

BEFORE THE
STATE OF NEW YORK
PUBLIC SERVICE COMMISSION

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

Case 03-E-0188

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INITIAL COMMENTS OF HQ ENERGY SERVICES (U.S.), INC.

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I. SUMMARY OF COMMENTS

Pursuant to Judge Stein’s September 19, 2003 “Further Ruling Concerning Schedule and Procedure,” HQ Energy Services (U.S.), Inc. (“HQUS”) respectfully submits these Initial Comments in the above-referenced case. HQUS is a Delaware corporation having its principal place of business in Pittsburgh, Pennsylvania. It is a wholly-owned subsidiary of Hydro-Quebec, a public utility located in Quebec, Canada. HQUS is a marketer of electricity, natural gas and various energy related services within the United States with long-standing business relationships in New York State.

As mentioned in HQUS’ March 28, 2003 comments, HQUS shares the concerns of New Yorkers that over-dependence on fossil fuel generation has adverse effects on the environment and human health, as well as on the stability of the price and supply of electricity.¹ HQUS supports the goals of the 2002 New York State Energy Plan to promote the use of renewable energy resources to alleviate these concerns. HQUS believes that a properly structured renewable portfolio standard (“RPS”) can ensure continuing environmental benefits

¹ Case 03-E-0188 - Proceeding on Motion of the Commission Regarding a Retail Renewable Portfolio Standard, Comments of H.Q. Energy Services (U.S.), Inc., at 1 (Mar. 28, 2003).

from existing renewable resources while providing the appropriate financial and market incentives necessary to encourage development of new renewable technologies that may not yet be commercially viable. Given its interests in the RPS, HQUS attended the plenary collaborative meetings and actively participated in a number of working groups, including those addressing eligibility, import and credit trading issues. HQUS therefore appreciates the opportunity to file additional comments in this proceeding.

HQUS is concerned that hydroelectricity imports from existing plants, which have long been recognized as renewable and an efficient way to displace in-State and/or out-of-State fossil fuel power generation thereby reducing air emissions, would not be eligible to participate in the RPS. Thus, HQUS' two main concerns regarding the establishment of an RPS for New York relate to Eligibility and Credit Trading.

II. ELIGIBILITY

A. Target Resource Eligibility

As noted in Judge Stein's "Summary of Working Group Discussions," Working Group One was tasked with developing a consensus on the renewable resources eligible for inclusion in the RPS.² While consensus was reached on a number of general principles, such as RPS targets should be measured as energy rather than capacity and eligible imports should be included in the RPS, parties disagreed on the criteria to be used to establish specific eligible resources. Three categories of resources generated the most debate: hydropower; biomass; and solid waste.

² Case 03-E-0188, Summary of Working Group Discussions, at 2 (June 25, 2003).

A subgroup was created to address specifically the inclusion of hydropower in the RPS.³ The subgroup, in which HQUS was an active participant, did not reach consensus on hydropower's eligibility for the RPS. However, no party presented solid and decisive arguments supporting the exclusion of hydropower sources from the RPS. Nor did any party dare to pretend that hydropower was not a renewable energy source. There is in fact no valuable reason to do so as no scientific rationale exists to exclude hydropower on the whole from the RPS or to limit, for instance, the RPS to small scale hydropower.

This position is clearly supported and articulated by the International Energy Agency ("IEA"). In addressing the large versus small hydropower debate in its 2000 report "Hydropower and the Environment: Present Context and Guidelines for Future Action," the IEA found:

From an environmental standpoint, the distinction between renewable small dams and non-renewable large dams is somewhat arbitrary. It is not size that defines whether a project is renewable and sustainable or not, but the specific characteristics of the project and its location.

For instance, for an equivalent volume of water stored, geometry demonstrates that a small object has more surface area in proportion to its volume than a large object⁴; and the difference is quite significant. This implies that to obtain the same storage volume, the land mass inundated by 400 small hydropower plants of 5 MW would probably be anywhere from 2 to 10 times larger than the land mass inundated by a single 2000 MW plant. This means roughly 2 to 10 times the impacts on habitats to provide the same storage volume of a single very large reservoir.

In summary, although it is obvious that a smaller human intervention on a specific habitat has less impacts than a very large intervention on the same habitat, one should compare hydropower projects based on the *energy and power produced*. From this standpoint, the cumulative impacts of a multitude of small hydro

³ Id. at 3.

⁴ For example: doubling the volume of a cube increases the surface area by a factor of 1.59.

projects might be larger than those of a single project, given the diversity of ecosystems that will be affected and the much larger cumulative surface area to be inundated for equivalent storage volume with small projects.⁵

The inclusion of all hydroelectric sources in the RPS is further supported by the fact that such sources meet the Working Objectives developed in this proceeding. The inclusion of hydroelectric sources will improve air emissions by displacing less efficient fossil fuel generation; diversify electricity generation mix; improve energy security and reliability; and contribute to the economic efficiency of the RPS requirements in minimizing adverse impacts on energy costs - all important goals of the RPS and stated objectives in this proceeding.

As to the environmental benefits objective, it can not be overstated that hydroelectric resources are the best and least cost available technology to help the State (and the region) meet its important greenhouse gas emissions abatement objectives for the coming years by displacing fossil fuel generation. Governor George Pataki initiated a New York State Greenhouse Gas Task Force to develop policy recommendations for greenhouse gas emissions and global warming.⁶ The Governor's Executive Order requires State agencies to implement energy efficient practices at State buildings and purchase no less than 10 percent of overall State facility energy requirements from renewable "green" power sources by 2005 and no less than 20 percent by 2010.⁷

Moreover, in order to meet the competitive neutrality Working Objective, hydroelectric resources must be included in the RPS.⁸ The RPS should not exclude any

⁵ International Energy Agency Technical Report, *Hydropower Agreement*, Volume II - Main Report at 20-21 (May 2000). This document may be found at <http://www.ieahydro.org/Environment/Hy-Envir.html>.

⁶ Executive Order No. 111 (June 10, 2001).

⁷ Id.

⁸ Case 03-E-0188, Ruling Establishing Comment Procedures, at 4 (June 19, 2003).

renewable resource which contributes to the goals of the RPS, and all renewable resources should be allowed to participate on an equal footing. An open market promotes the use of the most efficient and cost-effective renewable resources. Rules that discriminate against some forms of renewable resources tend to distort the market and degrade the benefits that should be available to New York consumers.

Given the enormous benefits hydropower brings to New York State as outlined above, it would be detrimental to New York State for all or certain hydroelectric resources to be excluded from inclusion in the RPS. All hydroelectric resources, without arbitrary size limitations, should be eligible for participation in the RPS.

B. Tiers

1. Two-Tiered Approach

As noted in the “Summary of Working Group Discussions” circulated by Judge Stein on June 25, 2003, the parties did not reach consensus on the use of a tiered approach for the RPS despite the fact that parties introduced several proposals.⁹ In its March 28, 2003 comments, HQUS proposed a two-tiered structure: one tier for existing sources, including hydroelectric resources, and another for new installations.¹⁰ HQUS does not seek to reargue its position but rather to emphasize the importance of the two-tiered concept in greater detail.

The two-tiered RPS structure would separate existing renewables from new (or recently developed) renewables, including new hydropower resources. With this approach, existing hydroelectric facilities would not compete against new windpower or commercially immature technologies. The competition would be, for instance, between new windpower and new hydroelectric (which is much more expensive than existing hydropower). This approach

⁹ Case 03-E-0188, Summary of Working Group Discussions, at 4.

¹⁰ Case 03-E-0188, Comments of H.Q. Energy Services (U.S.), Inc., at 4-5.

would widen the opportunities for renewable development thereby increasing the efficiency of the RPS.¹¹

The inclusion of existing hydroelectric resources in a properly structured RPS would provide an “umbrella” that permits electricity customers to satisfy their desire to purchase “green” power at a reasonable cost throughout the planning period. Existing hydroelectric resources are necessary to provide reliability support within the renewables sector for intermittent renewable resources (such as wind and photovoltaic facilities) without increasing dependence on fossil fuel generation. A two-tiered RPS could include carefully designed targets for each type of renewable resource over the planning period so that new and more expensive technologies could increase their share in the renewables sector. The two-tiered system could be designed in a manner to ensure that mature technologies do not detract from progress in improving the commercial viability of other renewable resources.

A two-tiered approach which includes existing hydroelectric resources will also assist New York in reaching its target for renewable resource generation (25% in 2013). Unless existing hydroelectric sources are included in the RPS, New York is not likely to achieve that aggressive target. The RPS should focus on attaining this goal for the benefit of the regional environment and all its inhabitants. This requires an RPS approach that sustains and encourages the continuing use of existing renewable resources, rather than one that is limited to incremental generation resources.

Rader and Hempling (2001) advocate a similar two-tiered approach that separates renewable resources on the basis of the need for financial and market support to encourage development. Rader and Hempling noted:

¹¹ Adopting a separate tier for existing renewable facilities would also be justified to ensure that existing renewables continue to avoid air pollution in a given region, at a reasonable cost. In this case, hydropower can provide large reductions in air emissions, because of its large capacity and low costs.

Adding a resource tier allows policy makers to accomplish two distinct goals with the RPS that a uniform RPS requirement could not meet. In a two-tiered standard, for example, one tier (the larger, “base” tier) can achieve resource diversity in the electric system at the lowest cost. The second, smaller tier may advance a set of higher-cost technologies that policy makers deem to have significant long-term development potential which would not be deployed in sufficient quantity absent the second tier.¹²

Under such a tiered system, hydropower sources would be properly recognized as sources of renewable energy without precluding the devotion of financial resources to assist in the development of new renewable technologies. The recognition of existing hydropower facilities of any size as a source of renewable energy should not be perceived as preventing the development of any type of renewable technology. Government funded research and development subsidies, funds collected through a system benefits charge, and similar investment programs can, and should, be allocated to those renewable technologies which require such support. Mature hydroelectric technologies generally do not need research and development investment assistance. For instance, New York State may help windpower technology with research and development subsidies or other programs whereas hydropower technologies would not need such support.

The design of an RPS should not be confused with the decision to direct investment to new technologies through subsidies or other programs. The purpose of the RPS is much broader than subsidies for new technologies, a fact recognized in the diverse Working Objectives set forth for the creation of the RPS. Viewed in this light, inclusion of low-cost renewables, such as existing hydropower, in an RPS does not cause unfair competition relative to more expensive renewables, such as windpower. On the contrary, the RPS should enlarge the

¹² Rader, Nancy and Hempling, Scott, The Renewables Portfolio Standard, A Practical Guide, Chapter Three, at 37 (Feb. 2001). This document may be found at [http:// www.naruc.org/rps.pdf](http://www.naruc.org/rps.pdf).

total share of renewables in the market compared with fossil fuel alternatives and facilitate the emergence of new technologies. In addition, a two-tiered approach is less complicated and easier to implement as compared to the tiered systems proposed by other parties in this proceeding. Thus, HQUS believes a two-tiered approach would best promote the objectives of the RPS.

III. CREDIT TRADING

A. Imports and Trading System Development

HQUS supports the establishment of a system of tradable certificates or credits to enhance the availability of markets for renewable energy sources and to permit the integration of imports and exports between ISOs. A credit system allows smaller or intermittent resources to participate in a broader market. The greater flexibility associated with a credit trading system enables retail suppliers to more easily deliver “green” products desired by their customers, and lower transaction costs improve competitive opportunities in retail electricity markets.

As reported in the “Summary of Working Group Discussions,” Working Group Four concluded that eligible imports should be allowed to be traded as part of the overall RPS design.¹³ The group also concluded that “a single regional trading system is not necessary and that New York should move ahead and design a New York trading system so long as it is compatible with neighboring systems.”¹⁴ HQUS agrees with these conclusions and remains ready to participate in further discussions regarding the development of a trading system.

¹³ Case 03-E-0188, Summary of Working Group Discussions, at 9.

¹⁴ Cite.

IV. CONCLUSION

For the reasons explained above, HQUS believes it is appropriate for the Commission to adopt an RPS that is geographically broad, open to all renewable energy sources, including existing hydropower facilities, and that utilizes a two-tiered structure.

Respectfully submitted,

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