

# **WNY Sustainable Energy Association & Climate Action Coalition Comments on the Draft 2009 New York State Energy Plan**

**October 14, 2009**

We wish to commend Governor David Paterson for his numerous excellent energy initiatives including Executive Order 2 which calls for the development of a 2009 state energy plan, Executive Order 4 which calls for green procurement and sustainability programs for all state agencies, Executive Order 24 which establishes a state goal of reducing greenhouse gas emissions by 80% by 2050, and the Governor's "45 by 15" program which seeks to meet 45% of New York's energy needs through efficiency and renewables by 2015.

We offer the following comments on the draft state energy plan and state energy policy problems and opportunities:

## **General**

**1. Make the plan a plan.** The encyclopedic draft energy plan is highly informative and reflects much hard work to the credit of its researchers and authors but it reads more like a series of narratives about energy sources and state energy programs than an actual plan to take New York from "X" to "Y." As such, the draft energy plan follows the pattern of past state energy plans. Nonetheless, given the increasing urgency of energy problems, more attention should be paid to making this "plan" an actual plan and that will require a more clear statement of goals, objectives, action items, deliverables, timeline, deadlines, etc.

**2. The top priorities are addressing climate change while building the green economy.** While state energy plans traditionally address many concerns, the overriding focus of this state energy plan should be global climate change and how responding to it can substantially rebuild New York's flagging economy through the creation of tens of thousands of green jobs in the sustainable energy sector. Climate change is the most critical energy-related problem we – as a species -- have ever faced and if we fail to meet the challenge it represents, devastating consequences will ensue – not just for us but for living beings everywhere on the planet and for generations to come. Fortunately, responding to climate change intelligently can have real economic benefits. These benefits go beyond the job creation associated with ratcheting up energy efficiency retrofits and expanding clean energy technologies. Our current heavy reliance on oil, natural gas, and coal imports makes our state economy as well as personal budgets very vulnerable to anticipated steep increases in the price of these fuels from eventual "carbon taxes" as well as from the international peak oil and natural phenomena.

## **Energy Efficiency**

**1. As a matter of formal policy, NYS should require all cost-effective energy efficiency before permitting new fossil fuel-fired generation.** The exception to this rule would be repowering existing inefficient, dirty generation with super efficient, low carbon-emitting new generation. Implementing this policy may require rethinking the deregulated electric marketplace but so be it. The realities of global climate change do not allow us the luxury of allowing anyone who wants to build a new power plant the opportunity to do so.

**2. Accelerate progress on the state's "15 by 15" energy efficiency program.** It is our understanding that this meritorious program is unlikely to meet its objectives because of inadequate funding and delays by the Public Service Commission (PSC) in approving plans submitted by NYSERDA and electric utilities. The Governor should remove roadblocks at the PSC and pressure the agency to move expeditiously and constructively in support of this and other critically important energy programs.

**3. Demand Side Management Bidding should be reconsidered.** I was part of a highly successful 1994-1997 DSM project at the University at Buffalo which was the result of an energy service company (CES/Way International since purchased by Sempra and now Honeywell) being awarded \$10 million in incentives by Niagara Mohawk to implement 10 MW in demand reduction at various universities of its choosing in New York. At UB, \$4 million of those incentives leveraged a \$17 million project which never would have occurred otherwise -- yielding annual energy savings of over 40 million kilowatt hours and nearly \$4 million while producing multiple benefits for the University including improved and safer lighting, improved indoor air quality, better temperature control, capital improvement, substantial maintenance savings, and a 20% overall reduction in greenhouse gas emissions. In our case, DSM incentive money produced savings at a rate of less than \$.01/KWH.

**4. Building energy codes need to be substantially improved to mirror or exceed climate protection goals.** Achieving climate protection goals of an 80+% reduction of greenhouse gas emissions (and hence fossil fuel use) by 2050 will require very deep cuts in energy use in buildings. While improving efficiency in *existing buildings* must be the priority, it is very important that all new buildings be increasingly super efficient. Thus, envisioned code improvements in the draft energy plan may be inadequate. It would be desirable to adopt either the Architecture 2030 Challenge or some efficiency standard akin to it that calls for aggressive, steady progress toward zero-energy buildings while simultaneously improving the efficiency of existing buildings. Architecture 2030 calls for the reduction of fossil fuel use in new buildings compared to the average existing buildings by building type as follows:

- 60% reduction in 2010
- 70% reduction in 2015
- 80% reduction in 2020

- 90% reduction in 2025
- Carbon-neutral in 2030

**5. Accelerate natural gas efficiency programs.** For years New York has been lax in re-creating and implementing efficiency programs for natural gas. This must be done on a catch-up basis with full funding as well as expedited PSC implementation of decoupling of revenues and sales for natural gas utilities.

**6. Increase deployment of cogeneration or combined heat and power (CHP) where adequate year-round thermal loads exist to insure maximum efficiency and overall carbon emissions reductions.** There is a substantial unrealized CHP retrofit potential in New York. Historically, some utilities, e.g. National Grid, have imposed punitive “stand-by tariffs” designed to increase the cost of CHP and thus discourage its implementation. These utility barriers should finally be removed.

**7. NYSERDA should examine the problem of “free riders” to ensure that incentive funds produce the maximum benefit and claimed savings are not overstated.** Currently, NYSERDA provides incentives to eligible projects and then takes credit for the savings they produce irrespective of whether the incentives are actually responsible for the projects or the savings. This approach means that some “free riders,” i.e. projects that would have been done with or without incentives, will receive NYSERDA incentives. If it were possible to weed out free riders, incentive money would go further and produce more energy savings than otherwise would occur. Of course, the downside of addressing “free riders” is added cost and delay for an additional level of review and decision-making. Minimally, if this trade-off has not already been examined, it should be. Perhaps there are creative, low cost ways of identifying and eliminating “free riders.” If so, then NYSERDA should consider employing these.

**8. State law and the PSC should require all utilities, including municipal utilities and rural electric cooperatives, to implement effective energy efficiency programs.** See comment about NYPA low cost hydro power below.

## **Renewables**

**1. Accelerate implementation of the Renewable Portfolio Standard.** We understand that at present, the RPS is bogged down. It is unlikely to achieve its stated goals without adequate and consistent funding matched by expeditious PSC action and timely RPS solicitation release dates.

**2. Commit to 2,000 MW of PV solar by 2020.** While this goal is aggressive, it can be accomplished and should be kept in perspective: to achieve our climate protection goals we need much more than 2,000 MW of solar in the relatively near term.

**3. Maintain PV solar incentives and clear away barriers to allow the market and industry to keep expanding rapidly.** The solar electric industry is ramping up but is a

very long way from “grid parity.” Thus, it is very pre-mature to establish plans and dates to curtail or eliminate PV solar incentives – though these discussions are apparently being prompted by the PSC. At this time, it is essential that PV incentives remain generous, steady, and guaranteed. It is also critically important that NYSERDA speed up its review process of incentive applications and consider establishing a two track review process so that incentive applications from established, knowledgeable, reliable companies with proven track records are not be subject to the same level of scrutiny and delay as are applications from new companies that are just learning the ropes. Steady rapid growth of the PV industry also requires an expedited review process of net-metering applications by electric utilities. Some of these companies may be resistant to PV and may be dragging their feet -- thus discouraging customers and hurting the industry. A short turn around time for these utility applications should be required and enforced.

**4. Solar and wind net-metering for residential and commercial applications should be significantly expanded.** As we know, climate protection requires a rapid transition to renewable energy technologies. That aim can be advanced by allowing home-owners and businesses to install generous amounts of renewable capacity and export increasing amounts of clean power into the grid. While electric utilities may seek to minimize net metering because it reduces the volume of electricity they deliver to customers (and thus sales), good energy policy should seek to maximize it. The electric utilities were successful in changing language in last year’s net-metering bill to restrict net-metering by commercial customers –which now must be remedied. Perhaps a decoupling mechanism is needed so that utilities do not suffer financial losses as net-metering increases.

**5. Pay more attention to and provide more support for solar thermal.** This technology has great potential in New York and appears to be more cost-effective than solar PV yet it has been neglected and market penetration is almost zero. This situation can and should be remedied by setting aggressive goals for increasing statewide solar hot water capacity and implementing a properly designed education and incentive program. The state energy plan should support the NY Solar Thermal Consortium’s Solar Thermal Road Map and launch a solar thermal market transformation initiative which would combine incentives with a 5 year effort to educate the public on the benefits of solar thermal technologies, including establishing a central database of case studies, products, and installers.

**6. Seriously consider feed-in tariffs which have been very effective in Europe and are now being tried in neighboring Ontario and in various U.S. states.** While over the last few years wind energy has finally taken off in New York, the market has almost collapsed during 2009 (and likely will remain depressed throughout 2010) because of the recession and collapse of electricity prices. To create steady growth in wind energy capacity, a cost-plus model to guaranteed reasonable profit may be needed. Feed-in tariffs could provide that and accelerate wind, PV and sustainable biomass development - - though care must be exercised to design and implement these tariffs properly. Setting rates too high would create windfalls to developers and a certain public backlash. Setting them too low would kill a market that was doing pretty well on conventional incentives. While New York’s “6 cent law” of the 1980s and early 1990s still casts a long shadow

over pricing mechanisms that would provide a guaranteed high price for alternative energy, the seriousness and urgency of the climate crisis forces us to seriously consider feed-in tariffs to get beyond the boom and bust path we have been on and achieve the kind of stellar growth in renewable energy capacity which has been achieved in countries like Germany.

## **New York Power Authority (NYPA)**

**1. NYPA low cost hydro power programs should be revamped so that all recipients of this cheap energy are required to work aggressively in partnership with NYPA to ensure the highly efficient use of this resource.** At present, the vast majority of companies, municipal utilities, and rural cooperatives that receive low cost hydro squander it through wasteful use. This results in less available hydro for other customers, increasing fossil fuel burning and greenhouse gas emissions. The City of Jamestown is a case in point. Awash in cheap hydro power, the Jamestown Board of Public Utilities did not have a ratepayer efficiency program between 1991 and 2008 and would not be developing a new program at this time had not the PSC insisted on it.

**2. NYPA should reject Hydro Quebec purchases if they contribute to the destruction of wilderness or native lands in Canada.** This was a big issue in the early 1990s and it deserves attention now as NYPA again considers buying power from this Canadian utility which has done untold damage by damming rivers and submerging thousands of square miles of forested land under hydro reservoirs which also cause significant mercury pollution (due to the soil type).

**3. NYPA's 1,000 MW PV solar program is laudatory but more attention should be paid to maximizing the potential educational and training benefits of these arrays.** When located on school campuses, NYPA should require that students and faculty be involved designing and planning the PV arrays. Community colleges with green building and solar training certificate programs should be prioritized as recipients of NYPA PV arrays because community colleges are the training grounds for future solar installers who can participate in not only the design of these arrays but also their installation. Of course, part of the educational message of PV is learning how *little electricity* this clean technology produces. Students and the general public need to understand that solar energy is diffuse, it's not always sunny, and solar panels are only about 15% efficient – and thus even large PV arrays may not produce much electricity compared to the amount of energy even modest-size buildings are using and wasting. That means we cannot meet our energy needs with this technology without simultaneously becoming much more conserving and energy efficient. NYPA should insist that recipients of NYPA PV arrays demonstrate that they understand this lesson by implementing and publicizing additional efficiency improvements as a condition of receiving an array.

**4. NYPA should consider using its vast resources to develop significant run-of-river and pump storage hydro capacity in an environmentally sound manner.** Run-of-river applications exist on the Niagara, the St. Lawrence, Hudson and other rivers and

also may be useful to harness the vast tidal energy resource of the Long Island Sound. As we transition to a state energy economy that is more dependent on renewables, which in the case of wind and solar are intermittent, additional pump storage hydro capacity may become important in the absence of other large capacity energy storage options.

**5. NYPA and the state energy plan should anticipate changes in Lake Erie and Lake Ontario water levels when projecting future hydro electric generating capacity.**

Climate change is expected to lower water levels in the Great Lakes. This is no secret and needs to be recognized and addressed.

## **Fossil Fuels**

**1. The state energy plan should include a commitment to phase out all existing coal-fired power plants in New York.** Climatologists such as Jim Hansen argue that phasing out existing coal plants is essential to meeting greenhouse gas reduction targets in order to avoid the worst consequences of climate change. While New York may phase out existing coal plants naturally by allowing these older facilities to “age out” without being replaced, it would be helpful and demonstrate national leadership if we accelerated the closure of these major sources of carbon emissions as a matter of plan and policy. Ontario is doing it and so should New York.

**2. New “carbon capture and storage-ready” coal plants should not be built.** There is no guarantee that CCS technology will work or be economic, let alone would actually be installed on “CCS-ready” coal plants at a later date to achieve the 90% capture and burial rate referenced in the draft plan. To build these plants without requiring that from “day one” they include fully functioning 95% effective CCS would be a huge mistake and could set back New York’s climate protection efforts substantially. What this means is that no new coal plants should be built in New York because proven CCS can not be installed at this time and is unlikely to be available for a decade – and at that point might be uneconomic or cost-prohibitive.

**3. The proposed Jamestown NY coal-fired power plant and CCS demonstration project should be dropped from the state energy plan.** Governor Paterson should abandon his commitment to this ill-conceived project. While there is merit in demonstrating and eventually commercializing CCS technology, that work need not be done in New York and should not be done anywhere by building new unneeded coal plants. As a general rule, CCS technology should be developed as a retrofit technology and thus be demonstrated on existing coal plants. An October 13, 2009, funding announcement by U.S. Energy Secretary Steven Chu suggests that the federal government is beginning to recognize the need to develop and test CCS on existing coal plants. If the state energy plan continues to mention the Jamestown project, it should indicate that it is widely opposed by the environmental community for the following reasons:

- **It's unnecessary.** The proposed Jamestown coal plant is viewed as an unnecessary coal plant disguised as a CCS demonstration project. Jamestown ratepayers already receive 90 percent of the electricity they consume from the New York Power Authority. Jamestown's existing old coal plant can be shut down and the balance of Jamestown ratepayer electric needs can easily be met by energy efficiency and a few wind turbines – technologies fully consistent with New York's stated energy policy goals.
- **It's dirty.** The proposed level of carbon capture is only 55 percent, so the plant will still produce annual new carbon emissions equal to 35,000 cars and trucks though it can be argued that under the Regional Greenhouse Gas Initiative emissions cap overall emissions would not rise as a result of building and operating this plant. NYPA hydropower, efficiency, and wind energy produce zero emissions.
- **It's expensive.** Environmental groups estimate that power from the proposed plant will cost 14 to 19 cents per kilowatt hour even if all CCS costs are funded by the federal government. In contrast, the average cost of meeting Jamestown's non-NYPA supplied power needs with energy efficiency and wind power is only 6 cents per kilowatt hour – the same cost as buying power off the western zone NYISO grid during 2007 and 2008. Grid power prices are even lower in 2009.
- **It's risky.** This power plant would produce much more power than Jamestown ratepayers need yet it will be impossible to sell that expensive excess power without suffering huge losses – raising the specter of bankruptcy for the City of Jamestown or large state taxpayer-funded bailouts in the years ahead.

Jamestown project is opposed by: Alliance for Clean Energy New York, American Lung Association in New York, Campus Climate Challenge, SUNY Fredonia, Catholic Care for Creation Committee of Buffalo, Citizens Campaign for the Environment, Clean Air Coalition of Western New York, Earthjustice, Environmental Advocates of New York Global Warming Action Network – Syracuse, Great Lakes United, Jamestown Area Concerned Citizens, Natural Resources Defense Council, New York Interfaith Power & Light, New York Public Interest Research Group, Northeast Sustainable Energy Association, Physicians for Social Responsibility - Washington, D.C., Sierra Club (National Beyond Coal Campaign, Sierra Club Atlantic Chapter, Sierra Club Niagara Group), UB Environmental Network, WNY Climate Action Coalition, WNY Sustainable Energy Association

**4. The draft state energy plan should be updated to show 2008 coal prices which were as high as \$150/ton and eliminate Praxair and the University at Buffalo as partners in the Jamestown coal plant project.** Praxair and UB dropped out after the U.S. Department of Energy rejected the Jamestown Oxy-Coal Alliance's first funding application.

**5. No new Marcellus Shale natural gas drilling should be permitted until a thorough and satisfactory environmental review has been conducted, resulting in much stronger regulations and safeguards.** Current DEC actions with regard to “hydro-fracturing” technology and its reliance on hazardous chemical that risk ground and surface water contamination are widely viewed as inadequate.

**6. Fossil fuel extraction should not be allowed in any state parks or on state land.** At this time there is a severe threat to the magnificent Allegany State Park by natural gas drilling by owners of sub-surface mineral rights. It is essential that this threat be resolved in favor of the preservation of the park.

## **Transportation**

**1. Department of Transportation practices should be made to harmonize with state energy efficiency and climate protection goals.** Case in point: DOT support and funding for the upgrade of Route 219 between Springville and Salamanca to a four lane super highway. This project is not justified by any valid transportation studies or traffic needs. It is an unabashed pork barrel project which will waste as much as 500 million tax dollars, destroy a large swath of rural countryside, and encourage sprawl, long distance commuting, and energy wasteful driving practices that will add to New York carbon footprint. It also wastes funds that could otherwise be used to promote energy conserving transportation solutions. While one project of this type is too much, one wonders how many other DOT projects are like this in New York.

## **Climate Action**

**1. The energy plan should reflect the most current climate science and address the 450 vs. 350 ppm controversy.** The draft plan references the dated 2007 Stern report and dated 2007 Intergovernmental Panel on Climate Change report and appears to assume that the best climate science points to policies that would keep atmospheric carbon dioxide concentrations under 450 parts per million and thus requires that developed countries reduce greenhouse gas emissions by 80% by 2050 – the same goal of Executive Order 24 and pending state climate change legislation. The authors of the state energy plan are undoubtedly aware that an increasing number of scientists now maintain that this CO2 concentration threshold and volume of greenhouse gas emissions cuts will not be adequate. These scientists argue that the safe level of atmospheric carbon dioxide is 350 ppm or lower, levels we have already passed. Accordingly, deeper and quicker cuts in emissions are necessary. The energy plan should not ignore this debate or tie itself to policy objectives based on dated science.

**2. The Regional Greenhouse Gas Initiative or RGGI deserves critical treatment within the energy plan.** RGGI, which soon may be supplanted by a national cap-and-trade regime, has done its job by advancing the cause of climate regulation and by providing significant funding for energy efficiency and renewable energy projects. RGGI



has also been criticized because its cap on greenhouse gas emissions does not decline fast enough or produce a high enough price on carbon. These potential shortcomings should be explored or at least mentioned in the report.

**3. The proposed DEC greenhouse gas emissions performance standard for new fossil fuel-fired power plants and other large emitters appears to be inadequate.** The standard calls for greenhouse gas emissions to be no greater than those of a combined cycled natural gas generator. The standard is borrowed from other states and based on the notion that it is OK to build new natural gas-fired power plants without restraint even in this climate challenged world. That assumption should be reconsidered given the need to make very aggressive cuts in greenhouse gas emissions. A more appropriate policy would be to avoid all new fossil fuel-generated electricity and meet load growth issues with efficiency and renewables. When applied to a new coal plant, the natural gas plant greenhouse gas emissions standard could be met by only capturing and sequestering 55% of carbon dioxide emissions even though we all know that sharper reductions in emissions are needed. Moreover, CCS advocates tell us that CCS technology will be able to function at a 95% rate of capture and sequestration. While it seems obvious that is the level of performance we should be insisting on for potentially giant CO<sub>2</sub> emitters like new coal plants (even though there are steep costs associated with meeting that standard), the existence of a RGGI emissions cap and the likelihood of a federal greenhouse gas emissions cap suggest otherwise. That's because in an "greenhouse gas emissions-capped world" the emissions from a new power plant with carbon allowances would theoretically displace emissions from existing plants, leaving total emissions unchanged. This would be the case if cap and trade worked as intended and could not be gamed. However, in the absence of total confidence in the reliability cap and trade, it makes sense to insist on stringent emissions standards for new generators. However, large greenhouse gas emitters that are not power plants (e.g. petroleum coke gasification plants) are not counted under RGGI, so stringent emissions regulations must be required for them – essentially to prevent these plants from being built until the vast majority of their emissions can and would be captured and sequestered – a condition which is unlikely to be economic and cannot be met now since CCS has yet to be fully demonstrated or commercialized.

**4. The DEC Climate Change Office should be much better funded and substantially expanded.** Addressing climate change is too important to underfund and under-staff even during a state budget crisis.

**5. Climate commitments, planning, and action need to be decentralized and made available to localities.** The state energy plan should recommend funding local climate action offices to raise awareness about climate change and assist municipalities, businesses, institutions, and individuals develop aggressive climate action plans to rapidly reduce greenhouse gas emissions.

## **State Agencies**

**1. Executive Order 111 should be strengthened so that it has “teeth” and requires state agencies to meet higher standards of energy efficiency, green design, and reliance on renewable energy.** Executive Order 111 should require that all new state construction to achieve the equivalent of LEED Gold or Platinum with a maximum number of energy credit points. The Executive Order also should require that all state agencies achieve climate or carbon neutrality within ten years. To meet green power purchasing goals, the state could invest in and build its own wind farms. But most importantly, the entire E.O. 111 program should be carefully evaluated to determine why even the existing energy efficiency and green power purchasing goals were not achieved. The widely held belief that the Executive Order would not be enforced probably contributed to that failure as did lack of funding.

**2. All state schools, i.e. SUNY and CUNY, should be required to sign the American College & University Presidents Climate Commitment and implement plans to reach climate neutrality within ten years.** This initiative would be consistent with an improved Executive Order 111.

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