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Technical Assistance Program

Funding for Energy Efficiency Programs for Unregulated Fuels

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Introduction

Energy efficiency programs in the U.S. are often funded through a "system benefits charge" or SBC (sometimes called a "public benefits charge") on electricity and natural gas in jurisdictions where these fuels are legislated or regulated. Program participants benefit by being able to access energy efficiency programs to reduce energy consumption and costs for the targeted fuel. At the same time, all ratepayers benefit by deferring or avoiding costly system expansions or more expensive new energy generation and distribution resources. Additional benefits provided from energy efficiency programs, such as reduced greenhouse gas emissions, also provide significant benefits to the public.

For many northern states, however, important heating fuels (fuel oil, propane, kerosene, etc.) are not generally regulated. Programs designed to reduce consumption of such fossil fuels through thermal efficiency measures face the challenge of finding an appropriate funding source to support their activities, given the operational and often political difficulties in assessing charges on unregulated fuels. Is it equitable to collect electric and gas ratepayer funds and use these to pay for fuel oil and propane saving programs? If programs supported by ratepayer funding discriminate against buildings using non-regulated fuels, will this confuse the market and reduce program participation? And is it reasonable to expect utilities to divert their funds away from one fuel to save another?

This paper addresses these unregulated fuel issues and questions. We present three cases of mechanisms used to fund programs that target efficiencies in unregulated fuels, including opportunities for fuel-neutral program approaches that may help broaden potential program funding and savings from all fuels.

Funding from Charges on Unregulated Fuels

Because many heating fuels are not generally regulated, there are few locations where program funding through a direct charge on heating fuel has been put into place – Vermont is the only current example. However, as energy efficiency programs look to expand funding sources and savings opportunities, there is certainly potential to expand the number of locations with this funding mechanism, if local objections can be overcome.

Vermont's Weatherization Trust Fund (WTF) is the nation's only program that currently funds programs for thermal efficiency on buildings that heat with unregulated fuels through a charge on these fuels. Oil and propane distributors receiving more than $10,000 annually for the sale of bulk fuels pay 0.5% of the retail sale of fuel through Vermont's Gross Receipts Tax. Monies collected by the WTF fund Vermont's Weatherization Assistance Program and Low-Income Home Energy Assistance Program (LIHEAP). Details on Vermont's program are included in the Table 1 below.

In Maine, the Efficiency Maine Trust has introduced legislation to create a goal for saving heating fuel through their energy efficiency programs. Their plan is 30% reduction of oil consumption from 2009 levels by 2030 and 50% by 2050 (see http://www.mainelegislature.org/legis/bills/bills_125th/billtexts/HP043601.asp). In order to meet these goals, Maine would likely need to put in place a funding mechanism such as an SBC on fuel oil.

In general, there has been significant opposition to efficiency programs funded through an SBC on the unregulated fuel. The oil lobby has been effective at arguing that increased charges on fuel oil would harm their customers and would hinder fuel competition. It would seem that, given the successes with electric and gas SBC-funded programs as precedent, it will only be a matter of time before we start to see more unregulated fuels SBC-funded efficiency programs.

Thermal Efficiency Program Funding from Other Sources

Charges on Other Fossil Fuels

Examples of other state thermal efficiency activities funded by fossil fuel levies include Connecticut's Fuel Oil Conservation Board (FOCB). With excess revenues generated from the state's gasoline tax, the FOCB supported the replacement of fuel oil heating systems and insulation in oil heated homes for low-income households. This effort was short lived, starting in 2008 and concluding in 2009 when funding was diverted to other uses, then quickly eliminated during the year. Details on Connecticut's program are included in Table 2 below. In addition, other states, such as New Hampshire, have used oil penalty revenues to supplement low-income program efforts over the years.

Fuel Funds

According to the U.S. Department of Health and Human Services LIHEAP Clearinghouse, "fuel funds are programs that raise private or corporate dollars to help low-income households meet their energy needs." While they are most often used to provide direct payment of energy bills or to purchase large quantities of fuel oil, wood, or coal, some fuel funds have expanded to include weatherization services and heating system retrofits and repairs, among other innovative programs. Fuel funds that address weatherization include Montana's Energy Share program and Wisconsin's Campaign to Keep Wisconsin Warm. For FY 1991, 29 states claimed $16 million from fuel funds. That amount increased to $117 million claimed by 40 states in FY 2007. This funding source has played a key role in raising supplemental funding to help extend federal LIHEAP dollars (see below). More information on fuel funds is provided by the Department of Health and Human Services on the LIHEAP website at: http://liheap.ncat.org/pubs/865.htm.

Leveraging

The 1990 LIHEAP reauthorization bill enacted a leveraging incentive provision encouraging states to supplement federal LIHEAP funds with non-federal funds. Leveraged resources include cash, home energy waivers or discounts, and third-party contributions that result in quantifiable home energy benefits to LIHEAP or federally eligible households. Leveraged funds may also include Weatherization Assistance Program and utility Demand-Side Management (DSM) funding. Public benefits funds and fuel funds are considered cash resources that contribute to the state's ability to leverage federal funds. Many states directly supplement LIHEAP with their own funds. In FY 2007, 25 states reported supplements totaling nearly $573 million in state and local funds.

While leveraging can be one way of enabling LIHEAP funds to go further, this funding mechanism is not without its challenges. Some of the potential issues could involve challenges with efficiency measures passing utility DSM cost-effectiveness tests, requirements for data collection and reporting, managing changes in funding levels, and staff ramp up/ramp down.

Fuel-Neutral Efficiency Program Funding

Although Vermont is the only state to currently assess an energy efficiency surcharge on unregulated fuels, many states channel funds from other sources to capture opportunities for fossil fuel savings through existing energy efficiency and/or weatherization programs. There are several examples of states that take a fuel-neutral approach to saving fossil fuels through SBC-funded energy efficiency programs. Examples include low-income, residential retrofit, and residential new construction programs in New Hampshire and Massachusetts. The inclusion of fossil fuel savings in utility DSM programs captures significant energy saving opportunities in an underserved population while boosting the DSM program cost effectiveness. The benefit to the utilities in these instances is a shareholder incentive that comes through saving Btus as well as kWhs, without erosion of primary fuel sales or revenue resources.

An increasing number of states are expanding their state-wide efficiency mandates beyond the fuel source on which the SBC is levied. In Massachusetts and Rhode Island, legislation mandates the funding of all cost-effective energy efficiency opportunities, regardless of fuel type. In Wisconsin, electric and gas ratepayers fund a SBC that is used to run programs for all fuel types, as well – details on the Wisconsin program are provided in table 3 as an example.

In considering policies that would encourage electric utilities to provide thermal efficiency services for buildings using unregulated fuels, the following approaches could be options.

1. Legislate goals for saving unregulated fuels, using a system benefits charge to raise program funds, but fold into existing program delivery infrastructures to ensure seamless delivery to customers

2. Create a shareholder incentive that would reward saving Btus as well as kWhs to ensure that there is an interest in serving all customers through existing, prevailing programs

Quebec's Green Fund

While this research focused on U.S. policy models for leveraging unregulated fuels funding for energy efficiency programs, Quebec's Green Fund is an international example that merits attention. This fund, which resulted from the Quebec Climate Change Action Plan, levies charges on all carbon-dioxide-emitting fuels (including natural gas, gasoline, diesel fuel, light heating oil, heavy heating oil and propane, petroleum coke, and various varieties of coal) to raise the monies that support the Green Fund. These funds are used to support policies and deliver programs that reduce pollution from burning these fuel sources. For more information, see: http://www.mddep.gouv.qc.ca/changements/plan_action/autres-initiatives-en.htm#prog-reg.

Table 1: Vermont Weatherization Trust Fund (WTF)

Location	Vermont
Jurisdiction of Authority	The State Office of Economic Opportunity (OEO)
Fuel Type	Electric, natural gas, heating oil, kerosene not used to propel a motor vehicle, propane, coal
Charge Amount	0.5% of gross sales receipts
Years in Existence	20 years; the charge was first instituted in 1990
Programs Funded with the Charge	The Vermont Weatherization Assistance Program (WAP). WAP provides weatherization services including comprehensive whole house assessment of energy-related problems, building diagnostics, and energy-efficient retrofits to low-income homeowners and renters.
Program Description	The Vermont WTF was established in 1990 when the State of Vermont Legislature introduced and passed Bill H. 832. The WTF provides state funding for the Vermont Weatherization Assistance Program through a 0.5% Gross Receipts Tax on all non-transportation fuels sold in the state (electricity, natural gas, heating oil, propane, coal and kerosene).
Collection of Funds	The WTF is primarily funded by a Gross Receipts Tax of 0.5% on the retail sale of fuel by sellers receiving more than $10,000 annually for the sale of such fuels. The charge is collected at the distribution level through the Gross Receipts Tax. Funds are collected based on the dollar volume of gross sales at the wholesale level and is paid quarterly by the dealer to the tax department through a special form – the charge is not visible at the consumer level. The WTF receives additional funds from oil overcharge funds, the federal Low Income Home Energy Assistance Program (LIHEAP), and other funds from the general assembly.
Distribution of Funds	Once funds have been collected by the Tax Department, they are appropriated by the Agency of Human Services (AHS). AHS determines the budget for the Department of Children and Families, which in turn distributes funds to the Office of Economic Opportunity (OEO). OEO contracts with each of five weatherization providers; all five have provided weatherization services and partnered with OEO for over 30 years. The organizations include: • BROC – Community Action in Southwestern Vermont • Central Vermont Community Action Council (CVCAC) • Champlain Valley Office of Economic Opportunity (CVOEO) • Southeastern Vermont Community Action (SEVCA) • Northeast Employment & Training Organization (NETO) The first four (BROC, CVCAC, CVOEO, and SEVCA) are local community action agencies. NETO is a weatherization agency exclusively.

Table 1: Vermont Weatherization Trust Fund (WTF)

Who Benefits	The primary beneficiaries of the WTF are low-income Vermont residents. The WTF funds WAP, which provides weatherization services. “Low-income” for federal purposes is defined as 200% of federal poverty guidelines. In Vermont, the legislature has defined low-income as 60% of area median income. There is little distinction between the two definitions except in more affluent areas (such as Chittenden and Addison counties), in which the Vermont guidelines allow a wider section of the population to participate in the program.
Politics	The Vermont Weatherization Assistance Program was started in 1976 in response to the nation’s energy crisis. Initially, funding was provided solely by the U.S. Department of Energy (DOE). The 1990 reauthorization of the DOE WAP authorized a onetime allocation of $3 million for states that “obtained a significant portion of income from non-federal sources for their weatherization programs or increased significantly the portion of low-income weatherization assistance that the state obtained from non-federal sources.” The availability of federal funds motivated the Vermont legislature to create the WTF. For the first 12 years, the WTF had to be reauthorized by the Legislature every two years. In 2003, the Legislature authorized a five-year sunset. The Vermont Legislature now provides an annual budget allocation.
Lessons Learned	The Weatherization Trust Fund has provided three distinct benefits: 1. The WTF stabilized funding for WAP, which allowed the program to develop consistent infrastructure and hire long-term staff (rather than on an annual basis depending on DOE funds). 2. By providing state funding, the WTF allows WAP to operate beyond limits of federal regulations tied to U.S. DOE funds. The WTF allows WAP be more innovative than they could otherwise be. An example of this flexibility is the separate state definition of low-income described above. The Vermont WAP program can be more inclusive than federal requirements because it receives state funds through the WTF. 3. Because the Gross Receipts Tax is collected based on the dollar volume of sales, funding for the weatherization program corresponds to need – the amount levied increases as prices rise. This allows the WAP program to expand services when energy bills are the highest, low-income Vermonters are the most vulnerable, and benefit from weatherization services is most needed.

Table 2: Connecticut Fuel Oil Conservation Fund (CFOCF)

Location	Connecticut
Jurisdiction of Authority	Fuel Oil Conservation Board (FOCB)
Fuel Type	Funded by excess revenue from gasoline tax; supports replacement of fuel oil heating systems
Charge Amount	The FOCB was funded through a portion of the excess revenues generated by the state's Gross Receipts Tax on gasoline in 2007. Funding in the first year (July 1, 2008 to June 30, 2009) was forecast to be $10 million; however, no funds were received until December 2008. In January 2009, the state legislature decreased funds to $5 million for the fiscal year ending June 30, 2009. The FOCB reallocated program funding in the plan for 2009 to account for the reduction in available funds. The FOCB maintained funding for the low-income residential programs and implemented the portion of the plan providing for insulation rebates for oil heated households served by the Connecticut Energy Efficiency Fund (CEEF) Home Energy Solutions program. Ultimately, the FOCB received $2.56 million of its $5 million allocation. P.A. 09-1 sec. 8 eliminated all funding for the fiscal year beginning July 1, 2009, effectively defunding the CFOCF and ending all programs.
Years in Existence	July 1, 2008 to June 30, 2009
Programs Funded with the Charge	The initial plan provided for ongoing replacement of inoperable, unsafe, or grossly inefficient heating systems for low-income households, leveraging comprehensive weatherization assistance to homes receiving such assistance from community action agency (CAA) programs.
Program Description	The FOCB was tasked with developing and implementing cost-effective fuel oil energy conservation programs and market transformation initiatives for residential customers (including low-income customers), as well as commercial and industrial fuel oil customers. Households eligible for Connecticut's LIHEAP could receive a new oil heating system free of charge if their system was found to be inoperable, unsafe, or unable to be repaired; the FOCB would also fund weatherization for these households if needed. During the seven month period of operation, the FOCB provided 451 low-income residents with services in 101 towns in Connecticut. Results included: • 386 grossly inefficient heating systems were replaced • 23 participants received heating system repairs • 93 unsafe oil tanks were replaced • 91 Connecticut HVAC contractors were used to provide services • Average furnace efficiency increased by 25%, while average boiler efficiency increased by 28% • 93% of responses from a participant survey indicated "very good" to "excellent" satisfaction with agency explanation of program and available assistance

Table 2: Connecticut Fuel Oil Conservation Fund (CFOCF)

Distribution of Funds	The program operated though CAAs that also administered LIHEAP and weatherization programs. The CFOCF contracted with the Connecticut Association for Community Action (CAFCA) and member CAAs to implement this program in conjunction with their energy and weatherization assistance programs. The program was designed to utilize the Connecticut Department of Social Services intake network for energy assistance to determine eligibility for the FOCB program. Through an RFP process, the FOCB hired Resource Link, LLC as a program administrator.
Who Benefits	Low-income households eligible for the Connecticut LIHEAP and that heat with oil. Participants had to meet the following requirements: 1. Single family, owner occupied homes of 1-4 unit dwelling units 2. Household income at or below 60% of Connecticut state median income; income and assets were calculated in the same manner as the energy assistance program 3. Heating and hot water systems had to be certified by licensed HVAC contractors as inoperable, unsafe, unable to be repaired, and/or unable to attain a 75% AFUE 4. Participating households had to participate in pre/post inspections and respond to customer surveys
Politics	The CFOCF was created by the state legislature in 2007, provided for FOCB member appointments by a range of legislative officials and the Governor, and given a budget of $10 million. In January 2009, the state legislature passed P.A. 09-1 sec. 8, which cut CFOCF fund in half for the fiscal year from July 1 2008 to June 30, 2009 (although only a quarter of the official funds were ever released, without explanation). This same legislation completely eliminated funding for the fiscal year beginning July 1, 2009, defunding the CFOCF and ending all programs.
Lessons Learned	As has been shown in Connecticut for in a number of energy efficiency programs, the legislature is prone to take away funds designed for energy efficiency. Setting up such energy efficiency funds through a trust or another mechanism would have helped to ensure that the legislature is not in a position to repurpose the funds when the economy worsens.
Additional Resources	The 2009 Connecticut Fuel Oil Board Annual Report: http://ctfocb.com/plans/2009_Connecticut_Fuel_Oil_Board_Annual_Report_5_3_10.pdf

Table 3: Wisconsin Home Energy Assistance Program	
Location	Wisconsin
Jurisdiction of Authority	The Wisconsin ratepayer-funded low-income energy efficiency program is jointly administered with the federal WAP program. • The WAP program administration - Department of Administration's Division of Energy Services • Service Delivery – Services are delivered by local community based organizations • WAP Office Collaboration – Delivered by the WAP office
Fuel Type	Funded through a public benefits fund (PBF) by electric and natural gas utility ratepayers; benefits are available for all fuel types.
Charge Amount	The amount of funding varies by year according to "low-income need," depending on home energy bills and the number of low-income households living in Wisconsin.
Years in Existence	Wisconsin home energy affordability programs were established in 1999.
Programs Funded with the Charge	The PBF supports both low-income affordability and energy efficiency programs. The low-income energy efficiency programs include: • DOE WAP • LIHEAP • The Wisconsin Weatherization Assistance Program
Program Description	The Wisconsin PBF aggregates all sources of low-income home energy affordability funding into a single trust fund and places those funds under a single administrator. The Wisconsin Weatherization Assistance Program uses energy conservation techniques to reduce the cost of home energy and correct health and safety hazards and potentially life-threatening conditions. Households eligible for weatherization can receive enhanced energy-saving measures through the PBF and other funds, including refrigerator replacements, furnace upgrades, insulation, lighting upgrades, health and safety measures, and energy education. During program year 2009, PBF for weatherization totaled over $47 million and assisted over 9,800 households.

Table 3: Wisconsin Home Energy Assistance Program	
Collection of funds	The state of Wisconsin pools all their energy assistance program funding from three sources (47% must be allocated for weatherization assistance): 1. Prior utility (gas and electric) low-income expenditures. This source represents the amount utilities spent on low-income rate assistance and energy efficiency programs in 1998, determined by the Public Service Commission of Wisconsin to be $21 million. 2. A customer charge on all electric bills. This charge is adjusted yearly based on a formula that determines the level of low-income need as a function of income and energy cost. 70% of the funds are collected from residential customers and 30% from commercial and industrial. No individual charge can be more than 3% of the bill. For FY 2009, state public benefits funding for low-income (the utility expenditures plus the access fee) was around $80 million. 3. The current year's federal LIHEAP and weatherization allocations. These change each year based upon congressional allocations. For federal FY 2009, Wisconsin's LIHEAP funding (regular and emergency) was $147.6 million, of which about $22 million (15%) was set aside for weatherization. Wisconsin's 2009 regular allotment from the Department of Energy Weatherization Assistance Program was $15 million; it also received $141.5 million from the WAP stimulus funds, to be spent over three years.
Distribution of funds	Funds are distributed by the Department of Administration's Division of Energy Services to local community organizations, who in turn provide incentives and rebates.
Who Benefits	Wisconsin's low-income programs target households with incomes at or below 150% of the Department of Health and Human Services Poverty Guideline. According to the 2007 report by APPRISE Inc, about 18% of Wisconsin households are income-eligible for these programs. Priority is given to households that contain elderly, handicapped person(s), or children under age six.
Politics	Unlike most other states, Wisconsin's home energy affordability program was mandated by "Reliability 2000", passed in 1999 by the Wisconsin General Assembly and modified in 2005. The low-income programs are permanently funded.
Additional Resources	Wisconsin State Summary http://www.appriseinc.org/reports/MSS_WI.pdf Wisconsin PBF/USF History, Legislation, Implementation http://liheap.ncat.org/dereg/states/wisconsin.htm Home Energy Plus Public Benefits Annual Report (the home energy assistance program) for 2008 ftp://doaftp04.doa.state.wi.us/Homeenergy/DOA_LI_Report_Final0409.pdf

Additional Resources:

LIHEAP Negotiations with Non-regulated Fuel Vendors: Fixed Margin Programs, Discounts, Summer Fill. http://liheap.ncat.org/pubs/880.htm

Leveraging Nonfederal Resources for LIHEAP: http://liheap.ncat.org/pubs/820.htm