant bears out-of-pocket responsibility is reduced to $100 ($250 percentage of income based rent minus $150 utility allowance) and the housing subsidy to the Section 8 property owner is increased by a corresponding amount (in this case, the property owner receives a $500 subsidy: $350 rent subsidy plus $150 utility allowance).

The freed-up money in the household's budget occasioned by the $150 reduction in tenant out-of-pocket rent expenses is assumed to be used to pay the tenant's actual utility bills.

AN OVERVIEW OF SECTION 8 "VOUCHER" HOUSING IN PENNSYLVANIA

Section 8 housing in Pennsylvania serves some of the lowest income households in the state. Under the system of income categorization used by the U.S. Department of Housing and Urban Development (HUD) in its housing programs.:

- "Extremely low-income" refers to households with income at or below 30% of area median income;

[1] The law is somewhat more complicated than this. The promulgation of a utility allowance is governed by a variety of standards. It is to cover the utility consumption of an "energy conservative household of modest means." A utility allowance must, however, cover all consumption not within the ability of the tenant to control.

[2] Utility allowances do not pay for internet service or cable television.

[3] The utility allowance differs from LIHEAP in this sense. LIHEAP payments are not paid to the LIHEAP recipient, but are instead directly-vendored to the utility company.

- “Very low-income” refers to households with income at or below 50% of area median income;

- “Low-income” refers to households with income at or below 80% of area median income.

Relative Section 8 Income in Pennsylvania: Distribution by Congressional District

Pennsylvania’s Section 8 tenants are overwhelmingly extremely low-income (households with income at or below 30% of the area median income). Data was examined by Congressional district.

The lowest penetration of extremely low-income Section 8 tenants occurred in Congressional district #9 with 65%, followed closely by Congressional districts #10 and #15 (66%). In contrast, the highest penetration of extremely low-income Section 8 tenants occurred in Congressional district #3, with 89%. In 13 of Pennsylvania’s 21 Congressional districts, the penetration of extremely low-income households within the Section 8 voucher population was between 70% and 80%. In six (6) more Congressional districts, the penetration of very low-income households was between 65% and 70%.

In all 21 Congressional districts, between 95% and 100% of Section 8 tenants were either extremely low-income (at or below 30% of area median income) or very low-income (at or below 50% of area median income but greater than 30%).

The most wealthy of Section 8 tenants statewide in Pennsylvania, in other words, nonetheless live with incomes less than half of area median income. This income status is consistent throughout the state, whether rural areas or urban; whether east or west; whether small town or large city.

Absolute Section 8 Income in Pennsylvania: Distribution by Congressional District

The average income of Section 8 tenants in Pennsylvania ranged from a low of $9,954 (Congressional District 3) to a high of $13,997 (Congressional District 8) (closely followed by Congressional District 13 with an average income of $13,974). In 15 of Pennsylvania’s 21 Congressional Districts, average annual income for Section 8 tenants was less than $13,000.

In comparison to these average incomes:

- The 2009 Federal Poverty Level for a two-person household is $14,570;

- The 2009 Federal Poverty Level for a three-person household is $18,310.

While the bulk of Section 8 tenants have income between $5,000 and $10,000 (ranging from 48% in Congressional District 1 and Congressional District 13 up to 70% in Congressional District 9 and 69% in Congressional District 12), in several regions of the state (e.g., Congressional Districts 3 [18%], 14 [20%] and 20 [18%]), roughly 1-of-5 Section 8 tenants have annual incomes of less than $5,000. In 18 of Pennsylvania’s 21 Congressional Districts, roughly ten percent (10%) of Section 8 tenants have annual income of between $1 and $5,000 (with the proportion in two of the remaining three closer to 15%).

Several conclusions can be drawn from this income data:

- Section 8 tenants are amongst the lowest income households in the State of Pennsylvania. On average, Section 8 tenants have annual incomes below 75% of Federal Poverty Level. They frequently have income between 25% and 30% of Federal Poverty Level.

- The low-income status of Section 8 tenants is not confined to large urban areas. Dividing the state into regions by reference to Congressional districts, the low average income, as well as the distribution of income below $10,000 a year, is consistent throughout the state. No Congressional District has fewer than 40% of its Section 8 tenants with income below $10,000, while no Congressional District has more than 60% of its Section 8 tenants with income below $10,000.

The significance of the income status of Section 8 tenants is several-fold. First, by the very nature of their poverty, Section 8 tenants do not have access to high quality housing. While housing units that are subsidized by the federal Section 8 program must comply with certain federally-prescribed minimum Housing Quality Standards (HQSs), the units tend to be older and lower quality units (even if meeting minimum HQSs).

Second, despite this lower quality housing, because of the very fact of their poverty, Pennsylvania's Section 8 tenants would be unable to pursue efficiency measures on their own, even should they have the authority to do so in their rental housing. The payback period for any particular energy efficiency measure, of course, becomes irrelevant if the household does not have the investment capital with which to begin.

The impact of this market barrier, for example, is often ignored in the reliance on appliance rebate programs. Such a program may pay the incremental cost of moving a customer from the purchase of a less energy efficient appliance to a more energy efficient new appliance. In such a program, if the less efficient appliance costs $600 and the more efficient system costs $800, it may well be cost-effective for the utility to pay the $200 difference to prompt the purchase of the more efficient system.

This program, however, automatically excludes households that are not in the market to purchase the new appliance with which to begin. It is axiomatic to note that not many low-income households recently spent $600 for a new appliance (be it air conditioner, refrigerator, dishwasher, or some other appliance).

Length of Stay for Section 8 Tenants: Distribution by Congressional District

In addition to their overall income status, a final attribute of low-income tenants that impedes their ability to use energy efficiency as a mechanism to reduce home energy consumption is their tendency to be mobile.

Census data for Pennsylvania demonstrates quite clearly that, compared to the proportion of the total population that changes residences each year, nearly twice as many low-income households move. As a result, even in those instances where a tenant may have the authority to invest in an energy efficiency measure, and assuming a financial ability to do so, the payback period required to justify such an investment would need to match the household's tenure.

A low-income household will not invest in a measure with a two-year payback if that household intends to move to a different dwelling in 12 months. A low-income household will not invest in a measure with a three-year payback if that household does not anticipate remaining in the home for more than two years.

Pennsylvania's Section 8 tenants share the frequent mobility attributes of low-income tenants generally. In 16 of Pennsylvania's 21 Congressional Districts, 20% or more of Section 8 tenants have moved within the past year, with the proportion reaching more than 30% in three of those 16 Districts. In three more districts, the one-year mobility rate was greater than 15% (but less than 20%). Similarly, in 15 of Pennsylvania's Congressional Districts, more than 30% of Section 8 tenants had moved within two years, while in three more, the two-year mobility rate exceeded 25% (but not more than 30%).

Two conclusions flow from the above data and analysis. First, Section 8 housing units represent a significant population of the lowest income tenants in the State of Pennsylvania. Not only are there more than 80,000 voucher-assisted Section 8 units in Pennsylvania, but the households living in those units have incomes, on average, well below 100% of the Federal Poverty Level. Indeed, a significant proportion of Section 8 tenants live with annual incomes at or below $5,000.

Second, it is unlikely, at best, that these Section 8 tenants will be able to invest in any significant energy efficiency measures using their own resources. Even setting aside the question of whether a tenant has the authority to invest in energy saving measures such as new appliances (without even questioning the authority to invest in improvements to major housing systems such as heating and hot water), the very poverty of these tenants would deny them the financial capacity to make such investments. Moreover, the frequent mobility of these tenants would deny them the ability to generate the payback needed to prompt an efficiency investment.

AN ACTION RESPONSE THROUGH PENNSYLVANIA'S ACT 129 PLANS

The analysis presented above supports a two-part response through the development and implementation of Pennsylvania's Act 129 utility energy efficiency plans, FSC told PULP.

- First, Pennsylvania's Act 129 plans should include financial incentives for Section 8 property owners to pursue energy efficiency investments.

- Second, Pennsylvania's Act 129 plans should provide technical assistance to the state's local Public Housing Authorities, which administer Section 8 vouchers in the state, to adopt Energy Efficient Utility Allowances (EEUAs) to further promote the pursuit of energy efficiency investments.

Energy efficiency investments in Section 8 housing simultaneously promote several policy objectives:

- Since efficiency investments would not be made unless cost-effective, an energy efficiency initiative aimed at Section 8 housing advances the goal of promoting the delivery of least-cost utility service;

- As Act 129 recognizes, efficiency investments are an important carbon reduction strategy, thus promoting the delivery of environmental benefits;

- Since utility allowance reductions allow Section 8 property owners to capture more of total shelter subsidies to support housing costs, the energy efficiency investment supports the delivery of higher quality low-income housing;

- Since Section 8 tenants are responsible for paying utility bills in excess of utility allowances, the implementation of energy efficiency investments helps protect tenants from excess payments associated with the volatility of energy consumption due to weather. Moreover, since utility allowances are not individually set, to the extent that efficiency investments are directed toward the highest users, tenants will experience out-of-pocket savings as well.

In short, incorporating energy efficiency directed toward Section 8 housing serves multiple important and well-recognized public policy objectives. While not all of these public policies are the specific policies under the auspices of Act 129, neither are these additional policies prohibited by Act 129.

To pursue energy efficiency investments that *not only* meet the objectives of Act 129, but *in addition* generate other important public outcomes as well would help break Act 129 energy efficiency investments out of the silo as being seen exclusively as an environmental/utility initiative.

THE ENERGY EFFICIENT UTILITY ALLOWANCE

An energy efficient utility allowance involves offering a lower utility subsidy paid to Section 8 tenants to reflect the lower utility costs incurred subsequent to the installation of energy efficiency measures. Through California's "Designed for Comfort" Efficient Affordable Housing Program, the California Public Utilities Commission (CPUC) sought to promote the adoption of EEUA's as an energy efficiency strategy directed toward both public and assisted housing.[4]

> The DfC Program tries to encourage energy efficiency by introducing the [energy efficiency-based utility allowance]. The EEBUA can be used in buildings that are significantly more energy efficient than average. If their local public housing authority adopts the EEBUA, owners or developers who achieve certain levels of energy efficiency in their new or existing affordable multifamily properties can collect higher rents. These higher rents are possible because the EEBUA has reduced the tenant's utility allowance to correspond with the reduction in utility costs that have been achieved by the energy-efficiency measures installed in the property.[5]

Despite unanticipated challenges in the implementation of the energy efficient utility allowances, the CPUC's Designed for Comfort program met or exceeded its goals in the adoption of such utility allowances.

According to the 2006 program evaluation, while the objective was to generate the approval of energy efficient utility allowances by ten (10) local housing authorities, through 2005, nine housing authorities had done so, and two more had committed to adopting the energy efficient utility allowance in 2006.[6] Efforts to promote the adoption of EEUAs continue in California.

Operation of the Energy Efficient Utility Allowance Program

According to one assessment of the CPUC program,[7] implementation of the EEUAs, along with energy efficiency measures, in an illustrative 53 unit development would generate benefits for both the property owner and the tenants over a fifteen-year period. The analysis compared rental income on a project with 40 two-bedroom units and 12 three-bedroom units (and one manager unit). All but one of the units were designed to be affordable to low- and very-low income households.

The result of the EEUA was to generate more than $11,000 each year in additional return to the property owner without increasing the shelter burden to the tenant.

According to the California assessment, "even with a larger debt service payment for the initial four years (more than enough to cover the additional cost of measures even *without* a utility program incentive), the cumulative residual cash by the 7th year is about $75,866 greater and approximately $181,009 after 15 years."

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[4] "Public" housing involves housing owned and operated by local public housing authorities. "Assisted" housing involves housing that, while privately-owned, is nonetheless subsidized through a public program such as Section 8.

[5] KEMA, Inc. (November 2006). *Evaluation of the 2004-2005 Designed for Comfort: Efficient Affordable Housing Program: Final Report*, at 2-1, KEMA, Inc.: Oakland (CA). (hereafter, *DfC Evaluation*).

[6] San Diego Housing and Community Development Commission (2004); San Diego Housing Commission (2004); Monterey Housing Authority (2004); Contra Costa Housing Authority (2004); Yolo Housing Authority (20040; Marin County Housing Authority (2005); Community Development Commission of City of Long Beach (2005); San Joaquin County Housing Authority (2006); San Francisco Housing Authority (2006); Glendale Housing Authority (2006-2007); and City of LA Housing Authority (2006-2007).

[7] Brown and Benfield (July/August 2004). "The Role of Local Governments in Promoting Housing Affordability through Energy Efficiency," *Currents: An Energy Newsletter for Local Governments*.

The County of Riverside (CA) explained how it developed its EEUA in implementing the CPUC's *Designed for Comfort* (DfC) program. Riverside relied on software certified by the California Energy Commission to provide an energy "budget" for three categories of energy use: heating, cooling and hot water.[8] That software allowed a comparison between a "standard" building and an energy efficient building.

Since CPUC efficiency programs generate 15% reductions in energy use compared to the minimum requirements of existing energy standards, "this would mean that the energy cost estimates for residential properties qualifying for the energy efficient utility allowance could be reduced by 15%."

In fact, Riverside reduced its utility allowances by an average of 11.25% "to (a) provide a safe and prudent margin based on using estimation tools, and (b) so that part of the direct benefit of the energy efficiency improvements would flow to the tenants rather than giving the landlords all of the economic benefits."

Verification of the qualification of the Riverside buildings for the EEUA occurs on three levels:

- Energy efficiency ratings for new construction (including "gut rehabs") must surpass the existing energy code by 15% as confirmed by an inspection by a HERS Rater;[9] or

- The energy efficiency rating for an existing building must exceed the existing energy code by at least 10% as confirmed by a HERS Rater; or

- Energy efficiency improvements have been made to an existing building which result either in: (a) exceeding the existing energy code by 10% <u>*or*</u> exceeding the original rating by at least 20% as confirmed by a "before" and "after" inspection by a HERS Rater.

In contrast to this Riverside approach was the approach taken in Ventura County (CA). Under the *Designed for Comfort* program, the CPUC program provided the owner $100 per unit toward a $125 per unit efficiency investment. The Energy Efficient Utility Allowance then allowed the owner to recapture 75% of the value of the energy savings. "Allowing the owner to recapture 75% of the value of the energy savings, and allowing the owner a 15% return on investment, the entire investment and interest is earned in three and one half years. A 20% ROI can be earned in just under four years."[10]

Under the Ventura approach, the alternative utility allowance can be in force for four years. "After that, the rents would drop back down to the level they would have been with the standard utility allowance. . .the tenant receives ¼ of the economic benefit for the first four years and all of it for the remainder of the contract. . .The developer receives 75% of the economic benefit for the first four years, usually earning 15-20% on his/her money."[11]

SUMMARY AND RECOMMENDATIONS

The delivery of low-income energy efficiency measures through Pennsylvania's Act 129 plans can come in many forms, FSC said in its report to PULP. One historically successful program model in Pennsylvania is the Low-Income Usage Reduction Program (LIURP). Through LIURP, Pennsylvania utilities deliver fully-subsidized, directly-installed, measures.

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[8] Maria Razzo (2002). "Establishing and Implementing the Energy Efficiency Utility Allowance Schedule: Housing Authority of the County of Riverside."

[9] A HERS Rater is a rater certified to provide Home Energy Rating System (HERS) inspections.

[10] Heschong Mahone Group (May 20020. "A Two-Tiered Utility Allowance: Encouraging Energy Efficient Low-Income Housing Construction," submitted to Area Housing Authority of Ventura County and Southern California Edison Company (CPUC Designed for Comfort Program).

[11] DfC Evaluation, at 2-1.

A second model involves "piggybacking" certain utility-funded energy efficiency measures on the delivery of other programs. The combined delivery of electric baseload measures with the U.S. Department of Energy's (DOE) Weatherization Assistance Program (WAP) is one such piggyback program.

The FSC report recommended yet a third model for the delivery of low-income efficiency measures. This recommendation involves a combination of several efforts. It involves:

- Marketing and technical assistance to Pennsylvania's local public housing authorities encouraging them to adopt energy efficient utility allowances;

- Marketing and direct partial subsidies to Section 8 property owners to implement sufficient energy efficiency measures to qualify to use the energy efficient utility allowance;

- The subsidy of the use of Home Energy Raters sufficient to determine a building's qualification for an energy efficient utility allowance.

This three-part initiative, largely modeled on California's Designed for Comfort (DfC) Energy Efficiency-Based Utility Allowance (EEBUA) program, will leverage utility-provided efficiency dollars with property-owner dollars and funding provided through the EEUA.

It not only presents a strategy to reach some of the state's lowest income households, it presents a specific strategy to do so by leveraging the benefits of utility expenditures beyond that which might otherwise be generated through a 100% funded, direct install utility program.

For help in assessing the adequacy of utility allowances in a particular state or local jurisdiction, or in designing partnerships between utility energy efficiency initiatives and affordable housing programs, contact:

roger[at]fsconline.com

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.