



OFFICE OF THE CITY AUDITOR
COLORADO SPRINGS, COLORADO

13-02
Colorado Springs
Utilities
Community Solar
Garden

February 2013



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13-02 Colorado Springs Utilities Community Solar Garden

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Purpose

The purpose of the audit was to review the Community Solar Garden Pilot Program for compliance with the tariff, interconnection agreements and incentive program application form, which provide guidance for the administration of the program.

Highlights

We conclude the program was successful in allowing customers who did not own their home or who did not wish to make a significant investment in rooftop panels to participate in the solar energy incentive program. The program also achieved Colorado Springs Utilities' objectives of increasing its investment in renewable energy and obtaining the related Renewable Energy Credits (RECs). We identified some transactions that did not appear to comply with program requirements, which are detailed in the attached report.

Colorado Springs Utilities designed the Solar Garden program as a pilot so that improvements could be incorporated as the program matured. In 2012, program administrative requirements will increase as two projects are in progress with different developers competing for budgeted funds. We believe that implementing our recommendations will help to ensure that program funds are properly allocated to multiple developers and program administrative costs are minimized.

Our audit included a review of activities surrounding the first solar garden under a pilot program that includes four, 500 kilowatt gardens. Community Solar Gardens allow Colorado Springs Utilities customers to invest in solar energy and receive a credit to their electric bill based on energy the garden produces.

(Continued on page 2)

Management Response

Management was generally in agreement with our recommendations. Responses can be found in the attached report.

Recommendations

1. Proof of customer lease payments should be required before incentive disbursements are issued.
2. Improve program documents to emphasize cash payments are required to qualify for and calculate incentive payments.
3. In relation to panel ownership and panel transfers, consider changes in the tariff, program policies, and processes to ensure program compliance and reduce administrative costs.
4. The incentive payment cap was based on estimates and we recommend management reevaluate the cap determination basis.
5. As the pilot program develops, consider all program costs as the current pilot does not recover all related costs.
6. Include a right to audit clause in agreements.

(Continued on page 2)

13-02 Colorado Springs Utilities Community Solar Garden

February 2013

(Highlights continued from page 1)

A third party developer constructed the first solar array and qualifying Colorado Springs Utilities customers leased shares in the garden from the developer. The customers evidenced ownership of the garden to Colorado Springs Utilities and were entitled to a one time incentive payment or rebate from Colorado Springs Utilities in addition to the monthly energy credit for their participation. In all cases the customers assigned their incentive rebate to the developer. Therefore, the developer provided evidence for and received incentive payments directly from Colorado Springs Utilities. In addition the developer was responsible for submitting the monthly usage to Colorado Springs Utilities for credit to customer accounts and for long-term maintenance of the solar garden.

Understanding this was the first in a pilot of four gardens, our recommendations surround improvements and considerations for all future gardens.

(Recommendations continued from page 1)

7. Consider a process to ensure maintenance of the Community Solar Garden as current agreements do not ensure the developer's ability to perform.



Office Of The City Auditor Public Report

Date: February 6, 2013

To: President of Council Hente, President Pro-Tem Martin, and Members of City Council

Re: 13-02 Community Solar Garden Audit

The purpose of the audit was to review the Community Solar Garden Pilot Program for compliance with the tariff, incentive program application form and interconnection agreements, which provide guidance for the administration of the Community Solar Garden program. The audit was an objective review of the program, not the administrators or the developer of the Community Solar Garden.

Our audit scope included the first solar garden program. This solar garden became operational on December 22, 2011. We reviewed to determine whether processes ensure compliance with the tariff, program policies, and good business practices. We examined compliance with contractual requirements contained in the Interconnection Agreement and Incentive Program documents. We examined the processes surrounding payment of the 2011 incentive. We audited bill credits applied to customer accounts on a sample basis for the first three months, covering credits earned from December 22, 2011, through March 31, 2012.

We noted the program was successful in allowing customers who did not own their home or who did not wish to make a significant investment in rooftop panels to participate in the solar energy incentive program. The program also achieved Colorado Springs Utilities' objectives of increasing its investment in renewable energy and obtaining the related Renewable Energy Credits (RECs). However, we identified some transactions that did not appear to comply with program requirements, which are detailed in the observations and recommendations section of the attached report, along with related recommendations. The scope of our review was limited to compliance with program requirements.

Colorado Springs Utilities designed the Solar Garden program as a pilot so that improvements could be incorporated as the program matures. In 2012, program administrative requirements increased as two projects were in progress with different developers competing for budgeted funds. We believe that implementing our recommendations will help to ensure that program funds are properly allocated to multiple developers and program administrative costs are minimized.

As always, feel free to contact me if you have any questions.

Sincerely,

A handwritten signature in black ink, appearing to read "Denny Nester".

Denny Nester, MBA, CPA, CIA, CGFM, CFE, CGAP
City Auditor



Office Of The City Auditor **Community Solar Garden Audit**

cc: Bruce McCormick, Chief Energy Services Officer
John Romero, General Manager, Energy Acquisition Engineering and Planning
Mark James, Manager, Demand Side Management and Renewable Energy Solutions
Carl Cruz, Chief Customer and Corporate Services Officer
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Karen Sparkman, Manager, Customer Billing
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Office Of The City Auditor Community Solar Garden Audit

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REPORT DETAILS

PURPOSE

The purpose of the audit was to review the Community Solar Garden Pilot Program for compliance with the tariff, incentive program application form and interconnection agreements, which provide guidance for the administration of the Community Solar Garden program. The audit was an objective review of the program, not the administrators or the developer of the Community Solar Garden.

SCOPE

Our audit scope included the first solar garden program. This solar garden became operational on December 22, 2011. We reviewed to determine whether processes ensure compliance with the tariff, program policies, and good business practices. We examined compliance with contractual requirements contained in the Interconnection Agreement and Incentive Program documents. We examined the processes surrounding payment of 2011 incentive. We audited bill credits applied to customer accounts on a sample basis for the first three months, covering credits earned from December 22, 2011, through March 31, 2012.

BACKGROUND

On September 27, 2011, City Council approved a Community Solar Garden Bill Credit (Pilot Program) tariff. Under this tariff, a third party developer would construct a solar array and Colorado Springs Utilities residential and educational customers could purchase or lease panels. The intention of the program was to allow customers who did not own their home or who did not wish to make a significant investment in rooftop panels to participate in the solar energy incentive program. Under the tariff, customers received a monthly bill credit, currently nine cents per kilowatt hour attributable to the customer's solar garden interest generated during the previous calendar month. The tariff defined program requirements, some of which were applicable to the garden developers and some to Colorado Springs Utilities customers. For example, each solar garden under the pilot program was limited to 500 kilowatts, and each customer's panel purchase or lease was limited to the amount that would offset 120% of the customer's average usage. The program provided that if a customer ceased to be a Colorado Springs Utilities customer, panel ownership in the solar garden could be transferred to another eligible customer.

A second component of the solar garden program, separate from the bill credit established by tariff, was a one-time incentive payment. In 2011, the incentive was \$2.00 per watt, up to 30% of the cost of the customer's solar garden interest. Customers were allowed to assign their incentive payments to a third party, and in all cases in the first solar garden, customers assigned their incentives to the solar garden developer.



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Under the program, the developer was responsible for much of the administration of the program, such as obtaining subscribers and submitting the monthly usage to Colorado Springs Utilities for credit to customer accounts.

CONCLUSION

We noted the program was successful in allowing customers who did not own their home or who did not wish to make a significant investment in rooftop panels to participate in the solar energy incentive program. The program also achieved Colorado Springs Utilities' objectives of increasing its investment in renewable energy and obtaining the related Renewable Energy Credits (RECs). However, we identified some transactions that did not appear to comply with program requirements, which are detailed in the observations and recommendations section of the attached report, along with related recommendations. The scope of our review was limited to compliance with program requirements.

Colorado Springs Utilities designed the Solar Garden program as a pilot so that improvements could be incorporated as the program matures. In 2012, program administrative requirements increased as two projects were in progress with different developers competing for budgeted funds. We believe that implementing our recommendations will help to ensure that program funds are properly allocated to multiple developers and program administrative costs are minimized.



OBSERVATIONS, RECOMMENDATIONS AND RESPONSES

OBSERVATION 1- INCENTIVES WERE PAID PRIOR TO CUSTOMER LEASE PAYMENTS

Community Solar Garden customers worked directly with the developer, who submitted most of the documents to Colorado Springs Utilities on behalf of the customer. The developer then received the customer's assigned incentive from Colorado Springs Utilities.

The Community Solar Garden Facility Incentive Program Instructions that accompanied the customer's Incentive Program Application Form stated that "a Customer must have completed their payment obligation for their Community Solar Garden Interest to be eligible for any incentive."

For the 2011 Community Solar Garden Program, the Colorado Springs Utilities incentive payment was made before customers completed their lease payments to the developer. In most cases, the developer collected a deposit at the time the customer signed the lease agreement. When the solar garden began generating power in December 2011, Colorado Springs Utilities issued payment to the developer for all assigned incentive amounts and the developer began invoicing customers for the remaining balance due.

Neither the developer nor the customers were required under the program to provide documentation of payment made. We were unable to test the developer's records to determine how much remained unpaid as of the incentive payment by Colorado Springs Utilities; however, we were made aware of several instances where customer payments were not received until 2012.

Only one Solar Garden Project was in process during 2011, which meant that incentive funding was available from Colorado Springs Utilities for all participating customers. However, we understand that for 2012, two separate developers had Solar Garden Projects in process and funding, by pilot program design, would not allow incentive payments to be made to all customers of both projects.

It is our understanding that the program agreements ensure Colorado Springs Utilities receives the Renewable Energy Credits (RECs) upon payment of the assigned incentive to the developer. As a result, any potential noncompliance with program requirements as noted above did not impact Colorado Springs Utilities' ownership of the RECs.

We understand that Colorado Springs Utilities was considering possible changes to the Solar Garden program structure supporting the acquisition of RECs.

AUDITOR'S RECOMMENDATION

Require proof of customer lease or purchase payments prior to payment of assigned incentives to the developer to ensure incentive is paid on a first come, first served basis to eligible customers.

If changes are made to program structure, ensure procedures are in place to verify program compliance.



COLORADO SPRINGS UTILITIES RESPONSE

Colorado Springs Utilities agrees with this recommendation. However, it must be noted that good faith efforts were made by Colorado Springs Utilities to obtain evidence that the customer's obligations were met, prior to the incentive payment to the Developer.

Pursuant to the Community Solar Garden Bill Credit (Pilot Program) tariff, Colorado Springs Utilities required the customer to provide documentation which showed the customer had an ownership interest in the electric generating capacity of the community solar garden (CSG) facility. Specifically, the Developer and customer executed a Customer Agreement which was provided to Colorado Springs Utilities by the Developer and showed the customer's total out-of-pocket cost for the CSG subscription. In addition, Colorado Springs Utilities required the customer to execute an Incentive Application document which also contained the customer's total out-of-pocket cost for the CSG subscription. Colorado Springs Utilities relied on these two required documents from the customer and Developer to substantiate the total cost for the CSG subscription. Payment evidence such as cash receipts or cancelled checks was not required.

Colorado Springs Utilities was unaware that the customer and Developer did not complete the transaction before the incentive payment was made to the Developer. The Customer Agreement and the Incentive Application provided by the customer and Developer to Colorado Springs Utilities indicated that the transaction was completed at the time the incentive payment was requested by the customer and Developer.

Colorado Springs Utilities agrees with the recommendation to require further proof such as a cash receipt or cancelled check of the customer's lease payment prior to payment of assigned incentives to the developer. The projected implementation date for this recommendation is January 31, 2013.



OBSERVATION 2- INCENTIVES WERE PAID BASED ON NON-CASH TRANSACTIONS

The Community Solar Garden Facility Incentive Program Instructions that accompanied the customer's Incentive Program Application Form stated that "a Customer must have completed their payment obligation for their Community Solar Garden Interest to be eligible for any incentive."

We noted that incentive was paid related to non-cash transactions. In total, these transactions involved 610 panels on which \$242,170 was paid as an incentive from Colorado Springs Utilities. A portion of these panels were used to compensate employees and vendors as well as to make donations. As a value would need to be assigned to in-kind or non-cash payments, payment of incentive on these transactions adds to Colorado Springs Utilities' costs and complexity to administer the Community Solar Garden Program.

Non-cash payments were not expressly prohibited in the application we reviewed. However, prior to the issuance of this report, Colorado Springs Utilities indicated in the 2012 Community Solar Garden Facility Incentive Program Application Form that 'US dollars' were required for payment.

AUDITOR'S RECOMMENDATION

Strengthen the incentive program language to emphasize that only actual cash payments made are subject to incentive.

Modify program implementation and documentation requirements to ensure incentive is based on amounts actually paid in by customers in U.S. currency.

COLORADO SPRINGS UTILITIES RESPONSE

Colorado Springs Utilities agrees with this recommendation. The Incentive Program did not explicitly exclude incentive payments on leases resulting from gifts or in-kind payments. The final Customer Agreement and Incentive Application documents submitted by the customers and Developer indicated that the customer actually incurred an out-of-pocket expense for the leased panels and that the Developer actually received full payment pursuant to the Customer Agreement.

Colorado Springs Utilities has already implemented this recommendation in rebate/incentive applications.



OBSERVATION 3- SEVERAL PANEL OWNERSHIP TRANSFERS OCCURRED

Per the Community Solar Garden Bill Credit (Pilot Program) rate tariff, customers were allowed to transfer their lease ownership of solar garden "if the Customer ceases to be a Customer at the single Premises to which the Customer Solar Garden Interest has applied." In this case, the customer was allowed to transfer the interest to another location if the customer was moving within the Colorado Springs Utilities service area, or otherwise to another qualifying customer.

When the customer transferred their ownership to another qualified customer, the developer notified Colorado Springs Utilities. In order to process monthly bill credits accurately and timely, Colorado Springs Utilities needs authorization from the transferring customer to discontinue the customer's bill credit and verification from the new customer that the program requirements are met.

Several transfer requests were submitted from December 2011 through April 2012 including transfer requests in the weeks immediately following startup of the solar garden. We were told of one case where panels were not paid for by the original customer due to the death of the customer and those panels were transferred to other customers after the incentive was paid. At the time of our review and in the cases we observed, some of the transferring customers remained a customer at the same premise, which was not consistent with the intent or language of the transfer provision in the tariff. These transfers required significant administrative efforts by Colorado Springs Utilities employees to ensure bill credits were assigned to the correct customer account.

AUDITOR'S RECOMMENDATION

We recommend Colorado Springs Utilities better define the allowable frequency and circumstances under which panel ownership may be transferred. Tariff language and program documents should clearly communicate this policy.

Tariff language and policy should consider the ability to transfer panels as the customer's needs change as well as administrative efforts required to process transfers.

Since transfers involve discontinuing a Colorado Springs Utilities customer's bill credit in favor of providing it to another Colorado Springs Utilities customer, Colorado Springs Utilities should require written authorization from the transferring customer and verification from the transfer-receiving customer that they meet the program qualifications.

COLORADO SPRINGS UTILITIES RESPONSE

Colorado Springs Utilities agrees with this recommendation and will work with legal counsel to revise the tariff language to define the circumstances and frequency of panel transfers. Appropriate language will be added to program documents, as needed. Additionally, a written authorization form will be developed to substantiate that the panel transfer complies with the tariff and program policies. The projected implementation date is May 31, 2013.



OBSERVATION 4- THE BASIS FOR INCENTIVE PAYMENT CAP INCLUDED ESTIMATES

The Community Solar Garden program paid an up-front incentive of \$2.00 per watt or 30% of the cost of the Community Solar Garden Interest, whichever was less. In 2011, \$2.00 per watt was less than 30% of the total cost to the customer, based on the calculation of 30% of the Total Cost to the Customer specified on the Lease Agreement.

We noted the Lease Agreement specified that the Total Cost to the Customer was made up of three components. The components and source of the Total Cost to the Customer were as follows:

Customer out-of-pocket cost (Prepaid lease cost to be paid by the customer)
+ Colorado Springs Utilities incentive (Calculated by Colorado Springs Utilities at \$2.00/watt)
+ Federal incentive (Estimated by the developer)
<hr/>
Total Cost to the Customer

The customer out-of-pocket cost and Colorado Springs Utilities incentive components of Total Cost to the Customer were known and could be verified. However, the Federal incentive was 30% of the developer's cost to build the solar garden. This amount could not be known with certainty until all costs had been incurred and an application under Section 1603 of the American Recovery and Reinvestment Act was submitted to and approved by the U.S. Treasury Department, which occurred in 2012. Thus, an estimate was used in 2011 as the Federal incentive when calculating the "Total Cost to the Customer".

The Pilot Program did not request documentation related to the Federal incentive. The Pilot Program did not require the Total Cost to the Customer be recalculated or adjusted after the Federal incentive amount was finalized.

We concluded that the use of the estimated Federal incentive limited the usefulness of the incentive cap. We noted that the 2012 Colorado Springs Utilities incentive uses a lower rate of \$1.80 per watt, and that the Federal incentive program expired in 2012.

AUDITOR'S RECOMMENDATION

Colorado Springs utilities should reevaluate the objective of the incentive payment cap and the use of estimates in computing the incentive cap.

COLORADO SPRINGS UTILITIES RESPONSE

Colorado Springs Utilities agrees with this recommendation and was unaware that the Federal Incentive used by the Developer was an estimate. It was believed that the Federal Incentive was an actual cost to the customer based on the Customer Agreement and Incentive Application documents submitted to Colorado Springs Utilities. The final documentation provided by the customer and Developer was used to calculate the final incentive payment.



Office of the City Auditor Community Solar Garden Audit

Colorado Springs Utilities will revise its incentive program documents to eliminate the “30% of the total cost to the customer” incentive payment option. The incentive payment will be based on a specific dollar per watt which is associated with the panels leased/purchased at the community solar garden. The projected implementation date is January 31, 2013.



OBSERVATION 5- THE SOLAR GARDEN PILOT PROGRAM DID NOT RECOVER ALL COSTS

Under the program as designed, costs associated with the program were not being recovered under the Pilot Program rate established in the Tariff. Per the Tariff, "This is a Pilot Program and its rate does not include costs related to distribution of electric power to the Premises, integrating the Community Solar Garden Facility into the Utilities Electric System, administering this Pilot Program, or providing standby or firming capacity to the Customer and the Customer's Premises."

The Pilot Program was limited to two megawatts in electric generating capacity, and interconnection agreements have been submitted for four gardens at 500 kilowatts each. One of these gardens was constructed and generating electricity.

AUDITOR'S RECOMMENDATION

We recommend that all costs, particularly the cost to administer the Solar Garden Program, be considered in the development of similar programs.

COLORADO SPRINGS UTILITIES RESPONSE

Colorado Springs Utilities agrees with this recommendation and will consider inclusion of all costs mentioned above when future community solar garden capacity is added beyond the two megawatts.



OBSERVATION 6- PROGRAM DOCUMENTS DID NOT INCLUDE A RIGHT TO AUDIT CLAUSE

In 2011, an incentive of \$995,676 was paid under the Community Solar Garden Pilot Program relative to one 500 kilowatt garden. During 2012, there were two 500 kilowatt solar gardens under development and \$1,038,308 of incentive funding was budgeted. As the two garden developers were competing for limited Colorado Springs Utilities incentive funds, it was important that incentive claims be verified for compliance with program requirements.

There was no right to audit clause in either the Interconnection Agreement with the developer or the customer's Incentive Program Application Form terms and conditions. A right to audit clause provides Colorado Springs Utilities with the contractual right to request additional or subsequent documentation to support the incentive payment request.

AUDITOR'S RECOMMENDATION

We recommend that Colorado Springs Utilities add a right to audit clause to the Interconnection Agreement and Incentive Application Form terms and conditions.

COLORADO SPRINGS UTILITIES RESPONSE

Colorado Springs Utilities agrees with this recommendation and will work with the Office of the City Auditor to obtain the right to audit clause language for inclusion in the Interconnection Agreement and the Incentive Application Form terms and conditions. The projected implementation date is January 31, 2013.



OBSERVATION 7- THE DEVELOPER WAS NOT REQUIRED TO PROVIDE EVIDENCE OF FUNDING FOR FUTURE MAINTENANCE OF THE SOLAR GARDEN

There was no provision to evaluate or ensure a Solar Garden developer's ability to perform its obligations related to installation maintenance. Should a garden fail to remain interconnected and operational for a minimum of five years, customers were obligated to repay the incentive amount. If panels were not maintained and did not produce electricity, this could potentially affect the related Renewable Energy Credits (RECs) transferred to Colorado Springs Utilities.

AUDITOR'S RECOMMENDATION

We recommend that Colorado Springs Utilities consider taking steps to ensure developers have the capacity to fulfill their obligations, or that developers have provided financial assurance such as a performance bond, surety bond, or escrowed deposit.

COLORADO SPRINGS UTILITIES RESPONSE

Colorado Springs Utilities agrees with this recommendation. Various options will be evaluated to modify future solar garden programs to ensure the developer is incented to maintain the system for long-term production of electric generation. The projected implementation date is May 31, 2013.

CITY COUNCIL'S OFFICE OF THE CITY AUDITOR

COLORADO SPRINGS, COLORADO

About our Office

The mission of the Office of the City Auditor is to provide City Council with an independent, objective and comprehensive auditing program for operations of the City. Our auditing program includes:

- Evaluating the adequacy of financial controls, records and operations
- Evaluating the effectiveness and efficiency of organizational operations
- Providing Council, management and employees objective analysis, appraisals, and recommendations for improving systems and activities

The Office of the City Auditor is responsible for auditing the systems used by the City of Colorado Springs and its enterprises, including Colorado Springs Utilities. We perform a variety of audits for these entities, including financial audits, performance audits, contract audits, construction audits, and information system audits. We also perform follow-up on a periodic basis to monitor and ensure management actions have been effectively implemented.

Authorization and Organizational Placement

Our audits are conducted under the authority of Chapter 1, Article 2, Part 7 of the Colorado Springs City Code, and more specifically parts 703, 705 and 706 of the Code. The Office of the City Auditor is structured in a manner to provide organizational independence from the entities it audits. This independence is accomplished by the City Auditor being appointed by and reporting directly to the City Council.

Audit Standards

The audit was conducted in a manner that meets or exceeds the International Standards for the Professional Practice of Internal Auditing, a part of the Professional Practices Framework promulgated by the Institute of Internal Auditors, with the exception of the requirements under standards 1312 and 1321 to obtain an external quality assurance review once every five years. We do not believe this non-compliance impacted the quality of our audit.

The audit included interviews with appropriate personnel and such tests of records and other supporting documentation as deemed necessary in the circumstances. We reviewed the internal control structure and compliance tests. Sufficient competent evidential matter was gathered to support our conclusions.