

Session Information

Session Name: Customer Demand Growth and IRP Analysis

Session ID: MjXqEugFQljf62Kd8svG

Owner: Luke Ashton

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Chat History

Table of Contents

- Question 1:** Create a table showing the perceived customer demand growth in percentage points for ...
- Question 2:** What are the primary drivers of the growth for each company?
- Question 3:** Which companies are concerned with growth in demand from data centers, and how are t...

Question 1

Luke Ashton asked on 05/29/2025 06:56:35 PM

Create a table showing the perceived customer demand growth in percentage points for each company you identify. The rows should be the name of the company while the columns should represent residential, commercial, and industrial customers. If information doesn't exist for that customer class, state "Not Reported"

Answer 1

Customer Demand Growth by Company and Customer Class

Based on the information available in the documents, here is a table showing the projected customer demand growth in percentage points for each identified company across different customer classes:

Company	Residential	Commercial	Industrial
Evergy Missouri West	0.5%	0.6%	1.3%
Evergy Metro	0.6%	0.4%-2.2%*	0.0%
Duke Energy Kentucky	1.0%	0.8%	0.8%
Florida Power & Light	1.0%-1.5%**	0.4%	8.9%
Georgia Power	Not Reported	Not Reported	Not Reported

*For Evergy Metro, commercial growth is separated into two categories: Small Commercial at 2.2% and Big Commercial at 0.4%.

**For Florida Power & Light, there are two different figures for residential growth in the documents: 1.5% for energy sales growth and 1.0% for overall customer growth.

The growth rates generally represent annual averages over long-term forecast periods (typically 20+ years), though specific timeframes vary by company. Georgia Power's documents mentioned continued customer load growth but did not provide specific percentage points for the different customer classes.

Citations

File Name	Page	Citation
2024 Evergy Missouri IRP.pdf	13	Growth rates between 2023 and 2043 show Residential growing at 0.5%, Commercial at 0.6% and Industrial at 1.3%.
2024 Evergy Metro_Public.pdf	13	Growth rates between 2023 and 2043 show Residential growing at 0.6%, Small Commercial at 2.2%, Big Commercial at 0.4% and Industrial at 0.0%.
2024-dek-irp-public.pdf	76	Residential volume for the twenty-year period of the forecast is expected to increase an average of 1.0 percent per year; Commercial energy, 0.8 percent per year; and Industrial energy, 0.8 percent per year.
Florida Power and Light Company 2025 IRP.pdf	60	2025 industrial energy sales for the integrated system are projected to be 3.7% of sales to ultimate consumers and are projected grow at an average annual rate of 8.9% over the forecast period.
Florida Power and Light Company 2025 IRP.pdf	60	2025 commercial energy sales for the integrated system are projected to be 41.4% of sales to ultimate consumers and are projected to grow at an average annual rate of 0.4% over the forecast period.
Florida Power and Light Company 2025 IRP.pdf	58	Total customer growth is projected to grow at an average annual rate of 1.0% during the forecast period. The primary driver of customer growth is population growth.
2025 IRP Main Document.pdf	42	Georgia Power's 2025 IRP load forecast, completed in August 2024, projects continued, extraordinary customer load growth stemming from substantial economic development taking place in Georgia.

Question 2

Luke Ashton asked on 05/29/2025 06:57:16 PM

What are the primary drivers of the growth for each company?

Answer 2

Primary Drivers of Customer Demand Growth by Company

Evergy Missouri West

Residential Class: - Housing development trends (growth near 2% during early 2000s housing boom) - Slowed to below 1% after 2008 - Growth resumed around 2013 due to housing development - Efficiency improvements in appliances

Commercial Class: - Primarily driven by residential customer growth - Small commercial customers typically exist to serve households - Examples include medical offices, grocery stores, restaurants, and other service establishments - Influenced by non-manufacturing economic factors

Industrial Class: - Largely declining over the past decade (averaging -0.8% since 2010) - Minimal contribution to overall demand growth - Some expectation of growth driven by economic development

Evergy Metro

Residential Class: - Housing developments (1% or higher growth during late 1990s and early 2000s) - Slowed to below 1% starting in 2007 - Growth resumed around 2013 - Expected to provide the most growth over the next 20 years (0.6% annual energy consumption growth projected for 2023-2043) - Household forecasts from Moody's Analytics drive customer numbers

Commercial Class: - Tied to residential customer growth - Influenced by non-manufacturing employment - Serves local markets (medical offices, grocery stores, drug stores, restaurants, etc.)

Industrial Class: - Gradual decline over recent decades (averaging -1.4% since 2010) - Structural changes in the industrial sector

Overall Growth Factors: - Economic development - Technological advancements - Energy efficiency improvements - Peak demand projected to grow 0.4% annually from 2023-2043

Duke Energy Kentucky

Residential Class: - Sustained increase in residential customer numbers - Real household income - Real electricity prices - Appliance saturation (air conditioners, electric space heating, other appliances) - Appliance efficiency improvements - Weather patterns - Future growth in electric vehicle adoption

Commercial Class: - Closely related to growth in local residential customers - Median household income - Total employment - Real electricity prices - Weather - Commercial air conditioner saturation

Industrial Class: - Relatively small number of new industrial customers added per year - Limited growth compared to residential sector

Overall Growth Factors: - Population growth - Economic factors including real GDP - Modest overall load growth expected, particularly in residential class

Florida Power & Light

Residential Class: - Population growth (primary driver) - Household increases

Commercial Class: - Employment trends - Housing starts - Real electricity price changes - Energy efficiency codes and standards - Weather patterns (cooling degree hours, heating degree hours)

Industrial Class: - Economic activity - Housing starts - Projected impact of very large demand, high load factor customers beginning in 2028

Overall Growth: - Total customer growth projected at an average annual rate of 1.0% during the forecast period - Population growth is the primary driver

Georgia Power

Residential Class: - Electrification of the economy - Transition to electric transportation - Behind-the-meter solar installations (though growth rate has decreased since 2022)

Commercial Class: - Economic development projects - Increasing growth rate of behind-the-meter solar installations - Trend toward larger system installations

Industrial Class: - Significant growth from data centers - EV manufacturing facilities - Solar panel production - Projects with higher load factors requiring around-the-clock operations - Some individual projects exceeding 1,000 MW - Increasing growth rate of behind-the-meter solar installations - Trend toward larger system installations

Overall Growth Factors: - Electrification trends (electric transportation, electric boilers) - Manufacturing and infrastructure supporting low-carbon technologies - Large load projects with high load factors requiring consistent energy delivery

Citations

File Name	Page	Citation
2024 Evergy Missouri IRP.pdf	49	Residential customer growth for Evergy Missouri West was near 2% during the housing boom of the early 2000s. Beginning in 2008, customer growth slowed to below 1% and slow growth continued until growth in housing development began to occur in 2013.
2024 Evergy Missouri IRP.pdf	58	The main driver for the number of small general service customers was the number of residential customers or households. This driver was chosen because it has worked well in the past and because most small commercial customers exist to serve households.
2024 Evergy Missouri IRP.pdf	49	Industrial customer growth has largely declined over the last 10 years, averaging -0.8% since 2010.
2024 Evergy Metro_Public.pdf	43	Evergy Metro expects energy consumption to grow 0.6% and peak demand to grow 0.4% annually from 2023-2043. Residential energy consumption is expected to provide the most growth over the next 20 years.
2024 Evergy Metro_Public.pdf	51	Residential customer growth for Evergy Metro was 1% or higher during the late 1990s and the housing boom of the early 2000s. Beginning in 2007, customer growth slowed to below 1% and slow growth continued until growth in housing development began to occur in 2013.
2024 Evergy Metro_Public.pdf	66	Examples of small commercial customers that serve households are medical offices, grocery stores, drug stores, restaurants, churches, schools, hair salons, and movie theaters.
2024 Evergy Metro_Public.pdf	65	A forecast of the number of households in the KC metro area from Moody's Analytics was the driver for the number of residential customers of Evergy Metro.
2024 Evergy Metro_Public.pdf	51	Industrial customers have gradually declined through the recent couple of decades, averaging -1.4% growth since 2010.
2024-dek-irp-public.pdf	27	Looking ahead, the Company anticipates mostly stable load with modest growth, particularly in the residential class. This modest growth is expected to be initially driven by a sustained increase in the number of residential customers, followed by an increased in load due to the adoption of electric vehicles (EVs).
2024-dek-irp-public.pdf	71	The residential sector has the most existing customers and new customer additions per year. Within the Duke Energy Kentucky service area, many commercial customers serve local markets. Therefore, there is a close

File Name	Page	Citation
		relationship between the growth in local residential customers and the growth in commercial customers.
2024-dek-irp-public.pdf	68	Residential Use per Customer - Energy use per customer is a function of real household income, real electricity prices and the combined impact of the saturation of air conditioners, electric space heating, other appliances, the efficiency of those appliances, and weather.
2024-dek-irp-public.pdf	68	Commercial Electricity Usage - Energy usage per customer is a function of median household income, total employment, real electricity prices, weather, and the combined impact of the commercial saturation of air conditioners.
2025 IRP Main Document.pdf	92	increased energy needs is the continued electrification of the economy, as customers transition to low-carbon electric solutions, such as electric transportation and electric boilers, rather than traditional fuel-burning technologies. The utility industry is also experiencing extraordinary growth in electricity demand driven by the manufacturing and infrastructure that support these low-carbon technology advancements
2025 IRP Main Document.pdf	43	many of these projects far exceeds historical annual norms, with some individual projects surpassing 1,000 MW. In addition to the size of the large loads presented by these new projects, many of the projects reflect a higher load factor with around-the-clock operations, which requires a substantial amount of generation and consistent energy delivery
2025 IRP Main Document.pdf	106	While the growth rate of residential customers installing solar BTM has decreased since the 2022 IRP, the growth rate of both commercial and industrial customers has increased. In general, customers in all classes are installing larger systems
Florida Power and Light Company 2025 IRP.pdf	58	Total customer growth is projected to grow at an average annual rate of 1.0% during the forecast period. The primary driver of customer growth is population growth.
Florida Power and Light Company 2025 IRP.pdf	59	The commercial energy sales models utilize variables for cooling degree hours, heating degree hours, housing starts, employment, the moving average of real electricity price increases over time, energy savings from changes to energy efficiency codes and standards, binary variables, and autoregressive terms.
Florida Power and Light Company 2025 IRP.pdf	60	The industrial regression model included housing starts, lagged dependent variables, and a binary variable. The total industrial sales forecast was adjusted to reflect the impact of very large demand, high load factor customers projected to take service on the FPL system during the planning period beginning in 2028.

Question 3

Luke Ashton asked on 05/29/2025 06:59:32 PM

Which companies are concerned with growth in demand from data centers, and how are they poised to meet this demand? Include potential programs or protections for other customer classes if they see an impact of data center growth increasing costs for other customers.

Answer 3

Companies Identifying Data Center Growth as Significant

Based on the available documents, several utility companies have identified growth in demand from data centers as a significant factor in their planning:

Evergy Missouri

- **Meta's Data Center:** Evergy Missouri West has specifically incorporated the load associated with Meta's announced data center into their low, mid, and high load forecasts.
- The company has integrated this significant load into their 2024 Integrated Resource Plan (IRP).

Evergy Metro

- **Google's Data Center:** Evergy Metro has incorporated the load associated with the announced Google data center into their low, mid, and high load forecasts.
- The document notes that "the current Metro pipeline for potential economic development which could be online by 2026 or 2027 is significantly larger than this single project," suggesting additional data center projects may be in development.

Florida Power and Light Company (FPL)

- FPL's 2025 IRP indicates they expect "significant load requirements to be served on the FPL system beginning in 2028 with total load growing to approximately 732 MW by 2033" based on discussions with potential large power users, including data centers.

Preparations to Meet Data Center Demand

Evergy Missouri & Evergy Metro

- **Focused Economic Development Integration:** Both companies are incorporating announced economic development projects—specifically large projects exceeding 100 MW—into their load forecasts.
- **Continuous Monitoring:** The magnitude of potential new loads is being monitored continuously and incorporated into load forecasts as they materialize.
- **Contingency Planning:** Developed contingency plans to address uncertainties in load growth and resource adequacy requirements.
- **Strategic Capacity Building:** Ensuring sufficient capacity for customers who have announced their intent to locate in their service territory and are progressing in their development process, while avoiding overbuilding for speculative projects.

Georgia Power (2025 IRP Main Document)

While not specifically mentioning data centers, Georgia Power outlines general strategies for addressing increased demand: - **Strategic Transmission Planning:** Proposing necessary investments in generation fleet and transmission systems. - **Resource Extensions and Upgrades:** Implementing economical extensions and enhancements to existing generating units. - **New Resource Procurement:** Planning new procurements to ensure reliable and economic service to existing customers and accommodate growth. - **Diversified Approach:** Leveraging opportunities from existing resources while enhancing procurement processes and program offerings.

Programs or Protections to Mitigate Cost Impacts

The documents do not provide specific information about programs or protections designed to mitigate cost impacts on other customer classes due to data center growth. However, some general approaches to managing cost impacts are mentioned:

- **Georgia Power:** References a "Capacity and Affordability Case sensitivity" intended to address customer affordability and capacity constraints, which "substantially mitigates the upward pressure on rates associated with the Proposed Case." However, this is not specifically tied to data center growth.
- **General Resource Planning:** Several utilities mention balancing economic benefits and rate impacts in their resource planning, but without specific measures related to data center growth.

It appears that while utilities are actively planning for increased demand from data centers, specific programs to protect other customer classes from potential rate impacts of this growth are either not covered in the provided documents or not yet developed.

Citations

File Name	Page	Citation
2024 Evergy Missouri IRP.pdf	386	Specific to Missouri West, the load associated with the announced Meta data center has been incorporated into the low, mid, and high load forecasts.
2024 Evergy Missouri IRP.pdf	386	Given the magnitude of potential new loads, they represent an uncertainty which is monitored continuously and incorporated into Evergy's load forecasts as they come to fruition. In the 2024 IRP, Evergy has incorporated announced economic development projects – specifically focused on large projects greater than 100 MW – into its load forecasts.
2024 Evergy Missouri IRP.pdf	386	However, it is critical to ensure sufficient capacity is being built for customers who have announced their intent to locate in Evergy's service territory and who are farther along in the project development process.
2024 Evergy Missouri IRP.pdf	156	This High Load case, along with the Low Load case, has been assessed to develop contingency plans which would reflect either higher or lower Load / Resource Adequacy Requirements for each utility compared to its base case.
2024 Evergy Metro_Public.pdf	525	Evergy continues to see robust economic development activity with large new customer loads evaluating locating in the service territory. Given the magnitude of potential new loads, they represent an uncertainty which is monitored continuously and incorporated into Evergy's load forecasts as they come to fruition.
2024 Evergy Metro_Public.pdf	525	Specific to Metro, the load associated with the announced Google data center has been incorporated into the low, mid, and high load forecasts. The current Metro pipeline for potential economic development which could be online by 2026 or 2027 is significantly larger than this single project.
2025 IRP Main Document.pdf	10	Serving customers' evolving energy needs requires a diversified approach. Georgia Power's proposed economical extensions and enhancements to existing generating units and new procurements are necessary to ensure reliable and economic service to existing customers and a growing Georgia.
2025 IRP Main Document.pdf	66	The 2025 IRP supply-side strategy provides customers with substantial reliability and economic benefits by leveraging opportunities from existing resources and continuing to enhance the Company's procurement processes and program offerings.
2025 IRP Main Document.pdf	8	Georgia Power is committed to maintaining reliability and affordability for all customers. In this IRP, the Company proposes necessary investments in its generation fleet and transmission system to ensure Georgia Power can continue to serve its customers with the reliability and resiliency they deserve and expect.
2025 IRP Main Document.pdf	59	Due to the significant upward pressure on rates resulting from the Proposed Case, the Company developed a Capacity and Affordability Case sensitivity.

File Name	Page	Citation
		The Capacity and Affordability Case is intended to address customer affordability and capacity constraints and substantially mitigates the upward pressure on rates associated with the Proposed Case.
Florida Power and Light Company 2025 IRP.pdf	60	However, based on discussions with potential large power users, such as a data centers, FPL believes there is a high probability for customers with significant load requirements to be served on the FPL system beginning in 2028 with total load growing to approximately 732 MW by 2033.

Session File List

File Name	Catalog
2024 Evergy Missouri IRP.pdf	irp-documents
2024 Evergy Metro_Public.pdf	irp-documents
2024-dek-irp-public.pdf	irp-documents
2025 IRP Main Document.pdf	irp-documents
Florida Power and Light Company 2025 IRP.pdf	irp-documents