NORTHWEST ENERGY EFFICIENCY ALLIANCE

April 16, 2009

TO: NEEA Board of Directors

FROM: Claire Fulenwider, Executive Director

SUBJECT: 6th Power Plan and the 2010-2014 Business Plan – FOR YOUR INFORMATION

Background. As you know, The Northwest Power and Conservation Council is in the final stages of drafting the 6th Northwest Power Plan. A draft of the 6th Plan is scheduled for release in May with a projected final adoption in August.

Although the numbers are still in review, Council staff are projecting that the 6th Plan will identify a very significant conservation resource potential; perhaps as much as 5,000 aMW to be captured over the next 20 years. This very large target presents real challenges to the region and to NEEA's 2010-2014 Business Plan.

Overlay with the 2010-2014 Business Plan. In order to better understand the challenge presented by the 6th Plan, staff has reviewed the most recent supply curve documents from the Council and mapped them against the markets identified for direct supporting activities in the 2010-2014 Business Plan. This comparison consisted of the following steps:

1. Identify 6th Plan efficiency measures and technically-achievable energy savings potential with cost-effectiveness up to 100 mills/kWh[1].
2. Map these measures against 2010-2014 Business Plan market activities.
3. Aggregate savings where the Business Plan provided direct support to the market that delivers the efficiency measure.

For this exercise, no judgment was made regarding what fraction of a specific measure would be supported by Business Plan activities or what entity should take a lead role in securing the savings in these markets. It is intended to provide a general sense of "coverage" of the key 6th plan efficiency opportunities and to identify early "gaps" in comparison to the 2010-2014 Business Plan.

Summary Outcomes. The draft data from the Council suggests a total regional technically achievable potential of just under 5,500 average megawatts; roughly double what was identified in the 5th Power Plan. Of this potential, NEEA's projected activities for the 2010-2014 Business Plan provide support for markets that would affect roughly 3,300 aMWs or just about 60% overall. However, when split into lost opportunities versus discretionary resources, NEEA provides significantly more support for lost opportunities (79%) and less for discretionary resources (40%). This is probably appropriate given that

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[1] Council staff suggest that marginal costs for screening efficiency measures are likely to be around 100 mills/kWh.

529 SW Third Ave., Suite 600, Portland, Oregon 97204
www.nwalliance.org | (tel) 503-827-8416 | (fax) 503-827-8437

discretionary resources tend to be better targets for local utility programs (e.g. weatherization, lighting retrofits). Table 1 below illustrates the breakdown by resource type.

Table 1. Summary Mapping of 6th Plan to 2010-2014 BP

	6th Plan Resource Potential <100 mills/kWh	Supported by NEEA 2010-2014 Business Plan	%
Total Lost Opportunities	2894	2275	79%
Total Discretionary	2588	1042	40%
Total	5482	3317	61%

The attachment includes a more detailed breakdown of the comparison by sector and resource type.

Gap analysis. In order to better understand the gaps between the 2010-2104 Business Plan and the 6th Plan, measures were sorted by total potential into "top 10" lists for each sector separated into lost-opportunity and discretionary resources. These top-10 measures represent 84% of the total potential in the 6th plan.

In lost opportunity markets, seven of the top-10 residential and 8 of commercial measures are supported by the 2010-2014 Business Plan. For discretionary resources, only 2 residential and 2 commercial measures are supported. For industrial, 3 lost opportunity and 6 discretionary top-10 measures are supported.

A more detailed comparison of specific "top 10" measures in the 6th Plan versus support in the current 2010-2014 Business Plan are shown in Table 2 in the Attachment.

Conclusions. Although brief, this mapping exercise indicates that there is already fairly good alignment between the 6th plan and the 2010-2014 Business Plan. This is especially true for lost-opportunity resources that are traditionally better targets for upstream focused activities or codes and standards efforts. This is less true for discretionary markets, although NEEA has targeted some high-priority markets in these markets.

Next Steps. Staff will be working with BPA in a joint exercise to further understand the details of the supply curves and refine the levels of support included in the Business Plan. NEEA and BPA will call together a meeting of regional stakeholders to review this effort in May or early June following release of the Draft Plan. This first meeting will be followed by a second that will discuss likely roles and responsibilities. NEEA will integrate the outcome of these meetings as one part of the portfolio management process that will be developed over the rest of this year.

Attachment

ATTACHMENT

Figure 1. 6th Plan Technically Achievable Energy Savings Potential by Sector and Resource Type Mapped to 2010-2014 Business Plan Market Support

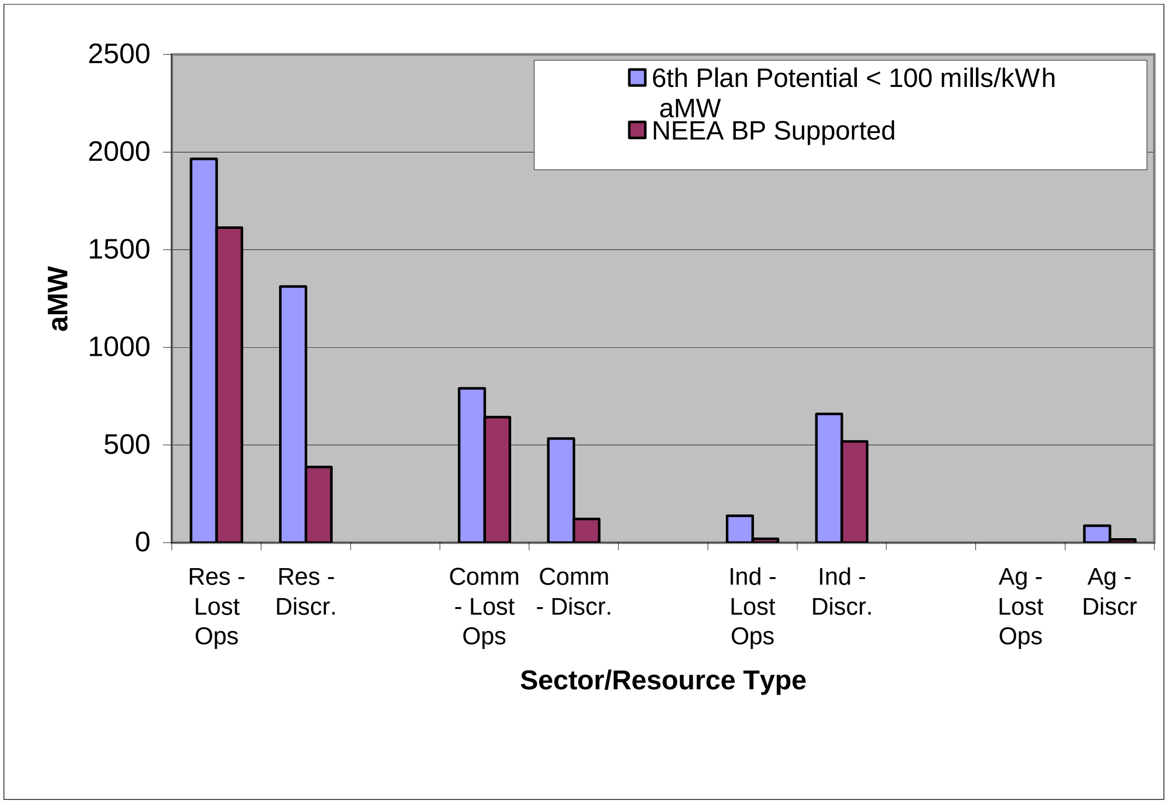

Table 2a Residential Lost Opportunities - Top 10 Measures

	Measure description	Resource Potential < 100 mills/kWh aMW	Supported in 2010-2014 BP ?	Resource Potential Supported by BP aMW
1.	Energy Star Televisions	511	Yes	511
2.	HPWH	500	Yes	500
3.	Energy Star Residential Desktop Computers	178	Yes	178
4.	HVAC HP Upgrade	146	No	
5.	Clothes Washer	110	Yes	110
6.	Energy Star Commercial Desktop Computers	105	Yes	105
7.	Energy Star Set Top Boxes	91	No	
8.	Shell Upgrade - New SF	68	Yes	68
9.	Efficient DHW Tanks	57	No	
10.	Refrigerator	41	Yes	41
	TOTAL	***1806***	***7***	***1512***

Table 2b Residential Discretionary - Top 10 Measures

	Measure description	Resource Potential < 100 mills/kWh aMW	Supported in 2010-2014 BP ?	Resource Potential Supported by BP aMW
1.	HVAC HP Conversion	370	No	
2.	HVAC Supplement (DHP)	235	Yes	235
3.	ResWX SF	228	No	
4.	Lighting	152	Yes	152
5.	ResWX MF	135	No	
6.	ResWX MH	104	No	
7.	Showerheads	86	No	
8.	Solar DHW	0	No	
9.	Solar PV	0	No	
	TOTAL	***1311***	***2***	***387***

Table 2c Commercial Lost Opportunities - Top 10 Measures

	Measure description	**Resource Potential < 100 mills/kWh aMW**	**Supported in 2010-2014 BP ?**	**Resource Potential Supported by BP aMW**
1.	Lighting Power Density-NR*	290	Yes	290
2.	Exterior Building Lighting-NR	61	Yes	61
3.	Integrated Building Design-New	57	Yes	57
4.	Lighting Controls Interior-NR	52	Yes	52
5.	Packaged Refrigeration Equipment-New	48	No	
6.	Lighting Power Density-New	42	Yes	42
7.	Parking Lighting-NR	36	Yes	36
8.	Street and Roadway Lighitng-NR	29	Yes	29
9.	Roof Insulation-NR	25	No	
10.	Premium Fume Hood-New	20	Yes	20
	TOTAL	***661***	***8***	***588***

*NR – denotes “natural replacement” on burn-out or tenant improvement cycles

Table 2d Commercial Discretionary - Top 10 Measures

	Measure description	**Resource Potential < 100 mills/kWh aMW**	**Supported in 2010-2014 BP ?**	**Resource Potential Supported by BP aMW**
1.	Grocery Refrigeration Bundle-Retro	122	No	
2.	Controls Commission Complex HVAC-Retro	107	Yes	107
3.	Computer Servers and IT-Retro	88	No	
4.	Network PC Power Management-Retro	78	No	
5.	Municipal Sewage Treatment-Retro	37	No	
6.	Lighting Power Density-Retro	32	No	
7.	Demand Control Ventilation-Retro	18	No	
8.	Package Roof Top Optimization and Repair-Retro	14	Yes	14
9.	Windows-Retro	13	No	
10.	Municipal Water Supply-Retro	13	No	
	TOTAL	522	2	121

Table 2e Industrial Lost Opportunities - Top 10 Measures

	Measure description	Resource Potential < 100 mills/kWh aMW	Supported in 2010-2014 BP ?	Resource Potential Supported by BP aMW
1.	HighBay Lighting 1 Shift	4	No	
2.	HighBay Lighting 2 Shift	3	No	
3.	HighBay Lighting 3 Shift	23	No	
4.	Efficient Lighting 1 Shift	4	No	
5.	Efficient Lighting 2 Shift	3	No	
6.	Efficient Lighting 3 Shift	24	No	
7.	Lighting Controls	8	No	
8.	Motors: Rewind 20-50 HP	1	Yes	1
9.	Motors: Rewind 51-100 HP	1	Yes	1
10.	Motors: Rewind 101-200 HP	1	Yes	1
	TOTAL	***74***	***3***	***3***

Table 2f Industrial Discretionary - Top 10 Measures

	Measure description	Resource Potential < 100 mills/kWh aMW	Supported in 2010-2014 BP ?	Resource Potential Supported by BP aMW
1.	Air Compressor Energy Management	16	Yes	16
2.	Air Compressor Equipment1	7	No	
3.	Air Compressor Optimization	19	Yes	19
4.	Efficient Centrifugal Fan	3	No	
5.	Fan Energy Management	10	Yes	10
6.	Fan Equipment Upgrade	29	No	
7.	Fan System Optimization	40	yes	40
8.	Pump Energy Management	11	Yes	11
9.	Pump Equipment Upgrade	32	No	
10.	Pump System Optimization	26	Yes	26
	TOTAL	***193***	***6***	***122***