Northwest **Power** and **Conservation** Council

March 4, 2014

MEMORANDUM

TO: Power Committee

FROM: Charlie Grist

SUBJECT: Briefing on Bonneville Tool for Utility Conservation Financial Impact

The financial impacts of energy efficiency investments continue to be a topic of high interest in the region. In August of last year Bonneville's Vice President of Energy Efficiency, Richard Génecé, briefed the Council on the agency analysis of the financial impact of conservation on the Bonneville system. That analysis addressed the Bonneville system perspective by comparing the cost of efficiency programs to the value of efficiency achievements over the past 10 years. It showed a net benefit of over one billion dollars in 2011 using Mid-Columbia spot price as a proxy for value.

But retail utility customers of Bonneville have different financial perspectives based on their individual resource positions. To address the retail utility perspective, Bonneville has developed a Utility Service Area Conservation Financial Impact Model. The purpose of this tool is to help utilities get a clear financial picture of efficiency investments tailored to utility-specific conditions including impacts on revenues.

Matt Tidwell, policy specialist, spearheaded the Bonneville project to develop the utility-level tool. He will brief the Power Committee on the tool and how it is being used today by Bonneville's customers.

851 S.W. Sixth Avenue, Suite 1100
Portland, Oregon 97204-1348
www.nwcouncil.org

Steve Crow
Executive Director

503-222-5161
800-452-5161
Fax: 503-820-2370

BPA's Case for Conservation:

Assessing the Utility Financial Impact and Consumer Benefits of Conservation

Matt Tidwell
Policy Specialist, BPA

What's the Story Morning Glory?

- For retail utilities:
  - Retail power rates are a big deal
  - A lot is going on
  - All politics is local

What's the Story Morning Glory?

- For consumers:
  - The benefits of conservation are no small thing
    - Money left in peoples' pockets
    - Localized benefit of the resource = jobs!
  - Don't get lost in the concern over "non-participants"

"Utility Service Area Conservation Financial Impact Model"

- Goal:
  - Provide a financial tool based on utility-specific inputs and assumptions to help customers assess the quantitative impacts of conservation from a service area perspective (the utility and its end-users)
- Main Take-away:
  - The model demonstrates a net benefit to the utility service area despite any potential negative impact to the utility from a loss of kWh sales due to conservation*

*Assumes "reasonable" inputs and assumptions

Quantitative Example

Utility "A" acquires a cumulative total of ~480,000 MWh between FY2014 and FY2028, reducing their forecasted FY2018 load by ~4.4%

Utility Revenue Requirement Impacts			% of Cumulative Power Revenues	$/MWh
Conservation Investment		$ 11,120,393	0.4%	$14.75
EEI Funding Used	-	$ 15,774,638		
Conservation Investment Less EEI Used		$ (4,654,245)	-0.2%	($6.18)
Avoided Wholesale Power/Transmission Costs	-	$ 15,697,045	0.5%	$20.83
Lost Retail Revenue	+	$ 33,933,716	1.1%	$45.02
Non-Electric Energy Utility Benefits	-	$ -	0.0%	$0.00
Net Cost to Utility Revenue Requirement		$ 13,582,426	0.5%	$18.02
End Users Impacts				
End Users' Power Bill Savings		$ 33,933,716	1.1%	$45.02
End Users' Conservation Investment (Less Rebates)	-	$ 15,775,997		
Non-Electric Energy End User Benefits	+	$ -		
Net Savings to End Users		$ 18,157,719		
Net Service Territory Benefit Over 15 Years		$ 4,575,293		

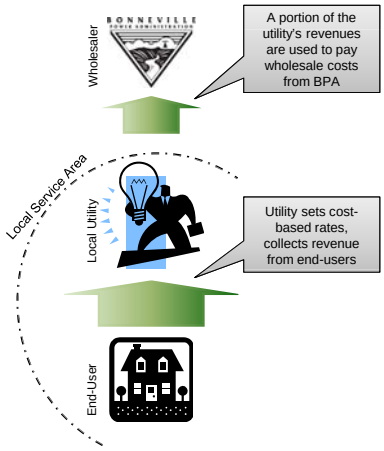
Adjustment to the Energy Rate Only	
FY 2028 Rate Increase	4.30%
Annualized Rate Increase	0.29%

Adjustment to the Customer Charge Only	
5.90%	FY 2028 Rate Increase
0.39%	Annualized Rate Increase

Usage To-Date

- Central Lincoln PUD
- City of Blaine
- PNGC Power
- Emerald PUD
- City of Richland
- Springfield
- Salem
- Hood River
- Mason 3
- City of McCleary
- Clallam
- Port Angeles
- Oregon Trail
- Wells Rural
- Mission Valley
- Flathead
- Vigilante

Cash Flow of Conservation



- A significant portion of utility revenues are passed through to BPA to pay for wholesale power and transmission costs.
- Conservation has the effect of shrinking both arrows, decreasing utility revenues and payments to BPA.
- By decreasing the cash flow to BPA, conservation allows utility service areas to retain wealth that previously left the community.