## COMMENTS OF THE NORTHEAST SUPPLIERS ON THE AUCTION DESIGN PHASE I RESEARCH REPORT

In accordance with the invitation extended at the May 31, 2007 Regional Greenhouse Gas Initiative ("RGGI") Stakeholder meeting, the Northeast Suppliers hereby submit their comments on the "Auction Design for Selling $CO_2$ Emission Allowances under the Regional Greenhouse Gas Initiative – Phase I Research Report" ("Phase I Report").[1] Initially, the Suppliers thank the Auction Design Research Team ("Research Team") and the Staff Working Group for the opportunity to provide input on this exceedingly important issue. A properly structured emissions allowance auction is essential to the continued viability of the Northeast Suppliers' generating facilities and, more importantly, to the reliability of the electric system in the RGGI States.

The Northeast Suppliers recognize that a significant amount of work remains in the design process and offer these comments to assist in framing the scope of the Phase II analysis. Whereas the Phase I analysis was rather simplistic in nature (as the Team explained at the Stakeholder meeting), it is imperative that the Phase II analysis comprehensively evaluate the impacts and consequences of whatever auction design is recommended. The following issues must be assessed in order to ensure that the auction process does not lead to unwarranted price spikes for consumers, or degradation of electric system reliability.[2]

Additionally, and as will be discussed below, the Northeast Suppliers urge that no final auction structure be determined until the Research Team compiles more data, completes its analysis, and that analysis is reviewed by the Stakeholders, market participants, and other interested parties. As with the establishment of the competitive wholesale market, the impact of RGGI could be so significant, and so severe, that the States should proceed deliberately and only after careful consideration of the potential

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1 The Northeast Suppliers are comprised of the following companies: AES Eastern Energy, L.P., Brooklyn Navy Yard Cogeneration Partners, L.P., Dynegy Power Corporation, Inc., the Indeck Companies, Lockport Energy Associates, L.P, the NRG Companies, PSEG Power, LLC and US Power Generating Company, LLC. The Indeck Companies are Indeck-Corinth, LP; Indeck-Olean, LP; Indeck-Oswego, LP; Indeck-Yerkes, LP and Indeck Energy Services of Silver Springs. The NRG Companies are NRG Power Marketing, Inc., Arthur Kill Power LLC, Astoria Gas Turbine Power LLC, Dunkirk Power LLC, Huntley Power LLC, and Oswego Harbor Power LLC.

2 The Northeast Suppliers also support and urge the Research Team to assess the comments and suggestions advanced by the Independent Power Producers of New York, Inc.

impacts and consequences of the program process and structure selected. The Northeast Suppliers also urge the Research Team and the RGGI States to coordinate with their respective Independent System Operators/Regional Transmission Organizations ("ISOs/RTOs") to ensure that system reliability is not jeopardized and that the auction structure is implemented in a manner that is compatible with the operation of the wholesale electric markets.[3]

1. Hoarding

As was evident from the comments and questions at the Stakeholder meeting, the issue of hoarding is of paramount importance. Throughout this process, the Northeast Suppliers and others have identified as a significant concern the closeness of the base budgeted allowances for each state under the RGGI Memorandum of Understanding to past actual average emissions levels (95.7% on average). For ready reference, the comparison yields the following:[4]

| | CT | DE | MA | ME | NH | NJ* | NY | RI | VT |
|---|---|---|---|---|---|---|---|---|---|
| Base Budget Amount | 10,695,036 | 7,559,787 | 26,660,204 | 5,948,902 | 8,620,460 | 22,892,730 | 64,310,805 | 2,659,239 | 1,225,830 |
| Emissions 2000-2004 (avg) | 10,328,989 | 7,532,410 | 25,918,690 | 5,745,245 | 6,577,818 | 21,088,474 | 63,994,386 | 2,576,761 | 361,741 |
| Ratio of Emissions to Budget | 96.58% | 99.64% | 97.22% | 96.58% | 76.30% | 92.12% | 99.51% | 96.90% | 29.51% |

* Does not include 2003 and 2004 data.

Because there are no economically viable $CO_2$ control technologies (*i.e.*, equipment that eliminates or reduces the emissions of $CO_2$ in a similar manner as scrubbers that reduce other emissions), and the use of offsets is very limited, generators will need to purchase allowances to continue to meet the electric needs of

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[3] Such a coordinated approach is being employed in California, where the California ISO is working with the State agencies responsible for implementing California's greenhouse gas program to address similar issues and concerns as are raised below.

[4] The information in this chart does not reflect changes in generator retirements and additions, nor the load growth that has occurred, in New York over the last few years.

consumers. The above chart amply demonstrates that these allowances are in such relatively short supply that they cannot withstand any manipulation, such as hoarding practices.

Given this demand, there exists the ability to substantially raise allowance prices with a small retraction of available allowances (*i.e.*, the low short-term price elasticity of demand for $CO_2$ allowances). This ability creates a significant incentive for hoarding of allowances by market participants. The incentive to hoard is greatest for entities that hold the allowances purely for their financial value and by entities with non-emitting resources that could gain as a result of the increase in electricity prices caused by hoarding. Because of this, the value of the allowances in the auction might be driven as much, or more, by the likely benefit of hoarding the acquired allowances than by the inherent value of the allowance in a competitive allowance market.

If allowances are hoarded, generators may not be able to obtain sufficient allowances to produce energy needed to serve consumers. This would result in a threat to reliability as the ISOs/RTOs find themselves with insufficient generation to meet load. The Phase II analysis must address this issue to ensure that the recommended auction design cannot be subject to attempts by one or more auction participants to acquire a significant position or otherwise corner the allowance market.

2. Market Manipulation

More broadly than hoarding, the Research Team should, in Phase II, test the potential for, and extent of, market manipulation by one or more auction participants. In this context, the development and assessment of rules limiting the entities that may purchase allowances must also be considered. That is, because of the relatively short supply of allowances (as shown by the above chart), the laboratory experiments in Phase II should examine the impact on auction prices if the allowances are acquired but not used (*e.g.*, the allowances may be retired or hoarded), as well as the implications on the potential need to limit participation in the auctions and the after-auction market. In conducting this examination, the simulations need to represent a realistic representation of how electricity prices would rise as a result of less allowances being available to the generation sector and the Team should make clear to the simulation participants that

electricity prices are dependent on allowance prices. Both of these conditions are necessary to assure that the simulations provide a reasonable representation of the conditions in the electric market.[5] No final conclusions or recommendations regarding market manipulation can be made absent conducting this type of simulation. The consumers of all RGGI States would be directly and adversely affected by this market manipulation, and it could potentially put the use of RGGI as a national model at risk.

3. Market Tests

Prior to commencement of their commercial operations, the ISOs/RTOs conducted extensive testing of their systems ***with market participants***. In contrast, the Northeast Supplier understand that the Research Team does not intend to work with market participants in developing and fine-tuning its auction design recommendations during Phase II. Before the auction design is finalized and implemented by the States, it is essential to determine, as the ISOs/RTOs did, how the systems will operate in near real-life conditions. While the Northeast Suppliers appreciate the concerns identified by the Research Team in this regard, they respectfully submit that it is critical that parties who operate in, and understand, these markets test the proposed auction design.

4. Auction Inefficiencies

The Phase I Report states that the goals of the auction design are to maximize efficiency and revenues. The simulations conducted at Cornell University prior to the commencement of the New York ISO's electricity markets revealed that repeated auctions resulted in market participants learning each other's bidding strategies over time. This knowledge led to gamesmanship and inefficient results when discriminatory auctions were used. The Research Team should carefully study this potential, which the Northeast Suppliers again urge occur through the use of market participants in the laboratory experiments.

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[5] To further bolster the comparability of the simulation to the electric market, the Research Team should confirm their estimates of the potential impact on electric prices from hoarding with the Stakeholders and ISOs/RTOs, or, preferably, work with the ISOs/RTOs to develop these estimates.

The Research Team should also evaluate in Phase II whether the above-mentioned goals are appropriate for this matter. That is, the cost of the allowances will ultimately be borne by consumers through increases in electricity prices and by dual-fuel and coal generators who do not get full cost recovery from the market. Therefore, it is important to balance auction theory with real world impacts. In other words, it may be possible to design an auction that, while not maximizing revenues, adequately serves the needs of the States and minimizes the potential adverse impacts on consumers and market participants. At a minimum, the Research team should assess an alternative auction design that does not maximize revenues so that the States will have a more complete understanding of the consequences and implications of their decisions in this matter.

5. Leakage

During the Stakeholder meeting, the Research Team stated in response to a question that leakage was and is not within the scope of its study. The Northeast Suppliers respectfully disagree and urge the Research Team to study the potential to increase leakage as a result of the auction design and, in particular, as a result of market manipulation. The consultant retained by the Staff Working Group prepared an analysis which showed the following:[6]

| | 2009 | 2012 | 2015 | 2018 | 2021 | 2024 |
|---|---|---|---|---|---|---|
| Reduction in $CO_2$ emissions in RGGI States | 4.0 | 6.0 | 9.9 | 14.6 | 18.8 | 21.3 |
| Increase in $CO_2$ emissions in non-RGGI States | 2.3 | 2.4 | 4.5 | 7.2 | 7.5 | 8.9 |
| Leakage resulting from RGGI (%) | 57% | 40% | 46% | 50% | 40% | 42% |

[emissions are expressed in million tons]

If the auction is designed in a manner that allows market manipulation, or otherwise imposes no limitations on the auction participants or use of the allowances

[6] Source: RGGI Aug06 Reference Case, IPM® Results, 10.11.06, posted on the RGGI web site at http://rggi.org/docs/referencecase_10_11_06.xls; and RGGI Aug06 9-state Package Case, IPM® Results, 10.11.06, posted on the RGGI web site at http://rggi.org/docs/packagescenario_10_11_06.xls.

acquired, it is entirely possible that generating facilities in the RGGI States will be forced to reduce or cease their operations thereby increasing leakage. Moreover, to the extent that market manipulation drives the price higher, leakage will worsen at least up to the limits of transfer capability. Both could lead to deleterious system reliability consequences. Accordingly, the potential for leakage is a factor that should be considered in determining the appropriate design and rules for the auction.

6. Auction Timing and Structure of Rules

As the above concerns demonstrate, the allowance auctions could have significant impacts on the price of electricity. There are a number of other factors that also impact electricity prices, such as capacity prices. The Research Team should evaluate the potential magnitude and scope of these impacts during Phase II and, in their recommendations, ensure that any impacts are mitigated to the extent possible. For example, the allowance auctions should be held in conjunction with ISO/RTO auctions. Also, instead of offering the same number of allowances at each auction, the Research Team should evaluate and develop recommendations on apportioning the allowances available in each auction to correspond to the projected load levels forecasted for the auction period. In addition to timing, the Research Team must pay careful attention to the relationship of the auction structure and rules to wholesale market processes. The rules must be clearly defined and the structure should, to the maximum extent possible, complement wholesale market processes and the auctions being conducted by the ISOs/RTOs.

7. System Reliability

Perhaps most importantly, while the Research Team's efforts are focused on economic issues, they cannot lose sight of the very real and potentially very severe system reliability and other operational consequences of their recommendations. A flawed auction design will not only increase electricity prices for consumers in the RGGI States, it could result in generators not being able to obtain an adequate number of allowances to operate their generating facilities. This concern will be heightened if the RGGI States elect to auction virtually all of the emissions allowances. The auction rules

the Research Team ultimately recommends must ensure that the electric system can continue to operate in a safe and reliable manner.

Moreover, the States' allocation decisions will lead to a very different type of process than was employed for the $SO_2$ and $NO_x$ programs, where only a small portion of the allowances were auctioned and the vast majority were allocated to the generating facilities. Additionally, whereas there are commercially available technologies to control $SO_2$ and $NO_x$ emissions, there are no such technologies to control $CO_2$ emissions. These important programmatic differences should be factored into the Phase II analysis, and the Research Team should carefully reconsider its position, as expressed at the Stakeholder meeting, that fuel switching, reducing production and expanding the use of demand resources are viable and realistic options for controlling $CO_2$ emissions, especially in the short-term. The Northeast Suppliers respectfully assert that, in the context of the tightness of supply of allowances and ever expanding demand for electricity in the RGGI States, none of these three options will offset the economic or operational concerns discussed herein.

Finally, the Northeast Suppliers, as well as other participants in the RGGI process, have expressed the concern, on a number of occasions, that the States should not rush forward with implementation of RGGI until careful consideration is given to design of the program and its impact on system reliability and the electric markets. It was clear from the discussion at the Stakeholder meeting that a significant amount of work remains to be completed on the auction design and auction rules, which are critical elements to implementing RGGI.

The Northeast Suppliers urge the Staff Working Group and the States' agency heads to ensure that the Research Team is given has the time necessary to perform a complete and thorough analysis. Furthermore, the States should not take any final action on implementing their respective RGGI regulations until the Research Team has finished its analysis, the Stakeholders, market participants, and other interested parties have been given an opportunity to provide input on that analysis, and such input is incorporated into the regulations.

Thank you again for the opportunity to submit these comments. The Northeast Suppliers would welcome the opportunity to meet with the Research Team to answer any questions they may have regarding the foregoing or if the Team believes further discussion of the Northeast Suppliers' concerns would be useful in informing and framing their Phase II analysis and stand prepared to participate in market trial tests.

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Respectfully submitted,

/s/

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