

I. Summary of Meeting

The meeting was held from 9:30am to 4pm. There were 32 attendees in person and an additional 14 attending via GoToMeeting. Detailed minutes can be found [here](#). The next CRAC meeting will be held November 13, 2014 from 9:30am to 4pm.

The primary focus of the meeting was for members to review and advise on some of the high level questions Council staff are having as they develop the supply curves. The questions and the disposition of each question are discussed below, followed by a summary of other items presented. The final agenda item, BPA's presentation of 6 Going on 7 - Market Research Results, did not get covered and will be postponed to the next meeting.

II. Key questions posed to CRAC members:

- How to account for rapid changes in solid-state lighting?
- How should we account for the 2020 provisions of the EISA general service lighting requirements?
- Which behavior-based measures should go into the supply curve and how to account for persistence?
- How to incorporate consumer electronics?
- How to account for federal tax credits?
- How to account for water spreading with scientific irrigation scheduling?
- What financial sponsor parameters to use?

III. Disposition of each question

A. *Solid-state lighting*

Problem statement: Plan generally assumes a frozen efficiency baseline. However, SSL is changing very quickly and thus the frozen baseline will likely underestimate savings and overestimate cost.

Committee response: Most attendees were agreeable to the proposal of forecasting cost and efficacy to 2017 (based on PNL work) and freezing for remainder of Plan period.

B. *2020 EISA general service lighting requirement*

Problem statement: Federal law requires increase in efficacy of general service lighting to 45 lumens/watt in 2020. Currently CFLs and LEDs are only technologies to meet this minimum. As such, residential lighting program savings will decrease starting in 2020. Since incandescent lighting has short lifetime (1-2 years), what is the value of continuing programs for 2016-2019 when savings are short-lived?

Committee response: Although some members had concern about the savings from 2016-2019 driving utility targets, most felt the utility programs provide benefit to maintaining momentum for high-quality bulbs and ensuring 2020 requirements occur. There was interest in quantifying the value of this and in determining the cross-over point where early replacement would not be cost effective.

C. *Behavior-based measures*

Problem statement: Do these types of measures count as energy efficiency, as defined by the Power Act; are they “forecast to be reliable and available within the time it is needed”.

Committee response: Members had different opinions on how to proceed regarding behavior measures. Some members did not have any concerns about including more behavioral measures; others felt it was premature as these programs are not a reliable resource. The staff proposal that the qualifier to ensure “savings are persistent” was accepted, but members were not sure how to define “persistent”. Many members were comfortable with behavioral measures in Industrial and Agriculture, but less so for Commercial and Residential programs. Smaller utilities were more hesitant, particularly in having it required in conservation target.

D. *Consumer electronics*

Problem statement: As discussed with SSL, the power plan generally assumes a frozen efficiency forecast. Is this appropriate for consumer electronics where the product turnover is high and efficiency of products is increasing rapidly? The focus for the discussion was laptops, desktops, monitors, network PC power management measures.

Committee response: The CRAC was generally amenable to using the current ENERGY STAR specifications to determine the savings, recognizing that the saturation of equipment changes with time (i.e. customers moving from desktops to laptops to tablets).

E. *Federal tax credits*

Problem statement: Three measures generally considered under conservation (ground-source heat pumps, rooftop solar PV, solar water heaters) have a federal tax credit of 30% of cost, currently due to expire 12/31/16. Should we include this tax credit in our analysis? Generation resources do include, but historically conservation resources have not.

Committee response: The CRAC generally felt it was not worth the effort to include these tax credits for the single year in the planning period they would be available (2016), and were not concerned about the inconsistency with generation.

F. Water spreading

Problem statement: In the Sixth Power Plan, the potential from scientific irrigation scheduling (SIS) was based only on crops grown in the Columbia Basin Ground Water Management Area (GWMA). This is because the water saved from SIS in the GWMA is returned to the river. In other regions, the water saved from SIS may be used for other crops or by other farmers (water spreading), and thus produce no net change in load. Should water spreading be considered conservation or a non-energy benefit?

Committee response: The CRAC members thought further discussion around this issue is warranted as the agriculture experts were not present for the meeting. Most felt including potential savings for SIS on all irrigated land was not appropriate, but did not know where the line should be drawn.

G. Financial parameters

Problem statement: In estimating the levelized cost for conservation resources, the Council assumes the measure cost is borne by multiple parties, each of which pay those costs differently. Namely, end use customers and Bonneville will finance a portion of those costs through loans, while utilities generally expense these costs. Are the sponsor portions Council staff have recommended appropriate? In addition, the Plan will assume an administration overhead cost; historically it has been set to 20%. Is this value appropriate?

Committee response: Utility members would request information from their colleagues on the administration cost. Several CRAC members wondered why conservation resources have separate sponsor costs, while generation resources assume only utility investment, as utilities recoup these costs from the end-use customers in the end. Several members suggested there is an inconsistency between treatment of financing costs between conservation and generation, resulting in a bias against conservation resources. There was a suggestion to use a single cost of capital for all analysis. Others supported using financing costs that are sponsor-specific and reflect the way conservation and generation are presently financed.

IV. Other discussion

The remainder of the CRAC meeting was to discuss the measures included in the Seventh Plan, by sector, highlighting what may have changed from the Sixth Plan. This included a request for additional data to inform assumptions for a wide variety of measures.