Central Hudson
Gas & Electric Corporation

November 20, 2009

Hon. Jaclyn A. Brilling, Secretary
New York State Public Service Commission
Three Empire State Plaza
Albany, NY 12223-1350

Re: Case 03-E-0188 – Comments on Proceeding on Motion of the Commission Regarding a Retail Renewable Portfolio Standard

Dear Secretary Brilling:

Central Hudson Gas & Electric Corporation (herein referred to as "Central Hudson" or "the Company") hereby electronically submits the attached comments on the proposed rulemaking contained in the SAPA Express Terms 03-E-0188SP22, published on October 7, 2009, and the DPS Mid-Course report issued on October 26, 2009.

Sincerely,

M. L. Mosher

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STATE OF NEW YORK
PUBLIC SERVICE COMMISSION

Proceeding on Motion of the Commission Regarding a Retail Renewable Portfolio Standard — **Case 03-E-1888**

Comments on Notice Issued October 9, 2009

Dated: November 20, 2009

CENTRAL HUDSON GAS & ELECTRIC CORPORATION
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Central Hudson Gas & Electric
Case 03-E-0188

Introduction

Central Hudson Gas and Electric, Corp. ("Central Hudson") hereby submit these comments as part of the proposed rulemaking contained in the SAPA Express Terms 03-E-01888SP22, published in the New York State Register on October 7, 2009. This response also addresses Central Hudson's comments on the DPS Mid-Course report issued on October 26, 2009.

Central Hudson applauds the efforts of the Commission to undertake this comprehensive review of the Renewable Portfolio Standards ("RPS") program, which was established in Case 03-E-01888. While Central Hudson continues to strongly support the central procurement model that was established in the RPS program, we do offer some suggestions to address the current geographic inequities and other potential program modifications for consideration.

Discussion

1. Support the central procurement model to achieve the State's Main Tier RPS goals.

Central Hudson has consistently supported the central procurement model as the most efficient and cost-effective method of procuring renewable energy attributes as a part of the State's current RPS goals. While not without its flaws, this method has by and large achieved the goals of incenting the development of least cost renewable resources.

2. Delay any decision on increasing the RPS goals until greater certainty exists on achievement of EEPS.

Central Hudson believes that a Commission decision on the expansion of the RPS from 25% by 2013 to 30% by 2015 is premature at this time. However, it should be re-evaluated in 2011 coincident with the Commission's planned review of the success rate of achieving the 15% energy reduction goals currently being implemented by the State's utilities and NYSERDA, and the results of any modifications to the RPS program based upon this proceeding.

3. Consider potential improvements and modifications to the RPS program.

The Company agrees with Staff that the central procurement model should be strengthened by adopting a formal schedule of Main Tier solicitations to promote market certainty and risk reduction, which would lead to increased manufacturing and installation of renewable resources within New York State. In addition, geographic equity and diversity of resources could be promoted by specifying a carve-out of the Main Tier or retention of RPS funds in each utility service area.

- Currently, there are no Main Tier resources in the downstate region (within New York State, south of Albany). The facilities to accommodate wind, hydro, and biomass, the only three resources participating in the Main Tier due to their cost-competitiveness, are more readily available upstate. Without differentiation between types of renewable attributes, especially solar, in New York State, this lack of diversity and geographic equity will persist.
- Staff's report suggests that an "artificial geographic location requirement would undermine the efficiency benefits of the central procurement model and would increase the overall costs of the RPS program"[1]. However, there are costs outside of the RPS that must be considered, including transmission losses and congestion, and higher cost of downstate energy. As stated in Staff's report, "one factor distinguishing solar technologies from all of the other renewable energy generation technologies is the nearly unlimited number of acceptable sites on which they can be placed"[2]. Allowing utilities to utilize their core competencies to site solar generation, particularly in areas south of Albany, would distribute economic development opportunities to communities throughout the state and be closer to parity with wind and hydro technologies when losses and regional energy costs are considered.
- A goal of the RPS is to promote diversity of resources. Allowing utilities to cost-effectively site solar generation would provide a more diverse resource mix.

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[1] *The Renewable Portfolio Standard: Mid Course Report,* 43.
[2] *The Renewable Portfolio Standard: Mid Course Report,* 50.

4. **Because the Customer-Sited Tier is not as cost-effective as the Main Tier, do not expand it.**

Central Hudson agrees with Staff that the Customer-Sited Tier is not as cost-effective as the Main Tier. Therefore, the Customer Sited Tier should not be expanded, and should be limited to the proven technologies already included in the Tier to ensure that the Tier is effective in meeting its goals.

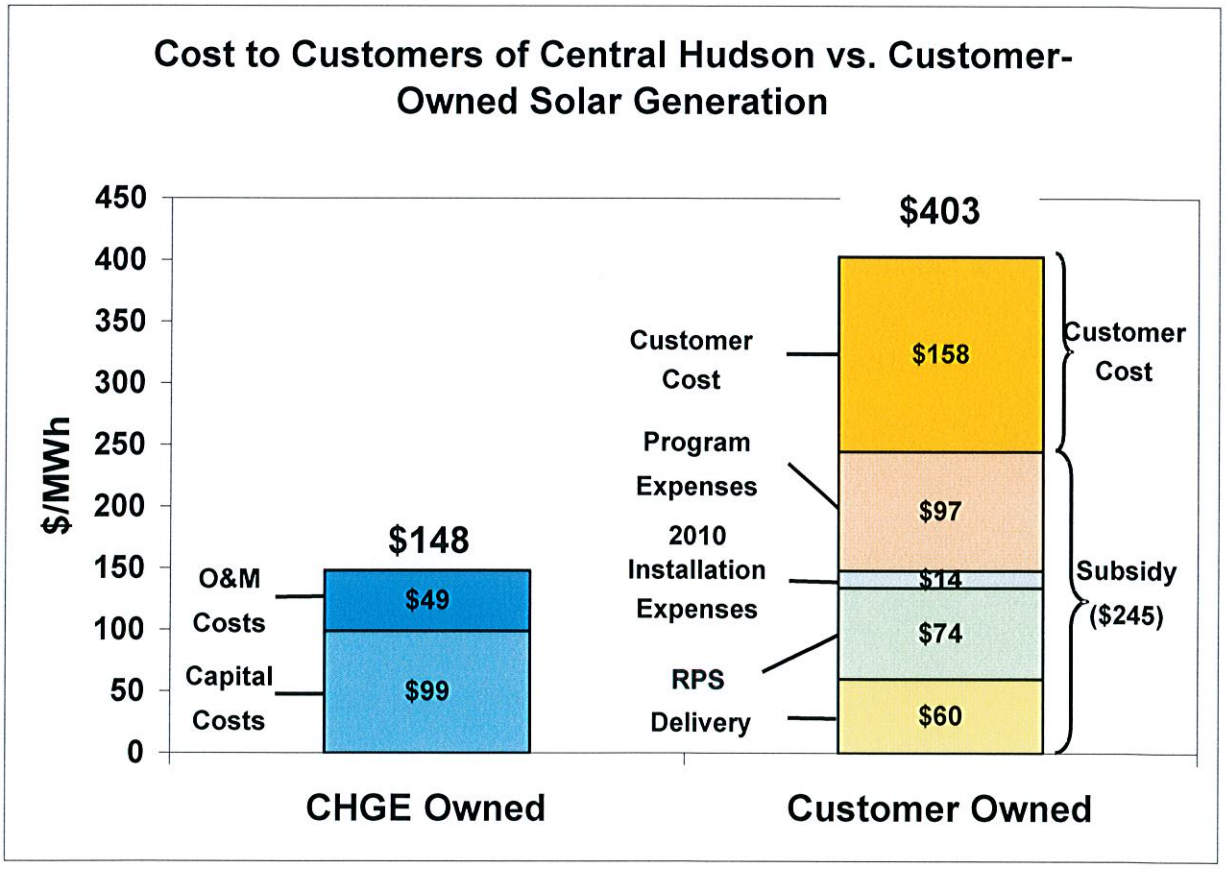
5. **Evaluate the benefits of allowing utilities to participate in providing renewable resources.**

Central Hudson advocates the development of a Utility-Sited Solar Tier either by setting aside a portion of Main Tier funds, or by allowing utilities to retain a portion of collected RPS funds. Installations should be targeted towards strategic locations on the distribution system that would be a location that results in a levelized cost to ratepayers over 25 years that is less than the cost of generation supported by the Customer-Sited Tier due to grid support and ease of construction, and be adequately supported by the local community. In addition, community-scale solar projects approximately 100kW in size and located in highly visible areas could be beneficial in providing a public showcase to promote further development of solar photovoltaic installations ("PV") in the area and create a multiplier effect on the local economy.

Central Hudson's quantitative analysis demonstrates that a Utility-Sited Tier would be more cost-effective for ratepayers than the current Customer-Sited Tier program, resulting from several key components that are excluded from Staff's analysis. In addition, a Utility-Sited Tier provides several qualitative benefits that are in concert with the Commission's objectives, including reduction in risk to ratepayers for capital and administrative costs, geographic equity, job stability and economic growth, and diversity of available clean resources within New York State.

A. Central Hudson's Utility-Sited Tier Cost Analysis

Central Hudson's detailed analysis compares the cost per MWh of utility-owned vs. customer-owned solar installations supported by the Customer-Sited Tier. In 2010 dollars, a utility-owned installation with a nameplate rating of approximately 1MW would cost ratepayers an average of $148/MWh over 25 years, vs. $245/MWh, for customer-owned installations completed in 2010. In addition, for the Customer-Sited Tier, customers installing the PV systems pay an additional estimated $158/MWh to complete the installation. Calculations for the customer-owned and utility-owned installations were made utilizing the same set of assumptions, such as those for the same capacity factor, annual output degradation, inflation rate, cost of capital (debt and equity), depreciation rates, and tax rates. The following chart illustrates the contributors to the differences in cost between utility and customer-owned systems:



The following is a breakdown of the average costs per MWh in 2010 dollars over 25 years to ratepayers associated with the Customer-Sited Tier:

- Delivery Subsidies (i.e. net metering): $60/MWh. This was calculated based upon the weighted average of variable delivery revenue lost from residential and commercial customers.
- Renewable Portfolio Standard Subsidy: $74/MWh. This was calculated by studying recent trends in the average system size for residential and commercial customers and determining the expected RPS Subsidy per installation. It was then multiplied by the expected number of installations to be completed (forecasted kW installed in 2010 divided by forecasted average system size), and utilizing the capacity factor assumptions, expected kWh production was determined.
- 2010 Installation Expenses: $14/MWh. This includes costs associated with reviewing applications, troubleshooting power quality issues, billing, and conversing with customer. It also includes the carrying charges associated with replacing meters, transformers, and distribution poles, based upon forecasted percentages of installations.
- Program Expenses: $97/MWh. This includes the costs associated with responding to PSC Orders and Staff requests, customer inquiries, data analysis and maintenance, workforce training, and response to local media, a portion of which can be attributed to installations completed in 2010.

The above is only a brief summary of the results of Central Hudson's analysis. Central Hudson would look forward to sharing complete details of its analysis with Staff and the Commission.

B. Review of Staff's Utility-Sited Tier Cost Analysis

Central Hudson reviewed Staff's analysis of a Utility-Sited Tier[3], and has found its assumptions to conflict with Central Hudson's analysis and experience.

1. The carrying charges to ratepayers appear to be grossly overestimated. Central Hudson estimates carrying charges to ratepayers to be less than 13% in year 1, with an average of less than 8% over the project lifetime of 25 years.

[3] *The Renewable Portfolio Standard: Mid Course Report,* Appendix E.

- Depreciation: Depreciation of assets for earnings purposes should be calculated over a 25-year expected lifetime of solar assets, not the 10-year period utilized by Staff. This results in a 60% reduction in annual depreciation expenses.
- Taxes: Staff's analysis fails to account for available tax incentives, and provides a gross-up factor of 0.604 with little explanation.
    i. Investment Tax Credit: An investment tax credit of 30% is available to offset current period federal income taxes.
    ii. Modified Accelerated Cost-Recovery System (MACRS): This allows the value of solar assets installed by businesses to be depreciated over just 5 years for tax purposes.
- Financing: Staff's analysis assumes 100% equity financing, rather than Central Hudson's 48% equity financing, reducing the weighted average cost of capital (WACC) by over 28%.

2. The expected production is underestimated as it is only provided for year 1. The system will continue to produce for at least 25 years, with minor degradation of performance each year (0.6% reduction in capacity factor annually in Central Hudson's service territory).
3. The total cost per watt of $8/watt is overestimated, as it does not account for the economies of scale anticipated from utility-scale installations. Central Hudson estimates the cost of a 1.26MW installation to cost $5.91/watt, 26% lower than Staff's estimate. This is based upon a conservative evaluation of the results of a Request for Indicative Pricing at several sites Central Hudson evaluated.
4. Staff's analysis does not include the significant administrative costs to the utility, as well as the net metering subsidy, associated with a customer-sited program. The RPS only accounts for 43% of the burden to ratepayers associated with customer-sited installations.

C. *Qualitative Benefits*

As with many other aspects of the RPS, there are many additional qualitative benefits of a Utility-Sited Solar Tier:

1. The risk to ratepayers for capital improvements is reduced when compared with the Customer-Sited Tier:

- Utilities can site generation in preferred locations where grid support is required and/or interconnection costs are minimized. In addition, it could potentially be utilized as a demand-side management tool and defer distribution capital improvement projects, which is not possible even with the Main Tier resources due to lack of control over site locations and contracts requiring resources to be available. Conversely, customer-owned systems are not typically sited in areas where system support is beneficial.
- The requirement for system improvements could be the result of several systems in aggregate creating a generation to peak load ratio of greater than 20% on a particular feeder or section of the distribution system. However, if a customer-sited system pushes a feeder over this threshold, the system upgrade and protection costs will be borne by all ratepayers.[4]
- Utility-owned generation could be prioritized with other capital improvement projects in the budgeting process, whereas customer-owned systems could require deferral of other important projects since they cannot always be anticipated during the budgeting process.

2. Administrative costs would be reduced because there would be no incremental resources required to address ongoing billing, metering, or operating issues.
3. Stability of employment would be provided for solar installers, attracting jobs and building local economies in New York State and signaling the State's support for solar project development to manufacturers. A major hurdle to large-scale solar development in New York State is that ability to procure financing, especially in today's difficult credit markets. Utilities provide much greater certainty that financing will be available to ensure projects are completed.

Conclusion

The Commission should continue the central procurement model utilized for the Main Tier, while considering modifications recommended above. The Commission should also consider the benefits of leveraging the technical and financing resources of New York State utilities via a Utility-Sited Solar Tier. This would in turn promote geographic equity while reducing the risk

[4] *New York State Standardized Interconnection Requirements*, Revised February 2009.

and administrative costs to ratepayers and attracting installation and manufacturing facilities to the state to meet the RPS goals.