

Information Item

Date: November 9, 2021

To: Mayor, Mayor Pro Tempore, and Members of the City Council

From: Johnnie Taylor, Assistant City Manager
Helen Peplowski, Office of Sustainability Director

Subject:
Information on Preliminary Analysis of Potential Sites for Solar Panel Installation

Strategic Focus Area: Healthy Environment

Strategic Objective: Support Green Initiatives

Strategic Plan Action Item: Reinvigorate Sustainability Programs

Key Work Item: Yes



In this fiscal year's budget, \$125,000 has been designated to the Office of Sustainability for the installation of solar PV systems on city facilities. To begin the process for choosing the site/sites, the Office of Sustainability presents a preliminary analysis of the suitability of certain locations for solar panels.

Attached is a matrix that shows the suitability of various city facilities for a solar PV installation. Suitability was determined based on total scores from weighted criteria that includes installation cost, rebate potential, roof age (if applicable), visibility to the public, and the expected electric energy cost savings. As this is a preliminary analysis, the staff welcomes feedback for adjustments to the criteria weight or additional criteria to consider in the site assessment.

Roof age was rated on a 1-5 scale, with 1 representing roofs over 10 years old, and 5 representing roofs less than five years old. Visibility was scored on a 1-5 scale with 1 representing lowest public visibility and 5 representing highest public visibility. An additional point was awarded to those facilities billed on Duke Energy's general service electric rate, which has a higher cost per kilowatt hour than Duke's time-of-use (TOU) rate and will generally result in a shorter return on investment.

The higher costs to install solar on Stuart Municipal, Johnson Municipal, and the three City/County Utilities' sites reflect the larger sized systems these facilities can hold based on square footage available.

Duke Energy provides a \$750/kilowatt rebate (up to 100 kilowatts) to governments which the city can utilize to reduce the total cost of each solar PV installation.