BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA

Order Instituting Rulemaking to Implement the California Renewables Portfolio Standard Program	Rulemaking 04-04-026 (Filed April 22, 2004)

OPENING BRIEF OF THE CALIFORNIA WIND ENERGY ASSOCIATION ON LEAST-COST, BEST-FIT ISSUES

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Introduction

In accordance with the May 20, 2004, Ruling of Administrative Law Judges Allen and Halligan Establishing A Schedule For Consideration Of Criteria For Rank Ordering And Selection Of Least-Cost And Best-Fit Resources, the California Wind Energy Association ("CalWEA") submits this opening brief. This brief conforms to the final Least Cost/Best Fit Briefing Outline circulated on May 27, 2004.

Discussion

I. RFO SOLICITATION

- **Sequencing of RFOs and bidding requirements**
- **Bidding requirements**

CalWEA does not necessarily have a strong preference for either simultaneous or staggered solicitations. As discussed in more detail below, however, CalWEA is concerned that concerns about "gaming" will lead the Commission to adopt artificial restrictions on bidders that could yield undesirable results. As such, if the Commission believes that with one approach fewer bidder restrictions are possible, CalWEA favors that approach. Additionally, if conducting simultaneous solicitations would afford the Commission more time to consider the various RPS issues pending at this time, CalWEA would strongly endorse that approach.

Regarding potential "gaming" issues, CalWEA believes that this issue is a red herring. Gaming, regarding bidder behavior, should be seen as the manipulation of market rules to achieve undue profit. Whether or not solicitations are simultaneous or staggered is unrelated to a bidder's potential to obtain an undue profit. If, for example,

solicitations are simultaneous, it is entirely proper for a bidder to bid in both solicitations and to bid a higher price in one solicitation than in another. The higher bid may result from a host of factors such as the potential for transmission constraints and line losses that could increase the bidders costs, or from different perceptions of risk as a result of contract terms, administrative practices, utility credit quality, or other factors. Or the bidder may simply be trying to maximize its profit by seeing if one utility values its product and is willing to pay more than another. Keep in mind that a bidder that inflates a bid to a utility will be taking a chance that both its bids will be rejected as a result of this strategy, whereas had it not inflated its bid to one utility that bid might have been accepted. And, the utility that receives the higher bid will only accept that bid if it values the product enough to pay for it. In a real market, sellers have many potential buyers and will seek the buyer that is willing to pay the highest price for its product. Not only does this potentially benefit the project developer (although a higher price does not necessarily reflect higher profits), as described below, it should benefit each of the utilities by increasing the number of bidders participating in its auction and producing the most efficient collection of winning bidders.

The Commission should not seek to prevent bidders from bidding in more than one simultaneous solicitation. To do so would come with serious risk of undesirable consequences. For example, if the Commission only allows bidders to bid in one solicitation, it may be that a bidder's bid is rejected in its first choice solicitation, but its bid would have been accepted in the bidder's second choice solicitation. The Commission's restriction would prevent a utility from obtaining renewable power that it desires and the developer from building its project.

The Commission also should not seek to restrict artificially bidders' ability to bid the prices of their choice in simultaneous solicitations. Bidders may, for legitimate cost reasons or perceptions of risk, be unwilling to sell to one utility at the same price as to another. Bidders' perceptions of risk and idiosyncratic cost factors are items that the Commission will not be able to isolate and should not try to regulate. If the Commission prevents the bidder from bidding the price that it desires, again, bidders may be precluded from submitting bids that could, and should, be accepted.

CalWEA can appreciate the desire to try and make sure that ratepayers pay the lowest possible price for power, and acknowledges that bidders may, by bidding different prices in more than one simultaneous solicitation, seek to receive more than its rock-bottom price. As discussed above, however, the risk of competition from other bidders is the best (and only realistic) way of restraining this behavior. Moreover, the Commission should recognize that the same kind of behavior is possible with staggered solicitations. With staggered solicitations a bidder could bid more in the first solicitation to come along, knowing that it has a second chance coming in the near future should its high initial bid be rejected. Again, the developer would be pursuing a risky strategy, but if the first utility values the product sufficiently, it will take the bid. Simply put, the Commission should not attempt to over-regulate bidder behavior, lest it really create opportunities for gaming of the very anti-gaming rules that it might to establish.

While CalWEA does not believe that there is any real risk of gaming in connection with bidding strategies, CalWEA is concerned that, if simultaneous solicitations are held, members of the utilities' procurement review groups may have access to confidential bid information from more than one utility solicitation. Aside from disclosure risks, these PRG members might, in evaluating the bids, disfavor and discourage a utility from accepting a perfectly legitimate bid (and a desirable bid from the utility's standpoint) out of concern (founded or not) that the bidder is not bidding the lowest price possible.

If the Commission permits simultaneous solicitations, and CalWEA has no objection to this, it should be clear that bidders are free to bid in more than one solicitation at the prices desired by the bidder. Bids in each solicitation should be binding for a reasonable period of time, subject only to withdrawal by a bidder in the event that its bid is selected in another utility solicitation (and possibly other factors unrelated to this issue such as unavailability of SEP funding, etc.).

- **Timing of solicitation review and AL submittal**

At this time, the primary factor that is likely to delay completion of solicitations, their review and approval is the potential failure of the Commission to adopt reasonable

standard contract terms and conditions. As CalWEA has commented many times, adoption of reasonable and fairly complete standard contract terms will greatly facilitate the contract negotiation and bid evaluation process. If the terms are not reasonable or if numerous important terms are not standardized, the Commission is likely to find numerous disparate contract terms that were individually negotiated. This will take time both in the negotiation process and in comparing the bids. (Depending on the proposed terms, it could also reduce the number of participating bidders and/or increase the price of the bids to reflect the unreasonableness of the contract form proposed by the utilities. CalWEA believes, and all parties should agree, that the highest ratepayer benefit will be achieved by encouraging the highest number of qualified bids and not artificially reducing the number of proposed projects or the price of electricity contained in the proposals.)

As set forth in CalWEA's comments on the Proposed Decision addressing standard contract terms and conditions, CalWEA is concerned that the Commission may adopt unreasonable and incomplete standard contract terms and conditions. CalWEA will not repeat the discussion here.

II. BID EVALUATION

- **Utility Bid Analysis Process**
- **Capacity issues**

CalWEA addresses together bid evaluation and capacity value issues, as these topics are inextricably linked.

In general, two bid evaluation approaches were outlined at the recent workshop, one by PG&E and one by Edison. CalWEA is not necessarily opposed to each utility using its own preferred method, although at this point, PG&E's approach seems to have a number of advantages over Edison's (as discussed below). In any case, it is important to the goals of increasing predictability and transparency, both of which go to credibility, that certain over-arching guidelines be adopted. These guidelines are set forth below.

A. The CEC's ELCC Values Should Be Used To The Fullest Extent Possible; Given Certain Limitations Associated With The ELCCs Today, Alternative Approaches Must Be Considered As Well

Decision 03-06-071 states (at page 30): "As RPS implementation continues to be developed, we will ... examine methods of assessing a resource's ability to provide value to the utility on a time-differentiated basis, such as ELCC [Effective Load Carrying Capability]." The Decision goes on to say that "For as-available bids, capacity values and allocation are set in advance by product and technology, subject to update in later phases of this proceeding and with reference to the ongoing CEC Integration Study..." ELCC values for all technologies are being developed as part of the CEC's Integration Studies.

CalWEA strongly supports using the ELCC values developed as part of the CEC's Integration Studies. These values are derived by acknowledged experts that are independent from any party. They also can be made publicly available. As such, their use would greatly enhance the transparency, predictability and credibility of the utilities' bid evaluation process. There are, however, a few important issues associated with using the CEC's ELCCs in the upcoming current solicitations that should be addressed.

1. Interim ELCCs May Need To Be Employed.

First, the CEC Phase I studies, the only ones that have been completed to date, do not include values for all resources and technologies. This happened for several reasons:

- the analysts were not able to obtain sufficient data from the California Independent System Operator (CAISO) to develop ELCC values for a number of resources and technologies, including geothermal resources other than The Geysers,[1] small hydro, biomass, and Solano County wind resources;

[1] While the studies modeled the Geysers geothermal resource with the steam constraint eliminated (producing an ELCC value of 102%), this value is not necessarily representative of non-Geysers geothermal resources. An air-cooled geothermal resource in Southern California, for example, could be expected to have an ELCC value significantly lower than 100% due to the decline in production that occurs with high ambient temperatures.

- because some parties took issue with the study's results for the solar thermal technology, the study authors are not recommending that those results be used until they can be further evaluated;
- the CAISO does not have data for out-of-state resources;
- modern wind technologies – which CalWEA expects will have higher capacity values – are to be evaluated in Phase III, which is not yet complete (but is anticipated on June 30).

Until such time as the CEC analysts can produce consistent values for all potential bids, some form of interim ELCCs will need to be employed. These interim values should not be based solely on the preference of either a bidder or the utility. Otherwise, the evaluation process will fail to be transparent and predictable and it will be open to criticisms of unfairness. For example, SCE proposed at the workshop to use an ELCC value of 100% for all geothermal bids, which appears arbitrary and potentially too high (air-cooled binary technologies could have ELCC values as low as 60%), especially as compared to Phase I ELCC values for wind, which are based on outmoded technologies.

It may be possible for the CEC's analysts to produce high-quality values for all resources in time for the first round of RPS bid evaluations. The Commission should confer with the Energy Commission to see if an appropriate study can be timely conducted. If not, CalWEA proposes that the utilities be required to publish their proposed ELCC values and that parties, the PRG and the CEC analysts have an opportunity to comment thereon. The Commission then could either endorse the utilities' proposed ELCCs or direct the utilities to change them.

2. ELCCs May Not Need To Be Employed At All

The LCBF proposal made by Edison at the recent workshop employs ELCCs to value capacity. PG&E, on the other hand, presented a bid evaluation method at the workshop that does not rely on ELCCs, but nevertheless seems to value capacity appropriately. PG&E's proposed methodology also appears to be relatively simple and transparent, and to minimize opportunities for gaming. It is important to keep in mind that PG&E's bid evaluation method is linked to other concepts, including contractual

payment structures. As such, CalWEA conditions its potential support for the PG&E approach upon its adoption as a whole.

The most important features of the proposal made by PG&E at the May 25 workshop, as we understand it, are as follows.

a. The RFP bid package will include a time of delivery (TOD) payment schedule that will identify, and provide greater payment weight to, high-risk hours in which capacity is more valuable. As such, bidders who are confident that they will perform during the more valuable hours, or a significant fraction of them, will be able to reduce their all-in bid price accordingly. Bidders will also submit a production profile so that the utility can compute a total bid cost by spreading the all-in bid price of the TOD payment schedule.

b. All bids (baseload, peaking, as-available and dispatchable), will be evaluated together based on their production profile, against a time-differentiated forward market price curve[2] that will reflect the greater value of production during high-risk hours (i.e., capacity value is reflected in the price curve; bids will not be adjusted for their capacity value per se).

c. The value of a given bid as measured against the price curve will be subtracted from the bid price to produce a value. This value reflects both the cost of the bid and its portfolio fit, producing a least-cost, best-fit indicator that would be the basis of bid selection. Bids will also be adjusted for indirect costs, and various tie-breakers may be applied to the ranked results.

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[2] The forward market price curve will form the basis of the time-differentiated payment schedule.

d. Winning bidders will receive payments on a cents per kWh basis equal to their all-in bid price multiplied by the factor set forth in the TOD schedule for the relevant delivery hour. No separate capacity payments will be made. (Dispatchable plants above a certain size will, however, be eligible for an option premium.)

This approach, while not using ELCCs expressly, allows bidders to effectively internalize their ELCC value based on their knowledge of their production profiles, which may be site- and technology-specific, and the TOD schedules. PG&E's approach (again, as we understand it) can be thought of as applying ELCC values in a more market-oriented way.

PG&E's approach appears to have certain advantages over an approach that relies expressly on ELCCs in combination with distinct capacity payments, such as the Edison approach. The first is that, as explained above, the CEC's ELCC studies are incomplete and will have to be supplemented with interim values.

Another important advantage of PG&E's approach is that bidders bid only their all-in price and quantity, and are paid based on their performance, reducing (if not eliminating) opportunities to game the bid. There is no incentive to game the submitted production profile, because the bidder would not benefit by showing greater or lesser production. If, for example, the bidder exaggerates production during the peak period, he would be evaluated as having both greater value and greater cost, so he would have to bid a higher all-in price to reflect the fact that he won't actually be receiving the peak payments. Said another way, the bidder needs a certain amount of revenue to be viable; if he says he'll deliver during high-priced periods but doesn't, his average price would drop disproportionately (by losing above-average payments and receiving below-average payments), so he'll have to bid a higher all-in price to generate the total amount of revenue needed. This is an important advantage over the approach that Edison proposed at the workshop, because under the PG&E approach if the bidder doesn't deliver in accordance with his submitted profile, he won't be rewarded because he won't be paid. And there is no opportunity to game the capacity payments, because none are made.

Under Edison's proposed approach, under which bidders provide production profiles and get their desired capacity payment, the average price per kWh that is paid could end up being far higher than the price as evaluated, and ratepayers lose.

In order to ensure that PG&E's proposed methodology is as credible as possible, CalWEA proposes three additional conditions. First, the TOD schedule should include a large number of high-risk (peak) hours -- i.e., they should capture all of the likely high-risk hours over a number of years. This is appropriate (as the CEC's ELCC analysts would confirm) because the highest risk hours change from year to year, and are only known in retrospect. For example, even if there were only 20 high-risk hours in 2003, the particular high-risk hours and the number of such hours will vary from year to year. In addition, the risky hours (both the number of hours and the particular hours) could be dramatically affected by policy (e.g., real-time pricing).

Second, the TOD payment schedule should be fixed for the life of the contract (as PG&E indicated it would be).

Third, the Commission should clarify that separate capacity payments are not required (as discussed below). If PG&E is required to make separate capacity payments, its proposed bid evaluation methodology simply will not work.

B. The Commission Should Clarify that It Does Not Require Utilities To Make Capacity Payments and that, If Capacity Payments Are Made, They Should Be Limited to CT Values and Paid Based on Production

At the May 25, 2004, workshop, it became clear that parties are interpreting one aspect of the Commission's June RPS decision (D.03-06-071) differently: whether or not utilities are required to pay capacity payments as desired by winning bidders. PG&E, whose proposal does not provide for capacity payments, clearly did not read the decision in this way, nor did CalWEA. SCE stated that it was interpreting the decision as requiring capacity payments as specified by the bidder. Conclusion of Law 17 may be the source of the confusion. It stated, "The Commission will not establish capacity values for firm resources; these resources will bid their own estimations of energy and capacity values." Even if the Commission meant to allow capacity payments to be made, it did not explain how the required all-in bid price should be separated into capacity and

energy components in the LCBF process, how the capacity component should be valued, or how contract capacity payments should be made.

Several clarifications are in order. First, the Commission should clarify that utilities are not required to make capacity payments (in which case bidders' estimations of their capacity values should be reflected in their all-in bid prices, as with PG&E's proposal).

Second, if, in their evaluation methods, the utilities put an explicit value on capacity, they should be required to use a value that is no greater than the cost of a CT.[3] Using the CT cost is consistent with the Commission's adoption of a combustion turbine cost as the market referent for peaking products.[4]

Third, the Commission should require utilities that do make capacity payments to likewise limit those payments to the cost of a combustion turbine (CT), and to make the payments on a production (per-kWh) basis. These specifications are necessary to prevent possible gaming. For example, a bidder might submit a resource profile that shows more production during the identified non-peak hours than it actually expects to generate, and bid high capacity payments. The bid would be evaluated as if the capacity payments were paid with respect to a large number of kWh that would not actually be generated. The average bid price – presumably the most important attribute which determined the winning bid – would be much lower than the actual average price paid to the winning bidder. The Commission should not allow contract payments or a bid protocol that allow both for manipulation of bid results and for higher than anticipated kWh payments to winning bidders. The most obvious solution to this potential situation is PG&E's time-of-delivery all-in payment structure. SCE's proposal to pay both energy and capacity can achieve the same result with proper care to prevent such activities. (The RPS legislation requires the procurement of energy from renewable resources. High capacity payments, which would result in higher average payments and fewer kWh generated, both create

[3] This is consistent with the proposal that SCE made at the May 25 workshop. SCE stated that it would use a CT (discounted in early years due to current capacity sufficiency) to value replacement capacity (i.e., the capacity benefit that is provided by a renewable bid).

[4] D.03-06-071, at 19.

artificially high ratepayer costs and at the same time create the need for additional kWh in the future. Both results are inconsistent with proper administration of the RPS and protocols that allow the results should be discouraged as much as possible.)

III. INTEGRATION COSTS

As the May 27, 2004, final briefing outline stated, regulation and load-following costs, according to the CEC Integration Studies,[5] "are effectively zero, and the Commission has stated its desire to use these results if possible." For the following reasons, the Commission should adopt zero values for all regulation and load-following costs for this year.

First, the CEC's Studies, which analyzed the regulation and load-following costs of all renewable technologies, were directed by a nationally recognized expert on the subject (Brendan Kirby of the Oak Ridge National Laboratory) and were subject to an extensive, year-long discussion and review process that included several workshops. The Phase I study concludes that:

- The regulation costs of existing renewables are very small – "at best, at the edge of the error range." The report authors "clearly say that the [regulation] impacts of the individual resources are not significantly larger than what is shown" and that the results "are sufficiently robust so that little impact should be expected if reasonable amounts of additional renewable resources are added to the system." (CEC Studies, pp. xii and xiii.) The largest of the regulation impacts is less than 0.05 cents/kWh.

- The impact of renewables on load-following costs is not significant. The results "are sufficiently robust so that little impact should be expected if reasonable amounts of additional renewable resources are added to the system." (CEC Studies p. xiv.)

Therefore, there is no practical need to apply bid adders for these costs, as they are far too small to affect bid selection.

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[5] "California RPS Integration Cost Analysis – Phase I: One-Year Analysis of Existing Resources," a consultant report to the Energy Commission, December 2003 (CEC Report No. 500-03-108C).

Second, in answer to criticisms made by Edison and PG&E, the study authors clearly explained why the results of these studies appear to differ (and, in fact, do not differ) from those of others. Given the insignificant cost results, and the authors' confidence that these costs will not change markedly with the addition of a reasonable amount of renewables capacity, there is no problem with using the Phase I results in the procurement process.

Unless and until such time as the Phase II and III studies (which will look at significantly increased penetration levels among other issues), or any later studies, indicate that integration costs could be significant enough to affect the outcome of a bidding competition, no bid adders should be applied.

IV. QUALITATIVE ISSUES

A. Qualitative Issues That Have Not Had Sufficient Consideration Should Be Limited to "Tie-Breaking" Status

The Commission and parties have given virtually no consideration in the past one-and-a-half year's RPS implementation process to how a number of qualitative benefits should be handled. This is true for minority and low-income community benefits, fuel diversity within the renewables category, and relative environmental benefits within renewables. Until proper consideration can be given, the Commission should allow the utilities to favor projects with these qualities with nothing greater than tie-breaking status.

B. Local Reliability Benefits Should Be Considered in the Same Way as Network Benefits Will Be

In I.00-11-001, the docket in which the transmission cost bid adder methodology is being developed, CalWEA has argued strenuously that the benefits that result from a transmission upgrade required by a renewables project should be evaluated under a Commission-adopted methodology and netted against the upgrade costs. Failing that, we have argued that utilities should be required to solicit bidders' evaluations of transmission benefits and consider those benefits using a transparent, consistent methodology, and

subject the utilities' evaluations to independent review. Consideration of the local reliability benefits produced by proposed projects should be treated in the same way.

C. The Commission Should Issue Guidelines Governing the Treatment of Bids to Repower Projects

The Commission stated in Decision 03-06-071, at page 57: "the repowering of existing wind facilities in prime locations is a common sense approach to increasing procurement of renewable energy, with costs that should be lower than for new greenfield projects."[6] Accordingly, to encourage repowers and ensure their fair evaluation, the Commission should direct the utilities to handle repowers in the following way in the first RPS solicitation:

a. The utilities should expressly solicit bids from repowered projects.

b. If a bidder bids to replace his current contract, the utility should give the bidder full credit for the reduction in costs from the replaced contract, using reasonable assumptions for the avoided costs that would have been paid under that contract based upon historical generation profiles and the prevailing contract payment methodology.

c. If the bidder is not bidding to increase the nameplate capacity of the project beyond what is allowed in his interconnection facilities agreement, no transmission bid adder should be applied. This is necessary as the project already has paid for the right to interconnect the specified amount of capacity.

d. If a bidder bids to replace his current contract, the repowered project should be evaluated for any remarketing benefits that would accrue as compared to the replaced contract. This is warranted because the new contract may replace high-priced power that would otherwise have caused a remarketing cost with a lower priced contract that has a lower remarketing cost.

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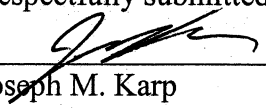
[6] CalWEA expects that there may be benefits associated with the repowering of other renewable facilities besides wind, and would extend our comments below to other technologies as well.

Conclusion

CalWEA respectfully requests that Commission adopt the above recommendations.

Respectfully submitted,



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June 4, 2004

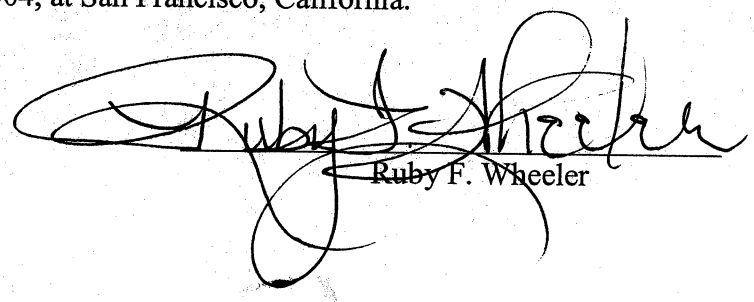
Certificate of Service

I hereby certify that I have this day served a copy of the

OPENING BRIEF OF THE CALIFORNIA WIND ENERGY ASSOCIATION ON LEAST-COST, BEST-FIT ISSUES

On all known parties to R.04-04-026 by mailing a properly addressed copy by first-class mail with postage prepaid to each party named in the official service list.

Executed on June 4, 2004, at San Francisco, California.



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