

May 16, 2025

Greg Davis and Phillip Ellis Florida Public Service Commission Division of Engineering 2540 Shumard Oak Blvd Tallahassee, Florida 32399-0850

Subject: Orlando Utilities Commission Responses to the Florida Public Service Commission's Review of the

2025 Ten-Year Site Plans for Florida's Electric Utilities - Data Request #1

Dear Mr. Davis and Mr. Ellis,

Enclosed please find the Orlando Utilities Commission ("OUC") responses to the Florida Public Service Commission's Review of the 2025 Ten-Year Site Plans for Florida's Electric Utilities - Data Request #1. The responses include both the narrative responses as well as the tables that have been provided to you separately via email as Word and Excel documents.

If you have any questions about the subject responses, please do not hesitate to contact me.

Respectfully submitted,

151 Brudles Mule

**Bradley Kushner** 

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# **General Items**

1. Please provide an electronic copy of the Company's Ten-Year Site Plan (TYSP) for the current planning period (2025-2034) in PDF format.

#### **OUC Response:**

The requested information was provided to the Florida Public Service Commission on April 1, 2025.

2. Please provide an electronic copy of all schedules and tables in the Company's current planning period TYSP in Excel format.

# **OUC Response:**

The requested information was provided to the Florida Public Service Commission on April 1, 2025.

- 3. Please refer to the Excel Tables File tabs listed below. Complete the tables by providing information on the financial assumptions and financial escalation assumptions used in developing the Company's TYSP. If any of the requested data is already included in the Company's current planning period TYSP, state so on the appropriate form.
  - a. Excel Tables File (Financial Assumptions)
  - b. Excel Tables File (Financial Escalation)

#### OUC Response:

Please see attached "Data Request #1 – Excel Tables\_OUC" (Excel .xlsx file) and refer to the worksheets titled "Financial Assumptions" and "Financial Escalation". The requested information is also included in Section 8 of OUC's 2025 TYSP.

# **Load & Demand Forecasting**

# Historic Load & Demand

- 4. [Investor-Owned Utilities Only] Please refer to the Excel Tables File (Hourly System Load). Complete the table by providing, on a system-wide basis, the hourly system load in megawatts (MW) for the period January 1 through December 31 of the year prior to the current planning period. For leap years, please include load values for February 29. Otherwise, leave that row blank.
  - a. Please also describe how loads are calculated for those hours just prior to and following Daylight Savings Time (March 10, 2024, to November 3, 2024).

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#### **OUC Response:**

This question is not applicable as OUC is not an Investor-Owned Utility.

5. Please refer to the Excel Tables File (Historic Peak Demand). Complete the table by providing information on the monthly peak demand experienced during the three-year period prior to the current planning period, including the actual peak demand experienced, the amount of demand response activated during the peak, and the estimated total peak if demand response had not been activated. Please also provide the day, hour, and system-average temperature at the time of each monthly peak.

#### OUC Response:

Please see attached "Data Request #1 – Excel Tables\_OUC" (Excel .xlsx file), and refer to the Worksheet titled "Historic Peak Demand". The table presents the monthly coincident peak demands for OUC and the City of St. Cloud combined; the date, day of the week and hour when these monthly peak demands occurred; and the temperature at the time of these peaks.

# Forecasted Load & Demand

6. Please identify the weather station(s) used for calculation of the system-wide temperature for the Company's service territory. If more than one weather station is utilized, please describe how a system-wide average is calculated.

# OUC Response:

System-wide temperature data for OUC's service territory utilized for purposes of developing OUC's load forecast is based on information obtained from the National Weather Service's weather station at the Orlando International Airport. OUC also utilizes the Pine Hills weather station for other purposes.

- 7. Please explain, to the extent not addressed in the Company's current planning period TYSP, how the reported forecasts of the number of customers, demand, and total retail energy sales were developed. In your response, please include the following information:
  - a. Methodology.
  - b. Assumptions.
  - c. Data sources.
  - d. Third-party consultant(s) involved.
  - e. Anticipated forecast accuracy.
  - f. Any difference/improvement(s) made compared with those forecasts used in the Company's most recent prior TYSP.

#### **OUC Response:**

OUC prepares a set of sales, energy, and demand forecast models each year to support OUC's budgeting and financial planning process as well as long-term planning requirements.

In preparing the forecasts OUC uses:

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- internal records
- company knowledge of the service territory and customers
- economic projections from S&P Global.
- weather data from the National Oceanic and Atmospheric Administration (NOAA) collected at the Orlando International Airport weather station
- future "normal" weather was based on the continued trend of decreasing heating degree days and increasing cooling degree days since 1980.
- OUC draws on outside expertise as needed:
  - o economic projection data was provided by S&P Global.
  - o software, analysis of end-use equipment and efficiencies, analysis of forecast accuracy, and technical expertise was provided by Itron, Inc.
  - o Multiple third-party electric vehicle adoption curves were utilized
  - o rooftop solar adoption curves were provided by the National Renewable Energy Laboratory

A detailed explanation of OUC's forecasting methodology is included in Section 4 of OUC's 2025 Ten-Year Site Plan.

8. Please identify all closed and open Florida Public Service Commission (FPSC) dockets and all non-docketed FPSC matters which were/are based on the same load forecast used in the Company's current planning period TYSP.

# **OUC Response:**

There are no closed or opened FPSC dockets or non-docketed FPSC matters based on the same load forecast used in OUC's 2025 TYSP.

- 9. Please explain if your Company evaluates the accuracy of its forecasts of customer growth and annual retail energy sales presented in its past TYSPs by comparing the actual data for a given year to the data forecasted one, two, three, four, five, or six years prior.
  - a. If your response is affirmative, please explain the method used in your evaluation, and provide the corresponding results, including work papers, in Excel format for the analysis of each forecast presented in the TYSPs filed with the Commission during the 20-year period prior to the current planning period. If your Company limits its analysis to a period shorter than 20 years prior to the current planning period, please provide what analysis you have and a narrative explaining why your Company limits its analysis period.
  - b. If your response is negative, please explain.

# **OUC Response:**

As part of OUC's Operating Budget variance reporting, OUC compares actual customer counts and sales for the current fiscal year to the corresponding forecast data utilized in the operating budget. OUC does not have a formal process to evaluate the accuracy of the data forecasted two or more years ago.

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- 10. Please explain if your Company evaluates the accuracy of its forecasts of Summer/Winter Peak Energy Demand presented in its past TYSPs by comparing the actual data for a given year to the data forecasted one, two, three, four, five, or six years prior.
  - a. If your response is affirmative, please explain the method used in your evaluation, and provide the corresponding results, including work papers, in Excel format for the analysis of each forecast presented in the TYSPs filed with the Commission during the 20-year period prior to the current planning period. If your Company limits its analysis to a period shorter than 20 years prior to the current planning period, please provide what analysis you have and a narrative explaining why your Company limits its analysis period.
  - b. If your response is negative, please explain why.

#### OUC Response:

OUC tracks its actual Summer/Winter Peak Energy Demand on an ongoing basis and utilizes these demands in its forecast. Since 2011, OUC has consistently been a summer peaking utility and has had well in excess of a 15 percent reserve margin. As part of the annual forecasting process the new 10-year Summer Peak Energy Demand is compared to the previous year's 10-year forecast and any sizable variances are investigated.

- 11. Please explain any historic trends or other information as requested below in each of the following components of Summer/Winter Peak Demand:
  - a. Demand Reduction due to the Company's demand-side management program(s) and Self Service, by customer type (residential, commercial, industrial) as well as Total Customers, and identify the major factors that contribute to the growth/decline in the trends.

# **OUC Response:**

The forecast provided by OUC includes assumptions for appliance efficiency and saturation related to heating, cooling and other electric load. These assumptions capture historical changes in codes and standards and are used as inputs to the statistically adjusted end-use ("SAE") multi-regression modeling technique developed by Itron, Inc. Additionally, the multi-regression models also capture the impacts of Conservation above the requirements of the codes and standards.

The forecast provided by OUC includes assumptions for Self Service, specifically, customer-sited rooftop solar photovoltaic installations. These assumptions capture historical reductions of load due to Self Service.

b. Demand Reduction due to Demand Response, by customer type (residential, commercial, industrial), and identify the major factors that contribute to the growth/decline of the trends.

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#### **OUC** Response:

OUC does not offer demand response programs, so this question is not applicable.

c. Total Demand, and identify the major factors that contribute to the growth/decline in the trends.

# **OUC Response:**

See response to Question No. 11d.

d. Net Firm Demand, by the sources of peak demand appearing in Schedule 3.1 and Schedule 3.2 of the current planning period TYSP, and identify the major factors that contribute to the growth/decline in the trends.

# OUC Response:

Historically, the combined OUC & St. Cloud system peak has grown with the OUC and St. Cloud net energy for load (NEL) at approximately the same rate. For 2015 through 2024, actual NEL grew at 1.2% annually while the system peak grew at 1.4% in the summer period but fell 0.4% in the winter period due to cold weather in 2015.

- 12. Please explain any <u>current and forecasted</u> trends or other information as requested below in each of the following components of Summer/Winter Peak Demand:
  - a. Demand Reduction due to the Company's demand-side management program(s) and Self Service, by customer type (residential, commercial, industrial) as well as Total Customers, and identify the major factors that contribute to the growth/decline in the trends.

#### OUC Response:

The forecast provided by OUC includes assumptions for appliance efficiency and saturation related to heating, cooling and other electric load. These assumptions capture historical and projected changes in codes and standards and are used as inputs to the statistically adjusted end-use ("SAE") multi-regression modeling technique developed by Itron, Inc. Additionally, the multi-regression models also capture the impacts of Conservation above the requirements of the codes and standards. While the forecast takes into account the total Conservation impacts it does not explicitly differentiate between what's required by changes in codes and standards and Conservation impacts in excess of the requirements.

The forecast provided by OUC includes assumptions for Self Service, specifically, customer-sited rooftop solar photovoltaic installations. These assumptions capture historical and projected reductions of load due to Self Service. Projected Self Service was forecasted using adoption curves provided by the National Renewable Energy Lab as part of a recent study performed on OUC's service territory. According to this forecast, Self Service generation is projected to grow at an average annual rate of 9% from 2025 to 2034.

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b. Demand Reduction due to Demand Response, by customer type (residential, commercial, industrial), and identify the major factors that contribute to the growth/decline of the trends.

#### **OUC Response:**

OUC does not offer demand response programs, so this question is not applicable.

c. Total Demand, and identify the major factors that contribute to the growth/decline in the trends.

# OUC Response:

In addition to the answer shown in response to Question No. 11d, some decline in Total Demand is due to wholesale agreements expiring within the forecast period.

d. Net Firm Demand, by the sources of peak demand appearing in Schedule 3.1 and Schedule 3.2 of the current planning period TYSP, and identify the major factors that contribute to the growth/decline in the trends.

#### **OUC** Response:

Long term, the combined OUC & St. Cloud system peak is expected to grow along with the combined OUC & St. Cloud net energy for load (NEL) at approximately the same rate. For 2025 through 2034, NEL is expected to average 2.4% growth annually while the system peak is expected to average 2.5% growth in the summer period and 3.8% growth in the winter period. The winter peak is growing at a faster rate due to historic and forecasted weather trends. OUC's forecast winter peak is typically in the shoulder months with a similar load shape as the summer. Weather trends have shown these months are growing CDDs at a faster rate than the summer months.

13. [FEECA Utilities Only] Do the Company's energy and demand savings amounts reflected on the DSM and Conservation-related portions of all energy and demand savings schedules (Schedules 2.1, 2.2, and 2.3 for energy savings and Schedules 3.1, 3.2, and 3.3 for demand savings) reflect the Company's goals that were approved by the Commission in the 2024 FEECA Goalsetting dockets? If not, please explain what assumptions are incorporated within those amounts, and why.

#### **OUC Response:**

Yes. The projected energy and demand savings for 2025 through 2034 included in OUC's Schedules reflect the goals approved by the Commission in OUC's 2024 FEECA Goalsetting docket.

14. Please explain any anomalies caused by non-weather events with regard to annual historical data points for the period 10 years prior to the current planning period that have contributed to the following, respectively:

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- a. Summer Peak Demand.
- b. Winter Peak Demand.
- c. Annual Retail Energy Sales.

#### **OUC Response:**

The effects of COVID-19 caused a large decrease in 2020 in what would have been much higher peak demand had COVID-19 not occurred. Due to the weather effects that were greatly favorable to higher load, the overall negative effects on load from COVID-19 were largely mitigated in 2020. OUC is not aware of any other anomalies within the historical 10-year period.

- 15. Please provide responses to the following questions regarding the weather factors considered in the Company's retail energy sales and peak demand forecasts:
  - a. Please identify, with corresponding explanations, all the weather-related input variables that were used in the respective Retail Energy Sales, Winter Peak Demand, and Summer Peak Demand models.

# **OUC Response:**

Degree days are used for the sales forecast and are the difference between 65 F° and the average daily temperature (high plus low divided by 2). For the peak forecast variations are used where 55 F° and 80 F° are used instead of 65 F° for the winter and summer calculations, respectively.

b. Please specify the source(s) of the weather data used in the aforementioned forecasting models.

# **OUC Response:**

Historical temperature data is from the National Weather Service's Orlando International Airport ("MCO") reporting station.

c. Please explain in detail the process/procedure/method, if any, the Company utilized to convert the raw weather data into the values of the model input variables.

# **OUC Response:**

Converted raw weather data to degree days as described above in the response to number 15a.

- d. Please specify with corresponding explanations:
  - (1) How many years' historical weather data was used in developing each retail energy sales and peak demand model.

# OUC Response:

The regression models used data starting in 2011 in order to forecast future energy sales and peak demands.

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(2) How many years' historical weather data was used in the process of these models' calibration and/or validation.

# **OUC Response:**

The models used data starting in 2011 in order to forecast future energy sales and peak demands.

e. Please explain how the projected values of the input weather variables (that were used to forecast the future retail energy sales or demand outputs for each planning years 2025–2034) were derived/obtained for the respective retail energy sales and peak demand models.

# **OUC Response:**

The linear trends of annual heating and cooling degree days for the 44-year period (1981-2024) were extended through 2034 and used in the sales forecast models to represent normal weather. For the peak demand forecast the average heating and cooling degree days for the 2005 to 2024 20-year period were used to represent normal weather on the peak day.

- **16.** [Investor-Owned Utilities Only] If not included in the Company's current planning period TYSP, please provide load forecast sensitivities (high band, low band) to account for the uncertainty inherent in the base case forecasts in the following TYSP schedules, as well as the methodology used to prepare each forecast:
  - a. Schedule 2.1 History and Forecast of Energy Consumption and Number of Customers by Customer Class.
  - b. Schedule 2.2 History and Forecast of Energy Consumption and Number of Customers by Customer Class.
  - c. Schedule 2.3 History and Forecast of Energy Consumption and Number of Customers by Customer Class.
  - d. Schedule 3.1 History and Forecast of Summer Peak Demand.
  - e. Schedule 3.2 History and Forecast of Winter Peak Demand.
  - f. Schedule 3.3 History and Forecast of Annual Net Energy for Load.
  - g. Schedule 4 Previous Year and 2-Year Forecast of Peak Demand and Net Energy for Load by Month.

#### **OUC Response:**

This question is not applicable as OUC is not an Investor-Owned Utility.

- 17. Please address the following questions regarding the impact of all customerowned/leased renewable generation (solar and otherwise) and/or energy storage devices on the Utility's forecasts.
  - a. Please explain in detail how the Utility's load forecast accounts for the impact of customer's renewables and/or storage.

# **OUC Response:**

The forecast provided by OUC includes assumptions for customer-sited rooftop solar photovoltaic installations. These assumptions capture historical and projected reductions of load. Projected installations were forecasted using adoption curves provided by the National Renewable Energy Lab as part of a recent study performed on OUC's service territory. According to this forecast, solar rooftop generation is projected to grow at an average annual rate of 9% from 2025 to 2034.

# b. Please provide the annual impact, if any, of customer's renewables and/or storage on the Utility's retail demand and energy forecasts, by class and in total, for 2025 through 2034.

# **OUC Response:**

The table below contains the forecast annual impact of customer-owned/leased renewable generation (solar and otherwise) on OUC's retail demand and energy forecast.

		Sal	System Coincident Hourly					
	ouc		St. Cloud			Peak Demand & NEL Impact		
Calendar Year	Residential	General Service	Residential	General Service	Total	Summer (MW)	Winter (MW)	NEL (GWh)
2025	(77)	(20)	(75)	(0)	(171)	(25)	-	(184)
2026	(82)	(20)	(80)	(0)	(183)	(27)	-	(197)
2027	(87)	(21)	(84)	(0)	(193)	(28)	-	(207)
2028	(94)	(22)	(91)	(0)	(207)	(31)	-	(223)
2029	(105)	(24)	(102)	(0)	(232)	(34)	-	(249)
2030	(122)	(28)	(119)	(0)	(269)	(19)	-	(289)
2031	(138)	(30)	(134)	(0)	(303)	(21)	-	(326)
2032	(153)	(31)	(148)	(0)	(333)	(24)	-	(359)
2033	(165)	(33)	(161)	(0)	(360)	(25)	-	(387)
2034	(176)	(36)	(171)	(0)	(382)	(27)	_	(411)

# c. If the Utility maintains a forecast for the planning horizon (2025-2034) of the number of customers with renewables and/or storage, by customer class, please provide.

#### OUC Response:

OUC does not maintain a forecast of the number of customers with customer-owned/leased renewable generation.

Plug-in Electric Vehicles (PEVs)

18. Please refer to the Excel Tables File (PEV Charging). Complete the table by providing estimates of the requested information within the Company's service territory for the current planning period. Direct current fast charger (DCFC) PEV charging stations are those that require a service drop greater than 240 volts and/or use three-phase power.

#### **OUC Response:**

OUC continues to own and operate over 160 Level 2 ports, however, OUC's strategy is to now either own or facilitate the installation of Level 3 charging stations through private ownership. OUC has installed 21 DC fast chargers at the new Robinson Recharge Hub and has an additional 6 ports in construction at the Convention Center. OUC currently anticipates constructing or facilitating an additional 6 (or more) locations within OUC's service territory.

	Number of PEVs	Number of	Number of	Cumulative Impact of PEVs			
Year		Public PEV Charging	Public DCFC PEV Charging	Summer	Winter	Annual	
		Stations	Stations.	Demand	Demand	Energy	
				(MW)	(MW)	(GWh)	
2024	35,947	10,180	133	54	58	207	
2025	52,668	14,249	186	76	81	290	
2026	70,755	18,716	244	100	107	381	
2027	90,379	23,581	308	126	130	480	
2028	112,045	28,987	378	155	166	590	
2029	135,704	34,830	455	186	199	709	
2030	161,275	41,218	538	220	236	839	
2031	188,730	48,096	628	257	266	979	
2032	215,352	54,926	717	294	315	1,118	
2033	239,003	61,310	800	328	351	1,248	

#### Notes

- 1. All PEV data is BEV and PHEV vehicles.
- 2. Charging assumption #1 is 75% L2 to 25% DCFC ratio.
- 3. Ratio could change if we determine it's more economical to provide DCFC.
- 4. Charging assumption #2 is all EV's have access to home charging, those that do not will have a heavier need for public charging.
- 5. Charging assumption #3 is 85% of all EV charging is done at home, 15% public charging.
- 6. Charging station forecast represents the total number of chargers needed to support the forecasted annual energy demand.
- 7. Our current installation count is not factored into these projections.
- 19. Please describe what method(s) the Utility has used, if any, to address the impact of PEVs charging on seasonal peak demand, including any special rates or tariffs, demand-side management programs (including PEV-centric demand response), customer education,

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# or other means. As part of your response, identify each and provide the estimated impact on seasonal peak demand.

# OUC Response:

OUC has begun to study the impact of PEVs on grid infrastructure. OUC has identified and correlated owner registrations to premise data to begin understanding the impact of PEV ownership on customer load profiles. This work is still in development.

This will send pricing signals to customers to encourage EV charging off peak. Presently OUC offers no demand response programs, nor are there EV-specific rates. OUC has recently announced its Peak SHIFT pricing plan. One of the aspects of this plan is an opt-out time of use rate structure for residential and general service non-demand customers. It is expected that the lower off-peak pricing will be utilized by EV owners to charge their vehicles for less money. A formal analysis of this impact has not yet been completed and as such no impact has been included in this year's site plan.

# 20. Please explain any historic trends related to the following:

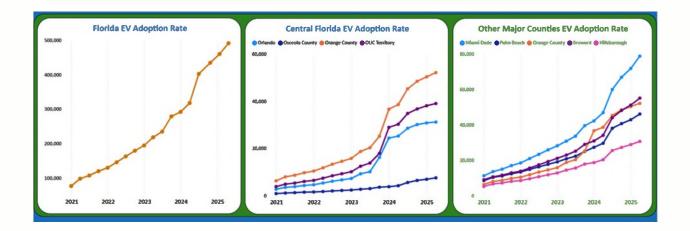
- a. PEV counts
- b. PEV charging installation counts
- c. Annual energy consumption
- d. Seasonal Peak Demand (Summer and Winter)

# OUC Response:

OUC Battery and Plug-in Electric Vehicle (BEV and PHEV) adoption continues to demonstrate strong growth. OUC attributes this growth to a number of factors including the variety and number of available vehicles for sale in dealer showrooms, public charging access in Central Florida, customer perceptions of reduced total cost of ownership and the availability of purchase incentives. OUC has been able to attribute an increase in consumption at homes that report the presence of BEV/PHEV. Without submetering it is difficult to separate out consumption due to electric vehicles, however, on average we believe the presence of an EV yields an increase of 2,800 kWh/house/vehicle annually.

Orange County is ranked second in the State of Florida for the total number of public charging stations with approximately 35 vehicles per public charging port. This is comparable to large counties like Miami-Dade and Broward, where population is significantly larger.

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- 21. Please explain any current or forecasted trends related to the following:
  - a. PEV counts
  - b. PEV charging installation counts
  - c. Annual energy consumption
  - d. Seasonal Peak Demand (Summer and Winter)

# **OUC Response:**

OUC believes that the number of BEV/PHEV will continue to grow for Orange County. This assumes that EV vehicles will continue to take share from Internal Combustion Engine (ICE) powertrains, EVs will begin to populate the used car market as vehicles are returned from initial lease arrangements and as consumer confidence grows around the EV as fit for use. OUC believes that additional DCFC density reduces consumer range anxiety and increases the likelihood that EVs join the consideration set for new and used vehicle purchase. OUC plans to install or facilitate installation of an additional 5-12 major DCFC hubs throughout its service territory. Once new residential demand and TOU rates come into effect, OUC believes that electric vehicle owners will schedule car charging to occur during off-peak hours to obtain the best fuel rate possible. Vehicle manufacturers permit owners to establish a future start time to begin charging, leveraging any off-peak rate savings that can be achieved without additional effort by the owner. This algorithm calculates the require time to achieve desired charge levels and prepares the vehicle to be ready for departure. This type of algorithm will permit random and intermittent charging start times during off-peak and reduce the impact on peak.

- 22. Please describe any Company programs or tariffs currently offered to customers relating to PEVs, and describe whether any new or additional programs or tariffs relating to PEVs will be offered to customers within the current planning period.
  - a. Of these programs or tariffs, are any designed for or do they include educating customers on electricity as a transportation fuel?

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#### OUC Response:

OUC continues to offer a \$200 rebate for new and used EV/PHEV purchases or leases. OUC offers a \$50.00 rebate for taking a test drive and promote incentives to dealerships for EV sales. OUC provides sales incentives to participating OEM dealerships for the sale of BEV and PHEV, the incentive ranges from \$25.00 - \$75.00 per vehicle sold based on the number of sales per month by a specific representative. OUC does not currently offer any tariffs specific to electric vehicle charging.

OUC has formed an educational subcommittee for electrification of transportation. In addition, OUC:

- conducts Ride and Drive events,
- maintains a web portal for information on purchasing PEVs, and
- has internal and external marketing campaigns
- b. Does the Company have any programs where customers can express their interest or expectations for electric vehicle infrastructure as provided for by the Utility, and if so, please describe in detail.

#### **OUC Response:**

OUC customers, particularly businesses, can express their interest with access to OUCs programs. They can provide feedback and obtain information through OUC's web presence and EV residential and commercial email addresses.

23. Has the Company conducted or contracted any research to determine demographic and regional factors that influence the adoption of PEVs applicable to its service territory? If so, please describe in detail the methodology and findings.

# OUC Response:

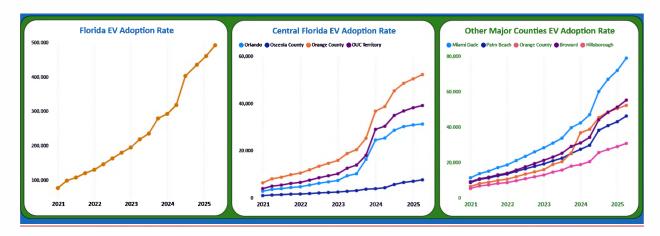
OUC is participating in the EPRI Co-located project that intends to understand some of the factors that influence EV, Solar, and battery adoption. OUC is facilitating survey requests from our customers to understand their decision strategy around these technologies. EPRI will compile survey responses and provide results to OUC.

24. Please describe if and how the 2024 presidential election and the new administration has impacted the Company's projection of PEV growth and related demand and energy growth.

# OUC Response:

OUC has not studied the specific impact of the 2024 presidential election and new administration. Presently, OUC has begun to see evidence of a slowdown in BEV/PHEV growth. The pace of growth has begun to slow, evidenced by 7% across the State of Florida, the smallest quarter over quarter increase in the last 24 months. OUC believes that EV adoption is driven by access to DC Fast Charging equipment. With the implementation of new global tariffs and the halt in payment of previously awarded Bipartisan Infrastructure Law grants, OUC anticipates a slowdown in adoption. EVs will continue to garner market share as new vehicle designs are brough into dealer showrooms, but overall adoption will slow in

tandem with the overall automotive market. The graph below shows quarterly statistics for the state of Florida and the major counties through April 2025.



# 25. If applicable, please list and briefly describe all PEV pilot programs the Company is currently implementing and the status of each program.

# **OUC Response:**

OUC's PEV pilot programs currently consist of the following:

- One pilot program is the integration and controls of level three chargers from an operable load concept. The ability to ramp these loads or provides incentives to customers that will allow us to manage demand provides OUC a tool during periods of volatility that will reduce additional assets on the grid and thus reduce costs to our customers. We are testing these controls and communications within our Grid Integration Lab and developing algorithms that will allow us to evaluate these economics before developing a customer program.
- Another pilot program is looking into Vehicle-to-everything (V2X) solutions. We currently have a Vehicle-to-grid (V2G) charger that allows us to test this technology and we are looking at two additional V2X solutions. The batteries in cars are several times the traditional residential storage solutions. This provides a lot of options when it comes to grid controls and economics for our customers.
- Another pilot program is storage integrated PEV chargers. These systems reduce the
  interconnection size required for PEV high speed chargers. They also provide
  resiliency during specific events within the grid. The ability to execute multiple
  charging sessions on a single charge of the battery provides new design abilities for our
  charging hubs.

Each PEV pilot program is designed to find new ways to partner with our customers or provide them better economics and ensure that OUC deploys PEV in the most sustainable way.

26. If applicable, please describe any key findings and metrics of the Company's PEV pilot program(s) which reveal the PEV impact to the demand and energy requirements of the Company.

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# **OUC Response:**

OUC's pilot with the local transit authority point to significant increases to local infrastructure and overall future demand due to low load factors. The transit authority currently has 14 buses and has aggressive adoption plans for EVs and this adoption will require upgrades to infrastructure. The transit authority has a narrow window to fully charge their fleet and will create a significant peak on their feeder in the next year or two. If other fleets in OUC's territory follow the same adoption with limited charging windows, OUC will need to develop mechanisms to flatten the demand of these events or pass through the expense of upgrades required to serve.

OUC continues to monitor the performance of the two DCFC recharging hubs it operates in Orlando. In both instances, the hub transformers were sized to nameplate specification of the attached equipment. Load factors remain very low – in the single and low double-digit ranges. OUC is actively tracking load factors and believes for future hub deployments that sizing the transformers to support 70% of the nameplate load for hub deployments provides sufficient capacity to meet requirements and maintain an adequate safety factor. OUC is also investigating the use of charge management software to limit the ability of the chargers to call for more power than for which the transformer is rated.

The Robinson Street Hub consists of 21 DCFC ports – six rated at 240 kW and 15 rated at 150 kW. The hub is open 24 hours a day, 365 days a year and is approximately 17% utilized. Users of the hub spend approximately 40 minutes a session recharging a vehicle. On average customers dispense ~38 kWh of energy per session. Recharge times are largely driven by the vehicle charging algorithms which often cap the rate at which energy is dispensed over time. Hub volume varies by season. OUC is actively investigating correlations to local events and visitor traffic to better forecast utilization.

The hub located at the Orange County Convention Center consists of six (6) DCFC ports rated at 240 kW. Utilization is approximately 16%, customers spend approximately 37 minutes per session and dispense approximately 34 kWh per session.

For both hubs, approximately 9% of customers visit the hub more than 10 times a month, while between 50% and 55% of the customers at the hubs are first-time users, likely a result of the large number of EVs deployed in the Orlando rental car fleet and the high volume of visitors to the region.

# Demand Response

27. [FEECA Utilities Only] Please refer to the Excel Tables File (DR Participation). Complete the table by providing for each source of demand response annual customer participation information for 10 years prior to the current planning period. Please also provide a summary of all sources of demand response using the table.

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#### **OUC Response:**

OUC does not currently offer demand response programs to its customers.

28. [FEECA Utilities Only] Please refer to the Excel Tables File (DR Annual Activation). Complete the table by providing for each source of demand response annual usage information for 10 years prior to the current planning period. Please also provide a summary of all demand response using the table.

# OUC Response:

OUC does not currently offer demand response programs to its customers.

# **Generation & Transmission**

# **Utility-Owned Resources**

- 29. Please refer to the Excel Tables File tabs listed below. Complete the tables by providing information on the utility-owned generation resources for the time period listed. When completing the tables, please consider the following factors: (i) for multiple small (<0.25 MW) distributed resources of the same type and fuel source, provide a single entry; (ii) for solar facilities, if available, provide the nameplate DC capacity as the gross capacity, the nameplate AC capacity as the net capacity, and the firm contribution during time of system peak as the firm capacity. If a solar facility is combined with an energy storage system, identify the capacity of the energy storage system in a separate line.
  - a. Excel Tables File (Existing Utility), including each utility-owned generation resource in service as of December 31 of the year prior to the current planning period.

# OUC Response:

Please see attached "Data Request #1 – Excel Tables\_OUC" (Excel .xlsx file), and refer to the Worksheet titled "Existing Utility"

b. Excel Tables File (Planned Utility), including each utility-owned generation resource that is planned to enter service during the current planning period.

#### **OUC Response:**

OUC does not have any utility-owned resources planned to enter service during the current planning period.

30. For each planned utility-owned generation resource or group of resources, provide a narrative response discussing the current status of the project.

# OUC Response:

OUC does not have any utility-owned resources planned to enter service during the current planning period.

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31. Please list and discuss any planned utility-owned renewable resources that have, within the past year, been cancelled, delayed, or reduced in scope. What was the primary reason for the changes? What, if any, were the secondary reasons?

# **OUC Response:**

OUC has not had any planned utility-owned renewable resources within the past year that were cancelled, delayed, or reduced in scope.

32. Discuss the impact of any recent federal actions on permitting for renewable generation. As part of your discussion, identify what projects, if any, were impacted and what those impacts were.

# **OUC Response:**

OUC has not been directly affected by recent federal actions on permitting for renewable generation.

33. Please refer to the Excel Tables File (Planned PPSA). Complete the table by providing information on each planned generation resource that requires siting under the Power Plant Siting Act. For each planned unit, provide the date of the Commission's Determination of Need and Power Plant Siting Act certification, if applicable.

# **OUC Response:**

OUC does not have any planned generation resource with an in-service date within the current planning period that requires siting under the Power Plant Siting Act.

34. Please refer to the Excel Tables File (Planned Construction). Complete the table by providing information on all planned generating units with an in-service date within the current planning period. For each planned unit, provide the final decision ("drop dead") date for a decision on whether or not to construct each unit, and the estimated dates for site selection, engineering, permitting, procurement, and construction.

#### OUC Response:

OUC does not have any planned generating units with an in-service date within the current planning period. Therefore, there are no "drop dead" dates or other information to provide in response to this question.

35. Please refer to the Excel Tables File (Unit Performance). Complete the table by providing information on each utility-owned generation resource in service during the current planning period. For historic performance, use the past three years for a historical average. For projected performance, use an average of the next 10-year period for projected factors.

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#### OUC Response:

Please see attached "Data Request #1 – Excel Tables\_OUC" (Excel .xlsx file), and refer to the Worksheet titled "Unit Performance". Information is only provided for units for which OUC maintains a majority ownership.

36. Please refer to the Excel Tables File (Unit Dispatch). Complete the table by providing the actual and projected capacity factors for each existing and planned unit on the Company's system for the 11-year period beginning one year prior to the current planning period.

# OUC Response:

OUC considers the requested information to be confidential and therefore has not provided it in response to this request.

37. [Investor-Owned Utilities Only] For each existing unit on the Company's system, please provide the planned retirement date. If the Company does not have a planned retirement date for a unit, please provide an estimated lifespan for units of that type and a non-binding estimate of the retirement date for the unit.

# **OUC Response:**

This question is not applicable as OUC is not an Investor-Owned Utility.

38. [Investor-Owned Utilities Only] Please refer to the Excel Tables File (Solar and Storage Sites). Complete the table by providing information on each of the Company's existing and planned solar and/or energy storage facilities, including the Order and date of Commission approval (or Pending if not yet approved). Identify the associated cost recovery mechanism (such as in a base rate case, the environmental cost recovery clause, solar base rate adjustment, or special tariffs such as SolarTogether, SolarTogether Extension, and Clean Energy Connection) for each facility as well.

# OUC Response:

This question is not applicable as OUC is not an Investor-Owned Utility

39. In its planning process, did the Company consider constructing any solar or energy storage facilities that are co-located with other uses such as parking areas, waterways, existing buildings (including rooftops), or substations? If not, explain why not. If so, explain whether the analysis selected any facilities of this type and identify them.

#### OUC Response:

The solar and energy storage additions reflected in OUC's 2025 Ten-Year Site Plan are assumed to be in the form of purchase power agreements from a third party. As such, OUC has not specifically evaluated the co-location considerations noted in the question but may evaluate such considerations as part of OUC's ongoing planning and procurement activities.

OUC is actively analyzing the introduction of a floating solar program for commercial customers taking advantage of the 400+ suitable water bodies identified in an OUC-sponsored

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NREL study. OUC is developing a pilot nanogrid site at the 4Roots campus that will include floating solar, arrays on parking infrastructure and incorporated storage.

OUC recognizes that solar arrays can be deployed in a number of variations. The challenge with deploying arrays in these configurations is the cost to deploy, which in some cases can be as much as two to three times the cost of deploying solar at utility-scale.

40. Please refer to the Excel Tables File (Unit Modifications). Complete the table by providing information on all of the Company's units that are either will or are potential candidates to change fuel types or be repower, such as conversion to a Combined Cycle unit component.

# OUC Response:

Please see attached "Data Request #1 – Excel Tables\_OUC" (Excel .xlsx file), and refer to the Worksheet titled "Unit Modifications". OUC does not have any units that are considered as options for repowering to combined cycle. OUC's existing Stanton Energy Center Units 1 and 2 may be potential candidates to change fuel to operate on 100 percent natural gas; as discussed throughout OUC's 2025 Ten-Year Site Plan, OUC currently anticipates placing Stanton Energy Center Unit 1 into extended cold shutdown by the end of May 2026 and anticipates converting Stanton Energy Center Unit 2 to operate on 100 percent natural gas no later than 2027.

41. Please refer to the Excel Tables File (Transmission Lines). Complete the table by providing a list of all proposed transmission lines for the current planning period that require certification under the Transmission Line Siting Act. Please also include in the table transmission lines that have already been approved, but are not yet in-service.

#### **OUC Response:**

Please see attached "Data Request #1 – Excel Tables\_OUC" (Excel .xlsx file), and refer to the Worksheet titled "Transmission Lines". OUC does not have any proposed transmission lines in the planning period that require certification under the Transmission Line Siting Act. OUC does have a single transmission line (St. Cloud East – Magnolia Ranch) that is certified under the Transmission Line Siting Act and is under construction.

# Power Purchase and/or Sale Agreements

42. Please refer to the Excel Tables File tabs listed below. Complete the tables by providing information on each power purchase agreement (PPA) for the time period listed. If the PPA is associated with a particular generating unit(s), provide additional information about those units if available. When completing the tables, please consider the following factors: (i) for multiple small (<0.25 MW) distributed resources of the same type and fuel source, provide a single entry; (ii) for solar facilities, if available, provide the nameplate DC capacity as the gross capacity, the nameplate AC capacity as the net capacity, and the firm contribution during time of system peak as the firm capacity. If a solar facility

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is combined with an energy storage system, identify the capacity of the energy storage system in a separate line.

a. Excel Tables File (Existing PPA), including each PPA still in effect by December 31 of the year prior to the current planning period pursuant to which energy was delivered to the Company during said year.

#### OUC Response:

Please see attached "Data Request #1 – Excel Tables\_OUC" (Excel .xlsx file), and refer to the Worksheet titled "Existing PPA".

OUC's only PPA with a traditional generator that was in effect by December 31, 2023 is with NextEra Energy (formerly with Southern-Company Florida, LLC) for capacity and energy from Stanton Energy Center Unit A that began in 2001. Gross ratings and DC capacity ratings are not available to report as gross capacity.

b. Excel Tables File (Planned PPA), including each PPA pursuant to which energy will begin to be delivered to the Company during the current planning period.

# **OUC Response:**

Please see attached "Data Request #1 – Excel Tables\_OUC" (Excel .xlsx file), and refer to the Worksheet titled "Planned PPA".

As these PPAs have not yet been finalized, OUC only has estimates of AC capacity ratings to report as net capacity and corresponding estimates of firm capacity, and OUC does not have DC capacity ratings to report as gross capacity.

43. For each planned power purchase agreement, provide a narrative response discussing the current status of the associated generating project.

#### OUC Response:

As discussed throughout OUC's 2025 Ten-Year Site Plan, OUC anticipates entering into additional solar PPAs (both with and without energy storage); these PPAs are included for information purposes in the Excel table in response to question No. 42(b) and there are not any additional details to discuss related to these PPAs at this time.

44. Please list and discuss any long-term power purchase agreements that have, within the past year, been cancelled, delayed, or reduced in scope. What was the primary reason for the change? What, if any, were the secondary reasons?

# OUC Response:

OUC did not have any long-term power purchase agreements within the past year that were cancelled, delayed, or reduced in scope.

- 45. Please refer to the Excel Tables File tabs listed below. Complete the tables by providing information on each power sale agreement (PSA) for the time period listed. If the PSA is associated with a particular generating unit(s), provide additional information about those units if available. When completing the tables, please consider the following factors: (i) for multiple small (<0.25 MW) distributed resources of the same type and fuel source, provide a single entry; (ii) for solar facilities, if available, provide the nameplate DC capacity as the gross capacity, the nameplate AC capacity as the net capacity, and the firm contribution during time of system peak as the firm capacity. If a solar facility is combined with an energy storage system, identify the capacity of the energy storage system in a separate line.
  - a. Excel Tables File (Existing PSA), including each PSA still in effect by December 31 of the year prior to the current planning period pursuant to which energy was delivered by the Company during said year.

# OUC Response:

Please see attached "Data Request #1 – Excel Tables\_OUC" (Excel .xlsx file), and refer to the Worksheet titled "Existing PSA".

As outlined in Section 2.0 of OUC's 2025 TYSP, OUC's power sales agreements in effect on December 31, 2024 consist of agreements with the City of Lake Worth Beach, the City of Winter Park, Lakeland Electric, the City of Mt. Dora, and the City of Chattahoochee.

b. Excel Tables File (Planned PSA), including each PSA pursuant to which energy will begin to be delivered by the Company during the current planning period.

#### **OUC** Response:

OUC does not have any planned power sale agreements pursuant to which energy will begin to be delivered from OUC to a third-party during the current planning period.

46. For each planned power sale agreement, provide a narrative response discussing the current status of the agreement.

# OUC Response:

OUC does not have any planned power sales agreements.

47. Please list and discuss any long-term power sale agreements within the past year that were cancelled, expired, or modified. What was the primary reason for the change? What, if any, were the secondary reasons?

# OUC Response:

OUC did not have any long-term power sale agreements within the past year that were cancelled, expired, or modified.

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#### Renewable Generation

48. Please refer to the Excel Tables File (Renewables). Complete the table by providing the actual and projected annual energy output of all renewable resources on the Company's system, by source, for the 11-year period beginning one year prior to the current planning period.

#### OUC Response:

Please see attached "Data Request #1 – Excel Tables\_OUC" (Excel .xlsx file), and refer to the Worksheet titled "Renewables"

49. Please describe any actions the Company engages in to encourage production of renewable energy within its service territory.

#### OUC Response:

OUC continues to offer a net metering program for arrays less than 2 MW in capacity that are primarily designed to offset a customer's annual consumption. In March, 2026 the reimbursement rate for energy returned to OUC's grid will change to \$0.04567 per kWh for all customers who have interconnected to OUC's grid on or after July 1, 2025. This rate will change to the tariffed fuel charge in effect on July 1, 2035. Customers who have interconnected to OUC's grid prior to July 1, 2025 will remain on the legacy full retail rate until July 1, 2045 as long as they remain at the interconnected premise.

OUC will reintroduce a battery storage rebate for customers in July of 2025, offering \$150 per rated kWh up to a maximum one-time rebate of \$2,000 towards the purchase and installation of a permanently installed on site battery storage capacity.

OUC offers Solar PV incentive programs to Residential and Commercial Customers. The Solar PV programs provide net-metering at OUC's retail rate.

- 50. Please identify and describe any programs the Company offers that allows its customers to contribute towards the funding of specific renewable projects, such as community solar programs.
  - a. Please describe any such programs in development with an anticipated launch date within the current planning period.

#### OUC Response:

The OUC SunChoice© program, launched in 2024, allows residential and commercial customers to voluntarily support solar energy by subscribing in 10% increments of their energy consumption, up to 100%. Customers pay a premium on their utility bill based on their subscription level.

- Residential Offering:
  - o Reopened in March 2025 as a continuation of OUC's Community Solar program.

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- o Subscribers pay an extra \$0.007 per kWh and receive solar offsets and recognition through OUC's *Bright Bunch* program. Enrollment is flexible with 30 days' notice to leave; re-enrollment requires a six-month wait.
- Commercial Offering:
  - o Commercial customers pay premiums based on a three-tiered structure:
    - 10%-30% subscription: \$0.01 per kWh
    - 40%-70%: \$0.01 for the first 30%, then \$0.025 for the additional 40%-70%
    - 80%-100%: \$0.01 for the first 30%, \$0.025 for 40%-70%, and \$0.045 for 80%-100%

OUC generates and retires Green-e® certified Renewable Energy Certificates (RECs) on behalf of commercial subscribers, providing documentation for clean energy claims. Subscribers commit for one 90-day billing cycle at a time and can exit with 30 days' notice, subject to a two-cycle wait for rejoining.

- Anchor Tenancy:
  - Commercial subscribers who annually commit over 25 MW can become an "anchor tenant" for a utility-scale solar site, gaining promotional rights. Only one anchor tenant is allowed per 74.9 MW site, based on availability.

#### **Energy Storage**

51. Briefly discuss any progress in the development and commercialization of non-lithiumion based battery storage technology the Company has observed in recent years.

#### **OUC Response:**

In 2020, OUC installed a small-scale (20kW), commercially-available vanadium flow battery system at a demonstration site. The performance of this system under controlled conditions will help inform OUC's decisions regarding larger-scale systems in the future. The battery chemistry showed significant promise for future adoption but the execution of the technology had some mechanical issues. We will be pursuing this in the future with better hardware. In 2022, OUC installed a flywheel storage solution and has started to evaluate long duration thermal storage systems. OUC had planned to start the installation of a hydrogen demonstration project that will evaluate hydrogen as a storage medium; current federal funding has been paused, putting this project on hold.

52. If applicable, please describe the strategy of how the Company charges and discharges its energy storage facilities. As part of the response discuss if any recent legislation, including the IRA, has changed how the Company dispatches its energy storage facilities.

#### OUC Response:

Currently OUC dispatches storage as pilot programs to evaluate the function and financial considerations of PV Smoothing, Back-up Power, Volt-Var Support and Peak Shifting/Shaving. These pilot programs will inform the economy and operational ability of these technologies and develop their dispatch algorithms. Currently the IRA has not impacted these approaches.

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53. Briefly discuss any considerations reviewed in determining the optimal positioning of energy storage technology in the Company's system (e.g., closer to/further from sources of load, generation, or transmission/distribution capabilities).

# OUC Response:

Several aspects of energy storage systems are under consideration (in no particular order): 1) AC- or DC-coupled to renewable energy sources, 2) proximity of AC-coupled systems to renewable energy sources, 3) proximity to heavily-loaded feeders, 4) site/land-use limitations, and 5) potential for value-stacking (e.g. back-up power options). 6) Land availability, setbacks, land use, etc., are considered and limit siting. In 2025, OUC is commissioning a pilot battery project actively dispatching pilots to evaluate each of these and understand their full cost/benefit which is expected to inform the creation of an adoption roadmap. The site is co-located at a substation with interconnect into a residential feeder with high solar penetration. This site will provide significant testing opportunities.

54. Please explain whether customers have expressed interest in energy storage technologies. If so, describe the type of customer (residential, commercial industrial) and how have their interests been addressed.

# **OUC Response:**

OUC has received occasional inquiries from solar PV contractors on behalf of ratepayers regarding OUC's procedures pertaining to behind-the-meter batteries coupled with solar PV systems. Such systems are permitted by OUC and are subject to the same vetting process as solar systems without storage. As of December 31, 2024, OUC has 1,084 customer interconnected battery storage systems.

55. Please refer to the Excel Tables File (Existing Storage). Complete the table by providing information on all energy storage technologies that are currently either part of the Company's system portfolio or are part of a pilot program sponsored by the Company.

# OUC Response:

Please see attached "Data Request #1 – Excel Tables\_OUC" (Excel .xlsx file), and refer to the Worksheet titled "Existing Storage". The information in this worksheet reflects energy storage technologies owned by OUC.

56. Please refer to the Excel Tables File (Planned Storage). Complete the table by providing information on all energy storage technologies planned for in-service during the current planning period either as part of the Company's system portfolio or as part of a pilot program sponsored by the Company.

#### OUC Response:

OUC does not have any planned energy storage to be owned by OUC during the current planning period.

57. Please identify and describe the objectives and methodologies of all energy storage pilot programs currently running or in development with an anticipated launch date within the current planning period. If the Company is not currently participating in or

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developing energy storage pilot programs, has it considered doing so? If not, please explain.

- a. Please discuss any pilot program results, addressing all anticipated benefits, risks, and operational limitations when such energy storage technology is applied on a utility scale (> 2 MW) to provide for either firm or non-firm capacity and energy.
- b. Please provide a brief assessment of how these benefits, risks, and operational limitations may change over the current planning period.
- c. Please identify and describe any plans to periodically update the Commission on the status of your energy storage pilot programs.

# OUC Response:

OUC has completed the installation of a 4 MW/8 MWh battery at a substation in proximity to an existing 74.5 MW solar farm. After final commissioning, OUC will evaluate the costs, benefits, risks, and operational limitations of the system. OUC is also considering customer sited solar projects to evaluate distributed energy resource management system (DERMS).

# Reliability

58. Please refer to the Excel Tables File (Reliability). Complete the table by providing the loss of load probability, reserve margin, and expected unserved energy for each year of the planning period.

#### **OUC Response:**

Please see attached "Data Request #1 – Excel Tables\_OUC" (Excel .xlsx file), and refer to the Worksheet titled "Reliability".

59. Describe in detail the methodology the Utility used to determine the seasonal firm capacity contribution of its solar facilities or purchases and provide the percentage contribution for each facility, if applicable. As part of this discussion, please explain whether the Company's existing and/or future solar facilities shift the hour of system peak demand for reliability planning purposes net of solar generation.

# **OUC Response:**

OUC's estimated seasonal firm capacity contributions of its solar facilities and purchases are developed based on hourly forecasts of solar and load. For planning purposes, OUC assumes that 50 percent of the solar facility's nameplate AC rating is available as firm capacity at the time of summer peak demand, and 0 percent of the solar facility's nameplate AC rating is available as firm capacity at the time of winter peak demand. As the amount of solar available to OUC increases, OUC anticipates that the hour of system peak demand for reliability purposes net of solar generation may shift by one hour in the latter 2 or 3 years of the 10 year forecast.

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60. [Investor Owned Utilities Only] Please refer to Excel Tables File (Firm Solar). Provide an example hourly contribution of the Company's generating units compared to the system demand for a typical seasonal peak day for each season (Summer and Winter). As part of this response, provide the typical hourly demand and contribution of non-firm renewable resources (such as solar or wind), energy storage (charging and discharging separately), nuclear, natural gas, coal, oil, firm renewables, all other generation, purchased power, power sales, and demand response, if applicable.

#### OUC Response:

This question is not applicable as OUC is not an Investor-Owned Utility.

- 61. If the Company utilizes non-firm generation sources in its system portfolio, please detail whether it currently utilizes or has considered utilizing energy storage technologies to provide firm capacity from such generation sources. If not, please explain.
  - a. Based on the Company's operational experience, please discuss to what extent energy storage technologies can be used to provide firm capacity from non-firm generation sources. As part of your response, please discuss any operational challenges faced and potential solutions to these challenges.

# OUC Response:

OUC is currently evaluating opportunities with battery integration with solar PV systems. At this time, OUC does not have operational experience with energy storage systems for the purpose of providing firm capacity from non-firm generation.

# **Environmental**

- 62. Please explain if the Company assumes carbon dioxide (CO<sub>2</sub>) compliance costs in the resource planning process used to generate the resource plan presented in the Company's current planning period TYSP. If the response is affirmative, answer the following questions:
  - a. Please identify the year during the current planning period in which CO2 compliance costs are first assumed to have a non-zero value.
  - b. [Investor-Owned Utilities Only] Please explain if the exclusion of CO2 compliance costs would result in a different resource plan than that presented in the Company's current planning period TYSP.
  - c. [Investor-Owned Utilities Only] Please provide a revised resource plan assuming no CO2 compliance costs.

#### OUC Response:

CO<sub>2</sub> compliance costs have not been included in the resource planning process used to generate the resource plan presented in OUC's 2025 TYSP. Parts (b) and (c) of the question are not applicable to OUC as OUC is not an Investor-Owned Utility.

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63. Provide a narrative explaining the impact of any existing environmental regulations relating to air emissions and water quality or waste issues on the Company's system during the previous year. As part of your narrative, please discuss the potential for existing environmental regulations to impact unit dispatch, curtailments, or retirements during the current planning period.

#### **OUC Response:**

On April 25, 2024, EPA released a pre-publication of final rules regulating greenhouse gas emissions (GHGs) from electric generating units (EGUs) pursuant to Section 111 of the Clean Air Act. As part of this rule, EPA finalized emission guidelines for GHG emissions from existing fossil fuel-fired steam generating EGUs pursuant to Clean Air Act Section 111(d), which include both coal-fired and oil/gas-fired steam generating EGUs. This rule impacts any OUC coal-fired EGUs that are not retired prior to January 1, 2032 by requiring these EGUs to meet GHG emissions limits based on the best system of emission reduction (BSER). The applicable BSER emission limits for existing EGUs are based on unit retirement date.

- 64. For the U.S. EPA's Standards of Performance for Greenhouse Gas Emissions for New Stationary Sources: Electric Utility Generating Units Rule:
  - a. Will your Company be materially affected by the rule?
  - b. What compliance strategy does the Company anticipate employing for the rule?
  - c. If the strategy has not been completed, what is the Company's timeline for completing the compliance strategy?
  - d. Will there be any regulatory approvals needed for implementing this compliance strategy? How will this affect the timeline?
  - e. Does the Company anticipate asking for cost recovery for any expenses related to this rule? Refer to the Excel Tables File (Emissions Cost). Complete the table by providing information on the costs for the current planning period.
  - f. If the answer to any of the above questions is not available, please explain why.

#### OUC Response:

Please see responses below.

- a. OUC does not currently have any firm plans related to the addition of new generating units that would be affected by this standard.
- b. Not applicable.
- c. Not applicable.
- d. Not applicable.
- e. Not applicable.
- 65. Explain any expected reliability impacts resulting from each of the EPA rules listed below. As part of your explanation, please discuss the impacts of transmission constraints and changes to units not modified by the rule that may be required to maintain reliability.
  - a. Mercury and Air Toxics Standards (MATS) Rule.

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- b. Cross-State Air Pollution Rule (CSAPR).
- c. Cooling Water Intake Structures (CWIS) Rule.
- d. Coal Combustion Residuals (CCR) Rule.
- e. Standards of Performance for Greenhouse Gas Emissions for New Stationary Sources: Electric Utility Generating Units.
- f. Affordable Clean Energy Rule or its replacement.
- g. Effluent Limitations Guidelines and Standards (ELGS) from the Steam Electric Power Generating Point Source Category.

#### **OUC Response:**

OUC does not anticipate reliability impacts due to EPA rules "b" through "e" and "g" listed above.

On April 24, 2023 the EPA published the proposal for the "National Emission Standards for Hazardous Air Pollutants for the Coal- and Oil-Fired Electric Utility Steam Generating Units (EGUs), commonly referred to as the Mercury and Air Toxics Standards (MATS). Review of the Residual Risk and Technology Review". As a result of these rule changes, the proposal seeks to amend the Mercury and Air Toxics Rule (MATS). The proposal could potentially halve or even further reduce the current filterable particulate matter (PM) limit of 0.03 lb./MMBtu applicable to the Stanton Energy Center's coal units will be reduced from 0.03 lb./MMBtu to 0.01 lb./MMBtu. The rule changes will also require the installation of PM CEMS on any operational coal both units within three years of the publication of the final rule. OUC will continue to monitor the effects of this rule development to evaluate possible impacts to reliability.

Related to EPA rule "f" above, on 19 January 2021, the United States Court of Appeals for the District of Columbia Circuit (D.C. Circuit) vacated the Affordable Clean Energy Rule (ACE Rule) and remanded to the EPA for further proceedings consistent with its opinion. On April 25, 2024, EPA released a pre-publication of final rules regulating greenhouse gas emissions (GHGs) from electric generating units (EGUs) pursuant to Section 111 of the Clean Air Act. As part of this rule, EPA finalized emission guidelines for GHG emissions from existing fossil fuel-fired steam generating EGUs pursuant to Clean Air Act Section 111(d), which include both coal-fired and oil/gas-fired steam generating EGUs. This rule impacts any OUC coal-fired EGUs that are not retired prior to January 1, 2032 by requiring these EGUs to meet GHG emissions limits based on the best system of emission reduction (BSER). The applicable BSER emission limits for existing EGUs are based on unit retirement date.

66. Please refer to the Excel Tables File (EPA Operational Effects). Complete the table by identifying, for each unit affected by one or more of EPA's rules, what the impact is for each rule, including: unit retirement; curtailment; installation of additional emissions controls: fuel switching: or other impacts identified by the Company.

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#### OUC Response:

Please see attached "Data Request #1 – Excel Tables\_OUC" (Excel .xlsx file), and refer to the Worksheet titled "EPA Operational Effects".

67. Please refer to the Excel Tables File (EPA Cost Effects). Complete the table by identifying, for each unit impacted by one or more of the EPA's rules, what the estimated cost is for implementing each rule over the course of the planning period.

#### **OUC** Response:

Please see attached "Data Request #1 – Excel Tables\_OUC" (Excel .xlsx file), and refer to the Worksheet titled "EPA Cost Effects". The costs shown in the table correspond to the years in which the expenditures occurred.

68. Please refer to the Excel Tables File (EPA Unit Availability). Complete the table by identifying, for each unit impacted by one or more of EPA's rules, when and for what duration units would be required to be offline due to retirements, curtailments, installation of additional controls, or additional maintenance related to emission controls. Include important dates relating to each rule.

# **OUC Response:**

Please see attached "Data Request #1 – Excel Tables\_OUC" (Excel .xlsx file), and refer to the Worksheet titled "EPA Unit Availability".

69. If applicable, identify any currently approved costs for environmental compliance investments made by your Company, including but not limited to renewable energy or energy efficiency measures, which would mitigate the need for future investments to comply with recently finalized or proposed EPA regulations. Briefly describe the nature of these investments and identify which rule(s) they are intended to address.

#### **OUC Response:**

OUC evaluated an SCR retrofit for Stanton Energy Center Unit 1 following the upholding of CSAPR by the Supreme Court in April 2014. Prior to postponing the retrofit when CSAPR was vacated by the US 5th Circuit Court, OUC had invested approximately \$11 million in the project.

# **Fuel Supply & Transportation**

70. Please refer to the Excel Tables File (Energy Rates). Complete the table by providing information on the Utility's firm capacity and energy purchases, non-firm energy purchases, and the utility's as-available energy rate. If the Company uses multiple areas for as-available energy rates, please provide a system-average rate as well.

# **OUC Response:**

OUC considers the requested information to be confidential and as such has not provided it in response to this question.

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71. Please refer to the Excel Tables File (Fuel Usage & Price). Complete the table by providing, on a system-wide basis, the actual annual fuel usage (in GWh) and average fuel price (in nominal \$/MMBTU) for each fuel type utilized by the Company in the 10-year period prior to the current planning period. Also, provide the forecasted annual fuel usage (in GWh) and forecasted annual average fuel price (in nominal \$/MMBTU) for each fuel type forecasted to be used by the Company in the current planning period.

#### **OUC Response:**

Please see attached "Data Request #1 – Excel Tables\_OUC" (Excel .xlsx file), and refer to the Worksheet titled "Fuel Usage and Price".

Projected data for 2025 through 2034 reflects dispatch to serve energy required to serve OUC, St. Cloud, City of Lake Worth Beach, Winter Park, City of Mt. Dora, City of Chattahoochee, and Lakeland Electric load obligations as discussed in Section 2 of OUC's 2025 TYSP, and does not reflect any additional economy energy sales or economy energy purchases. Projected data does not reflect any interaction with the Florida Municipal Power Pool. Fuel prices are not included in the table as OUC considers fuel prices to be proprietary and confidential.

72. Please discuss how the Company compares its fuel price forecasts to recognized, authoritative independent forecasts.

# OUC Response:

The natural gas and fuel oil price forecasts used in OUC's 2025 Ten-Year Site Plan were developed based on a combination of the NYMEX forward curve and projections provided by S&P Global Platts Commodity Insights (Platts). S&P Global Platts purchased the previous firm that OUC used, which was PIRA Energy Group. Among other services, Platts offers insight on a broad range of subjects in the international crude oil, petroleum products, natural gas, electricity, coal, biofuels and emissions markets. Platts clients include international and national integrated oil and gas companies, independent producers, refiners, marketers, oil and gas pipelines, electric and gas utilities, industrials, trading companies, financial institutions and government agencies.

The coal price forecast used in OUC's 2025 Ten-Year Site Plan was developed based on projections by Energy Ventures Analysis, Inc. (EVA) for use by OUC as well as recent offers from coal suppliers of Illinois Basin coal. EVA is a consulting firm that engages in a variety of projects for private and public sector clients related to energy and environmental issues. In the energy area, much of EVA's work is related to analysis of the electric utility industry and fuel markets, particularly oil, natural gas, and coal. EVA's clients in these areas include coal, oil, and natural gas producers; electric utility and industrial energy consumers; and gas pipelines and railroads. EVA also works for a number of public agencies, such as state regulatory commissions, the US Environmental Protection Agency, and the US Department of Energy, as well as interveners in utility rate proceedings, such as consumer counsels and municipalities. Another group of clients include trade and industry associations, such as the Electric Power Research Institute, the Gas Research Institute, and the Center for Energy and

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Economic Development. EVA has provided testimony to numerous state public utility commissions, including the Florida Public Service Commission. Furthermore, the firm has filed testimony in a number of cases in both state and federal courts, as well as before the Federal Energy Regulatory Commission.

OUC believes that retaining independent entities such as Platts and EVA to provide their fuel price forecasting expertise, provides authoritative, independent forecasts in and of themselves.

One fuel forecast that OUC typically compares its forecast to is the US Energy Information Administration (EIA) Annual Energy Outlook. The fuel price projections provided by Platts and EVA differ from those presented in the US Energy Information Administration (EIA) Annual Energy Outlook. The forecasting approaches used by Platts and EVA utilize more current information relative to the information relied upon by the EIA in developing its Annual Energy Outlook, as the scopes of the forecasts developed by Platts and EVA specifically for OUC are far less broad than the scope of data provided by EIA. The relatively limited scope allows Platts and EVA to make use of the most current data available and develop forecasts more specific to OUC, rather than a forecast intended to address the US as a whole, as the EIA provides in the Annual Energy Outlook.

OUC continuously reviews other publicly available forecasts and such reviews validate OUC's use of the independent forecasts provided by Platts and EVA. Furthermore, OUC's generation planning activities include analysis of fuel price sensitivities, which provide an even more comprehensive analysis of fuel prices.

# 73. Please identify and discuss expected industry trends and factors for each fuel type listed below that may affect the Company during the current planning period.

- a. Coal.
- b. Natural Gas.
- c. Nuclear.
- d. Fuel Oil.
- e. Other (please specify each, if any).

#### **OUC** Response:

The following discussion addresses expected industry trends and factors for the 2025 through 2034 period for coal and natural gas, which are the primary fossil fuel types relied upon by the majority of OUC's generating units. The discussion is based on the US Energy Information Administration's Assumptions for Annual Energy Outlook 2025 (2025 AEO) and the Short-Term Energy Outlook (STEO). The overall effect of the trends relative to OUC cannot be determined, as the projections included in 2025 references do not take into account various market factors that may be specific to OUC (i.e. local weather, weather events across the US, the economy, the impact on demand resulting from possible future legislation related to carbon regulations and/or renewable energy standards, etc.).

According to the STEO, natural gas prices for the Henry Hub will average \$4.20/MMBtu in the third quarter of 2025. The Henry Hub price is almost twice the observed prices from a year earlier, where natural gas spot prices averaged \$2.19/MMBtu in 2024. The expected price increase is contributing to

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the EIA's forecast expectation of less natural gas use in the electric power sector on average this year compared to last year.

The 2025 AEO is expecting continued growth in natural gas exports through 2025. Based on the STEO, U.S. liquified natural gas (LNG) exports (calculated as domestic consumption plus export) are expected to increase by 4% during 2025. The anticipated increase in LNG exports is a result of two new LNG export facilities ramping up operations at a level more than the previous STEO initially forecasted. Overall, the EIA expects U.S. LNG exports to continue to increase over the next ten years as increasing LNG capacity is expected to meet increased international demand for natural gas. Given that China is not currently importing U.S. LNG, the STEO projects that the global demand for LNG and the flexible destination clauses in U.S LNG contracts mean that U.S. LNG exports will be largely unaffected by recent trade policy developments. In regard to dry natural gas, the production in 2025 is forecasted to average 105.3 Bcf/d.

According to the STEO, crude oil spot prices are forecasted at \$68/barrel in 2025 and are projected to decline to an average \$61/barrel in 2026. The projected decrease in oil pricing reflects the uncertainty around global oil demand growth and the potential for additional OPEC+ supply in the coming months. Additionally, sanctions on Russia, Iran, and Venezuela create additional uncertainty around future oil prices. Overall, the decreasing forecasted price reflects that global oil production will grow more than global oil demand.

In the STEO, due to the increasing competition with renewable generation, the amount of coal electricity generation is expected to decline by 1% in 2025 and then rise slightly in 2026, as coal generators become more competitive with natural gas generators, which are expected to face rising fuel costs. Coal production is projected to be around 490 Million Short tons in 2025. Over the long term, the coal producers in the Appalachia and Western regions are projected to decline in production, while the Interior region will grow slightly. Average delivered coal and natural gas prices to the electric power sector indicate limited competitive opportunity for coal. According to the STEO, forecasted coal exports have been revised downward, due to China's reciprocal tariff on U.S. imports. With exports decreasing for coal and electric generation from renewable resources growing, the STEO anticipates coal-fired generation to decline by 9% in 2025.

According to the STEO, delivered coal prices are forecast to average \$2.40/MMBtu in 2025, and \$2.38/MMBtu in 2026. Regarding coal production, the STEO detailed a decrease of 3.3% in April.

# 74. Please provide a comparison of the Utility's 2024 fuel price forecast used to prepare its 2024 TYSP and its actual 2024 delivered fuel prices.

#### OUC Response:

OUC considers fuel prices to be confidential information and, as such, no specific comparison has been developed or provided. In general, actual 2024 delivered fuel prices were lower than forecast for 2024.

# 75. Please explain any notable changes in the Utility's forecast of fuel prices used to prepare the Utility's current TYSP compared to the fuel process used to prepare the Utility's prior TYSP.

#### OUC Response:

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There were no notable changes to the process from 2024 to 2025.

76. Please identify and discuss steps that the Company has taken to ensure natural gas supply availability and transportation over the current planning period.

# **OUC Response:**

The Stanton Energy Center and the Indian River site are both reliably served by the Florida Gas Transmission Company (FGT). These two sites are currently the only sites in which OUC owns natural gas fired generating units. OUC is confident in FGT's ability to continue to reliably serve both the Stanton Energy Center and Indian River units into the future. Historically, FGT has demonstrated an ability to provide reliable service and continues to make improvements to its existing natural gas transportation system as well as expand its natural gas transportation system to accommodate the growing need for natural gas across the State of Florida. A recent example is FGT's Phase VIII expansion.

The addition of Stanton Energy Center Unit B (Stanton B) necessitated additional firm natural gas capacity to the Stanton Energy Center. OUC has negotiated a contract with FGT for firm natural gas transportation to serve the needs of Stanton B. OUC's Commission has approved the contract and the contract was signed in January 2010.

In addition, in 2022 OUC entered into a four and a half year contract for the storage of natural gas to manage price volatility and provide backup fuel for emergency situations. The contract provides up to 40,000 MMBtu/day to help ensure power reliability. It is OUC's intent to keep a natural gas storage position in place through the planning period.

In 2022, OUC secured an additional 29,850 MMBtu/day of winter capacity on FGT to allow more reliability in cold weather events.

# **Emerging Technologies**

- 77. [FEECA Utilities Only] Please refer to the Excel Tables File tabs listed below. Complete the tables by providing information on the data centers for the time period listed.
  - a. Excel Tables File (Existing Data Centers), including for data centers being served as of December 31 of the year prior to the current planning period.

#### **OUC** Response:

OUC does not have any existing data centers being served as of December 31, 2024.

b. Excel Tables File (Planned Data Centers), including for data centers that are planned during the current planning period.

#### **OUC** Response:

OUC does not have any data centers planned to be served over the 2025 through 2034 planning period.

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- 78. With respect to the load forecast included in the Utility's 2025 Ten-Year Site Plan to be filed in April this year, does the load forecast include projections of annual energy consumption and demand associated with data centers within your service area during the forecasting time horizon (2025-2034)?
  - a. If any such projections have been made, please provide details of the projections including the type of data centers expected to contribute to such energy/demand, and what factors are driving such energy consumption and demand.
  - b. If no specific projections have been made, what does the Utility believe is the likely pattern of load growth associated with this industry within its service territory?

# **OUC Response:**

The load forecast does not include projections of annual energy consumption and demand associated with data centers within our service area.

- a. Not applicable
- b. OUC believes its service territory will follow the same patterns that other utilities' are projecting for their service territories
- 79. Please identify the Utility's issues and/or concerns, if any, that are expected to result from the growth in data centers in your utility's service territory. Please also specify how has, and how does, your utility anticipate responding to such issues or concerns.

# **OUC Response:**

General potential issues and concerns associated with data centers being located in OUC's service territory include uncertainty related to the magnitude and timing of electric loads associated with data centers as well as potential future incremental electric loads and the timing thereof, the relatively high load factor that is associated with the electric loads of data centers, uncertainty of the load actually materializing as planned, the duration of the commitment and ease of owners relocating data centers, and how to serve such loads under existing rate structures (and the potential need to develop new rate structures).

OUC anticipates having discussions with the entities proposing the data centers to better understand the anticipated timing and magnitude of the initial loads and potential incremental loads moving forward and incorporating such loads into OUC's ongoing resource planning activities. Additionally, OUC may coordinate with other utilities who are experiencing growth in data centers (including utilities that currently serve data centers) to share information and best practices related to the growth in data centers.

80. [FEECA Utilities Only] Please identify and discuss the Company's role in the research and development of utility power technologies, including, but not limited to, research programs that are funded through the Energy Conservation Cost Recovery Clause. As part of this response, please describe any plans to implement the results of research and development into the Company's system portfolio, and the timing of such

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# implementation. In addition, discuss how any anticipated benefits will affect your customers.

# **OUC Response:**

OUC has an Emerging Technologies group that evaluates and demonstrates the use of new generation, energy storage, and distributed energy technologies. Successful demonstration of such technologies may lead to their larger scale deployment. Distributed Energy Resources are being evaluated, and both storage and controllable loads are being considered for the grid impact in providing more resiliency and firm capacity. These efforts are also considering the economics and ability to incentivize customers to aid in this effort. In 2025, Emerging Technologies was paired with Data Delivery to deliver better data driven insights throughout the organization and to leverage better understanding of which new technologies are required based on past operations and the adoption of new technologies.

Successful implementation of emerging technologies may lead to enhanced reliability and more sustainable production of energy.

OUC is participating in several research efforts, including:

- 1) Developing a cloud tracking solution in partnership with UCF to allow for better solar generation forecasts. This will allow OUC to better operate support assets to the solar in a more efficient and cost effective way.
- 2) Evaluating the environmental impacts of floating solar on ponds. This research is to ensure that floating solar does not impact the ecology of the ponds they are installed on. Floating solar provides a unique opportunity for us with locations that are distributed throughout the grid, reducing the impacts of clouds on any specific site along with not competing with farm and development for land. The cooling effect also increases output of the panels.
- 3) DOE funded Hydrogen Pilot.
- 4) OUC is participating in the EPRI co-located project that is intended to allow OUC to better understand some of the factors that influence EV, solar, and battery adoption.

The Energy Conservation Cost Recovery clause is not applicable, as OUC is a municipal utility.

81. Has the Utility employed, or considered using, any type of the artificial intelligence and/or other new technologies/tools in its load forecasting, operation, customer service, and cybersecurity management? Please explain your response.

# OUC Response:

OUC is looking at several options for the use of AI as part of its day-to-day operations. Load and Solar forecasting are two major items that better insights from AI will enable better operations. Computer vision is being considered for the advancement of our drone program. AI has several uses in the employee and customer spaces, from agentic AI to chat bots, that can be leveraged for education, outreach for customers and other repetitive tasks.

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82. Please identify and discuss emerging power generation and consumption technologies your Company is considering. As part of this response, please describe any formal steps the Company has or will take for possible implementation of the technology.

#### OUC Response:

OUC is keeping an eye on new technologies like small modular reactors (SMR) and virtual power plants (VPPs). SMRs have a long lead time and significant permitting and cost considerations. OUC is keeping an eye on developments and looking to make sure they are positioned correctly in the future to ensure it can maximize the value of this technology when it comes fully to market. VPPs show a lot of promise but need additional definition when adoption in the market is significant. OUC is modeling several economic strategies for this technology to ensure best value and reliability for its customers.

TYSP Year 2025

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TYSP Year 2025 Question No. 3(a)

Finai	ncial Assu	mptic	ons
	Base Cas	se	
AFUDC Rate		(%)	7.5
	Debt	(%)	N/A
	Preferred	(%)	N/A
Capitalization Ratios	Equity	(%)	N/A
	Debt	(%)	N/A
	Preferred	(%)	N/A
Rate of Return	Equity	(%)	N/A
	State	(%)	N/A
	Federal	(%)	N/A
Income Tax rate	Effective	(%)	N/A
Other Tax Rate:		(%)	N/A
Discount Rate:		(%)	7.5
Tax - Depreciation Rate:		(%)	N/A

The requested information is also included in Section 8 of OUC's 2025 TYSP.

TYSP Year 2025 Question No. 3(b)

		Financial Escalation Assumption	s	
Year	General Inflation	Plant Construction Cost	Fixed O&M Cost	Variable O&M Cost
Tear	(%)	(%)	(%)	(%)
2025	2%	2%	2%	2%
2026	2%	2%	2%	2%
2027	2%	2%	2%	2%
2028	2%	2%	2%	2%
2029	2%	2%	2%	2%
2030	2%	2%	2%	2%
2031	2%	2%	2%	2%
2032	2%	2%	2%	2%
2033	2%	2%	2%	2%
2034	2%	2%	2%	2%

The requested information is also included in Section 8 of OUC's 2025 TYSP.

TYSP Year 2025 This question is not applicable as OUC is not an Investor-Owned Utility Question No. 4

Question No.	4	\$																						
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2025 The table presents the monthly coincident peak demands for OUC and the City of St. Cloud combined. 5

Year	Month	Actual Peak Demand	Demand Response Activated	Estimated Peak Demand	Day	Hour	System-Average Temperature
		(MW)	(MW)	(MW)			(Degrees F)
	1	962	0	962	22	9	57
	2	964	0	964	12	20	76
	3	1,125	0	1,125	15	18	77
	4	1,252	0	1,252	19	18	80
	5	1,408	0	1,408	9	18	86
42	6	1,485	0	1,485	10	17	87
2024	7	1,472	0	1,472	8	16	88
	8	1,472	0	1,472	14	17	89
	9	1,387	0	1,387	30	18	86
	10	1,342	0	1,342	1	17	92
	11	1,158	0	1,158	11	16	78
	12	953	0	953	18	19	72
	1	1,024	0	1,024	16	9	52
	2	1,099	0	1,099	23	17	78
	3	1,223	0	1,223	27	18	82
	4	1,247	0	1,247	4	17	79
	5	1,268	0	1,268	5	16	84
23	6	1,400	0	1,400	27	18	86
2023	7	1,431	0	1,431	18	18	88
	8	1,517	0	1,517	9	17	90
	9	1,376	0	1,376	11	18	84
	10	1,274	0	1,274	13	17	84
	11	1,113	0	1,113	10	16	78
	12	1,006	0	1,006	2	16	78
	1	1,156	0	1,156	31	8	41
	2	1,032	0	1,032	25	17	85
	3	1,067	0	1,067	8	16	86
	4	1,195	0	1,195	1	18	81
	5	1,297	0	1,297	23	18	91
22	6	1,409	0	1,409	23	18	94
2022	7	1,403	0	1,403	13	18	93
	8	1,372	0	1,372	1	17	93
	9	1,385	0	1,385	6	17	76
	10	1,158	0	1,158	31	17	89
	11	1,190	0	1,190	1	17	87
	12	1,120	0	1,120	25	10	33

TYSP Year 2025 Question No. 18

	Number of	Number of Public PEV	Number of Public	Cumulat	ive Impact of P	EVs
Year	PEVs	Charging Stations	DCFC PEV Charging Stations	Summer Demand	Winter Demand	Annual Energy
				(MW)	(MW)	(GWh)
2025	35,947	10,180	133	54	58	207
2026	52,668	14,249	186	76	81	290
2027	70,755	18,716	244	100	107	381
2028	90,379	23,581	308	126	130	480
2029	112,045	28,987	378	155	166	590
2030	135,704	34,830	455	186	199	709
2031	161,275	41,218	538	220	236	839
2032	188,730	48,096	628	257	266	979
2033	215,352	54,926	717	294	315	1118
2034	239,003	61,310	800	328	351	1248

#### Notes

- 1. All PEV data is BEV and PHEV vehicles.
- 2. Charging assumption #1 is 75% L2 to 25% DCFC ratio.
- 3. Ratio could change if we determine it's more economical to provide DCFC.
- 4. Charging assumption #2 is all EV's have access to home charging, those that do not will have a heavier need for public charging.
- 5. Charging assumption #3 is 85% of all EV charging is done at home, 15% public charging.
- 6. Charging station forecast represents the total number of chargers needed to support the forecasted annual energy demand.
- 7. Our current installation count is not factored into these projections

TYSP Year 2025 Question No. 27

Question No. 27 This question is not applicable as OUC does not currently offer demand response programs to its customers

		[	Demand Respons	se Source or All I	Demand Response	e Sources]			
Year						Available Ca	pacity (MW)		
1 ear	Par	ticipating Custon	ners		Summer			Winter	
	Start of Year	Lost	Added	Start of Year	Lost	Added	Start of Year	Lost	Added
2015									
2016									
2017			F						
2018						[===			
2019									(t =
2020									14
2021									
2022	1								
2023			P					100	(*
2024									1
Notes									
(Include Notes Here)									

TYSP Year 2025

Question No. 28 This question is not applicable as OUC does not currently offer demand response programs to its customers

					[Demand	Response Source	e or All Demand	Response Sources	[s]					
				Summer							Winter			
Year	Total Events	Cu	stomers Activate	ed	Сара	acity Activated (I	MW)	Total Events	Cı	stomers Activat	ed	Сара	city Activated (I	MW)
		Average Event	Max Event	Peak Day	Average Event	Max Event	Peak Day		Average Event	Max Event	Peak Day	Average Event	Max Event	Peak Day
2015														
2016														
2017		7-	S = 10							(6.0		1		
2018		(a)	(** · · · · · · · · · · · · · · · · · ·							)				120
2019														
2020						1								(1)
2021														
2022														
2023														
2024		1	4											(1)
Notes		•							1					

(Include Notes Here)

TYSP Year 2025 Question No. 29(a)

Facility Name	Unit No.	County Location	Unit Type	Primary Fuel	Commercia	l In-Service	Gross Cap	acity (MW)	Net Capac	city (MW)	Firm Capa	icity (MW)
		Location		Fuer	Mo	Yr	Sum	Win	Sum	Win	Sum	Win
Indian River	Α	Brevard	GT	NG	06	89	16 <sup>(1)</sup>	18(1)	16(1)	18(1)	16 <sup>(1)</sup>	18(1)
Indian River	В	Brevard	GT	NG	07	89	16 <sup>(1)</sup>	18(1)	16(1)	18(1)	16(1)	18(1)
Indian River	С	Brevard	GT	NG	08	92	83(2)	88(2)	83(2)	88 <sup>(2)</sup>	83(2)	88(2)
Indian River	D	Brevard	GT	NG	10	92	83(2)	88(2)	83(2)	88 <sup>(2)</sup>	83(2)	88(2)
Stanton Energy Center	1	Orange	ST	BIT	07	87	329 <sup>(3)</sup>	329 <sup>(3)</sup>	311(3)	311 <sup>(3)</sup>	311 <sup>(3)</sup>	311(3)
Stanton Energy Center	2	Orange	ST	BIT	06	96	371(4)	371(4)	352(4)	352(4)	352(4)	352(4)
Stanton Energy Center	Α	Orange	CC	NG	10	01	184(5)	189 <sup>(5)</sup>	184 <sup>(5)</sup>	189 <sup>(5)</sup>	184(5)	189 <sup>©</sup>
Stanton Energy Center	В	Orange	CC	NG	02	10	298	313	292	307	292	307
St. Lucie <sup>(6)</sup>	2	St. Lucie	NP	UR	06	83	60	62	60	62	60	62
Osceola Generating Station <sup>(7)</sup>	1	Osceola	GT	NG	12	01	197	197	157	157	157	157
Osceola Generating Station <sup>(7)</sup>	1	Osceola	GT	NG	12	01	197	197	157	157	157	157
Osceola Generating Station <sup>(7)</sup>	1	St. Lucie	NP	UR	06	02	186	186	157	157	157	157
Co-Fired Stanton Energy Center Landfill Gas	1/2	Orange	ST	LFG	04	98	See Note (8)	See Note (8)				
OUC Distributed Solar (<250 kW)	8	Orange	Solar	SUN	Various	Various	0.36	0.36	0.36	0.36	0.36	0.36
Notes												

- (1)Reflects an OUC ownership share of 48.8 percent.
- (2)Reflects an OUC ownership share of 79.0 percent.
- (3)Reflects an OUC ownership share of 68.6 percent.
- (4)Reflects an OUC ownership share of 71.6 percent and St. Cloud entitlement of 3.4 percent.
- (5)Reflects an OUC ownership share of 28.0 percent.
- (6)OUC owns approximately 6.1 percent of St. Lucie Unit No. 2. Reliability exchange divides 50 percent power from Unit No. 1 and 50 percent power from Unit No. 2.
- (7) Osceola Generating Station Unit 2 is currently not able to provide power to OUC but expected to be able to provide power to OUC by the summer 2026 peak period. Osceola Generating Station Units 1 and 3 are currently not able to provide power to OUC but are anticipated to be able to provide power to OUC by the summer of 2025 peak period.
- (8). LFG is co-fired in Stanton Energy Center Units 1 and 2 and therefore not treated as incremental capacity.

TYSP Year 2025 OUC does not have any utility-owned generation resource planned for in-service Question No. 29(b) during the 2024 through 2033 planning period.

				Fuel			Uni	t Capa	city (N	IW)		
Facility Name	Unit No.	County Location	Unit Type	•	Commercia	l In-Service	Gr	oss	N	et	Fir	rm
	J				Mo	Yr	Sum	Win	Sum	Win	Sum	Win
	7											
Notes												
(Include Notes Here)												

TYSP Year 2025 OUC does not have any planned generation resource with an in-service date within the current Question No. 33 planning period that requires siting under the Power Plant Siting Act.

				n.		C .	Certification Dat	es (if Applicable)
Facility Name	Unit No.	County Location	Unit Type	Primary Fuel	Commercial In	-Service	Need Approved	PPSA Certified
					Mo	Yr	(Commission)	
Notes								
(Include Notes Here)								

2025 OUC does not have any planned generating units with an in-service date within the current planning period. Therefore, there are no "drop dead" 34 dates or other information to provide in response to this question.

Facility Name	Unit No.	County Location	Unit Type	Primary Fuel	Final Decision ('Drop Dead') Date		lection	Engineering Procu	/ Permitting / rement	Const	uction	Commercial In- Service Date
					, , , , , , , , , , , , , , , , , , ,	Begins	Ends	Begins	Ends	Begins	Ends	
Notes (Include Notes Here)												

TYSP Year 2025 Information is only provided for units for which OUC maintains a majority ownership.

Question No.

						1.3			Unit Perfor	mance (%)				
Facility Name	Unit No.	County Location	Unit Type	Primary Fuel	Commercia	l In-Service	Planned Ou (PC	0	Forced Out (FC	0	Equivalent . Factor	Availability (EAF)	Average Ne Heat Rate	_
					Mo	Yr	Historic	Projected	Historic	Projected	Historic	Projected	Historic	Projected
Stanton Energy Center	1	Orange	ST	BIT	07	87	5.3%	8.5%	7.6%	3.0%	85.6%	90.6%	11,621	10,955
Stanton Energy Center	2	Orange	ST	BIT	06	96	7.1%	8.5%	1.2%	3.0%	89.5%	90.6%	10,767	10,230
Stanton Energy Center	В	Orange	CC	NG	02	10	8.8%	8.8%	1.5%	3.0%	89.5%	93.3%	7,441	7,200
Indian River	A	Brevard	GT	NG	06	89	2.8%	3.3%	4.4%	2.0%	92.6%	96.1%	14,440	16,716
Indian River	В	Brevard	GT	NG	07	89	2.5%	4.4%	3.8%	2.0%	93.6%	96.1%	14,440	16,769
Indian River	C	Brevard	GT	NG	08	92	4.4%	4.9%	15.0%	2.0%	80.5%	96.1%	14,723	13,699
Indian River	D	Brevard	GT	NG	10	92	28.3%	4.4%	1.6%	2.0%	70.0%	96.1%	14,723	13,777
Osceola Generating Station	1	Osceola	GT	NG	12	01	3.7%	4.9%	0.1%	2.0%	96.2%	96.0%	15,556	11,536
Osceola Generating Station	2	Osceola	GT	NG	12	01	40.5%	4.9%	0.0%	2.0%	59.4%	96.0%	16,241	11,467
Osceola Generating Station	3	St. Lucie	NP	UR	06	02	0.0%	4.9%	N/A	2.0%	N/A	96.0%	N/A	11,611

Notes

Historical - average of past three years.

Projected - average of next ten years.

TYSP Year Question No.

2025 OUC considers the requested information to be confidential and therefore has not provided it in response to this request.

3/

		County		Primary	Commonoio	l In-Service					Сарас	ity Factor	r (%)				
Facility Name	Name Unit No. County Location U	Unit Type	•	Commercia	i iii-service	Actual					Proj	ected					
		Location		Fuel Fuel	Mo	Yr	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Makes																	

Notes

(Include Notes Here)

TYSP Year 2025

Question No. 38 This question is not applicable as OUC is not an Investor-Owned Utility

		County	Solar Type	Energy	Facility In 9	Service Date		Unit Capa	city (MW)		Land Use	Commis	sion Approval	
Facility Name	Unit No.	Location	Solar Type	Storage	racinty in-	service Date	N	et	Fi	rm	Land Ose	Commis	Sion Approvai	Cost Reocvery Mechanism
		Location	(Fixed/Tracking)	Type	Mo	Yr	Sum	Win	Sum	Win	(Acres)	Order	Approval Date	
							Notes							
			_											

TYSP Year

2025 OUC does not have any units that are considered as options for repowering to combined cycle. OUC's existing Stanton Energy Center Units 1 and 2 may be potential candidates to change fuel to operate on 100 percent natural gas; as discussed throughout OUC's 2025 Ten-Year Site Plan, OUC currently anticipates placing Stanton Energy Center Unit 1 into extended cold shutdown by the end of May 2026 and 40 anticipates converting Stanton Energy Center Unit 2 to operate on 100 percent natural gas no later than 2027.

Question No.

		County			Commercial In	Samiga	Planned Modification		Eligible Modifications		Potential
Facility Name	Unit No.	Location	Unit Type	Primary Fuel	Commerciai in	-Sei vice	(if any)	Fuel Switching	Combined Cycle	Other (Explain)	Issues
		Location			Mo	Yr	(II any)	ruei switching	Conversion	Other (Explain)	issues
Stanton Energy Center	1	Orange	ST	BIT	07	87	See Note (1)	See Note (1)	No	No	See Note (1)
Stanton Energy Center	2	Orange	ST	BIT	06	96	See Note (1)	See Note (1)	No	No	See Note (1)
Notes											

<sup>1.</sup> OUC's existing Stanton Energy Center Units 1 and 2 may be potential candidates to change fuel to operate on 100 percent natural gas; as discussed throughout OUC's 2025 Ten-Year Site Plan, OUC currently anticipates placing Stanton Energy Center Unit 1 into extended cold shutdown by the end of May 2026 and anticipates converting Stanton Energy Center Unit 2 to operate on 100 percent natural gas no later than 2027.

TYSP Year 2025 Question No. 41

Transmission Line	Line Length	Nominal Voltage	Certificati	on Dates	In-Service Date
	(Miles)	(kV)	Need Approved	TLSA Certified	Date
St. Cloud East - Magnolia Ranch	> 15 Miles	230	06/2020	May-24	2025

#### Notes

OUC does not have any proposed transmission lines in the planning period that require certification under the Transmission Line Siting Act. OUC does have a single transmission line (St. Cloud East – Magnolia Ranch) that is certified under the Transmission Line Siting Act and is under construction.

TYSP Year 2025 Question No. 42(a)

	Con	tract Information									Provide If As	sociated with	Specific Unit(s	)				
	Date Contract		Contract Te			Facility		County		Primary	Commerci	al In-Service			Unit Capa	- /		
Seller Name	Approved	Firm Capac	ity (MW)	Deliver	_	Name	Unit No.	Location	Unit Type	Fuel			Gi	oss	N	440	Fi	rm
	Арргочей	Sum	Win	Start	End	- Tunite		Location		T uti	Mo	Yr	Sum	Win	Sum	Win	Sum	Win
NextEra Energy	Not Available	342	350	10/03	12/31	Stanton Energy Center	A	Orange	СС	NG	10	01	Not Available	Not Available	657	675	657	675
NextEra Energy	Not Available	87	87	12/23	12/28	Stanton Energy Center	A	Orange	сс	NG	10	01	Not Available	Not Available	657	675	657	675
Duke Energy	Not Available	Not Applicable	Not Applicable	12/11	11/31	Stanton Solar Farm	N/A	Orange	Solar	SUN	11	11	Not Available	Not Available	5.1	5.1	0	0
GES Port Charlotte	Not Available	Not Applicable	Not Applicable	11/11	10/31	Port Charlotte	N/A	Charlotte	Landfill Gas	LFG	11	11	Not Available	Not Available	2.56	2.56	2.56	2.56
ESA Renewables	Not Available	Not Applicable	Not Applicable	11/12	11/37	Fleet Solar Project	N/A	Orange	Solar	SUN	11	12	Not Available	Not Available	0.335	0.335	0	0
ESA Renewables	Not Available	Not Applicable	Not Applicable	10/13	10/38	Gardenia Solar Project	N/A	Orange	Solar	SUN	10	13	Not Available	Not Available	0.268	0.268	0	0
Waste Management	Not Available	Not Applicable	Not Applicable	03/16	12/26	Monarch	N/A	Broward	Landfill Gas	LFG	3	16	Not Available	Not Available	6	6	6	6
Greenwood Sustainable Infrastructure	Not Available	Not Applicable	Not Applicable	09/17	08/37	Ksionek Stanton Solar	N/A	Orange	Solar	SUN	9	17	Not Available	Not Available	9	9	0	0
Sims Energy	Not Available	Not Applicable	Not Applicable	03/17	02/37	JED LFGTE Project	N/A	Osceola	Landfill Gas	LFG	3	17	Not Available	Not Available	9	9	9	9
NextEra	Not Available	Not Applicable	Not Applicable	06/20	06/40	Taylor Creek	N/A	Orange	Solar	SUN	6	20	Not Available	Not Available	74.5	74.5	37.25	0
NextEra	Not Available	Not Applicable	Not Applicable	06/20	06/40	Harmony	N/A	Osceola	Solar	SUN	6	20	Not Available	Not Available	37	37	18.5	0
NextEra	Not Available	Not Applicable	Not Applicable	12/24	12/44	Storey Bend	N/A	Osceola	Solar	Sun	12	24	Not Available	Not Available	74.5	74.5	37.25	0
NextEra	Not Available	Not Applicable	Not Applicable	12/24	12/44	Harmony II	N/A	Osceola	Solar	Sun	12	24	Not Available	Not Available	74.5	74.5	37.25	0
Notes																		
(Include Notes Here)																		

	Cor	tract Informa	tion								Provide If A	ssociated with	Specific Unit(s)					
	Date Contract		Contrac	t Terms		Facility		C		Dadanasa		17 6 .			Unit Capaci	ty (MW)		
Seller Name	Approved	Firm Capa	city (MW)	Deliver	y Dates	Name	Unit No.	County Location	Unit Type	Primary Fuel	Commercia	i in-Service	Gr	oss	N	et	Fi	rm
	Approved	Sum	Win	Start	End	Name		Location		ruei	Mo	Yr	Sum	Win	Sum	Win	Sum	Win
TBD	Not Available	TBD	TBD	6/27	TBD	TBD	TBD	TBD	Solar	SUN	6	27	Not Available	Not Available	74.5	74.5	37.25	0
TBD	Not Available	TBD	TBD	6/27	TBD	TBD	TBD	TBD	Solar	SUN	6	27	Not Available	Not Available	74.5	74.5	37.25	0
TBD	Not Available	TBD	TBD	6/29	TBD	TBD	TBD	TBD	Solar	SUN	6	29	Not Available	Not Available	74.5	74.5	37.25	0
TBD	Not Available	TBD	TBD	6/29	TBD	TBD	TBD	TBD	Solar	SUN	6	29	Not Available	Not Available	74.5	74.5	37.25	0
TBD	Not Available	TBD	TBD	6/30	TBD	TBD	TBD	TBD	Solar	SUN	6	30	Not Available	Not Available	74.5	74.5	37.25	0
TBD	Not Available	TBD	TBD	6/30	TBD	TBD	TBD	TBD	Solar	SUN	6	30	Not Available	Not Available	74.5	74.5	37.25	0
TBD	Not Available	TBD	TBD	6/31	TBD	TBD	TBD	TBD	Solar	SUN	6	31	Not Available	Not Available	74.5	74.5	37.25	0
TBD	Not Available	TBD	TBD	6/31	TBD	TBD	TBD	TBD	Solar	SUN	6	31	Not Available	Not Available	74.5	74.5	37.25	0
TBD	Not Available	TBD	TBD	6/32	TBD	TBD	TBD	TBD	Solar	SUN	6	32	Not Available	Not Available	74.5	74.5	37.25	0
TBD	Not Available	TBD	TBD	6/32	TBD	TBD	TBD	TBD	Solar	SUN	6	32	Not Available	Not Available	74.5	74.5	37.25	0
TBD	Not Available	TBD	TBD	6/33	TBD	TBD	TBD	TBD	Solar	SUN	6	33	Not Available	Not Available	74.5	74.5	37.25	0
TBD	Not Available	TBD	TBD	6/33	TBD	TBD	TBD	TBD	Solar	SUN	6	33	Not Available	Not Available	74.5	74.5	37.25	0
TBD	Not Available	TBD	TBD	6/33	TBD	TBD	TBD	TBD	Solar	SUN	6	33	Not Available	Not Available	74.5	74.5	37.25	0
TBD	Not Available	TBD	TBD	6/33	TBD	TBD	TBD	TBD	Solar	SUN	6	33	Not Available	Not Available	74.5	74.5	37.25	0
TBD	Not Available	TBD	TBD	6/33	TBD	TBD	TBD	TBD	Solar	SUN	6	33	Not Available	Not Available	74.5	74.5	37.25	0
TBD	Not Available	TBD	TBD	6/34	TBD	TBD	TBD	TBD	Solar	SUN	6	34	Not Available	Not Available	74.5	74.5	37.25	0
TBD	Not Available	TBD	TBD	6/34	TBD	TBD	TBD	TBD	Solar	SUN	6	34	Not Available	Not Available	74.5	74.5	37.25	0
TBD	Not Available	TBD	TBD	6/34	TBD	TBD	TBD	TBD	Solar	SUN	6	34	Not Available	Not Available	74.5	74.5	37.25	0
TBD	Not Available	TBD	TBD	6/34	TBD	TBD	TBD	TBD	Solar	SUN	6	34	Not Available	Not Available	74.5	74.5	37.25	0
TBD	Not Available	TBD	TBD	6/34	TBD	TBD	TBD	TBD	Solar	SUN	6	34	Not Available	Not Available	74.5	74.5	37.25	0
TBD	Not Available	TBD	TBD	6/34	TBD	TBD	TBD	TBD	Solar	SUN	6	34	Not Available	Not Available	74.5	74.5	37.25	0
TBD	Not Available	TBD	TBD	6/27	TBD	TBD	TBD	TBD	Energy Storage	SUN	6	27	Not Available	Not Available	100	100	100	100
TBD	Not Available	TBD	TBD	6/31	TBD	TBD	TBD	TBD	Energy Storage	SUN	6	31	Not Available	Not Available	100	100	100	100
TBD	Not Available	TBD	TBD	6/32	TBD	TBD	TBD	TBD	Energy Storage	SUN	6	32	Not Available	Not Available	150	150	150	150
TBD	Not Available	TBD	TBD	6/33	TBD	TBD	TBD	TBD	Energy Storage	SUN	6	33	Not Available	Not Available	250	250	250	250
TBD	Not Available	TBD	TBD	6/34	TBD	TBD	TBD	TBD	Energy Storage	SUN	6	34	Not Available	Not Available	200	200	200	200
Notes																		
As these PPAs have not	yet been finalized, O	UC only has es	timates of AC c	apacity ratings	to report as ne	t capacity and	corresponding e	estimates of firr	n capacity, and	OUC does not	have DC capaci	ty ratings to re	port as gross capa	city.				

	Contract Info	ormation									Provide If Ass	sociated with S	specific Unit(s)					
			Contrac	t Terms		Facility		County		Primary	Commercia	l In-Service			Unit Capa	city (MW)		
Buyer Name	Date Contract Approved	Firm Capa	city (MW)	Deliver	y Dates	Name	Unit No.	Location	Unit Type	Fuel	Commercia	ii iii-sei vice	Gr	oss	N	et	Fi	rm
		Sum	Win	Start	End	11,000		2000000		2 402	Mo	Yr	Sum	Win	Sum	Win	Sum	Win
City of Lake Worth Beach							See Note (2)	See Note (2)	See Note (2)	See Note (2)	See Note (2)	See Note (2)	See Note (2)	See Note (2)				
City of Winter Park							See Note (2)	See Note (2)	See Note (2)	See Note (2)	See Note (2)	See Note (2)	See Note (2)	See Note (2)				
City of Mt. Dora	Not Available	26 <sup>(1)</sup>	19 <sup>(1)</sup>	01/21	12/30	See Note (2)	See Note (2)	See Note (2)	See Note (2)	See Note (2)	See Note (2)	See Note (2)	See Note (2)					
City of Chattahoochee							See Note (2)	See Note (2)	See Note (2)	See Note (2)	See Note (2)	See Note (2)	See Note (2)	See Note (2)				
Lakeland Electric	Not Available	100 <sup>(1)</sup>	50 <sup>(1)</sup>	04/21	12/26	See Note (2)	See Note (2)	See Note (2)	See Note (2)	See Note (2)	See Note (2)	See Note (2)	See Note (2)					
Notes																		

<sup>(1)</sup> Capacity may vary by year; values shown represent projections for 2025.
(2) The sales are all system sales; information requested associated with a specific unit is therefore not applicable.

TYSP Year 2025 Question No. 45(b)

	Co	ntract Inform	ation								Provide If As	sociated with S	Specific Unit(s	)					
	Date Contract		Contrac	et Terms		Facility		County		Primary	Commercis	al In-Service			Unit Capa	city (MW)			Land Use
Buyer Name	Approved	Firm Capa	acity (MW)	Deliver	y Dates	Name	Unit No.	Location	Unit Type	Fuel	Commercia	ai in-sei vice	Gi	ross	N	let	Fi	rm	Land Ose
	прричен	Sum	Win	Start	End	Timbe		Location		7 401	Mo	Yr	Sum	Win	Sum	Win	Sum	Win	(Acres)
Notes																			
OLIC does not have any	planned nower sal	e agreements r	pursuant to whi	ch energy will	hegin to be del	ivered from OI	IC to a third-pa	arty during the	current plannin	g period									1

TYSP Year 2025 Question No. 48

				An	nual Renewab	le Generation	(GWh)				
Renewable Source	Actual					Proj	ected				
	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Utility - Firm											
Utility - Non-Firm											
Utility - Co-Firing	23	29	29	29	29	29	29	29	29	29	29
Purchase - Firm											
Purchase - Non-Firm	388	871	839	1,224	1,227	1,617	2,014	2,411	2,814	3,798	4,791
Purchase - Co-Firing											
<b>Customer - Owned</b>	152	171	183	193	207	232	269	303	333	360	382
Total											
Notes											
(Include Notes Here)											

TYSP Year 2025 Question No. 55

Facility or Project			Energy Storage	Battery Chemistry	Land Use	Facility In-Servi	ice or Project			Unit Capa	city (MW)			Storage	Conversion
Name	Unit No.	County Location	OV O		Lanu Use	Start I	Date	Gr	oss	N	et	Fi	rm	Capacity	Efficency
Name			Туре	(if applicable)	(Acres)	Mo	Yr	Sum	Win	Sum	Win	Sum	Win	(MWh)	(MWh)
Gardenia LiIon Battery	Not Applicable	Orange	Li Ion	Iron Phosphate	<1	1	25	Not Available	Not Available	0.1	0.1	0.1	0.1	0.129	89%
Gardenia Fly Wheels	Not Applicable	Orange	Fly Wheel	NA	<1	5	22	Not Available	Not Available	0.016	0.016	0.016	0.016	0.064	Varies
St. Cloud East Substation #29	Not Applicable	Osceola	Battery	Iron Phosphate	<1	4	24	Not Available	Not Available	4	4	4	4	8	89%
Notes															
(Include Notes Here)		•	•		•			-					-		

 $2025\,$  OUC does not have any planned owned Energy storage during the 2025 to 2034 planning period  $56\,$ TYSP Year

Question No.

Facility or Project			Energy Storage	Battery Chemistry	Land Use	Facility In-Servi	ce or Project			Unit Capa	city (MW)			Storage	Conversion
	Name Unit No. County Location	Type	(if applicable)	Land Osc	Start D	Date	Gr	ross	N	et	Fi	rm	Capacity	Efficency	
Name			Туре	(ii applicable)	(Acres)	Mo	Yr	Sum	Win	Sum	Win	Sum	Win	(MWh)	(MWh)
Notes															
(Include Notes Here)						-			-	-	-	-	-		

TYSP Year 2025 Question No. 58

\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \		Loss of Load Probability	, Reserve Margin, and E	xpected Unserved Energ	y							
			Base Case Load Forecast	t								
	Loss of Load Probability	Annual Isolated Reserve Margin (%) (Including Firm	Expected Unserved Energy	Loss of Load Probability	Annual Assisted Reserve Margin (%) (Including Firm	Expected Unserved Energy						
Year	(Days/Yr)	Purchases)	(MWh)	(Days/Yr)	Purchases)	(MWh)						
2025					•							
2026												
2027												
2028												
2029	OUC does not	dayalan projections for aith	har Annual Isolated or Ann	ual Assistad Lass of Laad	Probability nor Expected Uni	sorved Energy						
2030	OUC does not	develop projections for etti	nei Annuai isolateu ol Ann	iuai Assisteu LUSS UI LUdu	Frobability flor Expected Ons	serveu Elleigy.						
2031												
2032												
2033												
2034												

TYSP Year Question No. 2025 This question is not applicable as OUC is 60 not an Investor-Owned Utility.

					Peak Sumr	ner Day Hourly Di	spatch (MW)					
	Custome	r Oriented	Power T	ransactions	Ener	gy Storage			Generation l	Resources		
Hour	Load	Demand Response	Sales	Purchases	Charging	Discharging	Nuclear	Natural Gas	Coal	Oil	Other	Solar
1												
2												
3												
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	0				Peak Win	ter Day Hourly Dis	patch (MW)					
	Customer	Oriented	Power T	ransactions	Ener	gy Storage			Generation l	Resources		
Hour	Total Load	Demand Response	Sales	Purchases	Charging	Discharging	Nuclear	Natural Gas	Coal	Oil	Other	Solar
1								7				]
2												
3								10				
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23												
24												

TYSP Year

Question No.

2025 This question is not applicable, as OUC does not currently have any firm plans related to the addition of he new generating units that would be affected by this standard.

Year	Estimated Cost of St		e for Greenhouse Gas Em esent-Year \$ millions)	issions Rule for New
	Capital Costs	O&M Costs	Fuel Costs	Total Costs
2025				
2026				
2027			Ta-Ti	
2028				
2029				
2030				
2031				
2032				
2033				
2034				
Notes				
(Include Notes	Here)			

							Unit C	apacity (MW)		Estimated EPA	Rule Impacts: Operational	Effects			
	** ** **	County	** ** **	Primary	Commercia	I In-Service		Net				CSAPR/		CCR	
Facility Name	Unit No.	Location	Unit Type	Fuel	Мо	Yr	Sum	Win	ELGS	ACE or replacement	MATS	CAIR	CWIS	Non-Hazardous Waste	Special Waste
Stanton Energy Center	1	Orange	ST	віт	07	87	311 <sup>(1)</sup>	311 <sup>(f)</sup>	N/A	guidelines for GHG emissions from existing fossil fuel-fired steam generating EGUs pursuant to Clean Air Act Section 111(d), which include both coal-fired and oil/gas- fired steam generating EGUs. This rule imports any OUC and fired EGUs that are	Emissions monitoring (Hg CEMS), emissions control retrofits, emissions	N/A	N/A	Landfill Cell 2 (30 Acres) construction started on July 15, 2019 with substantial completion on December 31, 2020. CCR Rule requires the base of the liner to be located on average 5 feet above the upper limit of the uppermost aquifer and increased the thickness of clay composite limit from 6 to 12 inches. CCR required the closure of Landfill Cell 1 to have a minimum of 40 mil HDPE liner on the top & slope of the landfill.	N/A
Stanton Energy Center	2	Orange	ST	вп	06	96	352 <sup>(2)</sup>	352 <sup>(2)</sup>	N/A	guidelines for GHG emissions from existing tossil fuel-tired steam generating EGUs pursuant to Clean Air Act Section 111(d), which include both coal-fired and oil/gas-	Emissions monitoring (Hg CEMS), emissions control retrofits, emissions	N/A	N/A	Landfill Cell 2 (30 Acres) construction started on July 15, 2019 with substantial completion on December 31, 2020. CCR Rule requires the base of the liner to be located on average 5 feet above the upper limit of the uppermost aquifer and increased the thickness of clay composite liner from 6 to 12 inches. CCR required the closure of Landfill Cell 1 to have a minimum of 40 mil HDPE liner on the top & slope of the landfill.	N/A
Notes															

<sup>(2).</sup> Represents OUC's 71.7% ownership share as well as City of St. Cloud's 3.4% entitlement.

Facility Name	Unit No.	County	Unit Type	Primary	Commercia	l In-Service	Unit Capa	city (MW)			Estimated EPA Rule In	npacts: Cost Effects			
1 acmy France	Cuit 110.	Location	Cuit Type	Fuel	Mo	V <sub>r</sub>	Sum	et Win	ELGS	ACE or replacement	MATS	CSAPR/ CAIR	cwis	CCR Non-Hazardous Waste	Special Waste
Stanton Energy Center	1	Orange	ST	віг	07	87	311 <sup>(t)</sup>	311 (0)	N/A	regulating greenhouse gas emissions (GHGs) from electric	On April 25, 2024 the EPA released a pre-publication of the final rule amending the existing "National Emission Standards for Hazardous Air Pollutants for: the Coal-and Oil-Fired Electrich Utifity Steam Generating Units (ESUs), commonly referred to as the Mercury and Air Toxics Standards (MATS). As a result of these rule changes, the current filterable particulate matter (PA) lamin of QAB (PA) MASH as applicable to the Stanton Energy Center's coal units will be reduced from QAB Is/MMBtu to QAB Is/MMBtu. The rule changes would also require the installation of PM CEMS on any operational coal unit within three years of the publication of the final rule.		N/A	ISS.M +52.1M. Leneral Cell Structures SIAM applications toot or the dirt due to CCR Rule requiring the base of the finer to be located on everage 5 feet above the upper limit of the uppermost aquifer and \$3.5 M for the additional 6s inches of day, lendfill Cell 1 Closure incurred an additional cost of \$500 M cut to design, material & construction cost. In 2023, the total closure and 30-year long-term care costs associated with Inedfill Cell 1 and 2 were estimated at "\$64M. On April 25, 2024 EPA released a prepublication of the final rule amending the existing Coal Combustion Residuals rule. As a result of changes made to the rule, the closed \$5C landfill will be considered a CCR management unit (CCRMU) and will be subject to the applicable CCRMW groundwater monitoring, corrective action, closure, and post-dosure care requirements. Costs to comply with the 2024 CCR ISSM \$500 M \$500 M \$100 M \$1	N/A
Stanton Energy Center	2	Orange	ST	віт	06	96	352 <sup>(2)</sup>	352 <sup>Ø</sup>	N/A	generating units (EGUs) pursuant to Section 111 of the Clean Air Act. As part of this rule, EPA finalized emission guidelines for GHG emissions from existing fossil fuel-fired steam generating EGUs pursuant to Clean Air Act Section 111(d),	On April 25, 2024 the EPA released a pre-publication of the final rule amencing the existing "National Emission Standards for Hazardous Air Pollutants for: the Coal-and Oil-Fired Electric Utility Steam Generating Units (ESUs), commonly referred to as the Marcrury and Air Toxics Stendards (MATS). As a result of these rule changes, the current filterable particulate matter (PM) mits of Oil 3h/MASt up applicable to the Stanton Energy Center's coal units will be reduced from Oil 3h/MAStu politicable to the Stanton Energy Center's coal units will be reduced from Oil 3h/MASSU Oil 1b/MASSU. The rule changes would also require the installation of PM CEMS on any operational coal unit within three years of the publication of the final rule.	N/A	N/A	Se.5.M. 45.2.1M. Landfull cell 2 incurred 5 10M application of cost of relidir due to CCR Rule requiring the base of the first to be located on average 5 feet above the upper limit of the uppermost aquifer and \$3.5M for the additional 6 inthes of dely Landfüll Cell 1 Closure incurred an additional cost of \$5M due to design, material & construction cost. In 2023, the total closure and 30-year long-term care costs associated with landfüll Cell 1 and 2 were estimated at "\$64M. On April 25, 2024 EPA released a prepublication of the final rule amending the existing Coal Combustion Residuals rule. As a result of changes made to the rule, the closed SCE landfull will be considered a CCR management unit (CRMU) and will be subject to the applicable CCRMU groundwater monitoring, corrective action, dosure, and post-dosure care requirements. Costs to comply with the 2024 CCR	N/A

<sup>(2).</sup> Represents OUCs 71.7% ownership share as well as City of St. Cloud's 3.4% entitlement

					C	l In-Service	Unit Capa	city (MW)		Estimated EPA Rule Impac	ets: Unit Avai	lability			
	2000	County		Primary	Commercia	ii iii-service	N	et						CC	R
Facility Name	Unit No.	Location	Unit Type	Fuel	Мо	Yr	Sum	Win	ELGS	ACE or replacement	MATS	CSAPR/ CAIR	CWIS	Non- Hazardous Waste	Special Waste
Stanton Energy Center	1	Orange	ST	ВІТ	07	87	311 (1)	311 <sup>(1)</sup>	No Outage Req'd	On April 25, 2024, EPA released a pre-publication of final rules regulating greenhouse gas emissions (GHGs) from electric generating units (EGUs) pursuant to Section 111 of the Clean Air Act. As part of this rule, EPA finalized emission guidelines for GHG emissions from existing fossil fuel-fired steam generating EGUs pursuant to Clean Air Act Section 111(d), which include both coal-fired and oil/gas-fired steam generating EGUs. This rule impacts any OUC coal-fired EGUs that are not retired prior to January 1, 2032 by requiring these EGUs to meet GHG emissions limits based on the best system of emission reduction (BSER). The applicable BSER emission limits for existing EGUs are based on unit retirement date. The installation of infrastructure required to meet BSER emission limits may require the unit to be offline for a period of time.	No Outage Req'd	No Outage Req'd	No Outage Req'd	No Outage Req'd	No Outage Req'd
Stanton Energy Center	2	Orange	ST	віт	06	96	352 <sup>(2)</sup>	352 <sup>(2)</sup>	No Outage Req'd	On April 25, 2024, EPA released a pre-publication of final rules regulating greenhouse gas emissions (GHGs) from electric generating units (EGUs) pursuant to Section 111 of the Clean Air Act. As part of this rule, EPA finalized emission guidelines for GHG emissions from existing fossil fuel-fired steam generating EGUs pursuant to Clean Air Act Section 111(d), which include both coal-fired and oil/gas-fired steam generating EGUs. This rule impacts any OUC coal-fired EGUs that are not retired prior to January 1, 2032 by requiring these EGUs to meet GHG emissions limits based on the best system of emission reduction (BSER). The applicable BSER emission limits for existing EGUs are based on unit retirement date. The installation of infrastructure required to meet BSER emission limits may require the unit to be offline for a period of time.	No Outage Req'd	No Outage Req'd	No Outage Req'd	No Outage Req'd	No Outage Req'd
Notes															
<ol><li>Represents OUC's 68.</li></ol>	.6% ownership	share.													

<sup>(1).</sup> Represents OUC's 68.6% ownership share.
(2). Represents OUC's 71.7% ownership share as well as City of St. Cloud's 3.4% entitlement.

TYSP Year 2025 Question No. 70

		Firm Purc	hase Rates	Non-Firm Pu	rchase Rates	As	-Available Energy Rate	es
Year		Annual Average	Escalation Rate	Annual Average	Escalation Rate	Annual Average	On-Peak Average	Off-Peak Average
		(\$/MWh)	(%)	(\$/MWh)	(%)	(\$/MWh)	(\$/MWh)	(\$/MWh)
	2015							
1	2016							
1	2017							
_	2018							
ına	2019							
Actual	2020							
	2021							
	2022							
	2023							
	2024							
	2025							
- 3	2026							
555.5	2027							
pe	2028							
ect	2029	)						
Projected	2030							
<u>-</u>	2031							
	2032							
	2033			H				
	2034							
Notes								
OUC considers the reques	ted information	to be confidential and	as such has not provide	d it in response to this	question.			

Energy Rates

TYSP Year 2025 Question No. 71

Year		Urai	nium	C	oal	Natur	al Gas	Resid	ual Oil	Distill	ate Oil	Hydi	rogen	Other	(Specify)
Tear		GWh	\$/MMBTU	GWh	\$/MMBTU	GWh	\$/MMBTU	GWh	\$/MMBTU	GWh	\$/MMBTU	GWh	\$/MMBTU	GWh	\$/MMBTU
	2015	461		3,157		3,475		0		0		0		0	
	2016	464		3,464		3,903		0		0		0		0	
	2017	467	[	3,955		3,326	6 a 2	0		0		0		0	
_	2018	470		4,204		3,422	30	0		0		0		0	
Actual	2019	449	17	3,614		3,554		0		0		0		0	1
Act	2020	500		2,778		4,090	3.5	0		0		0		0	
	2021	464		3,152		3,583	31	0	1	0		0		0	
	2022	487		1,978		4,953	13	0		0		0		0	
	2023	494		1,938		5,144	6	0		0		0		0	1
	2024	433	See Note (1)	1,608	See Note (1)	5,753	See Note (1)	0	See Note (1)	0	See Note (1)	0	See Note (1)	0	Not Applicable
	2025	504	See more (1)	2,435	500 11010 (1)	4,380	500 11000 (1)	0	Sec 1.022 (1)	0	] 500 11000 (1)	0	500 11000 (1)	0	Trot repriedure
	2026	511		1,845		4,998	B 71	0		0		0		0	<u>.</u>
	2027	512		1,305		5,195	0.00	0		0		0		0	1
Pa	2028	512		0		6,643	13	0		0		0		0	1
Projected	2029	512		0		6,452	<u> </u>	0	1	0		0		0	
roj	2030	511		0		6,275	L 18	0		0		0		0	1
Ъ	2031	512		0		5,952		0		0		0		0	1
	2032	513		0		5,759		0	1	0		0		0	<u>↓</u>
	2033	512		0		4,999		0	ļ	0		0		0	<b>↓</b>
Notes	2034	511		0		4,230		0		0		0		0	

Notes

<sup>(1).</sup> Fuel prices are not included in the table as OUC considers fuel prices to be proprietary and confidential.

TYSP Year 2025 Question No. 77(a)

OUC does not have any existing data centers being served as of December 31, 2024.

Table I: Current Data Center Information												
Data Centers Currently Located in Utility Service Area												
						For each of the Data Centers						
					Access to the second							
Total No. of Data		Total Energy Usage in	Impact to Summer	Impact to Winter Peak	Seasonality Observed,					Impact to Peak		
Centers	Customer Class Served	2024	Peak Demand	Demand	if any		Type of Data Center*	Energy Used in 2024	Hours of Peak Usage**	Demand		
		(MWHs)	(MWs)	(MWs)				(MWHs)		(MWs)		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)		
						1						
						2						
						3						
						•••						

<sup>\*</sup> Examples of the data center types: colocation, enterprise, cloud, edge, and micro data.

\*\*Based on military time 1 - 24.

TYSP Year 2025 Question No. 77(b)

OUC does not have any data centers planned to be served over the 2025 through 2034 planning period.

Table II: Planned Data Center Information												
Planned Data Centers in Your Service Area												
			Expected In-Service	<b>Expected Annual</b>	Expected Impact to	Expected Impact to						
	Type of Data Center*	<b>Customer Class Served</b>		Energy Usage	Summer Peak Demand							
				(MWHs)	(MWs)	(MWs)						
	(1)	(2)	(3)	(4)	(5)	(6)						
1												
2												
3												

<sup>\*</sup> Examples of the data center types: colocation, enterprise, cloud, edge, and micro data.