

Energy Efficiency and Conservation Block Grant Program (EECBG) Proposed Project

Project Title: Turner Pavilion Rooftop Solar- 9kW

Project Cost: \$22,000 - \$32,000

Eligible Activity Category: #13A Installation of solar energy on government building- Voucher

EAP FA Alignment

FA1 Goal 6

Topic Area

Solar

PROJECT DESCRIPTION

Install rooftop solar on the Turner Pavilion. BrightSuite estimates a 9.6 kw system could be installed on the south facing roof and would generate about 16,000 kWh/year of solar power. This will offset 100% of the facility's electrical use and generate an estimated annual electricity savings of \$1700 (based on 2022 prices).

PROJECT TIMELINE

Roof inspection needed to verify structurally sound to add solar (most solar installers can perform this work). Need to utilize RFP process to select contractor. Once contractor selected, approximately 12 – 16 months before panel installation is complete.

FUTURE IMPACTS ON CITY BUDGET

Operation and maintenance of solar panels, including replacing inverters and panels at the end of their lifespans. Reduced energy bills during lifespan of solar panels. A 9.6 kw system is estimated to offset 100% of the facility's electrical use and generate an estimated annual electricity savings of \$1700 (based on 2022 prices).

ALTERNATE FUNDING AVAILABLE

The Inflation Reduction Act (IRA) includes the ability for local governments to receive a 30% rebate in lieu of tax credit, called elective pay.

PR VALUE

The project has high PR value because it would be in a highly visible location and easily seen.

GHG EMISSION REDUCTION VALUE

The project has low GHG emission reduction value because it would offset only 14,000 kWh/year.

REACH AND EQUITY VALUE

The project would only directly impact City operations. No additional direct reach or impacts for disadvantaged communities.

Energy Efficiency and Conservation Block Grant Program (EECBG) Proposed Project

Project Title: Turner Pavilion Rooftop Solar- 50kW

Project Cost: \$250,000

Eligible Activity Category: #13A Installation of solar energy on government building- Voucher

EAP FA Alignment

FA1 Goal 6

Topic Area

Solar

PROJECT DESCRIPTION

Install rooftop solar on the Turner Pavilion. SunTribe Solar estimates a 50.0 kw system could be installed on the entire south facing roof and would generate about 71,000 kWh/year of solar power. This will offset 100% of the electrical use for the Turner Pavilion (~15,000 kWh/year) and send a significant portion back to the grid as “community solar.” This project is estimated to generate \$1,700 in annual electricity savings (based on 2022 prices).

PROJECT TIMELINE

Roof inspection needed to verify structurally sound to add solar (most solar installers can perform this work). Need to utilize RFP process to select contractor. Once contractor selected, approximately 12 – 16 months before panel installation is complete.

FUTURE IMPACTS ON CITY BUDGET

Operation and maintenance of solar panels, including replacing inverters and panels at the end of their lifespans. Reduced energy bills during lifespan of solar panels. A 50 kw system is estimated to offset 100% of the electrical use for the Turner Pavilion (~15,000 kWh/year) and send a significant portion back to the grid as “community solar.”

ALTERNATE FUNDING AVAILABLE

The Inflation Reduction Act (IRA) includes the ability for local governments to receive a 30% rebate in lieu of tax credit, called elective pay.

PR VALUE

The project has high PR value because it would be in a highly visible location and easily seen.

GHG EMISSION REDUCTION VALUE

The project has high GHG emission reduction value because it would offset approximately 71,300 kWh/year.

REACH AND EQUITY VALUE

The project would directly impact City operations as well as provide about 56,000 kWh (about 5 residential household annual electricity use) of clean energy back to the grid. No additional direct reach or impacts for disadvantaged communities.

Energy Efficiency and Conservation Block Grant Program (EECBG) Proposed Project

Project Title: Solar on Lucy F. Simms Center

Project Cost: \$126,350- \$88,445 (with 30% IRA Credit) + roof upgrades

Eligible Activity Category: #13A Installation of solar energy on government building- Voucher

EAP FA Alignment

FA1 Goal 6

Topic Area

Solar

PROJECT DESCRIPTION

BrightSuite estimates a 30.5 kw system could be installed on the roof and would generate about 41,294 kWh/year of solar power. This will offset 39% of the facility's electrical use and generate an estimated annual electricity savings of \$5,120 (based on 2022 prices). The project size is limited to only the portion of the roof that is less than 45 years old per grant requirements.

Note: The Simms Center has a ballasted roof which has additional considerations in order to install solar. Additionally, the historic part of the facility has additional rules and requirements that may not permit solar installation.

PROJECT TIMELINE

Roof inspection needed to verify structurally sound to add solar (most solar installers can perform this work). Need to utilize RFP process to select contractor. Once contractor selected, approximately 12 – 16 months before panel installation is complete.

FUTURE IMPACTS ON CITY BUDGET

Operation and maintenance of solar panels, including replacing inverters and panels at the end of their lifespans. Reduced energy bills during lifespan of solar panels. A 30.6 kw system is estimated to offset 39% of the facility's electrical use and generate an estimated annual electricity savings of \$5,120 (based on 2022 prices).

ALTERNATE FUNDING AVAILABLE

The Inflation Reduction Act (IRA) includes the ability for local governments to receive a 30% rebate in lieu of tax credit, called elective pay.

PR VALUE

The project has medium PR value because it is in a highly visible location but cannot be seen except from above.

GHG EMISSION REDUCTION VALUE

The project has medium GHG emission reduction value because it would offset 41,300 kWh/year.

REACH AND EQUITY VALUE

The project would only directly impact City operations. No additional direct reach or impacts for disadvantaged communities.

Energy Efficiency and Conservation Block Grant Program (EECBG) Proposed Project

Project Title: Municipal Buildings Energy Audit

Project Cost: \$80,000 for 6 buildings (~\$500,000 for all 37 buildings)

Eligible Activity Category: #2B(i) Identification of strategies to achieve energy efficiency, energy conservation, and energy usage goals- Voucher

EAP FA Alignment

FA1 Goal 2 &3

Topic Area

Buildings

PROJECT DESCRIPTION

The purpose of this project is to provide energy savings recommendations for buildings within the City of Harrisonburg. This will be completed by documenting the existing condition of the buildings and performing energy audits. This will create a baseline of existing building systems and establish a benchmark of the current energy consumption allowing the City to develop future projects to reduce energy consumption. The audit would include a report identifying no cost or low-cost changes prioritized by high, medium or low based on the cost and energy savings and identify larger projects that could require funding.

PROJECT TIMELINE

Consultant estimate is 12 weeks from NTP for 6 buildings. However, the total number of buildings the consultant could complete in 12 weeks may change depending on the size of the buildings chosen.

FUTURE IMPACTS ON CITY BUDGET

Onetime expense to create report. The report would identify potential future projects that would require funding, but may also reduce energy consumption.

ALTERNATE FUNDING AVAILABLE

None.

PR VALUE

The project has low PR value because it would be an evaluation and would be about systems virtually unseen by the public.

GHG EMISSION REDUCTION VALUE

The project has no direct GHG emission reduction value because it is only an evaluation.

REACH AND EQUITY VALUE

The project would only directly impact City operations. No additional direct reach or impacts for disadvantaged communities.

Energy Efficiency and Conservation Block Grant Program (EECBG) Proposed Project

Project Title: Programmable Thermostat Rebate Program

Project Cost: Depends on how much is allocated and rebate cap

Eligible Activity Category: #4 Establishment of financial incentive programs for energy efficiency improvements- Grant

EAP FA Alignment

FA1 Goal 6

Topic Area

Buildings

PROJECT DESCRIPTION

Develop a program that reimburse individuals to purchase programmable thermostats. The program would include some verification of income to ensure funds are used for those who cannot otherwise afford to purchase one.

PROJECT TIMELINE

Program establishment, application period, grant award, rebate

FUTURE IMPACTS ON CITY BUDGET

None

ALTERNATE FUNDING AVAILABLE

None

PR VALUE

The project has low PR value because it would be dispersed across the city to individuals.

GHG EMISSION REDUCTION VALUE

The project has low to medium GHG emission reduction value because results depend on individuals installing the thermostat and using it correctly. The Department of Energy estimates that a correctly used programmable thermostat could reduce household energy consumption by up to 10% annually.

REACH AND EQUITY VALUE

The project reach is medium due to low total cost of each thermostat. The equity value is medium to high as the rebate reaches lower income populations and can help reduce energy costs.