Agenda Item: 2.b

Meeting Date: March 31, 2026

MEMORANDUM

To:	City Commission
Through:	Jennifer K. Bramley, City Manager
From:	Jorge Quintas Deputy City Manager
Date:	2026-03-20
Subject:	Duke Energy System Reliability and Clean Energy Connection Program Workshop Presentation
Presenter(s):	Stefano Carnio, Director PGO Asset Management with Duke Energy; Travis Knous, Lead Strategy & Planning Manager of Clean Energy Solutions with Duke Energy; Natalie Gass, Sustainability Program Manager with City of Dunedin.
Staff Recommendation:	Commission to receive an annual update presentation from Duke Energy Florida, LLC regarding their Energy System Reliability and Clean Energy Connection Program.
Strategic Themes:	Community Amenities; Infrastructure, Planning & Growth; and Environmental Resiliency & Sustainability.
Boards & Committees:	City Commission - Mayor as the Commission Liaison to Duke Energy. Committee on Environmental Quality & Sustainability.
Budget Impact:	TBD
Past Action:	1.) April 13, 2022 - City of Dunedin entered into an agreement with Duke Energy to participate in the Clean Energy Connection (CEC) Solar Program; 2.) February 22, 2024 - Adoption on 2nd Reading of Ordinance 24-02 (Duke Energy Florida, Electric Utility Franchise Agreement), under Agenda Item #2.c.
Next Action:	Duke Energy reliability updates to the City Commission during the first quarter of each year.
Attachments:	A. Duke Energy - Dunedin Reliability Analysis & Clean Energy Presentation.pdf B. ORDINANCE 24-02 GRANTING DUKE ENERGY AN ELECTRIC UTILITY RIGHTS-OF-WAY UTILIZATION

FRANCHISE (02-22-24).pdf
C. Duke - Dunedin MOU - (effective 2-22-24).pdf
D. Clean Energy Connection Program - COD & Duke (Terms & Conditions 04-13-22).pdf

Background:

In accordance with the requirements of the Memorandum of Understanding (MOU) between the City of Dunedin and Duke Energy Florida, LLC, which became effective on February 22, 2024, in conjunction with the adoption of Ordinance 24-02, granting Duke Energy Florida, LLC an Electric Utility Franchise Agreement for the purpose of providing electric services within the City of Dunedin's jurisdictional limits; Duke has agreed to provide an annual update to the City Commission regarding their ongoing reliability efforts in Dunedin.

Since adoption of Ordinance 24-02, Duke Energy and City personnel have been meeting quarterly to coordinate and address any areas of specific concern related to their franchise operations within the City's jurisdictional boundaries.

In addition to Duke Energy's presentation regarding their previous, current, and planned Electrical Grid Enhancement efforts, Duke will also be providing an update on their Clean Energy Connection (CEC) Solar Program, of which the City has been a subscribed participant since 2022.

Clean Energy Connection (CEC) Program Background:
The City of Dunedin signed on to Sierra Club's Ready for 100 Clean Energy Goal in December of 2018. This goal states the City will be internally operating on 100% clean, renewable energy by 2035. The City has made efforts towards this municipal goal by completing energy efficiency audits and projects, installing solar on three (3) facilities, conducting a solar feasibility study for an additional sixteen (16) facilities, and by participating in the Duke Energy Clean Energy Connection (CEC) subscription program. The City is aware that obtaining the 2035 goal cannot be achieved by installing rooftop solar power alone, but must happen in partnership with the City's energy utility provider. In 2019 Duke Energy announced its commitment to 100% Carbon Neutral power with a goal date of 2050. This goal is different than the City's clean energy goal, but it is a step in the right direction. Since Duke Energy's corporate decision, they have created a community solar program called Clean Energy Connection. This is a subscription-based program where solar power and its associated Renewable Energy Certificates (RECs) are provided to cities at a certain rate. The program started in 2022, and all 10 solar sites were operational by January 2025, as anticipated.

The decision to participate in this subscription program was not to act as a replacement for rooftop solar projects, but an additional

step in reaching the City's 2035 clean energy goal.

Through the Clean Energy Connection program, the City subscribes to kilowatt blocks of power, where one block is one kilowatt (kW) of solar for a fixed $8.35/kW monthly subscription fee, which is less than the originally proposed $8.55/kW monthly subscription fee. The power generated by the solar facility feeds into the Duke Energy electrical grid across Florida, and the City receives a monthly bill credit associated with the amount of solar energy the City's program share produces. The initial credit rate for the first 36 months of the program was $0.04037/kWh, which is lower than the originally proposed credit of $0.04134/kWh. The credit rate increases by 1.5% every year. The first rate increase occurred for July 2025 generation at a rate of $0.04098/kWh.

When initially discussed, it was anticipated that the City would see a financial breakeven point between years 5-7 in the program. Due to unforeseen issues early in the program, including failure of parts, environmental and weather impacts, and long repair times due to industrywide material backlogs due to COVID, generation in the first year was lower than expected. This decreased the capacity factor and changed the estimated breakeven point to now be between 9-13 years, with an estimated payback between 17-24 years.

When the City initially signed on to the program, it was estimated that the total cost for the first four years would be around $22,000. The actual cost of the program in the first four years was about $81,305. Savings through the life of the program was originally estimated at $2,719,787.19. Current estimates for program savings are now between $380,847 - $746,604.

Despite these challenges and setbacks, Duke Energy has been working to get solar generation back on track through resolving the initial issues that were faced. The capacity factor is improving, and the program is expected to provide savings over the life of the program, which is thirty-three years.

It is important to understand that while this subscription program does not take the place of on-site solar installations for municipal buildings, it does play a key role in achieving the City's 2035 clean energy goal. The CEC subscription program allows the City to obtain Renewable Energy Certificates (RECs) for possibly a lower cost than market value, which is a fluid and shifting rate based on supply and demand.

Currently, the Clean Energy Connection subscription program makes up 29.46% of the City's clean energy goal, while on-site solar generation makes up 2%.