

Attachment B



Notice of Proposed Administrative Action

December 6, 2022

To: Mayor and Council Members:

From: Richard J. White III, Town Manager

Subject: Potential Town Solar Projects

The purpose of this document is to provide the Town Council with an update on staff's efforts to explore installing solar systems on or at Town facilities and to request that Council Members indicate support for staff to enter in to interconnection agreements by **Noon on December 8th**.

Background

In an effort to determine the potential cost to include solar energy in the 203 Project, staff issued a Request for Proposals (RFP) on February 6, 2022 that included five town facilities to assess solar potential and take advantage of an economy of scale. Laura Janway, Environmental Sustainability Coordinator, reported on the completion and publication of the RFP to the Town Council on February 8, 2022 as part of a quarterly Climate Action Implementation Update.

On March 10, 2022, the Town received two responses to the RFP for solar development. Proposals were received from Southern Energy Management (SEM) and Eagle Solar & Light. Both firms' proposals were responsive and complete. A staff evaluation committee was formed across multiple departments and included Ben Schmadeke, Capital Projects Manager; Jon Hartman-Brown, Economic Development Director; Laura Janway, Environmental Sustainability Coordinator; Max Randall, Engineer; and Cary McNallan, Deputy Finance Director. A subsequent interview was held with each firm.

The cashflow simulations completed by each firm vary due to different rates used for system degradation and utility cost increases. SEM used an annual system degradation factor of 0.5% and an annual utility increase factor of 3% when projecting cashflow in their proposal. SEM also assumed that a better \$/kWh rate structure can be obtained from Duke Energy. Eagle Solar & Light used more conservative rates of 0.6% annual degradation and 2.5% annual utility increases and used the current utility rate structure that the Town has with Duke. Staff recommends contracting with Eagle Solar & Light for the following reasons:

1. More realistic methodology for calculating investment potential

2. Use of Carrboro-based minority owned business for project installation (Action Solar & Electric LLC)
3. Positive reference from OWASA
4. More competitive pricing

Based on the RFP responses, the chart below summarizes Eagle Solar's cost of each project, estimated energy production, estimated incentives, and simple payback. This assumes financing the projects with a 15-year term at 3% interest rate (actual interest rates would be determined through the public market).

	Public Works	203 Building West Roof	Fire Station	Century Center	203 Parking Deck Canopy	Anderson Park Canopy	Total
kW DC (size)	26	88	57	36	174	30	411
Estimated Annual Savings	\$2,995	\$5,803	\$3,523	\$2,413	\$16,386	\$3,306	\$34,426
Cash Purchase Price	(\$62,541)	(\$176,791)	(\$111,755)	(\$80,471)	(\$656,629)	(\$141,722)	(\$1,229,909)
3% Interest on 15 Year Term Financing	(\$15,200)	(\$42,968)	(\$27,161)	(\$19,558)	(\$159,592)	(\$34,445)	(\$298,924)
Interconnection Request	(\$3,700)	(\$3,700)	(\$3,700)	(\$3,700)	(\$3,700)	(\$3,700)	(\$22,200)
Expected Duke Energy Rebate	\$18,750	\$64,800	\$37,500	\$25,950	\$75,000	\$0	\$222,000
IRA 15% Direct Payment	\$9,381	\$26,519	\$16,763	\$12,071	\$98,494	\$21,258	\$184,486
Net Cost	(\$53,310)	(\$132,140)	(\$88,353)	(\$65,708)	(\$646,427)	(\$158,609)	(\$1,144,547)
Simple Payback (years)	18	23	25	27	39	48	33

Discussion

The expected lifespan of a photovoltaic system (PV) system is approximately 30 years. Installations with a payback of less than 30 years would have a positive cashflow.

The Town has executed an interconnection agreement with Eagle Solar & Light for the 203 Project west rooftop. The estimated project cost is \$176,791, which is currently included in the 203 Project budget, including \$40,000 from an Orange County grant fund. The Town has applied for an additional \$74,243 in Orange County grant funds.

The Town could move forward with an interconnection agreement for any of these projects for a nonrefundable fee of \$3,700 each which would reserve the Duke Energy utility rebate. Per Eagle Solar & Light, the Town would then have about three months to identify funds to purchase the system and then one year to install it to meet the Duke rebate timeline.

The six systems listed in the chart above combined would reduce municipal greenhouse gas emissions by 21%, advancing the Town's Energy and Climate Protection Plan goal 25%.

Financing Options

The total cost noted in the table (before any incentives) is \$1,229,909 which would need to be financed. Rather than committing to any vendor financing, Bond Counsel and Financial Advisor have recommended going to the marketplace in view of the rate that the Town received for the 203 Project. The interconnection cost is \$3,700 per project which is nonrefundable for each solar project that does not proceed.

Considering the recent 203 Project financing, interest in renovating town facilities, and funding other capital projects, staff proposed moving forward with solar on west roof of the 203 Project and consider the other projects as part of the upcoming fiscal year Capital Improvement Plan development process as noted in the September 8, 2022 *Council – Manager Update*.

There are no funds in the FY23 Budget to pay for these installations. Financing options, whether lease or purchase, would require Local Government Commission approval. The direct payment provisions in the *Inflation Reduction Act* for local governments (30% payment for cash purchase; 15% payment for financing) will be available for the next ten years through 2033. While set to expire on December 31, 2022, there is a possibility that Duke will open the rebate period for a week or two in January 2023.

Staff Recommendation

In addition to the 203 Project West Roof installation, staff have identified the Public Works and Fire Station 1 systems to be the most viable projects from a financial and practical standpoint. The canopy-mounted systems over the parking areas on the 203 Project parking deck and Anderson Park lot do not have a positive return on investment over the 30-year expected lifespan of the solar installations. The Century Center project would be complicated by a planned future renovation and roof replacement. The Fire Station 1 apparatus bay roof was installed in 2020 with a solar compatible roof system and the Public Works solar installation would be mounted on the metal roof of the equipment pole barn. Additionally, the Public Works and Fire Station 1 projects have good returns on investment.

Request for Action

Please let me know by Noon on December 8th if you support staff moving forward with executing interconnections agreements for the Public Works and Fire Station 1 installations at a nonrefundable cost of \$3,700 each. The interconnection agreement for the 203 Project West Roof has already been completed.