

Western Area Power Administration Rates
Proposed Rates for Loveland Area Projects Transmission and Ancillary Services
American Wind Energy Association Comments
Final Comments September 11, 2003

Parties joining AWEA on these comments are:

Arcadia Windpower Ltd.—Peter Mandelstam
Bob Anderson, Consultant
Clipper Energy—Peter Stricker
Community Energy—Eric Blank
Disgen—Dale Osborn
Enexco—Paul White
Foresight Energy—Warren Byrne
FPL Energy—Mark Smith
Matt Schuerger, Consultant
Panaero Corp—Don Hardy
PPM Energy—Roby Roberts
Roger Hamilton, Consultant
SeaWest—Rob Sims
Western Resource Advocates (a/k/a LAW Fund)—John Nielsen
Western Business Coalition for New Energy Technologies—Craig Cox
Wind on the Wires—Beth Soholt

Introduction

1. We incorporate our previous comments by reference.

AWEA and the wind parties joining these comments appreciate the opportunity to comment on the regulation and frequency response service rate, forecasting and scheduling, and imbalance penalty proposals Western has under consideration as a result of its June 13, 2003 Federal Register notice. AWEA and these parties have previously filed comments on July 14, 2003 and August 6, 2003. We incorporate these previously filed comments in these final comments by this reference, rather than repeating the comments in full here.

2. We support the comments filed by MEAN, by WIWET, and by ORNL and NREL.

The Municipal Energy Agency of Nebraska filed comments in response to the Western's proposed rates for Regulation and Frequency Response Service for Intermittent Renewable Resources, calling them "unreasonable, discriminatory, inconsistent with cost of service principles. . ." and noting that ". . . (w)ithout changes, the proposal will have a devastating financial impact on existing renewable facilities on the WAPA system and stifle future development of renewable facilities on the LAP transmission

system. This seems contrary to the signals being given by regulators and WAPA's own management."

MEAN's comments added that for the ". . .Wind Project at Kimball, using the published assumption that would require WAPA to bill MEAN based on 27% of nameplate and an annual capacity factor of 35%, the cost of this service would be approximately \$5.91/MWh. This proposed charge would increase the cost of wind energy to MEAN's members by more than 10%. This seems quite excessive for one ancillary service for a resource that is being highly sought after by many regulators and politicians."

The comments then listed "MEAN's reasons why the charges are unreasonable, discriminatory, inconsistent with cost of service principles and inconsistent with the goals in the EPAMP:

- The charges are excessive compared to nationally accepted study work.
- The basis for the 27% of nameplate billing unit basis is flawed.
- The charges specifically discriminate against renewable resources, without charging intermittent loads or conventional resources that occasionally go out of service or fail to generate what is scheduled for unexpected reasons.
- The charge conflicts with the scheduling procedures in that the scheduling procedures dictate schedules must be submitted in whole megawatts.
- The proposed charge ignores the fact that the MEAN Wind Project is statistically insignificant in the scheme of LAP's control area operations."

MEAN concluded that, "(t)he proposed charge is inconsistent with goals in the EPAMP, which requires firm power customers to describe efforts to minimize adverse environmental effects of new resource acquisitions."¹

3. AWEA and the wind parties support the comments filed by WIWET.

Speaking for the energy policy officials of Western states and provinces, WIWET is a working group of the Western Interstate Energy Board whose objectives are to identify, evaluate and promote regional policies that support the development of wind resources in the Western Interconnection. WIWET comments that "(s)erious impediments to achieving these benefits are posed by elements of the proposed LAP rates for ancillary services. The proposed rates undermine state efforts," (including resolutions passed by the Western Governor's Association), "to develop the region's renewable resources.

¹ We are concerned about two of MEAN's comments. One suggested UWIG-style studies for every wind project (which we think might be too expensive, time-consuming, and unnecessary). The other comment proposed segregating small wind projects from large ones by ignoring the impact of small projects (we think a proper cost method can recognize the costs of providing regulation and frequency response services for both large and small projects and charge appropriate rates).

Specifically, the Proposed Rate for Regulation and Frequency Response Service for Intermittent Renewable Resources represents a new roadblock to developing wind resources and should be reconsidered because:

- It reflects much higher wind regulation costs than those determined by peer reviewed studies from Oak Ridge National Laboratory and others²;
- It runs counter to NERC guidelines by singling out specific generators for special rate treatment, thus giving less consideration to the net costs of regulating the control area as a whole.

WIWET asked the National Renewable Energy Laboratory (NREL) for assistance in analyzing the actual regulation and imbalance burden posed by wind on the WAPA system. It suggests that Western consider a method that NREL and ORNL have developed to analyze the impact that variable loads and generators have on the regulation requirements of a control area. It proposes to use Western data to analyze the actual impact variable generators are having on regulation requirements and to develop a regulation tariff that accurately allocates the cost of regulation.

WIWET encourages Western to suspend the implementation of its proposed regulation and imbalance rates for intermittent renewable resources and engage in a dialogue with NREL and Oak Ridge Laboratory to devise a sensible ancillary service scheme that allocates costs among generators in a fair and equitable manner.

4. AWEA and the wind parties support the comments submitted by NREL and ORNL.

In addition to offering a solid conceptual basis for determining costs for regulation services and a cogent discussion of the purposes and advantages of both load and generation aggregation at the control area level, the NREL and ORNL comments point out a number of flaws in the proposed Western tariff:

- “The proposed tariff assesses individuals’ regulation burden based upon their energy or demand consumption. Neither energy nor demand has anything to do with regulation burden. Regulation burden arises, instead, from minute-to-minute variability.
- “The proposed regulation tariff for intermittent renewable generators is really a short-term scheduling-error penalty, not an assessment for the resource’s impact on the control area’s regulation needs. It does not recognize the benefits of physical aggregation or reflect how the system is physically operated.
- “It does not recognize the statistical nature of NERC’s CPS 1&2 requirements.

² Studies include: Characterizing the Impacts of Significant Wind Generation Facilities on Bulk Power System Operations Planning, <http://www.uwig.org/UWIGOpImpactsFinal7-15-03.pdf>; “Integrating Wind Output With Bulk-Power Operations and Wholesale Electricity Markets,” Wind Energy 5, 19-36, 2002; Integrating Wind Energy With the BPA Power System: Preliminary Study, <http://www.ehirst.com/PDF/BPAWindIntegration.pdf>, September 2002.

- “The regulation tariff and the WAPA’s July 14 presentation encourage individuals to literally self provide regulation. This is extremely wasteful of regulation resources, bad for the power system, and bad for society.
- “The regulation tariff would assess costs in cases that no costs to WAPA are incurred. This tariff is therefore not cost based but is instead penalty based.

The NREL and ORNL comments offer proposals for consideration by Western to address these flaws:

“We have developed a regulation analysis and allocation method that determines the actual regulation burden imposed on the control area by each individual load and non-regulating generator. (Kirby and Hirst 2000-2) The method allocates that total control area regulation requirement based upon the individual’s behavior. It predicts the increased control area regulation requirements that will result if another individual is added to the aggregation. WAPA is already collecting all of the data required to utilize this method. The method has been used to analyze loads and renewable generators. It has been successfully applied in other regions including AEP, BPA, Alberta, CSW, NIPSCO, CAISO, New Brunswick, Ontario Hydro, and Xcel and it has been peer-reviewed.”

The comments continue: “WAPA is in an ideal position to analyze the impact additional wind plants will have on its system. Two wind plants are currently physically located within the WAPA service territory but are dynamically scheduled out of the control area. WAPA has SCADA data available to perform a detailed impact study without the need to invoke hypothetical models. DOE, NREL and ORNL would like to work with WAPA to perform a wind integration analysis and provide the basis for a technically sound tariff.”

5. AWEA and the wind parties respond to the answers Western provided to questions.

On August 6, 2003, AWEA and the wind parties submitted 16 questions to Western. On Monday, September 8, 2003 Western posted their answers to these questions, three days prior to the Western September 11, 2003 comment filing deadline. AWEA and the wind parties respond to the Western answers here.

First, we applaud Western’s willingness to address written questions. By opening up the process of communications to written questions and answers, Western has provided a opportunity for experts to share views and work together toward common goals shared by all—effective identification of costs and rates that lead to efficient use of system resources. We ask Western to vastly expand the benefits of good communication about these issues by delaying their proposed regulation and frequency response rates so that experts can expand their dialogue outside the constraints of the administrative process now in place.

Second, we appreciate the extra work Western’s rate staff did to respond to our questions. Several of the answers were helpful in increasing our understanding of Western’s rate proposals. In particular, the discussion of imbalance services added to

our understanding that, with monthly settlement under rate schedule L-AS4, the imbalance proposal for intermittent resources could actually achieve what Western has suggested it will—not charging penalties for schedule imbalances. We are, however, still concerned about the proposals' impacts on intermittent generators' imbalance costs, given settlement at market rates that are not within the intermittent generators' control, particularly in the absence of an agreed-on approach to scheduling and forecasting.³

Third, we are astonished that Western continues to side step recognition that its method for calculating regulation and frequency response costs is fatally flawed. Our position is clear: average monthly variations in wind output, the basis for Western's assumption of a 27% of nameplate capacity regulation requirement, have no relationship to regulation costs, which arise from the instantaneous balancing of aggregate generation and loads. All of the studies we have cited to Western and all of the implementation of regulation costs in this country and Europe have accepted this premise. Western admits that its method has no precedent and no basis in any published literature.⁴

Fourth, Western responded to our question about allowing a delay and open communication among experts to resolve issues, in part, as follows: “Western, at present, has no reason to believe that constraints exist to the implementation of the proposed rate action.”

To the contrary, Western should recognize the following constraints that exist to implementation of its proposed rate action.

FERC will not accept a rate that unduly discriminates against wind. Western has admitted that it has applied its regulation and frequency response rate only to wind, omitting studies, analysis, or evidence that justify placing the burden of its proposed regulation and frequency response rate only on wind.⁵ AWEA and the wind parties have asked repeatedly about the regulation impacts of loads, of other generation resources, and of other intermittent resources. Western has provided no analysis or evidence to support its conclusion that wind's regulation burdens justify Western's proposed rate treatment.

As the ORNL and NREL comments point out, the method of analysis for regulation costs that the National Laboratories have developed has been adopted by FERC-jurisdictional utilities (including Xcel Energy), by the Bonneville Power Administration, and by the California ISO. The Laboratories' method underlies and supports the rates that these entities, and others, have filed with FERC. FERC has approved these rates, including reciprocity filings made by Bonneville. On its face, the Western method of

³ The problem is that the market for imbalance energy in the LAP area is very thin. We believe that Western intends to use prices in this very thin market as a proxy for its imbalance costs rather than actually making physical purchases. In this setting, the spread between bid and asked prices could act as a non cost-based penalty.

⁴ See Western's answers to AWEA Questions 2 and 3.

⁵ See, for example, Transcript, “Public Information Forum for the Loveland Area Projects Transmission and Ancillary Service Rate Adjustment, July 14, 1003, page 58, lines 8-9.

analysis, which has no basis, either in peer-reviewed literature or in practice, will create conflicting, rather than reciprocal, rates between Western and neighboring entities. A thorough examination of these distinctions before FERC will reveal Western to have unduly discriminated against wind, without a sufficient basis of facts that justify its proposed rate. Again, a much more productive course of action for Western, its staff, and for AWEA and the wind parties would be to allow for a brief delay to develop a workable rate for the costs about which Western is rightly concerned.

FERC will not accept a rate that is based on analysis that bears no relationship to the rate proposed. Before FERC, a neutral decision maker that proceeds on the basis of a record developed in discovery, on filed testimony of competing experts, and on the basis of cross-examination of expert testimony, the lack of basis for the proposed rates will be made clearly evident. We ask that Western recognize this constraint on implementation of its proposed rate and instead of proceeding with the proposed rate, delay its implementation pending successful resolution of issues in a non-litigious setting.

FERC will not accept a rate that is not supported by Western's record evidence. On review de novo, it is highly unlikely that FERC would accept an unsupported, unprecedented, and uneconomically inefficient regulation rate such as the one proposed by Western. This is particularly true where the record before Western contains expert opinion, citations to peer reviewed literature, and recitations of industry experience, all of which supports outcomes opposite to those supported by Western. Again, we ask that Western allow time to fully consider this information, since Western admits in its answer to Question 9 that on August 8, 2003, it is still analyzing material AWEA and the wind parties submitted on July 14, 2003.

6. Delay the proposed rates pending further study and analysis.

AWEA and the wind parties reiterate our repeated requests to Western for delay in implementing the proposed rates to allow further study and analysis. Western should develop rates based on ORNL and NREL methods consistent with other national studies. Western should clarify its proposal for elimination of imbalance penalties to clarify what "eliminating the bandwidth" really means. Western should set aside its proposed Regulation and Frequency Response Service rates to allow for consideration of options for forecasting and scheduling wind to reduce the costs and hassles for both wind generators and Western.⁶

⁶ In case Western decides to delay rate implementation pending further study, AWEA and the wind parties propose a process for issue identification and resolution in four steps:

1. Step one. Information sharing and problem identification. At this step, Western and interested parties could make presentations about their concerns and issues that need resolution. Discussions among experts could be held in one or more workshops or technical conferences.
2. Step two. Scope of work and work plan. The results of step one would yield a scope of work and an agenda of issues that need to be addressed. Further discussion could result in division of labor, and identification of necessary resources, budgets, and timelines. ("Plan the work.")
3. Step three. Options and analysis. Identification of options that resolve the identified issues would be followed by analysis of the feasibility and costs and benefits of each option. ("Work the plan.")

