Final Scientific/Technical Report

(There are no distribution limitations on this project)

Project Title: "Energy Efficient Buildings"

Recipient: Salt Lake County **Award Number:** DE-EE0000613

Working Partners: Bella Energy and CarbonFree Technologies

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Executive Summary

Salt Lake County's Solar Photovoltaic Project – an unprecedented public/private partnership

Salt Lake County is pleased to announce the completion of its unprecedented solar photovoltaic (PV) installation on the Calvin R. Rampton Salt Palace Convention Center. This 1.65 MW installation will be one the largest solar roof top installations in the country and will more than double the current installed solar capacity in the state of Utah. Construction is complete and the system will be operational in May 2012.

The County has accomplished this project using a Power Purchase Agreement (PPA) financing model. In a PPA model a third-party solar developer will finance, develop, own, operate, and maintain the solar array. Salt Lake County will lease its roof, and purchase the power from this third-party under a long-term Power Purchase Agreement contract.

In fact, this will be one of the first projects in the state of Utah to take advantage of the recent (March 2010) legislation which makes PPA models possible for projects of this type. In addition to utilizing a PPA, this solar project will employ public and private capital, Energy Efficiency and Conservation Block Grants (EECBG), and public/private subsidized bonds that are able to work together efficiently because of the recent stimulus bill. The project also makes use of recent changes to federal tax rules, and the recent re-awakening of private capital markets that make a significant public-private partnership possible. This is an extremely innovative project, and will mark the first time that all of these incentives (EECBG grants, Qualified Energy Conservation Bonds, New Markets tax credits, investment tax credits, public and private funds) have been packaged into one project.

All of Salt Lake County's research documents and studies, agreements, and technical information is available to the public. In addition, the County has already shared a variety of information with the public through webinars, site tours, presentations, and written correspondence.

Comparison of Actual Accomplishments with Goals of Project

Salt Lake County's solar project has exceeded the original goals of the project and is a local and national example. One of the first quarterly reports submitted to DOE on this project in 2009 stated the project goal as, "The goal of Salt Lake County's *Energy Efficient Buildings* project will be the installation of solar PV on selected County facilities using a Power Purchase Agreement (PPA) model..."

We have accomplished this goal and have become the first in the state of Utah to enter into a Power Purchase Agreement and have constructed the largest solar rooftop installation in the state – a goal we did not initially think was possible.

Summary and History of Project

Since the initial grant award from the Department of Energy on September 1st 2009 this project has undergone many changes and overcome significant challenges. We are very appreciative of our DOE liaisons who have helped work through these challenges and find alternative solutions to best utilize and fulfill the grant requirements.

The original grant intention did not change and throughout the project we have continued to seek "energy efficient buildings" through a solar project. However, the partners involved, financing mechanisms, and the facilities which benefitted from this project did change.

Project Partners

Salt Lake County released its Request for Proposals (RFP) on May 14, 2010. The original partner chosen for this project was later released due to disagreements about project timelines. The process of choosing a new partner took a great deal of time and led to major delays in the project. Ultimately CarbonFree Technologies and Bella Energy were the final partners chosen for this project.

Financing Mechanism

As a result of the unique and complex nature of the financing package (which included grants, tax credits, New Market Tax Credit financing, bonds, and public/private capital) this project was delayed a number of times. Salt Lake County understands this financial structure is complex, but the purpose behind is not. Our aim was to leverage the grants to the maximum extent possible to increase the renewable energy output from the project.

Facilities

The County initially included three facilities which would receive solar PV installations. However, it was later determined that all the funding and focus should go to the Salt Palace Convention Center facility. As such, the other locations were excluded from this project.

Marketing/Public Relations

This project has received numerous press and industry attention in part because it is the largest solar PV rooftop installation in the state of Utah and the project financing is very unique.

This project has been featured in the local newspapers, *The Salt Lake Tribune* and *Deseret News*, as well as on local news stations.

This project was also featured as a cover article in the prestigious <u>Bond Buyer</u> public finance newspaper. Titled, *Salt Lake's Long Journey to Solar*, this gleaming article highlighted the innovative and collaborate financing model used to accomplish this project. The Department of Energy was listed as a partner and supporter.

Salt Lake County has also participated in a number of webinars for the Department of Energy. We were pleased to share our knowledge and expertise relating to this solar project.

Products Developed

There are 58 legally executed documents related to this project which include the Power Purchase Agreement, Operating Agreement, and the Solar Renewable Energy Certificate Transfer Agreement—just to name a few. In addition, there are approximately 68 other legal opinions, documents, and supporting materials. The County is pleased to provide any or all of these documents to the Department of Energy and all documents are available to the public.