
Subject: FW: PacifiCorp draft wind integration study now available for review / conference call scheduled

From: Thomas Brill [mailto:tbrill@utah.gov]
Sent: Thursday, August 26, 2010 5:07 PM
To: IRP Mailbox
Cc: Joni Zenger; William Powell
Subject: Re: PacifiCorp draft wind integration study now available for review / conference call scheduled

The Utah Division of Public Utilities provides the following preliminary findings to the IRP Mailbox regarding the Company's draft wind integration study that was posted on August 12. Overall, the wind integration report is well written and provides useful information.

1. The Executive Summary reads like a technical appendix. The purpose of an executive summary should be to provide a high-level summary. Readability of the Executive Summary could be improved by the addition of an "Introduction" section after the Executive Summary and before the Data Collection section. In general, the Executive Summary should provide the high-level review (the "what"), the Introduction describes the "how," the main sections of the study cover the "why" details, and the technical appendixes locate technical or detailed information that are for the specialist.
2. Errors in tables should be corrected. (At least one table has dollar signs with non-dollar data.)
3. Footnote 3 could be removed. Footnote 3 appears in item (2) following "predicted." Maybe change "predicted" to "predicted variable" in item (2).
4. Many of the report's paragraphs are long and test the patience of the reader. Readability could be improved by breaking some of these paragraphs up into shorter paragraphs.
5. Tables 10 and 11 should be formatted and rounded to the dollar and not presented at one decimal place. (Dollars per MWh at the bottom of both tables should keep the two decimal places.)
6. In the overview description of the data, a simple table presenting wind site correlations would be helpful.
7. The Division has continued concerns that approximately half of the wind data (as illustrated in Figure 1) are developed by the technical advisor rather than by using actual anemometer data that are available. The report indicates that use of such estimated data poses significant methodological hurdles. It is unclear why these hurdles were considered less onerous than the use of actual anemometer data.
8. It is not clear to the Division what the values in Tables 1-3 represent. Are these values averages or estimates? If they are estimates, what is the range of the estimates, are the estimates significant, and what are the confidence levels? In Tables 1-2 the increase in operating reserves are significantly greater on the East side as wind penetration increases. Why?
9. It is not clear to the Division how the wind integration cost from this study will be used in future rate cases or other proceedings.
10. In Table 1A, why is observed max output significantly greater (140-150%) than nominal capacity for High Plains and Foote Creek I?