



**Comments of Iberdrola Renewables, Inc.
On the Interim Report Presented by
the New York State Energy Planning Board**

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**Mr. Paul DeKotis
Chairman
State Energy Planning Board
c/o SEP Comments
NYSERDA
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Introduction

Iberdrola Renewables, Inc. (“IBR”) is a renewable energy developer currently concentrating primarily on commercial-scale, on-shore wind development. IBR is the wholly-owned U.S. subsidiary of Madrid-based Iberdrola Renovables, which in turn is 80% owned by Iberdrola S.A. The remaining 20% is publicly traded on the Madrid stock exchange. Iberdrola S.A. owns Energy East, which includes the NYSEG and RG&E utility service territories in New York.

IBR’s North American headquarters is in Portland, Oregon, but includes a very strong eastern U.S. and New York focus. The company maintains two offices in New York in Saratoga Springs and New York City. IBR is part owner, along with Horizon Wind Energy, of the Maple Ridge Wind Farm in Lewis County. Maple Ridge is the largest commercial-scale wind farm in the eastern U.S. The company is committed to helping the state meet its renewable portfolio standard (“RPS”) and greenhouse gas reduction goals through the responsible siting of on-shore, commercial-scale wind farms and is currently developing numerous projects, in various stages, throughout central and western New York.

The purpose of these comments are to emphasize the essential role that New York’s RPS plays in promoting renewable energy development, especially commercial-scale, on shore wind energy, and to recommend reforms which will push the state further to the forefront of policy and regulatory innovation to promote a clean, growing energy economy.

RPS Background

A sound, predictable and transparent RPS is the first step towards growing a clean energy economy. New York's RPS has been a success, playing an integral role in supporting development of approximately 1160 MW of new renewable capacity, including 700 MW of new wind generation. RPS's are a necessary instrument to encourage new renewable investments, because market prices for electricity are simply not high enough to encourage new generation (this is the case not just for renewables, but for any form of new generation which must compete against existing generation which in most cases will have limited capital costs or debt service as a result of the transition from a regulated to a restructured electricity market. Because new resources must account for their capital costs, additional revenue beyond wholesale energy prices are necessary [e.g. the introduction of capacity markets in order to enable revenue adequacy for peaking combustion turbines]).

Renewable energy generation typically relies on three income streams: federal tax credits, energy, and renewable energy credits. The latter accounts for the delta between the value of federal tax credits and energy and the cost needed to bring a new renewable energy project online. Without a revenue stream for this delta renewable energy projects will not be economic. Revenue from renewable energy credits are justified because new renewable energy projects are adding value to society not accounted for by energy prices alone – what economists refer to as “positive externalities.” The benefits include, emission-free electricity, that uses no water for cooling or steam generation, with relatively limited impacts to land, including the ability to restore impacted areas at the end of a project's useful life. Commercial scale, on-shore wind energy has the unique property among energy sources in that its limited environmental impacts last only for the life of the project, at which time it can be decommissioned, thereby avoiding longer-term or perpetual liabilities associated with some other forms of electricity generation.

The New York State Energy Research Development Authority (“NYSERDA”) recently released a report “Comparison of Reported Effects and Risks to Vertebrate Wildlife from Six Electricity Generation Types in the New York/New England Region.”¹ The report analyzed the life cycle impacts of six forms of electricity generation including: coal, oil, natural gas, nuclear, hydro, and wind. The report concluded that: “Overall, non-renewable electricity generation sources, such as coal and oil, pose higher risks to wildlife than renewable electricity generation sources, such as hydro and wind. Based on comparative amounts of SO₂, NO_x, CO₂, and mercury emissions generated from coal, oil, natural gas, and hydro and associated effects of acidic deposition, climate change, and mercury bioaccumulation, coal as an electricity generation source is by far the largest contributor to risks to wildlife found in the NY/NE region.”

The benefits of commercial-scale, on-shore wind energy are not limited to environmental performance. Another NYSERDA report, investigating New York RPS results to date, found meaningful wholesale market price suppression benefits from zero-fuel use resources, like wind

¹ “Comparison of Reported Effects and Risks to Vertebrate Wildlife from Six Electricity Generation Types in the New York/New England Region.” New York State Energy Research and Development Authority. Prepared by: Environmental Bioindicators Foundation, Inc. and Pandion Systems, Inc. March 2009.

energy.² As noted in the report: “A model was developed to analyze the market price impacts of renewable energy resources that NYSERDA procured in the first three procurements. This model employed a statistical approach that considered the relationship between key drivers of electricity price.”³ “Summit Blue’s analysis estimates that the reduction in wholesale electricity prices in the year 2010 are likely to be approximately \$2/MWh. Each MWh of renewable energy added has the effect of lowering electricity costs by approximately \$100/MWh, significantly more than the \$15 or more paid per MWh for the REC. This value is higher than was estimated by the DPS’s study of incremental impacts after the second procurement.”⁴

As New York looks to lead the country in remaking the way electricity is provided investments will be necessary to bring on new renewable resources to serve electricity demand and displace generation, and consequently reduce resource extraction, from conventional generation facilities. These investments are necessary to capture the positive externalities resulting from renewable generation. A well-functioning RPS is the most efficient way to guide investments necessary to continue to reshape New York’s electricity market. As the nation and the world develop policies to address the threat of global climate change, today’s investments in a clean energy economy will serve New York well and position it as a global leader in a world striving for sustainability.

IBR’s comments recommend that New York take the following steps in implementing its RPS (described in detail in the following sections):

1. Launch an immediate NYSERDA RPS main-tier request for proposals to maximize the benefits of near-term expiring federal tax credits.
2. An immediate PSC order for additional RPS fund collections, followed by NYSERDA RPS main-tier request for proposals (“RFP”) inclusive of the RFP reforms recommended below.
3. Convene a stakeholder group to examine the introduction of a market-based, load-serving entity (“LSE”) RPS model (hereafter referred to as an “LSE model”).

Step 1: A Timely Opportunity for New York: The American Recovery and Reinvestment Act

The opportunity to provide comments to the State Energy Plan (“SEP”) are particularly timely in light of the recently enacted federal stimulus bill – the American Recovery and Reinvestment Act (“ARRA”). The energy provisions of this bill can provide a meaningful advantage for

² “New York Renewable Portfolio Standard Market Conditions Assessment, Final Report.” New York State Energy Research and Development Authority. Prepared by: Summit Blue Consulting, LLC and Nexus Market Research. February 2009.

³ *Ib.* p. 4-145.

⁴ *Ib.* p. 4-147.

developing renewable energy projects in New York, provided that New York RPS funds are available in the near-term to complement ARRA.

As noted above, renewable energy generation typically relies on three income streams: federal tax credits, energy, and renewable energy credits. Just prior to ARRA's passage as a result of the economic downturn and the lack of a new NYSERDA main-tier RPS RFP, two these revenue streams, federal tax credits and renewable energy credits, have been unavailable. The federal production tax credit ("PTC") had been unavailable due to a lack of tax-advantaged partners, generally banks and other investment firms, able to use (monetize) the tax credits. ARRA has addressed this issue by allowing renewable energy projects qualifying for the PTC to take a 30% investment tax credit ("ITC") instead and convert the ITC amount into a direct grant from the Treasury Department. This is particularly helpful to developers which generally must give some of the PTC's value to their tax-advantaged partners; and for New York developers specifically, because the ITC compared to the PTC is more economically beneficial for relatively lower capacity factor wind projects found in the eastern United States.

To qualify for the ITC/Treasury Department Grant, qualifying renewable energy projects must begin construction by the end of 2010 and be in service no later than the close of 2012. Because developers must make near-term decisions regarding which projects to develop in 2010 and where to allocate capital expenditures it is essential that New York make renewable energy credits immediately available so developers can factor them into their investment decisions. For example, today a New York developer could only include ITC/Grant and energy revenue streams in its revenue forecast, whereas a developer in say Pennsylvania, Illinois, or Massachusetts could factor those two revenue streams, but also RECs. In every case, projects in states which can count on REC revenue (all states with active RPSs) will have better economics, therefore, limited investment capital will be dedicated to those projects, rather than projects in New York.

To address this disparity and to continue renewable energy investment momentum in New York it is essential that the PSC order NYSERDA to immediately launch a main-tier RPS RFP so that developers can begin pricing their 2010 projects. It is understood that NYSERDA has approximately \$110 million available for such an RFP that is only awaiting a PSC order to proceed. Therefore, this vital step to secure New York's energy future could be undertaken at no additional cost to rate-payers.

Step 2: Additional RPS Collection and Modifying NYSERDA's Centralized Procurement Model

Governor Paterson has announced a goal to achieve 45% of the state's energy needs through renewable energy and energy efficiency by 2015. In order to meet the renewable energy portion of this goal, it is essential that the PSC order additional RPS fund collections (the \$110 million reference above represents the final remaining funds from the initial round of RPS collections). In addition to these collections, NYSERDA should implement reforms to its central procurement model to make it even more effective. These reforms will be necessary to present true market price signals and market liquidity necessary for investment capital to continue to flow to New York in an increasingly competitive national and international renewable energy market.

Twenty-eight states plus the District of Columbia have Renewable Portfolio Standards. New York's RPS is met through a centralized RFP, conducted by NYSERDA, for RECs linked directly to specific qualifying projects. To date, this approach has been successful in promoting renewable energy development. However, the model suffers from shortcomings compared to other state RPS designs:

- A. REC prices produced through the centralized procurement process are not necessarily reflective of the development costs necessary to meet New York's RPS targets. This means that promising projects may not have adequate revenue to be financially viable. This is especially important in light of declining energy prices (when energy prices fall, REC prices must increase to compensate – assuming the same level of development costs).
- B. NYSERDA's procurements are periodic and random making long-term planning difficult since developers are uncertain when/whether they will achieve a contract for their RECs.
- C. There is little REC price transparency and little to no market liquidity since there is a single buyer – NYSERDA – and no secondary market.

Modifying NYSERDA's centralized procurement approach can address these issues. IBR recommends the following changes to NYSERDA's future main tier procurements following a PSC order for additional collections:

1. Fulfill the full procurement target that the RFP is seeking to meet: In order for price formation to occur at a level supportive of new renewable energy projects it is essential that RPS demand be fully met. Under-procurement will send a distorted price signal to the true costs of new renewable energy development necessary to meet the stated RPS targets and will discourage investment since developers will be unable to forecast the actual quantity of RECs that NYSERDA is going to procure and, therefore, will be unable to estimate whether their project will be "in the money" and ultimately selected as part of the NYSERDA procurement.

The 2008 RPS main-tier goal was 3,459,000 MWhs. NYSERDA procured 75% of this goal or only 75% of the stated RPS target. In other RPS markets, in which load-serving entities ("LSEs") are required to fully comply with RPS targets, REC prices would form at a level that supports the cost of new development. In this case, NYSERDA is artificially suppressing REC prices. The results are that main tier REC prices have fallen through the first three solicitations (first solicitation: \$22.50; second solicitation: \$15.52; third solicitation: \$14.75).⁵

Thus, the decline in REC prices has not been the result of falling development costs in relation to stated RPS targets, but NYSERDA's unwillingness to procure RECs to meet the full main-tier RPS requirement.

⁵ "New York State Renewable Portfolio Standard: Performance Report, Program Period Ending June 2008." New York State Energy Research and Development Authority. September 2008.

Current market conditions will require REC price formation at levels that reflect both increasing capital and development costs and falling energy prices (since REC prices reflect the price delta between federal tax credits plus wholesale energy prices and the cost to develop a project as wholesale energy prices fall, REC prices must rise in order for a project to be economically viable).

2. Provide standard RPS procurement schedules with flexible bid terms: Long-term contracts are an essential component for financing new renewable energy projects and the long-term contracting approach of the centralized procurement model is one of its strengths. However, it is also a limitation in that a project that does not receive a NYSERDA contract has very limited opportunities for REC sales – its options are limited to either the voluntary market or exports to PJM or ISO-NE to serve RPSs in those control areas.⁶ Therefore, there is a meaningful risk in developing a project in New York, since a project that does not receive a NYSERDA contract, either as a result of the timing of development relative to an uncertain procurement cycle, or because price formation occurred at a level lower than expected demand because of under procurement – would have very limited opportunity to sell its RECs.

NYSERDA can address this challenge and create a more efficient centralized procurement process in several ways:

- I. NYSERDA should have a standardized procurement schedule. We recommend quarterly procurements, but six month procurements at a minimum. This will enable RECs from projects on different permitting schedules to be assured of a near-term opportunity to sell.
- II. Allow bidders to offer RECs for different terms. All bidders should be able to offer RECs for terms from three to ten years at their discretion.
- III. Create a spot-market exchange and allow banking and borrowing. A spot-market exchange would allow NYSERDA to fill any annual REC shortfall prior to the end of the compliance year or to take advantage of various long-positions and the willingness of parties to sell RECs at any time at a price that NYSDERDA finds favorable. NYSERDA would periodically be able to make offers on this exchange to get a sense of spot-market prices and act whenever the pricing is in its favor. At the same time, the spot market exchange would provide a mechanism to ensure that NYSERDA acquires its full annual stated RPS target.

⁶ New REC import rules in both Massachusetts and New Jersey make it increasingly difficult, and in the Massachusetts case unlikely, to export sufficient quantities of New York RECs to make large-scale renewable development viable. See the Massachusetts Green Communities Act and New Jersey's new rules on dynamic scheduling for external control area REC qualification. Massachusetts and New Jersey represented the most promising markets for exporting New York RECs. Other states either do not allow external control area imports or do not have REC market economics sufficient to support New York renewable development.

- a. Banking: NYSERDA should be able to bank RECs up to 5% of its future year's requirements from the current year. This will allow NYSERDA to take advantage of beneficial pricing in the current year and dampen price volatility.
 - b. Borrowing: Similarly NYSERDA should be able to borrow up to 5% of its current year's requirement from the future year in order to mitigate high prices in the current year should NYSERDA feel that more favorable REC pricing will occur in the future.
3. Procure "products" not "projects": Like all northeastern states, project development and siting in New York can present challenges, which result in unexpected delays. Tying REC procurement to specific projects puts great pressure on developers to meet the timelines set forth by NYSERDA while facing delays from appeals and, potentially, regulators. The hurdles are naturally part of the project development siting process and can be mitigated by allowing the RPS to be met by products instead of projects.

To achieve this, NYSERDA would seek RECs which meet certain identified criteria relating to fuel, vintage, and geographic location – just like the current project-based approach, but with much greater flexibility since REC delivery would not be tied to specific projects.

This approach can meaningfully reduce regulatory risk associated with New York project development. Should unexpected permitting or legal delays occur, a developer which had bid into and won a NYSERDA contract could much more easily obtain RECs from the secondary market to fulfill its contractual obligations, than through the current project substitution requirement. Project substitution essentially means a developer would need to be developing two projects on the same time schedule, but one would not have a NYSERDA contract. This seems to be an unlikely occurrence given New York market conditions.

Under the "product" approach, risk for meeting the contract would still be on the developer and NYSERDA could still require security as part of the contractual obligation, but this additional flexibility would reduce risk for developers (a benefit which should ultimately be priced into REC bids).

Step 3: Shifting to a Market-based, Load Serving Entity RPS Model

Ultimately, we believe a market-based LSE RPS model would be the most effective RPS design for New York. This type of RPS, employed by most states with RPS mandates, including neighbors in New Jersey, Pennsylvania, Massachusetts and Connecticut places the onus for RPS compliance on LSEs. The market-based LSE model increases the number of REC buyers in the market exponentially, since each LSE now becomes a buyer, in addition to the ESCOs which can serve the LSEs REC needs through their own purchases, leading to a greater approximation of the competitive energy market.

IBR offers the following skeletal design for a market-based, LSE model RPS for New York and volunteers to work with stakeholders to develop a detailed RPS model for your consideration.

A market-based, LSE RPS would have the following characteristics:

1. A fixed statewide MWh requirement based on the 30% Post-EPS load forecast. The requirement would need to be fulfilled on an increasing annual basis through 2015 and continuing in a fixed amount thereafter.
2. Each LSE would be responsible for REC procurement based on their percentage of statewide retail electricity sales. (E.g. if an LSE has 5% of state retail sales then it would need to acquire an amount of RECs equal to 5% of the annual statewide fixed MWh amount).
3. LSE's shall be enabled to engage in long-term contracts (defined as 10+ years) in order to meet their RPS obligations with full cost recovery, subject to a PSC prudence determination.
4. Tradable RECs shall be used for purposes of RPS compliance. LSE's may engage in "bundled" contracts for RECs and energy, but an energy purchase is not required for RPS compliance, only RECs.
5. An electronic tracking system compatible with electronic tracking systems used in adjacent ISOs/RTOs and with national REC tracking systems shall be used to encourage REC trading and for regulatory compliance tracking.
6. Banking and Borrowing should be considered as alternatives that "smooth" prices, helping to prevent prices from rising to the cap during periods of shortness and falling to zero when supply is long. The use of long-term contracts will also help to reduce price volatility.
7. Alternative compliance payments should be instituted to ensure that LSEs have an incentive to procure RECs to meet their RPS requirements. LSEs failing to acquire sufficient RECs to meet their compliance obligation would pay an alternate compliance payment to NYSEDA of \$50 per MWh adjusted annually for inflation. Alternative compliance payments would not be eligible for cost recovery.
8. RECs sold to the voluntary market would not count towards regulatory compliance. The 1% voluntary market objective could be retained under this format.

The market-based LSE model has the following advantages over the centralized procurement model:

- Maximizes the number of buyers in the market, more closely approximating competitive energy markets
- Increases market certainty since LSEs must meet their compliance requirements

- Gives developers greater confidence to invest, since multiple buyers and known compliance requirements eliminate the uncertainty of not being selected through the centralized procurement
- Ultimately, the greater efficiency of the market-based LSE model should be reflected in lower REC prices over the long-term, including the elimination of permitting risk associated with current project based centralized procurement model

Economic Development

Continued implementation and achievement of New York's RPS can provide important economic development opportunities. Investments in the upstate economy can be especially beneficial during this economic downturn. The Maple Ridge wind farm is an example of economic benefits available to local communities (although we should point out the unique nature of Maple Ridge as part of an Empire Zone, nevertheless renewable energy projects are one of the few economic development alternatives for rural areas of New York that can bring jobs, while providing a use compatible with existing land uses).

Maple Ridge construction brought over \$55 million into the local economy through the purchase of local materials and supplies for access roads and turbine foundation construction (i.e. gravel, stone, concrete, and other materials). In addition, the wind farm's construction created over 400 construction jobs, the vast majority were filled by New York-based employees.

Operation of the Wind Farm has created 35 full-time local jobs and brings annual revenue payments of over \$1 million to the landowners involved. For the full 321 MW size, the annual tax payment received by the municipalities, county, and school districts as a result of Wind Farm is in the millions of dollars annually, including more than \$ 2 million to three local schools.

As noted, both the size of Maple Ridge (321 MW) and its qualification as an Empire Zone, make it a unique example. A more typical 80 MW project would generally have the following approximate economic benefits:

- Approximately 100 part-time construction jobs
- Four full time operation and maintenance jobs upon the facility's completion
- Approximately \$500,000 in annual PILOT payments to local tax jurisdictions
- Annual lease benefits of approximately \$300,000 and another approximately \$300,000 in one-time easement payments during construction
- Total payments for local goods and services of approximately \$5,000,000 and nearly \$1,500,000 in additional payments for goods and services purchased by workers during development and construction.

The above are generic economic benefits information. It is likely that a range of benefits will be enjoyed by local communities, but given the critical nature of the RPS to the continued

success of New York's renewable energy industry we wanted to offer some specificity as to the benefits host communities will enjoy from commercial scale wind projects.

Postscript 1: Interaction with Federal Energy Policy

The U.S. Congress is currently considering a national Renewable Energy Standard and a Greenhouse Gas Cap and Trade Program. Depending on the details and ultimately successful Congressional passage, these policies could provide meaningful near-term incentives for national renewable energy investment. However, New York state policy-makers seeking to further the state's renewable energy leadership should be mindful that, while encouraging, federal energy policies are no substitute for continued strong state leadership to promote renewable energy.

As for the details of a national Renewable Energy Standard we are quite confident that it will not compromise the ability of states to maintain their own RPS's or to go beyond what the Federal Renewable Energy Standard is requiring. There are a number of reasons for New York to continue to push forward with its RPS:

- a. The Federal Renewable Energy Standard, particularly in the early years, will encourage renewable development in the lowest cost areas. While New York has a good resource, especially from a regional standpoint, it is very possible that Federal RECs will not result in high enough prices to support New York projects. As a result, the continuation of the New York RPS will be necessary in order to promote in-state projects.
- b. While we do not know the Federal Renewable Energy Standard's final form, it is conceivable that the early year requirements will be lower than Governor Paterson's stated 45% renewable energy/energy efficiency target. Therefore, staying the course on the state's RPS will be essential to maintaining developer momentum to transform New York's electricity system to meet the Governor's goals.

Postscript 2: Transmission

We strongly encourage the State Energy Planning Board to examine transmission solutions that enable renewable energy generation to deliver from zones in western and central New York to the lower part of the state. Transmission solutions will enable the state to maximize its renewable energy potential and will bring additional electricity price benefits.

We encourage the State Energy Planning Board to work with the PSC and the NYISO on this matter and to examine policies in Texas, Colorado, and Minnesota designed to provide transmission solutions for renewable generation projects. In many ways, New York's transmission challenges are a microcosm of the nations and a New York solution could serve as a national model while maximizing renewable energy benefits for the state's rate-payers.

Conclusion

Iberdrola Renewables, Inc. thanks the State Energy Planning Board for the opportunity to offer these comments and respectfully requests your consideration of our recommendations and asks for your support in working with the agencies charged with implementing the RPS to adopt them.

In summary, IBR recommends the following:

1. An immediate PSC order for NYSERDA to immediately launch a main-tier RPS RFP using the remaining unused RPS funds (approximately \$110 million).
2. An immediate PSC order for additional RPS collections in order to meet Governor Paterson's 45% renewable/energy efficiency goal.
3. Following the PSC collections order, NYSERDA should launch main-tier RPS RFPs based on the reform recommendations set forth above.
4. The State Energy Planning Board should convene a stakeholder group to discuss the transition to a market-based, LSE RPS model.

IBR is greatly appreciative of the state's efforts to date to encourage renewable energy. We believe these recommendations will enhance the state's current position as a renewable energy leader and generate even more investment in New York's green energy sector.

Please contact me at 484-654-1887 or ethumma@iberdrolausa.com if you have questions or would like to discuss these recommendations further.

Respectfully Submitted,



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