When Enough Is Not Enough: The Value of Conservation in an Uncertain World Calls for Expanding System Benefits Charge Funding

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ABSTRACT

One of the most compelling findings from the Northwest Power and Conservation Council's 5th Northwest Power Plan is that acquisition of low-cost energy-efficiency reduces both power system cost and the risk associated with exposure to volatile prices in the wholesale market. This finding highlights valuable opportunity for expanded conservation funding and acquisition to increase electric system benefits. The finding also highlights a potential problem for conservation mechanisms with limited funding levels, like many of the system-benefit-charge approaches now used across the United States. This paper describes new findings from the Council's fifth power plan regarding on the value of energy efficiency in an uncertain future. The paper also explores solutions to the limited funding issue as it applies to the Energy Trust of Oregon Inc., an SBC implementer. Beginning in 2006 the Energy Trust, will have to defer cost-effective efficiency projects due to statutory limitations on its funding.

Introduction

Since 1980 the Northwest Power and Conservation Council (Council) has been charged with preparing an integrated resource plan for the four-state electric system in the Pacific Northwest[1]. In January 2005, the Council released its fifth power plan (Council 2005). Like all the Council's previous plans, the fifth power plan found that energy efficiency should play a key role in future resource development in the Pacific Northwest. The fifth plan finds that energy efficiency can offset nearly half of the region's expected load growth over the next two decades. The most recent regional power plan also broke new ground in its analysis of the value of energy efficiency as a mechanism for coping with uncertain future conditions. Two new findings from the Council's analysis on energy efficiency have important implications for utilities, regulators, and implementers of energy efficiency programs.

First, the Council's analysis showed that developing low-cost energy efficiency ***<u>sooner</u>*** rather than later reduces both the cost and risk faced by the power system. That is, energy efficiency that costs significantly less than estimates of avoided cost is best not deferred[2]. Second, the cost and risk reduction benefits of conservation can be captured, in part, by buying conservation that is more expensive than traditional avoided-cost limits. In other words, buying "up the supply curve" beyond typical forecasts of future market prices can reduce both electric system cost and system risks. Both of these findings have important practical implications. In particular, they make a strong argument for near-term acquisition of low-cost energy-efficiency, even in a time of surplus. These findings also highlight the increased cost and risks associated with inadequate conservation funding. Since the later half of the 1990s, the US has seen the emergence of energy-efficiency funding through system benefits charge (SBC) mechanisms

[1] See Public Law, 96-501 - Pacific Northwest Electric Power Planning and Conservation Act.

[2] The term avoided cost is used in electricity planning as a cost-effectiveness standard for utility conservation acquisitions. It represents the cost of alternative resources avoided by acquiring conservation.

(Kushler 2004). Most of these mechanisms provide for a fixed level of funding.[3] Given the findings from the Council's fifth plan, the question arises as to how to augment conservation funding provided by SBCs to capture the added system values of conservation. This paper discusses the genesis and foundations of the Council's conservation analysis and considers solutions to the limited funding issue as it applies to the Energy Trust of Oregon Inc., (Energy Trust) a system benefit charge administrator, which beginning in 2006, will have to defer cost-effective efficiency projects for lack of adequate funding to meet customer demand.

Value of Conservation in an Uncertain Future

Cost and Risk Analysis in the Fifth Power Plan

The Council's prior power plans always dealt with a variety of unknowns – year-to-year uncertainty about hydroelectric generation, uncertainty about future demand for electricity, and fuel prices. To address this uncertainty, Council plans were developed to accommodate a wide range of demand growth rates, future fuel prices, hydroelectric conditions, and other factors. The Council's fifth flan is no exception. However, the Council's recent analysis deliberately abandons the assumption of perfect foresight to better assess the value and cost of risk mitigation. Unlike prior plans, the fifth plan is based on an analysis of hundreds of potential combinations of the major sources of uncertainty such as variations in demand, natural gas prices, water conditions, and wholesale electricity market prices. It also extends the assessment of risks to such issues as aluminum price uncertainty and carbon emission control cost uncertainty. The analysis includes periods, some spanning as little as three months and others up to a few years, when power and fuel prices, and other sources of uncertainty, deviate significantly from equilibrium levels.

During the development of its fifth plan the Council tested possible resource-development plans against 750 "futures," scenarios that describe the behavior of key sources of uncertainty during the 20-year planning period.[4] This assessment is referred to as portfolio analysis. The portfolio analysis helps determine the resource development strategy that will best serve the region. The Council's approach is to look not for strategies that are optimal in an expected future, but for strategies that will yield satisfactory outcomes across a wide range of plausible futures. Because future conditions cannot be known, a robust strategy will tend to minimize the frequency of very bad outcomes and maximize the frequency of relatively favorable ones.

The Council considers a "plan" to consist of a particular strategy to acquire conservation and demand response and a schedule and amount and timing of other generating resource "options" to put in place. An option, for example, could be a designed and sited power plant ready for construction, when and if it is needed.

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[3] System or "public" benefit charges usually are capped at a fixed percent of retail revenues or a fixed amount per kilowatt-hour or therm sold. Although increases in retail revenues or retail sales will increase the total system benefit charge collected, the amount of such increases is independent of any potential finding with respect to resource opportunity or need.

[4] Futures are defined as uncontrollable events or circumstances. They are combinations of sources of uncertainty specified over the entire study period. A future includes paths for loads, natural gas prices, water conditions, and electricity market prices and so on over the 20-year planning period.

Computer models were used to screen a large number of alternative plans. For each plan, the models calculated the cost of operating and expanding the power system over 750 different futures. Two primary measures of each plan's performance were used: the average present value total system cost over all of the futures, and a measure of risk, defined as the average present value total system cost of the worst 10 percent of the outcomes. Other risk measures, such as the standard deviation of the distribution of costs, also are considered, as are measures of the average period-to-period cost variation and maximum cost variation across the study period. These measures give insight into the potential for retail price volatility. Measures of resource adequacy also are evaluated.

The Council's portfolio analysis revealed that a sustained, high pace of development of cost-effective conservation early, with a goal of 700 MWa during the 2005-2009 period is in the region's interests[5]. Accomplishing this and acquiring an additional 1,800 MWa of conservation during the remainder of the 20-year planning period reduces the Northwest electric system's average system cost by nearly $2 billion. It also reduces power system risk by a roughly equivalent amount when compared to plans with less aggressive conservation acquisitions (Council 2005, Chapter 7, 15-17).

Over the past twenty years in the Northwest, the pace of conservation acquisition has varied widely from year to year as utilities responded to market conditions and other factors. The Council's portfolio analysis revealed that a sustained and high pace of investment in low-cost conservation both reduces and delays the need to build more expensive new generating resources, and reduces the region's exposure to periods of high market prices, fuel-price volatility, and possible future carbon penalties.

Elements of the Conservation strategy that Confer Cost and Risk Benefits

There are three primary reasons why acquiring low-cost conservation sooner rather than later provides cost and risk benefits.[6]

- Conservation contributes some value irrespective of market price whereas most generation resources do not
- Earlier conservation development allows an ability to defer risky (i.e., potentially costly) decisions on generating resources
- Relative to other resources, conservation is a low-cost and low-risk way to maintain economic reserve margin which reduces market price volatility

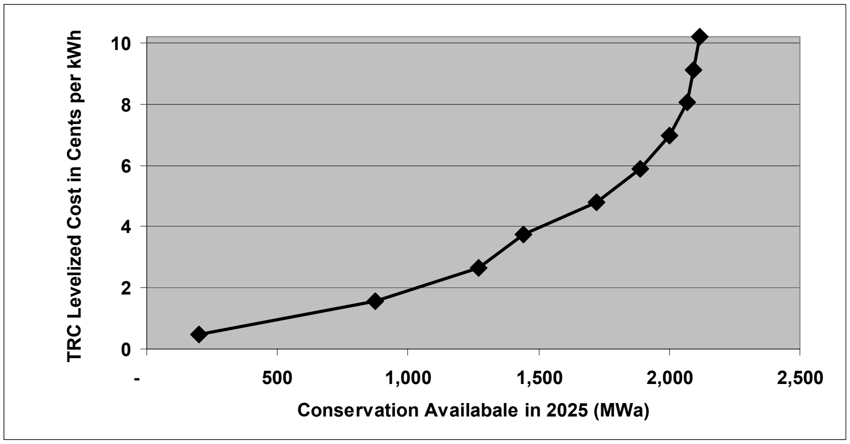
Conservation contributes some value irrespective of market price. One advantage of conservation is that, relative to alternative resources, energy savings can be acquired across a broad range of costs that are "on average" below market price or expected avoided cost.[7] This advantage stems from the nature of the amount of conservation available and its cost. There are many conservation measures and programs and these have differing costs. The Council uses a supply curve to describe the amount of conservation available at increasing costs. Figure 1

[5] One average megawatt is one megawatt for one year or 8,760 megawatt-hours.

[6] The characteristics of energy conservation that prove beneficial in this analysis are not necessarily limited to energy conservation. Other resources with similar characteristics of cost and availability, low cost variance and low price volatility could provide similar benefits. However, in the Council's analysis of resource alternatives, no other resource emerged with comparable characteristics.

displays this curve for conservation measures with levelized total resource costs between zero and 10 cents per kWh[8].

Figure 1. Regional Conservation Supply Curve



Source: Council 2005, Chapter 3

Conservation programs generally limit acquisitions to measures that cost "up to" an estimate of avoided cost. Given the general shape of the supply curve, the average cost of conservation acquired under such a strategy is well below the upper limit of estimated avoided cost. When this conservation can be acquired at prices that "on average" are well below market prices, it provides positive net benefit even when market prices fall below expected avoided cost. Generation does not. By comparison, neither thermal nor renewable generation begin to provide value until market prices exceed the capital plus operating cost of the generation. When market prices fall below that cost, generation carries capital cost but provides no value. Whereas because of its low average cost, some of the conservation acquired still will provide value when market prices fall below expectations. (Council 2005, Appendix L, 127-128).

While some policymakers may be concerned that pursuing an aggressive program of conservation acquisition is risky when depressed market prices are likely in the future, this analysis suggests the opposite. Conservation would be the best solution unless market prices are extremely low, below the capital cost of a generating resource. This advantage, of course, ignores the risk mitigation value of conservation when prices spike.

Ability to defer riskier decisions. The second primary reason conservation confers cost and risk benefits is that there are fewer sources of uncertainty in the cost of conservation compared to other resources, even at similar total cost. Conservation is not subject to fuel cost uncertainty, it has little output variability and there is no carbon dioxide risk compared to most generating

[7] In the Council's planning, the wholesale market price of power represents the value of power purchases avoided, or value of surplus power sold, when conservation is acquired. The portfolio model uses a 60-month rolling average of past market prices as an estimate of avoided cost going forward at any point in time. The avoided cost is estimated every quarter for the 20-year study period for each of the 750 futures modeled and used as a cost-effectiveness decision rule for conservation acquisition.

[8] Total resource cost includes all the costs of acquiring the conservation regardless of who pays. Costs include capital, program administration, operation and maintenance, and periodic replacement costs. To make costs of conservation comparable to market prices for power ($/kWh), the present value of all conservation costs are levelized over the life of the conservation measure.

resources. Earlier conservation development allows the ability to defer decisions on generating resources -- decisions that bear relatively greater risks given the uncertainties the future holds.

Low-cost and low-risk way to maintain economic reserve margin. The Council's plan demonstrated that increasing the reserve margin reduces market price volatility. In the past, system planners regarded reserve margin primarily as a means to enhance system reliability. The economic and price effects of reserve margin have been largely ignored. The regional portfolio model identifies significant value in the price moderation effect of conservation. Others have seen this effect for renewables, as well (Komor, 2004).

Putting conservation in place early creates benefits by being in place when electricity wholesale price spikes inevitably occur. Improved reserve margin dampens price spikes. This reduces the cost of serving load during those price spikes that exceeds the cost of doing more conservation. If the region waits for high prices to hit before developing more conservation, there isn't time to get the conservation in place. Relative to other resources, conservation is a low-cost and low-risk way to maintain economic reserve margin.

How Much Conservation to Develop

The Council tested a range of conservation development strategies, varying both the amount and timing of acquisitions. One of the initial findings from this analysis was that the portfolio model's ability to select the amount of conservation to develop each year had to be constrained. The Council's conservation resource assessment identified approximately 1,200 MWa of savings available at a total resource cost of below four cents per kilowatt-hour. Without imposing constraints on the rate of conservation deployed in the portfolio model, it would call for development of all 1,200 MWa of conservation the first year of the planning period. This occurred because the average cost of this conservation was below forecast market prices across virtually all 750 futures. Therefore, the portfolio model revealed that the region could benefit financially by developing these resources early because it often could sell the surplus resources into the market for more than the cost of development.

But deploying 1,200 MWa of conservation in one year is not practicable. After conservation deployment constraints were imposed in the portfolio model, varying rates and amounts of conservation were tested to determine which produced the best combination of total system cost and risk mitigation benefit. It was determined that acquiring conservation at a price premium of one cent per kilowatt-hour over the expected avoided cost produced both the lowest present value system cost and lowest system risk.

The effect of applying this decision rule is significant purchases of extra conservation when market prices are low. But, there was not much additional conservation purchased in periods when market prices are relatively high. This is mostly due to the shape of the conservation supply curve, the amounts available at increasing costs. Figure 2 below illustrates conservation acquisition rates with and without the one-cent premium decision rule under low and high market prices assuming a supply curve with a shape similar to that used by the Council.[9]

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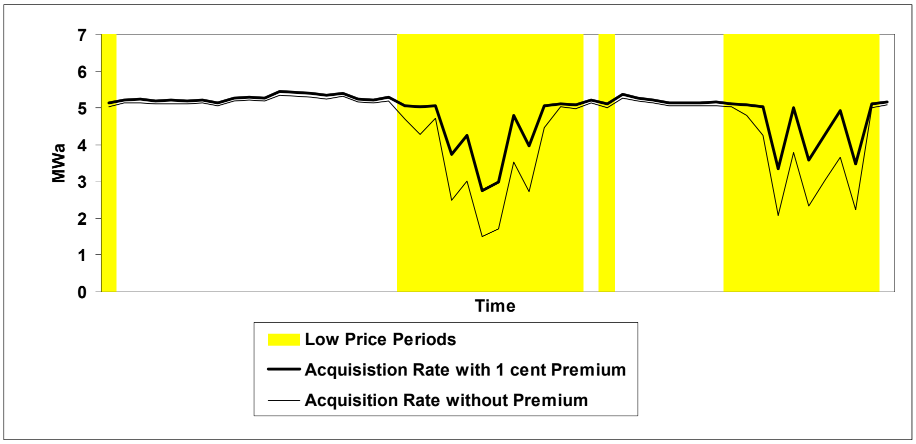
[9] Readers are referred to Appendix L of the Council's fifth power plan for a detailed discussion of the relationship between the shape of the supply curve and the resulting effects on conservation resource development rates.

Figure 2. Illustrative Rates of Conservation Acquisition with and without an Avoided Cost Premium



Source: Council 2005, Appendix L-136

Applicability to Others

Though these findings are for the Pacific Northwest as a region, we believe they are applicable to many utilities in the region and throughout the country where conservation is a low-cost and low-risk way to maintain reserve margin. But every utility is in a somewhat different place with respect to loads and resources. Existing utility systems have differing amounts of risk from fuel price volatility, hydro and wind variability, market exposure and uncertain load growth. Since the risk mitigation benefits conferred by conservation depend in part on the risks of the embedded system of each utility, the risk-mitigation value of earlier conservation will differ. Furthermore, the shape of the conservation supply curve also has big effect on the economics of how much conservation can be developed early. The Council's conservation supply curves are developed based on available technology and practices broadly available and applicable throughout the country. And they are deployed on a building stock that is relatively efficient due to 20 years of effective conservation programs. Thus we believe that most utility service areas will find similar conservation supply curves available to develop at levelized costs in the range of 2 to 3 cents per kWh, far below most expectations of avoided costs. However, we strongly urge specific analyses tailored to local conditions through Integrated Resource Planning.

Practical Implications of the Council's Findings

Two key findings from the Council's fifth power plan with regard to conservation are that there is value both in acquiring it *sooner* and acquiring *more of it* than might appear cost-effective based on expected avoided costs. These findings raise important considerations with regard to the move in many states to use public purpose funding for energy efficiency. In particular, the fixed and relatively low level of public-purpose funding of efficiency limits the cost and risk reduction values that earlier and higher acquisition of conservation can provide. Below we use Energy Trust of Oregon as a case study to explore these findings.

The Energy Trust of Oregon

In 1999, the Oregon Legislature adopted, and the governor approved, a comprehensive amendment to Oregon Revised Statute (ORS) 757.612 establishing public-purpose funding to be used for new cost-effective local energy conservation, new market transformation efforts, the above market costs of new renewable energy resources, and new low-income weatherization.

The Energy Trust was formed as a nonprofit corporation and began receiving public purpose funds in March 2002 to invest in all areas specified by the new law except for low-income weatherization and for Education Services Districts. The Oregon Public Utility Commission (OPUC) oversees the Energy Trust, ensuring that annually updated performance measures of cost, savings and renewable generation are achieved. For example, for 2006 the OPUC has set forth the performance metric that the overall lifetime levelized utility cost for electric efficiency savings be no greater than 2 cents/kWh and $0.30/therm for natural gas savings.[10]

Of the established 3 percent public purpose charge paid by ratepayers of investor-owned electric utilities in the state, the Energy Trust receives 57 percent for electric efficiency and 17 percent for renewable-energy programs. At 2004 retail rates this funding level translates to nearly $34 million per year overall and 0.11 cents per kWh for electric efficiency. This is a level that is in the middle of the range of SBC funds for electric energy efficiency (Kushler 2004, 11). In addition, the Energy Trust has a separate agreement with one investor-owned natural gas utility to fund gas efficiency programs within their service territory.

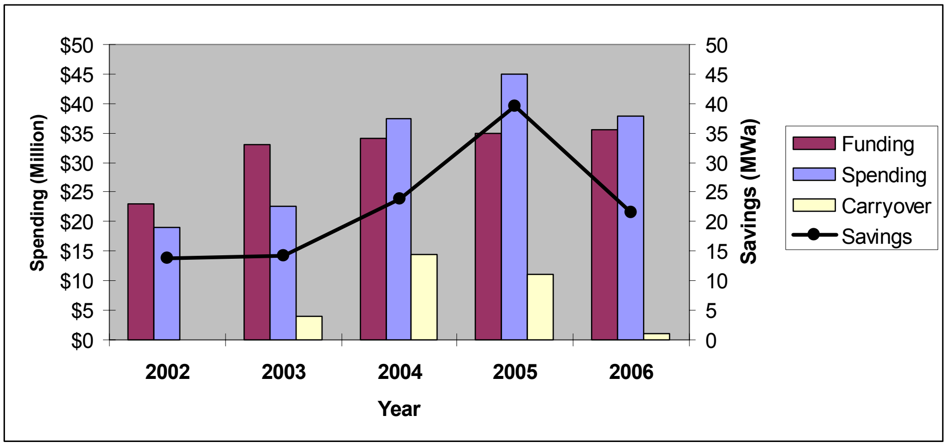
The 3 percent charge is a fixed rate, independent of an assessment of cost-effective efficiency potential and the amount of funding required to achieve the savings; it was created through a legislative decision process. Most SBC organizations have similar funding mechanisms; hence, limited funding is a significant issue nationwide.

Energy Trust Track Record

Like many of the eighteen SBC organizations with energy efficiency programs reviewed by ACEEE, the Energy Trust of Oregon was in the process of accelerating to full acquisition levels in 2003 (Kushler 2004). Since the Energy Trust began efficiency programs in 2002, it has quickly increased savings acquisition from 13.9 MWa in 2002 to an estimated 39.6 MWa in 2005. For 2006, the Energy Trust forecasts savings of 21.5 MWa. While ramping up operations, available funding exceeded spending resulting in funding carryover from year to year. By program year 2006, however, funding carryover for electric efficiency programs from previous years dropped to only $1.5 million. The cash flow issues have reversed from the early years such that now there is not enough funding to meet program demands. Figure 3 summarizes recent Energy Trust electric efficiency funding, expenditures, carryover and savings as well as forecasts for 2006. The Energy Trust forecasts gas efficiency funding to reach a similar plateau in 2007. It is important to note that the average utility cost of saved electricity has been below 2.0 cents per kWh.

[10] Utility cost refers to cost to the utility system. It does not include costs paid by other parties such as home owners or business owners.

Figure 3. Energy Trust Electric Efficiency Spending



Source: Energy Trust 2006

The steep program growth rate can be attributed to the Energy Trust's innovative approach to program implementation. From the beginning the following strategies were established to quickly ramp up programs.

- Program Management Contractors (PMCs) model. The Energy Trust has achieved cost-effective high-volume program participation by entering into contracts with PMCs who design, market and implement programs in residential, commercial, and industrial sectors for new and existing applications
- PMCs draw on the skills of established contractors who are trained in Energy Trust program objectives and offerings for customers. This web of knowledge and skills reaches many customers and supports an effective delivery infrastructure
- Program Development Contractors (PDCs) work specifically with industrial customers. They are well connected and knowledgeable of customer needs and Energy Trust objectives
- Advisory councils for conservation and renewable resources were established to draw on the knowledge, expertise and perspectives of regional experts

In addition to this operational framework, the Energy Trust has tailored projects to reduce costs and increase savings through decreasing program incentives where program demand is high, seeking out a few large very low cost savings projects, and installing both electric and gas measures at a site through a single delivery structure.

More Low-Cost Conservation is Available in Energy Trust Territory

Although it appears that the Energy Trust is now "in balance" by spending annual revenues and achieving cost-effective savings without significant carryover funds from year to year, there is more achievable conservation in the territory than there is funding to capture that savings. Program participation and savings could increase if funding were not constrained. Two strong indicators are the demand for program services and Energy Trust's energy conservation resource assessment.

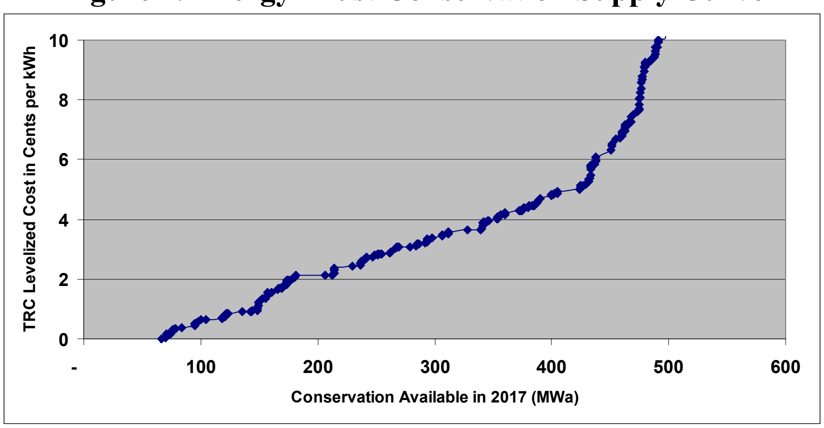
Demand for Program Services

As of early 2006, planned projects for existing commercial, industrial and multi-family residential customers have nearly committed available budgets. The practical effect of this is to force viable and ready projects beyond 2006 and into 2007. This strong customer interest can be mostly attributed to the successful program delivery framework used to ramp up initial programs very quickly. Program Management Contractors, Program Development Contractors and trade allies have combined their relationships and knowledge of the market with significant incentives and marketing efforts to educate and motivate customers. Within one year the incentives for existing commercial and industrial projects were lowered several times and there are still more interested customers than available funding. Strong demand in 2004 and 2005 was achieved prior to the recent incentive reductions at about half the cost to the utility system of the generation that was being deferred. The Energy Trust expects the utility cost of saved electricity to stay below 2.0 cents per kWh, even at expanded program participation levels.

Energy Trust Conservation Resource Assessment

Although it is difficult to assess how sustained this demand truly is, the Energy Trust's 2006 Resource Assessment is another strong indicator of the amount of cost- effective efficiency remaining. Figure 4 shows the electricity conservation supply curve for the Energy Trust service territory for 2017 for measures with levelized total resource costs between zero and 10 cents per kWh. This assessment portrays a conservation supply curve that is shaped much like the supply curve the Council developed for the larger four-state region.

Figure 4. Energy Trust Conservation Supply Curve



Source: Energy Trust

For the Trust service territory, which is about 22 percent the size of the four-state region, the assessment indicated about 400 MWa of conservation at a levelized total resource cost of 5 cents per kWh or less. Much of the conservation potential is significantly less expensive than current estimates of avoided cost[11]. This cost characteristic is important because much of the

[11] In 2005 wholesale market prices in the Pacific Northwest were in the range of 5.0 cents per kWh (Jourabchi 2005). The Council's base case annual wholesale price forecast for the Pacific Northwest ranges from 3.4 to 4.6 cents per kWh over the next five years (Council 2005, Appendix C).

value of developing conservation early derives from its low-cost relative to future wholesale market prices of power. The larger the difference between cost and market prices, the greater the value of early acquisition.

Marginally more savings could be achieved under current budgets through better leverage of existing efforts. The Energy Trust will continue to leverage efforts by reducing program incentives when it makes sense, by seeking opportunities to pool funding with other agencies and by continuing to take advantage of State tax credits. Although these efforts are necessary and prudent for delivery of low cost savings, they still fall short of meeting the significant remaining demand and capturing the system-wide values of cost and risk reduction.

Potential Solutions to Expand Funding

There are three broad categories for solutions to the limited funding problem in Oregon. The first category is finding new money from non-ratepayers. The second is expanding funding within the system benefit charge. The third approach is augmenting the system benefit charge efficiency funding with ratepayer money if value is demonstrated through a utility Integrated Resource Plan or other regulatory process.

New Money from Those Who Don't Pay the Systems Benefit Charge

There are multiple types of benefits due to energy conservation that are widely recognized and valued. The benefits of avoiding higher costs of new generation, deferring transmission and distribution capital investment, and avoiding energy market risk flow to the power system and are logically funded through the system benefits charge levied on electricity rate-payers. But additional benefits of reduced power plant emissions, or non-electric benefits like water savings, do not flow to the electric system. New sources for funding could be contributed by entities that derive non-electric benefits from electricity conservation. The greenhouse gases and particulates that are not emitted from power plants due to energy efficiency measures are currently quantified in several states and other countries (Sumi, Erickson and Mapp, 2002). If markets develop for avoided carbon dioxide emissions, or if cap-and-trade regulations are put in place, an SBC administrator could receive funding from emitters operating above their cap for acquiring additional conservation.[12] Reduced water consumption and sewer use can be quantified for many energy efficiency measures such as clothes washers, dishwashers, commercial steamers, and pre-rinse spray valves. Water utilities and customers are benefiting from reductions in demand and possibly deferral of capital expansion projects associated with the water delivery infrastructure. SBC funding or marketing activities could be augmented by contributions from water utilities for example. However, carbon-dioxide regulations are not imminent and water-savings benefits are not large.

[12] A method for tracking and verifying energy savings, and corresponding reduced emissions could provide an estimate of the emission reduction value of electricity savings. Regional production dispatch models could be used to estimate the rate of carbon dioxide emitted by the electric grid per kWh during various times of the day and seasons of the year.

Expand Funding Rate for the System Benefit Charge

Focusing on increasing the current percentage of the public benefits charge is another option. This option may be most challenging for a few reasons. The initial funding percentage may have been considered as the highest amount some political, consumer and business leaders were willing to add to ratepayer burden initially and customers may not be ready to pay more without a concerted education effort. If successful in increasing the rate, the issue of not being easy to amend remains. Finding the optimal level of funding relies on many factors that vary over time. Increasing the base funding would be helpful with steady demand, but flexibility on funding such as funding tied to specific demands may be a more appropriate. A legislative concept considered recently in Oregon would grant the Public Utility Commission authority to periodically revise the level of the system benefits charge within limits.

Augment System Benefit Charge with Rate-Payer Funding Demonstrated via IRP

The third category of new funding options is for the SBC to take on the role of providing cost-effective demand side options for utilities as a part of the utility Integrated Resource Plan (IRP) implementation. This option combines the established efficiencies of the SBC in implementing efficiency programs with a utility's ability to target its system needs through analysis of risk-mitigation value.

An important aspect of this hybrid approach comes from one of the key findings from the Council's fifth power plan. Steady funding of energy efficiency is valuable even in times of low wholesale energy prices. System benefit charge funding for energy efficiency provides a steady, but relatively low level of investment. One attractive feature of a hybrid funding approach is that the SBC establishes a floor on activity and IRP-based augmentation can act as an accelerator or throttle as warranted.

This approach could create some additional administrative issues for both parties. Like other additional-funding options, the funding for IRP established needs would have to be tracked separately along with the savings provided. Depending on the suite of measures and programs needed, there could be significant economies of scale in expanding existing programs with the utility expense being the marginal cost of the additional savings. The existing web of contractors and trade allies can be leveraged for additional low-cost savings. On the other hand, this option would require significant coordination between the two entities for planning, marketing, and delivery. Coordination activities already exist between the entities and could readily be expanded, but these may become more costly and cumbersome as activity overlap increases.

Conclusion

The primary findings from the Council's fifth plan with regard to conservation are that there is value both in acquiring it *sooner* and acquiring *more of it* than might appear cost-effective compared to estimates of avoided costs. This finding has strategic implications for the deployment of conservation resources as part of an overall resource portfolio. The first implication is that a minimum level of conservation should be pursued even in times of low wholesale prices. That is, there should be a "floor" on annual conservation acquisition levels. A second implication is that mechanisms are needed to accelerate low-cost conservation resource acquisitions when they are clearly available.

In those areas of the US that have undergone electric industry restructuring, one of the often-mentioned virtues of establishing system benefits charge mechanisms to develop energy efficiency is that they "stabilize" investments and program funding levels. With some notable exceptions, this is true.[13] The problem is that system benefit funding intended as a floor has become a ceiling -- and a low ceiling at that. These systems do not have the flexibility to adjust their acquisition targets to reflect the values of acquiring conservation sooner and "buying up the supply curve" identified in the Council's fifth plan. In light of this problem it appears that it may be advantageous to consider a marriage between an SBC that sets a minimum level and keeps up the pace in times of low market prices and an IRP model or state rulemaking mechanism that can adjust funding to levels appropriate to capture the full value of conservation.

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[13] The amount of several "system benefit" funds has been reduced by actions taken to shore up significant shortfalls in state general fund budgets.