

May 1, 2025

Florida Public Service Commission
Office of Commission Clerk
2540 Shumard Oak Boulevard
Tallahassee, Florida 32399-0850

Re: Docket No. 20250000-OT
GRU's Response to TYSP Data Request #1

Dear Sir/Madam,

Gainesville Regional Utilities hereby submits its electronic version of the Public Service Commission's Ten-Year Site Plan Data Request #1. The Excel tables and other documents requested were emailed to Greg Davis and Phillip Ellis.

Please let me know if you have any questions regarding this document.

Sincerely,

/s/ Jamie Verschage, P.E.
Power Planning and Contracts Manager

Instructions: Accompanying this data request is a Microsoft Excel (Excel) document titled "Data Request #1. Excel Tables," (Excel Tables File). For each question below that references the Excel Tables File, please complete the table and provide, in Excel Format, all data requested for those sheet(s)/tab(s) identified in parenthesis.

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.

This was provided via email to Greg Davis and Phillip Ellis.

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

This was provided via email to Greg Davis and Phillip Ellis.

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)

This data is provided in the provided Microsoft Excel file.

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).

GRU 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 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.

This data was provided as part of the provided Excel file.

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.

GRU utilizes climatological data from the weather station located at the Flight Service Station at the Gainesville Regional Airport. The National Weather Service call ID is GNV, and the WBAN number is 12816.

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.

The methodology, assumptions and data sources used in the development of GRU's customer, sales, and demand forecasts are described in detail on pages 10-11 of the TYSP. The forecast was done in-house without the use of any outside consultants. GRU assesses historical forecast accuracy but does not make prospective claims around its forecast accuracy. GRU has used the same forecast methodology for more than 20 years.

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.

There are no matters before the FPSC that reference this forecast.

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.

GRU evaluates forecast accuracy for number of customers, retail net energy for load, and summer peak demand. Forecast error for these three components was evaluated over a 20-year historical time frame. Responses to questions here will report historical forecast error over the past 10 and past 5 years.

- 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.

GRU utilizes what is commonly known as an error fan analysis for evaluating historical forecast error. The data was added to the Excel question portion of this inquiry. Worksheet 9A shows the data and results for the number of customers. Worksheet 9B shows the data and results for retail net energy. The actual number of customers exceeded forecast levels by an average of 0.8% over the past 10 years. Actual retail net energy was less than forecast by an average of 1.6% over the past 10 years.

- b. If your response is negative, please explain.

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.

GRU evaluates forecast accuracy for summer peak demand. GRU does not evaluate historical forecast accuracy for winter peak demand. GRU is a summer peaking system due in large part to the penetration of natural gas in its service territory. GRU's summer peak demands are usually significantly higher than winter peak loads.

- 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.

GRU utilizes an error fan analysis for evaluating historical forecast error. The data was added to the Excel question portion of this inquiry. Worksheet 10A shows the data and results for summer peak demand. The actual summer retail peak demand was lower than forecast by an average of 1.7% over the past 10 years.

- b. If your response is negative, please explain why.

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.

GRU's DSM programs are currently limited to rebates for natural gas and a low-income energy efficiency program offered to residential customers. The projected impacts of future implementations are very small, and they are tabulated in Schedule 3.1 and Schedule 3.2. The major factor contributing to growth in system peak demands was the historical increase in number of customers.

- 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.

GRU does not currently operate any demand response programs.

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

The major factor contributing to growth in total demand was the historical increase in the number of customers.

- 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.

The major factor contributing to growth in net firm demand was the historical increase in the number of customers.

12. Please explain any current and forecasted 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.

Any reductions to seasonal demands resulting from GRU's involvement in DSM programs is anticipated to be very small.

- 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.

GRU does not utilize demand response measures and therefore there are associated reductions to seasonal demands.

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

The most important factor contributing to demand growth is the projected increase in the number of customers served.

- 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.

The most important factor contributing to demand growth is the projected increase in the number of customers served.

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.

GRU is not a FEECA utility.

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

There was a pandemic reset that was most notable in lower energy sales, primarily in the non-residential sectors. This event elevated online shopping and likely had a permanent, negative effect on brick-and-mortar retail. The impact on seasonal demands was much smaller than the impact on energy sales.

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.

Residential average usage equation includes heating degree day and cooling degree day variables. Degree days did not test significant in equations developed for non-residential sectors. GRU's bottom-up approach implicitly includes degree days in total energy and net energy for load. Seasonal demand forecasts are based on both NEL and separate equations that include maximum and minimum temperatures on day of peak.

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

All weather data was sourced from the National Weather Service as reported by the Gainesville Regional Airport weather station as described in the response to Question 6.

- 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.

Not applicable.

- 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.

Weather data from the GNV weather station is available dating back to 1984. The historical period of study in each model varies as described in the TYSP text.

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

Response would be similar to d. (1) above.

- 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.

For purposes of developing forecasts, average degree day conditions were the medians of the most recent 10 years' cooling degree days and heating degree days. Peak demand models utilized temperature data from 190-2024.

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.

GRU is not an Investor-Owned Utility.

17. Please address the following questions regarding the impact of all customer-owned/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.

GRU currently has about 1600 customers with behind-the-meter, grid-connected solar systems. Reductions to onsite loads are accounted for in the load forecast and projections assume that the number of solar systems will increase to about 3200 by 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.

Total energy reductions associated with customer owned solar energy systems are projected to range from 19 GWh in 2025, to 31 GWh in 2034. Summer demand is expected to be reduced by about 6 MW in 2025, up to 10 MW in 2034. Approximately 60% of the energy and demand impacts occur within the residential sector.

- 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.

Residential participation ranges from 1617 customers in 2025 to 3007 customers in 2034. Non-residential participation ranges from 125 customers in 2025 to 211 customers in 2034.

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.

The requested information was provided in the provided Excel file.

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

GRU has not yet undertaken any measures to mitigate the impact of electric vehicle charging on seasonal peak demands.

20. Please explain any historic trends related to the following:
- a. PEV counts

GRU estimates that there were approximately 2,900 electric vehicles located within its service area at year end 2024.

- b. PEV charging installation counts

Unknown

c. Annual energy consumption

GRU estimates that electric vehicle charging utilized approximately 10 GWh in 2024.

d. Seasonal Peak Demand (Summer and Winter)

GRU estimates that electric vehicle charging will contribute approximately 7 MW to summer peak demand and approximately 11 MW to winter peak demand in 2025.

21. Please explain any current or forecasted trends related to the following:

a. PEV counts

GRU anticipates the number of electric vehicles charging within its service area to increase from about 3,500 in 2025 to approximately 14,000 in 2034.

b. PEV charging installation counts

Unknown

c. Annual energy consumption

GRU projects that electric vehicles will utilize 13 GWh in 2025, increasing to 50 GWh in 2034.

d. Seasonal Peak Demand (Summer and Winter)

GRU projects that electric vehicle charging loads will contribute 9 MW to summer peak demand in 2025, increasing to 35 MW in 2034. EV contribution to winter peak demand is projected to range from 13 MW in 2025, increasing to 53 MW in 2034.

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.

GRU does not currently offer any programs or tariffs specifically tailored for PEVs. It is possible that future rate structures will be offered to encourage charging during off-peak hours.

a. Of these programs or tariffs, are any designed for or do they include educating customers on electricity as a transportation fuel?

Not applicable

- 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.

GRU does not have any such programs.

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.

GRU has not conducted or contracted any such research.

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.

GRU utilizes assumptions of future PEV adoption as projected in EIA's Annual Energy Outlook. AEO was undergoing model updates during 2024, and new projections were not published. AEO2025 was recently released, and its projections will be incorporated into GRU's next load forecast.

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

GRU does not currently have any PEV pilot programs.

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.

Not applicable.

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.

GRU is not a FEECA utility.

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.

GRU is not a FEECA utility.

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

This information was provided in the Excel tables.

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

GRU does not have any new planned resources at this time.

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?

Not applicable.

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.

Not applicable.

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.

Not applicable.

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.

Not applicable.

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.

This information was provided in the accompanying tables.

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.

This information was provided in the accompanying tables.

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.

GRU 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.

GRU 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.

No, these types of solar facilities are generally not cost-effective in comparison to utility-scale solar.

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.

GRU has no potential candidates for modification.

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.

GRU has no planned transmission line projects within the current planning period.

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 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.
- 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.

GRU has not planned or existing PPAs.

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

GRU has no planned PPAs.

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?

GRU had a PPA for a 74.9 MW solar facility, but this PPA was cancelled due to economic reasons.

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.
- 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.

GRU has no planned or existing power sale agreements.

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

GRU has no planned power sale 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?

N/A.

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.

This information is provided in the accompanying tables.

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

GRU offers Net Metering for solar photovoltaic systems. Under this provision, GRU agrees to credit the account of both residential and non-residential customers, who install distributed photovoltaic generation, for the excess energy produced and exported to the city's electric distribution system.

Under GRU's Feed-In Tariff solar program, GRU agrees to purchase 100% of the solar power produced from any private generator at a fixed rate for a contract term of 20 years. The 20-year fixed rate is based on the year the project was approved and the type of installation. GRU is no longer accepting new projects or adding capacity.

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.

GRU does not currently have any programs to allow customers to contribute towards the funding of renewable energy projects.

Energy Storage

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

Over the past few years, GRU has been in communication with several non-lithium battery storage manufacturers. These companies appear to be making progress in the development and commercialization of their respective product offerings (technologies), and public announcements have been made by several domestic utilities that are moving forward with some non-lithium-ion-based battery systems.

For the time being, non-lithium-ion based battery storage systems continue to be more costly than lithium-ion systems.

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.

N/A.

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).

GRU's substations have been evaluated for available real estate to house an energy storage system. The majority of GRU's substations do not have adequate space, but there are a few substations that could be a candidate. Locating these storage systems near the source of load would reduce line losses. However, any potential energy storage site would require further analysis.

If the energy storage system were larger than ~10 MW AC, the system would likely be located at the Deerhaven Generation Station where there is adequate real estate available and is adjacent to the Deerhaven substation.

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.

GRU does not incentivize energy storage installations for any customer class/billing rate structure.

Residential customers purchase energy storage primarily as an emergency backup service in case of a utility power outage. Some commercial customers have explored energy storage to reduce demand charges. Since GRU adopted a net billing rate structure, a larger percentage of PV installations are paired with energy storage.

Only one of GRU's large customers inquired about energy storage technologies, and their request was specific to thermal energy storage via chilled water.

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.

GRU does not have any existing energy storage.

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.

GRU does not have any planned energy storage.

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 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.

Not applicable.

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.

This information is included in the tables supplied.

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.

GRU does not have solar facilities. However, assumed coincidence factors for solar have been evaluated for planning purposes using PVWatts for utility-scale solar facilities and GRU's historical load.

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.

GRU 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.

GRU does not have any non-firm generation sources.

Environmental

62. Please explain if the Company assumes carbon dioxide (CO₂) 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:

GRU does not assume any forthcoming carbon dioxide compliance costs.

- a. Please identify the year during the current planning period in which CO₂ compliance costs are first assumed to have a non-zero value.

N/A.

- 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.

GRU is not an investor-owned utility.

- c. **[Investor-Owned Utilities Only]** Please provide a revised resource plan assuming no CO₂ compliance costs.

GRU is not an investor-owned utility.

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.

Existing environmental regulations are not forecasted to impact unit dispatch, curtailments, or retirements during the current planning period.

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?

GRU will not be materially affected by this rule.

- b. What compliance strategy does the Company anticipate employing for the rule?

GRU will not be materially affected by this rule.

- c. If the strategy has not been completed, what is the Company's timeline for completing the compliance strategy?

GRU will not be materially affected by this rule.

- d. Will there be any regulatory approvals needed for implementing this compliance strategy? How will this affect the timeline?

GRU will not be materially affected by this rule.

- 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.

GRU will not be materially affected by this rule.

- f. If the answer to any of the above questions is not available, please explain why.

N/A

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.

None expected.

- b. Cross-State Air Pollution Rule (CSAPR).

N/A

- c. Cooling Water Intake Structures (CWIS) Rule.

N/A

- d. Coal Combustion Residuals (CCR) Rule.

N/A

- e. Standards of Performance for Greenhouse Gas Emissions for New Stationary Sources: Electric Utility Generating Units.

N/A

- f. Affordable Clean Energy Rule or its replacement.

Unknown.

- g. Effluent Limitations Guidelines and Standards (ELGS) from the Steam Electric Power Generating Point Source Category.

N/A

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.

GRU's units are not expected to be affected by these rules.

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.

GRU's units are not expected to be affected by these rules.

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.

GRU's units are not expected to be affected by these rules.

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.

No costs are identified.

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.

GRU does not have any such contractual energy purchases, sales, or as-available energy rates.

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.

See Table

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

GRU fuel price forecasts are a hybrid of internal contract pricing terms and independent projections available from private and governmental agency sources. GRU constructs short term (1-5 years) pricing models with price/cost factors that are extracted from existing contracts. The historical price performance, escalation factors, and the historical delivered quality are used to project delivered cost for natural gas, coal, biomass and environmental commodities. Existing contracts for natural gas pipeline and rail transportation are also modeled using contract and tariff terms.

The short-term forecast is then converted to long term forecasts by using escalation factors that are available from recognized, independent sources such as PIRA, S&P and the Energy Information Administration. This approach with accounts for the specific contract factors that affect GRU in the short term coupled with recognition of broad industry escalation factors over the long-term yield what GRU believes to be a conservative, realistic platform for long term planning.

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.

GRU has historically supplied most of its requirement using high quality bituminous coal from Central Appalachia. The transport distances and rail rates for moving Eastern coal into Florida have previously made this producing region the most competitive source for GRU. Prior to 2021, the decline in the price of natural gas and reduced coal demand due to coal plant closures have pushed Eastern coal prices to historical lows. Those low prices resulted in producer bankruptcies, mine closures and liquidation of smaller miners. The result of this environment in Central and Northern Appalachia has led to reduced supply, reduction of certain qualities in the market and increased supply risk for utilities. GRU expects coal supply to remain limited for the near future as available coal supply will likely remain in the export market. GRU does not expect an increase in production due to lack of investment. However, with the threat of tariffs and new executive orders to revive the coal industry there may be increased production and improved supply in the domestic market. GRU does not project any significant use of coal for base load generation. A minimal volume will be maintained in inventory, and even though the units will be dispatched economically, the price differential will likely only dispatch coal only as an emergency or backup fuel to maintain reliability.

GRU expects that in the near and long term, GRU will have to continue to diversify its sourcing with less reliance on Central Appalachia. While GRU will maintain some presence in Central Appalachia, GRU will explore purchases in Northern Appalachia, Illinois Basin and offshore. In addition, the risk will also be mitigated by increased use of natural gas, biomass and purchase power.

b. Natural Gas

The primary factors that will impact the price of natural gas for generation during the 2025-2026 timeframe are (1) shale gas production and supply (2) market perception of the adequacy of supply and level of demand (3) regulatory impact from legislation regarding fracking (4) regulatory impact of environmental legislation on generation from coal plants and (5) the impact of LNG exports on US supply and demand (6) the war in Ukraine and (7) current and threatened trade tariffs.

c. Nuclear

N/A

d. Fuel Oil

GRU does not project any significant use of heavy or light fuel oils for baseload generation. Heavy and light fuel oils are maintained in inventory as emergency or backup fuels.

e. Other (please specify each, if any)

Biomass --- In November 2017, GRU purchased the biomass generation PPA from the company with which it held a 30-year Agreement. GRU is currently contracted with the same subcontractor to procure fuel as under the PPA to assure a continuity of service and supply. The subcontractor historically contracts for short and long-term contracts of varying lengths to balance reliability of supply and to take advantage of favorable market prices. Academic studies from the University of Florida's College of Forestry have determined that there is an adequate supply of fuel for consumption operations of the plant.

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.

Fuels Type	Forecasted Price from 2023	Actual Price from 2024
Biomass	\$2.77	\$3.35
Coal	-	
Natural Gas	\$4.79	\$3.61

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.

The process used to forecast fuel prices was very similar to the prior TYSP.

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

GRU has long-term existing contracts with Florida Gas Transmission from FTS-1 & FTS-2 and pipeline transport capacity and has recently secured additional capacity on FTS-3 to serve its retrofitted coal unit for dual fuel. Given projected system requirements for natural gas, GRU is confident that adequate firm pipeline capacity services are under contract in volumes sufficient to meet requirements during the 2025-2034 planning period. GRU is also pursuing several prepay agreements for baseload volumes of gas. The prepay agreements could last as long as 30 years.

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

GRU is not a FEECA utility.

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)?

The forecast that was included in GRU's 2025 TYSP does not explicitly include any new, additional load specifically attributable to data centers.

- 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.

Not applicable.

- 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?

GRU does not anticipate large or rapid growth in loads associated with data centers. Non-residential pricing for electricity is much more favorable in neighboring service areas.

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.

There are no near-term issues or concerns associated with growth in data centers withing GRU's service area. When and if these loads become identified, GRU will likely work with each prospective customer on a case-by-case basis to address potential large loads.

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

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.

GRU has not yet employed or considered using any type of artificial intelligence in the development of its load forecast.

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.

GRU is not considering any emerging power generation or consumption technologies.

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Financial Assumptions			
Base Case			
AFUDC Rate		(%)	4.50%
Capitalization Ratios	Debt	(%)	70
	Preferred	(%)	
	Equity	(%)	30
Rate of Return	Debt	(%)	10
	Preferred	(%)	
	Equity	(%)	10
Income Tax rate	State	(%)	
	Federal	(%)	
	Effective	(%)	
Other Tax Rate:		(%)	
Discount Rate:		(%)	4.50%
Tax - Depreciation Rate:		(%)	

TYSP Year
Question No.

2025
4

Date	Hourly					
	1	2	3	4	5	6
1/1/2024	178	178	177	178	182	190
1/2/2024	150	144	143	146	155	169
1/3/2024	187	183	182	183	189	202
1/4/2024	154	147	144	148	155	167
1/5/2024	186	181	181	181	184	194
1/6/2024	145	137	131	128	126	129
1/7/2024	144	137	132	129	129	133
1/8/2024	170	163	159	158	164	177
1/9/2024	157	146	139	135	136	143
1/10/2024	153	146	143	145	153	170
1/11/2024	182	177	175	178	184	200
1/12/2024	164	156	152	150	152	160
1/13/2024	155	145	136	128	125	127
1/14/2024	183	176	173	170	172	176
1/15/2024	194	187	185	183	187	193
1/16/2024	148	137	131	128	130	138
1/17/2024	182	180	182	189	203	224
1/18/2024	238	232	228	225	229	243
1/19/2024	180	173	168	168	174	186
1/20/2024	170	166	166	169	177	190
1/21/2024	235	234	236	239	246	257
1/22/2024	230	224	221	222	227	239
1/23/2024	156	145	140	137	140	150
1/24/2024	145	136	130	126	128	138
1/25/2024	155	143	134	129	129	137
1/26/2024	158	146	139	135	134	140
1/27/2024	151	142	134	129	127	129
1/28/2024	155	144	137	132	130	130
1/29/2024	145	137	134	134	139	152
1/30/2024	170	164	162	164	171	187
1/31/2024	169	163	162	163	169	183
2/1/2024	171	165	163	167	176	194
2/2/2024	165	159	156	157	162	174
2/3/2024	160	154	152	152	156	163
2/4/2024	144	137	132	129	128	130
2/5/2024	147	139	135	135	140	152
2/6/2024	162	154	150	149	153	166
2/7/2024	168	163	161	162	169	184
2/8/2024	180	175	171	171	175	187
2/9/2024	147	140	136	136	141	154
2/10/2024	144	136	132	129	130	134
2/11/2024	141	133	127	123	122	126
2/12/2024	150	137	128	124	126	133
2/13/2024	146	134	126	123	124	131
2/14/2024	160	153	150	151	157	172
2/15/2024	156	149	145	143	145	156
2/16/2024	150	141	137	137	140	150
2/17/2024	146	138	133	130	129	133

Financial Escalation Assumptions				
Year	General Inflation	Plant Construction Cost	Fixed O&M Cost	Variable O&M Cost
	(%)	(%)	(%)	(%)
2025	3	3	3	3
2026	2.5	2.5	2.5	2.5
2027	2.5	2.5	2.5	2.5
2028	2.5	2.5	2.5	2.5
2029	2.5	2.5	2.5	2.5
2030	2.5	2.5	2.5	2.5
2031	2.5	2.5	2.5	2.5
2032	2.5	2.5	2.5	2.5
2033	2.5	2.5	2.5	2.5
2034	2.5	2.5	2.5	2.5

Notes
(Include Notes Here)

Retail Customers

CY	actual	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
2005	87560	87875																			
2006	88992	89447	89314																		
2007	90939	91019	91066	90524																	
2008	92795	92550	92778	92130	92449																
2009	93045	94082	94448	93700	94146	93092															
2010	92340	95573	96117	95235	95765	93925	93153														
2011	92265	97064	97705	96736	97330	94886	94319	92241													
2012	92556	98515	99293	98202	98840	96198	95484	93026	92941												
2013	93134	99966	100839	99634	100318	97613	96645	94417	93828	93290											
2014	93855	101377	102385	101032	101742	98986	97805	96023	94712	94073	94136										
2015	94628	102788	103849	102395	103133	100295	98963	97511	95593	94856	95119	94863									
2016	95161	104158	105245	103725	104493	101542	100319	98915	96654	95639	96083	95851	95499								
2017	97245	105488	106600	105020	105798	102712	101673	100276	97712	96421	97028	96820	96363	96084							
2018	97681	106818	107914	106382	107070	103831	103025	101601	98767	97204	97954	97769	97219	96996	98169						
2019	98324	108148	109187	107510	108311	104908	104376	102909	99821	97987	98861	98697	98066	97893	99082	98450					
2020	99714	109398	110460	108705	109519	105964	105725	104215	100872	98770	99748	99606	98904	98776	99981	99212	99023				
2021	101117	110688	111652	109866	110673	106994	107049	105536	101899	99554	100617	100494	99735	99647	100868	99966	99707	100449			
2022	101051	111937	112843	110993	111795	108012	108372	106862	102923	100340	101466	101363	100558	100505	101742	100712	100376	101168	101727		
2023	103865	113147	114035	112087	112885	109026	109694	108191	103947	101126	102296	102212	101372	101349	102603	101451	101031	101872	102322	102329	
2024	104510	114356	115145	113148	113942	110060	111014	109519	104968	101913	103107	103040	102178	102180	103451	102183	101670	102560	102904	103008	104631
2025			116254		114968	111116	112332	110843	105988	102702	103898	103849	102976	102998	104286	102907	102295	103232	103471	103670	105376
2026				115169	115961	112201	113604	112152	106961	103492	104671	104638	103766	103803	105108	103623	102904	103889	104024	104316	106102
2027					116923	113225	114874	113449	107932	104284	105424	105407	104548	104595	105918	104332	103499	104530	104564	104944	106807
2028						114210	116143	114736	108902	105077	106158	106156	105322	105374	106714	105034	104079	105155	105089	105557	107493
2029							117410	116014	109870	105872	106873	106885	106087	106139	107498	105728	104644	105764	105600	106152	108158
2030								117278	110838	106668	107569	107594	106844	106891	108269	106415	105194	106358	106097	106731	108803
2031									111774	107466	108246	108283	107594	107630	109027	107094	105729	106936	106580	107294	109428
2032										108266	108904	108952	108335	108356	109773	107765	106249	107498	107049	107839	110033
2033											109542	109601	109068	109069	110505	108429	106754	108045	107504	108369	110618
2034												110230	109792	109769	111224	109086	107245	108576	107945	108881	111183
2035														110455	111931	109735	107720	109091	108372	109377	111727
2036															111129	112625	110377	108181	109591	108785	109857
2037																113306	111011	108627	110075	109183	110320
2038																	111638	109058	110543	109568	110766
2039																					
2040																		109474	110996	109938	111196
2041																					
2042																			111432	110295	111609
2043																				110637	112005
																					114976
																					115360

Actual versus Forecast

2005	-0.40%	-0.40%																			
2006	-0.40%	-0.50%	-0.40%																		
2007	0.10%	-0.10%	-0.10%	0.50%																	
2008	0.30%	0.30%	0.00%	0.70%	0.40%																
2009	-0.90%	-1.10%	-1.50%	-0.70%	-1.20%	-0.10%															
2010	-2.70%	-3.40%	-3.90%	-3.00%	-3.60%	-1.70%	-0.90%														
2011	-3.60%	-4.90%	-5.60%	-4.60%	-5.20%	-2.80%	-2.20%	0.00%													
2012	-4.10%	-6.00%	-6.80%	-5.80%	-6.40%	-3.80%	-3.10%	-0.50%	-0.40%												
2013	-4.30%	-6.80%	-7.60%	-6.50%	-7.20%	-4.60%	-3.60%	-1.40%	-0.70%	-0.20%											
2014	-4.40%	-7.40%	-8.30%	-7.10%	-7.80%	-5.20%	-4.00%	-2.30%	-0.90%	-0.20%	-0.30%										
2015	-4.30%	-7.90%	-8.90%	-7.60%	-8.20%	-5.60%	-4.40%	-3.00%	-1.00%	-0.20%	-0.50%	-0.20%									
2016	-4.60%	-8.60%	-9.60%	-8.30%	-8.90%	-6.30%	-5.10%	-3.80%	-1.50%	-0.50%	-1.00%	-0.70%	-0.40%								
2017	-3.20%	-7.80%	-8.80%	-7.40%	-8.10%	-5.30%	-4.40%	-3.00%	-0.50%	0.90%	0.20%	0.40%	0.90%	1.20%							
2018	-3.60%	-8.60%	-9.50%	-8.10%	-8.80%	-5.90%	-5.20%	-3.90%	-1.10%	0.50%	-0.30%	-0.10%	0.50%	0.70%	-0.50%						
2019	-3.70%	-9.10%	-9.90%	-8.50%	-9.20%	-6.30%	-5.80%	-4.50%	-1.50%	0.30%	-0.50%	-0.40%	0.30%	0.40%	-0.80%	-0.10%					
2020	-3.10%	-8.90%	-9.70%	-8.30%	-9.00%	-5.90%	-5.70%	-4.30%	-1.10%	1.00%	0.00%	0.10%	0.80%	0.90%	-0.30%	0.50%	0.70%				
2021	-2.40%	-8.60%	-9.40%	-8.00%	-8.60%	-5.50%	-5.50%	-4.20%	-0.80%	1.60%	0.50%	0.60%	1.40%	1.50%	0.20%	1.20%	1.40%	0.70%			
2022	-3.30%	-9.70%	-10.50%	-9.00%	-9.60%	-6.40%	-6.80%	-5.40%	-1.80%	0.70%	-0.40%	-0.30%	0.50%	0.50%	-0.70%	0.30%	0.70%	-0.10%	-0.70%		
2023	-1.30%	-8.20%	-8.90%	-7.30%	-8.00%	-4.70%	-5.30%	-4.00%	-0.10%	2.70%	1.50%	1.60%	2.50%	2.50%	1.20%	2.40%	2.80%	2.00%	1.50%	1.50%	
2024	-1.40%	-8.60%	-9.20%	-7.60%	-8.30%	-5.00%	-5.90%	-4.60%	-0.40%	2.50%	1.40%	1.40%	2.30%	2.30%	1.00%	2.30%	2.80%	1.90%	1.60%	1.50%	-0.10%

Positive forecast error means that actual number of customers was greater than forecast by an average of 0.8% over the past 10 years

	20-yr	10-yr	5-yr
average	-2.90%	0.80%	1.20%
standard dev	3.80%	1.00%	1.00%

Retail NEL - MWh

	actual	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	
2005	1919219	1956231																				
2006	1924770	2003604	2002343																			
2007	1935961	2051915	2053846	1987015																		
2008	1882734	2102191	2105359	2025213	1992619																	
2009	1879240	2152086	2152429	2064160	2018164	1847407																
2010	1921451	2201240	2196701	2097334	2045563	1842689	1892728															
2011	1814347	2246370	2241249	2125552	2074347	1856023	1885250	1856289														
2012	1757126	2292007	2280073	2144797	2101106	1874622	1889230	1842577	1845529													
2013	1740129	2339549	2318118	2157589	2123341	1894863	1895212	1851774	1856019	1787064												
2014	1754797	2388493	2360030	2171786	2145951	1915364	1902209	1866868	1859549	1806901	1792611											
2015	1809591	2432443	2403473	2187228	2169460	1936592	1910194	1881418	1863316	1811769	1810946	1711061										
2016	1833194	2476390	2447714	2201155	2191891	1955668	1921888	1894480	1870661	1818106	1830137	1727575	1829129									
2017	1810837	2519076	2492274	2224143	2214800	1974193	1934534	1906285	1877650	1823655	1849046	1744554	1843043	1856826								
2018	1856721	2561111	2536048	2245163	2237288	1993509	1947445	1917167	1884977	1829063	1866351	1773411	1870272	1883838	1868654							
2019	1866130	2602984	2577619	2262708	2257449	2010234	1961168	1928078	1892588	1835037	1882662	1873910	1883586	1897920	1891236	1854873						
2020	1843227	2644567	2618966	2279687	2276733	2023629	1973319	1939364	1900161	1840982	1898190	1889824	1896722	1911177	1903048	1868687	1877001					
2021	1816142	2687730	2659592	2294590	2296227	2035044	1982875	1951003	1907195	1847004	1913112	1905094	1909547	1924051	1914569	1882499	1889646	1860678				
2022	1863707	2731350	2701374	2324667	2316150	2046315	1992757	1963328	1914609	1854182	1928078	1920151	1922695	1937238	1925822	1893803	1901677	1870457	1865054			
2023	1847382	2775226	2743212	2353423	2335811	2057656	2002571	1975087	1922074	1861769	1942711	1935044	1935935	1950185	1936829	1906229	1909959	1875996	1871264	1854904		
2024	1902706	2819486	2783406	2383355	2355047	2068921	2011850	1986362	1929659	1869266	1956897	1949498	1948664	1962322	1947611	1918975	1921057	1885056	1881705	1863692	1890505	
2025			2823956		2413740	2374425	2081122	2020880	1998009	1937357	1877330	1971046	1963872	1961161	1974172	1958191	1931458	1932383	1893697	1893427	1872690	1899106
2026				2445093	2393397	2093265	2030059	2009745	1944446	1886134	1858225	1978159	1973373	1985601	1968590	1943745	1943327	1902075	1905811	1881237	1907777	
2027					2411484	2105398	2039603	2021434	1951621	1895668	1999424	1992581	1985723	1996844	1978827	1956068	1953961	1910218	1917542	1890457	1916535	
2028						2117390																
2029							2055866	2044195	1966400	1916059	2027221	2020797	2010344	2018581	1998907	1980210	1974294	1925756	1942432	1911915	1934296	
2030								2055948	1974162	1927209	2014047	2034810	2022965	2029301	2008789	1992060	1983750	1932328	1955328	1924877	1943237	
2031									1981465	1938607	2054762	2048652	2035413	2039777	2018594	2003770	1992883	1940637	1966894	1937672	1952477	
2032										1950980	2069112	2063259	2048839	2050946	2028342	2015604	2001694	1947969	1979408	1952133	1961666	
2033											2082838	2077414	2061810	2061376	2038049	2026891	2010008	1955262	1991464	1968098	1971043	
2034												2090986	2074484	2071419	2047735	2037795	2018025	1962566	2002465	1986347	1980577	
2035													2087224	2084140	2057420	2048462	2025735	1970002	2013822	2005222	1990295	
2036														2091367	2067122	2058830	2033168	1977518	2024163	2020752	2000135	
2037															2076860	2068603	2040310	1985082	2036369	2036996	2010236	
2038																2078452	2047216	1992858	2049193	2055796	2020620	
2039																	2053862	2000706	2062745	2076693	2031248	
2040																		2008735	2077087	2100338	2042115	
2041																			2090564	2118656	2053051	
2042																				2138449	2064306	
2043																					2075900	

Actual versus Forecast

2005	-1.90%	-1.90%																			
2006	-3.90%	-3.90%	-3.90%																		
2007	-4.70%	-5.70%	-5.70%	-2.60%																	
2008	-8.40%	-10.40%	-10.60%	-7.00%	-5.50%																
2009	-7.90%	-12.70%	-12.70%	-9.00%	-6.90%	1.70%															
2010	-5.70%	-12.70%	-12.50%	-8.40%	-6.10%	4.30%	1.50%														
2011	-10.50%	-19.20%	-19.00%	-14.60%	-12.50%	-2.20%	-3.80%	-2.30%													
2012	-12.90%	-23.30%	-22.90%	-18.10%	-16.40%	-6.30%	-7.00%	-4.60%	-4.80%												
2013	-13.20%	-25.60%	-24.90%	-19.30%	-18.00%	-8.20%	-8.20%	-6.00%	-6.20%	-2.60%											
2014	-12.20%	-26.50%	-25.60%	-19.20%	-18.20%	-8.40%	-7.70%	-6.00%	-5.60%	-2.90%	-2.10%										
2015	-8.80%	-25.60%	-24.70%	-17.30%	-16.60%	-6.60%	-5.30%	-3.80%	-2.90%	-0.10%	-0.10%	5.80%									
2016	-7.70%	-26.00%	-25.10%	-16.70%	-16.40%	-6.30%	-4.60%	-3.20%	-2.00%	0.80%	0.20%	6.10%	0.20%								
2017	-9.10%	-28.10%	-27.30%	-18.60%	-18.20%	-8.30%	-6.40%	-5.00%	-3.60%	-0.70%	-2.10%	3.80%	-1.70%	-2.50%							
2018	-7.30%	-27.50%	-26.80%	-17.30%	-17.00%	-6.90%	-4.70%	-3.20%	-1.50%	-0.50%	4.70%	-0.70%	-1.40%	-0.60%							
2019	-7.40%	-28.30%	-27.60%	-17.50%	-17.30%	-7.20%	-4.80%	-3.20%	-1.40%	1.70%	-0.90%	-0.40%	-0.90%	-1.70%	-1.30%	0.60%					
2020	-8.70%	-30.30%	-29.60%	-19.10%	-19.00%	-8.90%	-6.60%	-5.00%	-3.00%	0.10%	-2.90%	-2.50%	-2.80%	-3.60%	-3.10%	-1.40%	-1.80%				
2021	-10.20%	-32.40%	-31.70%	-20.90%	-20.90%	-10.80%	-8.40%	-6.90%	-4.80%	-1.70%	-5.10%	-4.70%	-4.90%	-5.60%	-5.10%	-3.50%	-3.90%	-2.40%			
2022	-8.10%	-31.80%	-31.00%	-19.80%	-19.50%	-8.90%	-6.50%	-5.10%	-2.70%	0.50%	-3.30%	-2.90%	-3.10%	-3.80%	-3.20%	-1.60%	-2.00%	-0.40%	-0.10%		
2023	-9.00%	-33.40%	-32.70%	-21.50%	-20.90%	-10.20%	-7.70%	-6.50%	-3.90%	-0.80%	-4.90%	-4.50%	-4.60%	-5.30%	-4.60%	-3.10%	-3.30%	-1.50%	-1.30%	-0.40%	
2024	-6.50%	-32.50%	-31.60%	-20.20%	-19.20%	-8.00%	-5.40%	-4.20%	-1.40%	1.80%	-2.80%	-2.40%	-2.40%	-3.00%	-2.30%	-0.80%	-1.00%	0.90%	1.10%	2.10%	0.60%

Negative forecast error means that actual retail net energy was less than forecast by an average of 1.6% over the past 10 years

average	-8.70%	-1.60%	-0.90%
standard dev	9.50%	2.60%	1.70%

[illegible][illegible]

	20-yr	10-yr	5-yr
average	-7.90%	-1.70%	0.90%
standard dev	9.50%	2.60%	1.70%

Notes

Number of Public, L2 charging stalls assumed to maintain a ratio of 1 stall every 50 vehicles
 Number of Public, DCFC charging stalls assumed to maintain a ratio of 1 stall every 100 vehicles
 Number of 2025 stations sourced from ChargeHub.com and Plugshare.com

TYSP Year
Question No.

2025
27

[Demand Response Source or All Demand Response Sources]									
Year	Participating Customers			Available Capacity (MW)					
				Summer			Winter		
	Start of Year	Lost	Added	Start of Year	Lost	Added	Start of Year	Lost	Added
2015									
2016									
2017									
2018									
2019									
2020									
2021									
2022									
2023									
2024									
Notes									
GRU is not a FEECA utility.									

[Demand Response Source or All Demand Response Sources]														
Year	Summer							Winter						
	Total Events	Customers Activated			Capacity Activated (MW)			Total Events	Customers Activated			Capacity Activated (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														
2018														
2019														
2020														
2021														
2022														
2023														
2024														
Notes														

GRU is not a FEECA utility.

TYSP Year	2025
Question No.	29(a)

2025
29(a)

Facility Name	Unit No.	County Location	Unit Type	Primary Fuel	Commercial In-Service		Unit Capacity (MW)					
							Gross		Net		Firm	
					Mo	Yr	Sum	Win	Sum	Win	Sum	Win
DEERHAVEN	FS01	ALACHUA	ST	NG	8	1972	81	81	76	76	76	76
DEERHAVEN	FS02	ALACHUA	ST	BIT	10	1981	251	251	232	232	232	232
DEERHAVEN	GT01	ALACHUA	GT	NG	7	1976	18	23	18	22	18	22
DEERHAVEN	GT02	ALACHUA	GT	NG	8	1976	18	23	18	22	18	22
DEERHAVEN	GT03	ALACHUA	GT	NG	1	1996	72	82	71	81	71	81
DEERHAVEN RENEWABLE	DHR	ALACHUA	ST	WDS	12	2017	114	114	103	103	103	103
J. R. KELLY	FS08	ALACHUA	CA	WH	5	2001	42	42	41	41	39	40
J. R. KELLY	GT04	ALACHUA	CT	NG	5	2001	73	86	71	84	71	84
SOUTH ENERGY CENTER	1	ALACHUA	GT	NG	5	2009	4.5	4.5	3.8	4.1	3.8	4.1
SOUTH ENERGY CENTER	2	ALACHUA	IC	NG	12	2017	7.4	7.4	7.4	7.4	7.4	7.4
Notes												
FS08 and GT04 are ran together as a combined-cycle unit.												

TYSP Year	2025
Question No.	29(b)

Facility Name	Unit No.	County Location	Unit Type	Primary Fuel	Commercial In-Service		Unit Capacity (MW)					
							Gross		Net		Firm	
					Mo	Yr	Sum	Win	Sum	Win	Sum	Win
Notes												
GRU has no generation planned to come online within the current planning period.												

TYSP Year	2025
Question No.	33

Facility Name	Unit No.	County Location	Unit Type	Primary Fuel	Commercial In-Service		Certification Dates (if Applicable)	
							Need	PPSA Certified
					Mo	Yr	(Commission)	
Notes								
GRU has no generation planned to come online within the current planning period.								

TYSP Year
Question No.

2025
34

Facility Name	Unit No.	County Location	Unit Type	Primary Fuel	Final Decision ('Drop Dead') Date	Site Selection		Engineering / Permitting / Procurement		Constuction		Commercial In-Service Date
						Begins	Ends	Begins	Ends	Begins	Ends	
Notes												
GRU has no generation planned to come online within the current planning period.												

TYSP Year
Question No.

2025
35

Facility Name	Unit No.	County Location	Unit Type	Primary Fuel	Commercial In-Service		Unit Performance (%)						Average Net Operating Heat Rate (ANOHR)		
							Planned Outage Factor (POF)		Forced Outage Factor (FOF)		Equivalent Availability Factor (EAF)				
					Mo	Yr	Historic	Projected	Historic	Projected	Historic	Projected	Historic	Projected	
DEERHAVEN	FS01	ALACHUA	ST	NG		8	1972	2.85	2.85	0.01	0.01	71.7	71.7	12,030	12,030
DEERHAVEN	FS02	ALACHUA	ST	BIT		10	1981	8.26	8.26	0.34	0.34	66.17	66.17	10,697	10,697
DEERHAVEN	GT01	ALACHUA	GT	NG		7	1976	1.95	1.95	1.61	1.61	70.75	70.75	14,370	14,370
DEERHAVEN	GT02	ALACHUA	GT	NG		8	1976	0.92	0.92	0.35	0.35	72.7	72.7	14,370	14,370
DEERHAVEN	GT03	ALACHUA	GT	NG		1	1996	2.59	2.59	0	0	72.3	72.3	12,130	12,130
DEERHAVEN RENEWABLE	DHR	ALACHUA	ST	WDS		12	2017	17.18	17.18	2.43	2.43	51.75	51.75	11,300	11,300
J. R. KELLY	FS08	ALACHUA	CA	WH		5	2001	6.43	6.43	1.06	1.06	67.4	67.4	8,210	8,210
J. R. KELLY	GT04	ALACHUA	CT	NG		5	2001	6.08	6.08	0.82	0.82	67.8	67.8	8,210	8,210
SOUTH ENERGY CENTER	1	ALACHUA	GT	NG		5	2009	5.7	5.7	3.8	3.8	99	99	9,600	9,600
SOUTH ENERGY CENTER	2	ALACHUA	IC	NG		12	2017	0.8	0.8	0.5	0.5	92	92	8,500	8,500
Notes															
FS08 and GT04 operate as a combined cycle unit															

TYSP Year
Question No.

2025
36

Facility Name	Unit No.	County Location	Unit Type	Primary Fuel	Commercial In-Service		Capacity Factor (%)											
							Actual	Projected										
					Mo	Yr	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	
DEERHAVEN	FS01	ALACHUA	ST	NG	8	1972	24%	5%	4%	7%								
DEERHAVEN	FS02	ALACHUA	ST	BIT	10	1981	27%	25%	31%	26%	30%	39%	37%	38%	37%	33%	28%	
DEERHAVEN	GT01	ALACHUA	GT	NG	7	1976	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
DEERHAVEN	GT02	ALACHUA	GT	NG	8	1976	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
DEERHAVEN	GT03	ALACHUA	GT	NG	1	1996	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	1%	
DEERHAVEN RENEWABLE	DHR	ALACHUA	ST	WDS	12	2017	28%	38%	41%	41%	40%	30%	40%	36%	47%	55%	73%	
J. R. KELLY	FS08	ALACHUA	CA	WH	5	2001	82%	87%	75%	86%	77%	74%	71%	77%	73%	73%	66%	
J. R. KELLY	GT04	ALACHUA	CT	NG	5	2001	82%	87%	75%	86%	77%	74%	71%	77%	73%	73%	66%	
SOUTH ENERGY CENTER	1	ALACHUA	GT	NG	5	2009	57%	74%	81%	81%	81%	81%	81%	81%	81%	81%	81%	
SOUTH ENERGY CENTER	2	ALACHUA	IC	NG	12	2017	0%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%	

Notes

(Include Notes Here)

TYSP Year	2025
Question No.	38

Facility Name	Unit No.	County Location	Solar Type	Energy Storage Type	Facility In-Service Date		Unit Capacity (MW)				Land Use (Acres)	Commission Approval		Cost Recovery Mechanism
			(Fixed/Tracking)		Mo	Yr	Net		Firm			Order	Approval Date	
							Sum	Win	Sum	Win				
Notes														
GRU is not an investor-owned utility.														

TYSP Year	2025
Question No.	40

Facility Name	Unit No.	County Location	Unit Type	Primary Fuel	Commercial In-Service		Planned Modification (if any)	Eligible Modifications			Potential Issues
					Mo	Yr		Fuel Switching	Combined Cycle Conversion	Other (Explain)	
Notes N/A.											

TYSP Year 2025
Question No. 41

Transmission Line	Line Length	Nominal Voltage	Certification Dates		In-Service Date
	(Miles)	(kV)	Need Approved	TLSA Certified	
Notes					
GRU has no planned transmission projects.					

TYSP Year
Question No.

2025
42(a)

Contract Information						Provide If Associated with Specific Unit(s)												
Seller Name	Date Contract Approved	Contract Terms				Facility Name	Unit No.	County Location	Unit Type	Primary Fuel	Commercial In-Service		Unit Capacity (MW)					
		Firm Capacity (MW)		Delivery Dates									Gross		Net		Firm	
		Sum	Win	Start	End						Mo	Yr	Sum	Win	Sum	Win	Sum	Win
Notes																		
GRU has no existing PPAs.																		

TYSP Year
Question No.

2025
42(b)

Contract Information						Provide If Associated with Specific Unit(s)												
Seller Name	Date Contract Approved	Contract Terms				Facility Name	Unit No.	County Location	Unit Type	Primary Fuel	Commercial In-Service		Unit Capacity (MW)					
		Firm Capacity (MW)		Delivery Dates									Gross		Net		Firm	
		Sum	Win	Start	End						Mo	Yr	Sum	Win	Sum	Win	Sum	Win
Notes																		
GRU has no planned PPAs.																		

TYPSP Year
 Question No.

2025
45(a)

Contract Information						Provide If Associated with Specific Unit(s)												
Buyer Name	Date Contract Approved	Contract Terms				Facility Name	Unit No.	County Location	Unit Type	Primary Fuel	Commercial In-Service		Unit Capacity (MW)					
		Firm Capacity (MW)		Delivery Dates									Gross		Net		Firm	
		Sum	Win	Start	End						Mo	Yr	Sum	Win	Sum	Win	Sum	Win
Notes																		
GRU has no existing PSAs.																		

TYSP Year	2025
Question No.	45(b)

Contract Information						Provide If Associated with Specific Unit(s)													
Buyer Name	Date Contract Approved	Contract Terms				Facility Name	Unit No.	County Location	Unit Type	Primary Fuel	Commercial In-Service		Unit Capacity (MW)						Land Use
		Firm Capacity (MW)		Delivery Dates									Gross		Net		Firm		
		Sum	Win	Start	End						Mo	Yr	Sum	Win	Sum	Win	Sum	Win	
Notes																			
GRU has no planned PSAs.																			

TYSP Year
Question No.

2025
48

Renewable Source	Annual Renewable Generation (GWh)										
	Actual	Projected									
	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Utility - Firm	253	343	373	369	365	274	361	322	426	496	654
Utility - Non-Firm	0	0	0	0	0	0	0	0	0	0	0
Utility - Co-Firing	0	0	0	0	0	0	0	0	0	0	0
Purchase - Firm	0	0	0	0	0	0	0	0	0	0	0
Purchase - Non-Firm	0	0	0	0	0	0	0	0	0	0	0
Purchase - Co-Firing	0	0	0	0	0	0	0	0	0	0	0
Customer - Owned	17	19	20	21	23	24	25	27	28	30	31
Total	253	343	373	369	365	274	361	322	426	496	654
Notes											
Row 15 (Customer - Owned) represents behind-the-meter solar PV and is treated as a reduction to load, so this line is not included in the Total (row 16). BTM solar does not contribute to GRU's NEL.											

TYSP Year	2025
Question No.	55

Facility or Project Name	Unit No.	County Location	Energy Storage Type	Battery Chemistry (if applicable)	Land Use (Acres)	Facility In-Service or Project Start Date		Unit Capacity (MW)						Storage Capacity (MWh)	Conversion Efficiency (MWh)
								Gross		Net		Firm			
								Sum	Win	Sum	Win	Sum	Win		
Notes GRU does not have any existing energy storage.															

TYSP Year	2025
Question No.	56

Facility or Project Name	Unit No.	County Location	Energy Storage Type	Battery Chemistry (if applicable)	Land Use	Facility In-Service or Project Start Date		Unit Capacity (MW)						Storage Capacity (MWh)	Conversion Efficiency (MWh)
								Gross		Net		Firm			
								Sum	Win	Sum	Win	Sum	Win		
					(Acres)	Mo	Yr								
Notes															
GRU does not have any planned energy storage.															

Loss of Load Probability, Reserve Margin, and Expected Unserved Energy						
Base Case Load Forecast						
Year	Loss of Load Probability (Days/Yr)	Annual Isolated Reserve Margin (%) (Including Firm Purchases)	Expected Unserved Energy (MWh)	Loss of Load Probability (Days/Yr)	Annual Assisted Reserve Margin (%) (Including Firm Purchases)	Expected Unserved Energy (MWh)
2025	0	58	0	0	58	0
2026	0	57	0	0	57	0
2027	0	56	0	0	56	0
2028	0	37	0	0	37	0
2029	0	36	0	0	36	0
2030	0	35	0	0	35	0
2031	0	35	0	0	35	0
2032	0	25	0	0	25	0
2033	0	25	0	0	25	0
2034	0	24	0	0	24	0

Peak Summer Day Hourly Dispatch (MW)												
Hour	Customer Oriented		Power Transactions		Energy Storage		Generation Resources					
	Load	Demand Response	Sales	Purchases	Charging	Discharging	Nuclear	Natural Gas	Coal	Oil	Other	Solar
1												
2												
3												
4												
5												
6												
7												
8												
9												
10												
11												
12												
13												
14												
15												
16												
17												
18												
19												
20												
21												
22												
23												
24												

Peak Winter Day Hourly Dispatch (MW)												
Hour	Customer Oriented		Power Transactions		Energy Storage		Generation Resources					
	Total Load	Demand Response	Sales	Purchases	Charging	Discharging	Nuclear	Natural Gas	Coal	Oil	Other	Solar
1												
2												
3												
4												
5												
6												
7												
8												
9												
10												
11												
12												
13												
14												
15												
16												
17												
18												
19												
20												
21												
22												
23												
24												

Not applicable to GRU.

TYSP Year

2025

Question No.

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Year	Estimated Cost of Standards of Performance for Greenhouse Gas Emissions Rule for New Sources Impacts (Present-Year \$ millions)			
	Capital Costs	O&M Costs	Fuel Costs	Total Costs
2025				
2026				
2027				
2028				
2029				
2030				
2031				
2032				
2033				
2034				
Notes				
No such costs are identified.				

TYSP Year
Question No.

2025
66

Facility Name	Unit No.	County Location	Unit Type	Primary Fuel	Commercial In-Service		Unit Capacity (MW)		Estimated EPA Rule Impacts: Operational Effects						
					Mo	Yr	Net		ELGS	ACE or replacement	MATS	CSAPR/CAIR	CWIS	CCR	
							Sum	Win						Non-Hazardous Waste	Special Waste
Notes															
No such impacts are identified.															

TYSP Year
Question No.

2025
67

Facility Name	Unit No.	County Location	Unit Type	Primary Fuel	Commercial In-Service		Unit Capacity (MW)		Estimated EPA Rule Impacts: Cost Effects						
							Net		ELGS	ACE or replacement	MATS	CSAPR/ CAIR	CWIS	CCR	
					Mo	Yr	Sum	Win						Non-Hazardous Waste	Special Waste
Notes															
No such costs are identified.															

TYSP Year
Question No.

2025
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Facility Name	Unit No.	County Location	Unit Type	Primary Fuel	Commercial In-Service		Unit Capacity (MW)		Estimated EPA Rule Impacts: Unit Availability						
							Net		ELGS	ACE or replacement	MATS	CSAPR/ CAIR	CWIS	CCR	
					Mo	Yr	Sum	Win						Non-Hazardous Waste	Special Waste
Notes															
No such impacts are identified.															

TYSP Year
Question No.

2025
70

Year		Firm Purchase Rates		Non-Firm Purchase Rates		As-Available Energy Rates		
		Annual Average	Escalation Rate	Annual Average	Escalation Rate	Annual Average	On-Peak Average	Off-Peak Average
		(\$/MWh)	(%)	(\$/MWh)	(%)	(\$/MWh)	(\$/MWh)	(\$/MWh)
Actual	2015							
	2016							
	2017							
	2018							
	2019							
	2020							
	2021							
	2022							
	2023							
2024								
Projected	2025							
	2026							
	2027							
	2028							
	2029							
	2030							
	2031							
	2032							
	2033							
2034								
Notes								
GRU does not have any such contractual purchases, sales, or as-available energy rates.								

TYSP Year
Question No.

2025
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Year		Uranium		Coal		Biomass		Natural Gas		Residual Oil		Distillate Oil		Hydrogen		Other (Specify)	
		GWh	\$/MMBTU	GWh	\$/MMBTU	GWh	\$/MMBTU	GWh	\$/MMBTU	GWh	\$/MMBTU	GWh	\$/MMBTU	GWh	\$/MMBTU	GWh	\$/MMBTU
Actual	2015			663	3.30	0	0.00	770	3.39	1	5.57	0	7.28	0	0.00		
	2016			413	3.20	0	0.00	1144	3.21	0	4.85	0	8.97	0	0.00		
	2017			401	3.05	0	0.00	901	3.68	1	4.32	1	9.86	0	0.00		
	2018			460	3.42	570	2.92	1002	3.67	0	6.18	1	10.79	0	0.00		
	2019			449	3.47	594	2.72	854	3.00	1	6.18	0	10.70	0	0.00		
	2020			215	3.47	375	2.85	1276	2.24	0	6.18	0	0.00	0	0.00		
	2021			320	3.70	597	2.90	992	4.58	6	6.18	0	10.67	0	0.00		
	2022			32	5.48	610	3.47	1333	8.12	2	6.21	0	10.81	0	0.00		
	2023			20	6.60	287	3.74	1553	4.89	0	0.00	0	11.96	0	0.00		
Projected	2024			2	5.53	253	3.29	1562	3.65	0	14.00	0	11.43	0	0.00		
	2025			63	4.80	343	3.36	1381	4.07	0	0.00	0	0.00	0	0.00		
	2026			57	4.90	373	3.41	1395	4.20	0	0.00	0	0.00	0	0.00		
	2027			16	4.96	369	3.47	1452	4.09	0	0.00	0	0.00	0	0.00		
	2028			213	5.01	365	3.53	1210	3.89	0	0.00	0	0.00	0	0.00		
	2029			238	4.91	274	3.59	1343	4.00	0	0.00	0	0.00	0	0.00		
	2030			177	4.95	361	3.65	1331	4.21	0	0.00	0	0.00	0	0.00		
	2031			197	5.04	322	3.71	1384	4.40	0	0.00	0	0.00	0	0.00		
	2032			259	5.13	426	3.77	1254	4.49	0	0.00	0	0.00	0	0.00		
	2033			238	5.22	496	3.83	1200	4.68	0	0.00	0	0.00	0	0.00		
	2034			316	5.32	654	3.89	959	4.79	0	0.00	0	0.00	0	0.00		
Notes																	
(Include Notes Here)																	

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

* Examples of the data center types: colocation, enterprise, cloud, edge, and micro data.
** Based on military time 1 - 24.

GRU does not have any data centers as customers.

TYSP Year
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2025
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Table II: Planned Data Center Information						
Planned Data Centers in Your Service Area						
	Type of Data Center*	Customer Class Served	Expected In-Service Data	Expected Annual Energy Usage	Expected Impact to Summer Peak Demand	Expected Impact to Winter Peak Demand
				(MWHs)	(MWs)	(MWs)
	(1)	(2)	(3)	(4)	(5)	(6)
1						
2						
3						
...						

* Examples of the data center types: colocation, enterprise, cloud, edge, and micro data.

There are no planned data centers in GRU's service territory.