

December 1, 2008

RGGI Programs
Attn: Dave Coup
NYSERDA
17 Columbia Circle
Albany, NY 12203-6399

Re: NYSERDA Concept Paper Concerning the Allocation of Proceeds from
New York Carbon Cap and Trade Program

Dear Mr. Coup:

On behalf of the College of Nanoscale Science & Engineering (“CNSE” at the Albany NanoTech Complex), CNSE’s Energy and Environmental Technology Application Center, and New Energy New York, a consortium of New York energy-related technology organizations convened to expand and promote energy technology excellence in New York State, we respectfully submit the following comments to the Concept Paper, titled, “Operating Plan for Investments in New York under the CO₂ Budget Trading Program and the CO₂ Allowance Auction Program”, published on November 21, 2009 “Concept Paper”.

We congratulate you and your staff on a thorough and thoughtful analysis in your preparation of the Concept Paper. It is apparent that a huge amount of effort and creativity was deployed to determine how best to allocate the proceeds of New York’s carbon cap and trade auctions (“Cap & Trade Auction”), to be conducted pursuant to the Regional Greenhouse Gas Initiative (“RGGI”).

Create Jobs, Opportunity and Solutions: Establish New York as a CleanTech Leader

As NYSERDA faces the decision as to how to best use Cap & Trade Auction proceeds, we are at a pivotal point in history. The global economy is in disarray. We as New Yorkers face an ever increasing budget deficit, estimated at over \$12 billion as of November, 2009 and expected to expand significantly next year. Both the upstate and downstate economies are losing jobs at unprecedented rates. Energy prices are volatile and climate change is beginning to have its predicted effects across the globe. As we approach the first days of a new Presidential administration, there is hope but uncertainty. Accordingly, New York must act with boldness,

leadership and creativity as it determines how best to use the proceeds of this historic Cap & Trade Auction.

As Ovid the philosopher once said, “[m]isfortunes often sharpen the genius”. The Carbon Cap & Trade program offers an unprecedented opportunity to create a coordinated partnership between and among the State’s many CleanTech assets. We must act with the singularity of purpose shown by the State when it decided to make the State a world class leader in nanotechnology. We must implement a CleanTech research, industry, economic development partnership, as was done with Albany Nanotech, to seed the CleanTech jobs, opportunities and solutions for tomorrow.

As was done when New York created the Albany Nanotech complex and CNSE, we propose a centralized approach to formally establish and expand Energy Technology Centers throughout the State. We propose that Energy Technology Centers with specific core capabilities be set up around New York and each Energy Technology Center coordinate CleanTech activities within its region and/or technology focus, based on the assets and energy clusters that already exist. The proposed Energy Technology Centers would be based at universities and yield growth through state-of-the-art R&D, manufacturing, and prototyping facilities; human talent development; workforce training; and partnerships between industry, government, and R&D facilities. They will succeed by encouraging activities that add to the State’s desired energy technology portfolio, based on an Energy Roadmap and long term Energy Plan. Each Energy Technology Center would act as the hub of a wheel connecting a network of organizations which would include energy incubators, research centers, and existing energy clusters at New York’s Universities and colleges, to industry, government, investment capital and global markets.

The Energy Technology Centers would work with existing energy clusters to coordinate New York’s message to companies and capital interested in investing in New York State, leverage existing and future government and industry-based funding opportunities, lead and coordinate the effort to attract additional research funding to University based research facilities, act as a clearing house and matchmaker for the State’s energy and efficiency based technology assets, and provide partnering and collaboration opportunities for established renewable energy and energy efficiency companies. Research itself will remain resident in energy clusters. Allocation of Carbon Cap & Trade funds will help coordinate outreach to industry and capital, encourage and manage collaboration and create a centralized point of contact for industry, thereby encouraging entrepreneurship, joint venturing and economic development.

The Energy Technology Centers would:

- Coordinate strong partnerships and collaborations between industry, universities, government and sources of capital.
- Be led by Universities with strong industry relationships, a proven track record of collaborations with industry in their energy sector, and a commitment to coordination and collaboration.
- Be geographically distributed across New York State to take advantage of current technology clusters and their core capabilities.

- Serve as major regional resources for energy technology manufacturing, prototyping and development in New York State, and work with industry to set up state of the art manufacturing facilities.
- Work closely with company partners, incubate start-up companies, and serve as a place for university-business co-location.
- Provide leadership in collaborative research and technology transfer to stimulate regional and state wide economic development.
- Raise awareness of united and combined resources related to new energy technology available in New York State.
- Increase leverage of federal and state based resources.

The core mission of the Energy Technology Centers will be to work with company partners to jointly develop progressive renewable technology that can be effectively used in the marketplace. By conducting research in partnership with companies, the university-based research effort will be focused on the most promising and useful technology. Through the creation of Energy Technology Centers throughout the State, and by broadening the State's existing policies and incentive programs to reduce market and policy related barriers to entry for CleanTech products, New York can harness the inherent strengths and diverse capabilities of its many communities into an engine for robust economic growth and social gain.

Build on Success

New York is uniquely positioned to become a CleanTech leader. There already exists an established cadre of renewable energy companies ready to partner to create a CleanTech Technology Sector; including GE - Power Systems, CR&D, Solar, Etc.; GM – Fuel Cells, Electric Cars; Utilities – NatGrid, Iberodola, Con Ed, LIPA, NYPA; Wind – BP, FPL, Iberodola, Horizon, Noble, Acciona, Shell, etc. The state has an established educational infrastructure of renewable energy and energy efficiency technology development; including the SUNY System, Cornell University, Rensselaer Polytechnic Institute, Columbia University, Syracuse University, Rochester Institute of Technology, University of Rochester, etc.

New York has previously achieved success in utilizing government and private sector stakeholders; for example, CNSE and the Albany Nanotech Complex, Sematech, AMD, Tokyo Electron, etc. Without significant, coordinated, strategic effort, New York cannot optimize its ability to participate in RGGI and the Obama-Biden comprehensive New Energy for America Plan. This Federal Investment plan promises to invest \$150 billion over the next ten years to build a clean energy future. New York can leverage a substantial portion of this investment if it has programs in place such as proposed in this letter and suggested by NYSERDA's proposed Multidisciplinary Initiatives. Coordinated activity will create opportunities for industry and academia to partner and will thereby allow the state to further leverage its investment. New York needs CleanTech jobs to offset effects of the current economic climate and job losses.

Invest Enough Capital to Make a Difference, Now

As NYERDA implements its Cap & Trade program, it must be mindful of the potential for pre-emption by a federal carbon cap and trade program. Position papers produced by the

Obama, and then Obama-Biden campaign, have discussed the need for a federal cap and trade program since 2006. New York's only weapon to avoid pre-emption and keep New York's Carbon Cap & Trade Auction proceeds in New York State is the quality of the program and opportunities it creates. That means that timing of when funds are deployed, and assurance that the fund are spent in a way that produces meaningful results for the State, is imperative.

We propose that NYSERDA adopt an accelerated decision date for proceeds from the initial pre-auction in December, and that proceeds from the first pre-auction be used to establish the Energy Technology Centers system while the NYSERDA Board fully considers deployment of all proceeds from the Cap & Trade Auctions. We further propose that a significant portion of the Cap & Trade Auction proceeds be allocated to support the Energy Centers' research and development, deployment, prototyping and manufacture activities by leveraging capital from both industry and federal government sources.

In addition, in an effort to establish meaningful results in a short time frame, we suggest that instead of multiple grants to multiple technologies in multiple industry sectors, NYSERDA consider limiting the number of awards available pursuant to the Carbon Cap & Trade Auction to a smaller number of larger grants focused on those areas most likely to result in significant opportunities for industry and government investment and partnership. Developing robust renewable energy, energy efficiency and other CleanTech technology businesses takes significant time and money. Small investments that require substantial overhead to apply for and are associated with long lead times prior to funding, will not demonstrate the RGGI program's ability to significantly contribute to sustainable, long-term job growth. In addition, the cost of administering a multitude of programs in compliance with New York's procurement and ethics laws diverts capital to administration rather than research, development and job growth.

Don't Fund What Policy can do Anyway

The RGGI Carbon Cap & Trade Auction will in all likelihood result in higher energy costs for New Yorkers (although this price increase may be masked by recent price volatility in the energy sector in at least the short term). There is the impulse to assure that Carbon Cap & Trade Auction proceeds are exclusively used to mitigate the total energy bill of the consumer so that as the cost per kw of electricity rises, the number of kw used falls, and bills, remain unchanged.

Although it is important to consider the total energy bill of New Yorkers and the total amount of carbon that is produced as the RGGI regulations are implemented, many opportunities in energy efficiency and energy productivity can be better accomplished through policy, rather than confusing, diffuse, and administratively intensive rebate programs. Four recommendations from McKinsey & Company, Making the Case for Investing in Energy Productivity, February, 2008, that would result in energy savings without use of Cap & Trade proceeds are: 1) establishing realistic and aggressive appliance and industrial equipment energy standards, 2) requiring higher energy efficiency standards for industry, 3) making financing energy efficiency upgrades easier and more widely available, and 4) as DEC determines how to structure carbon offsets, whitetags, and other attributes related to the RGGI program, making sure these programs are responsive and flexible enough to create opportunities for energy intermediaries.

Finally, one cannot ignore the imperative of environmental and social justice as NYSERDA decides how Cap & Trade Auction proceeds will be spent. We would posit, that job creation, is the first step in environmental and social justice. Creating a Nanotech Center approach to CleanTech will produce jobs and opportunity across New York State. It will also assure that New York is well-positioned to take advantage of opportunities to leverage commercial, industrial, and federal capital as the world begins to monetize carbon.

Please accept these comments to the Concept Paper on behalf of CNSE, CNSE's Energy and Environmental Technology Application Center, and New Energy New York. We are happy to make ourselves available to NYSERDA or the Advisory Committee, if you have additional questions concerning the matters outlined above.

Sincerely,



Pradeep Haldar
Head, Nanonengineering Constellation
University at Albany, SUNY



Thomas Birdsey
Chairman, New Energy New York