MEMO

To: Barry Burton, County Administrator

Thru: Jill Silverboard, Deputy County Administrator & Chief of Staff

From: Hank Hodde, Sustainability and Resiliency Program Coordinator, County Administration

Distr: Andrew Pupke, Division Director, Facilities and Real Property Management
Lori Sullivan, Financial Management & Budget Analyst, Office of Management and Budget
Karim Molina-Oyola, Energy & Water Program Coordinator, Office of Asset Management
Brendan Mackesey, Assistant County Attorney, Pinellas County Attorney's Office

Subject: Duke Energy Florida's Clean Energy Connection Subscription

Date: August 14, 2020

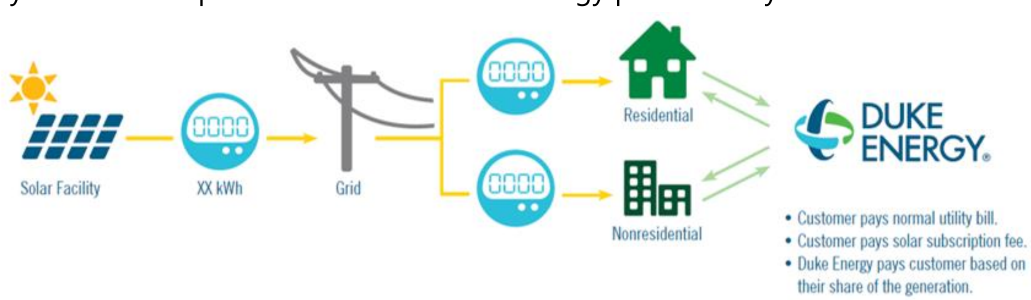
This memorandum presents an overview of Duke Energy Florida's Clean Energy Connection program and presents the findings from an internal staff analysis.

RECOMMENDATION

It is recommended that the County Administrator approves and authorizes subscription to the planned Duke Energy Clean Energy Connection (CEC) Solar Program at up to 100% of eligible electricity demand, which equates to 68 MW, by the due date of August 31, 2020.

PROGRAM OVERVIEW

Duke Energy Florida (DEF) has launched a new "community solar program," the Clean Energy Connection (CEC) Program, and is enrolling early subscribers while awaiting approval from the Public Service Commission (PSC). The CEC Program (Program) will enable qualified customers to participate in a solar energy program and directly fund the development of several utility-owned solar plants, proposed to be constructed in central Florida, interconnecting to the DEF power grid. Program subscribers will pay a flat monthly subscription fee and will receive monthly bill credits equal to the value of solar energy produced by their share in the Program.



There appears to be a high level of interest from both municipalities and corporate customers in the Program, and the currently defined allocations are projected to be oversubscribed. Other local governments within Pinellas County subscribing include St. Petersburg, Tarpon Springs, Largo, Safety Harbor, Clearwater, Gulfport, Treasure Island, Madeira Beach, and Dunedin. Therefore, a municipal government's request will likely not be met at 100% but will be pro-rated to match DEF's available capacity. DEF has stated that should over-subscription occur; they would reduce the total amounts equitably amongst subscribers.

In addition to the municipal and corporate allocations, DEF also has set aside a portion of the total available solar power to residential homeowners and small business owners. A break-down of the power allocations and subscription windows is provided below.

Customer Type	Percent Allocation	Capacity Available	Subscription Window
Large Commercial and Industrial	65%	488 MW	May 11th – June 5th
Local Governments	10%	75 MW	May 11th – Aug 31st
Residential and Small Business Customers	21.5%	161 MW	Q4 2021 / Q1 2022
Low Income Customers	3.5%	26 MW	Q4 2021 / Q1 2022

PROGRAM ENROLLMENT

Program participants subscribe to blocks of power, where one block equals one kilowatt (kW) of capacity, for a fixed $8.35/kW monthly subscription fee. This fee supports the construction and operation of these solar facilities and is added to the regular monthly energy bill as a new line item. Customers may have the ability to subscribe to enough solar generation to match their total annual energy usage or choose a package that suits them best. DEF is offsetting the monthly fee with a monthly bill credit. The initial credit rate for the first three years of the Program will be $0.040370/kWh; thereafter, the rate will increase by 1.5% every year. The monthly credit will vary seasonally, as solar energy production is greater during the months with more direct sunlight. The subscription amount (and associated fees and credits) will match the built solar capacity, and initial estimates for Program implementation will be phased in at 20% in FY22, 60% in FY23, and 100% by FY24.

Agreeing to subscribe to the Program is the first step. This step is non-binding. However, while not representing a contractual obligation to participate in the Program, becoming an early subscriber does include terms and conditions for enrollment. Most pertinent, if the County withdraws its application before the Program officially begins (2022), there will be a financial obligation equal to one month of the subscription cost (which includes the fee and direct credit).

Once subscribed, the County will work with DEF to enroll specific accounts at the start of the Program. The account allocation will be memorialized in a contractual agreement that we expect to be executed in late 2021.

This said, DEF has communicated that activated accounts can change if needed (e.g., vacating existing buildings or occupying new buildings).

Note that CEC Program implementation is contingent upon approval by the PSC, which is scheduled to consider the Program in late 2020 or early 2021; if the Program is not approved by the PSC, the County owes zero dollars for the Program.

DUKE CEC/COUNTY ENGAGEMENT TO DATE

To better accommodate the demands of customers for renewable energy, DEF created this offering in late 2019, although it wasn't directly communicated to Pinellas County staff until early 2020.

September 2019	Duke Energy announces an updated climate strategy with a new goal of net-zero carbon emissions by 2050, which includes doubling its renewable energy portfolio by 2025.
April 20, 2020	DEF hosts a webinar to provide an overview of its Program to all customers.
May 11, 2020	CEC enrollment window officially opens.
June-July 2020	Pinellas County conducts research and analysis for a subscription.
July 1, 2020	DEF files a petition with the PSC to approve the CEC Program and tariff schedule.
July 30, 2020	Pinellas County BOCC provides support to the County to become an early subscriber.
August 2020	Subscribe to up to 68 MW – no subscription fees due until 2022 when the solar installation is anticipated to be partially constructed.

STAFF ANALYSIS

A staff team, including me, Lori Sullivan (OMB), Karim Molina-Oyola (OAM), Andrew Pupke (Administrative Services), and Brendan Mackesey (County Attorney Office) has reviewed the Program. The review has included the applicability of the Program to the County, a financial cost/benefit analysis, several question and answer sessions with Duke Energy, and input from other municipal subscribers. Based on this analysis, we are recommending participation in the Program.

Through the last 12 months, the County consumed ~167 million kWh through our metered accounts, which is the equivalent in CO_2 emissions of 130 million pounds of coal burned or nearly 20k homes' electricity use for one year. The CEC Program only covers metered accounts, meaning street lighting and traffic lights are exempt from the Program. Based on the calculator provided by DEF and their projected capacity factor of 28% (annual hours of solar production), the County would need to purchase 68,318 kW (68 MW) blocks of solar power to cover its entire energy usage.

This is a thirty-year program. The County would incur costs, based on the subscription fee during years 1-6; however, this cost is significantly offset by a direct bill credit. Payback would occur between years 5 and 7 for an estimated total savings of $28M over the thirty years of the Program (Figures 1 and 2).

The County's commitment to the Program is only one month of Program participation when the initial solar plants start generating power early in 2022. With a subscription of 100% of the County's usage, the highest monthly cost in the first four years is estimated at $7,434 (year 3), depending on solar generation.

If the tariff scheduled is approved as-is by the PSC, the formula will yield net-positive financial benefits for both annual and cumulative paybacks over the life of the Program. The positive paybacks from the Program are the result of the calculated difference of the flat subscription fee versus the accruing credit (1.5% annual increase after year three) over time.

The subscription fee and credit rates are subject to change until DEF receives approval for this Program from the PSC. Regardless of any changes, DEF maintains that the payback will occur between years 5-7. The following table represents the calculated expenditures in the first 7 years.

Year	Subscription kW	Annual Fee	Credit Rate	Annual Credit	Net Annual Payback
2022	13,663 (20%)	($1,369,086)	$0.040370	$1,352,957	($16,129)
2023	40,990 (60%)	($4,107,259)	$0.040370	$4,052,113	($55,145)
2024	68,317 (100%)	($6,845,432)	$0.040370	$6,756,220	($89,212)
2025	68,317	($6,845,432)	$0.040980	$6,805,371	($40,060)
2026	68,317	($6,845,432)	$0.041590	$6,872,138	$26,706
2027	68,317	($6,845,432)	$0.042210	$6,939,711	$94,279
2028	68,317	($6,845,432)	$0.042840	$7,027,273	$181,840

The below graphs represent the projected paybacks over three subscription sizes and a given solar production capacity factor of 28%. *These scenarios were run with the assumption that the County's subscription request will be reduced due to over-demand of the Program*.

- 68 MW represents the full subscription request
- 34 MW represents a 50% reduction from the full request
- 17 MW represents a 75% reduction from the full request

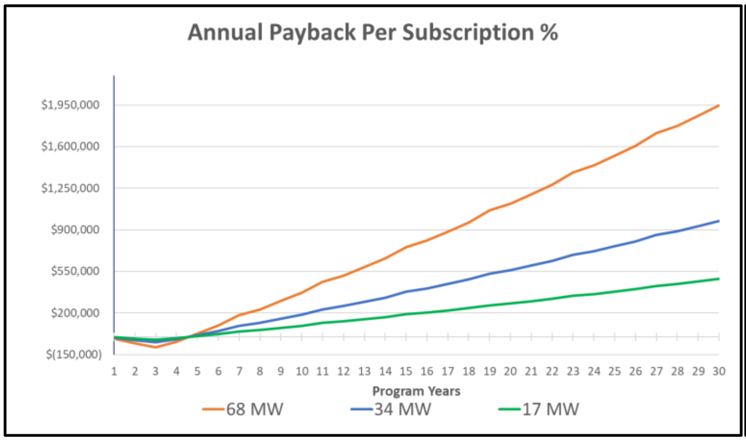


Figure 1

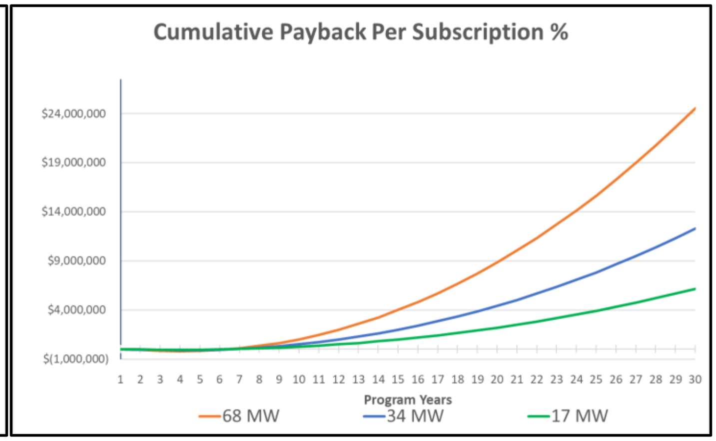


Figure 2

BUDGET IMPLICATIONS

Costs for the Program will only be incurred once the solar capacity is constructed, anticipated to start in 2022. The costs would be applied to specific accounts with DEF, affecting individual budgets based on their current electric bills. The account selection process will take place once the final subscription size is known. While the exact calculation has not been conducted, enrollment in the CEC to review renewable energy power is substantially more cost-effective than constructing our own capabilities.

APPROVAL AUTHORITY AND PROCUREMENT

Because Program participation will not entail receipt or expenditure of over $250,000 per year, the Administrator has the delegated authority to legally commit to the Program per Code Section 2-62(a)(1). Additionally, because DEF is the County's only potential solar energy vendor, a sole source procurement under Code Section 2-180 is appropriate. To maintain consistency with administrative procedure, a memo justifying the sole source procurement should be drafted and submitted to the Purchasing Division.

STRATEGIC PLAN

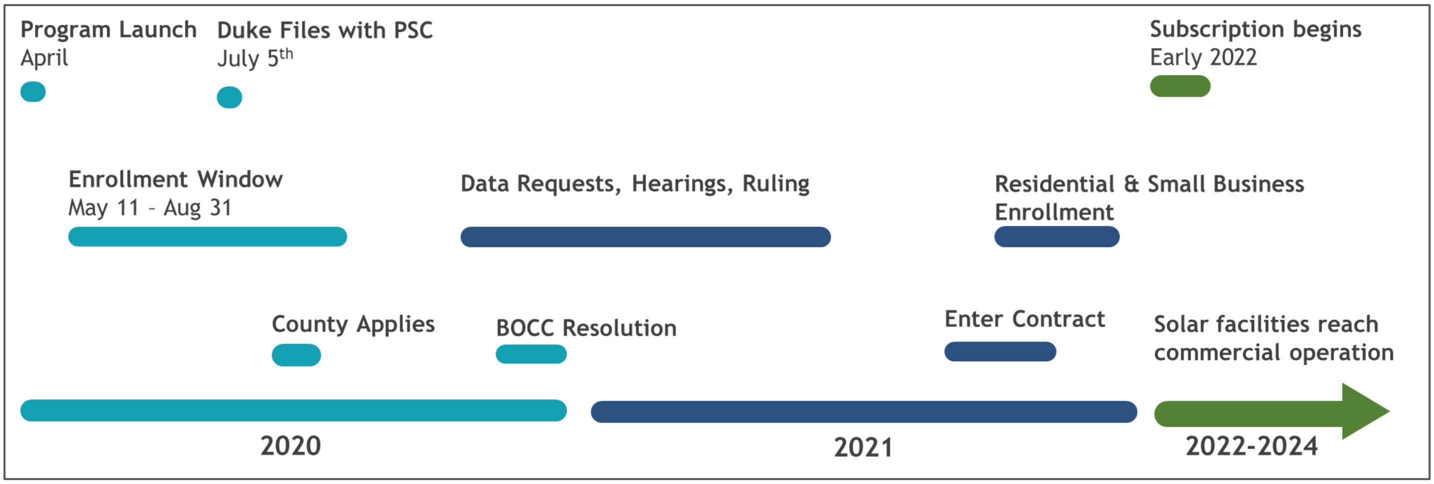
Practice Superior Environmental Stewardship

- 3.1 Implement green technologies and practices where possible
- 3.3 Protect and improve the quality of our water, air, and other natural resources

Foster Continual Economic Growth and Vitality

- 4.4 Invest in infrastructure to meet current and future needs

OVERALL TIMELINE



NEXT STEPS

1. Provide approval for Administrative Services to enroll in the CEC Program with a subscription size of 68 MW.
2. Consider submitting a Letter of Support to the PSC to approve the CEC Program.
3. Draft a Resolution to present to the BOCC in October 2020 based on adjusted subscription size.
4. Conduct an analysis in early 2021 to determine which accounts to enroll.
5. Develop an outreach program to educate local businesses and residents about the CEC Program.
6. Sign contract with DEF in late 2021 once the CEC Program activates.

August 14, 2020

Barry A. Burton, County Administrator Date