

EIA-930 Hurricane Irma Impact Tracking Report

Friday September 15, 2017, 15:00 hours



For additional information contact:

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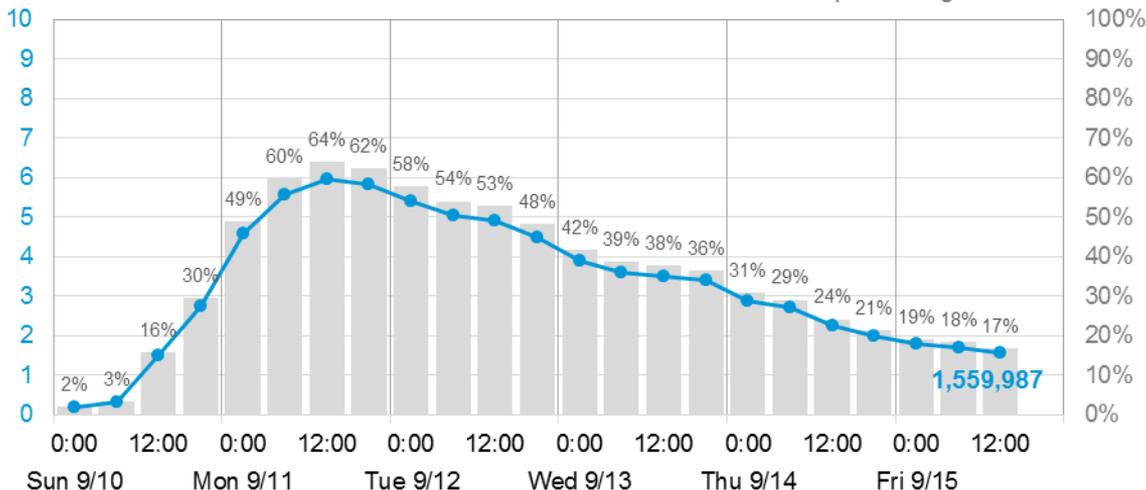
Florida's Top 10 Utilities by Customer Size

Power Outages

Power outages in Florida's 10 largest utilities (by # of customers)

million customers

percentage of customers

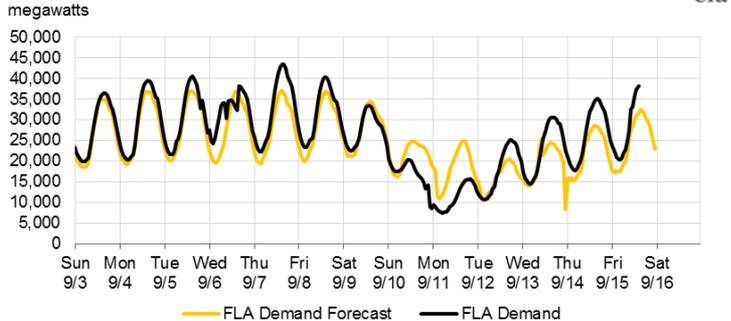


- Power outages in Florida's 10 biggest utilities as of 12 pm Friday affected 1.6 million customers—17% of the utilities' total number of customers and roughly 800,000 fewer customers than 12pm Thursday.

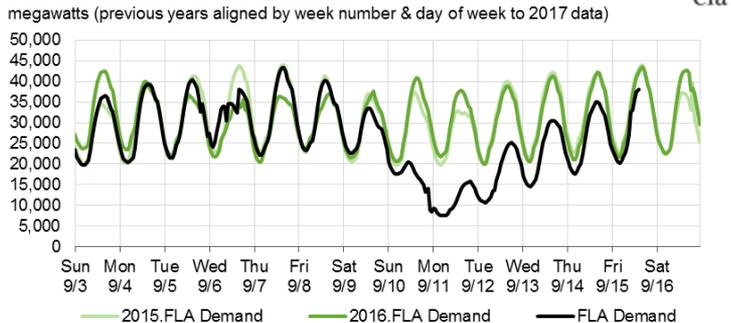
Source: EIA based on data collected from utility outage websites

Florida Region (FLA)

Current demand vs. day-ahead forecast



Current demand vs. 2015 and 2016



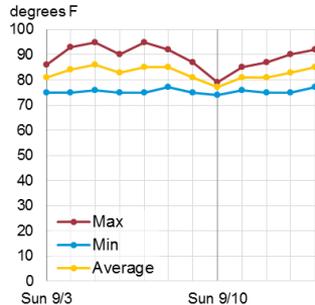
- Aggregate electricity demand for Florida balancing authorities continues to recover day-over-day since the lows seen early Monday. Florida demand exceeded 38,100 MW 3pm Friday afternoon, in-line with pre-hurricane levels the week before Hurricane Irma made landfall.
- Demand has been exceeding forecast significantly since Tuesday during peak hours.

Source: EIA, Hourly and Daily Balancing Authority Operations Report (EIA-930) https://www.eia.gov/beta/realtime_grid

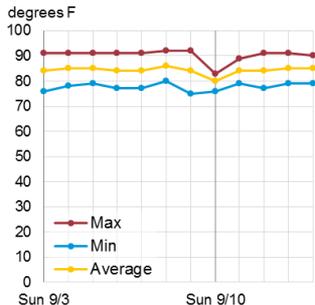
Florida Power & Light Balancing Authority (FPL)

Daily temperature ranges

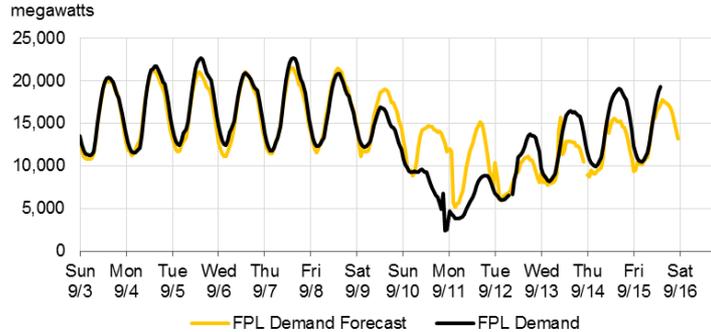
Fort Myers
daily temperature range



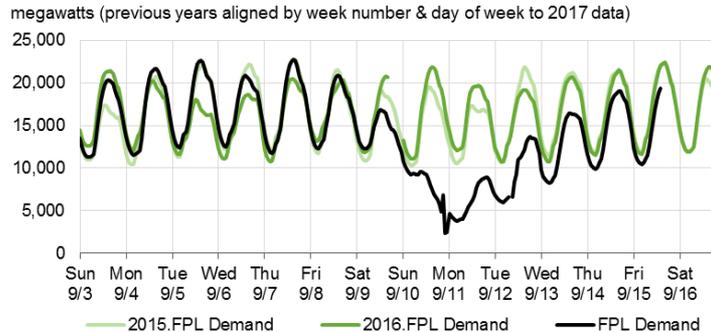
W. Palm Beach (near Miami)
daily temperature range



Current demand vs. day-ahead forecast



Current demand vs. 2015 and 2016



FPL is Florida's largest utility serving most of southern Florida and along its east coast (see map on last slide).

- Electricity demand exceeded 19,300 MW 3pm Friday afternoon after peaking at just over 19,000 on Thursday. This is close to pre-hurricane levels. Demand continues to exceed forecasts significantly during peak periods.
- Outage update: As of 8am Friday, nearly 3.2 million customers have been restored. FPL expects all East Coast customers "essentially" restored by Sunday, 9/17 and all West Coast customers (south of Tampa) restored by Friday, 9/22 except those pockets with severe damage.

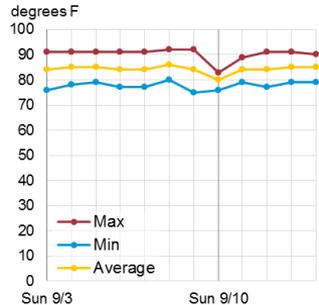


Source: EIA, Hourly and Daily Balancing Authority Operations Report (EIA-930) https://www.eia.gov/beta/realtime_grid; NOAA, National Weather Service

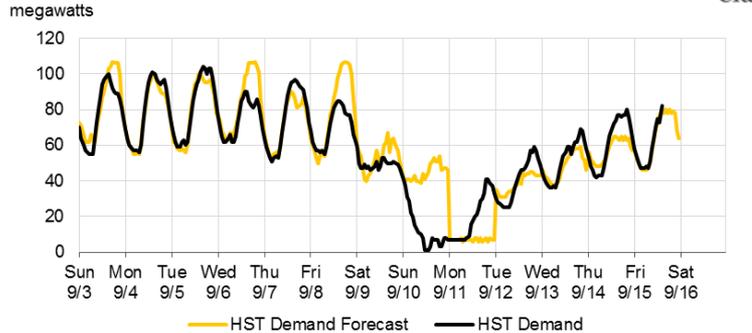
City of Homestead Balancing Authority (HST)

Daily temperature ranges

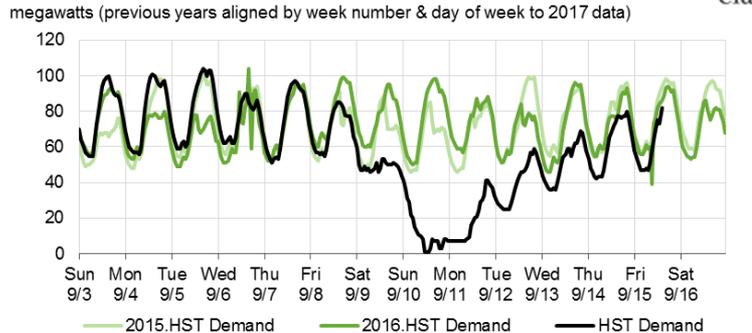
W. Palm Beach (near Miami)
daily temperature range



Current demand vs. day-ahead forecast



Current demand vs. 2015 and 2016



Homestead is located on the southeast coast of Florida and is one of the first U.S. cities and balancing authorities to experience the hurricane.

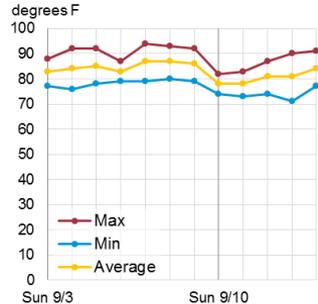
- Demand in Homestead is recovering after dropping to zero around noon Sunday. Demand reached 82 MW 3pm Friday afternoon after peaking at 80 MW on Thursday.
- Outage update: As of 8:30am Friday, 82% of customers have been restored. All customers should be restored by Sunday, 9/17 though most will get power sooner.

Source: EIA, Hourly and Daily Balancing Authority Operations Report (EIA-930) https://www.eia.gov/beta/realtime_grid; NOAA, National Weather Service

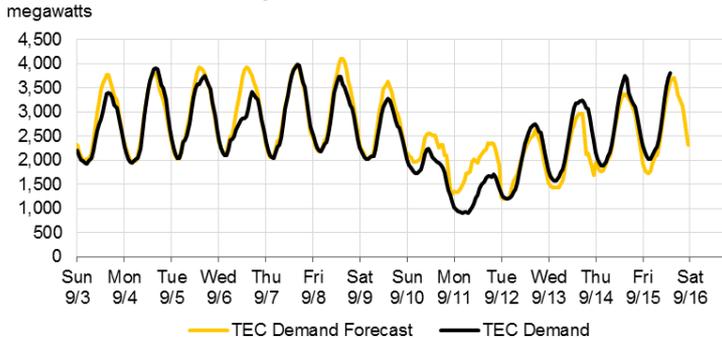
Tampa Electric Balancing Authority (TEC)

Daily temperature ranges

St. Petersburg (near Tampa)
daily temperature range



Current demand vs. day-ahead forecast

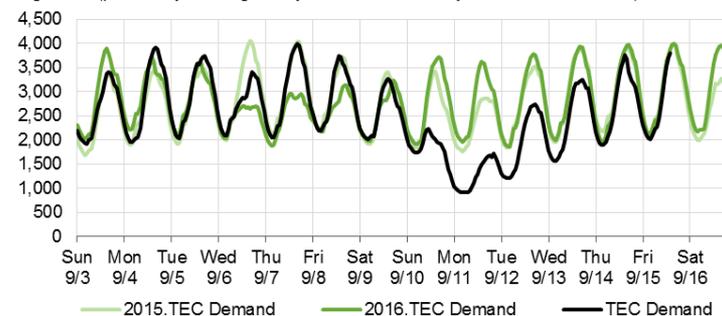


Tampa Electric serves the City of Tampa halfway up the west coast of the Florida peninsula.

- Demand exceeded 3,800 MW 3pm Friday afternoon after peaking at ~3,750 on Thursday. This demand is greater than the daily peaks reached on several days in the week before Hurricane Irma made landfall.
- Outage update: As of 4:30pm Friday, 90% of customers have been restored. “Essentially” all customers will have power by Sunday night, 9/17.

Current demand vs. 2015 and 2016

megawatts (previous years aligned by week number & day of week to 2017 data)

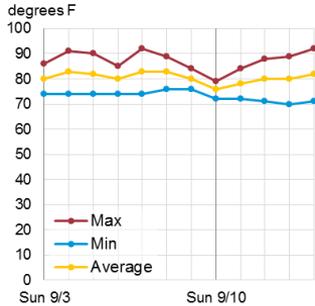


Source: EIA, Hourly and Daily Balancing Authority Operations Report (EIA-930) https://www.eia.gov/beta/realtime_grid; NOAA, National Weather Service

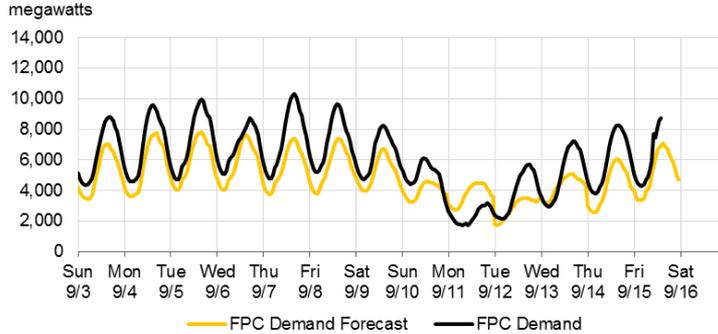
Duke Energy Florida Balancing Authority (FPC)

Daily temperature ranges

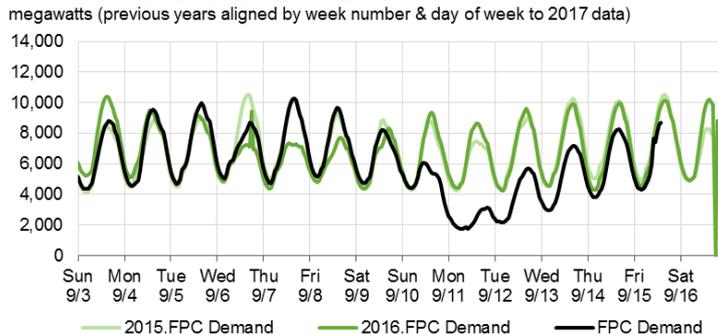
Orlando daily temperature range



Current demand vs. day-ahead forecast



Current demand vs. 2015 and 2016



Duke Energy Florida's service territory extends from the center of the state north to the Panhandle on the Gulf side of the state.

- Electricity demand exceeded 8,700 MW 3pm Friday afternoon after peaking at 8,258 MW Thursday. This demand is close to being considered normal when compared to the week before Hurricane Irma made landfall.

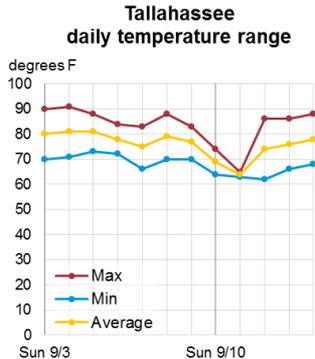


- Outage update: As of 9am Friday, 1,099,500 customers restored, 294,300 outages remain. Duke Energy announced Tuesday afternoon that it expects to have power restored to most customers by midnight, Sunday, September 17. Two counties south of Orlando were severely impacted and will take longer as the electrical system there is rebuilt.

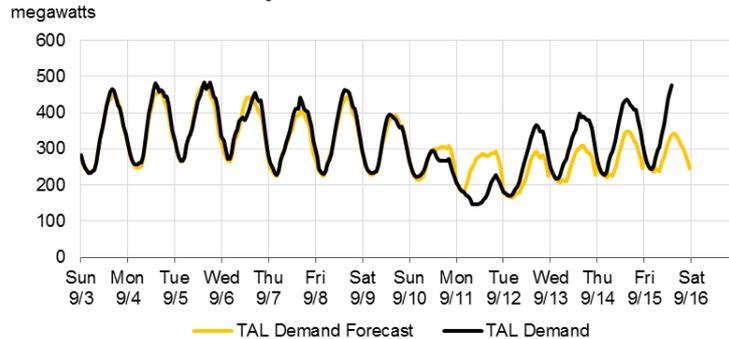
Source: EIA, Hourly and Daily Balancing Authority Operations Report (EIA-930) https://www.eia.gov/beta/realtime_grid; NOAA, National Weather Service

City of Tallahassee Balancing Authority (TAL)

Daily temperature ranges



Current demand vs. day-ahead forecast



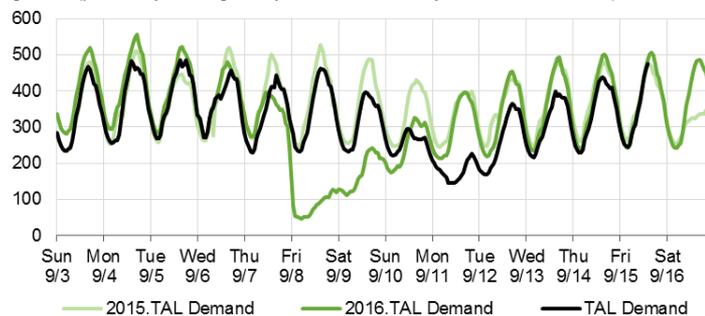
Tallahassee is a municipal utility located in the Florida panhandle.

- Tallahassee demand reached 475 MW 3pm Friday afternoon. This is higher than the peak demand of all but two days in the week before Hurricane Irma made landfall.

- TAL utility crews work complete and have been sent to Gainesville to help restore power there.

Current demand vs. 2015 and 2016

megawatts (previous years aligned by week number & day of week to 2017 data)

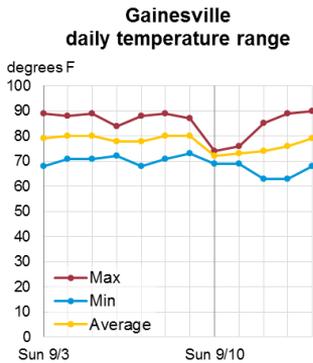


- Note the demand for 2016. This reflects the direct hit Tallahassee sustained from Hurricane Hermine.

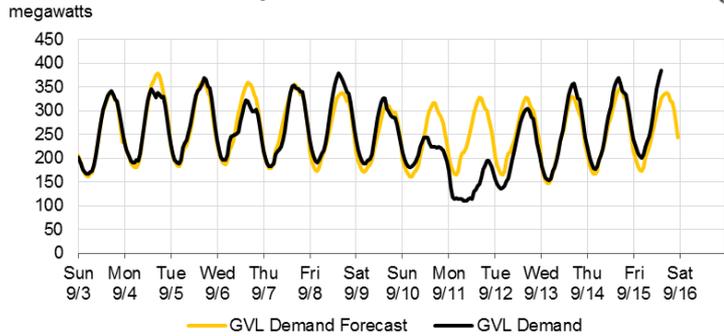
Source: EIA, Hourly and Daily Balancing Authority Operations Report (EIA-930) https://www.eia.gov/beta/realtime_grid/; NOAA, National Weather Service

Gainesville Regional Utilities (GVL)

Daily temperature ranges



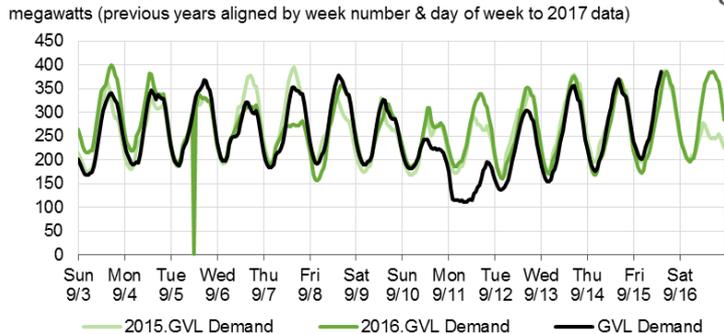
Current demand vs. day-ahead forecast



Gainesville is a municipal utility located in the middle of the northern part of the Florida peninsula.

- Gainesville demand reached 385 MW 3pm Friday afternoon. This is a higher demand level than was recorded in the week prior to the hurricane making landfall.
- Outages: As of 7 am Friday, Gainesville had 3,683 customers without power and 61,726 customers restored.

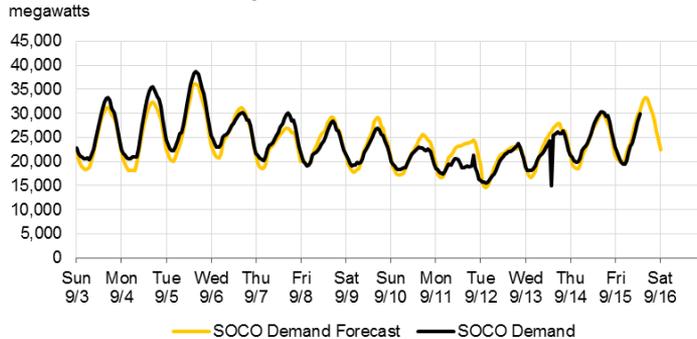
Current demand vs. 2015 and 2016



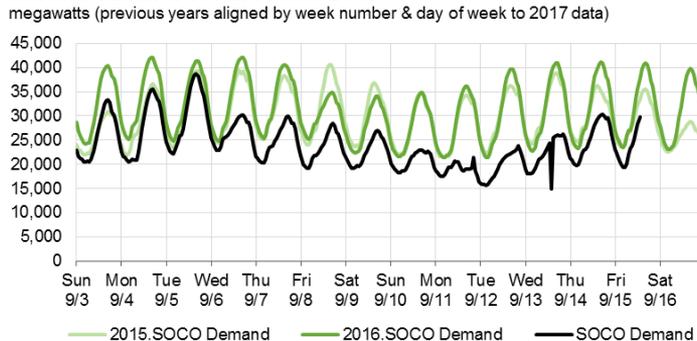
Source: EIA, Hourly and Daily Balancing Authority Operations Report (EIA-930) https://www.eia.gov/beta/realtime_grid; NOAA, National Weather Service

Southern Company Services Balancing Authority (SOCO)

Current demand vs. day-ahead forecast



Current demand vs. 2015 and 2016

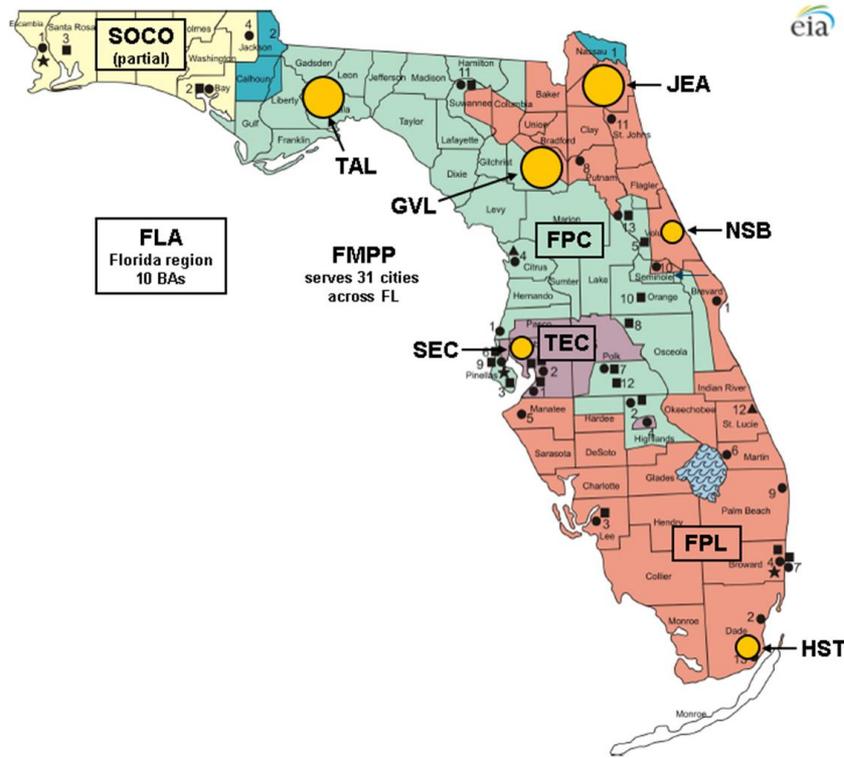


Southern Company and its subsidiaries' territory is expansive, covering much of Georgia, Alabama, Mississippi and part of western Florida.

- SOCO electricity demand is slowly increasing from Monday's lows. Demand reached nearly 30,000 at 3pm Friday afternoon, nearly 2,000 MW higher than the same time on Thursday. Demand is close to pre-hurricane levels as customers come back online.
- Outage update: As of 6am Friday morning, 920,000 Georgia power customers have been restored, 75,000 customers remain without power. 95% of customers expected to be restored by Saturday night, 9/16, one day earlier than was announced yesterday.

Source: EIA, Hourly and Daily Balancing Authority Operations Report (EIA-930) https://www.eia.gov/beta/realtime_grid

Balancing Authorities and Utility Service Territories in Florida



- TAL: City of Tallahassee
- JEA: Jacksonville Electric Authority
- GVL: Gainesville Regional Utilities
- NSB: City of New Smyrna Beach
- FPC: Florida Power Corp.
- TEC: Tampa Electric Co.
- SEC: Seminole Electric Cooperative
- FMPP: Florida Municipal Power (serves 31 cities across the state)
- FPL: Florida Power & Light
- HST: City of Homestead
- SOCO: Southern Company (partially in Florida, not included in FLA region total)

Source: Florida Public Service Commission as augmented by EIA

Balancing Authorities and Utility Service Territories in Southeast



- SOCO: Southern Company
- SCEG: South Carolina Electric & Gas
- AEC: PowerSouth Energy Co-op

Source: Southern Company, South Carolina Electric & Gas as augmented by EIA