

NEW JERSEY STATEWIDE RENEWABLE ENERGY PROGRAM PLAN

OVERVIEW 1

PROGRAM SUMMARIES 2

ADMINISTRATION 7

THE BOARD OF PUBLIC UTILITIES	7
RENEWABLES ADVISORY PANEL	7
INDEPENDENT STATEWIDE ADMINISTRATOR	8
RENEWABLES WORKING GROUP	8

BUDGETS 11

CUSTOMER-SITED CLEAN ENERGY GENERATION PROGRAM 14

OVERVIEW	14
GOALS AND OBJECTIVES	14
TARGET MARKETS	14
<i>Small-Sized Renewable Systems (Rated 10 kW or less)</i>	15
<i>Medium-sized Renewable Systems (Rated 10 kW or greater)</i>	15
IMPLEMENTATION	15
<i>Program Strategies</i>	15
<i>Eligible Technologies</i>	18
<i>Participation Requirements</i>	18
<i>Roles of different parties</i>	19
<i>Competitive impact</i>	19
TRANSITION STRATEGIES	19
EVALUATION PLAN	19
TIMELINE/TRANSITION PLAN	20
PERFORMANCE INDICATORS	21
PROGRAM GOALS	21
MINIMUM REQUIREMENTS FOR PROGRAM ADMINISTRATION	21

GRID-SUPPLY CLEAN ENERGY GENERATION PROGRAM 22

OVERVIEW	22
GOALS AND OBJECTIVES	22
TARGET MARKETS	22
IMPLEMENTATION	23
<i>Program Strategy: Project Development Support</i>	23
<i>Roles of different parties</i>	24
TRANSITION STRATEGIES	24
EVALUATION PLAN	25
TIMELINE/TRANSITION PLAN	25
PERFORMANCE INDICATORS	25
PROGRAM GOALS	26
MINIMUM REQUIREMENTS FOR PROGRAM ADMINISTRATION	26

RESEARCH DEMONSTRATION AND COMMERCIALIZATION PROJECTS /MARKET DEVELOPMENT PROGRAM 27

OVERVIEW	27
GOALS AND OBJECTIVES	27
TARGET MARKETS	28
IMPLEMENTATION	28

<i>Project Strategy: Technology Development Support</i>	28
<i>Eligible Technologies</i>	29
<i>Roles of different parties</i>	29
TRANSITION STRATEGIES	29
EVALUATION PLAN	29
TIMELINE/TRANSITION PLAN	30
PERFORMANCE INDICATORS	30
PROGRAM GOALS AND MINIMUM REQUIREMENTS FOR PROGRAM ADMINISTRATION	31

Renewable Energy Programs

OVERVIEW

The overarching goal of providing support to renewable energy resources in New Jersey is to transform the markets for these technologies¹ so they become commercially viable more quickly than they would without such support. Renewable energy programs funded by the societal benefits charge (SBC) should be designed to remove specific market barriers to the greatest extent possible within the timeframe set forth in the restructuring legislation. The result should be permanent changes in the renewable energy market that are sustainable without further SBC support.

The SBC will support three categories of statewide renewable programs:

- (i) Clean generating technologies sited on the customer's side of the meter;
- (ii) Projects for grid supply; and
- (iii) Research, development and commercialization projects and market development.

All three programs are designed to overcome fundamental market barriers by intervening in the market with carefully selected strategies that can reasonably be expected to meet market transformation goals. These strategies include: providing consumer information, broad-based and targeted marketing, financing development, infrastructure development, business development assistance, training and technical assistance, as well as direct financial incentives in the form of rebates, production credits, grants, equity investment, loans, loan guarantees and interest rate buy-downs. As markets for renewable technologies develop and market barriers are better understood, the administrators of these three programs will need to make modifications, re-allocate funds and develop new strategies, all of which must be approved by the Board. This level of flexibility is critical to maximize the impact of SBC support on both the customer-sited and grid supply sides of renewable energy markets.

The market transformation approach used in the energy efficiency programs can also be used for renewables. As illustrated in the table below, different renewable energy technologies and markets have market barriers that are different in both type and magnitude. Some of these barriers are relatively well understood and some of the strategies to address them can be implemented quickly. But other barriers are not yet well understood and some strategies need significant development before they can be implemented. So while it will be possible and appropriate to quickly ramp-up implementation of certain initial strategies, the mix of strategies and allocation of funding to each is expected to change over time. As these programs proceed, the administrators will work to develop a market transformation "path" for each technology and market, which will then serve to guide their proposals for program and funding modifications.

¹ Natural gas fuel cells are a Class I renewable energy technology under the Act and shall receive the same treatment as other Class I renewable energy technologies

The proposed structure for each of the renewable energy programs provides a progression of support mechanisms and flexibility to allow individual technologies and markets to receive the most appropriate forms of support. For example, a technology that receives early funding to demonstrate commercialization may later become a candidate for production incentives. Less mature technologies may derive the greatest initial benefit from market development support, while others may require relatively little early support for market or infrastructure development and will benefit primarily from direct financial incentives.

PROGRAM SUMMARIES

The **Customer-sited Clean Energy Generation** program will address the market for renewable generation technologies, primarily photovoltaics, fuel cells, and small wind located on the customer side of distribution utility meter. Market barriers to increased customer-sited (residential and commercial) clean energy generating technologies include: lack of consumer awareness, cumbersome interconnection requirements, lack of a well established delivery infrastructure, hassle costs, access to attractive financing, and current costs compared to retail energy rates.

In order to reduce these barriers, the Customer-Sited Clean Energy Generation program will employ a range of market intervention strategies, including “green” marketing, implementation of streamlined interconnection procedures for net-metered systems, technical assistance and vendor linkage for consumers, consumer-cost buy-downs, consumer financing product development and interest buy-downs. It is also envisioned that utilities might package these incentives with others and target them at customers within a geographic part of the transmission and distribution system that needs support.

The primary objectives of the program are:

1. Increasing consumer awareness and market demand for customer-sited clean energy systems;
2. Accelerating development of a vibrant, self-sustaining local infrastructure for the delivery and maintenance of these systems;
3. Developing and institutionalizing new mechanisms to overcome financial market barriers;
4. Accelerating reduction in the cost of systems by increasing demand through rebates, educating customers about reliability and performance of systems and reducing transaction costs; and
5. Increasing the use of distributed clean energy technologies for strategic grid-support.

The **Grid-Supply Clean Energy Generation** program will complement the Renewable Portfolio Standard to address market barriers to the development of new, grid-supply clean energy generation in New Jersey. Market barriers to be addressed by the program include financial and performance risk, siting barriers, access to capital and attractive financing, and the market’s lack of full recognition of the distributed generation and environmental benefits of clean energy grid

supply projects. The program will support a range of activities to help reduce these barriers. Specific strategies will be developed to support the particular needs of each technology including: production incentives (e.g. auction for \$/kWh incentives), risk mitigation (e.g. insurance, loan guarantees), and below-market financing.

The objectives of the program are to:

1. Increase the installed grid-supply clean energy capacity;
2. Increase the number of grid-supply clean energy projects installed and under development;
3. Lower costs for grid-supply clean energy generation by reducing or offsetting project development and financing costs; and
4. Increase market awareness of, and demand for grid-supply clean energy technologies.
5. Increasing the use of distributed clean energy technologies for strategic grid-support.

The **Research, Development and Commercialization Projects/ Market Development** program (“Market Development Program” or “MDP”) will promote the development of a New Jersey industry and infrastructure capable of serving local, regional, national, and international markets. This program will be the primary source of funding for technology research, development, demonstration and commercialization projects. These projects will help industry and research organizations to answer pressing questions on topics such as technology performance, resource viability, production processes, and viability of commercial-scale operations. This program will also support business development activities for both large and small scale Class I renewable technologies, and complement both the customer-sited and grid-supply clean energy programs.

In addition to providing funding for select RD&D and commercialization projects, program activities will address a broader set of market barriers to renewable energy industry development in New Jersey. These barriers include: a lack of developed sales and marketing infrastructures, performance and financial risks, barriers to capital formation, and limited resources for business planning and market entry. Program strategies to reduce these barriers may include: expert comprehensive business planning assistance, financing assistance and facilitation, training, and support for select research and business development activities.

The objectives of the program are to:

1. Increase the number of clean energy businesses in New Jersey;
2. Commercialize technologies that enhance economic development of key sectors of the New Jersey economy;
3. Increase sales (in-state and out) and improve the long-term financial viability and competitiveness for these firms; and
4. Support infrastructure development to more fully take advantage of the state’s Class I renewable resources.

The following chart describes the technologies, market barriers, possible program strategies, transition/exit strategies and market indicators associated with renewables.

Characterization of Renewables Markets

	Customer-sited Clean Energy Generation	Grid-Supply Clean Energy Generation	Research, Development and Commercialization Projects/ Market Development
	<ul style="list-style-type: none"> • Sized to meet customer loads • Primarily customer-sited and on customer side of distribution utility meter, but also potentially targeted for distribution system support • Siting not generally constrained by resource availability 	<ul style="list-style-type: none"> • Sized and sited on the utility side of the meter to supply grid • May need to be sited at location of resource • Siting sensitive to transmission and distribution constraints and benefits 	<ul style="list-style-type: none"> • New and existing business development • Infrastructure capability development • Research, development, demonstration and commercialization project support
Technologies	Primary: <ul style="list-style-type: none"> • PV • Fuel Cells • Small Wind Potential Other: <ul style="list-style-type: none"> • Sustainable Biomass • Solar Thermal Electric 	Primary: <ul style="list-style-type: none"> • Wind • Landfill Gas • Grid-supply PV • Grid-supply Fuel Cells • Sustainable Biomass Potential Other: <ul style="list-style-type: none"> • Geothermal • Wave and Tidal Power 	All “Class I Renewable Energy” Technologies, as defined in legislation
Market Barriers	<ul style="list-style-type: none"> • Current consumer cost relative to retail rates • Customer lack of information • Hassle costs, institutional barriers • Interconnection requirements • Access to capital, attractive financing • Environmental externalities not fully incorporated in energy markets 	<ul style="list-style-type: none"> • Facility cost relative to market price for new generation output, and/or distributed utility value • Siting barriers • Access to capital, attractive financing • Financial and performance risk • Further R&D required for some technologies • Environmental externalities not fully incorporated in energy markets 	<ul style="list-style-type: none"> • Barriers to capital formation • Limited resources for business planning • Financial and performance risk • Lack of mature sales and marketing infrastructure • Lack of mature installation and service network

Program Strategies	<ul style="list-style-type: none"> • Consumer-cost buy-downs • Consumer awareness & target “green” marketing • Streamlined interconnection procedures • Technical assistance and vendor linkage for consumers • Consumer financing product development and interest buy-downs • Promote use of distributed generation to reduce the cost of T&D infrastructure 	<ul style="list-style-type: none"> • Production incentives (\$/kWh) • Risk mitigation • Below-market financing • Promote use of distributed generation to reduce the cost of T&D infrastructure 	<ul style="list-style-type: none"> • Mitigate barriers to capitalization • Facilitate access to financing • Provide below-market financing (grants, low and zero interest loans) in conjunction with private investment for demonstration and commercialization projects • Provide funding for resource assessments (e.g., wind assessment, willow trials) • Provide market research assistance • Develop and conduct training for field service infrastructure
Transition/Exit Scenario	<p>Increased market demand, lower prices, and ease of transactions reduce need for market intervention</p>	<p>Cost reductions and market development establish ongoing market-based role for renewable grid-supply without further public intervention</p>	<p>Increasing development of renewables market and removal of barriers to business development eliminate need for further public intervention in market</p>
Market Indicators	<ul style="list-style-type: none"> • Number of installations • Aggregate kW of installations • Changes in retail cost of systems • Consumer awareness and demand for systems • Availability of financing • Availability of turnkey systems • Ease of installation and interconnection 	<ul style="list-style-type: none"> • Number of projects • Aggregate MW of projects • Reductions in cost of power supplied • Reductions in development time and cost for new projects • Increased use for grid support 	<ul style="list-style-type: none"> • Number of new renewable business start-ups • Total jobs in NJ renewable industry • NJ renewable industry sales • Availability and skill in service delivery infrastructure • Access to private sector capital to finance projects

ADMINISTRATION

The Customer-Sited program shall be administered by the utilities according to the rules established by the Board, with the advice of the Renewables Working Group, which the Board shall convene, comprised of representatives from utilities, the renewable industries, consumer advocates and environmental organizations. As the market for customer-sited technologies develops and as the parties gain experience with the initial programs set forth herein, the administrators and the Renewables Working Group, will work collaboratively to develop new program strategies and program modifications. .

The grid supply and market development programs shall be administered by an independent statewide administrator that the Board shall appoint or select through a competitive bidding process. In addition, the Board shall appoint a Renewables Advisory Panel of industry experts, who are unaffiliated with utilities and renewable industry stakeholders, to make recommendations to the Board regarding any needed modifications to the allocation of funding between the renewable energy programs. The Panel, working with the independent administrator, shall also develop solicitations and review all proposals submitted for funding pursuant to the market development program and shall recommend to the Board those it finds meritorious. The Board shall approve all modifications to the grid supply program and all projects to be funded over \$1 million under the market development program.

THE BOARD OF PUBLIC UTILITIES

The Board shall appoint the Renewables Advisory Panel, select the Independent Statewide Administrator (ISA) and convene the Renewables Working Group. This shall ideally happen within three months of the adoption of this settlement. In addition, the Board will undertake the following activities on an annual basis:

1. Approve the allocation of SBC funds between renewables and energy efficiency, and among renewables programs, consistent with the guidelines for the budgets set forth herein;
2. Approve all modifications to the Customer-Sited Program;
3. Approve major modifications to the grid supply and market development programs; and
4. Approve all projects funded over \$1 million under the market development program.

RENEWABLES ADVISORY PANEL

The Board shall appoint a small (e.g. six person) independent advisory panel to undertake the following:

1. Make annual recommendations to the Board on the allocation of funds within and between renewable energy programs;
2. Make annual recommendations to the Board on modifications to the grid supply program;
3. Review and select research, development and demonstration (RD&D) and commercialization project proposals and identify specific financial incentives to support them;

4. Identify market development needs to be addressed through project solicitations under the Market Development Program;
5. Monitor and assess program progress, including interactions between the renewable portfolio standard (RPS), green marketing and SBC programs; and
6. Submit an annual report to the Board evaluating program success including environmental and economic benefits of the programs.

In these efforts, the Advisory Panel will be assisted by the ISA which will handle logistics, accounting, due-diligence research and other support functions. Appointees to the Panel should represent the public interest and provide expertise in renewable energy technologies and business development. Activities of the Panel, including quarterly or bi-monthly meetings, should be budgeted as an allowable program expense through the ISA.

The Panel will regularly solicit input from the utilities and other interested parties. However the Panel's annual recommendations to the Board and the program administrators are intended to provide an independent appraisal of development in New Jersey's renewable energy markets, and expert suggestions on how SBC funding could be most effectively deployed in the coming year. The program administrators and the Board would rely upon, but would not be bound by, the Panel's recommendations when drafting and approving the yearly plans.

INDEPENDENT STATEWIDE ADMINISTRATOR

The Board shall appoint or select through a competitive solicitation an Independent Statewide Administrator to carry out the following tasks:

1. Administer the Grid-Supply Program, including conducting auctions and/or establishing standard offers, loan guarantees and low interest loans;
2. Manage the RFP process for, and administer, the Market Development Program;
3. Provide logistical support, report preparation and research assistance to the Renewables Advisory Panel;
4. Recommend to the Renewables Advisory Panel market development needs and modifications to the Grid-Supply and Market Development Programs;
5. Maintain accounting for Grid-Supply and Market Development programs and assess utilities for the cost of implementing each.

RENEWABLES WORKING GROUP

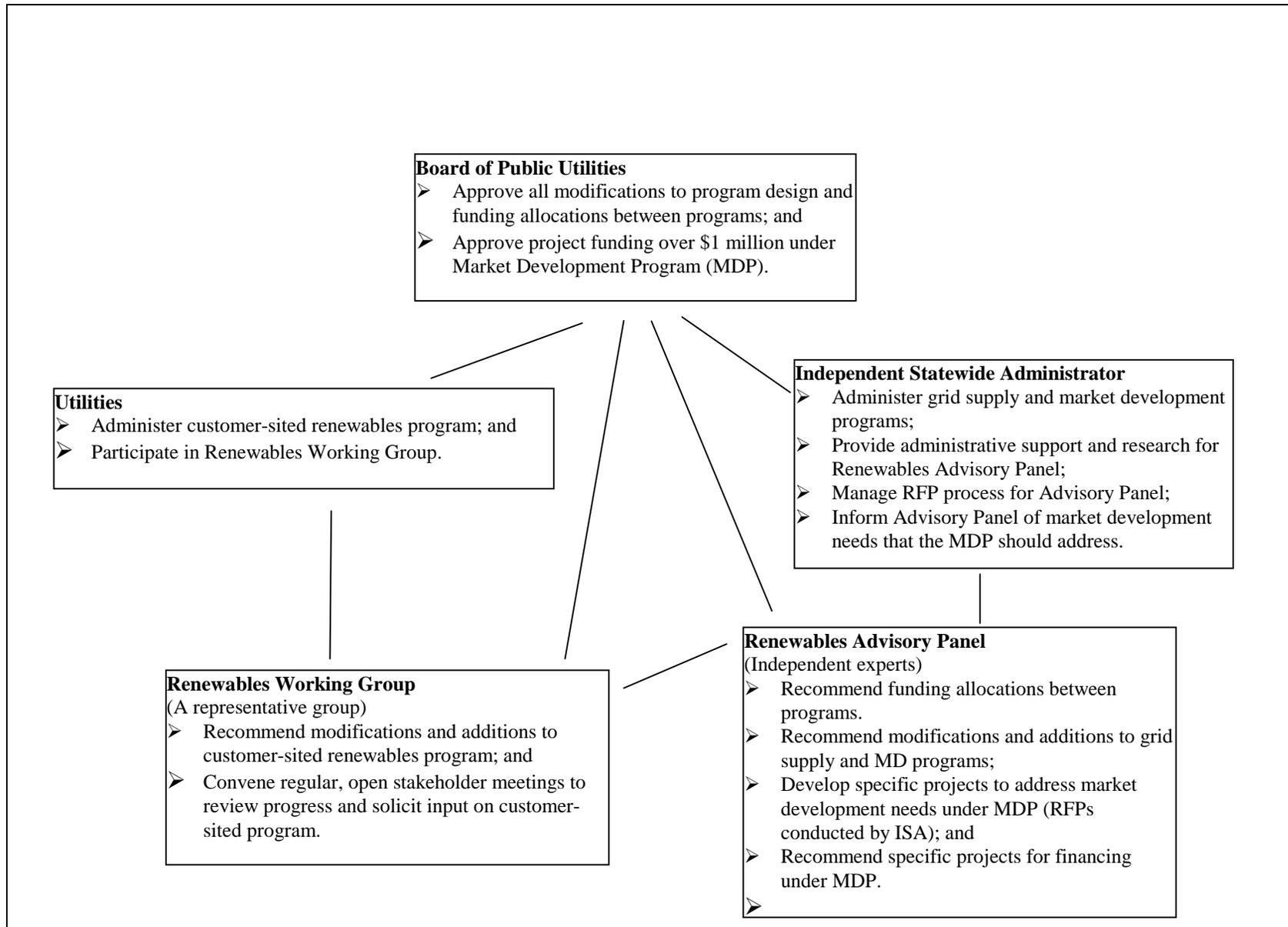
The Renewables Working Group, to be appointed by the Board, should be comprised of ten representatives from key stakeholder groups (e.g. the environmental community, consumer advocates, and the renewables industry), plus utilities. The group's responsibilities include the following:

1. Recommend program modifications and funding reallocations for the Customer-Sited program; and

2. Convene regular meetings (open to the public) to review reports from the program's administrators, and to encourage stakeholder input.

The program plan for customer-sited technologies set forth herein represents the best approach given the nascence of the market for these technologies. However, it is expected that this plan will require fine-tuning as the markets and technologies develop. The Renewables Working Group is intended to provide feedback and guidance to the program administrators and the Renewables Advisory Panel regarding modifications to the Customer-Sited Program and funding allocations. The Working Group's recommendations should be consensus recommendations wherever possible. Where consensus cannot be reached, recommendations should include dissenting opinions.

Structures and Responsibilities of Renewable Energy Programs



BUDGETS

Given the lack of information about the potential and need of the different technologies and market sectors, the budgets provided in Attachment 1 do not fund the three renewable energy programs equally or specify spending for specific technologies. Due to ramp-up issues, and uncertain market response, these renewable programs are likely to need less than 25% of the SBC funds in the first few years, but should be able to make up for this in the out years. These issues are also likely to require flexibility in allocating funds to the different programs.

In general, with respect to the Customer-Sited Program, the gas utilities will fund natural gas-fired fuel cells and the electric utilities will fund other technologies such as photovoltaic and small wind renewable technologies in their respective service territories. For initial budgeting purposes, each utility will allocate an equal percentage of its total budget for new programs to renewable energy programs. This is 17%, on average, over the 2000 through 2003 period. Statewide this may be adjusted to a total of 25% of total new program funding over the four years. All program administrators shall remain obligated through the entire 2000 through 2008 period to ensure that 25% of new program funds are allocated to renewable energy programs. Furthermore, as an initial matter, gas utilities will allocate 100% of their renewable energy program funds to the Customer-Sited Program, while electric utilities will allocate renewable energy funds to both the Customer-Sited Program and the programs administered by the ISA in accordance with the proposed annual budgets. In order to accumulate the funds budgeted for programs administered by an ISA, the ISA will bill each electric utility periodically, on a pro-rated basis in accordance with the funding allocations set forth in this Agreement.

In general, the goal of the program budgeting process is to maintain a seamless front on the availability of rebates for the Customer-Sited Program, while minimizing the need for transferring funds among the utilities. To continue a consistent statewide program and prevent a premature cessation of customer rebate payments, the Customer-Sited program spending or commitments by an individual utility may exceed its annual budget for the Customer-Sited Program in any given year, subject to the “soft” and “hard” caps specified below. If such an event occurs, a utility may draw down funds from its own future renewable energy program budgets through the year 2003. If the utility has drawn down the maximum amount of funds available from future Customer-Sited program budgets, then the utility may reallocate funding from energy efficiency budgets, which otherwise may not have been spent or committed, to customer rebate payments to be made through its Customer-Sited program.

If the above options are inadequate to meet the need for Customer-Sited program funding in years 2000 through 2003, a utility may request an order from the Board directing the ISA to provide the additional funding from surplus funds. If funding provided by the ISA is inadequate to meet the utility’s need for Customer-Sited program funding in years 2002 through 2003, then that utility may petition the Board to obtain additional funding from those remaining utilities whose Customer-Sited program budgets have not been either spent or committed up to that point in time. Furthermore, any two or more utilities, by mutual consent, may agree to shift Customer-Sited program funds among themselves; or a utility at any time may choose, but is not required, to provide additional funding above its share of the statewide funding level in a given year and

may request approval from the Board to recover such expenditures through its SBC.

The only “hard” cap on increasing program budgets within the statewide funding level for renewable programs is the provision that prohibits allocating more than \$63 million, *i.e.*, 60% of the maximum funds available for renewables over 2000-2003, to any one of the three renewable energy programs described herein. This provision may be modified with Board approval.

In addition, there are “soft” caps, which may prompt program modifications, but which do not present any obstacle to increasing program budgets in accordance with the above processes. These soft caps are (1) the initial 50/50 budget allocation between the Customer-Sited program and those programs administered by the ISA, (2) the provision that no one technology should obtain more than 50% of the funds available through any program on an annual basis, and (3) in addition, for the customer-sited technologies, no more than 50% of the incentives available in any block shall support systems greater than 10 kW in size without explicit Board approval.

The technology incentive structure for the Customer-Sited program is designed to ensure competition among technologies and to prevent excessive subsidies (through the declining caps and expanding blocks). Nevertheless, modifications to the incentive structure may be proposed in the event this is necessary to prevent excessive subsidies.

Administrator incentives will be included as an expense for all three renewable energy programs. Proposals for a specific level of administrator incentives for the Customer-Sited program are included in Attachment 5.

Renewable Energy Programs - Budget Worksheet

Version 6.2, Administrative incentives distributed across all budget line items

Customer Sited Clean Energy Generation Program

	2000	2001	2002	2003
Public Awareness and Outreach	\$ 300,000	\$ 764,151	\$ 482,609	\$ 500,000
Target Marketing	\$ 75,000	\$ 382,075	\$ 386,087	\$ 400,000
Market Facilitation	\$ 250,000	\$ 458,491	\$ 337,826	\$ 400,000
Incentives	\$ 1,100,000	\$ 4,890,566	\$ 8,686,957	\$ 11,200,000
Administration	\$ 625,000	\$ 764,151	\$ 482,609	\$ 500,000
Market Analysis, Program Development and Planning	\$ 330,000	\$ 611,321	\$ 482,609	\$ 500,000
Monitoring and Evaluation	\$ 295,000	\$ 229,245	\$ 241,304	\$ 250,000
Program Total	\$ 2,975,000	\$ 8,100,000	\$ 11,100,000	\$ 13,750,000

Grid-Supply Clean Energy Generation Program

	2000	2001	2002	2003
Technical Assistance on Siting ID and Approval	\$ 300,505	\$ 344,681	\$ 222,000	\$ 190,972
Feasibility and Development Assistance	\$ 450,758	\$ 344,681	\$ 222,000	\$ 190,972
Production Incentives	\$ -	\$ 2,585,106	\$ 4,440,000	\$ 5,729,167
Administration	\$ 300,505	\$ 344,681	\$ 222,000	\$ 190,972
Market Analysis, Program Development and Planning	\$ 300,505	\$ 258,511	\$ 222,000	\$ 286,458
Monitoring and Evaluation	\$ 135,227	\$ 172,340	\$ 222,000	\$ 286,458
Program Total	\$ 1,487,500	\$ 4,050,000	\$ 5,550,000	\$ 6,875,000

Market Development Program

	2000	2001	2002	2003
Resource Assessment	\$ 204,702	\$ 284,543	\$ 184,385	\$ 189,655
Market Research	\$ 204,702	\$ 142,272	\$ 322,674	\$ 331,897
Business Planning/Development Assistance	\$ 204,702	\$ 284,543	\$ 460,963	\$ 568,966
Financing Assistance and Facilitation	\$ 136,468	\$ 142,272	\$ 322,674	\$ 426,724
Training	\$ 136,468	\$ 189,696	\$ 368,771	\$ 379,310
Technology Research, Development and Demonstration	\$ 409,404	\$ 2,845,433	\$ 3,687,708	\$ 4,741,379
Administration	\$ 136,468	\$ 94,848	\$ 92,193	\$ 94,828
Monitoring and Evaluation	\$ 54,587	\$ 66,393	\$ 110,631	\$ 142,241
Program Total	\$ 1,487,500	\$ 4,050,000	\$ 5,550,000	\$ 6,875,000

Total for all 3 Programs	\$ 5,950,000	\$ 16,200,000	\$ 22,200,000	\$ 27,500,000
---------------------------------	---------------------	----------------------	----------------------	----------------------

CUSTOMER-SITED CLEAN ENERGY GENERATION PROGRAM

OVERVIEW

The utilities will coordinate administration of a statewide Customer-Sited Clean Energy Generation program to promote renewable projects sited on the customer side of the meter. The program will provide a coordinated set of market intervention strategies to help overcome market barriers and encourage the transition towards self-sustaining markets. Based on the findings of the recently conducted Comprehensive Resource Analysis Market Assessment,² rooftop photovoltaic systems and fuel cells are the technologies with the broadest technical and economic potential for customer-sited distributed generation development in the early years of this program. However, this study did not provide a substantial review of New Jersey's small wind system potential. Small wind systems may have a broad technical and economic potential as well. In addition, some participation may be expected from sustainable biomass facilities. As an initial matter, direct financial incentives will be limited to these four technologies. The program's activities will address market barriers common to these technologies, while adopting specific market interventions in recognition of important differences in current levels of market preparation and commercialization.

GOALS AND OBJECTIVES

The goals of this Program are to promote market conditioning, development and transformation. The program is expected to significantly increase demand, due to a combination of direct program and market effect impacts. The increased demand is expected to catalyze market forces that will drive additional growth in consumer demand and bring prices down. This pattern is seen in the market development of many emerging technologies. The Customer-sited Clean Energy Generation Program will decrease direct incentive levels and other forms of market support as indicators of sustainable market development emerge.

TARGET MARKETS

The program's target market is composed of customers who are interested in and able to invest in customer-sited clean energy generation, primarily motivated by environmental or power reliability concerns. While the program's outreach and broad marketing will aim to educate the general public about customer-sited clean energy technologies, the majority of participation is expected to be generated from more focused target marketing to these niche markets. The target markets can be further distinguished by system size, new construction versus retrofit, and generation technology. It is also envisioned that utilities may use this program in combination with other incentives in order to target areas of the transmission and distribution system in which distributed generation is of particular value.

² New Jersey Comprehensive Resources Analysis Market Assessment. See Joint Filing, UTIL-CRA-1: Statewide Market Assessment. Appendix R1: Renewable Distributed Generation.

Small-Sized Renewable Systems (Rated 10 kW or less)

For small renewable systems the target markets are residential and small commercial retrofit and new construction customers, and the decision-makers that influence their buying decision. These include builders, architects, home improvement contractors, lenders, Realtors, and electricians. PV and small wind systems appear to be currently the most market-ready and widely applicable technologies in this size class. It is anticipated that PV and small wind systems may constitute the bulk of early program participation. Customer-sited fuel cells are the next most likely technology to become market-ready with potentially broad participation.

Medium-sized Renewable Systems (Rated greater than 10 kW)

For medium-sized clean energy systems the target market is composed of medium and large commercial customers and the market actors who influence their decision-making, including designers, architects, service contractors, engineers, and lenders. The target market will include customers seeking to promote clean energy due to public interest benefits, environmental concerns, or for reliability and back-up power benefits. Customer-sited fuel cell technologies in the 200 kW range are commercially available. Fuel cells and PV systems are expected to represent the vast majority of projects in this size class, although site-specific conditions may permit the development of suitable wind or biomass facilities.

IMPLEMENTATION

Program Strategies

Target Marketing/General Outreach and Education

The program will conduct a coordinated outreach and education effort to raise awareness and knowledge concerning the availability, and benefits of customer-sited clean energy technologies. The program will develop materials and use multiple delivery channels to provide high quality information on how clean energy systems work, their costs and benefits, and raise the level of understanding of the relationship between electricity generation and the environment.

In addition to the outreach and education designed to raise general market awareness, the program will conduct more specific target marketing campaigns, including cooperative mailings or newsletter promotions with environmental organizations and other community organizations promoting clean energy and participation in new construction and home shows. Marketing and general outreach activities suitable for the medium size market will also be developed.

Market Facilitation

This component of the program will include activities designed to reduce specific market barriers to distributed small and medium sized clean energy technologies. The program development activities include:

- Develop a single, statewide, easy to understand interconnection contract and guidelines for timing and approval of interconnection applications;
- Provide technical assistance and vendor linkages, particularly early in the program implementation when technical assistance, products, and services will be most difficult for customers to identify on their own;
- Establish qualifications and certification requirements for system integrators and installers participating in year 2000 pilot activities. The program will transfer on-going responsibility for training and certification to the Market Development Program as soon as the ISA is ready to assume this role;
- Provide technical training for utility engineers, municipal electrical inspectors, and electrical contractors; and
- Facilitate consumer financing mechanisms in cooperation with private-sector financial institutions, including local and national mortgage lenders and the secondary mortgage and appraisal industries.

Incentives

The program will offer direct financial incentives to reduce the initial cost of systems, including installation and interconnection costs. Incentives will decrease over time, as the number of installed megawatts (MW) increases. The maximum incentive values listed in the following table include direct incentives and the value of financing incentives (e.g. interest rate buydowns). In each block total incentive value will be capped according to both the percent of total installed cost and on a dollar per installed watt basis. Customers will receive the lesser of these two values. The proposed levels for total incentives are set forth in the following table.

Customer-sited Clean Energy Program Incentives	Incentive Block			
	<u>1</u> (2.0 MW)	<u>2</u> (5.5 MW)	<u>3</u> (12.5 MW)	<u>4</u> (30 MW)
Maximum buy-down per watt of system rated output (including value of financing incentive)				
Small Systems (<10kW)	\$5.00	\$5.00	\$4.00	\$3.00
Medium Systems (>10-100kW)	\$4.00	\$4.00	\$3.00	\$2.00
Larger Systems (>100 kW)	\$3.00	\$3.00	\$2.00	\$1.50
Maximum buy-down as a percentage of eligible system costs (including value of financing incentive)	60%	50%	40%	30%

The anticipated value of financing incentives is \$2.00 per Watt in the first two blocks and \$1.50 in the third block. The program administrators will develop the details of specific allocation of incentives between direct and financing components in their program implementation plan for 2001.

Fuel cells, PV, small wind and sustainable biomass are equally eligible for the incentives. If factors other than resource availability (e.g., sufficient wind) preclude a reasonable amount of competition among technologies, it may be appropriate for the program administrators or the Renewables Working Group to recommend that the Board modify the percent or dollar-per-watt caps for a particular technology or sub-category of technologies. In addition, there are caps, which may prompt program modifications. These soft caps are (1) the initial 50/50 budget allocation between the Customer-Sited program and those programs administered by the Independent Statewide Administrator, (2) the provision that no one technology should obtain more than 50% of the funds available through any program on an annual basis, and (3) in addition, for the customer-sited technologies, no more than 50% of the incentives available in any block shall support systems greater than 10 kW in size without explicit Board approval.

As the market transforms, the incentive amount, in total dollars and as percentage of first cost, decreases and the amount of customer contribution increases along with the size of the block of

customers eligible for that incentive. The key features of the customer-sited clean energy incentive are:

- The incentive is a rebate of a portion of the total system cost, including installation and interconnection. Financing incentives will be included in the calculation of the maximum buy-down amount;
- The incentive is paid to retailer, lender, or purchaser; and
- Incentive funding is divided into 4 blocks with declining rebate amounts.

Eligible Technologies

Technologies eligible for this program are fuel cells, PV, small wind and sustainable biomass. Although there is no size-limit in terms of maximum capacity, installations must be sized to meet customer loads. Installations sized to provide net supply to the grid are not eligible for this program and must compete for financial incentives through grid-supply or market development programs.

In addition, financial incentives under this program are applicable only for:

- New components;
- Systems located on customer premises in New Jersey;
- Systems that include at least a 5-year all-inclusive warranty, with the exception of fuel cell stacks, for which warranties against normal decline in output should not be required; and
- Products that meet minimum program requirements.

Participation Requirements

- The consumer or retailer must submit a customer-sited Renewable Systems Buy-down Application and the program administrator must approve it prior to installation;
- The Application must include information demonstrating that the system meets all applicable technical and certification requirements;
- Systems must be installed within 6 months of application approval date for small (<10kW) systems and within 12 months for medium (10 kW or greater) systems;
- Applicants must permit inspection of eligible systems. Program administrators will inspect 100% of the eligible installations in the first year prior to issuing any buy-down incentive. This percentage will decrease once the program is established;
- Rebates will be awarded on a first come/first serve basis on the basis of application date;
- Applicants must pay for all interconnection costs required by the interconnection standards approved by the Board (other than the portion covered by rebate); and

- Projects must be installed in New Jersey.

Roles of different parties

This program shall be administered as a single statewide program concurrently by each electric utility. The utilities shall coordinate their activities to ensure that the same incentives, eligibility and incentive structure applies in all service territories and to achieve administrative efficiencies. The utilities will work actively with the Renewables Working Group to review program allocations and annual plans prior to submission to the Board for approval. The utilities will also take advice from the Renewables Working Group on strategic data and research priorities. As a group, the utilities will also work to coordinate the initiative with the appropriate state, regional and national efforts.

Renewable Trade Allies

Renewable contractors will sell individual systems and install and maintain the equipment. The program will provide the format for buy-down applications and establish minimum qualifications and certification requirements for renewable contractors. The program will offer training and certification opportunities to allow contractors that do not initially meet the minimum qualification and certification requirements to participate in the program.

Competitive impact

The phased buy-down program is designed to provide sufficient incentive early on to attract customers and businesses. The size of the incentives declines over time in order to require the market to be sustainable. This should create a robust competitive market and delivery infrastructure for these technologies over the course of the program.

TRANSITION STRATEGIES

As program activities successfully reduce market barriers, the type and size of interventions needed to create and maintain sustainable orderly development for clean energy technologies will diminish. Over time, as clean energy manufacturers and installers capture economies of scale and consumer-financing products are developed and become more widely available, it should be possible to reduce or eliminate direct incentives. Similarly, as consumers, builders, and lenders become more familiar and gain more experience with clean energy technologies, the need for technical assistance will be reduced. The long-term goal of this program is to help customer-sited clean energy markets develop to the point that continued market interventions are no longer necessary.

EVALUATION PLAN

The utilities will collaborate and hire one or more contractors to develop and implement an evaluation plan to assess the program's impacts in terms of both the performance and direct energy savings attributable to clean energy systems installed, and the market transformation impacts. Evaluation activities during the first year will include baseline study on consumer

attitudes and perceptions, and a baseline study on financing and delivery infrastructure. The Renewables Working Group will review program activities and evaluation reports on a regular basis and recommend to the administrators program modifications that may be necessary to ensure sustained progress towards reducing the most important market barriers for each technology.

TIMELINE/TRANSITION PLAN

Each utility will meet the following milestones for refinement and implementation of the program:

1. Within four months of Board approval of this plan, the utilities will develop detailed compliance filing, written program ramp-up and implementation plans for the first program year (2001), including staffing plans, plans for use of contractors, details of the direct and financing incentives to be offered, plans for utility coordination and/or joint delivery, and detailed schedules;
2. Within four months of Board approval of this plan, the utilities will establish interim contractual and procedural requirements for pilot program participants and contractors, and begin to accept applications for program participation. The materials in place will include interim interconnection requirements and agreements, participation requirements and applications. The requirements established for contractors will include documentation of prior experience, insurance, warranties, etc. The interim procedures and requirements will be as simple, expedient and consistent among the utilities as possible within this time period;
3. Within six months of Board approval of this plan, the utilities will facilitate a training and certification option to qualify contractors to participate in the program. As soon as practical, the utilities will work with the ISA to transition this responsibility to the Market Development Program;
4. Within six months of Board approval of this plan, the utilities will commence pilot program services, including financial incentives, and a number of promotional installations of the type being supported by the program;
5. Within six months of Board approval of this plan, each utility will explore, and promote and facilitate as needed, customer participation in one or more financing (loan or lease) strategies that address the first-cost barrier to customer investment in program technologies (may be accomplished through lending organizations). If the exploration of need results in a determination that financing strategies are not needed, the utilities will document these findings and submit them to the Board and Renewables Working Group for review; and
6. Within ten months of Board approval of this plan, the electric utilities will document their efforts and progress towards the development of simple, uniform, statewide contractual and procedural requirements for program participants, including interconnection requirements and agreements for systems less than 10kW, participation requirements and applications.

PERFORMANCE INDICATORS

In the first year, the ability to meet the milestones identified above will be one measure of each utility's performance. In the following years, program administrators should be required to demonstrate measurable results and momentum towards the long-term development of the customer-sited clean energy market. The market indicators that will be used to measure this progress include:

- Increase in public awareness and consumer knowledge of small scale clean energy technologies;
- The number and capacity of systems installed;
- The number of firms installing systems that qualify for incentives;
- The number and variety of customer-sited clean energy systems eligible for program incentives and readily available in the New Jersey market; and
- Decreases in the first costs for customer-sited clean generation systems.

PROGRAM GOALS

In 2000 the program will aim to achieve statewide installation of 50 or more small scale clean generation systems or a combined capacity of 100 kW or more. This goal accounts for the ramp-up of program activities during the first year. The longer-term goal, which program administrators will review and revise on a regular basis when reporting to the Renewables Working Group and the Board, is to install approximately (1,100) systems with a combined capacity of 4.4 MW by 2003. The goals after program year 2000 are based upon current expectations of market development and technology availability. It is likely that for the purpose of determining performance incentives adjustments to these objectives will be made on an annual basis.

MINIMUM REQUIREMENTS FOR PROGRAM ADMINISTRATION

The utilities must establish consistent incentive levels and eligibility requirements on a statewide basis and, in the first year develop and implement the pilot program. This requires meeting five of the six milestones identified in the timeline transition. In addition, program administrators must achieve at least 50% of the annual program goals for participation.

GRID-SUPPLY CLEAN ENERGY GENERATION PROGRAM

OVERVIEW

An independent statewide administrator (ISA) appointed by the Board shall administer a grid-supply program that will complement the Renewable Portfolio Standard and green marketing activities and address market barriers to the development of new renewable grid-supply and strategic grid support in New Jersey. Although many grid-supply renewable energy projects have been developed throughout the country, there is a dearth of such installations in New Jersey. This program will support development of grid supply clean energy installations and help in transitioning towards a self-sustaining renewable energy market. While the RPS will help to create a market for clean grid-supply generation, there are still significant market barriers to be overcome.

This program will seek to address these market barriers, including the high cost of renewables relative to conventional forms of generation, financial and performance risk, access to capital/attractive financing, and the market's lack of full recognition for the distributed generation and environmental benefits of clean energy grid supply projects. It will also, in consultation with the Renewable Advisory Panel, establish appropriate procedures for assuring that potentially overlapping support from RPS, SBC and green marketing activities does not lead to erroneous accounting and double (or more) counting of renewable energy market activities.

GOALS AND OBJECTIVES

The objectives of the program are to:

1. Increase the installed capacity of clean energy projects;
2. Increase the number of clean energy projects installed and under development;
3. Lower costs for clean energy generation through reduced development time and financing costs, lower R&D requirements, and improved performance;
4. Increase the use of clean energy grid supply as an alternative to T&D infrastructure upgrades and expansions; and
5. Support development and marketing for clean energy grid supply technologies.

TARGET MARKETS

The market that must be addressed to attain program objectives includes actors on both the supply and demand side of the market. While the RPS establishes a demand for renewables, this program will focus on the supply-side, and the actions of equipment manufacturers, suppliers and project developers for grid-supply Class I renewable energy projects.

The program's market support activities will also influence retail green energy consumers and other important market actors, including project financiers and siting and regulatory approval authorities.

IMPLEMENTATION

Program Strategy: Project Development Support

The program will support a range of activities to help reduce market barriers to utility scale renewable energy project developments. Initially, the program strategies will include one or more of the following:

1. Production incentives (e.g. auction for \$/kWh incentives);
2. Risk mitigation (e.g. insurance, loan guarantees); and
3. Below market financing.

As the program proceeds, the ISA, in consultation with the Renewable Advisory Panel, will consider the need for additional strategies to support the particular needs of specific technologies and make recommendations to the Board regarding new programs or modifications to existing programs. The following list provides a sampling of the types of market supporting activities that will be developed and undertaken following advice from the Panel.

- Market price insurance – New Jersey could participate in the proposed federal market price insurance program under development by the Department of Energy. The program will allow developers of Class I renewables in New Jersey to purchase insurance against the fluctuations in the size and availability of premiums for renewable energy products in the marketplace; and
- Public education – this initiative will educate consumers about Class I renewable energy projects, their environmental benefits, and the consumer’s ability to support renewable energy development through input to public policy and their selection of a retail energy provider.

Incentives

The Program may provide production incentives through an auction program, provided that, in the event that the number of project developers interested in bidding for a production incentive is not sufficient to support an auction, the ISA may offer a standard production credit to all developers at a price to be determined in consultation with the Renewables Advisory Panel and approved by the Board. The ISA shall solicit bids for the least-cost per-kilowatt-hour price support required by projects over a 5-year period. Projects must be newly built in New Jersey and must be fueled by one or more of the eligible Class I renewables listed below. The ISA will commission market and resource potential assessments to inform the structure of the bidding process (e.g. what size and types of bids can be expected, if a minimum threshold for aggregate bid capacity needs to be established before incentives are awarded and whether a cap on the bid price per kWh should be established). The ISA will conduct an auction and award production incentives at the price bid to the first 150MW of lowest bids or until available funds are used up, whichever comes first. Direct incentives will not be available for technologies that the ISA, in consultation with the Renewables Advisory Panel, determines are already commercial. Incentives shall be paid on a periodic basis to be determined by the ISA upon demonstration of

kWh generated. Each year's production incentive budget will include all current and future year payment commitments made in that year.

Bidders will be required to provide substantial proof of intent and ability to build the project being bid and should establish clear milestones for each project. Failure to meet milestones will result in loss of incentives. Funds made available through defaulting projects will be re-allocated.

Eligible Technologies

Technologies eligible for this program are PV, wind power, and fuel cells, wave or tidal action, or a sustainable biomass facility, but specifically excluding landfill methane.

Roles of different parties

Program Administrator

An independent statewide administrator in consultation with the Renewables Advisory Panel shall administer this program. The ISA will work closely with the Panel to seek stakeholder inputs, identify critical research questions, and review annual allocation proposals. This input will be considered by the ISA before submitting annual plans and recommendations to the Board for approval. The ISA and the Panel also will work actively to coordinate the initiative with the appropriate state, regional and national efforts.

Renewable Trade Allies

Renewable developers will install the technologies and contract for sale of the power to be generated.

TRANSITION STRATEGIES

By helping to reduce market barriers to project development, and by encouraging the retail market for clean energy generation, this program will help to overcome development barriers and lower prices and attract private capital to New Jersey renewable development energy projects. Lower prices will help to further increase demand. Generating these impacts however will not be a quick or easy task. Factors such as the economic viability of each of the New Jersey's Class I renewable resources, and alternative opportunities for project developers, are likely to significantly impact program activities. Individual market development paths for specific renewable technologies may result in very different requirements for ongoing levels of market support.

As the ISA gains experience, and developers for each technology respond to program activities, New Jersey's resource potential will become clearer. It is possible that resources may be shifted to or from the other two proposed renewable energy programs in order to direct resources towards activities where there is the greatest potential to sustainably transform markets. In the

grid supply program, the Renewable Advisory Panel will have the primary responsibility for providing the ISA and the Board with information on these issues.

EVALUATION PLAN

Program evaluation will include assessment of the market transformation impacts on both the consumer demand and supply side of the renewable energy market, including the costs of producing renewable energy relative to conventional forms of generation and installed capacity. With the advice of the Renewable Advisory Panel, the ISA will develop market assessments and identify market indicators for each eligible technology to help gauge progress and inform program implementation plans. The Panel will regularly review the range and size of projects supported by program incentives and recommend any program modifications that may be necessary to ensure that technologies with slower market development have appropriate access to program benefits.

TIMELINE/TRANSITION PLAN

As soon as practicable following approval of this plan, and preferably within three months of the date of such approval, the Board shall appoint members of the Renewables Advisory Panel, and appoint or select through a competitive bidding process, the Independent Statewide Administrator. Thereafter, the ISA shall meet the following milestones for refinement and implementation of this program during the first year:

- Within five months of being established, and in consultation with the Renewables Advisory Panel, the ISA will develop and provide to the Board a detailed program implementation plan including details of the auction process or standard incentive to be offered; and
- Within nine months of being established, publicly announce the program and issue the first solicitation for grid-supply renewables.

PERFORMANCE INDICATORS

In the first year, the ability to meet the milestones identified above will be the primary measure of the ISA's performance. Over time, the program will generate other measurable results and momentum towards the long-term sustainable development of the grid supply clean energy market in New Jersey. Market indicators used to measure this progress will include:

- Increase in the installed grid-supply clean energy capacity;
- Increase in the number of grid-supply clean energy projects installed and under development;
- Increase in the market awareness of, and demand for grid supply clean energy technologies; and
- Cost of renewable generation

PROGRAM GOALS

During the first two years, the program will aim to distribute approximately \$1,500,000 in incentives, resulting in the addition of 3 MW in renewable grid supply capacity. The longer-term goal, which the ISA will review and revise on a regular basis when reporting to the Renewables Advisory Panel and the Board, is to support the installation of 25 MW of cumulative new grid supply clean energy capacity by 2003. The longer-term goal is based upon current expectations for market development, and will be adjusted on an annual basis if it is to be tied to performance incentives for program administrators.

MINIMUM REQUIREMENTS FOR PROGRAM ADMINISTRATION

The ISA must develop and implement this program in the first year. To do so, it must meet all of the transition timeline milestones identified above.

RESEARCH DEMONSTRATION AND COMMERCIALIZATION PROJECTS /MARKET DEVELOPMENT PROGRAM

OVERVIEW

The ISA appointed by the Board shall manage this market support program in consultation with the Renewables Advisory Panel. The goals of the program are to promote the development of a renewable energy industry and infrastructure in New Jersey that is capable of serving local, regional, national and international markets. Program activities may include supporting renewable energy research, development, training and certification, demonstration and commercialization projects and business and market development for Class I renewable technologies, and will complement both the Customer-Sited clean energy and grid-supply clean energy programs.

The market barriers to be reduced through program activities include: the high cost of renewable technologies relative to conventional forms of generation, a lack of developed sales and marketing infrastructures, performance and financial risks, barriers to capital formation, and limited resources for business planning and market entry. Program strategies to reduce these barriers may include financial assistance and facilitation (e.g. grants, equity investments, loans and loan guarantees, interest rate buy-downs, production credits) and training and support for select research and business development activities. This program will also be the primary source of funding for technology research, development, demonstration and commercialization projects. In consultation with the Renewables Advisory Panel, the ISA will establish and administer a bid solicitation process for projects to address specific market needs including RD&D and commercialization. The Renewables Advisory Panel, in consultation with the ISA, shall be responsible for selecting projects to be funded by this program, provided that selected projects seeking support valued at \$1 million or greater shall be recommended to the Board for ultimate approval.

GOALS AND OBJECTIVES

The objectives of the program are to:

1. Increase the number of clean energy businesses in New Jersey;
2. Provide financial support for commercialization projects that enables them to compete for private sector capital and demonstrate their commercial viability;
3. Increase sales (in-state and out) and improve the long-term financial viability and competitiveness for these firms;
4. Support infrastructure development to more fully take advantage of the state's Class I renewable resources; and
5. Support research and development that assists New Jersey's renewable energy industry further the development of in-state and out-of-state markets.

TARGET MARKETS

The target markets include the green energy market for both customer-sited and grid-supply Class I renewable energy technologies of all sizes.

IMPLEMENTATION

Project Strategy: Technology Development Support

The program will support activities to help reduce research, development and financing barriers to further development of and investment in the renewable energy industry and service infrastructure in New Jersey. Program activities will be selected through a competitive solicitation process based on the most cost-effective proposals to address the objectives of this program. These are likely to include:

- Resource assessments - A detailed resource assessment (more detailed than the recently completed Xenergy Study) for all Class I resources should be conducted by an independent firm. The results will be made public in both written and electronic form. The assessment will explicitly include offshore wind resources;
- Market research – assessments of sustainable market demands for green energy can help manufacturers and project developers secure debt and equity financing commitments and identify strategic marketing plans;
- Technical research and development – including select technology demonstrations (e.g. fuel cell installation utilizing recovered landfill gas, willow energy crop trials);
- Commercialization demonstration projects – Provide financial assistance and facilitation (including e.g. grants, equity investments, zero interest and below market loans and loan guarantees, production credits, buydowns) to support demonstration projects; provided that proposals that include a request for capital grants shall provide private sector financing equal to or greater than the amount of the grant requested. Projects may be funded on a multi-year basis, out of multi-year budget allocations, to conform with construction schedules;
- Training and Certification – During program year 2000 the utilities, through the Customer-Sited clean generation program, will provide training and certification options allowing system integrators and installers to participate in pilot activities. Thereafter, and as soon as practical, the MDP program will assume ongoing responsibility for training and certification; and
- Market interventions designed to reduce barriers to the development of specific technologies.

In addition, the ISA and the Renewables Advisory Panel may commission program activities outside of the competitive solicitation process. Such activities should be designed to achieve program objectives. For example, the Panel could propose that the ISA commission a background report on siting issues to set forth the full range of public and legal issues for siting grid-supply renewables facilities, including zoning and land-use issues, environmental and community concerns. To help identify and address potential community concerns, the ISA could undertake an outreach and siting facilitation program in the most promising regions of the state.

Competitive solicitations will be the preferred method of addressing market development needs. Program resources will be allocated on a cost-share basis in order to leverage private industry investment from individual or collaborative efforts.

Eligible Technologies

Technologies eligible for support under this program are PV, wind power, and fuel cells, wave or tidal action, or a sustainable biomass facility, but specifically excluding landfill methane.

Roles of different parties

The ISA will manage the MDP in consultation with the Renewables Advisory Panel. The ISA will develop and manage the RFPs and assist the Panel in evaluating proposals. The ISA will also provide logistical support for all of the Panel's efforts.

The Renewables Advisory Panel will have the primary responsibility to review and assess market development needs, advise the ISA of these needs, identify appropriate strategies to address these needs, allocate budgets for these strategies, and select RD&D and commercialization projects.

Renewable Industry Allies

Investors, manufacturers, and project developers in the renewable energy industries will identify technology and market development activities with significant potential to support the development of New Jersey's renewable energy industry and infrastructure.

TRANSITION STRATEGIES

Technology research and market development can support activities that address long-term barriers to the commercialization of Class I renewable technologies. By reducing the risks and costs associated with long-term research and market development and commercialization of new technologies, this program helps technologies more quickly reach the stage of project specific development. As technologies mature the base of installed experience reduces performance and market uncertainties and the need for further technical and market research is diminished, or redirected towards new innovations.

EVALUATION PLAN

Evaluation will include assessments of how the program leverages and generates industry investment in and development of renewable technologies. The evaluation criteria and indicators for program success will be further developed and reviewed by the Renewables Advisory Panel in collaboration with the ISA.

TIMELINE/TRANSITION PLAN

As soon as practicable following approval of this plan, and preferably within three months of the date of such approval, the Board shall appoint members of the Renewables Advisory Panel, and appoint or select through a competitive bidding process, the Independent Statewide Administrator. Thereafter, the ISA shall meet the following milestones for refinement and implementation of the program during the first year:

- Within two months of being established, and in consultation with the Renewables Advisory Panel, issue an RFP for a detailed resource assessment of Class I renewable energy resources in the State, including off-shore wind;
- Within four months of being established, and in consultation with the Renewables Advisory Panel, the ISA will develop and provide to the Board a detailed program implementation plan;
- Within six months of being established, and in consultation with the Renewables Advisory Panel, provide to the Board a detailed plan for providing business planning and development assistance;
- Within six months of being established, and in consultation with the Renewables Advisory Panel, publicly announce the program and issue the first solicitation for potential development projects and, within 4 months of receiving proposals, issue funding allocation proposals to qualifying projects; and
- The ISA will plan to assume ongoing responsibility for the training and certification for installers of customer-sited clean energy systems in New Jersey starting in 2001. This effort will be coordinated the utilities' interim training and certification options in place during program year 2000.

PERFORMANCE INDICATORS

In the first year, the ability to meet the milestones identified above will be the primary measure of the ISA's performance. Over time, the program will generate other measurable results and momentum towards the long-term sustainable development of clean energy markets in New Jersey. Market indicators used to measure this progress will include:

- An increase in the number of clean energy businesses in New Jersey;
- An increase in the sales (in-state and out-of-state) for these firms;
- Improvements in the long-term financial viability and competitiveness of these firms;
- Increased development of New Jersey's Class I renewable energy resources; and
- Increased in-state research and demonstration of clean energy technologies.

PROGRAM GOALS AND MINIMUM REQUIREMENTS FOR PROGRAM ADMINISTRATION

The ISA, with advice from the Renewables Advisory Panel, must develop and implement this program in the first year. To do so, they must meet the transition timeline milestones identified above. The Renewables Advisory Panel will have primary responsibility for submitting for Board approval continuing program goals and minimum administration requirements.