July 25, 2008

Mr. Lance Miller, Chief of Planning
Chief of Policy and Planning
Office of Policy and Planning
New Jersey Board of Public Utilities
Two Gateway Center
Newark, NJ 07012

Re: Draft EMP Comments

Dear Mr. Miller:

The Natural Resources Defense Council ("NRDC") respectfully submits these comments on possible strategies to help meet the New Jersey Energy Master Plan's stated goals of reducing total projected electricity demand by 20% by the year 2020 and of using renewable energy to supply a minimum of 22.5% of the remaining demand.

NRDC is an environmental not for profit organization established in 1970 with the stated purpose of "safeguarding the Earth: its people, its plants and animals and the natural systems on which all life depends." We have worked in the state of New Jersey for several decades now, and have over twenty thousand (20,000) members and over sixteen thousand (16,000) on-line activists currently living in the state. NRDC has been a strong advocate for states to take advantage of all cost effective energy efficiency and to make extensive use of renewable energy as a source of clean energy and job creation.

NRDC believes global warming is the most serious environmental threat of our time. We have made it our top institutional priority to find answers for this problem to prevent the more serious consequences of unmitigated anthropogenic climate change. However, there does not appear to be any 'silver bullet' solution to global warming and a number of strategies will need to be deployed simultaneously to reduce the consequences. Among those solutions, NRDC has identified an increasing emphasis on energy efficiency as the most effective short-term strategy, concurrent with a rapid increase in the use of renewable resources to generate both carbon neutral fuels and electricity.

Because Global Warming is primarily caused by carbon dioxide emissions produced by the burning of fossil fuels to generate electricity and to fuel our vehicles, a greater emphasis on efficiency can immediately reduce global warming pollution. The technologies that help us achieve greater energy efficiency from our appliances and energy consuming devices, from our buildings and from our vehicles are readily available and should be deployed comprehensively. NRDC fully supports the implementation of statewide building code requiring energy efficiency measures and appliance efficiency

standards. The societal savings achieved by implementing these very cost effective measures will help finance the transition towards a clean energy future.[1]

A parallel and necessary step in the fight against Global Warming is to maximize the use of energy sources that do not emit carbon dioxide or contribute to other pollution problems. Electricity and fuels developed from renewable sources provide the greatest opportunity to meet these goals. Sources of electricity such as solar power and wind power have proven both popular in the state and effective at providing a clean source of energy. Like other now common sources of energy, when used on a large scale, costs concerns are reduced as economies of scale improve the technologies and make them cost competitive in the current market.

Additionally, NRDC supports improving the efficiency of supply by transitioning away from inefficient and heavily polluting power generation. Implementing proven technologies such as combined heat and power generation, using combined cycle plants, repowering old inefficient power plants and even locating supply closer to the demand as by the use of micro-turbines will help reduce greenhouse gas emissions and the use of fossil fuels. The efficient use of natural gas, which on average has half the carbon dioxide emissions of coal per unit of power generated, will help reduce the costs of this fuel and enable broader applications as we aim to transition towards clean, reliable energy.

Because of these reasons, NRDC enthusiastically supports the stated objectives of the New Jersey Energy Master Plan; in particular we are fully supportive of reducing projected electricity demand by 20% by 2020 and of having 22.5% of the electricity consumed in the state coming from renewable sources by 2020. We believe the objectives are not only achievable, but also absolutely necessary in order to facilitate economic growth and job creation within the state of New Jersey. We hope to participate and contribute throughout the planning process. Furthermore, we congratulate Governor Corzine for selecting these dual goals for the energy planning process.

Thank you for considering these comments.

Respectfully Submitted,

Luis Martinez Marti
Staff Attorney, Energy Program
Natural Resources Defense Council

[1] McKinsey and Company; *Reducing U.S. Greenhouse Gas Emissions: How Much at What Cost?*; November 2007. http://www.mckinsey.com/clientservice/ccsi/greenhousegas.asp

New Jersey Energy Master Plan
Strategy Proposals

1. Institute an Auction for Allowances in the CAIR NOx Program and use all auction revenue from the Regional Greenhouse Gas Initiative in Energy Efficiency

The goals of the Energy Master Plan include reducing total projected load by 20% by the year 2020. Holding other variables constant (such as population), the methods by which to achieve a load reduction in the short term are limited to conservation and energy efficiency. Efforts to achieve greater energy conservation will be necessary, but will not be sufficient. Therefore significant investments will be necessary to achieve the demand reductions required via energy efficiency. Revenues from the auction of carbon dioxide allowances from the Regional Greenhouse Gas Initiative and of nitrous oxides from the CAIR program represent an untapped source of funding for New Jersey to invest in energy efficiency.

Historically, governments have distributed allowances to regulated entities free of charge, primarily on the basis of past emissions, also known as "grandfathering," although some have distributed allowances on the basis of output, or the amount of power generated. In both cases, the cap itself ensures pollution reduction, and the trading drives investment in the cheapest reduction opportunities, but in restructured electricity markets, the free distribution of allowances results in windfall profits for generators and unnecessary increases in electricity prices for consumers. This result has been demonstrated most recently in the European CO_2 emission reduction efforts, where studies have already documented widespread windfall profits among utilities. This is due to the fact that tradable allowances have an opportunity cost, and therefore in competitive markets, power plant owners will incorporate the value of allowances into their bid prices and effectively charge customers for the cost of the allowance regardless of whether they pay for the allowance or receive it free of charge, making electricity more expensive and raking in substantial windfall profits for their shareholders.

In the Northeast, the model rule for RGGI signals a substantial shift from previous allocation methodologies, and from the shortcomings of the European program and earlier cap-and trade programs in the US. The RGGI model rule requires each state to use a minimum of 25% of the value of the allowances to benefit consumers or for a strategic energy purpose, presumably through auctioning these allowances. The states have conducted both dispatch and macro-economic modeling that shows by promoting energy efficiency they can meet the RGGI emissions cap while saving the average residential customer over $100 per year on their energy bill. Although the Model Rule only requires the states to use 25% of the allowances in this fashion, states such as Vermont and New York have already announced they intend to auction 100% of the allowances, and use the sale proceeds to reduce the cost of the program to consumers through investments in energy efficiency or the development and deployment of other clean energy technologies.

In New Jersey, the Regional Greenhouse Gas Initiative bill distributed the auction revenue amongst the Board of Public Utilities, the Economic Development Authority and the Department of Environmental Protection. NRDC believes that only through using all the allowance revenues to invest in comprehensive and coordinated statewide energy efficiency programs, will the state be able to reduce energy consumption and bill impacts from the transition to clean energy. Starting in 2009, the State of New Jersey will have an emission's budget of 22,882,730 short tons for the Regional Greenhouse Gas Initiative. Considering an estimated allowance price range of three to seven US Dollars, the State of New Jersey could have from $68,648,190 to $160,179,110 every year to invest in energy efficiency, which would go a long way towards achieving the significant reductions in electricity demand envisioned by the Energy Master Plan. Similarly, NOx allowances in the CAIR program which are handed out for free year after year can and have been auctioned in the past and represent a significant additional source of funding for investments in existing efficiency and in developing new energy efficiency technologies.

2. Smart Growth

Suburban sprawl contributes to excessive energy use, greenhouse gas emissions, air and water pollution, consumption of natural ecosystems and farmland, traffic congestion, economic waste, and a range of serious social problems, particularly for urban populations left behind. Research shows that well-located, walkable, diverse neighborhoods with transportation choices deliver an abundance of environmental benefits when compared with conventional development. They also save taxpayer money for infrastructure, protect historic resources, and in many cases provide economic opportunity for distressed populations. The Natural Resources Defense Council believes that citizens can be given better choices about how to grow, with communities that are more livable and sustainable while using land more efficiently, reducing automobile dependence, and conserving our environmental and cultural heritage.

Decisions about land use in America are typically made in the private sector, often with only weak or counterproductive regulation by public agencies. Many developers and leaders want to build the kind of communities that counter the problems associated with sprawl, but a plethora of outdated lending practices, zoning and development approval practices, and even some interpretations of environmental law, among other factors, make sprawl easier than smart growth to build.

Establish LEED-ND standards for smart neighborhood development (in New Jersey). NRDC has joined with the U.S. Green Building Council and the Congress for the New Urbanism in an exciting project to create the first national set of standards for environmentally sound land development. To be administered under the same "LEED" (Leadership in Energy and Environmental Design) framework that the Green Building Council uses now to certify green buildings, the new system is bringing together the principles of smart growth, community design, and green building to recognize and reward new development proposals

that offer superior alternatives to sprawl. Developers whose plans meet an extensive set of standards will receive a silver, gold, or platinum certification to support their application as they navigate their way through the development approval process. New Jersey's municipalities and the states as a whole should use the standards as a template for good zoning practices and for creating favorable incentives of their own for good development.

Unlike other LEED products that focus primarily on green building practices, with only a few credits regarding site selection, LEED for Neighborhood Developments (LEED-ND) emphasizes the location and pattern of proposed housing, commercial, and mixed-use land development while still incorporating a selection of the most important green building practices. The development of the standard was guided by the Smart Growth Network's ten principles of smart growth and other pertinent criteria, and includes references to such factors as efficient use of land, proximity to transit, regional location, diversity of uses and housing type, and pedestrian- and bicycle-friendly design. LEED-ND standards provide an objective basis on which to certify developments as "smart" and provide guidelines for design and decision-making, which will serve as an incentive for better location, design, and construction of new residential, commercial, and mixed developments.

LEED-ND will have a similarly positive effect to encourage developers and community leaders to revitalize existing urban areas, reduce land consumption, reduce automobile dependence, improve air quality, decrease energy use, and build communities for people of a variety of income levels.

New Jersey should work to implement a Location-Efficient Mortgage (LEM) program. Residents of inner-city neighborhoods and other communities that are walkable and transit-accessible enjoy reduced living expenses because of lower transportation costs. People who live in location-efficient communities reap many rewards. Stores, schools, and public transit, all lie within walking distance of their homes. They have less need to drive, which gives them more discretionary income. They're more likely to know their neighbors. Their frequent use of local amenities saves energy. NRDC, working with the Center for Neighborhood Technology, the Surface transportation Policy Project, and a number of government agencies and private-sector interests, is revising loan qualification rules to account for these savings and provide greater home purchasing power in these locations. The LEM is currently being offered in Chicago, Los Angeles, San Francisco, and Los Angeles.

LEMs work by realizing that households in urban neighborhoods spend less on transportation, and therefore have more disposable income, than the national average. Underwriting Location Efficient Mortgages® increases the borrowing capacity for people buying homes in urban communities. Standard loan underwriting recognizes that a buyer can afford to spend 28 percent of his or her

gross monthly income on a mortgage payment; the Location Efficient Mortgage® increases this to up to 39 percent by recognizing transportation-related cost savings, thus increasing the size of the loan available to the consumer. A household earning $50,000 a year, for example, can qualify for a $163,000 mortgage under current lending practices; in today's competitive housing market that may not be enough. In compact, transit-accessible and pedestrian-friendly neighborhoods, if household members save $200 per month on transportation over their suburban counterparts they can qualify for a $213,000 home.

Transportation savings are calculated by drawing on land-use information such as population density and public transit locations, and census information on car ownership and driving levels, a lender can predict how much a household in a particular location will spend on transportation. Based on this prediction, the lender calculates the difference in transportation costs between an urban household and its suburban counterpart. This dollar amount is then added onto the buyer's qualifying income. The amount can be substantial, as it takes into account savings on vehicle purchases and maintenance, auto insurance, and fuel (the formula for calculating these savings was developed specifically for the Location Efficient Mortgage® program).

The mortgages achieve three main environmental goals: they reduce fuel consumption, they preserve open space by decreasing the demand for sprawling development and new roads, and they lower air pollution from cars. In this country, cars produce about a quarter of the pollution that causes global warming, as well as a significant portion of the pollutants that cause acid rain, increase children's asthma rates, and cause or exacerbate a host of other ailments including chronic bronchitis, emphysema and lung damage.

3. Codes and Standards.

Raising the minimum energy efficiency standards for all appliances and energy consuming devices not explicitly preempted by the federal government and upgrading the energy codes to mandate the most advanced technology are low-cost and high benefit ways of achieving the demand reductions outlined in the goals for the Energy Master Plan.

At a recent conference held by Northeast Energy Efficiency Partnerships in Plainsboro, NJ, energy experts presented analysis showing that by 2020 improved building energy codes and new minimum efficiency standards have the potential to:

- Save $46 billion on gas and electric bills in the northeastern states;
- Displace 25,000 MW of demand growth in the northeast RTO – nearly equivalent to the current demand of the entire NEPOOL system; and

- Displace 70,000 GWh of electricity demand – nearly equivalent to the 1998 consumption for the entire state of New Jersey.

The Energy Master Plan should recommend establishing an interagency task force composed of BPU, DEP, EDA and DCA staff to ensure that New Jersey is doing everything it can in the area of codes and standards to realize these cost-effective savings.

4. Energy Savings Goals

Governor Corzine's vision to reduce New Jersey's energy consumption by 20% by the year 2020 is an ambitious goal that we strongly support. This goal should apply to all load-serving entities (LSEs) in New Jersey, including regulated utilities, power authorities and municipal utilities, and as such, each entity should be required to achieve a 20% reduction in electricity consumption. The LSEs should be responsible for determining how the 20% will be achieved among the various energy efficiency service providers and programs in their respective service areas. It is thus critical that all New Jersey's efficiency programs use equivalent metrics and protocols for determining kWh savings.

Interim targets must be set, as well, in order to ensure that effective energy efficiency measures are being implemented and that the State is progressing towards the 20% goal. To that end, the BPU should establish interval targets. As with the 20% goal, the interim percentage reductions should be met through a variety of efforts that target all markets and sectors, including efficiency programs carried out by BPU, utilities and codes and standards. Given the timeline usually required to put in place new codes and standards, however, significant energy savings from these measures may be challenging before 2020, but they are nevertheless important to pursue in tandem with other efficiency initiatives since they can provide very large savings over the longer term. Additional goals tied to other criteria should be set, as well. These goals can be used as countervailing influences, to avoid simply focusing on savings at the potential detriment of critically important considerations such as equity and comprehensiveness. Examples could include: targets for low income participation; geographic or demographic equity goals; comprehensive treatment goals (e.g., at least X% savings among new construction participants), etc.[2]

NRDC fully supports the Northeast Energy Efficiency Partnerships proposed framework for implementing energy efficiency programs. We believe the roles and

[2] For a more in-depth discussion of efficiency program administration options and issues, see Martin Kushler, Ph.D., Dan York, Ph.D., and Patti Witte, M.A., "Five Years In: An Examination of the First Half-Decade of Public Benefits Energy Efficiency Policies", April 2004 and Cheryl Harrington and Catherine Murray, Regulatory Assistance Project, "Who Should Deliver Ratepayer Funded Energy Efficiency? A Survey and Discussion Paper", May 2003.

entities suggested by NEEP will help establish the framework necessary to achieve the EMP goals. We've added the suggested framework:

EMP Stakeholder Council

- Provide feedback on proposed EMP goals and strategies
- Appointed members - Environmental, Business/Industry, Low-Income & Ratepayer Counsel
- Advises State Clean Energy Council, BPU, Clean Energy Utility
- Funded consultants to review plans, inform EMP strategy updates and prepare annual EMP progress report

State Energy Council

- Headed by Governor Office
- Agency Commissioners - BPU, DEP, DOT, EDA, DCA
- Facilitates Interagency coordination to:
    - Achieve EMP goals
    - Assess EMP progress
    - Recommend EMP updates

BPU

- Establishes statewide and utility-specific efficiency savings targets
- Sets filing requirements for program plans (e.g., cost-effectiveness, evaluation, M&V)
- Provides performance incentives and penalties relative to goals
- Reviews, approves stateside program plan submitted by the NJ Clean Energy Utility
- Reviews, approves utility-specific budgets and goals to implement statewide plan
- Sets requirements for and oversees cost recovery
- Oversees program performance and evaluation
- Establishes and administers sales/profit decoupling mechanism
- Coordinates utility programs with state agency program and policies

NJ Clean Energy Utility

- Non-profit to develop, propose & implement EMP program portfolio
- Board of Directors - NJ Utilities with Executive Director and small staff
- Engages EMP Stakeholder Group to inform the program development, receive feedback and build consensus support
- Submits statewide programs, territory specific goals and budgets to BPU
- Coordinates funding and administration of joint or statewide programs
- Engages service providers and contractors for joint or statewide efforts
- Coordinates with relevant regional and national efforts
- Conducts statewide research and evaluation
- Tracks and reports program impacts and results

NJ Gas & Electric Utilities

- Responsible to meet BPU EMP energy savings goals

- Develop and submit plans and reports through Clean Energy Utility
- Receive BPU approval to implement plans and recover costs, incentives
- Engages market-based service providers

We believe utilities should have a lead role in the integrated delivery of efficiency programs since they enjoy certain inherent advantages with respect to their customer base. Utilities can play an important role in the integrated delivery of efficiency programs. Utilities enjoy certain inherent advantages viz. their customer base, and these advantages ought to be exploited in program design and delivery. These advantages include, but are not limited to, the following:

> • They have a local presence and relationships with their customers, and can use these relationships to leverage efficiency adoption. However, care must be taken to develop an administrative framework in NJ that does not divide responsibilities in ways that create inefficiencies and market confusion. From a customer perspective (including upstream customers like contractors, distributors and design professionals), participation should be seamless through a single entry point, and communications consistent and all working toward the same goals.
>
> • Utilities maintain customer usage data which can be mined for potential energy savings opportunities.
>
> • Utilities can potentially play a role in facilitating customer access to attractive financing for efficiency improvements, and conceivably providing a means for the customer to repay any debt service or other obligation through the utility billing mechanism (i.e., “on-the-bill financing”).
>
> • Utilities can encourage efficiency through the greater deployment of advanced meters. To the extent utilities are pursuing advanced metering, this can also reduce peak demand and provide ancillary efficiency benefits. The costs associated with the deployment of advanced meters should not be charged against dedicated efficiency budgets, but rather should be ratebased by the utility as a capital expenditure or recovered through some other mechanism.

Where utilities are capable and willing to aggressively deliver efficiency programs, this should be done. However, they should be well coordinated, and based on the platform of initiatives developed for consistent delivery throughout the state. Utilities may be most able to focus on scaling up resource acquisition (retrofit) programs where regional approaches are not as critical, but customer relationships are. In addition, utilities should be directed to field geographically targeted efforts in addition to the core statewide programs when these are identified as cost-effective alternatives to local T&D

upgrades. T&D planning by utilities must be done with a sufficient lead time to allow for a full analysis of alternatives and the ability to ramp up to meet reliability criteria.

The BPU's responsibility should be to require a platform of core programs that can be delivered consistently throughout the State; to serve as a facilitator to ensure coordination among program administrators; and, to provide services that require a regional approach. Also, as described by NEEP, the Clean Energy Utility provides an opportunity for the utilities to coordinate efficiency and other statewide efforts and can also focus on help implement efficiency initiatives that rely primarily on upstream, market transformation strategies and/or mass marketing.

The BPU should also establish a gas efficiency target that is comparable to that for electricity. New Jersey should strive to capture all gas efficiency that is lower cost than alternative supply. We believe that a "20 by 20" target is appropriate for natural gas, as well, as it is a reasonable first step and roughly in line with the study's findings. Note that we support fuel switching conversions to gas that will reduce emissions of greenhouse gases. To the extent significant fuel switching to natural gas occurs, this will need to be taken into account when determining the actual efficiency gains off of a current reference-case forecast.

Development of overall goals, such as 20% by 2020, should be established by the BPU and/or State. However, individual program goals should be developed by those ultimately responsible for delivering the efficiency savings, based on analysis of the opportunities and development of the plans to reach them. We recommend that program administrators are allowed some flexibility in developing programs and shifting resources among programs over time, so long as they focus on reaching the overall targets. This allows for mid-course corrections and allocation of resources most efficiently. However, this flexibility should be bounded by some fundamental policy criteria set by the Plan or the Board dealing with things like equity (sectoral, demographic, and geographic), cost-effectiveness, and other major policy issues.

Progress toward meeting goals should be monitored on an on-going basis. All savings estimates should be developed in a transparent and objective fashion, based on clear methods and assumptions. These savings estimates should be verified and refined over time with rigorous independent impact evaluations.

All of these stakeholders and others (including municipalities, housing authorities, OGS) can provide valuable assistance in ensuring the success of efficiency efforts. We support the notion of coordination at all levels. We reiterate, however, that unified program offerings including consistent products and services and single points of entry and communication are critical for success. Program offerings should be seamless from a customer point of view. We see a strong role for utilities in delivering the energy efficiency resource, interfacing with customers and implementing the program. We believe the BPU or the Clean Energy Utility may be best positioned to engage many of these stakeholders as part of their overall role in program development and coordination among administrators. Some stakeholders may more appropriately develop relationships with individual program administrators. Similarly, ESCOs will be able to take advantage

of programs in any service territories to boost their market penetration and deliver cost-effective savings to the program administrators.

5. Revenue Decoupling/ Regulation of T&D Utilities.

Distribution utilities should be in the business of providing reliable energy services to customers at least cost in the most environmentally sound fashion. However, investments in energy efficiency that are effective in reducing sales are a threat to the utilities' financial viability. This is because current regulation rewards utilities on the basis of commodity sales instead of on the basis of how well they meet their customers' energy service needs. From the utilities' perspective, even the most cost-effective efficiency or generation resources installed on the customer side of the meter produce the same effect – a reduction in sales and, as a result, reduced revenues and profits. Changing the regulatory structure for T&D utilities would not only cause them to encourage these cost-effective investments, it would cause them to use their own capital budgets to promote them, without costing the state treasury a cent.

The Energy Master Plan has a tremendous opportunity to recommend that utilities deliver reliable energy services to customers at least cost by "decoupling" throughput and revenues through alternative regulation. Decoupling would remove both the incentive to increase electricity sales and the disincentive to run effective energy efficiency programs or invest in other activities that can reduce load. A decoupling mechanism will do this much more effectively than other proposed alternatives such as a shift to fixed customer charges, more frequent rate cases, or lost revenue adjustments. All major investor-owned distribution companies in Oregon and California are now seeking this form of regulatory treatment and all investor-owned utilities in New York are required to decouple. Undoubtedly they are motivated in part by recent evidence that electricity and gas throughput is volatile in both directions, but all have also cited the importance of aligning societal and shareholder interests in improved energy efficiency.

In order to achieve the stated goals the Energy Master Plan should recommend that decoupling be the mechanism by which new utility regulation not only remove the disincentive to provide energy efficiency but establish incentives to provide quality, reliable and least cost service to all customers. The purpose of a decoupling mechanism is to remove this disincentive, and thereby align shareholder interests with those of consumers in order to (i) promote investments that reduce energy costs as well as the environmental and public health impacts of energy use, and (ii) prevent either over- or under-recovery of approved fixed costs.

Under decoupling, a simple system of periodic true-ups in base rates would either restore to the utility or give back to customers the dollars that were under- or over-recovered as a result of fluctuations in retail sales. This will correct for disparities

between the utility's actual fixed cost recoveries and the revenue requirements approved by utility regulators. We have attached in bullet form principles of an effective decoupling mechanism in order to clarify exactly what we mean when we talk about decoupling and how it should be implemented in order to make the mechanism simple to implement and easy to monitor.

- Decoupling must break the link between profits and sales.
    - Set allowed revenue and true-up actual revenues to allowed revenues.
    - Incentives for reliability (or anything else) and collection of deferred revenue should not be tied to sales.
- Allowed revenues should be adjusted for desirable or unexpected and unavoidable factors that increase or decrease costs.
    - Growth in customers, jobs and businesses are all desirable factors that might drive up costs.
        - If these factors go down, costs should go down, as should allowed revenues.
    - Extreme storms and terrorist attacks are factors that might unexpectedly and unavoidably drive up costs.
    - Allowed revenues should be adjusted on a customer class basis if there are significant factors unique to each class.
- Adjustments to revenue, actual revenues, and true-ups should be calculated in a transparent way.
    - Any factors used to adjust allowed or actual revenue should be outside of the utilities' control.
    - Any adjustment formulas should be simple and readily replicable by any active party.

- Adjustments based on number of customers and customer class should be carefully reviewed to avoid incentives for gaming.
- Actual revenues can be weather normalized before being compared to allowed revenues as long as the weather normalization does not require overly complex calculations.

- Deferrals of rebates or surcharges should be avoided to the greatest extent possible.
  - Adjustments and true-ups should be done as often as practical without creating overly complex calculations.
  - Limits on true-ups to avoid rate volatility or rate increases during economic down-turns may be appropriate, but the need for such limits should be determined with consideration of the deferral costs they impose.
  - Frequent true-ups keep rates more in-line with average short-term costs.

Incentives:

Additionally while a revenue decoupling mechanism removes the disincentive of energy efficiency, it does not provide an incentive for aggressive energy efficiency programs. We believe an incentive mechanism is necessary as well. However, the award of incentives should be based largely on actual verified energy savings and should be scaled, with higher incentives for higher achievement. The target award level should be based on aggressive but achievable goals, with the opportunity to earn greater incentives for exemplary performance beyond these base goals, which avoids the situation where utilities stop pursuing more cost-effective efficiency once they reach the base target.

The incentive structure under which the utilities operate (meaning the collective impact of the incentives and disincentives they face) is a matter of utmost importance to NRDC, because it guides the utilities' decision-making and ultimately their impact on society and the environment. As regulated entities, the utilities' incentive structure is determined entirely by the Board of Public Utilities. The goal should be to establish an

incentive system under which the utilities benefit the most when they procure the least cost and most preferred resources for customers. More than a decade ago, the National Association of Regulatory Commissioners urged its members to "ensure that the successful implementation of a utility's least-cost [investment and procurement] plan is its most profitable course of action."[3] The resolution framed the term "least-cost" over an extended time horizon. Congress endorsed NARUC's objective in the National Energy Policy Act of 1992, for both electric and gas utilities, although the final decision remains with state regulators.[4]

The purpose of the EE risk/reward incentive mechanism should be to align the utilities' incentives with customer interests for the provision of affordable, reliable, and environmentally sensitive energy services. The overriding principles guiding the development of NRDC's incentive mechanism proposal include:

- Incentives should be based on *performance*, not investments. In other words, rewards (or penalties) should be based on good (or poor) performance, rather than how much money is spent.
- Incentives should create a *win-win* opportunity through shared savings. In other words, customers have to win in order for utility shareholders to benefit.
- Incentives should focus primarily on decisions about *long-term* investments, because that is where the decisions that impact the vast majority of customers' costs and environmental impacts are made.
- Incentives should provide a balance of potential *risks and rewards*.

In addition, these measures should help keep the mechanism as simple as possible while still achieving the EMP goals for energy efficiency in order to simplify implementation.

With so much at stake for New Jersey's economy and environment, it is sensible to establish an incentive framework that puts a few percent of net savings at stake in order to reward the utilities for excelling at meeting the EMP goals, and penalize them for poor performance. It is logical that a balanced framework, with both "carrots" and "sticks," will be most effective; in addition, a mechanism that has various gradations of rewards and penalties based on varying levels of performance will be most effective (i.e. a "letter graded" system is better than a "pass-fail" system) at incentivizing excellent performance.

6. Portfolio Management.

[3] NARUC, *Profits and Progress Through Least-Cost Planning*, at 57 (November 1989) (from Resolution in Support of Incentives for Electric Utility Least-Cost Planning, adopted July 27, 1989).
[4] See 16 USC section 2621 (d)(8).

Portfolio Management is defined as the planning process that culminates in the BPU selecting the desired mix of different energy resource types over different time periods, with the aim of achieving the State of New Jersey's overall energy goals for all customers in the most cost-effective manner, including balancing long-run costs and risks. The portfolio management planning process provides a means to connect heretofore separate and distinct actions and thereby consider those actions in the context of an overall plan.

In view of the failure of retail choice to deliver least-cost, environmentally sound energy services to customers, one or more electric resource portfolio managers should be designated through a competitive bidding process. The portfolio manager would be in charge of securing a diverse mix of generation (including distributed generation) and efficiency resources designed to minimize electric bills, volatility of electric prices and environmental impact.

The portfolio management planning process will be accomplished in four steps, each culminating with BPU adoption after consideration of recommendations that were developed by staff or a designated committee, with the opportunity for stakeholder participation and input:

1. Develop a concise statement of NJ overall energy goals as drivers of the portfolio management plan.
2. Develop a portfolio management plan that identifies the desired mix of supply side, demand side and renewable energy resources, including consideration of environmental and social costs. The plan must test the sensitivities of various options to anticipated risks such as changes in fuel costs, demand, the development of new technologies, etc.
3. Identify barriers to achievement of the portfolio management plan and options for overcoming those barriers.
4. Implement the plan by insuring that BPU decisions made in the various related proceedings are consistent with the plan.