Northwest Power and Conservation Council

October 17, 2006

MEMORANDUM

TO: Power Committee

FROM: John Fazio, Senior System Analyst

SUBJECT: Pilot Capacity Standard Issue Paper

At its October 18th meeting, the Council will be asked to approve releasing an issue paper on a proposed pilot capacity standard for the Pacific Northwest. The issue paper (Council document 2006-18), a decision memorandum and Adequacy Forum work plan are included in the full Council packet. A power Point Presentation is included in the Power Committee packet.

The proposed capacity standard represents the second phase toward the completion of action items ADQ-1 and ADQ-2 in the Council's 5th power plan. The first phase was the Council's adoption of a regional energy standard in May of this year. The pilot capacity standard is the result of many months of effort by the Northwest Resource Adequacy Forum. The Forum consists of a technical committee, directed by Wally Gibson, Mary Johannis (BPA), and John Fazio, and a policy steering committee chaired by Tom Karier and Paul Norman (BPA). In conjunction with the energy standard and the implementation process (currently released for public comment), the capacity standard is an extremely significant step for the region. The Forum believes that the capacity metric is appropriate and that the initial capacity targets are reasonable for the time being. However, the Forum has strongly suggested that the targets for both the energy and capacity standards be reviewed at least once a year.

This Power Committee agenda item provides the Power Committee an opportunity to discuss the issue paper and develop a recommendation to the full Council to release the issue paper for pubic comment.

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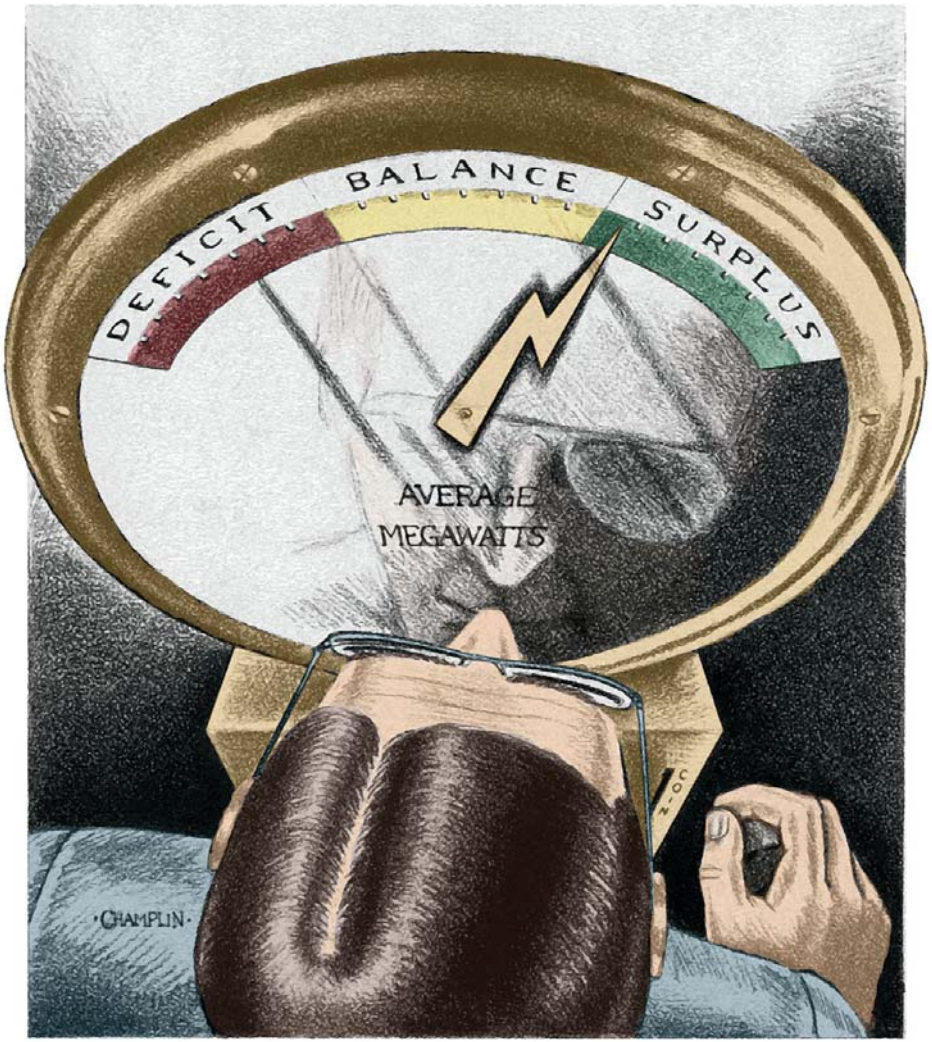

Pilot Capacity Standard

Power Committee

Helena, MT

October 17, 2006

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Proposed Capacity Metric

- Surplus generating capacity
- over the expected peak load,
- over the peak load duration period,
- in units of percent, also referred to as the *Surplus Sustained Peaking Capability* or the *Planning Reserve Margin (PRM)*

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Capacity Target Components
"Building Block" Approach

- A portion to cover operating reserves
- A planning adjustment reserve
- A portion to cover adverse temperature

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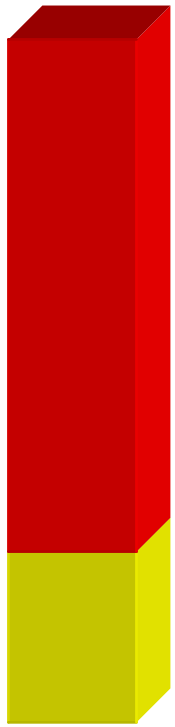
Proposed Winter Capacity Target

Target: 25%



4% for
Planning adjustment reserves

15% for
Adverse temperature reserves

6% for
Operating reserves

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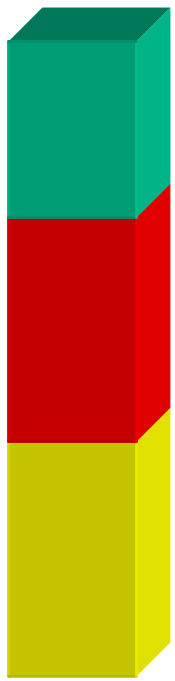
Proposed Summer Capacity Target

Target: 19%



7% for
Planning adjustment reserves

6% for
Adverse temperature reserves

6% for
Operating reserves

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Assessment of the Capacity Reserve Margin

Op Year 2007	December	July
Hydro (’37)	17,500	18,200
Hydro Flex	2,000	1,000
Non-hydro	10,400	10,400
Net Imports	-850	-2,500
IPP	3,500	1,000
Wind (15% of cap)	160	160
Spot Imports	3,000	0
Total Resource	35,710	28,260
Exp Daily Load	25,300*	22,000*
Balance	10,410	6,260
Reserve	**41%**	**28%**

*These load estimates come from the GENESYS HELM algorithm.

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Energy vs. Capacity Assessment

Units in MW-days, unless noted	**Current System** L/R = 2,000 LOLP = 0%		**@ Energy Limit** L/R = -1,500 LOLP = 5%		**Note**
	Dec	**Jul**	**Dec**	**Jul**	To simulate a supply that just meets NW energy needs, 3,500 MW of resource generation was removed.
Resources	35,710	28,260	32,210	24,760	
Daily load	25,300	22,000	25,300	22,000	
Balance	10,410	6,260	6,910	2,760	
RM	41%	28%	27%	13%*	
Target	25%	19%	25%	19%	

*At the energy limit (i.e. LOLP = 5%), the summer reserve margin falls below the proposed target.

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July Planning Assumptions vs. July 24th "Observed" Values

	Planning	July 24, 2006	Diff
Hydro ('37)	18,200*	~ 17,200*	- 1,000
Hydro Flex	1,000	1,450	+ 450
Non-hydro	10,400	9,800	- 600
Net Imports	-2,500	-2,500	0
IPP	1,000	0	- 1,000
Wind	160	160	0
Spot Imports	0	0	0
Total Resource	28,260	~ 26,110	- 2,150
Daily Load	~ 22,000**	~ 23,200**	+ 1,000
Balance	6,060	2,910	- 3,150
Reserve	**28%**	**13%**	

*The "planning" value includes 1998 BiOp spill, which is less than current spill operations.

**Using PNW loads based on NWPP estimates instead of the HELM estimates.