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REQUEST FOR PROPOSAL

RFP # 18PSX0104

ENERGY EFFICIENCY RETROFITS AND ENERGY COST-SAVING
SERVICES FOR EXISTING BUILDINGS

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1: Qualifications and Capabilities

- **Type of Firm:** Electrical Contractor

- **Number of years in energy Business:** 10 years

- **Number and value of similar contracts:** 3, value – Open (Ref. DAS-14)

- **Number of Full-time Personnel:** 65

- **Accreditations or Other Pre-qualifiers:**



2: Introduction

Earthlight Technologies, LLC is responding to the RFP for the State of Connecticut Energy Efficiency Retrofits and Energy Cost-Savings Services for Existing Buildings bid and looking forward for the challenge. Earthlight is a comprehensive energy conservation and solar company located in Ellington, Connecticut dedicated to quality service and customer satisfaction. We have more than 33 years of experience in lighting, lighting controls and other mechanical efficiency measures to help improve existing buildings. Earthlight's mission is to provide innovative, tailored solutions to help our clients control their energy costs.

2.1: Scope of Services

Earthlight Technologies is excited to detail herein our proposal for how we intend to fulfill our responsibilities with respect to the DAS contract. We are a full-service energy efficiency contractor with considerable experience developing innovative, tailored energy efficiency solutions to help our clients control their energy costs. Every project is unique and moves at its own pace and direction, but the process detailed in this proposal serves as the framework that we use for all energy efficiency proposals.

At a high level the goal of any energy efficiency analysis is to empower our clients to be able to take control of their energy costs. We do this by undertaking a collaborative process of studying what the client's current situation is, what inexpensive Operations and Maintenance (O&M) measures can be implemented at no or low cost to unlock immediate efficiencies, and what longer term upgrades and strategies are applicable. A non-exhaustive list of Energy Conservation Measures that we offer in any energy efficiency project includes: New lighting systems and components; Networked and/or standalone lighting controls including occupancy sensors, daylight sensors, dimming/personal controls, scheduling; New HVAC systems and components such as; rooftop units, split A/C condensing units and air handlers, furnaces and boilers, heat pumps; HVAC controls such as energy management systems, zoning systems, Variable Frequency Drives, Scheduling, ventilation controls, free cooling; Process measures such as compressed air systems and controls, dust collection systems, spray booths, waste heat recovery; Commercial refrigeration systems and controls; Transformers and power distribution systems; Insulation and envelope improvements; Domestic hot water systems; Fuel switching; Plug Load controls; Kitchen equipment, laundry equipment, pools; water and sewage, and any other site-specific strategies, including renewable energy and cogeneration.

Every proposal begins with an internal lead assignment process. When we receive a lead, the customer is entered into our Salesforce CRM and an internal energy consultant is assigned as the opportunity owner. This person is responsible to act as the one point of contact between Earthlight, our partners, and the customer. The opportunity owner works with our administrative staff to make sure that the information that is entered into our CRM is accurate; who the stakeholders are within our client's organization; what their corporate structure is; and a preliminary profile of the client, where they are



located, how long they have been in business, what major building systems are present, an outline of the age and operation of them, when was the last energy efficiency audit conducted, what if any measures were installed as well as which if any were not, and what the goal of the process is for them.

This profile is taken by the project development team and a preliminary analysis of utility billing history is combined with that to develop a preliminary ECM list. This list is developed as a best guess of what Energy Conservation Measures might be applicable based on calculated energy utilization index, a utility rate structure analysis to make sure that there are no billing errors and that the customer appears to be in the correct rate codes, information provided by the client, and a survey of what if any publicly accessible information may exist online (examples would include Google Earth and Street-view to identify building system components). We communicate this preliminary ECM list to the client and ask them to disqualify any that they do not want to consider and put forward any of their own ideas.

We then conduct an initial onsite scoping survey to further qualify/disqualify our preliminary ECM list, observe the presence of existing possible ECMs including maintenance and no-cost/low-cost measures, and begin to estimate costs, savings, and incentives. The results of all work performed to-date are presented to the client in a meeting in the form of an ASHRAE Level 1 energy audit. This document is discussed to develop a roadmap for which of those ECMs the client wishes to pursue and what the process and timeline will be on them.

Because Earthlight Technologies is structured as a partner to our clients we often help facilitate a competitive process for major capital improvements by inviting multiple qualified partners to make proposals and collaborate with the client to select whichever meets their needs with respect to equipment specification and project financials.

From this discussion we proceed to the proposal development stage, where Earthlight and our delegated partners work with the client's staff to generate scopes of work with firm costs, savings, and incentives, and ensure that all proposed measures will meet the client's requirements. This stage will include securing all necessary incentives and financing.

A final presentation is made with Earthlight Technologies staff including the Opportunity Owner, a representative from the Project Development team; our trade partners; and client stakeholders. The project is presented first holistically, with all ECM costs and savings merged, and then more granularly. The installation timeline is agreed upon, and the client issues a Purchase Order to Earthlight.

The installation phase starts with the development of a construction file containing scope of work, copy of signed contract, copy of audit, Subcontractor PO's (if applicable) and customer contacts. Then the assigned Project Manager goes to the customer site for the Pre-Installation walkthrough and confirms the materials list developed by the project development team. The Project Manager generates and tracks the purchase order for materials and sub-contractors. After receipt of materials the project foreman and



Project Manager conduct a project kickoff walkthrough. All electrical improvements are made by Earthlight Technologies employees, who are all properly licensed electricians, insured and hold all required safety certifications.

Following every completed installation, a series of final walkthroughs are conducted to make sure that all new systems and components are installed and operating correctly and to the client's satisfaction, and that all manuals, documentation, and instructions have been provided to them. After 6 months from project installation, Earthlight Technologies periodically reviews the post installation consumption data to ensure that energy savings is being achieved in-line with projections. If there are discrepancies Earthlight proactively brings them to the client's attention, so a plan can be developed to address the shortfall.

2.2 Energy Projects:

2.2.1 Department of Correction

Name of the project: CT Department of Correction: Garner Correctional Institute, Newtown CT

Type of Facility: Penitentiary

Type of project: SBEA (Comprehensive)

This project is one of four that Earthlight Technologies has developed and installed in partnership with the Connecticut Department of Correction to improve energy efficiency. This client has presented us with unique needs with respect to getting Earthlight staff vetted to enter facilities, using equipment and luminaires that meet unique security needs, and working in a complex, dynamic environment where access to the building can change rapidly. Earthlight worked collaboratively with the Department to develop specifications that met the dual mandate of being qualified and supportive of the project's economics, as well as facilitating a competitive process to get multiple quotes on a Commercial Kitchen Demand Control Ventilation system. The final project qualified for a comprehensive bonus with a calculated payback of 2.2 years, and the improvements were financed at 0% by Eversource.

Project Size:

Total Project Cost: \$198,077.11 \$ Incentives: \$93,947.18 (Electric) \$5,091.38 (Gas)

Annual Savings: 250,199.1 kWh and 3,823 CCF

Annual \$ savings: \$42,258.63 (Electric) and \$2,523.18 (Gas)

Installed Measures: High Performance Lighting, Heating and Cooling (Variable Speed Kitchen Fan Ventilation System), Efficient Motor



Client contact information: Rich Pease
Email: rich.pease@ct.gov Ph# 860-692-7562

2.2.2 Department of Transportation

Name of the project: CT Department of Transportation, Mansfield CT

Type of Facility: Transportation

Type of project: SBEA

This project is one of the six projects that Earthlight has developed and installed for DOT. The DOT has also been a longstanding client of Earthlight as they have been engaged with a multi-year effort to utilize the incentives offered by Eversource to reduce operating costs and modernize facilities. The DOT has taken a particularly active role in developing a strategy to generate a list of qualified lamps and fixtures as well as guidelines on where different fixture types, color temperatures (CCT), and control strategies are to be used.

Project Size:

Total Project Cost: \$40,667.34 \$ Incentives: \$11,484.89 (Electric)

Annual Savings: 33,808.530 kWh

Annual \$ savings: \$5,744.07 (Electric)

Installed Measures: High Performance Lighting, Standard LED lighting, Lighting and lighting controls

Client contact information: Jamie Fellows
Email: jamie.fellows@ct.gov Ph# 860-423-0124

2.2.3 Ellington Board of Education

Name of the project: Ellington High School, Ellington CT

Type of Facility: Public School

Type of project: Energy Opportunities

We have been a partner of the Town of Ellington and the Ellington Board of Education for over eight years, rolling out energy efficiency and renewable energy projects across their portfolio. In the energy efficiency sector municipalities are eligible for financing with certain caps placed on the value of the improvements that can be financed at one time. Because of this Earthlight and the Board of Education are



currently embarking on the third phase of energy improvements to the High School. As the value of the outstanding financing agreements declines through repayments, Earthlight and the Board of Education have mutually agreed upon additional project scopes.

Project Size:

Total Project Cost: \$168,452.12

Incentives: \$69,242.18 (Electric)

Annual Savings: 236,989 kWh

Annual \$ savings: \$33,794.62 (Electric)

Installed Measures: High Performance Lighting

Client contact information: Brian Greenleaf

Email: bgreenleaf@ellingtonschools.net Ph# 860-896-2300

2.2.4 Foodshare

Name of the project: Foodshare INC, Bloomfield CT

Type of Facility: Non-Profit (Municipal)

Type of project: SBEA (Comprehensive)

Foodshare is a prominent local nonprofit serving to reduce the crisis of food insecurity in our region. Given the need they serve and the difficulties inherent in operating non-profit organizations, Earthlight Technologies felt the need to develop a comprehensive strategy to reduce energy waste and maintenance costs and free up funds currently being used to operate their facility. To strike the optimal balance between upfront cost and long-term savings we installed new LED fixtures with integrated Luminaire Level Controls throughout office and warehousing spaces and engaged a partner to perform energy efficiency upgrades in their commercial refrigeration system. The result was a SBEA project that, after incentives including a comprehensive bonus featured an ROI of 3.33 years. In addition to that, corporate-sponsored volunteer opportunities were provided to our employees.

Project Size:

Total Project Cost: \$136,343.24 \$ Incentives: \$63,520.74 (Electric)

Annual Savings: 150,410.805 kWh

Annual \$ savings: \$21,839.65 (Electric)

Installed Measures: High Performance Lighting, Standard LED lighting, Refrigeration (EC replacement Motors and ECM controls)

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Client contact information: Christine O'Rourke

Email: corourke@foodshare.org Ph# 860-856-4318

3: Pricing and Fees

The typical Program structure that Earthlight Technology follows for all the retrofit projects depends on the kW usage of the associated building/facility which is listed below:

Building Usage	Program Structure
0 – 200 kW	Small Business Energy Advantage (SBEA)
200 kW above	EO (Energy opportunities)

All energy efficiency measures will be priced on a per unit fixture basis.

Small Business Energy Advantage Program (SBEA): For facilities with usage lower than 200 kW, Earthlight Technologies will run the project under the SBEA program through which pricing is fixed by the electric utility company. These prescriptive prices were determined through a competitive bidding process. Projects that are developed through this program will qualify for 0% repayment programs offered by the utilities.

Energy Opportunities (EO): For facilities with usage greater than 200 kW Earthlight will work with the appropriate Program Administrator to develop a Letter of Agreement through the Energy Opportunities program. Payment schedules and terms will be negotiated based on the scope of work and whether the incentive is assigned to Earthlight or to the client.

Cost mark-ups: All lighting fixtures that are not prescriptive are marked up 30% in-line with the SBEA program pricing. Any non-lighting energy efficiency measure to be installed by partners of Earthlight will be marked up 10%.

Maintenance and Post Installation Monitoring: Earthlight Technologies provides a 2 year material and labor warranty for every project that we install. As detailed earlier in this document Earthlight will at no cost perform a basic review of billing data to ensure energy savings is achieved. Other M&V options including IPMVP are available for additional cost.

Rebates: Potential rebates and incentives that can be made available to clients include all Energize CT programs as well as municipal utility offerings.