

**STATE OF NEW YORK
PUBLIC SERVICE COMMISSION**

**Proceeding on Motion of the Commission
Regarding a Retail Renewable Portfolio
Standard**

Case 03 -E- 0188

BRIEF ON EXCEPTIONS OF PLUG POWER INC.

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Summary

Plug Power supports the Recommended Decision (“RD”), except as detailed below and in the Brief on Exceptions of RETEC, to which Plug Power is a signatory.

The RD is correct in finding that additional incentives for emerging technologies are “essential.” However, in order to fully achieve the policy goals of the RPS, the Commission should improve upon the SBC-like tier recommended in the RD, for the following reasons:

1. Appendix B of the RD overstates the real cost of an SBC-like tier by more than 50%. An evaluation of the cost of an SBC-like tier must take into account the avoided cost of the electricity from the “main tier” that is displaced by the SBC-like tier.
2. The RD recommends an SBC-like tier comprising 2% of the incremental energy provided under the RPS. A target of 5% would more adequately achieve the purposes of the SBC-like tier.
3. The SBC-like tier should contain a provision ensuring the participation of small customers.
4. In the later years of the RPS, small distributed generation technologies should be integrated into the trading system of the “main tier” of the RPS.

1. The Recommended Decision overstates the cost of an SBC-like tier by more than 50%.

In Appendix B the Recommended Decision identifies the estimated cost of implementing an RPS containing provisions designed to achieve 2% participation from solar, fuel cells, and small wind. The total cost of the RPS is divided between the “main tier” and the “SBC-like tier,” reflecting the estimated gross cost of each tier (\$990,513,532 for the main tier and \$148,947,952 for the SBC-like tier).

The gross cost of the SBC-like tier is only half of the information needed to evaluate the real cost of an SBC-like tier. The gross cost does not reflect the fact that a 2% SBC-like tier would back out the most expensive 2% of generation in the main tier of the RPS.

In deciding whether to adopt an SBC-like tier, the Commission should consider not the gross cost of the tier but rather the *net* cost, taking into account the displaced cost of the last 2% of the main tier. The last 2% of the main tier represents displaced generation that would be purchased in the absence of an SBC-like tier.

These net costs are reflected in the worksheets accompanying the RD. On page 31 of the worksheet entitled “RD Case Results 6-3-04” the “replacement cost” of the displaced main tier resources is identified. The resulting net cost of the SBC-like tier, measured over the life-cycle of the units, is \$71,101,187. Compared with the gross cost identified in Appendix B of \$148, 947,952, the net life-cycle cost of a 2% SBC-like tier is less than 50% of the gross cost.

2. The SBC-like tier should be at least two times the size recommended in the RD.

Judge Stein correctly states that the creation of an SBC-like tier is “essential.” (RD at 68.) Because one of the main purposes of the RPS is to provide for greater long-term diversity in the generating mix, the roster of renewable energy sources under development must itself be diverse.

The diversity offered by solar, fuel cells and small wind is diversity not only in generating source but also in size and location. These technologies will be applied, for the most part, on customer premises. As the Judge properly notes, “locating renewable generation near heavy load areas” is a value promoted by the SBC-like tier. (RD at 64.) In the case of fuel cells, a further type of diversity is represented because fuel cells produce power on demand, offering an ideal long-term complement to intermittent resources such as wind, solar and hydro.

Another reason to establish an emerging technologies incentive is to encourage the location of emerging industries within New York State. Location decisions made by manufacturers and research firms are strongly influenced by regulatory climate. NYSERDA has had success in causing companies involved with new energy products to locate and grow in New York. The State can now build on that success by establishing an RPS. Virtually every state has an energy policy that purports to favor clean and renewable resources. States that demonstrate a serious commitment to renewable resources by putting policies into action are the states that are favored by growing companies involved with new energy technologies. In that respect, the establishment of an RPS will have an economic multiplier effect.

Plug Power provides an excellent example of this multiplier effect. Plug Power employs approximately 300 people in New York State. Since 1999, Plug Power has paid over \$50,000,000 to suppliers located within New York, and Plug Power employees have paid over \$7,000,000 in State income taxes.

To fully realize these opportunities, a larger SBC-like tier is appropriate. At two percent of the RPS, the SBC-like tier would represent less than two-tenths of one percent of the State's overall generation mix. This cannot be described as an overly ambitious goal. The proposal of RETEC is roughly reflected in the worksheets identified as "RD-Strawman B-Results 6-3-04." This indicates that the net life-cycle costs of a 5% SBC-like tier would be \$135, 245,301, which is less than the gross cost of a 2% tier identified in Appendix B.

The Commission's determination regarding the size of an SBC-like tier will be an important policy decision. The Commission will decide the extent to which the emerging energy technology industry in New York will be encouraged, and the extent to which the State is committed to developing a clean, diverse energy supply.

3. The SBC-like tier should contain a provision for small customers.

RETEC proposed that 20% of the emerging technology incentive should be targeted to non-demand-billed customers. This is not proposed as a hard quota but rather as a target. The RD does not address this proposal.

A 20% target for small customers would enhance the diversity of the RPS. Residential and small business customers represent nearly half of the electricity used within New York, and technologies specifically developed for on-site use by these customers should be an important part of a forward-looking program. Within the SBC-like tier, relatively large projects in sizes exceeding 100 kW will be competing with distributed generation projects of 5 kW or less. Establishing a modest target of 20% for small customers will ensure that technologies for small customers are part of the RPS.

4. Distributed generation should be integrated directly into the RPS in its later years.

RETEC proposed that the SBC-like approach for emerging technologies should be used during the first five years of the RPS, but that in following years the RPS should accommodate behind-the meter generation directly within the credit and trading programs of the RPS.

The RD states that behind-the-meter generation is "not susceptible to administrative tracking as large-scale wholesale transactions are." This is incorrect. There are numerous methods for tracking the output of distributed generation units. Larger units can be directly metered and their outputs can be reported electronically. The output of small units can be estimated, and verified either through statistical sampling or through periodic data collection by service personnel.

In the long run, it is important for emerging technologies to be integrated into competitive energy markets rather than being funded through capital buy-downs. Integrating distributed resources into the credit trading systems of the RPS, however, should not be allowed to slow down the progress of the RPS as a whole. For that reason,

the proposal that an SBC-like process be used in the initial years is reasonable. If the 2008 Review recommended in the RD is adopted by the Commission, that would be an appropriate time to consider the inclusion of behind-the-meter generation in the trading system of the RPS.

The RD is also correct in recommending that the SBC-like tier be “in addition to existing programs.” (RD at 20.) As a practical matter, the existence of other programs will not result in double subsidies, because the prices under the SBC-like program will be established to reflect the balance needed to make the products marketable.

Conclusion

The RD is correct in recommending an SBC-like tier. However, the SBC-like tier should be larger, should include provisions for small customers, and should be integrated into the credit trading process in the later years of the RPS.

Respectfully submitted,

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