

**COMMENTS OF  
ROCKLAND ELECTRIC COMPANY  
ON THE  
DRAFT NEW JERSEY ENERGY MASTER PLAN**

**JULY 25, 2008**

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**INTRODUCTION**

Rockland Electric Company (“RECO”) hereby submits its comments in response to the State of New Jersey’s Draft Energy Master Plan (“EMP”) issued on April 17, 2008.

**BACKGROUND**

The State of New Jersey has released its Draft EMP to set a long-term vision for the State to meet its energy needs.<sup>1</sup> Governor Jon Corzine has emphasized the need for the EMP to address current economic and environmental challenges and consequences. For that and for other reasons too numerous to mention, New Jersey’s EMP effort is the right idea at the right time for the right purpose. Governor Corzine agrees with the many prominent Americans who recognize energy as a major issue facing the Nation and the entire world. The Draft EMP outlines several goals and action items for New Jersey, including:

- Significantly boosting energy conservation and energy efficiency;
- Reducing 5,700 MW in peak electricity demand by 2020;
- Developing the State’s “Smart Grid” infrastructure;
- Developing the State’s wind energy resources, considering at least 1,000 MW of offshore wind and up to 200 MW on shore wind capacity;
- Developing 1,500 MW of new solar capacity;
- Developing new, low-carbon emitting power plants to address climate change;
- Fostering the development of 1,500 MW of new cogeneration in New Jersey by 2020;
- Evaluating the feasibility of building a new nuclear plant in New Jersey; and
- Evaluating whether the creation of a state power authority or a State Energy Council would help the state develop its future energy infrastructure.

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<sup>1</sup> Although the stated goal of this EMP is to address energy needs through 2020, a number of the EMP Action Items focus on longer term issues. RECO suggests that the EMP more clearly articulate the time frame in which each Action Item is expected to be carried out.

Energy supply is vital to New Jersey. RECO appreciates the considerable efforts on the part of the EMP Committee, the Rutgers Center for Energy, Economic, and Environmental Policy (“CEEEP”), and the numerous stakeholders shaping the Draft EMP and associated reports on implementation strategies and modeling. RECO commends the vision of the EMP that future energy supplies must be sufficient to reliably meet customer needs with emphasis on environmental responsibility and energy bills.

There is a pressing need for the EMP to address important energy objectives. Electric reliability is too important to overlook. Electric reliability is of transcendent importance to the United States and New Jersey. The State needs to make electric reliability a focal point of its EMP, because without a reliable electric system, from the grid’s first mile to its last mile, the State and the nation will fall behind in the world marketplace. Reliable energy service is the pillar for economic development. The EMP needs to consider potential impacts on reliability, implicitly or explicitly, with respect to each and every aspect of the EMP. This need to consider reliability impacts includes the need to assess reliability implications for initiatives like combined heat and power projects and intermittent resources, particularly with respect to load following or providing operating reserves to the grid.

Key to maintaining electric reliability is attracting investment to maintain and build the infrastructure that drives electric reliability. This is because the electric grid is and will remain a capital intensive undertaking. On top of the ongoing and significant costs to construct, maintain, improve and expand the electric grid, are costs for renewable energy resources, carbon allowances, and energy efficiency. The EMP must recognize that State policies must be geared to attracting the capital investment essential for electric reliability. Unless substantial,

appropriate attention is paid, electric reliability will not be maintained. The consequences of a failure to maintain a world class electric grid are too dire to think about—there is no public policy option other than promoting investment in electric reliability.

## DISCUSSION

The Draft EMP provides five specific goals for discussion: (1) maximize energy efficiency and conservation; (2) reduce peak electricity demand; (3) meet 22.5% of the State’s electricity needs from renewable resources; (4) develop new low-carbon emitting and efficient power plants to help close the gap between the supply and demand of electricity; and (5) invest in innovative clean energy technologies and business to stimulate growth in New Jersey. The following are RECO’s comments on the aforementioned five goals.

### **1. RECO Supports the Goal of Maximizing Energy Efficiency and Conservation.**

RECO supports the EMP goals of maximizing energy efficiency and conservation. RECO strives to be an environmental leader and supports the State’s efforts to promote energy efficiency, conservation, and alternative energy sources. Energy efficiency and conservation will not only contribute to a reduction of greenhouse gases, they will conserve total resources by reducing energy usage and lowering the marginal cost of energy to society. Reductions in costs seen at the margin of the pricing curve will save consumers significant dollars, and energy efficiency, if exploited to its potential, has significant potential to reduce the total resources spent by the State for electric energy. This energy cost saving potential applies both to cost reductions in avoiding the use of energy and to reductions in the marginal costs of supply.<sup>2</sup>

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<sup>2</sup> See Sector Collaborative on Energy Efficiency Accomplishments and Next Steps – A Resource of the National Action Plan for Energy Efficiency (July 2008), p. ES-1 (“Improving energy efficiency in our homes, businesses, schools, governments, and industries – which collectively consume more than 70 percent of the natural gas and electricity used in the country—is one of the most constructive, cost-effective ways to address the challenges of high energy prices, energy security and independence, air pollution, and global climate change.”); see also The Twin

RECO supports incorporation of demand-side management (“DSM”) projects to meet resource needs as a viable lower-cost alternative to building generation, transmission, and distribution facilities.

i. **Utilities need to be part of New Jersey’s march toward energy efficiency.**

For New Jersey to maximize energy efficiency potential, utilities need to be key players in promoting energy efficiency. Utilities are in the best position to leverage existing relationships with their customers and should have a leading role in developing and implementing the appropriate energy efficiency programs to meet the EMP’s goal to reduce total electricity consumption by 20 percent by 2020. The State’s goals and respective strategies within the EMP are aggressive and ambitious and require mass audiences and sectors to become interactive and participate immediately. To achieve early and continued success toward achieving such goals will require significant utility involvement to maximize use of their existing customer relationships and motivate public participation in an expeditious manner.

ii. **Regulatory reforms are needed to align consumer and investor interests.**

Under the current regulatory framework, utilities are subject to financial harm if they promote energy efficiency. Regulatory policy changes needed to align utility consumer and utility investor interests are readily available and achievable. Given the anticipated leading roles to be assumed by the utilities in reaching the State’s EMP Goals, the EMP should support the implementation of regulatory initiatives such as performance-based incentives to align consumer and investor interests. The State should establish policies that allow utilities to retain a meaningful percentage of net resource benefits achieved from successful energy efficiency

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Pillars of Sustainable Energy: Synergies between Energy Efficiency and Renewable Energy Technology and Policy, B. Prindle & M. Eldridge (American Council for an Energy-Efficient Economy (ACEEE)) and M. Eckhardt & A. Frederick (American Council on Renewable Energy), *published in* May 2007 ACEEE Report Number E074©, p. iv (“Efficiency, by bringing down demand, can moderate wholesale price spikes, reduce average prices, and directly reduce the prices of affected generation fuels.”).

programs. This or similar approaches can make energy efficiency investments financially comparable to investments in conventional energy infrastructure. Performance-based incentives can assist in promoting aggressive utility participation in demand response and energy efficiency program development and implementation in order to support achievement of the State's goals. Appropriately designed incentives will attract investment capital, thereby aligning both shareholder and customer interests.

RECO does not oppose the use of a revenue decoupling mechanism ("RDM") to eliminate disincentives in the current rate making model toward increased utility participation in energy efficiency. It is crucial that an RDM include mechanics that take into account the utility's various service classifications and economic development activities and the status of energy efficiency efforts in service territory, and is designed in a manner that continues to support a reliable energy delivery system. An RDM, in and of itself, only removes the disincentive to utilities associated with participation in energy efficiency. It does not provide an incentive for the utilities to aggressively pursue energy efficiency programs, measures, and technologies that may produce advanced and higher yielding energy savings. Thus, performance-based incentives and other rate treatments that allow utilities to earn a return on energy efficiency investments must be coupled with an RDM to attract the capital funding that will be needed to achieve the EMP's goals.

## **2. Regulatory Reforms Are Needed to Achieve an Efficient Electric Grid**

**i. Programs to reduce statewide peak electricity demand, to modernize the electric grid and improve synchronization with end-users and end-use systems, are practical and achievable.** RECO supports the implementation of demand response programs designed to cost-effectively reduce peak demand and increase energy savings. Such programs

should be designed to reach all customer sectors. Modernization of the electric grid and investment in Smart Grid technologies should be evaluated as a means of enabling and contributing to programs that will reduce peak demand. Such modernizations may include, but are not limited to, advanced sensors, field devices, software, and enhanced communication technologies. RECO supports Smart Grid initiatives and programs that complement its current advanced metering infrastructure (“AMI”) initiatives and supports pilot programs to determine the cost-benefit ratios of investments made in support of Smart Grid and AMI enhancements. Pilot programs to provide the functionality, effectiveness and costs and benefits of new technologies are a necessary component to launching Smart Grid in New Jersey.

ii. **Introduction of a forecast test period in utility rate regulation is a powerful and readily achievable tool to promote grid innovation.** The widest practicable array of funding sources should be considered for demand response technologies and programs, including funding provided pursuant to the Societal Benefits Charge (“SBC”), the Regional Greenhouse Gas Initiative (“RGGI”), the Basic Generation Service (“BGS”) charges, and private funding. However, the single most important and practical change that the Board of Public Utilities (“BPU”) can make, not only to enhance New Jersey’s standing in the investment community but also to advance grid reliability and innovation, would be to adopt forward-looking utility ratemaking principles. Establishing rates premised on a test year that looks to the future and the utilities’ projected funding needs is consistent with the interest of facilitating technology investments such as Smart Grid, while maintaining a ratemaking framework that provides strong BPU and stakeholder oversight and input in the review of costs.

Promising utility programs can be thwarted due to procedural and rate setting obstacles presented by use of an historic test period approach to regulation. A forecast test year, applied

appropriately, will primarily benefit consumers because it will be used to fund programs that are determined to be for the short and long term benefit of consumers. Regulatory reform in this area is critical to provide New Jersey with an important tool to promote utility innovation.

iii. **Rate design can advance the public interest but rate design changes need to be undertaken with appropriate cost data support and due consideration of customer impacts and unintended consequences.** Cost-based rate initiatives may also play a role in reducing peak demand and RECO welcomes working with the BPU to explore changes in rate design, including, but not limited to, consideration of an additional summer inverted rate block for large residential energy users and the expansion of real-time pricing (“RTP”), where it is deemed appropriate to further demand response.<sup>3</sup> However, great care must be taken in the implementation of such initiatives. For instance, proponents of an additional inverted rate block for large residential users may assume that high electric usage correlates with a high ability to pay. That may not be the case, such as in the circumstance of large group homes. In addition, religious customers take service under RECO’s residential service classifications. These religious customers are among RECO’s largest users of electricity in those service classifications and would be impacted significantly by the establishment of an additional block in the rate structure. These factors must be taken into consideration in planning any changes to the residential rate structures. An expansion of RTP, while presumably beneficial in producing demand response, may cause unintended impacts on customers with no ability to shift load. The potential for such negative impacts and the possible implications thereof, such as the migration

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<sup>3</sup> Likewise, an inverted SBC system under which customers who exceed a certain electricity usage threshold are charged a higher SBC should be explored along with any evaluation of a similar structure for base rates. Any additional revenues generated by the aforementioned could be used specifically to fund further DSM initiatives and programs.



of businesses out of the State, must be studied and fully understood in advance of any expansion of RTP.

These types of rate programs may be effective and useful tools in allowing customers to play a participatory role in lowering their energy costs, but should not be adopted without adequate consideration of the incremental bill impacts. For rate programs that result in significant shifts in rate design, a gradual phase-in should be considered to mitigate customer bill impacts. Gradualism promotes customer acceptance and understanding which are long-standing principles of sound rate regulation.<sup>4</sup>

Pilot programs are useful not only to explore new technology but also in the important area of electric utility pricing and rate design. Since all customers may not be motivated to or capable of responding to price signals, it is also important to continue to explore through pilots or similar programs, the effectiveness of alternatives, such as new technologies and incentives that may capture demand response beyond rate design initiatives.

### **3. Meet 22.5% of the State's Electricity Needs from Renewable Sources.**

i. **Intermittent energy sources will increase and provide important benefits, but it is critical that reliability impacts be monitored.** It is critical that the State integrate renewables and develop New Jersey's renewable energy portfolio. The Draft EMP needs to address the reliability impacts of increased renewables being integrated into the current electric power system. RECO proposes that a study to review the reliability implications of integrating additional renewable resources, with specific emphasis placed on the integration of wind and solar resources, be performed prior to a mass integration as proposed in the current Draft EMP so

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<sup>4</sup> See J. C. Bonbright, A. L. Danielsen, & D. R. Kamerschen, *Principles of Public Utility Rates* (2<sup>nd</sup> Ed.) (Public Utility Reports, Inc.), p. 384 (1988) (Provides under "Practical-Related Attributes" for public utility rates: "The related, practical attributes of simplicity, certainty, convenience of payment, economy of collection, understandability, public acceptability, and feasibility of application.").

that such power is integrated reliably and economically. The Draft EMP credits on shore wind with alleviating congestion during peak periods. Such assumptions should be re-evaluated in light of reports on the low fraction of wind capacity generally credited in meeting peak demands.<sup>5</sup>

ii. **EMP needs to establish a regulatory framework that supports solar energy in a way that achieves the significant potential solar energy represents but that does not produce unintended consequences.** RECO supports state initiatives to develop New Jersey's solar program to a fiscally responsible market that will foster the continued growth of solar energy use. Utilities would be an effective means to promote solar power to residential and commercial customers within New Jersey due to their unique and intimate relationship with their customers. RECO welcomes the opportunity to work with the BPU to develop and promote its own solar program to encourage its customers to invest in photovoltaic solar installations.

RECO realizes that subsidies may be an appropriate component of the development of a vibrant solar market in New Jersey. RECO recommends that such subsidies be provided in a manner that is transparent. Transparency enhances the opportunity for efficient, cost effective action. Transparency is just as important in energy programs and energy pricing as it is in other key areas of the economy where the need for transparency is recognized, such as in corporate governance and securities regulation. Net metering is a form of subsidy that lacks transparency. Net metering, which is available in New Jersey for solar photovoltaic generators having a rated capacity of up to 2 MW, effectively results in the exchange of retail energy for wholesale energy,

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<sup>5</sup> See, for example, PJM's Manual 21, "Rules and Procedures for Determination of Generating Capability", Appendix B, p. 17. On average, wind and solar resources are credited with only 13% and 38% of their capacity, respectively. See also the New York State Energy Research and Development Authority's wind study titled "The Effects of Integrating Wind Power on Transmission System Planning, Reliability, and Operations" issued in March, 2005. As noted in that report, General Electric conducted a statistical study of wind patterns and concluded in its summary on page 162, section 7.4, that for land-based wind generators, their effective capacities are about 10% due to both the seasonal and daily patterns of the wind generation being largely "out of phase" with the New York Independent System Operator load patterns.

thereby shifting the costs associated with retail delivery from the solar user to other customers. This subsidy is neither apparent to the direct beneficiaries, who believe they are merely selling back energy to the utility, or to the customers whose rates are increased in order to pay for free energy delivery to customers with solar installations. Moreover, the lack of transparency hinders any thorough evaluation of whether this form of subsidy is more or less effective than direct subsidies, such as rebates or interest-free loans.

iii. **Solar financing incentives should not have unintended consequences.**

Also warranting further evaluation is the impact and necessity of long-term purchasing agreements to solar developers as part of a solar financing model. The risks of carrying potential long-term liabilities on utilities' consolidated balance sheets and the potential need to comply with financial reporting requirements such as Financial Accounting Standards Board Interpretation No.46 ("FIN 46") for long-term agreements to purchase Solar Renewable Energy Credits ("SRECs"), must be taken into account when developing methodologies for promoting a workable SREC market. The State must keep sight of the expectations of utility investors in its efforts to appropriately incentivize solar developers. FIN 46 repercussions could include the potential risk of a solar enterprise being shifted to RECO with adverse impacts to the Company's balance sheet or credit profile, as well as investor perceptions. RECO could be required to acquire additional equity in order to offset the additional debt. This would depend on the materiality of the commitment including the terms and duration of the commitment which is fact-specific. If FIN 46 is implicated, failure of the solar developer to provide ongoing information for Securities and Exchange Commission reporting could result in a qualified audit report for the affected utility. This would affect the utility's ability to access capital markets and obtain financing for projects necessary to maintain a reliable electric system.

With the limited exception of contracts entered into at arms' length, utilities are not appropriate counterparties to long-term supply contracts. This is generally the case whether the contracts are for long-term agreements to purchase the energy and/or capacity, or SRECs produced from solar generators. Mandated or required contracts subject utilities to the very same adverse financial exposure produced by the non-utility generator contracts.

Alternatives, such as loan program available to utility customers which provides a vehicle for auctioning SRECs, may be preferable because they avoid the potential financial repercussions of a "securitization" model. For central station solar plant, consideration can be given to including central station solar facilities within the BGS program, which provides a market for a defined and limited (3 years) term. Consideration can be given to providing and posting specific "adders" to the competitive BGS pricing framework as a subsidy, allowing the solar facility to compete with a transparent advantage.

#### **4. Develop New Low-Carbon Emitting and Efficient Power Plants to Help Close the Gap Between the Supply and Demand of Electricity.**

RECO recognizes that the development of low carbon emitting and efficient power plants to assist in closing the gap between the State's supply and demand of electricity is of utmost concern to meeting the goals of the Draft EMP. Despite the initiatives more will be needed to inspire development of new generating plants in New Jersey.

RECO does not support or oppose the concept of a state power authority, but notes that if an authority is established, it should be for a limited and specific purpose and its scope of authority should be commensurate to that necessary to complete its intended goal of supporting the development of new generation that would not otherwise be built in today's marketplace. For example, the role of entering into long-term power contracts may be an appropriate one for a

power authority, while the actual development of new nuclear generation is better left to the private sector with clearly defined rules for investor expectations.

RECO would support a power authority only if it is compatible with competitive markets. While the recent PJM capacity market changes (*i.e.*, Reliability Pricing Model (“RPM”)), may have resulted in a certain amount of price shock, a contributor to this reaction was the fact that the prices previously paid were at unsustainable discounted rates that did not reflect the costs of new supply. The Federal Energy Regulatory Commission has stated that the previous capacity markets did not support continued generation entry in the PJM RPM. While there may be some debate about the success of the PJM RPM market, what is evident is that it has resulted in an increase in generation resources including preventing retirements, incenting increased output of existing units, new DSM and other more traditional resources.

RECO recommends that if the State considers the creation of a power authority that it uses a model such as the New York Power Authority (“NYPA”) model for guidance in development and implementation. The creation of the NYPA was limited in scope and designed specifically to fill a niche for certain power types, which allowed the State of New York to tap into its undeveloped potential alternative energy sources (in this case hydropower) and build projects that might not have necessarily been undertaken due to high costs. Through NYPA’s initiatives, many large-scale projects were developed which allowed customers to benefit from the abundant and low-cost new power available.

##### **5. Invest in Innovative Clean Energy Technologies and Business to Stimulate the Industry’s Growth in New Jersey.**

It is uncontested that it is critical to reduce the costs of renewable energy and related renewable energy technologies to make them more cost-competitive with those traditional

alternatives that are less environmentally friendly and/or are subject to market volatility. RECO encourages investment in innovative clean energy technologies, businesses, and research and development of new renewable sources and products to stimulate the industry's growth in New Jersey. It is reasonable that a portion of the funds for the initiative should come from RGGI auction revenues instead of any increased SBC charges. Funding provided through the Edison Innovation Fund and the proposed expansion of the fund to provide for the manufacturing and commercialization aspects are welcome tools in achieving an expanded clean energy industry in New Jersey.

The "Green Collar" jobs program is important as the clean energy sector in New Jersey expands and the demand for skilled workers increases, that there is an ample employable workforce available. As proposed, the EMP calls for great expansion in energy efficiency, demand response, renewable energy integration and use, and building code enhancement programs. Expansion of such programs once in full force and effect will demand a larger and more educated green savvy workforce, specifically with regards to energy auditing, installation of new energy efficient technologies (such as HVAC and smart grid technologies) and demand in general for individuals educated on the enhancements made within the energy sector.

### **OTHER DOCUMENTS**

The Draft EMP is accompanied by an extensive computer modeling report that describes the economic analysis conducted to demonstrate the impacts of the EMP. However, RECO is concerned that the analysis has not been sufficiently transparent to enable stakeholders to fully evaluate the impacts. Moreover, RECO believes that more analysis is needed to capture impacts that have not been included in the modeling.

While the modeling report provides basic assumptions and results, it is axiomatic that the details are key to understanding and evaluating the reasonableness of such an analysis. RECO encourages CEEEP to make its detailed modeling inputs and results available to stakeholders for further review. Changes in transmission costs are a potentially significant impact which was not sufficiently considered in the modeling. There may be extensive costs required to interconnect new renewable generation and deliver the power to load centers. There may also be savings in transmission costs as a result of reduced reliance on imports from the rest of PJM. RECO encourages stakeholders to examine these impacts. Additionally, it may be necessary for utilities to examine the impacts of commodity price changes on a zonal basis and changes in utility transmission and distribution costs to assess the future impacts on energy supply and/or demand.

## **CONCLUSION**

RECO recognizes the critical role that energy plays in New Jersey's economy and environment and supports the vision and goals of the State's Draft EMP. It is imperative that we plan for the State's future of energy needs and resources now, in a manner that recognizes as a core focus, the environmental and reliability requirements and effects, and the need to maintain reasonable costs to customers. The Draft EMP's efforts to maximize energy efficiency and conservation are appropriate and timely. The goals are very aggressive and require swift and immediate action. Utilities, in partnership with their customers, should have a leading role in developing and implementing the appropriate energy efficiency, demand response and renewable programs to meet the Draft EMP's stated goals. Rate treatment and performance based incentives that allow utilities to retain a meaningful percentage of net resource benefits achieved from successful energy efficiency programs will assist in promoting aggressive utility participation.