Northwest Power and Conservation Council

February 26, 2009

MEMORANDUM

TO: Power Committee

FROM: Ken Corum

SUBJECT: Draft of the demand response section of Chapter 5 of the Sixth Power Plan

This section of Chapter 5 describes the demand response assumptions for the draft Sixth Power Plan and the rationale behind them. The assumptions and rationale are the same as we discussed at the February Power Committee meeting.

The section devotes some space to explanation of the different problems encountered in estimating the available demand response, compared to the corresponding estimation of available conservation savings covered in the preceding section. An appendix to the draft plan will include a more detailed discussion.

Staff would appreciate any comments and suggestions you may have to make this as clear as possible to the multiple audiences we expect to read the Plan.

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Draft Assumptions for Demand Response: Chapter 5 of the 6th Power Plan

Power Committee
March 10, 2009
Ken Corum

Topics

- Numbers same as discussed at Feb. 10 Power Committee
- Explanation of special issues of "supply curve" for demand response
- Explanation of treatment of pricing strategies

Supply Curves for Demand Response

- Not one curve, many
  - Time of year
  - Time of day
  - Number of calls
  - Services (peak service, reserves, load following)
- Cost structure (VC guides dispatch, FC+VC determines cost effectiveness)

Role of Experience

- Compared to conservation, even more important
- Experience leads to more precision BUT
- Limiting estimates to options w/ experience leads to underestimates of long run potential
- Our assumptions try to compensate for lack of experience

Pricing Strategies

- Pricing does affect behavior and is an attractive option BUT
  - Most customers don't have necessary metering yet, and
  - Many parties cautious about equity impacts
- Next topic for Pacific Northwest Demand Response Project

NORTHWEST 6th POWER PLAN

Northwest Power and Conservation Council

Program	Max MW	Fixed cost	Var cost or hr/yr limit	Sum/Winter
DSG	1000	$20-$40 /kW-yr	$175-300 /MWh	Both
AC DLC	200	$60/kW-yr	Limit 100 hr/yr	Summer
Irrigation	200-250	$50-60 /kW-yr	Limit 50 hr/yr	Summer
SH/WH DLC	200	$100/kW-yr	Limit 50 hr/yr	Winter
Aggregators	300	$80/kW-yr	$150-200 /MWh	Both
Interruptible Contracts	600	$90/kW-yr	Limit 40 hr/yr	Both
Demand Buyback	400	$5-10 /kW-yr	$150-$300 /MWh	Both

NORTHWEST 6th POWER PLAN

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