



19 February 2010

Hon. Jaclyn A. Brillong
Secretary to the Commission
New York State Public Service Commission
Empire State Plaza
Agency Building 3
Albany, NY 12223-1350

Comment RE: PSC Case #03-E-0188

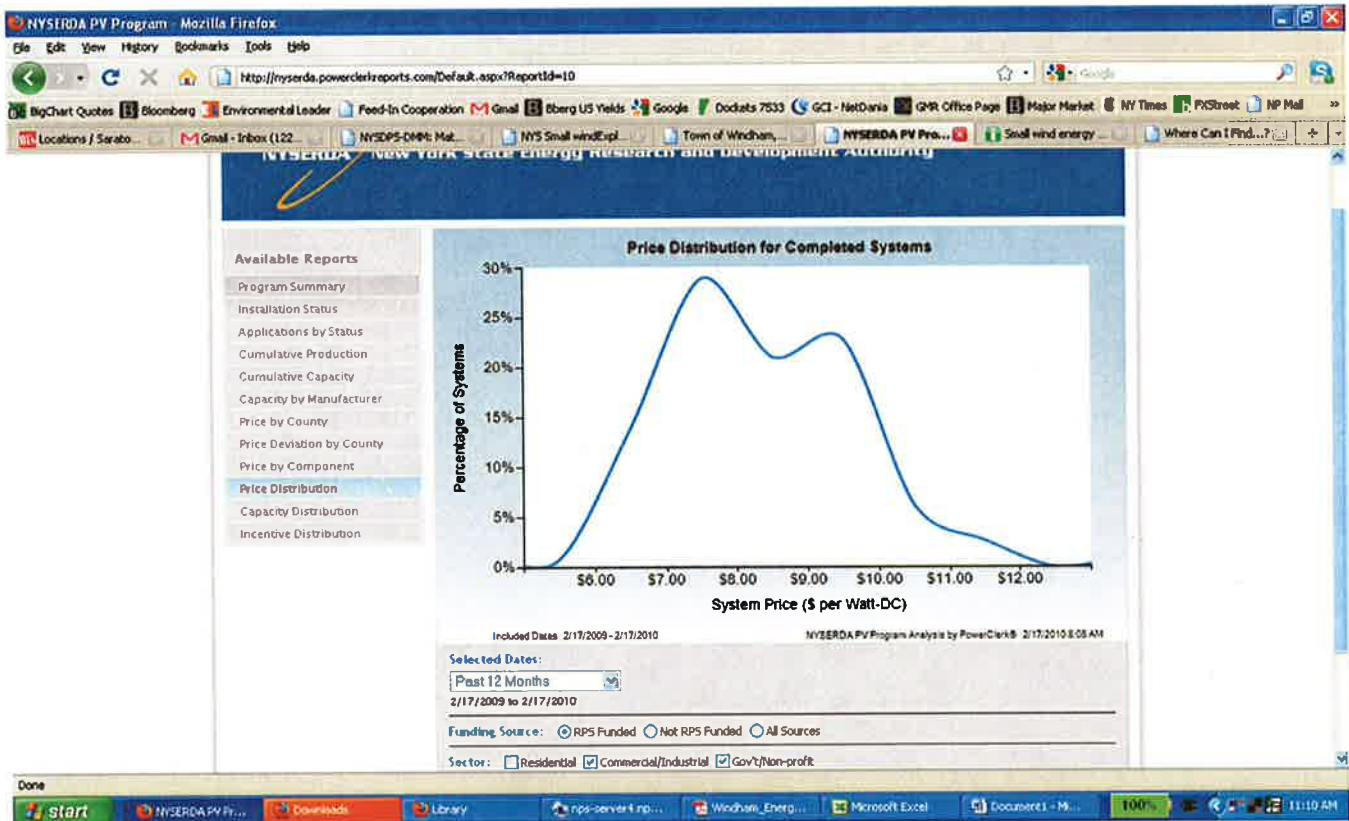
Maximizing the Value of New York State RPS funds

Northern Power Systems is a U.S. manufacturer of the Northwind 100, a 100kW turbine approved by NYSERDA for the Small Wind Incentive Program (PON 1098). Northern Power has installed turbines in 14 states, as well as Canada, Italy and the United Kingdom, and is the leader in commercial on-site wind applications in the Community Wind market. We appreciate the opportunity to comment on the recent allocations of interim funding for the Renewable Portfolio Standard (RPS) program for the period January 1, 2010 through June 30, 2010. In particular, Northern Power would like to direct comment to the imbalance in allocations between the Solar PV (\$12,000,000) and Small Wind (\$300,000) programs.

Turbines within the Small Wind category are generally installed on-site to help offset electrical usage at school, public/municipal buildings, agricultural applications and small commercial settings. We believe that setting a "level playing field" between distributed solar and Small Wind technologies makes not just good renewable energy policy, but also sound economic policy.

Both Solar PV and Small Wind systems (<100kW) have advantages and disadvantages in the marketplace. The biggest advantage for small wind is its relative lower installed cost compared to PV and, if sited at locations with annual average wind speeds over 4.7m/s in New York, its higher capacity factors and Annual Energy Production.

Although NYSERDA does not publish broad installation cost and production data for Small Wind as it does for Solar PV, cost and capacity factor numbers for both technologies are readily available. As the NYSERDA PV Program Analysis shows in the screenshot below, rough cost for RPS-funded installed solar systems over the past 12 months for Commercial and Government applications has ranged from \$7.00-\$10.00/installed watt for PV. In the same period, public documents from the recent Vermont Public Service Board Standard Offer Hearings (Docket #7533, <http://psb.vermont.gov/docketsandprojects/electric/7523>) show costs for installed Small Wind applications from \$6.40/installed watt for 10kW wind systems to \$5.66/installed watt for 100kW wind systems.



Capacity Factors for Solar PV systems in NY State vary somewhat by region, but can be assumed to be in the range of +/-13% for the state as a whole. Comparatively speaking, this same capacity factor in a Northern Power System Northwind 100 wind turbine (100kW) equates to an annual average wind speed of about 4.7m/s (see table of Wind Speeds and Annual Energy Production below). In New York State then, this wind speed can be termed the “Breakeven” wind speed between Small Wind and Solar PV. That is to say, a 100kW wind turbine, sited in a location with an accurately assessed wind speed of 4.7m/s (or greater) will produce as much (or more) electricity as a 100kW solar array at lower installed cost.

Framed from the perspective of this cost/production comparison, the imbalance of funding toward Solar PV – roughly 40-to-1 – risks committing these valued RPS funds to paying “More for Less.” The demographics of New York, specifically the building density in the New York City area, are unique. But even accounting for that, a more balanced funding profile would do more to optimize the portfolio of renewable technologies in the State and increase the kWh production of clean energy for the same or lower costs.

In addition to its renewable energy benefits, the encouragement of Small Wind confers other economic benefits as well. Although the Northwind 100 turbine is manufactured in Vermont, Northern Power engages 18 different New York



Northern
POWER SYSTEMS

WWW.NORTHERNPOWER.COM

29 Pitman Road, Barre, Vermont 05641 USA :: TOLL FREE 877 90 NORTH :: TEL 802 461 2955 :: FAX 802 461 2998

companies in its manufacturing supply chain. In addition, each Northwind 100 project employs 35-40 different skilled workers, produces approximately 2000 total hours of work and injects \$225,000-\$250,000 in project costs into the local economy.

Based on both the economics of purchasing renewable energy and the multiplied economic benefits of small wind manufacturing and project development, Northern Power would encourage the PSC to "level the playing field" between Solar and Small Wind and adjust the allocation of funds to a more balanced level. We propose the PSC reserve at least as much funding for Small Wind as Solar PV, while at the same time allowing NYSERDA to create a more aggressive Small Wind incentive that encourages the deployment of turbines in the 100kW size range.

Thank you for this opportunity to comment.

Sincerely,

William Basa
Director, Public Policy
Northern Power Systems
29 Pitman Road
Barre, VT 05641

Direct.