

STATE OF NEW JERSEY ENERGY MASTER PLAN

Comments of the National Association of Energy Service Companies on the 2011 Draft Energy Master Plan

The National Association of Energy Service Companies (NAESCO) appreciates the opportunity to offer comments on the 2011 Draft Energy Master Plan in response to the notice of the Board of Public Utilities (BPU) asking for written comments.

NAESCO is a national trade association whose mission is to promote efficiency as the first priority in a portfolio of economic and environmentally sustainable energy resources and to encourage customers and public officials to think energy efficiency first when they are making energy resource procurement or energy policy choices. NAESCO numbers among its members some of the world's leading energy services companies, including: AECOM Energy, Ameresco, Burns & McDonnell, CCI Group, CM3 Building Solutions, Chevron Energy Solutions, Clark Energy Group, Clear Energy Contracting, Comfort Systems USA Energy Services, ConEdison Solutions, Constellation Energy Projects and Services, Control Technologies and Solutions, Eaton Corporation, Energy Solutions Professionals, EnergySolve LLC, Energy Systems Group, Excel Energy, FPL Energy Services, Green Campus Partners, Hess Corporation, Honeywell, Johnson Controls, McClure Energy, NORESKO, NXEGEN, Onsite Energy, Pepco Energy Services, Schneider Electric, Siemens Industry, Synergy Companies, Trane, UCONS, and Wendel Energy Services. Its members also include many of the largest utilities in the United States: Duke Energy, the New York Power Authority, Pacific Gas & Electric, and Southern California Edison.

NAESCO member companies have delivered hundreds of millions of dollars worth of energy efficiency (EE), demand response (DR), renewable energy (RE) and distributed generation (DG) projects to hundreds of New Jersey commercial, institutional and industrial customers, and tens of thousands of residential customers, during the past twenty years.

Based on our experience and that of our member companies, NAESCO offers comments on the elements of the plan that deal with the organization and implementation of EE, DR, RE and DG programs and projects.

Summary of Comments

NAESCO supports the purpose of the Christie Administration to develop an Energy Master Plan that documents its strategic vision for the use, management and development of energy in New Jersey for the next decade, and we generally support the five goals that are articulated in the Draft Plan. We offer several comments and suggestions about how the Draft Plan might be refined to improve its chances of success, by focusing on what will make the elements of the Plan work in the real world of large-scale energy program implementation.

1) Make increased energy efficiency (EE) the first priority, rather than the third, because EE is the cheapest and most reliable resource and because none of the other new resources will be inexpensive enough to waste the way we now waste energy.

2) Use the demonstrated ability of the Governor to shape and communicate state policy priorities to establish EE as the foundation of state energy policy by developing and repeating the simple message that there is no magic technology bullet that will enable the state to continue the business-as-usual use of energy.

3) Accelerate the Lead-by-Example (LBE) goal of improving the energy efficiency in state and as local government facilities to demonstrate that New Jersey can create thousands of high-paying jobs, and modernize its public buildings, without new taxes, by using experienced third-party providers like ESCOs.

4) Recognize that accomplishing the goal of significantly increasing the energy efficiency of key market segments (*e.g.*, high-end office buildings) that drive peak electricity demand is going to require more innovative policies than tuning up the approaches (customer education and finance programs) that have failed for the past thirty years.

5) Translate the ambitious policy goals of the Draft Plan into specific targets for which stakeholders are accountable, *e.g.*, develop 1,500 MW of new CHP resources during the remainder of this decade to replace the Oyster Creek nuclear plant that will be retired in 2019 as well as an identified set of old, inefficient, polluting coal plants.

6) Make the top-down review of the organization and delivery of existing EE, DR, RE and DG programs transparent and open to all interested stakeholders, rather than a closed-door analysis by BPU staff and consultants.

7) Ensure that the review process and any program reorganization that it produces is implemented in a fashion that minimizes the kind of program disruption, and subsequent job loss, that characterized the last major program review in the early part of the last decade.

Discussion

NAESCO offers the following arguments in support of its comments.

1) Make increased energy efficiency (EE) the first priority, rather than the third, because EE is the cheapest and most reliable resource and because none of the other new resources will be inexpensive enough to waste the way we now waste energy.

There is a good reason why all sports teams, from Little League to the NFL, start each season with “getting in shape” workouts or training camps: if the players are not in shape, they can’t really play the game. If you are gasping for air at the end of every play, you don’t make good decisions and execute the game strategy. You struggle to survive on the field.

We suggest that for too long, New Jersey and the US have been trying to develop and energy policy without first “getting in shape” – making our energy use as efficient as possible. We lurch from crisis to crisis, hoping for a miracle technology, and never seem to be able to develop and execute a comprehensive energy strategy. The waste in our current energy use, which enables consumers to quickly and permanently reduce their energy use, undermines the ability of utilities, energy companies and suppliers of energy-using products and services to plan and execute energy supply strategies that will deliver the sustained economical prices, reliability and sustained employment envisioned by the Plan. How can a rational business invest in a power plant in a competitive market when it knows that virtually all of its intended customers, once they see the cost of the new power, can substitute cheaper energy efficiency products and services with minimal effort?

So we respectfully suggest that the Plan should make EE the first priority. It is the cheapest and most reliable resource. It is abundant. It will produce, as the Draft Plan documents, net benefits (\$1.80 to \$4.29 for every \$1 invested) that will help pay for the other elements of the Plan. It will put thousands of New Jersey men and women back to work. And it will make the output of many of the proposed energy sources in the Draft Plan (e.g. nuclear plants or offshore wind farms) affordable for New Jersey ratepayers, because they need to use less of the expensive

new energy for their homes and businesses.

NAESCO believes that this principle of putting EE first should be both a macro and a micro policy. At the macro level, the Plan should focus on optimizing energy efficiency before committing to new supply sources. On the micro level, optimizing the efficiency of a home or business should be a pre-requisite for participation in RE, DG or CHP programs, particularly programs that offer incentives. It makes no sense to put an expensive PV solar system on a school roof if a third to a half of the output of the PV system will be wasted. What kind of lesson does that teach children – that a magic bullet technology will save them from having to do the hard work of making buildings efficient?

2) Use the demonstrated ability of the Governor to shape and communicate state policy priorities to establish EE as the foundation of state energy policy by developing and repeating the simple message that there is no magic technology bullet that will enable the state to continue the business-as-usual use of energy.

During the past eighteen months, Governor Christie and his administration have demonstrated the ability to arrest the public attention on major issues and turn public opinion in a way that many political observers thought was impossible. NAESCO respectfully suggests that the Governor use this ability to convince New Jersey residents that continuing the business-as-usual approach to energy is no more viable than continuing the business-as-usual approach to public expenditures. And the energy issue is perhaps more pressing than the tax and spending issues. Recent research shows that New Jersey's energy expenditures are 50% higher than its tax expenditures¹, so persuading New Jersey residents and businesses to become more energy efficient is likely to save them more money, and contribute more to the development of the state economy, than lowering future tax expenditures.

3) Accelerate the Lead-by-Example (LBE) goal of improving the energy efficiency in state and as local government facilities to demonstrate that New Jersey can create thousands of high-paying jobs, and modernize its public buildings, without new taxes, by using experienced third-party providers like ESCOs.

NASCO strongly supports the Draft Plan's goal of having the state lead by example in

¹ "Comparing State Taxes with State Energy Expenditures – 2008," J.S. Laitner, American Council for an Energy Efficient Economy, 2011

making its facilities as energy efficient as possible, through the use of third-party providers like NAESCO member ESCOs. We urge that the Plan expand the LBE initiative to include all public facilities – state and local government, universities, community colleges, etc. ESCOs have delivered more than \$40 Billion of projects during the past twenty years, which required almost 400,000 man-years of direct labor, and delivered more than \$25 Billion of improvements to public facilities. During the mid-1990s, ESCOs delivered about 300 MW of projects in New Jersey, which the BPU called an “Energy Efficiency Power Plant” in a few years. A comprehensive New Jersey LBE program can put thousands of people to work in the construction industry that is suffering Depression-era levels of unemployment, while also making public facilities more productive places to work and learn. And the cost of the projects will be paid not from new taxes, but from savings generated by re-purposing the dollars currently spent on wasted energy and on maintaining decrepit equipment.

More importantly, perhaps, this work can start tomorrow. The technology employed is off the-shelf. The workforce is available in every part of the state. No complex regulatory or siting permits are required. Project funding is readily available from a robust, competitive private financing marketplace. The Governor, using his “bully pulpit” can make this happen.

4) Recognize that accomplishing the goal of significantly increasing the energy efficiency of key market segments (e.g., high-end office building) that drive peak electricity demand is going to require more innovative policies than tuning up the approaches (customer education and finance programs) that have failed for the past thirty years.

The Draft Plan recognizes the value to all New Jersey ratepayers of lowering peak demand through energy efficiency and conservation, and suggests that a combination of customer education and the availability of project financing are the policy elements required for large-scale implementation. NAESCO respectfully suggests that these elements have been tried for the three decades and have not yielded the kinds of results the Plan envisions.

Customer education and public awareness programs have been operated by federal, state and local governments and utility companies. It is fair to say that not many commercial building owners are unaware of the potential of energy efficiency in their buildings. But few have implemented comprehensive energy efficiency improvements because that is not their business. Their business is timing the real estate cycle correctly, collecting rents, making modest

improvements (often cosmetic), and selling the buildings. Simply put, a building owner is much more apt to invest \$1 million putting up marble in the lobby than putting a new boiler or chiller in the sub-basement. And besides, in most buildings the tenants pay the energy bills, so high energy costs really don't concern the building owners. Energy efficiency may gain a little traction if building owners are required to benchmark their buildings and publicly disclose the benchmarks, as New York City now requires, but even that seems unlikely to catalyze the level of investment that the Plan envisions.

Project financing is also readily available for credit-worthy buildings. Several years ago the Clinton Climate Initiative (CCI) collected pledges of several billion dollars from major investment banks for a program that would spur large building retrofits in major cities across the country. But the money has gone begging, even after the CCI, in a project delivered by a NAESCO member ESCO, demonstrated that the Empire State Building could be retrofitted to reduce its energy use by almost 40% with a payback of about four years.

Given the historical inadequacy of the two major elements proposed in the Draft Plan, NAESCO suggests that New Jersey look at the program proposed by New York Mayor Bloomberg. This program is interesting, we think, not only because New York is the largest concentration of the target buildings in the country, but because Mayor Bloomberg personally knows most of the major commercial building owners, and the program represents his conclusions about what will make them take action. The New York program had three elements – mandatory benchmarking with public disclosure, mandatory energy audits with public disclosure and mandatory retrofits for measures with less than a five-year payback. The first two elements – benchmarks and audits with public disclosure -- were approved by the City Council and are being implemented. The third element – mandatory retrofits – was not approved.

NAESCO respectfully suggests that New Jersey adopt these three elements as part of its Plan. We understand that there will be significant resistance from the real estate industry, but we think that resistance is misplaced. We think that the kind of open and transparent examination of the economics of energy efficiency proposed in the Plan (see below) will demonstrate the burden that inefficient commercial buildings place on all ratepayers (by raising peak demand) and the value to all ratepayers of increased efficiency in commercial buildings by lowering peak demand.

And we think there is ample precedent for mandating the retrofits. More than a decade

ago, commercial building owners faced a mandate to retrofit older buildings with sprinkler systems. They put up fierce resistance, claiming that the mandates were economically unjust and impractical. And a decade later all of the buildings are retrofitted. And sprinkler systems do not pay for themselves with energy savings, or improve the Net Operating Income (NOI) of the building, or improve the comfort and productivity of the tenants, as EE retrofits do.

5) Translate the ambitious policy goals of the Draft Plan into specific targets for which stakeholders are accountable, e.g., develop 1,500 MW of new CHP resources during the remainder of this decade to replace the Oyster Creek nuclear plant that will be retired in 2019 as well as an identified set of old, inefficient, polluting coal plants.

NAESCO strongly supports the goals of the Draft Plan to significantly increase the use of Distributed Generation (DG) and combined Heat and Power (CHP) in New Jersey. We believe that this goal will encounter significant resistance from the state's electric utilities, because it is disruptive of their traditional operations, just as the increased use of mobile phones has been disruptive of the telephone utilities' traditional landline businesses. In order to help overcome this resistance, and to build popular support for this initiative, NAESCO suggests that the Plan ties together the DG/CHP goals with the necessity of replacing the generating capacity that will be lost through the retirement of the Oyster Creek nuclear plant and various old, inefficient coal plants. We believe that the public will support a program based on the concept that every new megawatt of clean and efficient CHP is replacing a megawatt of inefficient and dirty coal, and that this public support will be crucial to overcoming utility resistance to the DG/CHP initiative.

6) Make the top-down review of the organization and delivery of existing EE, DR, RE and DG programs transparent and open to all interested stakeholders, rather than a closed-door analysis by BPU staff and consultants.

NAESCO fully supports the proposals in the Draft Plan for a full top-down review of the New Jersey Clean Energy programs and the economics of the various energy resources that are part of the plan – EE, RE, DG, CHP, coal, nuclear and natural gas. We urge that the review be a transparent public process, with opportunities for participation and comment by all interested stakeholders, in order to ensure that the review incorporates the best thinking available and that its conclusions have a wide base of “buy-in” and support from stakeholders and the general public.

New Jersey need look no further than Massachusetts to see an example of the review of a key element of the Draft Plan – offshore wind generation – that has failed to generate public support because of the lack of transparency. The Cape Wind project has been in the federal and state permitting process for eight years, and has only recently gotten its final construction permits. During most of this time the economics of the project were hidden. The permitting process was characterized as a fight between supporters of clean energy and a group of NIMBY property owners whose ocean views would be slightly affected by the project. When project developers needed to get approval from the Department of Public Utilities for a long-term power purchase contract with a major state utility for half of the project output, they tried to keep the project economics confidential, and largely succeeded. The contract pricing information that has been made public (base price of about \$.195/kWh plus annual escalators for the fifteen year life of the contract) has taken even project supporters aback, because the price is substantially above the current and projected market price of generation and the project developers have not offered a public explanation or analysis of their pricing. The public is left to rely on the statements of the state’s Attorney General that she has examined the pricing and thinks it fair, after the developer agreed to a modest reduction. The project is now stalled because the state’s other major utility has flatly refused to buy the other half of the project output at the disclosed price, and there is virtually no public pressure on them to reconsider this decision.

7) Ensure that the review process and any program reorganization that it produces is implemented in a fashion that minimizes the kind of program disruption, and subsequent job loss, that characterized the last major program review in [2003-04].

NAESCO believes that it is very important for the Christie Administration to manage the review of the Office of Clean Energy (OCE) and utility EE, RE, DR and DG/CHP programs in a way that sustains the program elements the Administration intends to keep. We suggest that the model for this management not be the examples of comparable program reviews in New Jersey, California, Pennsylvania and other states. During those reviews, programs ground to a halt, hundreds of jobs were lost, skilled contractor personnel left the state for more fertile markets, and the reorganized programs, often only slightly modified, took several years to regain their former production level.

NAESCO believes that the model for the New Jersey program review should instead be

taken from private industry, where companies regularly review their product and service offerings, introduce or discontinue product lines, and refocus the business on a new strategy. During these transitions, the business cannot tell its shareholders that it is discontinuing operations and will have minimal revenue for a year or so, but rather it must work to maintain its reputation and momentum in the marketplace, and ensure that the investment it has made in building its core staff, distribution networks and subcontractor roster is not dissipated.

[Since a continuation of aggressive EE is one of the five major goals of the Draft Plan, NAESCO believes it is very important that the Christie Administration assigns or recruits a real expert to manage the review and transition process. The programs under review represent close to two billion dollars of ratepayer investment, and the ratepayers deserve to have this investment safeguarded, so that the program infrastructure it has purchased can be used to maximum advantage in continued or reorganized programs.

Conclusion

NAESCO appreciates the opportunity and urges the BPU to adopt its suggestions, as follows:

1) Make increased energy efficiency (EE) the first priority, rather than the third, because EE is the cheapest and most reliable resource and because none of the other new resources will be inexpensive enough to waste the way we now waste energy.

2) Use the demonstrated ability of the Governor to shape and communicate state policy priorities to establish EE as the foundation of state energy policy by developing and repeating the simple message that there is no magic technology bullet that will enable the state to continue the business-as-usual use of energy.

3) Accelerate the Lead-by-Example (LBE) goal of improving the energy efficiency in state and as local government facilities to demonstrate that New Jersey can create thousands of high-paying jobs, and modernize its public buildings, without new taxes, by using experienced third-party providers like ESCOs.

4) Recognize that accomplishing the goal of significantly increasing the energy efficiency of key market segments (*e.g.*, high-end office buildings) that drive peak electricity demand is

going to require more innovative policies than tuning up the approaches (customer education and finance programs) that have failed for the past thirty years.

5) Translate the ambitious policy goals of the Draft Plan into specific targets for which stakeholders are accountable, *e.g.*, develop 1,500 MW of new CHP resources during the remainder of this decade to replace the Oyster Creek nuclear plant that will be retired in 2019 as well as an identified set of old, inefficient, polluting coal plants.

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Respectfully submitted by,

A handwritten signature in black ink, appearing to read 'Donald D. Gilligan', with a long horizontal flourish extending to the right.

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