

September 26, 2003

Via Hand Delivery

Hon. Jaclyn A. Brillling
Acting Secretary
New York Public Service Commission
3 Empire State Plaza
Albany, NY 12223-1350

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

Dear Acting Secretary Brillling:

The City of New York (“City”) hereby submits its Comments in the above-captioned matter. Electronic service of the enclosed filing has been made on the Active Parties in this case.

Respectfully submitted,

/s/ Michael Delaney

Michael J. Delaney, Esq.
Energy Policy Advocate
City of New York
110 William Street, Fourth Floor
New York, NY 10038
Tel. 212-312-3787
Fax: 212-312-3915
E-mail: mdelaney@nycedc.com

Enclosures

**STATE OF NEW YORK
PUBLIC SERVICE COMMISSION**

**Case 03-E-0188 - Proceeding on Motion of the Commission
Regarding a Retail Renewable Portfolio Standard**

Comments of the City of New York

September 26, 2003

I. Introduction

The City of New York (City) hereby submits its comments in the above-captioned Renewable Portfolio Standard (RPS) proceeding pursuant to the schedule established by Administrative Law Judge Eleanor Stein in this matter.

The City supports the goals identified in the Commission's Order, including a reduction in exposure to periodic fossil fuel scarcity and to price volatility. Increased development of renewable energy sources also offers the prospect of genuine environmental improvements, and should be promoted by public policy to the extent that it can be done so equitably and in a manner that does not impose unjustifiable burdens on energy consumers.

While New York State already enjoys a large measure of energy diversity, including significant hydroelectric power, a standard that fosters the development of renewables could serve to further increase that diversity. Establishment of an RPS should also provide an incentive for greater investment in renewable technologies. There are already encouraging marketplace developments, particularly in the area of wind power, that suggest that the ingredients for self-sustaining growth are imminent if not already present. Nevertheless, the impetus provided by the establishment of explicit regulatory standards on both emergent and more mature technologies for renewable energy generation will hasten the adoption and dissemination of those technologies.

The renewable energy initiative from the Commission is therefore one that the City of New York welcomes as providing a measure of protection from fossil fuel price volatility, while benefiting the environment. As reflected at greater length below, however, the substance of the RPS itself and its adoption schedule should be structured in a manner that will not disadvantage any areas of the State in comparison to other regions. Growing economies of scale are clearly

becoming available in certain renewable technologies, notably in wind power, but that form of energy is almost exclusively suitable for physical location in rural locales, or in areas with extensive and unimpeded waterfront access. In addition, its inherently intermittent quality raises reliability concerns, particularly as it becomes more widespread and therefore of more relative importance to the overall New York energy system.

Other emerging technologies, such as photovoltaics and fuel cells, may be better adapted to urban environments, but realistically can offer only minimal contributions to the State's energy requirements in the immediately foreseeable future. The Commission's ultimate choices in establishing both the contours of the RPS and its implementation schedule will therefore directly affect the ability of all areas of the State to participate equitably. In practice, there will clearly be dependence on only a few major forms of renewable power in the initial years of the RPS unless the Commission elects to use a more inclusive definition of renewables, as a number of parties including the City have suggested in their Comments in this matter already.

Alternatively, the Commission could establish a preference schedule for certain non-traditional forms of renewable or sustainable energy, perhaps by using tiers or preferred classes of energy production as some other states have already done in their renewables initiatives. The City noted in its Initial Comments filed in this matter¹ that some consideration should be given in the formulation of the RPS to include certain forms of environmentally beneficial energy sources, such as district energy. New York City clearly benefits from the presence of the largest district steam system in the world. Few alternative energy systems can provide peak electric power reduction when it is most critically needed to a greater degree than does steam air

¹ Initial Comments of the City of New York in Case No. 03-E-0188, filed March 28, 2003

conditioning.² Most importantly for the purposes of this proceeding, that system delivers a number of environmental and efficiency benefits that distinguish it from a typical fossil fuel generation facility. The societal value provided thereby should be recognized in a process that seeks to foster more efficient - and more sustainable - energy production and resource use. This is but one instance of the worth of an expansive view of what constitutes renewable energy sources, or sources that clearly should be encouraged by State public policy. Another such example is that of waste to energy facilities. While they take many forms, and their environmental implications must obviously be viewed seriously, the Commission should consider inclusion of WTE in the RPS as compliant resources to the extent that they make beneficial use as a productive energy source of the waste materials which society inevitably generates.

More generally, a substantial number of interested parties, including New York City, have previously urged consideration in this RPS proceeding of an explicit attributes approach that would measure the characteristics of various forms of energy production in terms of social and environmental utility, and assign appropriate values to the various means of production based on those considerations.³ The City asks that the Commission adopt such an approach in this proceeding to permit evaluation of competing methods of energy production through recognized and supportable objective criteria.

The renewable energy structure that ultimately emerges from this proceeding could have a significant ratepayer impact. For example, if a mandatory standard were ultimately to be adopted, and applied to the individual service territory of each load serving entity by the

² The district steam system operated by Con Edison, for example, displaces more than 400 MW of peak electric power, beneficially uses a product that would otherwise be wasted, and is most available when the electrical generation and transmission is under the greatest demand load.

³ Comments of Clean Technology Coalition, Eligibility Proposal for Technology Attributes Measurement, document designation CTC RPS eligibility proposal-6.09.doc, filed June 9, 2003

Commission, it may be difficult for City energy suppliers to meet the required level of renewable use from readily available sources. Even if a market in tradable renewable credits were to be established as part of the RPS as has been done in several other states, deficient New York City suppliers would obviously incur costs in purchasing such credits.

In addition, deliverability could become an issue as well to the extent that availability is required in transmission-constrained areas such as the City. While the fungible qualities of electricity will militate against any requirement for actual delivery of renewable power as such, one of the ongoing issues taken up in the collaborative proceedings is that of physical delivery to New York State. For example, discussion has focused on the issue of contiguous versus non-contiguous energy source jurisdictions, upstream air shed considerations, etc. There will likely be a significant rate impact to in-City consumers as the suppliers of power from distant sources inevitably pass RPS compliance costs through to them. The City is therefore generally supportive of a statewide renewable procurement system through the New York Independent System Operator (NYISO), or under the auspices of another existing (or future) state entity that the Commission may select.

The City recognizes the value of a Renewable Portfolio Standard, and remains supportive of its implementation. However, the City asks that the Commission recognize the legitimate equity concerns that must clearly be addressed in establishing the full parameters of such a Standard. While the development of the RPS would benefit the State as a whole, there are important regional and local considerations to be taken into account before the RPS is created. The Commission itself recognized in its initial Order⁴ in this matter that an assessment of the likely benefits and burdens associated with the establishment of an RPS is important to its success as a public policy instrument.

⁴ Commission Order Instituting Proceeding in Case No. 03-E-0188, at p. 2, issued February 19, 2003

It is for this reason that the City welcomes the cost-benefit analysis that has occurred to date in the RPS proceeding, and urges that systematic use be made of sound analytic techniques to assure that the Commission and DPS staff have the best available data to permit simulation modeling with confidence. In this connection, the City shares the concerns recently expressed by the utilities to DPS Staff concerning the need for modeling that includes both cost and performance characteristics for proposed eligible renewable resources.⁵ The City also believes that such an undertaking is essential, particularly to the extent that it employs varying assumptions, and considers the likely implications of including or excluding certain forms of energy from the scope of the RPS. Alternate scenarios might be considered in order to establish a Standard that will provide the benefits sought without unnecessary dislocation or hardship on any region of the State, or on any particular group of utility customers.

In so doing, the demonstrable benefits of a Renewable Portfolio Standard can be realized in a manner that will permit them to flow to all of the State's residents and businesses on an equitable basis.

II. Renewable Resource Availability

The question of actual availability of renewables is obviously an important one, and will ultimately relate back to the question of the structure and timing of the RPS that the Commission orders. Large-scale hydropower is uniquely available to those located in certain areas of the State. Others, such as users in the New York City metropolitan area, typically do not have comparable access to such large-scale renewable sources of energy. The City itself is a very large New York Power Authority customer, but does not draw power from the distant NYPA hydroelectric plants. This is partly a function of such physical factors as the limited availability

⁵ Letter of September 8, 2003 to DPS Assistant Counsel Paul Agresta in Case No. 03-E-0188, document designation PAgresta 9-08.doc

of transmission connections between upstate and the City, and partly due to various public policy choices. The City simply notes that the Commission should clearly take into account the existence of any impediments to the increased use of renewables in certain regions or service territories.

Similarly, there are fewer opportunities for the use of other promising forms of renewable generation in New York City than exist elsewhere in the State. For example, wind turbines now appear to be the most likely form of large-scale renewable energy generation. General Electric is currently offering for sale wind turbines that can each generate at peak up to 3.6 megawatts, and it is reasonable to expect technological developments that will raise that figure⁶, and that also will permit more consistent operation of the turbines in low wind speed environments. The latter development, if it occurs, will be at least a partial answer to the persistent problem of very low capacity factors for wind turbine installations.⁷ Increased individual turbine capacity allows the use of far smaller wind farm facilities than is possible with the 1.5 MW turbines that have previously been the industry standard. This will permit wider use of wind energy as a significant source of electricity generation. Indeed, ongoing developments in both Europe and in this country suggest that wind energy will be the fastest growing component on renewable power for many years to come.⁸

As a practical matter, however, the space requirements of even relatively compact wind farms are far more suitable to rural upstate areas than to metropolitan regions. In addition, such factors as topography and meteorological conditions in northern and western New York State are

⁶ RePower Systems, for example, reports current development work on a 5 MW wind turbine. *See* website repower.de

⁷ The PJM Interconnection has recently assigned a capacity factor of just 20% to those new wind facilities that have not yet developed a record of service availability. *See* PJM Intermittent Capacity Resource Working Group report at website pjm.com (April 10, 2003)

⁸ *See*, e.g., “Renewables: Winds of Change” at website energypulse.net (August 14, 2003); data at website gepower.com reflecting domestic and foreign installation and growth rates for wind turbine facilities

far more conducive to the placement of efficient wind farms. In the case of offshore wind facilities, such as those now under consideration by the Long Island Power Authority for placement off the South Shore, the prevailing winds do not generally coincide with the most critical summer peak load period. In addition, both aesthetic concerns and marine navigation considerations mean that offshore wind turbine farms are clearly not compatible with urban environments.

Thus, the complete cost-benefit calculus should not simply look at projected effect on the State as a whole, but rather at the likely burdens placed on certain parties and regions by particular forms of an RPS. That process should in turn lead to the formulation of a Standard that will minimize those burdens to the fullest extent possible while still achieving the aims identified by the Commission in its Order.

Equity concerns also bear on the issue of the timing and schedule for implementation of the renewable energy goals between the time of the issuance of the Commission's Order in this matter and 2013. DPS Staff projections in the collaborative proceeding have posited: 1) an initial phase-in period to take into account the projected time frame for renewable energy siting and permitting requirements, and 2) a straight-line annual increase in the percentage of renewables from the 2006 level toward the goal of 25% of State retail energy purchases in 2013.⁹

The City urges the Commission to adopt a reasonable initial period before the initial RPS requirements are put in place, but suggests that there should be a stepped path to compliance with the mandate that is ultimately set by the Commission as a final goal. This would permit relatively slower compelled use of renewable sources in the early years, but accelerating gains in the later ones. Such a course would permit experience with a new mandate to be gained during

⁹ See e.g., DPS Staff discussion proposal document [RPSTargets.xls](#) (April 28, 2003), reflecting straight line gains in renewable MWHs between 2006 and 2013

the initial period of the RPS mandate with fewer stringent obligations on both ratepayers and suppliers, and would also take into account what will almost certainly be the growing use of technology to maximize renewable use in the years leading up to 2013. Thus, it should be far easier to obtain incremental gains in 2012 than in 2006, and if, as expected, the Commission establishes a linear adoption schedule over the coming decade, it should require an accelerating rather than a straight-line obligation in successive years.

DPS Staff has also suggested in the course of the collaborative discussions that any likely RPS mandate would represent only incremental gains, and would therefore be fair to all LSEs and all service areas in the State regardless of the current level of renewables located in such areas, thus equalizing the effect on upstate and downstate regions. This is only partially correct. While such a mechanism might appear to be fair, it still fails to take into account the actual availability of incremental renewables in each area. As noted above, the logical regions for locating large-scale wind facilities are in the northern and western portions of the State, and given the clear volumetric advantage for wind as a renewable power source, in-City entities are simply not in the same position to take advantage of that availability. This argues for a centralized rather than an individual procurement model, unless there are sharply divergent obligations placed on those areas that are less accessible to significant amounts of renewables.

Central procurement using either NYISO or NYSERDA (or some variant thereof) would permit a more rational and cost-effective scheme for obtaining renewable resources – one that could readily take advantage of the comparative advantages for renewables offered by certain regions of the State. This in turn would facilitate a least cost approach, and thereby be responsive to the requests from many quarters in this proceeding that the Commission remain mindful of the serious implications of an RPS mandate for ratepayers. Specific proposals have

already circulated in the collaborative proceeding that would permit the NYISO to assume a role in the procurement process. To cite but one example that arose during the recent collaborative process, an entity such as a suggested “Renewable Portfolio Board” might be formed and used to facilitate renewables procurement with appropriate conforming modifications to the NYISO’s Open Access Transmission Tariff.¹⁰

While transmission planning is not within the scope of the RPS case, the Commission should also recognize transmission constraints as a factor that can have a potential impact on a renewable mandate. Accordingly, if the actual physical availability of renewable power within the State is an issue as it has been in the collaborative discussions over the question of energy imports into New York, transmission-related feasibility issues must be addressed.

III. Reliability Issues

The City welcomes the forthcoming opportunity to address reliability issues implicated by the proposed adoption of an RPS. While a more comprehensive view of the City on this issue will await the opportunity to hear it more fully discussed in the collaborative process next month, it is worth noting that the concerns expressed by the New York State Reliability Council (NYSRC), particularly in its letters of August 20 and September 8 to Judge Stein, raise genuine issues for the Commission to consider.

At least some major forms of renewable power are inherently variable and intermittent, and are therefore not dispatchable in the same manner that traditional fossil fuel facilities are. Moreover, the variations that wind and solar facilities are subject to are less subject to predictive efforts than are other forms of energy that are subject to seasonal or meteorological changes,

¹⁰ See “Centralized Procurement of Renewable Supply Utilizing a Newly Defined Renewable Supply Group with Participant Funding via the NYISO OATT,” Working Group 3 procurement model, May 22, 2003

such as hydropower. In addition, the output of such potential energy sources as wind turbines may not correlate well with peak seasonal demand, thus reducing their marginal utility.

The recent regional power outage has heightened our sensitivity to the many factors that can render the energy infrastructure unstable. And as the NYSRC has noted, any RPS initiative should have as one of its critical goals consistency with the reliability of the State's bulk power system. The reliability concerns associated with non-hydropower renewables are less critical when, as at present, those resources constitute a tiny fraction of the State's overall energy portfolio. However, the more successful the RPS initiative ultimately is, the more important the renewables reliability issue will become.

This fact argues for a RPS provision that not only incorporates reliability concerns at the outset, but remains sufficiently flexible to accommodate modifications in the shape and schedule of its implementation if issues of electrical system integrity become apparent over time.

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Respectfully submitted,

/s/ Michael Delaney

Michael J. Delaney
Energy Policy Advocate
City of New York
110 William Street, Fourth Floor
New York, NY 10038
Tel. 212-312-3787
E-mail mdelaney@nycedc.com