Regional Greenhouse Gas Initiative
Stakeholder Group Meeting Process
May 19, 2005

Foley, Hoag LLP
Seaport World Trade Center West
155 Seaport Boulevard, 13th Floor
Boston, Massachusetts

Facilitator: Dr. Jonathan Raab, Raab Associates, Ltd.

RGGI Stakeholder Group Meeting #8: Meeting Summary

115 people attended this meeting that began at 9:30am and concluded at about 3:30pm.

I. Materials Distributed and Presented

Prior to Meeting:

a. Agenda

At the Meeting:

1. *RGGI Model Rule and MOU Flow Chart, Franz Litz, NY DEC*
2. *Staff Working Group Update on Development of Potential Offsets, Chris Sherry, NJ DEP*
3. *Preliminary Economic Impacts of RGGI under the 25% and 35% Cap Scenarios, Lisa Petraglia & Dwayne Breger*
4. *Demonstration of Modeling Rationale, Franz Litz, NY DEC*

All the documents and presentations can be accessed on the RGGI project website:
http://rggi.org/stakeholder_schedule.htm#summaries

II. Introductions, Updates, and Agenda Review

Facilitator Dr. Jonathan Raab, of Raab Associates, Ltd. welcomed attendees to the meeting and reviewed the agenda for the day. All those present then introduced themselves.

III. Report on State Agency Heads Meeting-Franz Litz, NY DEC

Franz Litz of NY DEC reported on the meeting of the State environmental and energy regulatory Agency Heads at The Pocantico Conference Center of the Rockefeller Brothers Fund, in Tarrytown, NY. Franz described the excellent turnout at the meeting. The Agency Heads had productive discussions but did not reach closure on all issues. The Agency Heads agreed that it was necessary to reach closure on all issues at the same time. A follow-up meeting is scheduled for July 6 and 7 for one and half days in New York.

Franz then presented the recommendations made by the SWG, including,

Model Rule

- A cap in the range of stabilization to 10% below current levels.

- On state allowance budgets and allocations there was less uniformity. Focus is on using emissions to apportion the regional emissions budget with some adjustments. This will require further analysis and discussion.

- On the issue of allocations, the focus was on whether individual states would have full discretion to allocate as they see fit, or whether there should be an agreement on allocating a certain portion of allowances in a similar fashion.

- Applicability for units with a nameplate capacity of 25 megawatts and greater that sell more than X percent of their capacity to the grid.

- SWG recommended not allowing source opt ins.

- The compliance period would be three years (e.g., if launched in 2009, the first true-up would occur in early 2012).

- The SWG group recommended banking and early reduction credits.

- It was recommended that penalties follow the NO_X Budget approach.

One or more Stakeholders, Resource Panel members, and observers asked the following clarifying questions (*questions and comments in italics*, responses by Franz Litz unless otherwise noted):

Could you go over what happens with offsets?

We recommended a short-list of offsets for inclusion in the model rule that we've shared with this group. We discussed with Agency Heads potential additional offsets such as forest management and extending end-use energy efficiency beyond natural gas to include heating oil and propane.

Chris Sherry of NJ DEP added that the SWG also recommended allowing sources to use European Union allowances and Clean Development Mechanism credits for compliance in the RGGI program.

Regarding modeling for 25% below scenario, it looks roughly analogous to stabilization. It seems to be almost the same as EIA 1990 data, so when we talk about equating reductions to a 25% reduction to 1990 that doesn't seem comparable.

What I intended to say is that the modeling results for the "25% below 1990" run are analogous to a stabilization cap at another starting point. We recommended setting the initial cap at current emissions. What constitutes "current emissions" at the start of the program must be estimated because there is a time lag in receiving emissions data. We will have good data for the years leading up to 2004, but if the program launches at the start of 2009, there will still be a data gap. Certain adjustments needed to be made to our emissions data in determining the cap start points, based on how IPM projects emissions. We need to apply the results that come from the model using some analogy. 25% below 1990 is not a perfect projection of a stabilization case, but it is reasonably close—and probably a bit conservative. We are talking about directionality and order of magnitude. We did some model runs to check this and decided that the "25 below 1990" run was a reasonably close approximation of what we might see with a stabilization cap.

Do you think there is a need for adjustment based on the CEMS monitoring device bias?

Chris Sherry replied that this had been factored into where the starting point was when structuring the modeling runs, and added that additional adjustments were made to account for how IPM treats cogeneration units. .

On state allowances it seems like you are trying to avoid having winners and losers. It sounds like you want balance.

We just acknowledged that some estimation is required. If you are a state with three units coming on line between now and the launch date, these units would have to be estimated and adjusted for in the state's allowance budget.

Did you get into constraints on offsets such as where they need to be located?

On offsets we did look at where offsets come from and possible constraints on the number of offsets that may be used for compliance. The primary discussion was on what kind of constraints in general and how CDM will play into it, and on how you implement potential limits in a consistent manner. There was a desire, however, to maximize co-benefits in the region.

The concept of stabilization at 1990 levels is important and hasn't been sufficiently explained to stakeholders. Are there plans to do that? I'd like to see data and graphics.

We'll do some graphics at lunchtime to better explain this and show them to you after lunch.

The question of whether stabilization is the target has never been fully discussed around this table. Maybe that should be in the last chunk of the agenda today – to talk about what the stakeholder sentiment is on this. Part of what's going on here is we are losing sight of other sectors and of the relative role the electricity sector will play in addressing its impact on climate change. We need to come back to big picture of what role this sector is playing and what role other sectors can play as well.

We’ve had discussions on what cap you want and what cap others want – the trick is to find a middle ground – not just to say that our recommendation doesn’t match with your recommendation.

Was there discussion of the interaction of this program with other programs, for example, energy efficiency?

Yes, and that falls under the MOU bricks.

Do you have start date for the program?

We recommended 2009 but there is no magic to that date. It conceivably could be 2008 or 2010.

What do you mean by 2009? Is that taking into account state legislative rulemaking?

We need to figure out the mechanics of how the program gets launched, but first we have to figure out the big picture issues. The issue of how to insure it goes smoothly came up in the briefing with the agency heads: for instance, how many states have to be ready in order for launch to occur? Will it be determined by the number of states participating or by the percent of emissions? If one state is in litigation, that may also effect other states’ decisions. All of this is still being discussed.

The following questions are from observers unless otherwise indicated.

How does the allocation method line up with other federal methods?

The NO_X Budget program gave states flexibility. CAIR was not discussed.

Please say more about the analysis you’ll be doing on state allocation budget.

The primary method under consideration is emissions subject to adjustment according to other metrics and possibly other state-specific factors.

What goes into choosing offset types? Will foreign credits be included?

We have a long list of offset types we considered for potential offsets. If you’ll wait until Chris’s presentation this afternoon, he will be explaining that in more detail.

How will RGGI interact with the European Union and Canada?

This is not a major area of focus at this point. We haven’t gotten to it yet. Questions of linkage will be addressed later in the process.

Was there any discussion about updating allocation methods?

Yes, in the Staff Working Group discussions, but not with the Agency Heads. This is a detail to be worked out in each state's own process, unless we develop some type of uniform guidelines.

Did the issue of auctions come up in how states do their allocations?

We've been using the term "public benefits allocations" and yes, it did come up.

I'm glad to see part of MOU is on complimentary energy policies.

What is the time frame for early reduction credits? What we discussed in terms of early reduction credits was two years prior to rule propagation, more or less.

The SWG has discussed this and we've said it would commence sometime between when the agency heads come to an agreement and continue through the launch of the model rule.

Sonia Hamel said we focused on big picture issues. We spent a lot of time on overall regional caps, apportionment and allocation, and offsets. We gave them a lot of background on offsets but didn't get into that fine a level of detail.

How will this dovetail with other existing programs?

If you have suggestions on how it might dovetail you can provide them to us.

<u>MOU</u>

Franz presented the MOU slide and discussed the bricks in the chart, making the following points:

- **Commit to Initiate Rulemaking:**
  The Model Rule will contain detailed rules while the MOU will focus on the other areas where states want to have mutual understanding, but that do not fit into the Model Rule rulemaking structure.

- **Method for Accounting for Additional States, or Subtracting States that Withdraw from RGGI**
  Some examples might be the potential that one state won't be able to complete their rulemaking, or not in a form acceptable to other states; or that an implementing rule is repealed in a given state for political reasons. There will need to be a method to address this ahead of time. It might be as simple as agreeing to reconvene if that happens.

- **Link with other Trading Systems**

Since there are no other domestic trading programs now we'd probably wait and take that up post-MOU – if opportunity for linking came up. We don't consider acknowledging CDM credits or EU allowances to be linking with another system, but just a flexibility mechanism that allows our sources to use another currency to meet their compliance obligations.

- **Recommendations on Complementary Energy Policies**
  We are looking beyond public benefit allocation for potential complementary energy policies. It was unusual to have both environmental and energy regulatory agency heads all in one room. One focus is on the notion that there are real connections between this program and others. We have a laundry list of areas that may relate to RGGI. RGGI might be used to leverage something greater in the area of energy efficiency.

- **Establishing a Regional Body**
  We were told to come back with range of options. One possibility is keeping an informal group going until we are clearer on what is needed. Another option is to have a non-profit technical assistance group with each states' environmental /energy regulators represented. We are not considering a regional body that would have regulatory authority, however.

Future Offset Design
We have a shortlist for potential inclusion in the model rule. We will seek to add others later as we are able to develop appropriate standards. .

Sonia Hamel added that the principals had some ideas for offset areas that would be specifically beneficial to our individual states. They wanted to explore offsets opportunities that would benefit our region.

Emissions & Allowance Tracking/Regional Registry
How will offsets be registered – regional body will be closely linked to implementation – one of largest role of regional organization function will probably be in offsets implementation and administration.

State-by-State Allocations of Allowances to Sources
States might agree to follow set of principles or set of guidelines, or to allow states full leeway in setting allocation methods.

One or more Stakeholders, Resource Panel members, and observers asked the following clarifying questions (*questions and comments in italics*, responses by Franz Litz unless otherwise noted):

Will there be a sunset provision if there is a national program? The cost impact to constituents should be embodied in a circuit breaker.

Our recommendation was a built-in review in 2015. We didn't recommend a sunset provision that would automatically shut down the program on a certain date. The group is considering using CDM credits as a de facto price ceiling for allowances, but it isn't yet clear if such a ceiling is necessary.

Were there minutes taken and will they be shared?

Minutes were not taken at the meeting.

Was leakage addressed? Do you think it needs to be?

We will produce a narrative on leakage discussing what we are seeing in the various analyses and looking at the pros and cons of different options to reduce leakage if such an option is deemed necessary. Some ideas include:

- Maximizing energy efficiency in the region to reduce potential leakage
- There may also be specific proposals from one or more border states for mitigating leakage

What is the timeline for the MOU/Model Rule?

Our intention is to have a draft ready for the next Agency Heads meeting. This probably won't be the primary focus of the July 6 & 7 meeting unless things go very well with the Model Rule. Before any state initiates any rulemaking process, we envision releasing a draft to gather public and stakeholder comments. We will have a Stakeholder meeting about this so you can review it.

Did you discuss how the cap would be shaped?

The SWG is discussing this.

Did you discuss also having a review in 2020 to look at long-range goals?

That's a good idea. We've focused on what happens if there's no national policy. At end of initial timeframe we'd all get together to discuss next steps. We will also be monitoring the program on an ongoing basis. If the price doesn't make sense—either too high or too low--you will be around to tell us to revise the cap.

It seems like a number of things in the MOU arguably could be in the Model Rule. Are we delaying the inevitable by not putting some of these things in the Rule. The decisions you make on allocations will effect the decisions on complimentary energy and linking with other offset systems. It might be good to include these in the Model Rule ahead of time.

There is a legal dynamic regarding what has to be in the rule, what <u>should</u> be in the rule, and what should be in rule but isn't ready yet. Some aren't appropriate for the program, for example, if you don't know yet about linkage, complementary energy policy is a moving target at this point, etc. Also, energy policies may not be within the purview of the environmental agencies.

You sound frustrated that we're critiquing specific pieces of this program. It seems like it would be easier if something was on paper. It is not necessarily our role to come up with a middle ground. If there are real proposals on the table, it will be easier for us to react.

This process has worked well in terms of getting specific and constructive inputs from you. At this point we have to come up with a compromise for the final draft model rule. It would be helpful if you found ways you might compromise relative to other stakeholder positions, but you don't have to do that.

When are you talking about reconvening? Will you wreck our summer?

I think we have a straw man here – we have just gone through every element and we've told you what our recommendations are and that's something you can react to. Most of it you had at the last meeting. This is where we are as a SWG. We're pretty far along – we're only dealing with what we're showing you here. There isn't that much we still have to do. There is some cleaning up that has to be done to make the final package have final modeling runs behind it. But we are not thinking about new cap runs necessarily. We've bounded the cap analysis –there's really just the matter of bringing all the pieces together and we will come to you to help us with it.

Are you expecting to make significant progress at the July 6th and 7th meetings?

Yes, as much progress as possible. We have scheduled an Agency Head meeting for late September that they haven't agreed to yet, but this is just in case we need it and they decide they want the meeting.

Was there discussion about how the Agency Heads can communicate the potential costs and benefits to their constituents?

We have been focusing more regionally. They want look at state-by-state results. So now we'll compile state-level results for them to look at and that includes both IPM and REMI results. Part of the struggle is IPM is better at the regional level and as we move to lower level results we need to be more skeptical about any particular result.

Where are we now in terms of our neighbors? For example, might DC come into the process?

I think we're at a point where if we are talking about adding other states they would come on in some kind of "on-ramp" procedure. We are too far along to add states to the initial review of the MOU, but not too far along to "on-ramp" other states to the process.

The original work plan called for a Phase II. Will there be a placeholder in the MOU for other sectors?

It's probably a next order issue. It was part of initial action plan. Could be something to consider as a next step.

Could you clarify whether there will be a second model rule for PSCs/PUCs on complimentary energy policies?

Sorry, I misspoke. That probably reflects more about how my brain works than anything to do with the process. There are complementary policies that have been discussed that are not part of the model rule. Some things are outside the jurisdiction of the environmental agencies and we'll need to rely on our counterparts in other agencies. But we are not developing a separate model rule for energy policies at this time.

Are there additional future potential offsets to add to the shortlist? Can you give some examples?

Chris Sherry: The SWG is working on an additional list now. We don't have a specific list to present at this time.

Talk to Chris if you have specific ideas about offsets.

Will the state model rule supercede all other programs? Is it going to address the issue of whether allowance holders can conduct transactions outside the RGGI program?

No. RGGI will stand on its own.

What is the minimum number of states required to launch RGGI?

The number of states that would have to be participating is an issue being discussed.

IV. Modeling

REMI

Dwayne Breger of MA DOER introduced Lisa Petraglia of the EDR Group to present the REMI modeling that MA DOER has been doing in coordination with NESCAUM and with the consultation of the EDR Group. Dwayne explained that the REMI modeling evaluates the economic impact of RGGI and included several caveats. Lisa Petraglia then walked through the REMI slides.

Initial results were presented for straight cap runs without key flexibility mechanisms such as offsets and without additional energy efficiency policy assumptions. References in the discussion to retail rate impacts are estimates based on initial SWG analysis used for input into REMI, rather than REMI output. Wholesale price output from IPM must be translated to estimated average retail prices for input into REMI based on a translation factor for each state and aggregate rate class. The SWG is considering potential refinements to the assumptions for translating wholesale prices to retail prices to better represent the actual retail rate schedules in each state.

One or more Stakeholders, Resource Panel members, and observers asked the following clarifying questions (*questions and comments in italics*, responses by Lisa Petraglia unless otherwise noted):

Regarding Slide number 8, how significant is the retail rate changes with and without the federal policy assumption?

We're not showing the year by year price increases in this presentation but if I recall correctly based on initial estimates, Massachusetts' residential retail electric rates in 2009 are projected to increase less than 3% (for the 35% Cap) relative to the reference run due to the Federal and Canadian policy and the fact that the IPM model is forward looking. By 2015 we estimated a roughly 7% increase in residential retail electric price in Massachusetts. Without the Federal and Canadian policy an initial estimate for Massachusetts is between a 1%-3% increase during the period from 2009 to 2015 for the residential sector.

In the IPM modeling, gas consumption doubled at start of program to 2034. Is that insignificant? Is that data going into the REMI model?

Karl Michael – What you're referring to is the increase from the start year to the end year over a 20-year period. That's where gas capacity increases by an amount that's dramatic. And they're talking about the final year of a reference case without RGGI compared to a reference case with RGGI. Whether or not you have RGGI you double gas capacity over that period of time.

Are these economic benefits tracked at the regional or state level?

The sourcing of goods and services related to capacity investments are tracked most reliably on the regional level. The exception is that construction activity related to capacity investments is sourced at the state level.

Distribution costs aren't going up in relation to wholesale gas prices in the past five years, which have tripled. Wholesale to retail ratios seem high. How do you deal with volatility particularly in gas? In other words, you might be overestimating retail gas prices.

These other increases tend to net out, and I am confident that the multipliers are reasonable. However, it's in a simple spreadsheet and easy to change.

The later run that will include the energy efficiency scenario. Will that take into account the lower price impact if you have more efficiency that IPM will produce, and what is the timeframe for the IPM runs to be completed?

Karl Michael: We will have it soon. We first need the IPM results and that will be a few weeks.

Could you go back to the slide about the relative impact on RGGI states from a Canadian policy. Our prices will go up relatively less than the national average. Do you have a range of numbers?

I don't have it with me. I can't generalize but I probably can get out the background data.

I would like to see a more detailed follow up.

Sonia Hamel: We will look it over and provide one. We just got these runs a few days ago.

The 1% to 6% increase in electricity prices doesn't count transmission and distribution upgrades? We're not assuming any impacts on infrastructure?

No, if it is not in the IPM model. The assumption is that transmission infrastructure remains fixed, with the exception of currently planned upgrades.

So you're not factoring in efficiencies?

No, REMI's standard baseline projection doesn't include the types of technology improvements you are asking about. But if IPM predicted those for both a reference run as well as any scenario then we could certainly embed that information.

Lisa Petraglia of EDR continues with a review of the REMI model's economic logic for forecasting a region.

One or more Stakeholders, Resource Panel members, and observers asked the following clarifying questions (*questions and comments in italics*, responses by Lisa Petraglia unless otherwise noted):

How are you planning to characterize inputs for energy efficiency and is there any way for the Stakeholders to have input and will this be done before July 6th?

Karl Michael: Energy Efficiency IPM runs might be done by July but not necessarily REMI, but we will be getting REMI ready.

Will you also look at high gas prices with REMI?

Dwayne Breger: Yes, that's our intention.

Why do private sector jobs increase four-fold in 2009 with the federal policy compared to without?

The IPM model predicts, in anticipation of the federal policy, more capacity built in the region than the national rate of increase. Up to 2015, RGGI states will be relatively less competitive than the nation as a whole, but with the federal and Canadian policy coming on in 2015, it reverses.

Dwayne Breger: It is hard to know about the specifics of a future federal carbon policy at this point.

Chris Sherry: Under the future US carbon policy scenario, you see a shift in new power plant builds from outside the RGGI region to inside the region, even before the federal policy begins, due to IPM's "perfect foresight" function.

What would make big changes and have a larger impact in the region?

Additional flexibility policies will probably soften projected impacts due to RGGI r.

Does the model look at any localized impacts?

The model has state-level analysis units. These results therefore are bottom-up.

Local changes could have more political impact and be of greater concern to states.

Each region has different industries and different abilities to hedge against pressures from increases in the cost of doing business.

Can you add a slide that shows electricity prices in the nine-state region vs. the US?

Yes.

Will REMI be able to segregate health benefits with RGGI and independent of RGGI?

It will look at incremental monetized health benefits.

Dwayne Breger: To the extent that the emission data that will be fed into the model are incremental emission changes, the reference case assumes the suite of environmental policies that would likely be in place.

To what extent is the fact that RGGI states emit less CO2 the driving factor in bringing benefits as opposed to the impact of 2015 Canada policy?

Karl Michael: That factor is not directly reflected in REMI model. It's implicit, not explicit. There is nothing specific in the model about emissions in the RGGI area being factored in.

Would impacts be as modest in a coal generating state like Pennsylvania?

Dwayne Breger: We're not presenting results for states outside region.

If we look only at the state level when averaging out, we miss some of the impact on regional like downstate vs. upstate New York. Is there a way to look at sub-state areas?

No, the REMI system is built on state building blocks. To do that it would have to be built on county blocks.

If RGGI is looking at allocations based upon some kind of historic output and then doing adjustments based upon 25% to 35% across the board, why do you not assume that the nation doesn't follow some similar pattern, and then, if that's the case, why would RGGI be better off than the nation?

Franz Litz: Let me start by saying that the 35% run does not represent a reduction of 35% across the board, it's important to note. It's 35% below 1990 by 2021, but if you make it relative to current emissions, it's on the order of 10%. We'll get back to that after lunch.

If I understand what's being proposed, the apportionment among the states is going to be done based on some combination of historic, CO_2 output and then some other factors. So if you go to a national program why would you assume that RGGI better off than the rest of the nation? The typical methodology of the feds is to do it on basis of historical output. One of hopes that I would have had for the RGGI program was some progressive methodology of doing the allocations so as to set the tone for a national program.

Karl Michael: If I'm understanding you right that's pretty much how we structured the modeling, a come-as-you-are in terms of setting some kind of template that a federal program could follow. But in terms of the RGGI area we're thinking that in fact a sort of stabilization policy that could start at those current emissions and hold them at that level was to do precisely that – to take whatever a state's emissions would be in 2015 and hold them at that level - so that's how we structured the modeling inputs for the future federal program scenario.

If that's the case then why are the RGGI states better off than rest of the nation?

Franz Litz: I think what you're asking is why wouldn't we use some metric that recognizes efficiency, is that what you are asking? Federal examples don't translate to state budgets – in some ways it's apples and oranges.

Chris Sherry: The RGGI region has a relatively low emission rate to begin with compared to the rest of the nation and we would see benefits as an early mover in adapting to a carbon constraint. So there would likely be a competitive advantage for the RGGI region post-2015 in complying with national requirements.

I'd argue that the RGGI region has captured a lot of low hanging fruit already that's why the official rates for CO2 in the RGGI region are already much lower than they are in the nation as a whole. And that as you drive lower and lower, the cost for compliance should rise. It's counter-intuitive to me that a location that's already low would have an advantage over a location that's high.

In the SO2 program, Wisconsin was largely grandfathered in because they already had a program in place. What can we anticipate from a better program? We need to look at historical programs. We're setting state budgets and don't have luxury of a regional authority.

Wrapping up IPM and REMI Modeling – Karl Michael, NYSERDA and Dwayne Breger, MA DOER

Karl presented a modeling summary slide and explained that he didn't have much new to show now. . They are working on energy efficiency runs with the assistance of ACEEE looking at what would happen if you add a carbon cap with energy efficiency reductions as a backdrop. He told stakeholders that the SWG would be sharing the results with them and getting their input but that they were not quite there yet. He said that by July they hope to have at least a preliminary draft of new IPM results but not necessarily the updated REMI runs.

Karl added that the reference case is not representing oil and dual fuel as well as the SWG would like. The effect is that the carbon cap would be slightly higher in the near term than we currently see in reference case. This has to be fixed, but overall the system looks accurate based on historic behavior. Karl said that they are also planning to run sensitivities based on higher oil and gas prices. He also said that they are working on offsets and on more supply curves, and that the model rule package will put all the pieces together.

One or more Stakeholders, Resource Panel members, and observers asked the following clarifying questions (*questions and comments in italics,* responses by Karl Michael unless otherwise noted):

I feel like I'm in Wonderland. Is this modeling all just for show?   I'm confused and frustrated. We spent six months on IPM and one hour on REMI with no slides about it distributed ahead of this meeting. You have barely started the REMI modeling, but you are going to have this meeting in July with the Agency Heads. It seems like the SWG is going to come up with recommendations. This is a silly process.

Franz Litz: I'm disappointed with the language being used. I challenge you to find an environmental process that's gone through this level of modeling at this stage in a rulemaking process. There has been a huge amount of modeling. You need to look at it according to other programs.   In terms of REMI results, the caps under consideration are fairly modest, and when we include in the model all the flexibility mechanisms the impacts will be less.   No reason to raise the alarm. The formal rulemaking process actually starts after the draft rule is agreed to.

We should have a chance to look at those numbers and analyze and advise on this if these numbers have any credibility at all. You are asking us to have a discussion about what the model rule should look like this afternoon. I haven't had enough time to look at those numbers. What are we afraid of? Get the info out there and analyze it.

Franz Litz: We got these results three days ago. There are slides with more detail and you'll see why we didn't put them on screen. It would take 30 minutes to go thru each slide. You should understand the modeling process. We start with a worst case scenario. No one expects you to sign on the dotted line this afternoon. We're only looking for suggestions, not commitments.

A lot of us feel we've had lots of time to go over the modeling and we are glad to see REMI . I think a key error of omission would be to ignore new technologies (we don't know what they are yet) that will impact the results on which we're going to make a recommendation. Should do additional runs with innovative technologies, and we are putting together some recommendations.

I'm very glad you are moving forward with energy efficiency modeling. I have some concerns that you are rushing to a decision in early July without the analysis on energy efficiency done. The three big arguments are:
1. Is it doing enough to solve the problem?
2. What's the impact on jobs?
3. What's the impact on cost of power?
These factors need to be incorporated into the decision-making process.

Franz Litz: The energy regulatory folks really know energy efficiency works. They have institutional knowledge and history on this, which is very helpful to the process. I'd be surprised if we reached a final decision without a thorough analysis of energy efficiency.

Current Emission Levels and Caps

After lunch Franz Litz of NY DEC presented slides that were used at the Pocantico meeting to explain current emission levels and caps to the principals. He mentioned that it was important to remember the gaps in data between 2001, 2002, 2003 to when this program starts at 2009. Franz said that the SWG is adjusting the reference case to account for historic operation of oil and gas duel-fuel steam units, which will bring the emissions curve up a little. He pointed out that you have to transpose the results of the model into policy recommendations.

One or more Stakeholders, Resource Panel members, and observers asked the following clarifying questions (*questions and comments in italics*, responses by Franz Litz unless otherwise noted):

I'm not saying that anything you did is illogical, but I don't understand why 25% reduction shows a horizontal line?

The primary reason is we had some banking early on.

Are you saying stabilization is 118 mm tons?

No. If the decision is to start the cap at emissions levels at the time the program starts, then we will need to estimate what those levels will be. The most recent data we have are from 2000-2002 and the average annual emissions from RGGI units during that period was 143 million tons.

I want to make sure your recommendation is for stabilization at by 2020. Is 2020 the end date for the target?

That is what we modeled, but it could be structured differently. It could be stable by 2015 and then go down. You need to apply modeling results to a policy choice. Because of data issues you'll never have a perfect fit, there will always be some need to analogize.

Can you talk about what the banking assumptions are?

We recommend banking without limitations, unlike the NO_X program, which limits the use of banked allowances through flow control mechanisms. We are also recommending banking of early reduction credits.

V. Offsets Update - Chris Sherry, NJ DEP

Chris Sherry of NJ DEP presented an update on offsets. After going through the first part of his presentation, dealing with quantitative and geographic scope, there was a break for initial clarifying questions (*questions and comments in italics*, responses by Chris Sherry unless otherwise noted):

Did we discuss offsets credits in regard to shutting down a generation unit?

If a regulated unit shuts down it wouldn't be an offset.

Franz Litz added that then you'd generate allowances, not get an offset component.

Coordination with other sectors is critical in terms of offsets and cap size. We need to have a rudimentary vision of the role the electricity sector will play and to make sure that this sector plays its proper role instead of looking to other sectors. We need to be careful not to drain off low-hanging fruit from other sectors we may later want to include. The *focus needs to remain overwhelmingly within the electricity sector*

Maybe it adds a needless complication to predefine the source or state. Might this remove a level of flexibility? We all agree that quantitative limits are good.

There are significant policy impacts related to how you might apply any quantitative limits involving many interrelated issues that we need to consider carefully. How you apply limits is not just an administrative issue. It could also have a significant impact on the offsets market.

What were the standards for qualifying offsets?

The evaluation criteria were that the offsets types be straightforward and amenable to development of standards within the model rule time frame, are economically viable, have a significant available emissions reduction resource, and provide co-benefits.

These requirements are pretty stringent. If this is intended to be a cap and trade program, why would you want to limit the quantity of offsets?

This hasn't been decided yet. We think there are economically attractive emission reduction options in the power sector. It's a policy decision ultimately in terms of determining whether a certain percentage of reductions should come from the capped sector.

What are the downsides to limitation to sources besides the need to track and limiting the type of offset?

If individual sources have limitations in terms of the amount of offsets they can utilize for compliance, you may have a bifurcated market with secondary trading to address individual source offset limitations.

VI. Stakeholder Discussion: What Comprehensive RGGI Design Package Do You Recommend the States Adopt and Why

Jonathan Raab introduced the discussion topic and pointed out that this is an opportunity for the stakeholders to help the SWG with the balancing act that the Agency Heads will have to do in the coming months. He referred participants to the brick chart that was handed out that contains all the pieces that would be in the model rule and the MOU.

Dale Bryk, NRDC: *We have look at the big picture and figure out what the package is that's going to be appealing to the governors and the states. What are the pieces that will add up to a win-win? It has to be good for the states. We are trying to demonstrate a smart way to reduce CO2 that will help the region, and help jobs. We agree that we have to have an emissions cap that goes down from current levels, not just from 1990 levels. If* *we reduce demand we can do this in a cheap way. Complementary energy programs and what we do with allowances is important. The package has to be good for consumers, as they will pay the price. It must be simultaneously be implemented by the state. Lots of people have made the point that the way states apportion the cap and allowances is critical. Apportionment shouldn't handicap any state from protecting its consumers. Apportionment should be related to allocation within each state. It should be done in a way that takes into account population and consumption. We should use allowances for energy efficiency and other clean energy technologies. Where do we want the energy sector to be in 2020? If the goal is to keep the price low, the best thing to do is to invest in energy efficiency. We have to have figured out how to deal with leakage at the same time. We can't accept 30% leakage as acceptable. We have to have a policy fix ready in hand to address leakage or be very confident that the price will stay low.*

Ron Drewnowski, PSEG: *I agree with lots that Dale says and I need to add more. RGGI needs to be careful about coal generation. We can't so disadvantage coal that the package won't be useful nationally. The biggest problem is if renewables don't come on line as quickly as the mode predicts. I fear there could be negative environmental impacts from the use of dirty coal in the Western regions of PJM. The state must have a way of reducing leakage or it won't work. This needs to be a stepping stone to a national program, and once that end game is achieved, RGGI should go away. There needs to be a pact among states for consistency, so there is no gaming. The modeling suggests that the price increase is modest, but we should be careful to make sure that allowance prices don't skyrocket. We should have circuit breakers.*

Michael Bradley, Northeast Greenhouse Gas Coalition*: I'm glad we're having this conversation. We need to think of various components that will make an effective regional program. These have to be looked at as a whole – not as separate, one to one items. The challenge is working with seven different parties. We got our framework out last week. Our goal is creating momentum for an effective national program. We have to remember to step back and look at the goal. RGGI is five to six percent of national emissions. It can have far reaching impacts.*

I'm gratified that SWG and agency heads are gravitating to the middle. Regarding timing and reduction targets, I think the cap is in the ballpark. We need to have an official phase to get the program up and running. We need to allow for growth and then stabilization and reduction in small steps.

The market factor is important and leakage is very important. I'm glad the SWG will explore this – not just in regard to DEP regulations – but in some adjunct way. The strategy to deal with leakage can't be 100% in dealing with tracking or legal issues. If you have those issues get in the way of doing something you'll never get anywhere. States need to be bold in addressing this. At some point, states have to stand back and decide if they want to work on a national program and harmonize the following:

1) *Market design issue*
2) *National gas demand – have we probed enough?*

3) Will the system hold together – i.e. if a large nuclear plant goes down, how will that effect the system?
4) Circuit breaker is a good idea. I'm concerned about thinking through what constraints on the offset market might do. We need to have viable alternatives and mechanisms to allow for compliance. We want fungible third party verifications. We'd be happy to talk with anyone, and not just to the SWG about this.

Karen Risse, International Paper: *I would like to encourage incorporating energy side policies into this. We need demand-side reduction and energy efficiency. Reduced demand would be a positive outcome. Incentives for energy efficiency and demand side reduction could be included through the offsets program.*

Brent Dorsey, Entergy: *We reject financial additionality for offsets. Don't try and pick winners and losers with "policy externalities." Let the market decide. We should embrace fuel neutrality concept for limits and caps. Efficiency is the best way to keep costs down.*

Bill Prindle, ACEEE
Energy efficiency is a key tool in dealing with leakage. Public benefits allocation to energy efficiency will help pay for energy efficiency. After the IPM and REMI analyses are done maybe we can revisit strengthening the cap to see if it could be marginally more efficient and still hold economic benefits.

Seth Kaplan, Conservation Law Center: *Looking at this cap in the context of all sectors is my overarching point. What we're seeing is that the actual cost of achieving reductions is reasonable. This cap can reduce compliance costs through energy efficiency and that's unique. It's not unlike Pavley in California for cars, which is an economic positive as well as a pollution control program. On ramps argue for a neutral budget setting process. We need to make sure this package is replicable to other states. We should look at Europe as a negative example of a painful process that was done on an ad hoc basis. It is better to set up a formula and say to the rest of country, "This is how you do it."*

We need a continuously, predictably declining cap to insure reliability. My plea to the SWG and to all at the table is: accept and have faith in the flexibility that can come from a cap and trade system. This system doesn't have to rely on offsets to get reductions. If we have the right smoothing mechanisms, such as banking, we can avoid a circuit breaker. Increasing the cap for example, would be a way for the system to lose integrity.

If we search for the middle ground in each sector of our states and economies we won't get the reductions we need. We must focus on an appropriate role for this sector, which has extremely large sources that are regulatable and small costs. We need to be realistic about the role this sector will have to play because this is actually the easy part.

Christopher Powell, United Technologies Corporation: *Complementary energy policy will be a very important aspect of the program and I think you are doing that. It all comes down to business and the consumer and how they will react. We have to make sure* *to maximize energy efficiency. We've had clear roadmaps on energy efficiency and found we could do better from the business and consumer standpoints. We looked first at a least restrictive reduction and then established new goals that went beyond that. We knew how much we were going to spend and save and we were able to sell that to business and financial folks in companies. We need to have a declining cap over time. We should use our achievements as a selling point for why to continue.*

Mark Buzel, AES: *New England states were hurt by the CAIR program because they were early movers. We have to use caution so we don't set ourselves up for similar damage in a national program by being too aggressive. I understand that the high emissions scenario may be looked at as unrealistic – I encourage you to remember that the high case is a surrogate for a number of other scenarios that may occur (for example, meeting renewables, nuclear going down.)*

Dan Weekly, Dominion: *We hope that the final recommendation is fuel neutral. That's a very important component. We strongly feel that if we fund energy efficiency programs it will help in terms of demand side. We agree that we need a higher reference case. We have more diverse generation than anyone else in the sector. If we have issues with coal units???.. If we get the offsets we'll have an incentive. Right now there's no incentive for us to do that*

Mark Buzel, AES*: In response to Dan Weekly's implication that my previous comments imply that AES supports fuel neutral allocations, please note that fuel neutral is last thing in world I'd recommend. If the goal is system reliability and maintaining fuel diversity, it must be fuel specific. For example, in an allocation assessment that was presented to RGGI at a previous workshop it was shown that if a fuel neutral allocation approach was used in New York gas generators would be allocated roughly more that 50% more allowances than they need, whereas coal and oil take it on the chin—coal plants would get roughly 30% fewer allowances than they need and oil plant roughly 20% fewer. Fuel specific gives gas-fired plants all the allowances they need (no compliance costs) while reducing the compliance cost burden on oil and coal plants while achieving the program's goal.*

Dan Weekley, Dominion: *I agreed with you on the reference case.*

Rob Sargent, PIRG
1) Don't make a decision about the cap until both IPM and REMI modeling are complete and you've looked at what the cost and regional results are when you include efficiency. Energy efficiency should be hardwired into the cap as much as possible right at the outset.
2) A lot of problems will be solved if you figure out what allocation to load will work…a whole set of things are addressed by taking that approach.
3*) Limit offsets. This is an experiment. We want to see actual CO2 reductions in the region from electric sector. Offsets should meet tests of credibility with consumers, financial additionality.*

Michael Bradley, NE GHG Coalition: *The coalition is in line with the fuel neutral idea. Mark mentioned that NE was negatively impacted by CAER. We don't want to see this under RGGI or nationally. Different operating facilities should compete on a level playing field. Coal has a lower xxx than gas. We shouldn't favor one over the other*

Bill Prindle, ACEEE – *I support using energy efficiency as an offset but cap and trade doesn't allow double counting - great for outside region or onsite fossil fuel use but to do this inside the region would be an accounting problem. The cap is on emissions, not energy use.*

No comments from Resource panel.

Audience 1*: REMI should look at supply side energy efficiency and not just demand side. Can they factor in how to recognize energy efficiency in terms of the allocation? This may have impact on the price of natural gas and jobs in region.*

Audience 2*: REMI model doesn't show who the impacts are on. It just shows the impact of entire area. . For example, low-income consumers have to worry about those impacts. Income of a stockholder with 100K shares is not same as a household. Another piece of work that still needs to be done is you have to specify the allocation method.*

Audience 3: *Have you given thought to a two-tiered approach in which offsets might be more generous until a commercially viable technology program comes on board.*

Audience 4: *We feel that all reductions need to come from the regulated sectors. But we are also concerned about limiting of offsets. We have a study on land use offsets, which will be complete in one year.*

Franz Litz, NY DEC*: Is your process open to other participants?*

Audience 4: *Yes*

Audience 5: *The only choice is fuel switch. Otherwise you won't have a cap and trade program without shutting down plants. An offsets program can be a surrogate for over-control and can help create a market.*

Audience 6: *We are looking at lots of bureaucracies associated with the offset process. We need to keep in mind the lead-time. We should seek some level of simplification in terms of templates.*

Chris Sherry, NJ DEP: *We are trying to design a program that streamlines the process while maintaining environmental standards*

Audience 7: *Will offsets be traded between sectors? Can generators buy or get offsets from other industries?*

Chris Sherry, NJ DEP: *That wouldn't be considered an offset.*

Audience 8*: Has there been any analysis of the costs already incurred in the EU region, where there have been double digit increases in electricity rates?*

SWG: *We know the cost of offsets and are doing our own detailed analysis. We are recognizing currency from other cap and trade programs, but are not looking at international trade costs.*

Audience 9*: Will you do an emerging technology model run*

SWG: *We are looking at it. It can be done and is on our wish list, but we're not sure if we have the budget.*

Ben Feldman, Natsource: *Limiting offsets forces reductions to come from a higher place in the cost of compliance curve. If you're setting limits you have to have certainty of how offsets function, so you can be sure your investment materializes.*

Audience 10: *I want to commend this exchange of opinions. My concern is about the modeling. We don't know the scope of the region. Every state is a leap of faith. At the next meeting we want more people running models.*

Ron Drewnowski, PSEG: *I know you've used the best modelers, but I do think the observations made about the EU process are interesting. I'm not sure what caused the prices to deviate from what was expected. It might be useful to talk with someone who was involved with that process and see what went wrong.*

Jonathan Raab, Raab Associates*: Pencil in another Stakeholder Meeting in Boston on Sept 21, assuming things are still in play. He also noted that we will schedule a conference call in mid to late June for the IPM assumptions modeling results, specifically energy efficiency, before they go to the agency heads. Jonathan also pointed out that up until this meeting we'd been alternating between meeting in New York and in Boston, but that the new PUC location didn't work as well for us as the previous PUC location had. So we are continuing to meet in Boston only.*

A stakeholder requested that there be an email sent to all those who don't get on the conference phone call about when the modeling results will be in.

Jonathan Raab, Raab Associates*: Suggestion well taken. We do have a list serv to use for this purpose.*

VII. Next Steps / To Do's

- Post all presentations on RGGI website *(NJ DEP)*
- Write and circulate meeting summary *(Raab Associates, Ltd.)*

- *Schedule modeling conference call on energy efficiency and potentially other modeling results (Raab Associates, Ltd/Karl Michael, NYSERDA)*

RGGI Stakeholder Meeting #8
May 19, 2005
Attendance List

Affiliation	Name	5/20/04	6/24/04	9/13/04	11/12/04	2/16/05	4/6/05	5/19/05
Stakeholder Group								
ACEEE	Bill Prindle	X	X	X	X		X	X
AES	Mark Buzel	X	X	X	X	X	X	X
AES	Chris Wentlent							
CLF	Seth Kaplan	X		X	X	X	X	X
Constellation	John Quinn	X	X	X	X	X	X	X
Dominion	Dan Weekley	X	X	X	X			X
Dominion	Lenny Dupuis	X	X	X		X	X	X
Dom. Energy NE	Paula Hamel			X	X	X	X	X
EDF	Jessica Holliday	X		X	X	X	X	X
Entergy	Brent Dorsey	X		X	X	X		X
Entergy	Jeff Williams		X					
Entergy	Steve Melancon						X	
Environment NE	Dan Sosland							X
Environment NE	Derek Murrow	X	X	X	X	X	X	
Environment NE	Heather Kaplan				X	X	X	
IEP of NJ	Steve Gabel		X	X				
IEP of NJ	Mally Becker	X						
International Paper	Doug Stilwell							
Int'll Paper	Karen B Risse	X	X	X	X	X	X	X
Keyspan	Bob Teetz	X	X	X	X	X		X
Keyspan	Cathy Waxman	X	X	X	X	X	X	X
Maine Public Adv.	Steve Ward	X	X	X		X	X	
NEGT	Susan Flash		X					
NGRID	Joe Kwasnik	X	X	X	X	X	X	
NGRID	Carol White						X	X
NE GHG Coalition	Michael J Bradley	X		X	X	X	X	X
NE GHG Coalition	Brian Jones	X	X	X	X	X	X	X
NRDC	Dale Bryk	X	X	X	X			X
NRDC	Luis Martinez	X			X	X	X	X
Northeast Utilities	Jon Russell	X	X	X	X	X	X	X
NY Coalition	John G.Holsapple	X	X	X	X	X	X	X
NY Coalition	Sandra Meier	X	X				X	
PAConsumerAdv	Sonny Popowsky		X	X		X	X	
Pace Law Center	Larry De Witt	X	X	X	X	X	X	X
PIRG	Rob Sargent	X	X	X			X	X
PSEG	Ron Drewnowski	X	X	X		X	X	X
PSEG	Christine Neely	X		X	X			
PSEG	James Hough		X					
The NE Council	Deirdre Savage	X	X	X	X			
The NE Council	Kevin Conroy						X	X

UCS	Deb Donovan	**X**		**X**		**X**		
UCS	Michelle Manion	**X**	**X**	**X**	**X**	**X**	**X**	**X**
UTC	Chris Powell	**X**		**X**	**X**	**X**	**X**	**X**

Affiliation	**Name**	**5/20/04**	**6/24/04**	**9/13/04**	**11/12/04**	**2/16/05**	**4/06/05**	**5/19/05**
Resource Panel								
ISO-NE	Mark Babula							
ISO-NE	Jim Platts		**X**	**X**	**X**		**X**	**X**
NatSource	Richard Rosenzweig							
NatSource	Ben Feldman		**X**	**X**		**X**	**X**	**X**
NatSource	Michael Intrator				**X**			
independent	Ken Colburn			**X**		**X**		**X**
NESCAUM	Suzanne Watson	**X**	**X**	**X**	**X**			
NESCAUM	Kelly Levin					**X**	**X**	
NYISO	Dave Lawrence			**X**		**X**	**X**	**X**
NYISO	Aaron Breidenbaugh	**X**		**X**	**X**	**X**		
Pew Center	Sally Ericsson	**X**						
Pew Center	Judi Greenwald	**X**	**X**	**X**	**X**	**X**	**X**	
PJM	Susan Covino				**X**			
PJM	Kenneth A. Schuyler	**X**						**X**
PJM	Joe Kerecman	**X**				**X**	**X**	
RAP	Richard Cowart	**X**	**X**	**X**	**X**	**X**	**X**	
RFF	Joe Kruger	**X**	**X**	**X**	**X**	**X**		
WRI	Jonathan Pershing	**X**	**X**		**X**		**X**	
WRI	Andrew Aulisi		**X**			**X**	**X**	**X**
Facilitators/Consultants								
Raab Assoc., Ltd.	Jonathan Raab	**X**	**X**	X	X	X	X	**X**
Raab Assoc., Ltd.	Peter Wortsman	**X**	**X**	**X**	**X**		**X**	
Raab Assoc., Ltd.	Susan Rivo	**X**	**X**	**X**		**X**	**X**	**X**
ICF Consulting	Steve Fine				**X**	**X**	**X**	
ICF Consulting	Chris McCracken				**X**	**X**	**X**	

Affiliation	Name	5/20/04	6/24/04	9/13/04	11/12/04	2/16/05	4/6/05	5/19/05
Staff Working Group								
CT DEP	Chris James		X		X			
CT DEP	Chris Nelson	X		X		X	X	
CT DPUC	Michael Chowaniec					X		
DE DNREC	Phillip Cherry		X	X	X	X	X	X
DE DNREC	Valerie Gray					X		
DE PSC	Bruce Burcat				X			
DE PSC	Robert Howatt				X			
ECP	Bill Breckenridge				X	X		
MA DEP	Bill Lamkin			X		X	X	X
MA DEP	Nancy Seidman		X		X		X	
MA DOER	Dwayne Breger	X	X	X	X	X	X	X
MA DTE	Meera Bhalotra						X	X
MA DTE	Amy Barad						X	
MA DTE	Marilyn Ross							X
MA OCD	Sonia Hamel	X	X	X	X	X	X	
MD-DOE	Gene Higa	X	X	X	X	X		X
MD-Energy Admin	Michael Li							
ME DEP	Kevin Macdonald		X					
ME DEP	James Brooks							
ME PUC	Dennis Bergeron							
NB	Darwin Curtis							
NH DES	Joanne Morin	X		X				
NH DES	Bob Scott							
NH DES	Andy Bodnarik							
NH DES	Joe Fontaine		X	X			X	X
NH PUC	Maureen Sirois							
NJ BPU	Michael Winka							
NH PSB	David Farnsworth			X			X	
NJ DEP	Chris Sherry	X	X	X	X	X	X	X
NJ DEP	Joe Carpenter							
NJ DEP	Jeanne Herb							
NJ DEP	Sam Wolfe							
NY DEC	Franz Litz	X	X	X	X	X	X	X
NYC DEC	Jeffrey Mapes					X	X	
NY DEC	Michael Sheehan	X		X	X	X	X	
NY DEC	Thomas McGuire	X	X	X		X		
NY DEC	Lois New	X	X	X	X	X	X	X
NY DEC	Mark Lowery	X		X	X	X		
NY DEC	Jason Denham		X			X		
NY PSC	John D'Aloia	X	X	X	X	X	X	
NY PSC	Tina Palmero				X	X	X	
NYSERDA	Karl Michael	X	X	X	X	X	X	
NYSERDA	Dave Coup					X	X	
PA DEP	Joe Sherrick	X	X			X	X	X
PA DEP	Don Brown				X			
RI DEM	Steve Majkut	X					X	
VT DEC	Dick Valentinetti			X				

Name	Affiliation	2/16/05	4/6/05	5/19/05
Observers				
Aeschliman, Lea	Pew Charitable Trust	**X**	**X**	**X**
Alexander, Jack	Entergy, Inc.		**X**	**X**
Angoorly, Caroline	NRG	**X**		
Ariaza, Joe	Reliant Energy		**X**	
Ashford, Michael S.	The Climate Trust	**X**		
Asteriadis, Sakis	NEPOOL GIS Program Manager	**X**		
Austin, Frank	Stone & Webster	**X**	**X**	
Bailie, Alison	Tellus Institute		**X**	
Baltera, Victor	Sullivan & Worcester LLP		**X**	**X**
Beal, Lisa	INGAA	**X**		**X**
Bergey, Joy	Citizens for Pennsylvania’s Future		**X**	**X**
Beaudin, Bernie	Cogentrix		**X**	
Berry, Don	McDermott, Will and Emery			**X**
Blankenship, Julia	Cinergy Services			
Bluestein, Joel	EEA	**X**		
Borska, Diane	The Borska Group			**X**
Breslow, Marc	Mass Climate Action Network		**X**	**X**
Burtraw, Dallas	Resources for the Future	**X**	**X**	
Bushinsky, Josh	Pew Center			**X**
Butler, Bill	MIRANT			**X**
Buttazzoni, Marco	Environmental Resources Trust		**X**	
Carthey, Debby	Mass Power/Cogentrix			**X**
Chattopadhyay,Amit	Malcolm Pimie Inc.	**X**	**X**	**X**
Chestone, Alissa	Access Industries	**X**		
Conway, Caroline	MTC	**X**		
Coyne, Martin	Platts Publishing		**X**	**X**
Clark, Sean	The Climate Trust	**X**	**X**	
Crookshank, Steve	American Petroleum Institute	**X**		**X**
Cummings, Fran	Renewable Energy Trust			**X**
Cummings, Paul	Harvard grad student		**X**	
Cunningham, Bill	Unions for Jobs and the Environment		**X**	**X**
Cunningham, Dan	PSEG	**X**		**X**
Cusack, John	Gifford Park Associates	**X**	**X**	**X**
DeCourcy, Matt	Levitan & Associates	**X**		**X**
Dollois, Philippe	Global Energy Markets Deloitte & Touche		**X**	
Drucker, Cynthia	Drucker & Associates		**X**	**X**
Eckersley, Olivia	IETA		**X**	
Edick, Stacie	CNY Resource Conservation &Development			
Evans, Randy	Infineum USA LD			**X**
Fontaine, Peter J.	Cozen O’Connor	**X**		
Finelly, Anton	CRMC	**X**		
Gage, Laurie	Cantor Fitzgerald Environmental Brokerage		**X**	
Gorke, Frank	MASSPIRG	**X**		**X**
Greer, Diane	NYC Apollo Alliance		**X**	
Grace, Bob	FPL Group	**X**		**X**
Gustin, Carl	Gustin ???		**X**	**X**
Gutrich, John	Dartmouth Enviro. Studies Program		**X**	
Hall, Michael			**X**	
Hampp, John	Sustainable Energy Advantage	**X**		
Hamrin, Jan	Center for Resource Solutions	**X**		

Hertzog, Mindi	Greenfuel Technologies			**X**
Hoag, Ethan	Sierra Club	**X**		
Holdsworth, Eric	EEI		**X**	
Holtz-Kay, Jane	Author			**X**
Heck, Werner	Heck Associates	**X**	**X**	
Jacobson, Lisa	Business Council for Sustainable Energy	**X**		
Jain, Regina	LaCapra Associates	X		
Jamiyo, Mark?	CH2M Hill (not sure of name)			
Johnston, Lucy	Synapse		X	X
Jones, Sue	Natural Resources Council of Maine	X	X	
Jope, Andrew	U of Vermont	**X**		
Karlic, Cynthia	NRG Energy, Inc.	**X**		X
Kilgore, Kedin	Natsource, LLC		**X**	
Krotoff, Oleg	Con Edison of NY, Inc.	**X**		**X**
Koda, Richard	Koda Consulting for UWUA& IBEW	**X**		
Kogan, Lawrence	Inst. for Trade, Sustainability & Strategic Development			**X**
Kravett, Michael	ENSR International Inc.			**X**
Lane, Courtney	NEEP	**X**		**X**
Langley, Diane	Clean Air & Energy Consulting		**X**	**X**
Larson, John	TNC			**X**
LeBlanc, Alice	Environmental and Economic Consulting		**X**	
Lewis, Chip	CH2M Hill (not sure of name)	**X**	**X**	**X**
Linky, Edward	USEPA Region II	**X**		
Lipka, George	Earthtech			**X**
Machover, Bob	RG XXXX can't read writing			**X**
Maggiani, Bob	American National Power	**X**		
Maillet, Bruce	Shaw E & I		**X**	
Marzilli, James	MA House of Representatives	**X**		
Mason, Ashley	CSG	**X**		**X**
Mernick, Mike	ICF Consulting		**X**	
Michals, Julie	NEEP	**X**		
Miletich, Radmila	Independent Power Producers of NY		**X**	**X**
Milkowski, Stefan	Columbia journalism student	**X**	**X**	
Moore, Robert	EANY	**X**		
Moore, Michael	Falcon ES	**X**		
Murdock, Sarah W.	Nature Conservancy	**X**		**X**
Morrison, Brian	IEC			**X**
Nagle, Kara	Headwaters		**X**	
Neal, Don	Calpine	**X**	**X**	**X**
Ogonowski, Matt				**X**
Pachovski, Slavi	Inst. for Trade, Sustainability & Strategic Development			**X**
Palmer, Avery	Inside EPA			**X**
Parker, Charlie	Boston Carbon			**X**
Parker, Lisa	BP Emissions Markets Group	**X**	**X**	
Patterson, Alan	Can't read writing			
Paul,, John	CEED	**X**		
Petraglia, Lisa	EDRG			**X**
Pike, Dixon	Pierce Atwood			**X**
Proegler, Mark	BP Emissions Markets Group	**X**	**X**	
Quillian, Mary	Nuclear Energy Institute		**X**	**X**

Rabinowitz, Robert	Chicago Climate Exchange	X	X	
Rawls, Tom	THR Associates. LLC	X		
Reid, Susan	CLF			X
Rio, Robert	AIM	X		
Roberts, Gail	Platts	X	X	
Ross, Marilyn	MA DTE EPB	X		
Rusch, Emily	NJPIRG		X	
Sandell, Layla	EPRI		X	
Schneider, Marcus	EF	X		X
Selin, Henrik	Boston University			X
Shakespeare, David			X	
Shelley, Michael	Ecology & Environment		X	
Short, Bill	Ridgewood Power Management, LLC		X	
Siegel, Joe	EPA		X	
Sinclair, Mark	British Consulate	X		
Silman, Ruth	Nixon Peabody			XF
Skernolis, Ed	Waste Management, Inc.		X	X
Smallridge, Lynn	FPL Group	X		X
Smith, Arthur	NiSource, Inc.		X	X
Smith, Douglas	La Capra Associates			X
Smith, Maureen	Center for Resource Solutions		X	
South, David	Technology & Market Solutions, LLC	X		
Space, William	Brown Univ.		X	X
Spencer, Greg	Blue Source	X	X	
Spinney, Peter	NEUCo	X		
Stackpole, Christine	Business Council for Sustainable Energy			X
Thakur, Joy	Suez Energy NA	X		
Thorpe, Jed	Clean Water Action		X	
Tierney, Susan	Analysis Group		X	
Tranter, Laura	NRG Energy	X		X
Trisko, Eugene	UMWA	X		
Tuffey, Thomas	PennFuture	X	X	
Van Atten, Christopher	MJB & A	X		
Vanderlan, Christine	Environmental Advocates of NY	X	X	
Van DeVeer, Stacy	University of New Hampshire			X
VanVourhus, Chandler	C2I, LLC			X
Jennifer Weeks	Journalist			X
Weiner, Scott	Rutgers	X	X	
Wilby, David	IEP of Maine		X	
Willard, Norman	EPA		X	
Wintergreen, Jay	First Environment Inc. Corporate HQ		X	X
Wood, Susan	AgCert International Ltd.	X		X
Wool, Sheldon	Boston Carbon			X
Yang, Bunli	E4	X		
Yost, Peter	PSEG Power		X	
Younger, Mark	Slater Consulting	X	X	
Zimmerman, Julianne	GreenFuel Technologies	X	X	