

NEW JERSEY CLEAN ENERGY PROGRAM

Introduction

The New Jersey Clean Energy Incentive Task Force team was formed and asked to provide an analysis and recommendations regarding SDA's participation in the New Jersey Clean Energy Program (NJCEP) of New Jersey Bureau of Public Utility's (BPU). The Task Force studied NJCEP incentive-programs of SmartStart, Pay for Performance, Photovoltaic including the program components and their parameters; utilized the historic data as it relates to SDA's past and current participation (emphasizing applications and funding); evaluated the SDA's existing process in support of that participation; and forecasted the potential future savings by incentives.

The historic and current analyses consist of all available data between the years of 2004 and 2009. The forecast analysis projects availability of future incentive payments applicable to SDA projects from the 2008 Capital Plan. Addition/renovation projects were excluded due to variances in scope and inability to accurately predict the utilization of eligible energy equipment.

The NJCEP remains a dynamic energy incentive program. New energy incentive programs are being introduced such as Pay for Performance, while the requirements and parameters for other programs are being changed and moved to a different incentive platform. For example, in the case of photovoltaics, rebates are being eliminated and the issuance of Renewable Energy Credits is being substituted. Because of this program's dynamic, complexity and continual modernization; participation in the BPU energy incentive program requires thorough management, as well as the ability to quickly adapt to changes in the program.

Energy Incentives Program Descriptions:

A Societal Benefits Charge (SBC), defined as a surcharge and paid by New Jersey gas and electric users, funds the NJCEP which is a statewide initiative administered by the BPU and managed by TRC¹ Energy Solutions. The SBC is collected as a mandatory charge imposed on all customers of New Jersey's seven investor-owned electric public utilities and gas public utilities, with the BPU determining the amount that will be collected. In September 2008, the BPU approved a 2009-2012 budget of \$1.213 billion; with approximately \$950 million of the budget devoted to energy efficiency programs and \$243 million for renewable energy programs.

There are three energy incentive programs potentially applicable to SDA school facilities projects: SmartStart, Pay for Performance and Photovoltaic Energy.

a) SmartStart Program:

New Jersey Clean Energy Program's SmartStart program provides incentives for design and installation of eligible efficiency technologies including water heaters, performance lighting,

¹ TRC Energy Services, a division of TRC Companies, Inc., provides feasibility studies, energy audits, building commissioning, and measurement and verification. It has managed thousands of energy efficiency upgrade projects over the past several years. TRC began its partnership with ENERGY STAR working with 60 K-12 schools in upstate New York through the New York State Energy Research and Development Authority (NYSERDA) in 2003. Since then, TRC has expanded its ENERGY STAR efforts across the country and facilitated energy management at thousands of locations.

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lighting controls/sensors, chillers, boilers, heat pumps, gas cooling, energy management systems/building controls, premium motors, variable frequency drives and unitary HVACs, among other components.

While the incentive amounts vary, widely, by equipment type, size and efficiency, the maximum incentive amount is \$500,000 per utility account per calendar year. The 2009 program budget for school construction is \$6,747,000.

All energy incentive projects require pre-approval by TRC, with reserving the right to perform on-site post-installation inspections. The pre-approval requirement may be waived by TRC in cases of equipment failure for HVAC equipment, water heaters and motors. This is an important consideration for SDA, if we seek incentives on emergent projects.

Applicants must submit a properly completed application package consisting of an application and technology worksheet, where appropriate, to the TRC. The TRC then reviews the application package to determine if the project is eligible for a rebate. If eligible, the applicant will receive an approval letter with the estimated incentive amount and the date by which the equipment must be purchased and installed in order for the approval to remain in effect. Upon receipt of the approval letter, the applicant can then proceed to install the equipment listed on the approved application. Incentives may be available for equipment purchased, but not installed, up to 12 months prior to the submittal of an application.

In addition to incentives for equipment, the SmartStart program provides design incentives when working in conjunction with SmartStart administrators during the design stage pursuit to application for energy incentives. SmartStart design support incentives consist of two distinct programs: comprehensive design support and modified design support.

Entirely, SmartStart program can be defined with the following categories:

- Design Incentives

- Comprehensive Design Support -

- Provided that both lighting and HVAC systems are involved; any new construction / substantial renovation project of at least 50,000 sqft or a project of any size where significant energy use defined as a minimum of 150 tons of cooling and 75 kW of lighting is eligible for Comprehensive Design Support. Only the projects that are in the conceptual stage can apply for Comprehensive Design Support, which involves pre-design brainstorming sessions, design simulation and screening, and detailed analysis of energy-efficiency measures support and incentives. Approved incentives are contingent upon applying and installing the energy efficiency models/systems agreed upon in pre-design of the energy efficiencies. Incentive amounts are:

- 1) pre-design brainstorming sessions: \$1,000
 - 2) design simulation and screening: \$0.10/sqft for the first 50,000 sqft + \$0.03/sqft for each additional sqft
 - 3) detailed analysis of energy-efficiency measures: up to \$5,000

- Modified Design Support -

- Modified Design Support is best suited to projects that are past the conceptual or schematic design stage, but are prior to completion of bid documents. It is a streamlined process incorporating incentives and design support to encourage efficiency improvements. Applicants can receive up to \$4,500 in incentives.

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- **Equipment Incentives**
Applicants with projects that include the installation of the following eligible efficiency technologies can receive equipment incentives for water heaters, performance lighting, lighting controls/sensors, chillers, boilers, heat pumps, gas cooling, energy management systems/building controls, premium motors, variable frequency drives, unitary HVACs, among other components; in addition to some customized components.
- **Supportive Services**
 - Building Commissioning -**
Applicants with projects for K-12 schools can receive 50% of a commissioning agent fee up to, but not exceeding \$30,000; provided that the project uses the comprehensive design path.
 - Chiller Optimization -**
Projects including upgrade or replacement of chillers with a minimum of 500 tons can apply for grants up to \$10,000 on a 50/50 cost sharing basis.
- **A Multiple Measures Bonus**
The Multiple Measures Bonus Incentive is designed to encourage more comprehensive and integrated use of multiple energy efficiency measures. It is available and equals up to 10% of the total incentives for the individual energy-efficiency measures. Applicants who apply and install two or more approved energy efficiency measures from the eligible categories would receive a bonus incentive up to 10%. However, the total Multiple Measure Bonus paid to an applicant shall not exceed the equipment incentive paid to that applicant for any single measure category. A Multiple Measures Bonus is available and equals up to 10% of the total incentives for the individual energy-efficiency measures.

b) Pay for Performance Program

The NJCEP offers the Pay for Performance incentive program for energy efficiency improvements in existing non-residential buildings with an annual average peak electricity demand of 200 kilowatts (kW) or higher. Applicants that purchase natural gas only from a participating utility company are only eligible to receive incentives for natural gas measures; applicants that purchase only electric from a participating utility company are only eligible to receive incentives for electric. The program requires participants to use an approved performance partner to receive incentives.

The NJCEP's Pay for Performance program provides incentives for eligible efficiency technologies that include: lighting, chillers, furnaces, boilers, air conditioners, heat recovery, energy management systems/building controls, motors, combined heat and power (CHP) and comprehensive or whole building measures. Incentive amounts are based on dollars/kWh and dollars/therm; the incentives vary based on anticipated energy savings.

While the maximum incentive amount varies (due to each program's milestones and benchmarkings), the NJCEP lists incentives as: \$2 million per project (\$1 million if CHP is added); \$1 million per utility meter; and \$1 million per CHP unit in a project per calendar year.

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The minimum electrical demand for eligibility is 200 kW, while a minimum 15% source energy reduction target must be met for incentive funding application and approval. The program budget for 2009 is \$23.3 million.

Rather than offering specific rebate levels for specific equipment types, the Pay for Performance program calculates the performance incentive (Payment I, Payment II and Payment III below) as a variable dollars/kWh or dollars/thermal output incentive based on projected energy savings. Three separate payments exist based on the achievement of program milestones, as follows:

Payment I: Completion of an approved Energy Reduction Plan within 6 months that provides for a minimum source energy reduction of 15%. The incentive amount will equal \$0.10/square foot of the project with a minimum incentive of \$5,000 and a maximum incentive of \$50,000, capped at 50% of the building's annual energy cost. Participants must complete installation of the measures identified in the approved plan within 18 months or the incentive received must be repaid.

Payment II: Installation of measures identified in the approved Energy Reduction Plan. The incentive amount for achievement of this milestone is intended to be roughly 60% of the total approved performance incentive as calculated under the Program's incentive structure. This portion of the incentive is capped at 30% of the total project cost.

Payment III: Verification of realized energy savings as a result of the installed measures. Achieving this milestone entitles the participant to the remaining amount (~ 40%) of the approved performance incentive. This portion of the incentive is capped at 20% of the total project cost.

Program applicants may not receive incentives for improvements made prior to approval of the Energy Reduction Plan. Incentives are capped at \$1 million per site meter and \$1 million per CHP system with a potential project cap of \$3 million. This is achievable only if both gas and electric service comes from the utility companies. Projects involving combined heat and power (CHP) are limited to \$1 million per CHP unit per calendar year.

c) Photovoltaic Energy Program

The NJCEP provides incentives for photovoltaic (PV) energy in various forms, such as: reduce in installation costs and also Renewable Energy Credits. Photovoltaic modules must be UL-listed and all inverters IEEE 929 and UL 1741 certified. Ownership of Renewable Energy Credits (SREC) remains with PV system/equipment owner.

Eligible PV systems should be sized to produce no more than 100% of the historical or expected (if new construction) amount of electricity consumed at a system's site. It is important to note that system capacity limits and credit amounts (including those for system additions) are calculated on a "per site" basis. In other words, for program purposes, multiple systems on the same parcel or located on adjacent or contiguous properties under common ownership are aggregated together as a single system.

Energy Incentive Task Force Analysis

a) SmartStart

The task force team's analysis of energy incentives is comprised of both actual (both historical and current) data and a forecast (projections of incentives received should incentive applications to be approved and the application process to be completed). The incentive analysis consists of data viewed by incentive category or program such as SmartStart, type or component such as design or equipment and school project (new construction only). SDA available data secured from previously filed applications for energy incentives is inconsistent. For example: a working database (incentive tracker) has not been consistently maintained; and for many applications, the actual paperwork and supporting documentation cannot be located. Our database may reflect an application as "open" in status but no documentation may exist to support its status. The same circumstance and challenge can be said of those applications characterized as closed. Analysis based on this data should not be construed as verifiable or absolutely accurate. Because the forecast of incentives available for the 2008 Capital Plan projects are calculated by using the formula based on the samples of this data, the statement above takes greater importance, especially for some sections of equipment incentives. Therefore, there is no verifiable certainty on the values; while the forecast results with potential high dollar amounts (total \$8,121 million, all together) support the decision to pursue the NJCEP incentives.

In Exhibit 1, analysis of data by incentive type reflects that 148 applications for energy incentives have been submitted; of which 57 have received incentive funds, while 91 remain unfunded. The significant reason for unfunded (open) applications appears to be due to a lack of the SDA's execution and follow-up. Exhibit 1 also reflects the dollar values for those energy incentives that have been funded and unfunded.

Exhibit 2 reflects energy incentive applications and funding received for five new construction projects (which is a historic sample of new construction projects), for which there is available data. This data encompasses the years 2004 through 2007, in relation to the Smart Start program. Actual incentive funding received amounted to \$112,000.

Exhibit 3 reflects a calculation of estimated average incentive amounts per sqft. This calculation is based on percentages derived from SmartStart energy technology components and from past incentives received. This data is viewed from a per square foot basis. It serves as the formulaic basis for all incentive forecasting models.

Exhibit 4 shows potential for incentive funding of six new construction projects (including five projects from Exhibit 2) between the years 2004 through 2007. The analysis assumes that incentive applications with all listed components had been approved and completed. Exhibit 4 demonstrates comprehensive design incentives potential and modified design incentives potential separately.

Exhibit 5, for six new construction projects (the same projects used in Exhibit 4), reflects the actual equipment incentive funding received and the anticipated incentive amounts if all design incentives had been applied for. Exhibit 5 demonstrates comprehensive design incentives potential and modified design incentives potential separately.

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Exhibit 6 portrays the funding uncaptured because of not using design support incentives for six new construction projects (the same projects used in Exhibit 4 and 5). Exhibit 6 demonstrates comprehensive design data and modified design data separately.

Exhibit 7 reflects a sampling of two new construction projects with expired applications along with estimated rebate amount to be forfeited.

Exhibit 8 reflects four new construction projects with remaining open applications along with estimated rebate amount to be received.

Exhibit 9 forecasts the incentive funding potential of nine new construction projects within the 2008 Capital Plan, not yet in design; should incentive applications with listed components will be filed and approved. The result of the forecast amounts to \$2,064 million. This analysis did not include addition/renovation projects due to variances in scope and inability to assume the selection of installed energy equipment.

Exhibit 10 forecasts the incentive funding potential of 25 new construction projects within the 2008 Capital Plan, which are in the design stage or have already been designed; should incentive applications with listed components will be filed and approved. The result of the forecast amounts to \$6,057 million. This analysis did not include addition/renovation projects due to variances in scope and inability to assume the selection of installed energy equipment.

b) Pay for Performance

While the Pay for Performance program may hold interest and applicability to the SDA, the program's new launch (just 3 months ago) makes it difficult to secure program parameters, including the program budget. The Pay for Performance program applies to renovation only; as audits and benchmarks measure "before" and "after" energy-consumption levels of the same facility. Task Force team members continue talks with Pay for Performance representatives from both BPU and TRC, to determine SDA's applicable participation in the program. Pay for Performance representatives have advised SDA that "project owners" typically can apply for and receive the incentives for energy-consumption reductions.

The Task Force recommends continued dialogue and attention to this program's development and applicability. Unique features of the SDA construction program may need a request from SDA to BPU for consideration of certain program changes by the BPU.

c) Photovoltaic Energy

SDA entered into a pilot photovoltaic power system program via an MOU with BPU Office of Clean Energy on August 31, 2004. The MOU covered the installation of photovoltaic systems on three new schools: Neptune H.S., Newark Science Park H.S. and Phillipsburg ECC.

This pilot program included several requirements for its PV refunding of equipment and installation up to \$250,000.

The first significant requirement was for the project to meet LEED's silver level rating, a requirement for the schools participating in the Office of Clean Energy's Pilot Photovoltaic Power System program.

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Additional requirements included quarterly reports to the BPU to document the PV System installation. These reports included but were not limited to timelines, project status and financial status reporting. Within 90 days after completion of the system, additional requirements included: a final financial status report, final project status report, LEED certification documentation, proof of purchase of equipment, written statement/procedures provided by the District, how the school will incorporate the photovoltaic system into the school's educational program, a copy of the Electrical Code Inspection Certificate and, most important with respect to the District, a copy of the completed Interconnection Agreement with the electric utility.

As of this writing, PV System installation has been completed at two of the three schools in the pilot program, Phillipsburg ECC and Newark Science Park H.S. Neptune H.S. remains in progress. PV System design costs for all three schools were recovered through the BPU using USDOE funds for up to \$10,000 per school. The total design expenditure for the PV Systems for all three schools was \$29,250, which was reimbursed in full to the SDA.

Only one school, Phillipsburg ECC, has received funding for equipment and installation, in the amount of \$232,000, from the BPU. The SDA remains in discussion with the BPU to recover the balance of \$18,000 (the total cost of equipment and installation for the entire PV System was \$250,000).

It should be noted that the cost to file an application for a LEED certification is not a part of the recoverable program. The SDA incurred additional costs for LEED silver certification for the Phillipsburg ECC, including those incurred for two appeals on some LEED credits disallowed. At \$500 per credit appealed, the SDA incurred additional costs of \$1,500.

The SDA decided not to file for LEED silver certification for Newark Science Park H.S. Instead, SDA focused efforts to qualify the school as an Energy Star facility in order to recover a portion of the BPU potential rebate. Regrettably, the school will not qualify.

Exhibit 11 reflects an analysis of energy incentives for these three schools as it pertains to photovoltaic.

For 2009, the Renewable Energy Incentive Program (REIP) provides incentives for onsite renewable energy projects using solar, wind and biopower technologies. The new program is part of New Jersey's efforts to reach its Energy Master Plan goals to use 30 percent renewable energy by 2020. However, the REIP upfront incentives are not intended to cover the entire system cost, unlike the pilot program that the SDA entered into with the BPU. Instead, the REIP program is intended to reduce installation costs of a renewable energy system only. Moreover, New Jersey's Clean Energy Program is currently transitioning to its new Solar Renewable Energy Certificate (SREC) platform, which provides tradable, open-market, commodity-like instruments in lieu of rebates and the like. SRECs can only be utilized by school districts, since they will be the PV equipment/system owners.

Due to recent leasing law and regulation changes, school districts may now enter into long-term Power Purchase Agreements (PPAs) with third-party providers. PPAs secure funding for renewable energy projects, and maintain and monitor energy production. In addition, the third party sells electricity to the school at a fixed, contractual price for the term of the contract. In some cases, the host or school, in this case, might have the option to purchase the generating equipment from the PPA at the end of the contract, renew the contract with different terms, or

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request that the equipment be removed, among other contractual options. Such a contractual and incentive arrangement benefits owners and users.

In all, due to PV program incentive transition to SRECs and the opportunity for school districts to pursue PPAs, renewable energy incentives as it relates to PV appears less suited and advantageous to the SDA. The SDA costs to construct a PV system seem less likely recoverable through current incentive programs.

Task Force Recommendations:

1. The SDA should aggressively pursue any and all applicable and available energy incentives. Incentives secured from installed equipment provide the least effort and greatest return.
2. An internal unit (one person or more depending on the volume) within the SDA should be formed with sole responsibility for all rebates and incentives including; E-rate, NJCEP, Federal Government incentives as applicable and the other existing possible savings-generating opportunities.
3. Current NJCEP and processes may not dovetail with SDA's own processes and schedules due to the uniqueness of SDA as an entity. Current energy incentive processes are not designed with such an entity as SDA in mind. The SDA should perform an outreach to the BPU to petition SDA's ability to participate to the fullest.
4. Should the SDA pursue energy incentives aggressively, the SDA may overwhelm the capacity of BPU's application process and incentive program. SDA should, again, reach out to BPU's program administrators to discuss such concerns and risks regarding their resource allocations.
5. An SDA internal process should be fully developed with all components and rolled out with full functionality for NJCEP incentives. Roles and responsibilities should be defined clearly. After the process is fully developed, the SDA should immediately revise Policy CFO-07 regarding Accounting for Rebates. The tracking log should be revised to accommodate all necessary information and dates. A realized collection report should be issued on a regular basis.
6. Language within the architectural contract should firmly support and advance the NJCEP and include definitions, requirements and responsibilities with respect to the NJCEP incentives process.
7. If the CM is designated as the responsible party for filing all NJCEP incentive applications, then the relevant CM contract language should include NJCEP incentive filing responsibilities and requirements including providing all itemized materials.
8. The SDA should test the feasibility of applying for rebates related to certain emergent projects. If feasible, the Authority would need to determine if the applications can be accomplished by Task Order Architects. A separate process for emergent project application, with tracking and collection would also be required.

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9. The BPU has stated that it plans to eliminate all “rebating” within its Clean Energy program by 2012. Rebating for PV is being transitioned to Renewable Energy Certificates, already. The SDA should consider investigating its interest in participating in REC incentives.

Appendices

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Appendix I

Schools Development Authority Smart Start Utility Rebates Existing Process Flow

Executive Summary

An analysis of the SDA's applications flow to the Smart Start utility program highlights problems that result from the elapsed time between completion of design and installation of equipment in the normal school construction project. The Smart Start program has been designed to accommodate a 12 month cycle from initial application and approval to installation of the equipment.

Because SDA's average school construction cycle is well in excess of twelve months, the SDA either delays in submitting applications beyond the completion of design or is required to file multiple requests for extensions. Both steps require aggressive management of information. Responsibility for these steps beyond initial application filing has not been designated.

The existing policy (CFO- 07) is outdated and does not reflect an accurate configuration of SDA staffing. For example, neither Project Budget Managers, Project Managers nor CM's have clearly defined roles and responsibilities in nature to the program incentives. In addition, the current control log does not track important information details that would allow more successful follow-up; such as the BPU/TRC assigned application approval number. The policy does designate specific roles to Project Management Firms although the SDA no longer routinely employs such firms on new contracts.

There is no master data base referencing all capital projects. It appears the tracking log is populated only by actual applications as reported as opposed to all projects with eligible components in construction.

The NJ Smart Start Program process flow does appear to effectively match the design/construction schedule for emergent projects, many of which are less than 12 months in duration and frequently involve eligible equipment replacement. There is no indication that the SDA has applied for or tracked rebates on this project subset.

I. Introduction

The Commercial and Industrial Energy-Efficient Construction Program (NJ SmartStart Buildings) offers incentive payments to encourage improvement options for a wide variety of energy efficient equipment. The Board of Public Utilities (BPU), through their market manager TRC Energy Services, provides these incentive payments to commercial and industrial applicants as well as schools to encourage the use of energy efficient equipment. TRC Energy provides incentives/rebates directly on behalf of all NJ public utilities, thus consolidating the previous multi utility program.

The SDA is eligible to apply within the Commercial and Industrial section of the program as a government entity. Available Smart Start dollars are budgeted at \$27.8 million for all SmartStart rebate applications statewide in 2009.

II. Application and Eligibility Process

Individual SmartStart application forms are required for 17 different types of energy efficient equipment ranging from electric chillers to premium motors and lighting controls. Individual applications for NJSDA projects are to be completed by the project Architect. Language in the revised A/E contract specifically instructs the Architect to pursue all such available rebates:

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Utility Rebate “Smart Start” Program

The Design Consultant shall become familiar with any and all applicable utility rebate programs or their successors, specifically including the New Jersey Smart Start program. The DC in consultation with the NJSCC and/or its agents shall apply for all applicable incentives associated with the project. All incentives, rebates, grants, etc. shall be awarded directly to the NJSCC for appropriate distribution. Such programs(s) often offer technical assistance and funding for design in addition to incremental equipment costs. (SCC Design Manual, p. 132)

Monetary incentives are also available for design considerations in the amount of approximately \$10,000 per project. The SDA has not pursued these incentives although the design standards required by the revised Design Manual would indicate that many school projects would qualify.

In addition to the application form, the application package must include manufacturer’s technical data sheets, based on the projects specified equipment manufacturer model numbers, worksheets and, if applicable, recent copies of electric and natural gas utility bills.

NJ SmartStart Program recommends that equipment rebate applications be made at the completion of the design process.

The Schools subset of the budget for 2008 was 6.4% of all available dollars. If a similar proportion of funding is made available for NC/Schools in 2009, approximately \$1,779,000 would be available for all schools statewide. It appears that TRC, with BPU approval, rolls unspent balances in funds forward from one year to the next.

Individual application forms appear straightforward but several sections of the application require clarification by the NJSDA, particularly as the application is to be completed by the A/E firm. For example, the NJSDA must specify to the A/E both the customer and payee identification to be used. There is no standard procedure that governs the flow of applications between the architect, project manager and project budget manager. Because there is no standard procedure, there is no designated schedule for the initiation of applications. Consequently completed applications may then follow one of several routes:

- Forwarded by the architect to the Project Manager who may file it directly with TRC or may forward it the Project Budget Manager who files the application.
- Forwarded by the architect to the Project Budget Manager who then files the application directly with TRC.
- Forwarded by the Architect directly to the PMF, then to the TRC on behalf of the SDA with or without copies to the Project Manager.

(Note: NJSDA has, in place, an existing policy, CFO-07, which may create confusion as it references a role by PMFs in the application and tracking process.)

TRC then assigns the project an application number via return correspondence which acknowledges the receipt of the application. The NJSDA maintains a tracking log on open applications. The log has been maintained by Accounts Receivable but responsibility appears to be shifting to Project Controls. The current tracking log does not encompass all SDA eligible projects or include application tracking numbers as assigned by TRC.

The SDA tracking log is not based on capital plan projects and is limited to (submitted) open applications. There is no comparable log that is project based and, therefore, no tracking of projects where the A/E has failed to initiate the application process.

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III. Approval Time Frames

The approval letter includes a pre determined timeframe required to be met in completing installation and submission of final “as built” documentation. Incentives are available only for new equipment approved by TRC prior to installation. If the contractor does not meet the timeframe for completing installation, a request for extension must be filed. The NJSDA tracking log does not include information relating to installation time frames. Incentive amounts may change over time and the incentive amount must be based on the most recent approval letter.

NJSDA design bid build timeframe does not conform to the Smart Start application and approval timeframes. Applications submitted and approvals received, therefore, need to be aggressively managed through requests for extensions. These requests for extensions need to be tracked to assure that application approvals on SDA projects do not lapse.

IV. Certification of Installation

Within the pre-approval timeframe, as extended, the applicant must submit proof of installation to TRC. Proof of installation includes:

- Itemized invoice with breakdown of installation costs
- Final “as built” installation indicating any changes from the original application
- NJ tax clearance certificate (should not be an issue for tax exempt projects)

TRC reserves the right to inspect the completed installation.

V. Payment

The incentive check should be issued by TRC within 60 days of receipt of all proof of installation documentation and completion of the installation inspection if requested. Potential payments are not considered open receivables by the SDA. Payments received are not credited to the project budget but are accounted for as miscellaneous revenue.

VI. SDA Accounting for Rebates

The Schools Development Authority provides guidance for accounting for utility rebates through Policy No.CFO-7, issued by the Office of the CFO and effective November 2006.

The policy outlines responsibilities of Design Consultants, Project Management, PMF, and the Accounting Department. The policy predates the creation of Project Budget Managers, and therefore, provides no reference to their function in the utility rebate process. The procedure assigns responsibilities for tracking rebates to the PMF and provides a tracking log template. This may be a factor why the application and tracking process has not been utilized as the SDA no longer utilizes Project Management firms.

There is no indication that this policy is being followed at the present time.

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Appendix II

New Jersey SmartStart Program Application

Phase-I Option A: Comprehensive Design Support Option (for the projects at conceptual stage, not yet in design)

1. Pre-Design Brainstorming

(Design incentive of up to \$1,000)

1.1. Prior to the brainstorming session, design team provides a preliminary project design definition, including (if known):

- Facility uses and hours of operation
- Number of occupants
- Total connected facility kW
- Number of floors and total floor area
- Descriptions of typical wall, roof and fenestration sections
- Preliminary lighting and equipment power levels
- Anticipated HVAC systems and source fuels
- Projected energy-management strategies

1.2. Project design team works with program representatives to establish the base case design for the building and decide on specific efficiency measures to be simulated.

2. Design Simulation

(Design incentive of \$5,000 or more: \$0.10/sqft for the first 50,000 sqft + \$0.03/sqft for each additional sqf)

2.1. Project design team conducts detailed analyses of energy-efficiency measures:

- 2.1.1. Analyze the base case building
- 2.1.2. Analyze each measure individually with the base case building to determine annual kWh and kW savings relative to the base case
- 2.1.3. Screen each measure for cost-effectiveness, using incremental cost estimates

2.2. Program representatives will calculate installation costs and energy savings for each measure, using a building simulation model and the base case building data provided by project design team

2.3. Program representatives and the customer design team reach a consensus regarding which measures to model interactively and consider for inclusion in the building design.

2.4. An additional interactive simulation is performed if needed.

3. Detailed Analysis of Energy-Efficiency Measures

(Design incentive of up to \$5,000)

3.1. The project design team selects the measures to include in the final project design.

3.2. The project design team performs a detailed analysis of recommended measures and incorporates the agreed-upon measures into the final design of the project.

Phase-I Option B: Modified Design Support Option (for the projects beyond conceptual stage)

1. Program representatives qualify the project for modified design support, using eligibility criteria and professional judgment.

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2. Program representatives offer design support to help select the measures that will be covered under the Design Incentive Agreement that might include:
 - Suggesting potential design solutions
 - Discussing current practices and code requirements
 - Evaluating available technologies
 - Assessing the feasibility of code requirements
 - Performing cost calculations
 - Assisting in equipment selections
3. The project design team prepares a proposal specifying the incremental design time needed to incorporate the approved measures into the final design of the building. The proposal will outline the method of analysis and software design tools to be used.
4. Program representatives review the proposal and prepare a Design Incentive Agreement.
5. Project design team performs a detailed analysis of recommended measures and incorporates the agreed-upon measures into the final design of the project.

The pro-rated schedule of incentives is based on:

- Design analysis of lighting systems (up to \$2,000)
- HVAC and envelope (up to \$2,000)
- Motors/other (up to \$500)

(Design incentives cover up to 100% of incremental cost for design services over the cost of the base case building design: *The incremental measure design costs eligible for incentives are those incurred after a Design Incentive Agreement has been executed up to the release of bid specifications.*)

Phase-II: Equipment Phase

1. Prepare and submit to TRC Energy Services:
 - Application Form
 - Projects Specified Equipment
 - Manufacturers and Model Numbers
 - Worksheet
 - Manufactures' Technical Specification Sheets
 - Air Condition and Refrigeration Institute (ARI) (from HVAC tech) data sheets
 - Chillers
 - Other HVAC equipment
 - Latest Gas & Electric utility bills
 - Pre-determined time frame required to complete installation
2. TRC Energy Services pre-inspects existing facility (at TRC's option).
3. TRC issues a Letter of Approval to the NJDSA (Pre-approval is required for almost all incentives).

Note: The Application and Eligibility Process pertains to all projects except for those involving either Unitary HVAC having an incentive amount less than \$5,000, or Premium Motors having an incentive amount less than \$5,000.

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4. Purchase the equipment and complete the installation.
5. Submit an itemized proof-of-installation (e.g., material invoices from contractor) to TRC, before the one year time limit.
6. TRC inspects the installation (*at TRC's option*).
7. TRC issues the incentive check, typically within 60 days of receipt of all necessary Proof-of-Installation documentation from the NJSDA.

SSP Forms:

- Electric Chillers
- Gas Cooling
- Electric Unitary HVAC
- Ground Source Heat Pump
- Gas Heating
- Variable Frequency Drives
- Gas Water Heating
- Premium Motors
- Prescriptive Lighting
- Prescriptive Lighting Worksheet
- Lighting Controls
- Lighting Controls Worksheet
- Performance Lighting
- Performance Lighting Worksheet
- Custom Electric Equipment
- Custom Gas Equipment
- Custom Project Datasheet

NEW JERSEY CLEAN ENERGY PROGRAM

New Jersey Pay For Performance Program Application

This is a whole building approach, to determine opportunities to revamp Commercial & Industrial buildings over 200KWH average peak demand to improve energy efficiency.

The program requires building/project owners/directors to team up with approved program contractors (Partners) to develop a strategy to reduce energy consumption of a particular facility (by a minimum of 15%).

First, Partners work with applicants to develop an Energy Reduction Plan (ERP), which outlines the measures that can be taken to reduce the facility's energy consumption. Then, the Partners facilitate installation of these recommended measures, which may include lighting upgrades, HVAC replacement, etc. In the final step, the Partners measure and meter the installed equipment to verify actual energy savings of the facility.

Incentives:

- 1. Incentive #1**-Submittal of complete Energy Reduction Plan prepared by an approved Program Partner-Contingent on moving forward, incentives will be between \$5,000 and \$50,000 based on approximately \$.10 per square foot, not to exceed 50% of the facility's annual energy expense.
- 2. Incentive #2**-Installation of recommended measures - Incentives are based on the projected level of electricity and gas savings, which will be "trued-up" after one year based on actual savings.
- 3. Incentive #3**-Completion of Post-Construction Benchmarking Report-A completed report verifying energy reductions based on one year of post-implementation results is required. Incentives for electricity savings and natural gas savings will be paid based on actual savings, provided that the minimum performance threshold of 15% savings has been achieved.

Step-by-Step Process:

- 1.** Select a Program Partner from the list of approved partners.
- 2.** Submit Application Package - With the Partner's assistance, download and complete the Application and Participation Agreement and submit the forms and required documentation according to the Instructions section of the application.
- 3.** Receive Approval Notice - Program representatives review the application package and if approved, send a Notice to Proceed. A Case Manager is assigned to the project and the completed and accepted application is forwarded to the pre-selected Partner.
- 4.** Develop Benchmarks and Goals - Work with the Partner to benchmark the building, identify performance goals and create an Energy Reduction Plan to achieve no less than 15% energy savings.
- 5.** Submit the Plan - The Partner submits the draft Energy Reduction Plan, a complete Benchmarking Report and Partner-Participant Contract with a request for Incentive #1 as defined in the Participation Agreement. When approved, Incentive #1 is received.

NEW JERSEY CLEAN ENERGY PROGRAM

6. Implement the Project – The Partner helps with the bidding process and monitors construction to ensure that the appropriate steps are being taken to achieve the expected performance goals.
7. Submit Request for Second Incentive - The Partner submits a request for Incentive #2 along with the Substantial Completion Construction Report when the project is complete. When approved, Incentive #2 is received.
8. Submit Request for Final Incentive - Within approximately 12 months after the project is completed, the Partner re-benchmarks the building and submit a request for Incentive #3 along with the Post-Construction Benchmarking Report. If the building performance goal is met, Incentive #3 is received.

PFP Forms:

- Incentive Structure Worksheet
- BPU Approved Partners List
- Program Application
- Incentive Request Form One
- Incentive Request Form Two
- Incentive Request Form Three
- Installation Agreement
- Combined Heat & Power Application Package