



New York  
Biomass Energy  
Alliance

May 3, 2011

Michelle L. Salisbury, Project Manager  
Energy Analysis  
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Dear Ms. Salisbury:

We appreciate the opportunity given to several of our members to share their perspectives on State energy planning at the meeting in your offices on April 25.

We think that the framework and structure of the Draft Scope that you shared with us in that meeting is generally comprehensive and appropriately focused on such themes as reducing the volatility in energy market prices and expense to New York consumers, particularly those for whom energy is a major element in their cost of living, improving the environment, and meeting demand growth with increased efficiency. As we explained during the meeting, we believe that biomass can and will play an increasing role as a major source of low-cost fuel for dispatchable heat and electricity production, an excellent resource for distributed energy technologies, and an expandable source of feedstock for advanced biofuels as those technologies move from pilot to commercial scale.

We know that you recognize that biomass energy is already the second largest source of renewable energy in New York State after hydropower, leading other renewables by a fairly wide margin. While other forms of renewable energy will continue to supply important niches in the overall energy picture, we believe that biomass-based energy applications are those positioned to expand most rapidly, offering the best available return on the State's investment in alternative energy. Biomass energy can and should play an increasing role in replacing fuel and power imported from other regions and parts of the world. A sound State Energy Plan will point the way.

We have two broad suggestions in terms of plan structure:

- 1) Noting that there is a section in the draft outline that addresses "Meeting the State's Energy Needs and Goals for Electricity," we suggest that there also be similar top level sections titled "Meeting the State's Energy Needs and Goals for Heating and Cooling" and "Meeting the State's Energy Goals for Transportation," since each of these sectors represents approximately one-third of energy consumption in the State. With respect to transportation fuel, we are confident that current research and pilot testing on a broad array of

- thermochemical and biochemical conversion technologies is likely to result in commercially viable technologies before a 2013 State Energy Plan has been finalized, bringing the much-discussed potential of using idle farmland to produce feedstock to the fore. CHP could have its own section as well, or be included in a discussion of meeting the State's thermal energy demand, since CHP plants tend to be scaled around thermal loads.
- 2) The section of the draft on "Meeting the State's Energy Needs and Goals by Fuel Type" separates out natural gas, petroleum, coal, and nuclear, and then bundles "Other and Alternate Energy Sources". This lumps together biomass with one other very important source of in-state energy (hydropower), along with a number of other energy sources that supply 1% or less of the State's total energy need needs, and even hydrogen, which is not actually used as a fuel at this point in time. We would suggest that Biomass deserves its own section, not only because of its current importances (particularly in rural New York), but also because in-state supplies could be increased several-fold on a sustainable basis simply through careful, intensive management of existing private agricultural and forest land resources. Moreover, it is already a cost-effective means of lowering heating bills for more than a million New York households that heat with fuel oil or propane.

With respect to the supply question, the planning process needs to take a fresh look at potential in-state biomass energy supplies, including the biogenic fraction of the solid waste stream, woody biomass from private and state forests, and the full range of potential agricultural biomass supplies. While there may theoretically be higher-value uses for biogenic MSW and residues from farms and forests than making energy, the starting point for an objective analysis should be what is potentially available as an energy feedstock without regard to current policy preferences in regard to its use. Once it is clear what the resource is, and how it is being currently used or not used today, then the policy discussion can begin. If policy choices with regard to how different resources ought to be used constrain the supply analysis, huge quantities of potential energy feedstock are likely to be treated as if they do not exist. This makes it somewhat more likely that we will see a continuation of many of the less desirable aspects of the status quo: landfilling most of the MSW, burning wood from land clearing on site, and leaving even that portion of forest residue which could be removed without harming forest health to rot on the forest floor.

The biofuels roadmap effort of a couple years ago was an excellent effort to assess potential cropland and forest biomass availability. However, it assumed flat yields for a number of conventional and non-conventional crops which are actually experiencing rapid year-to-year output gains, and projected few changes in current agricultural and forest utilization patterns. Because it was the initial charge to the study's authors, the roadmap was largely focused on the State's transportation fuel requirements, with ethanol treated as the chief end product of interest. With new drop-in fuels on the horizon, as well as new pathways for ethanol and biodiesel production being explored all the time, we believe that revisiting both baseline data and assumptions about conversion technologies are in order. We understand that, because the cost per unit of carbon reduction was so attractive for biomass energy compared to some of the

other options considered under the State's Climate Action plan, there was some competition for hypothetical biomass supplies among the different working groups, in order to improve carbon reduction benefit/cost ratios for their sectors. The result was an allocation of one-third of the theoretically-available biomass to heat, power, and transportation by administrative fiat. In the real world, as everyone understands, the market will make this call. This suggests another level of complexity in the analysis of how biomass can contribute to the State's energy future – but also why biomass deserves its own section when considering how different fuels can contribute to the State's energy needs within a reasonable planning horizon.

It seems that every time we meet with NYSERDA we suggest the need for a biomass energy technical working group as a means to provide input to NYSERDA and sister agencies in their important work on behalf of New York citizens and energy customers. Subgroups on such topics as biomass thermal energy and power could serve as useful sounding boards on new policy development, and a source for ideas for effective outreach programs to encourage adoption of improved technologies. If we can help make any of this happen, please let us know.

In the meantime, we are both pleased and honored to have the opportunity to share our thoughts and suggestions in any setting you may propose.

Sincerely,

Charlie Niebling, President