New York State Office of the State Comptroller
Thomas P. DiNapoli

Division of State Government Accountability

NY-Sun Incentive Program

New York State Energy Research and Development Authority

Report 2015-S-91 September 2016

Executive Summary

Purpose
To determine whether the New York State Energy Research and Development Authority (Authority) achieved the objectives required by the Public Service Commission for the NY-Sun Incentive Program (NY-Sun), including: confirming geographic equity of investment; ensuring the NY-Sun projects are increasing renewable energy in New York's power system; and properly administering NY-Sun. Our audit scope covers the period January 1, 2014 through May 10, 2016.

Background
The Authority was charged with oversight of NY-Sun, which was launched in 2012 by the State's Public Service Commission. In 2014, NY-Sun received a commitment of $1 billion to stimulate the marketplace for solar energy in New York. NY-Sun aims to add more than three gigawatts (3 billion watts) of solar capacity, enough to power approximately 400,000 homes in the State, by 2023. In addition, the goal of NY-Sun is to help establish a self-sustaining and self-sufficient solar industry in the State.

The roughly $1 billion will be paid out as incentives to installers based on the size of the solar energy installation. As a means to managing incentives, the Authority has developed its own policies and procedures. In addition, the Authority works to ensure that consumers receive properly installed, reliable solar photovoltaic systems through initial design reviews and field inspections upon project completion.

Key Findings
- In general, the Authority's oversight of NY-Sun is adequate; however, we identified two areas where additional controls are necessary: monitoring of open projects and inspection of new installers' systems.
- The Authority established 210 days as the expected time required for installers to complete most projects, and an extension request is required if the project exceeds this timeframe. However, we found 1,568 projects that not only have exceeded 210 days, but have been open for more than 300 days, and do not have an extension request.
- According to Authority policies, 15 to 30 percent of projects completed by experienced installers and the initial three projects for new installers must be inspected. However, we found that the Authority has not completed the required inspections of the initial three jobs for some new installers, nor has it documented the reasons for the deviation.

Key Recommendations
- Develop and implement a more formal process to follow up on the status of projects that remain open for more than 300 days.
- Re-examine priorities to determine if the new installer inspection requirement needs to be modified due to the increase in program volume.

Other Related Audit/Report of Interest
NYS Energy Research and Development Authority: Accounts Receivable Collection and Reporting (2015-S-35)

State of New York
Office of the State Comptroller

Division of State Government Accountability

September 2, 2016

Mr. Richard L. Kauffman
Chairman
New York State Energy Research and Development Authority
17 Columbia Circle
Albany, NY 12203-6399

Dear Mr. Kauffman:

The Office of the State Comptroller is committed to helping State agencies, public authorities, and local government agencies manage government resources efficiently and effectively. By doing so, it provides accountability for tax dollars spent to support government operations. The Comptroller oversees the fiscal affairs of State agencies, public authorities, and local government agencies, as well as their compliance with relevant statutes and their observance of good business practices. This fiscal oversight is accomplished, in part, through our audits, which identify opportunities for improving operations. Audits can also identify strategies for reducing costs and strengthening controls that are intended to safeguard assets.

Following is a report of our audit entitled *NY-Sun Incentive Program*. The audit was performed pursuant to the State Comptroller's authority as set forth in Article X, Section 5 of the State Constitution and Article II, Section 2803 of the Public Authorities Law.

This audit's results and recommendations are resources for you to use in effectively managing your operations and in meeting the expectations of taxpayers. If you have any questions about this report, please feel free to contact us.

Respectfully submitted,

Office of the State Comptroller
Division of State Government Accountability

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Background

The New York State Energy Research and Development Authority (Authority) is charged with oversight of the NY-Sun Incentive Program (NY-Sun), which is part of the Renewable Portfolio Standard Program. NY-Sun was launched in 2012 by the Public Service Commission (PSC) to help establish a self-sustaining and self-sufficient solar industry in the State. NY-Sun aims to add more than three gigawatts (3 billion watts) of solar capacity, enough to power approximately 400,000 homes in the State, by 2023. As of January 2016, the Authority reports that NY-Sun has added over half a gigawatt of renewable solar energy to the grid.

In 2014, NY-Sun received a commitment of $1 billion in funding to stimulate the marketplace for solar energy in New York. The source of the funding is fees charged on the monthly bills of retail electricity consumers. The funds will be paid out as incentives to solar energy system installers based on the size of the solar energy installation. The PSC charged the Authority with responsibility for administering the $1 billion in incentives in a way that promotes transparency and long-term success. PSC also required that at least $300 million of the incentives be allocated to the Consolidated Edison territory (New York City and Westchester County).

The Authority developed the Megawatt Block Program (MW Program) to administer the incentives under NY-Sun. Modeled on a similar program in California, the MW Program uses a declining incentive strategy, whereby the amounts used to subsidize solar energy installations gradually decrease between 2014 and 2023 in an attempt to establish a self-sustaining and self-sufficient solar industry. The MW Program is divided into three geographic regions – Long Island, Consolidated Edison territory, and Upstate – with separate allocations to three different sectors of customers and/or installation size in each region. The sectors are defined as follows: residential systems up to 25 kW, non-residential systems up to 200 kW, and non-residential systems larger than 200 kW. The MW Program allocates megawatt targets to specific regions of the State and customer/installation sectors within each region. Within each sector, megawatt targets are then broken down into blocks of projects. Each block has an incentive assigned to it, and the incentive amount decreases incrementally by block as each area approaches its megawatt target.

The Authority has developed several policies and procedures for managing the solar energy projects. These include requirements related to documentation, timeliness, and quality assurance. According to the NY-Sun program manual, installers must submit project plans to the Authority for approval prior to being awarded an incentive.

The Authority offers two different options for installers to receive incentive payments. The first is a two-payment option where the installer can be paid a partial payment of 75 percent of the approved incentive amount. This partial payment is paid after all approved system components have been delivered to a customer's site and all permits and approvals have been obtained. The other 25 percent is paid once the project is complete. The second is a single-payment option where 100 percent of the approved incentive is paid once the project is complete. For an installer to be paid the final incentive amount, they must submit an incentive request form, an interconnect letter from the utility company, and a copy of the final inspection by the locality having jurisdiction, unless the inspection is done by the Authority.

The Authority has established 210 days as the expected time required for installers to complete most projects. If installers require more time, they must submit an extension request to the Authority. At the same time, the extension request keeps the Authority informed of the project status.

By conducting initial design reviews and field inspections upon project completion, the Authority ensures that consumers receive properly installed, reliable solar photovoltaic systems that produce the expected amount of energy. The field inspection schedule varies depending on installer experience. The Authority contracts with an independent third party to perform field inspections. According to its established policies and procedures, for residential and non-residential small projects, the Authority inspects 15 to 30 percent of projects completed by experienced installers and the initial three inspections for new installers.

Audit Findings and Recommendations

During our audit scope period, the Authority stated it has focused on the administration of NY-Sun to better serve both consumers and installers and to develop the solar energy market in the State. We found that the Authority provides adequate oversight of NY-Sun; however, we determined additional controls are necessary to ensure that projects are adequately monitored for timely completion and inspected for quality assurance, and that deviations from policy are properly documented.

We found 1,884 projects have been open more than 300 days. Of these, 1,568 (83 percent) did not have an extension request from the installer on file. Additionally, based on our review of a random sample of projects, more than half of project files lacked documentation of any communication between the Authority and the installer. Consequently, there is little assurance that the Authority followed up with installers for the majority of the 1,568 projects to determine the expected completion of the project.

Quality assurance is an integral component of the Authority's oversight of NY-Sun and a critical component of the Authority's plan for success. While the Authority met the overall goal of inspecting at least 15 percent of residential and small non-residential projects done by experienced installers, the Authority did not complete the required inspections of some new installers' initial three systems, nor did it document the reasons for the deviation.

Oversight of NY-Sun Projects

We reviewed controls over the Authority's project management and quality assurance functions and determined that, in general, the Authority is managing NY-Sun effectively. However, we identified two areas where additional controls are necessary.

Project Management

We selected random samples of 50 projects (25 open projects and 25 completed projects). Our review of the 25 completed projects showed that, in all cases, information submitted by the contractor on the application (e.g., equipment to be installed, original incentive amount) matched the information submitted by the contractor on the request for payment of service, indicating that the installer provided – and was paid for – the service that the Authority had initially approved. We also verified that no final payments were made for projects that did not have the appropriate end-of-project documentation.

The Authority's NY-Sun program manual requires that projects be completed within 210 days of the Authority's approval of the incentive, and an extension request is required if projects exceed this timeframe. Since the incentives are given in the order that the applications are received and approved, there is a risk that valid projects and contractors could receive less of an incentive amount if projects go unmonitored and would potentially be cancelled. We reviewed a random sample of 25 projects that had been open more than 210 days (10 open more than 210 days and 15 open more than 300 days), and found that for 16 there was no extension request or documentation of Authority communication with the installer. In these cases, we determined the Authority did not have knowledge of the projects' current status. In response to our finding, Authority officials stated that, in practice, the 210-day requirement is too stringent, and generally they only review the status of projects that exceed 300 days. However, we found that 9 (56 percent) of the 16 overdue projects that lacked evidence of Authority follow-up exceeded the 300-day timeframe.

To determine the extent of this problem, we performed an analysis of 7,030 projects that had an open status as of January 24, 2016, and determined that 1,884 projects exceeded the 300-day timeframe. Of these, 1,568 (83 percent) did not have an extension request from the installer. Based on the results of our initial sample, it is likely that the majority of these projects also lacked Authority communication with the installer, and that the Authority was thus not aware of the current status of these projects.

Authority officials stated that the substantial increase in project volume has necessitated the shift of more staff resources to processing new applications, resulting in fewer staff available to monitor existing projects. Authority officials also stated – and we verified – that projects that have already received partial payment (75 percent) are regularly monitored to ensure installers refund the incentive payments where appropriate. However, the Authority should regularly monitor all projects, not only those for which a partial payment has been made. We recommend the Authority implement formal processes to follow up on overdue projects to ensure installers complete them as anticipated.

Quality Assurance

To assess whether the Authority has performed the quality assurance inspections as required, we tested the number of inspections performed against the number of projects completed in calendar year 2014. We determined that the Authority inspected 18 percent of projects, exceeding the minimum inspection requirement overall. However, we found the Authority did not always meet the inspection standard set for projects done by new installers. For example, during calendar year 2014, for 11 (50 percent) of 22 new installers, the Authority did not inspect their initial three projects as required, nor did the Authority maintain any documentation explaining the deviation from its policy. Failure to inspect new installers' projects could result in substandard work, delays in operation, waste of program resources, and ultimately additional costs to the consumer.

When presented with our preliminary findings, Authority officials cited several reasons for the deficiency, including difficulty obtaining needed approvals from homeowners to schedule post-installation inspections and a significant increase in the activity of NY-Sun. While these claims are reasonable, we recommend the Authority re-examine its priorities to determine if the new installer inspection requirement needs to be modified due to the increase in program volume. In addition, the Authority should document reasons for any deviation from the established requirement.

Gigawatt and Public Service Commission Requirements

The Authority developed the MW Program to effectively administer the $1 billion in incentive payments that are scheduled to be made from 2014 through 2023. The MW Program uses a declining incentive strategy that gradually decreases the amounts of funds used to subsidize solar energy installations between 2014 and 2023, a policy intended to establish a self-sustaining and self-sufficient solar industry. We examined the MW Program's total incentives and found that, when all blocks are accounted for, approximately 3.7 gigawatts of new solar energy is expected to be in place. In our opinion, the MW Program appears to be a logical approach to administering the incentives to increase the use of solar energy.

To help address geographic equity, the Commission requires the Authority to allocate at least $300 million of the incentives to the Consolidated Edison territory over the 10 years of the NY-Sun program. We examined the Consolidated Edison region component of the MW Program and found that the Authority has allocated approximately $338 million to that region. In addition, as of January 2016, the Authority has approved approximately $46 million in incentive payments in the Consolidated Edison region.

Recommendations

1. Develop and implement a more formal process to follow up on the status of projects that remain open for more than 300 days.

2. Re-examine priorities to determine if the new installer inspection requirement needs to be modified due to the increase in program volume. In situations where the Authority is unable to obtain approvals from homeowners to schedule post-installation inspections, document the reasons for the deviation.

Audit Scope, Objective, and Methodology

The objective of our audit was to determine whether the Authority achieved the objectives required by the Public Service Commission for NY-Sun, including: confirming geographic equity of investment; ensuring the NY-Sun projects are increasing renewable energy in New York's power system; and administering NY-Sun. Our audit covered the period January 1, 2014 through May 10, 2016.

To accomplish our objective, we reviewed relevant laws, regulations, and the Authority's policies related to NY-Sun. We also became familiar with and assessed the Authority's internal controls as they relate to NY-Sun. We reviewed the Authority's records related to project and incentive tracking, incentive payment data, and installer complaints, and held multiple meetings with Authority officials to gain an understanding of NY-Sun and its processes as well as an overall understanding of the solar industry in the State. Finally, we reviewed documentation of the quality assurance field inspections performed on completed solar installations during our scope period. We communicated our findings to Authority management, and considered information they provided through May 4, 2016.

We conducted our performance audit in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objective. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objective.

In addition to being the State Auditor, the Comptroller performs certain other constitutionally and statutorily mandated duties as the chief fiscal officer of New York State. These include operating the State's accounting system; preparing the State's financial statements; and approving State contracts, refunds, and other payments. In addition, the Comptroller appoints members to certain boards, commissions, and public authorities, some of whom have minority voting rights. These duties may be considered management functions for purposes of evaluating organizational independence under generally accepted government auditing standards. In our opinion, these functions do not affect our ability to conduct independent audits of program performance.

Authority

The audit was performed pursuant to the State Comptroller's authority under Article X, Section 5 of the State Constitution and Section 2803 of the Public Authorities Law.

Reporting Requirements

A draft copy of this report was provided to Authority officials for their review and formal comment. We attached the Authority's comments to the end of this report. In their response, Authority officials generally concurred with our observations and have taken and will be taking actions to implement our recommendations.

Within 90 days after final release of this report, as required by Section 170 of the Executive Law, the Chairman of the New York State Energy Research and Development Authority shall report to the Governor, the State Comptroller, and the leaders of the Legislature and fiscal committees, advising what steps were taken to implement the recommendations contained herein, and where recommendations were not implemented, the reasons why.

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Vision

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To improve government operations by conducting independent audits, reviews and evaluations of New York State and New York City taxpayer financed programs.

Authority Comments

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July 19, 2016

Mr. John Buyce
Audit Director
Office of the State Comptroller
110 State Street – 11th Floor
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RE: Response to Draft Audit Report (2015-S-91), NY-Sun Incentive Program

Dear Mr. Buyce:

We are in receipt of your office's draft audit report on the NY-Sun Incentive Program. We are pleased that your office found that the Authority was managing the NY-Sun Program effectively. Below our responses to each of the recommendations included in the draft report.

Recommendation #1: Develop and implement a process to follow up on the status of projects that remain open for more than 300 days

NYSERDA's Program Manual developed for the NY-Sun Program in 2010 established a requirement that projects be completed within 210 days of the Authority's approval of the incentive. Since then, we have found that the 210-day requirement was too stringent. As a practical matter, we generally review the status of projects that remain open more than 300 days after the date the incentive was approved. Typically, projects exceeding this time frame are open for valid reasons, including but not limited to: awaiting sign-off by the utility for interconnection, awaiting required local government approvals/inspections, or have had a project change order processed since the Authority's original approval. Staff periodically run reports to identify older projects and send out notifications to the installers. These notifications require a response by the installer to avoid cancellation of the program incentive. Staff report that the vast majority of the time this results in a response from the installer that the project is still active, with a valid reason for delay in the project's completion.

In keeping with the aforementioned, the Authority plans to modify the requirement from 210 days to 300 days. In addition, NYSERDA is implementing a technology solution that will systematically report on all contracts that remain open for more than 300 days from when the incentive was approved. If a contractor needs an extension, this will be noted in a central database and a new due date will be established for the project. All contracts approaching 300 days open since the incentive approval will be addressed within a timeframe that will be specified in the Program Manual. We will modify the Program Manual to reflect these changes.

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In addition to the program management change noted above, we are working with a range of stakeholders, such as utilities, installers, and municipalities to systematically eliminate certain of the barriers that currently cause delays in project installation.

Recommendation #2: Re-examine priorities to determine if the new installer inspection requirement needs to be modified due to the increase in program volume. If situations where the Authority is unable to obtain approvals from homeowners to schedule post-installation inspections, document the reasons for the deviation.

Staff were aware prior to this audit that there are times when the first three projects completed for a new installer are unable to be inspected in accordance with the NY-Sun Operating Plan. The inability to complete inspections of an installer's first three projects typically results from the developer's difficulties with obtaining third-party approvals, such as from customers for post-installation, on-site inspections, the scheduling of inspections, and/or from substantial increases in program volume.

Staff are already in the process of modifying the current Operating Plan to outline changes and implement new practices that will make it possible to receive inspection information needed to keep pace with the increased program activity. The new process will use photo documentation during construction and installation which can be submitted and reviewed in a timely manner. This change will augment and expedite the quality assurance and inspection process.

We look forward to continuing to improve our policies and procedures, and thank you for the opportunity to comment on the draft report.

Sincerely,

John B. Rhodes
President and CEO