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"Envisioning a sustainable future"

Glenn S. Ikemoto
Principal

672 Blair Avenue
Piedmont, CA, USA 94611
(510) 655-7600 :T
(510) 217-2239 :F
glenni@pacbell.net :E

VIA EMAIL

June 25, 2006

President Paul Kjellander
Commissioner Dennis Hansen
Commissioner Marsha Smith

Idaho Public Utilities Commission
472 West Washington Street
PO Box 83720
Boise, ID 83720-0074

Re: Comments on IPC-E-05-34

Dear Commissioners:

I wish to respectfully submit two short comments on the Petition for Declaratory Order filed by Magic Wind LLC in the above-referenced matter. Before doing so, I would like to note that I have substantial educational background and work experience directly related to the issues I am addressing. This includes four years as a senior member of Pacific Gas and Electric Company's Generation Planning Department, where I had primary responsibility for evaluating avoided cost methodologies and for calculating and publishing avoided costs within the company.

These avoided cost estimates served as the common basis for virtually all engineering economy studies, cost effectiveness demonstrations and rate designs performed within the company. Given these responsibilities, I was intimately familiar with the economic theories underpinning various avoided cost methodologies and the models used to estimate those costs. This included production simulators, corporate financial models and revenue requirements models.

I would first like to comment on the allocation of variable O&M in the PacifiCorp Methodology, which was approved in Case No. PAC-E-05-09 (Schwendiman Wind LLC). The issue here is whether to include a portion of variable O&M in capacity prices.

We should begin the analysis by looking at a simple short run case, where the generation system is fixed. If a QF delivers energy to this system, what are the appropriate avoided costs? Obviously, it is the savings from reducing generation at the most expensive plant. That savings is primarily fuel and variable O&M. This is confirmed by prices in the market. Utilities offering energy to the market set a price at least sufficient to recover their fuel and variable O&M costs. There seems to be no disagreement that variable O&M is an avoided energy cost in the short run. The energy component of a proper long run methodology should approximate this short run result. The PacifiCorp Methodology fails this test.

In economic theory, the definition of long run is the point at which fixed costs become variable. There is no economic theory based on variable costs becoming fixed in the long run. It defies logic and economic theory to treat variable costs differently in the short and long runs. I am not aware of any utility other than PacifiCorp which allocates any variable O&M costs to capacity prices. It is simply wrong.

A final point on this issue is that the capacity factor of the SCCT should always be zero under the PacifiCorp Methodology. The simplest resource plan meets demand growth with an SCCT and delivers energy from the existing system or through purchases. The avoided costs of this plan can be easily calculated using a production simulator. This is known as the Peaker Method. However, utilities have reasonably argued that the costs of a new base load plant are lower than projected system costs and should be used instead. This is known as the Proxy Plant Method. The PacifiCorp Methodology falls into the latter category. If the proxy resource is economic, avoided costs from the Proxy Plant Method will be lower than from the Peaker Method.

The only reason to build something other than an SCCT is if the operating savings are greater than the additional capital costs. This definition of cost effectiveness is a basic tenant of resource expansion planning. Therefore, the sum of the SAR's fuel, variable O&M and additional capital costs serve as a proxy for the incremental cost of system/market energy projected by other planning models.

In terms of the SCCT's capacity factor, this means that it would only be dispatched if the SAR's proxy energy costs are greater than the operating cost of the SCCT. Since they are not greater, the SCCT would never run in the proxy scenario. The point here is that SCCT capacity factors based on production simulation, industry averages or anything else should be irrelevant in the PacifiCorp Methodology since it already replaces system modeling with proxy costs from a specific resource. Any SCCT capacity factors above zero are inconsistent with proxy methodologies. If the SCCT capacity factor is zero, the debate over the proper allocation of variable O&M is moot, since any allocation to capacity prices is limited to the SCCT's capacity factor.

The second point I would like to address is whether Idaho Power's version of the 90/110 Band is superior to PacifiCorp's. I have attached a mathematical analysis of this issue. It is based on the definition of a cost effective resource, as described above. The analysis demonstrates that, from a long term planning perspective, ratepayers would receive more benefits from PacifiCorp's approach.

Thank you for the opportunity to comment on these important issues.

Respectfully,

A handwritten signature in black ink, appearing to read 'Glenn Ikemoto', with a long horizontal flourish extending to the right.

Glenn Ikemoto
Principal

Attachment

THE LONG TERM RELATIONSHIP
BETWEEN
MID-C PRICES AND THE NON-CONFORMING ENERGY PRICES

The Basic Option for meeting future customer demand growth is to add the lowest capital cost resource, such as a simple cycle combustion turbine (SCCT) to provide reliability, and deliver additional energy from the existing system or by purchasing power from the market. The cost of this incremental system/market energy is known as the Short Run Avoided Cost (SRAC).

For any other generating resource to be cost effective, the present value of its total costs (fixed and variable) MUST be less than the present value of the Basic Option. Since the combined cycle SAR is considered a cost effective resource, it follows that:

$$\text{SCCT Fixed} + \text{SRAC} > \text{CCCT Fixed} + \text{CCCT Variable}$$

[note: for simplicity, we can ignore the present value notation and unitizing calculations, which are common to both sides of the equation]

Subtracting the fixed costs of the SCCT from each side of the equation and combining terms:

$$\text{SRAC} > [\text{CCCT Fixed} - \text{SCCT Fixed}] + \text{CCCT Variable}$$

The terms in brackets are known as Capitalized Energy in the PacifiCorp Methodology. Therefore, through substitution:

$$\text{SRAC} > [\text{Capitalized Energy} + \text{CCCT Variable}]$$

Currently, Idaho Power defines SRAC as 85% of Mid-C prices. Also, the terms now in the brackets are known as the Non-Conforming Energy Price in the PacifiCorp Methodology. Therefore, through substitution:

$$85\% \text{ of Mid-C} > \text{Non-Conforming Energy Price}$$

By applying a simple resource planning principle, we can demonstrate that an implicit assumption underlying the SAR Methodology is that 85% of Mid-C prices will be higher than the Non-Conforming Energy Price in the PacifiCorp Methodology over the long term. Since the ratepayers receive greater benefits with lower prices, it follows that PacifiCorp's Methodology will deliver higher ratepayer benefits based on planning assumptions.