

## RPS PROGRAM PROCUREMENT MATTERS

The New York Public Service Commission (Commission or PSC) is considering approving a procurement plan that addresses matters pertinent to the Renewable Portfolio Standard (RPS) Program the Commission adopted in its Order Regarding Retail Renewable Portfolio Standard, issued on September 24, 2004 in Case 03-E-0188 (September Order). In the September Order, the Commission adopted a policy designed to increase the percentage of renewable energy used by New York consumers from approximately 19 percent to at least 25 percent by 2013. The RPS Program component of this renewable energy policy is designed to achieve a renewable energy percentage of 24 percent. The Commission expects that the voluntary green power market will contribute to at least one percent of the overall 25 percent goal. The Commission charged the New York State Energy Research and Development Authority (NYSERDA) with the task of procuring resources for the RPS Program in order to meet program goals.

The Commission adopted an implementation plan for the RPS Program in its Order Approving Implementation Plan, Adopting Clarifications, and Modifying Environmental Disclosure Program, issued on April 14, 2005 (April Order). In the April Order, the Commission directed Department of Public Service Staff (Staff), in conjunction with NYSERDA and in consultation with the parties, to make recommendations to the Commission for its consideration regarding several specific procurement-related issues.

These issues include:

- Funding levels and procurement targets for at least the 2006 through 2008 procurements.

- Methods for procurement of Main Tier RPS Program targets.
- Proposals for supporting growth in the voluntary green markets in a centralized procurement environment.
- Pricing methodology used in such procurements and the criteria to be used for the evaluation of proposals submitted under the models.
- Delivery terms of contracts.
- Requirements for accounting for biomass co-firing at existing facilities and criteria that govern the use of adulterated biomass.

Staff and NYSERDA invited parties to a series of stakeholder workshops to discuss the various procurement alternatives and to address the other matters specified by the Commission. A series of resource materials were prepared and distributed to the parties in advance of those workshops, and are available at [www.nyserdera.org/rps/meetings.asp](http://www.nyserdera.org/rps/meetings.asp). In addition, following the Fast-Track solicitation conducted by NYSERDA in late 2005 and early 2006, the Fast-Track procurement bidders and other potential bidders were surveyed with respect to their reactions to the methods used during the Fast-Track procurement. A summary report discussing the results of this survey is available at [www.nyserdera.org/rps/meetings/market\\_survey.pdf](http://www.nyserdera.org/rps/meetings/market_survey.pdf). The Commission now seeks comments regarding the design of RPS Program procurements for 2006 through 2008 in light of these investigations.

The Commission may accept, reject, or modify any proposals relating to these matters. Comments are sought on all aspects of the proposed procurements and other matters discussed herein.

## I. FUNDING LEVELS AND PROCUREMENT TARGETS

I. In the September Order, the Commission presented the annual program targets and funding levels needed to reach the overall 24% RPS Program goal. At that time, the Commission determined the effective renewable energy targets to be reached and timetables for reaching them. The Commission is considering holding to this target schedule for at least the next two years of procurements, subject to the limitations of program funding and analyses of the cumulative results of prior procurements.

## II. PROCUREMENT APPROACH

The Commission stated in the April Order that, in designing an efficient and transparent procurement model, in addition to cost minimization, its goals is to:

- Maximize the opportunity to contract with projects that have a high probability of achieving operation;
- Identify market conditions that should be present in order to justify a particular procurement approach;
- Establish a process for determining the presence of such market conditions and aligning the use of a particular model appropriately; and
- Establish a procurement process that will acquire sufficient resources to meet annual RPS targets.

As more fully discussed below, the Commission is now considering authorizing the following specific procurement models for use through the end of 2007:

- A. Sealed-bid, pay-as-bid auction (RFP) similar to the approach in the Fast Track procurement;
- B. Clearing price, descending clock auction; and
- C. Offer.

In June 2005, NYSERDA and Staff held workshops seeking comment on the

various procurement methods. As a result of those workshops, the need for refinements to the auction category became clear. Generally, the differing types of auction formats can be characterized by how the price eventually paid to the bidders is determined:

- As-bid auctions pay bidders based on their individual bids. In practice, such auctions can and often have allowed for some negotiation on price. Such an approach appears best suited where the depth of the market is uncertain. While Fast Track bids were sought via a request for proposals (“RFP”), the Fast Track procurement functionally met the definition of a sealed-bid auction with winners paid as-bid, and from here on forth we will refer to that approach as a sealed-bid auction.
- A clearing-price auction pays all selected bidders the same price, that price being the lowest price necessary to meet the quantity desired. Clearing price auctions are best suited and may minimize costs when there are many competitors, and are considered effective in markets with high price transparency and liquidity; a clearing-price auction requires sufficient market depth to avoid the exercise of market power.

A. Sealed Bid, As-Bid Auction.

This model was employed in the Fast Track procurement. Projects were compared on the basis of their as-bid attribute price, adjusted by present-value to reflect differing contract durations. Projects were then selected for contracting, starting with the lowest adjusted as-bid price. Contracts were awarded only after security was posted with NYSERDA.

B. Descending Clock Auction

One example of a clearing-price auction, discussed by the parties, is a declining, or descending clock auction. This type of auction would operate, generally, as follows: NYSERDA would set the total target quantity of attributes to be acquired, as well as the opening price. Bidders would then offer quantity bids at this opening price. If the cumulative amount of attributes offered at the opening price exceeds the total target quantity, the price

would be lowered by some increment, and bidders would be asked to resubmit quantity bids at the reduced price. This process would be repeated until the lowest price at which the target quantity of attributes can be acquired is reached. Each successful (remaining) bidder would receive the final, or  $A_{clearing}$  price. A concise assessment of the descending clock method was prepared by the Joint Utilities, and is available at <http://www.nyserda.org/rps/DCA.pdf>.

The Commission is considering a descending clock auction design that would require quantity bids to be entered in standard MWh per year block sizes; for instance, in blocks of 10,000, 20,000, or 50,000 MWh. Bidders could enter bids of single or multiple sizes. For example, a bidder wishing to develop a 100 MW project with an output potential of 300,000 MWh per year could be expected to bid on multiple blocks which, combined, would add up to 300,000.

The Commission seeks comments on implementing such an approach, recognizing the uncertainty developers would face with respect to each block. Specifically, it is likely that unless all offers are made conditional, an offerer would face the possibility of having only a portion of its offer selected, and be bound to produce those MWhs at the auction price. In the example above, if the developer's bids were selected for only 150,000 of the 300,000 MWh bid, the bidder would be bound to develop a minimum of 50 MW in capacity, and to deliver the 150,000 MWh annually, despite having no long-term contract for the remaining 150,000 MWh of production. The Commission seeks to learn from the parties how the application of a block bid structure under the program would impact on the prices bid and prospects for project development.

For the declining clock auction to be successful, a sufficient number of bidders are needed to preclude domination or collusion. The Fast Track procurement occurred at a time when only a handful of projects had a realistic chance of beginning operation in time to take advantage of the Federal Production Tax Credit (PTC). Market conditions have changed: the PTC is effective through 2007, and a larger number of projects are positioned to enter operation in 2007 and 2008. The Commission is considering authorizing NYSERDA to employ a descending clock auction sometime during the next two procurement cycles to take advantage of these changed market conditions.

### C. Standard Offer

Respondents to the NYSERDA Fast Track procurement survey indicated that, for smaller-scale projects, the availability of a Standard Offer contract might be preferred over either the RFP or the auction process. The Commission is considering authorizing the use of a Standard Offer, under which a standard payment amount would be available to projects meeting defined criteria. The Commission is considering and seeks comments on:

1. Whether eligibility for the Standard Offer should be limited to projects less than a defined size, perhaps those projected to produce less than 10,000 MWh per year.
2. Whether eligibility should be limited to particular eligible resources.
3. Whether the Standard Offer should be optional or mandatory for projects meeting the criteria.
4. The proper method(s) for determining the Standard Offer price.
5. The proper duration of the Standard Offer contract.

The Commission invites the parties to express their views on whether market conditions warrant the use of one model over another or whether one particular combination

of models meets broader RPS Program objectives most effectively. In settling on a particular procurement model or combination of models, the Commission proposes to adopt a system of procurement that will remain in effect for through 2008.

### III. SECURING PERFORMANCE

The Commission recognizes the importance of selecting projects that have a high probability of achieving operation and performing under their resulting RPS Program contracts. The Commission is considering, as it did for the Fast Track procurement, requiring security in the form of a letter of credit or the equivalent that selected bidders would post at the time of entering its RPS Program contract. This amount would be set at a level sufficient to discourage participation by owners of facilities with little or no probability of achieving commercial operation, but not so high as to discourage bids from viable projects, especially small projects. As under the Fast-Track procurement, the bond would be refundable in its entirety upon project performance in accordance with the contract. The Commission is also seeking comment on the advisability and feasibility of employing contractual, post-selection mechanisms to allow more close monitoring of the progress of development, and decision-making ability, such as demonstration by developers of progress in the interconnection process, the ordering of major equipment, or other objectively demonstrable milestones.

### IV. CONTRACT DURATION

In the Fast Track procurement, NYSERDA offered bidders a contract duration of up to ten years. The Commission is considering requiring a contract duration of a minimum of ten years. The Commission is also seeking comment on alternative contract duration, and particularly on the advisability of increasing the maximum term length to 15 years. If a

clearing-price auction (e.g., declining clock auction) is employed, a uniform contract delivery term will be necessary for each auction held. Finally, the Commission would be interested in learning what impact, if any, the choice of procurement model (sealed bid auction, declining clock auction and/or standard offer) would have on the contract duration.

#### V. PRICING MODEL

The Commission is considering continuation of a fixed price method, paid per megawatt-hour (MWh). The fixed-price approach method has several advantages; it is the simplest to administer, most straightforward to evaluate, and provides a definitive cost for budgeting purposes. Other alternative pricing approaches may provide advantages; and, the Commission is interested in comments on any other pricing methods.

#### VI. BIOMASS MEASUREMENT

In its April Order, the Commission directed Staff and NYSERDA to examine methodologies for measuring energy generation from co-firing operations at plants using solid fuels. The Commission sought to develop similar measurement protocols for separating eligible landfill gas fuel from natural gas in common carrier pipelines. In comments filed with the Commission, certain parties requested that the definition of eligible urban wood waste be expanded to include a broader range of adulterated biomass as a feedstock for biogas or liquid fuels conversion technologies.

Staff and NYSERDA invited parties to technical workshops to foster discussion on these issues, and more generally on the development of appropriate biomass eligibility guidelines including the development of forest and harvest management practices to ensure eligibility for the program. The Commission is considering adoption of detailed

procedures to determine fuel and facility eligibility and to provide on-going verification of continued facility performance to Commission standards. These procedures are contained in a draft Biomass Guidebook available for review on NYSERDA's Web site at

[http://www.nyserdera.org/rps/Draft\\_Biomass\\_Guide.pdf](http://www.nyserdera.org/rps/Draft_Biomass_Guide.pdf). Parties are invited to comment on this draft, and particularly on the following elements:

- Conditions under which use of adulterated biomass would be deemed acceptable;
- Options to measure the fraction of biomass used in co-firing at existing facilities;
- Conditions under which pipeline quality biogas will be considered eligible; and
- Geographic limitations on eligibility of landfill gas.

The Commission is considering authorizing use of advanced power generating technologies to convert adulterated biomass fuel into energy, subject to compliance with Commission-approved testing methodologies and emissions criteria. Under the proposed criteria, facilities will conduct detailed fuel screening to identify the presence of precursor elements for specific pollutants. Developers will then be required to conduct an analysis comparing emissions of these targeted pollutants, assuming the use of both unadulterated biomass fuel and adulterated biomass fuels, for the selected facility conversion technology. As a condition for allowing the use of adulterated biomass fuel, the Commission is considering a cap on the measured level of emissions for targeted pollutants of concern using adulterated biomass: no more than one percent higher than the measured level of emissions for the same pollutants using unadulterated biomass.

Regarding measurement of incremental biomass generation, the Commission is considering two different methodologies for determining eligible generation. For facilities planning to more fully utilize *existing* renewable biomass capacity, it is proposed that the increase in biomass power generation be calculated on an energy basis with the baseline generation calculated using prior energy production, determined over a selected averaging period. For facilities making a substantial investment in new processing or conversion equipment, it is proposed to establish renewable generation output from the plant on the basis of a ratio of the incremental renewable generation capacity to the total renewable generation capacity at the plant over an averaging period.

The Commission is considering procedures for accurately measuring fuel mass flow rates and heat input/output data for determining the fraction of biomass fuel used at multi-fuel facilities eligible for the program. Such procedures address conventional solid and gaseous fuel co-firing applications, but add specific treatments for biogas delivered through common carrier pipelines. In this latter case, the draft guidebook sets forth additional conditions the Commission proposes to adopt to determine fuel and facility eligibility.

Regarding the use of pipeline quality biogas transported over a common carrier, the Commission is considering limitation of RPS Program eligibility to energy produced as a result of new collection activity, whether through expanded collection at an existing facility or through the development of entirely new gas production resources. The Commission is considering adoption of procedures for detailed measurement and accounting for landfill gas collected, upgraded, and injected as pipeline quality gas as described in the draft Biomass Guidebook. The Commission is also considering a requirement that, in addition to other

eligibility requirements that currently exist, landfill gas must be converted into electrical energy in the same electric control area in which the gas is collected.

## VII. ECONOMIC DEVELOPMENT BENEFITS

In its September Order, the Commission recognized economic development as one of the benefits that the RPS Program should provide to New York; and, the Commission seeks comments on how to best capture the economic development benefits associated with development of renewable energy generation facilities within New York. The Commission also seeks comment on how the status, structure, and requirements of regional renewable energy programs should be considered in the continuing design of New York's RPS Program.

A number of independent studies have examined the potential local economic benefits that result from the development of renewable infrastructure. A selection of these studies is available at <http://www.nyserda.org/rps/EconomicBenefitsResources.asp>. Sensitivity analyses prepared during the course of the RPS Program proceeding indicated that the cost of the RPS Program would increase to the degree that out-of-state resources were excluded from participation. The cost study and supply curve used in the proceeding can be found at [http://www.dps.state.ny.us/03e0188\\_CostStudy\\_II\\_vol\\_B.htm](http://www.dps.state.ny.us/03e0188_CostStudy_II_vol_B.htm).

The Commission therefore seeks comments on the best way to strike a balance between the complementary goals of minimizing RPS Program expenditures, while capturing the economic benefits promised by the RPS Program. Commentators on this topic should particularly address the availability and design of objective criteria and methods that could be employed to this end, given the competitive nature of the various procurement options described above.

## VIII. VOLUNTARY MARKET SUPPORT

As a part of the Commission's overall policy, the voluntary green power market is to contribute at least one percent of the overall 25 percent goal. Challenges and barriers to increasing voluntary green market penetration by this amount were identified and discussed during the June workshops, including the following:

- Central RPS demand may drive up cost for green power marketers who have to compete for these resources;
- Green power marketers are typically less able than the central procurement agent to enter into long-term contracts, due to limited capitalization and load uncertainty;
- Generators may prefer selling to the central procurement agent over green power marketers, given the availability of longer-contract terms; and
- Generators generally prefer one, or a few, off-take contracts. Since individual green power marketer demands may be modest, multiple voluntary market-sized contracts may be necessary to support a commercial-scale generation project, in contrast to the prospect of a single attribute contract from NYSERDA.

The Commission is considering measures under central procurement to address these challenges and encourage growth of the voluntary green market. Several approaches were identified by subject area experts at the June workshops. In addition to the option of taking no action to support the voluntary market through the RPS Program, these include:

- Capping the percentage of a project's output that NYSERDA will procure through central procurement (the Percentage Cap approach);
- NYSERDA purchasing in excess of the RPS targets and reselling the excess to green power marketers (the Attribute Transfer approach);
- Delaying the commencement of NYSERDA RPS Program purchases so that near-term production is made available to the voluntary market; and
- Granting developers the right to suspend delivery to NYSERDA of their RPS Program contracts, if the RPS Program attributes are to be sold into the New York green market.

Under the Percentage Cap approach, NYSERDA would procure no more than a defined maximum percentage, perhaps 95%, of the output from projects under RPS Program procurements, leaving owners of the remaining attributes to seek other market opportunities. This approach has the advantage of encouraging alternative markets without direct intervention, and it would provide a source of attributes to other markets. The Percentage Cap might apply only to projects exceeding a certain annual MWh threshold. However, it may result in higher bid prices, as developers may seek to cover their revenue requirements based on fewer MWh.

Under the Attribute Transfer approach, NYSERDA would buy attributes under long-term contracts under the central procurement, but could transfer or resell a portion of the attributes to green power marketers for sale into the New York market. Such transfer could be at NYSERDA's cost or through a separate auction process. This approach would also provide a source of attributes to supply voluntary green market demand, and, as long as they are sold into the New York market, they will continue to accrue towards the 25% goal.

If sold at cost, green power marketers could benefit from the scale economies of centralized procurement, thereby making offerings less costly. The primary disadvantages of this approach are the added complexity for NYSERDA, as seller and risk manager in addition to buyer of attributes. In addition, this approach puts NYSERDA squarely in the market, which some stakeholders have suggested would potentially hinder transition to a more market-based approach.

The Commission is seeking comment on these approaches, including their anticipated effectiveness in stimulating voluntary green market demand.