

Date of Issue: November 7, 2018

DEPARTMENT OF GENERAL SERVICES
ENERGY AND RESOURCE MANAGEMENT OFFICE
401 NORTH STREET HARRISBURG, PENNSYLVANIA

BULLETIN NO. 2 (Amended)
on

Project No. GESA 2018-2 – REQUEST FOR QUOTES FOR A GUARANTEED ENERGY SAVINGS PROJECT AT: DEPT. OF CONSERVATION AND NATURAL RESOURCES, STATE PARKS, CENTRAL REGION, PENNSYLVANIA Department of General Services, Energy & Resource Management, 401 North Street, Room 403, Harrisburg, Pennsylvania, 17120.

QUOTE SUBMISSION DEADLINE: THURSDAY, JANUARY 17, 2019
TIME OF OPENING: 2:00 PM

RFQ CLARIFICATION / CHANGES

1. The following State Parks will be considered during the site survey: Bald Eagle, Black Moshannon, Codorus, Gifford Pinchot, Hills Creek, Parker Dam, Prince Gallitzin & Shawnee. After the winning Quote is selected, all 64 State Parks & Forests within the Central Region will be included in the IGA and final project.
2. Please replace Appendix T "Energy Conservation Measures" with Appendix T attached to the end of this bulletin.
3. In Part 1, Section 1.10(A) "Site Visits" please change "By appointment only, 3-hour maximum duration." to the following: **"By appointment only; 2 site visits per park, not to exceed 3-hour duration per visit."**

An amended copy of the RFQ, which incorporates the changes outlined in this bulletin, will be placed on the ERMO website at www.dgs.pa.gov



Rebecca Tomlinson, RFQ Coordinator
Energy & Resource Management Office

PLEASE ACKNOWLEDGE RECEIPT OF BULLETIN BY EMAIL RESPONSE TO BECKY TOMLINSON AT: retomlinso@pa.gov

APPENDIX T

Energy Conservation Measures

APPENDIX T

Core Energy Conservation Measures

Note: All items listed below **must** be considered in the RFQ response. For any measure that cannot be incorporated into the proposal or is determined infeasible, a detailed explanation must be provided that clearly outlines the financial and technical rationale behind the choice not to include the measure. **Please use the same ECM names/numbers when referencing them in your RFQ response.**

The following State Parks will be considered during the site survey: Bald Eagle, Black Moshannon, Codorus, Gifford Pinchot, Hills Creek, Parker Dam, Prince Gallitzin & Shawnee.

General core ECMs for the above-mentioned parks are:

- ECM #1** Convert lights to LED – Park Wide
- ECM #2** Explore converting the offices, maintenance buildings, public restrooms, cabins, cottages and/or yurts from electric heat to propane or natural gas, if available.
- ECM #3** Explore installing/upgrading the facility's BMS/EMS systems
- ECM #4** Explore a solar panel field installation. Most places already have a location picked out for a solar field.
- ECM #5** Explore replacement of existing heat pumps/split systems with new efficient equipment.
- ECM #6** Explore alternative methods for sludge handling, specifically through dewatering or drying the sludge prior to removal and transport.
- ECM #7** Explore installation of geothermal heating/cooling systems using the lake water.

Specific park information and opportunities:

Codorus

- ECM #8** Explore utilization of the natural gas line running through the property by the pool. The gas line is from Columbia Gas. The pool equipment is in pretty good shape but there should be something that can be done with the gas line right next to it.
- ECM #9** Explore water conservation. Codorus is on city water and sewage and they don't own the dam or the top 22 feet of water. The sewage lift stations are all electric. They have electric, oil and/or propane heat at various locations.

Bald Eagle State Park

- ECM #10** Automate the sewage treatment plant operations. The sewage treatment plant serves not only the park but also Howard Borough and Liberty Township. The Park staff is concerned about the amount of water infiltration occurring from Liberty Township. The existing Borough and Township billing structure was determined long ago and is based upon a fixed percentage (21% each) of total plant O&M costs. The actual percentage of treated sewage for those two municipal entities is believed to be double what is currently charged. Park management would like to automate the plant operations, as their plant operators serve numerous other State Park treatment facilities.
- ECM #11** Evaluate the facility's HVAC systems and controls for efficiency upgrades. When built in 2009, the Nature Center received LEED certification. The Center's annual energy use from 2010 to 2011 was 49,251 Btu/sf. The most recent annual energy use is 73,290 Btu/sf, a 49% increase.

Hills Creek State Park

- ECM #12** Evaluate the possibility of converting building and domestic water heating to heat pumps. There are 10 modern cabins heated with electric baseboard and provided domestic hot water using electricity. The cabins are available for rent throughout the year. In the winter months, the monthly heating bill for each cabin reaches \$250.
- ECM #13** The main park office has access to natural gas. The park residence and maintenance building utilize propane and are located approximately 1/3rd of a mile from the main office. The feasibility of installing a gas line extension to these facilities and retrofitting the heating to natural gas should be considered. For the residence, a heat pump conversion may also provide a good financial return on investment.
- ECM #14** Evaluate two well pumps for energy saving retrofit opportunities.

Parker Dam

- ECM #15** The wastewater collection system is in need of repair/replacement as evidenced by the significant impact from rainwater and ground infiltration. This project will likely not support itself through energy savings.

Black Moshannon State Park

- ECM #16** The Park office and maintenance facility use propane for heat. The Park office utilizes package terminal air conditioning (PTAC) units that contain hot water coils heated by propane hot water boilers. The boilers also serve perimeter hot water radiation and unit heaters. The PTAC units are in a state of disrepair. Recommend replacing the PTAC units with heat pumps, perhaps with hot water coils for auxiliary heat when needed.
- ECM #17** The cabins are available for rent throughout the year. The opportunity to convert the building and domestic water heating to use heat pumps should be evaluated.

Prince Gallitzin State Park

ECM #18 If possible, consider implementing corrective measures to eliminate or reduce leaks in the potable water system.

ECM #19 The main park office is heated with fuel oil using hot water boilers. Hot water is piped to perimeter radiation and to hot water coils in two air handling units (AHU); one AHU serving the upper main office and the other AHU serving the lower level. The air handling units provide direct expansion (DX) cooling. The park office can heat domestic water with the oil-fired boiler or with electricity. Currently, electricity is being used due to performance issues with the oil boiler. There are also roof mounted solar panels supplementing the building electrical load. Recommend replacing the two air handling units with high efficiency heat pumps. Maintain the hot water perimeter radiation. Consider replacing the hot water boilers with high efficiency propane units. Per Btu, propane costs are 75% of oil.

Gifford Pinchot

Only the general ECMs (ECM #1 – 7) apply.

Shawnee

Only the general ECMs (ECM #1 – 7) apply.