



July 13, 2007

Mark Walker  
Director of Public Affairs  
Northwest Power & Conservation Council  
851 SW 6th Avenue, Suite 1100  
Portland, Oregon 97204-1348

Re: *Achievable Savings: A Retrospective Look at the Northwest Power and Conservation Planning Assumptions*, Council Document 2007-7

Dear Mr. Walker:

On behalf of over 60,000 members in the four-state region, the Sierra Club appreciates the opportunity to comment on the above-captioned paper prepared by the Northwest Power and Conservation Council.

The Sierra Club has been involved with Northwest electric system planning and the design and implementation of energy efficiency programs and conservation strategies for many decades. *Achievable Savings* is a compelling summary of the fact that energy efficiency programs planned and implemented under the Council's guidance for the last quarter century have produced more savings, faster, and at less cost than projected.

We draw a couple of key lessons from this. It is important to continue taking a thorough and defensible view of the opportunities for future energy efficiency development. But the current study along with other lines of evidence and experience suggest it is now time for the region to move to a higher level of ambition in acquiring the entirety of available and cost-effective electric energy efficiency, as required by the 1980 Northwest Power Act.

Accordingly we join with many other organizations in calling for the Council to revise the Fifth Northwest Electric Power and Conservation Plan to increase the breadth and magnitude of the efficiency resource targets.

This is due to two factors for which great credit should go to the Council, the Bonneville Power Administration, the region's utilities, our state utility commissions and independent bodies like the Northwest Energy Efficiency Alliance and the Energy Trust of Oregon.

First, the Council has always been thoroughly prepared in its assessment of efficiency resource availability and timing, and has wisely chosen expansive but still moderate targets.

Second, Bonneville, the utilities and other entities have designed and fielded a diverse portfolio of programs that, on the whole, have met and exceeded expectations.

As *Achievable Savings* clearly shows, the barriers to achieving the higher available rates of efficiency are not technical or market oriented but instead institutionally bound. The ramp rates and market penetration achieved in many sectors would have been much faster even than it was, had the region not fallen back on its commitment to efficiency not only in the late 1990s but also periods before and since.

For example, Figure 9 of the report shows that annual utility program efficiency savings, after rising dramatically in 2001-2002 following the west coast power crisis, have actually fallen since then. In 2001-2002 the region was in a moderate recession and energy prices were considerably lower than today. Yet overall efficiency investment has slackened rather than accelerated during a period of rising market prices and regional economic expansion.

The Council must challenge institutions in the Northwest, including Bonneville, utilities, commissions, state governments and the private sector, to raise the level of performance on energy efficiency and to decrease short-term fluctuations in institutional support. The advent of organizations like NEEA and the Energy Trust provide just two examples of structural approaches to dealing with this problem, but there are many others changes that can be made to increase efficiency acquisitions and decrease the variability of effort and investment that has hindered the uptake of efficiency measures again and again.

We also wish to point out a new and important factor which should accelerate the region's acquisition of efficiency. On June 5 the Alberta Energy and Utilities Board issued its annual energy production assessment and concluded publicly for the first time that natural gas production in the province peaked in 2001. See *Alberta's Energy Reserves 2006 and Supply/Demand Outlook 2007-2016 (ST98-2007)*, [http://www.eub.ca/docs/products/STs/st98\\_current.pdf](http://www.eub.ca/docs/products/STs/st98_current.pdf)

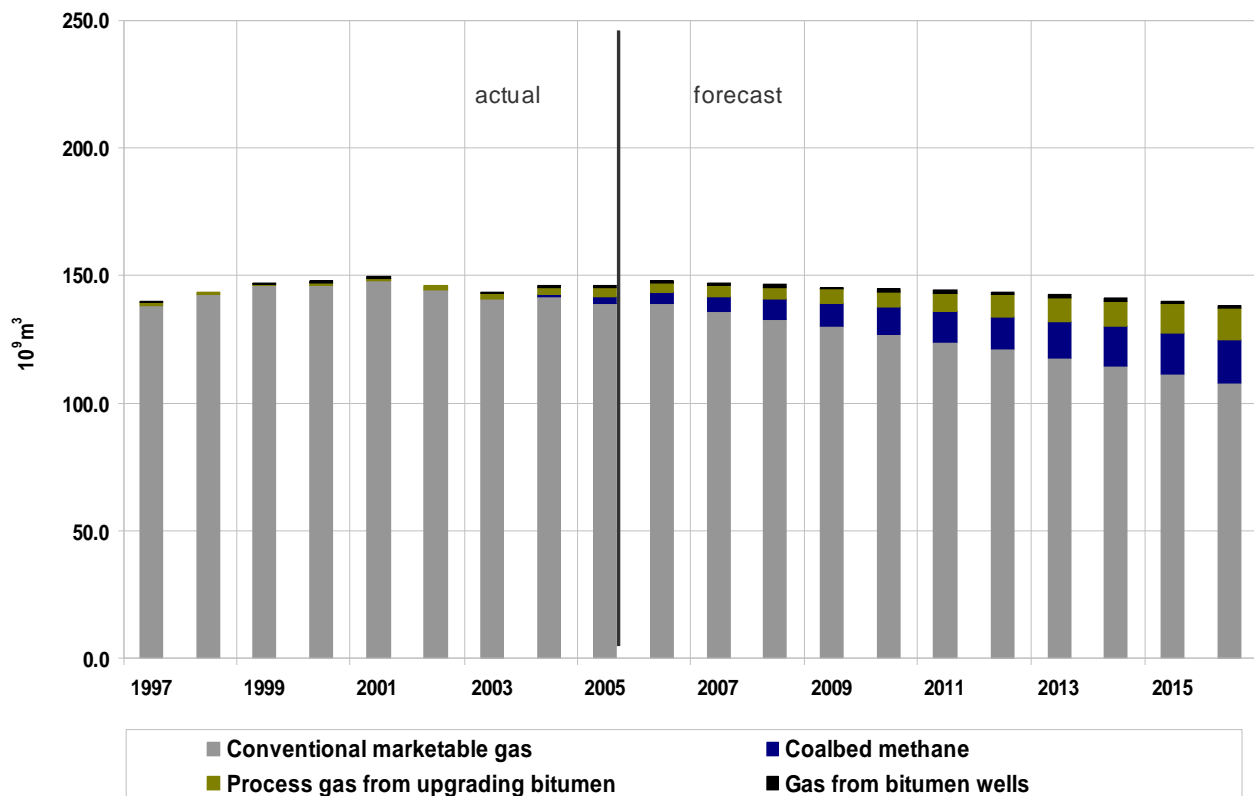
Figure 5.27 from the AEUB report, reproduced below, clearly shows how total gas production in the Western Canada Sedimentary Basin and minor producing areas in the province will decline from now into the future, even if heroic efforts are made to produce gas from coalbed methane (CBM) and as a byproduct of oil sands production (most of which will be used on-site in bitumen processing).

It is true that production is still slightly increasing on the western side of the WCSB in Alberta and northeast British Columbia, where the Northwest states get the vast majority of our supply. However, with well productivity and longevity subsiding, that production too will peak during the next few years. Thus, while it is unlikely the Northwest faces physical shortage from this crucial resource, we are undoubtedly facing an extended period of rising prices, as competition for a decreasing gas supply increases from Canadian and US domestic markets and from process heat for oil sands production in Alberta itself, which is expected to expand dramatically in the next decade.

This affects not only direct gas use for residential and commercial heating and cooling and for industrial use, but also the relatively modern fleet of gas-fired combined-cycle combustion turbines in this region. Over 4,000 MW of new combined-cycle gas capacity have been added in the Northwest in

the last decade, whereas efficiency acquisitions were around 1,000 average MW and new wind around 1,700 MW of capacity. The comparisons are obviously not direct because of the differing availability of each resource, but the dominance of new gas in the regional mix is clear. And it is important to note that 75% or more of the region's total gas supply comes from the WCSB, and nearly all of the supply for gas combustion turbines which are mostly located near the pipelines from Canada.

**Figure 5.27. Total gas production in Alberta**



Source: *Alberta's Energy Reserves 2006 and Supply/Demand Outlook 2007-2016*

Therefore, accelerating efficiency resource acquisition to the higher levels now indicated by the Council's research also will have the effect of hedging against price risk, allowing the region to “buy long” for existing gas combustion turbines while avoiding the price spikes caused by disruptive market breaks during peak periods.

Furthermore, this underlines the importance of boosting efforts to acquire peak-shaving efficiency measures, since gas combustion turbines are dispatched most frequently for peaking purposes.

Otherwise there will be increasing pressure to overuse and shift scheduling of hydroelectric production to the detriment of fish, wildlife and other environmental effects on the region's hydro system, and increase the financial incentive for switching back to baseload coal. In this case the penalty for not acquiring the maximum available efficiency resource is dual, because coal is less dispatchable and far

more polluting than gas.

This leads to the final reason for accelerating the acquisition of our region's efficiency resources, which is to reduce the emission of greenhouse gases as quickly as possible. The basic reasoning here is well established, but in essence, any unit of efficiency will “back out” and defer the emission of carbon dioxide and other greenhouse gases from a coal, gas or cogeneration facility.

The Northwest has the opportunity to show the world not only that the contribution of energy efficiency to a regional grid is reliable and robust, but that it also provides the greatest decrement of greenhouse gas emissions at the lowest price and highest value available. To the extent that earlier adoption of the available efficiency resource is accomplished and recognized in the new greenhouse gas registry, the more our region will benefit in the future as the regulation and pricing of carbon and other greenhouse gas emissions proceeds.

Thank you for your interest in our comments. We again ask that the Council move with all deliberate speed to bring the efficiency targets in the Fifth Regional Plan up to the levels that are so clearly merited by your research.

Respectfully submitted,

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