

I. Meeting Packet



State of Florida
Public Service Commission
REVISED INTERNAL AFFAIRS AGENDA
Tuesday - October 30, 2018
Immediately Following Gulf Tax Savings Hearing (20180039-EI)
Room 105 - Gerald L. Gunter Building

1. Draft Reply Comments in Response to the Federal Communications Commission's Report and Order (Attachment 1)
- 1A. Draft Petition to the Federal Communications Commission's Report for Temporary Waiver of Lifeline Recertification and Non-usage Rules due to Hurricane Michael (Attachment 1A)
2. 2018 Annual Lifeline Report (Attachment 2)
3. Draft Comments to the U.S. Environmental Protection Agency regarding proposed Emission Guidelines for Greenhouse Gas Emissions from Existing Electric Utility Generating Units (ACE Rule) (Attachment 3)
4. Review of 2018 Ten-Year Site Plans for Florida's Electric Utilities (Attachment 4)
5. 2018 Annual Report on Activities Pursuant to the Florida Energy Efficiency and Conservation Act (Attachment 5)
6. General Counsel's Report
7. Executive Director's Report
8. Other Matters

BB/kh

OUTSIDE PERSONS WISHING TO ADDRESS THE COMMISSION ON
ANY OF THE AGENDAED ITEMS SHOULD CONTACT THE
OFFICE OF THE EXECUTIVE DIRECTOR AT (850) 413-6463.

State of Florida



Public Service Commission

CAPITAL CIRCLE OFFICE CENTER • 2540 SHUMARD OAK BOULEVARD
TALLAHASSEE, FLORIDA 32399-0850

-M-E-M-O-R-A-N-D-U-M-

DATE: October 17, 2018

TO: Braulio L. Baez, Executive Director

FROM: Office of Industry Development & Market Analysis (Williams) *CW* *AT* *CH*
Office of the General Counsel (Page *PHH* *S.M.C.*)

RE: Draft Ex Parte Comments in response to the Federal Communications Commission's Report and Order, Declaratory Ruling, Further Notice of Proposed Rulemaking, and Notice of Inquiry.

CRITICAL INFORMATION: Please place on the October 30, 2018 Internal Affairs.

COMMISSION APPROVAL OF EX PARTE COMMENTS IS SOUGHT

On June 8, 2018, the Federal Communications Commission (FCC) released a Report and Order, Declaratory Ruling (Order), Further Notice of Proposed Rulemaking (FNPRM), and Notice of Inquiry (NOI) implementing further reform to Internet Protocol Captioned Telephone Service (IP CTS).¹ As part of this proceeding, the FCC also sought comments on additional proposed reforms.

IP CTS is a form of telecommunications relay service (TRS) that allows individuals with hearing loss to both read captions and use their residual hearing to understand a telephone conversation. In recent years, use of IP CTS has grown exponentially, and currently represents almost 80 percent of the total minutes compensated by the FCC's Interstate TRS Fund (TRS Fund) at a cost of approximately one billion dollars annually.

In the Order, the FCC implemented interim IP CTS compensation rates designed to save the TRS Fund approximately \$399 million over two years. The FCC also adopted rules to limit unnecessary IP CTS use, and approved the use of technological advances in speech-to-text automation to generate IP CTS captions with greater efficiencies.

In the FNPRM, the FCC seeks input into how to better fund, administer, and determine user eligibility for the service. Specifically, the FCC is considering the role that state relay programs and intrastate carriers can play in the provision of and support for IP CTS. The FCC also seeks comment on the use of independent third-party hearing health professionals to determine IP CTS user eligibility, and ways to curb provider practices that could be contributing to waste and

¹ FCC, Report and Order, Declaratory Ruling, Further Notice of Proposed Rulemaking, and Notice of Inquiry, FCC 18-79, CG Docket Nos. 13-24 and 03-123, released June 8, 2018.

abuse. In the NOI, the FCC seeks comment on IP CTS performance goals and metrics to ensure service quality for users.

Attachment A of this memorandum provides a more detailed overview of the Order, including the associated FNPRM and NOI. Attachment B is staff's draft Ex Parte Comments. The draft Ex Parte Comments address IP CTS issues relating to state administration, intrastate funding, competition effects, and program waste and abuse.

Attachments

cc: Keith Hetrick, General Counsel
Mark Futrell, Deputy Executive Director, Technical
Apryl Lynn, Deputy Executive Director, Administrative

Overview of 2018 Relay Order, FNPRM, and NOI

Background

IP CTS is a form of TRS that enables a person who can speak but who has difficulty hearing over the telephone to use a telephone and an Internet Protocol-enabled device via the Internet to simultaneously listen to the other party and read captions of what the other party is saying. IP CTS employs two network paths. The first part consists of a connection via the public switched telephone network or Voice over Internet Protocol (VoIP) service for the voice conversation between the parties to the call. The second part consists of a separate Internet connection that transmits the other party's voice from the IP CTS user's phone to a communications assistant (CA) and transmits captions from the CA back to the IP CTS user.

While most other forms of TRS have exhibited either declining demand (i.e., Text Telephone or TTY-based TRS, state-based Captioned Telephone Service, Internet Protocol or IP Relay) or relatively flat demand (i.e., video relay service (VRS)) over the past few years, IP CTS growth has been exponential in recent years. From 2011 to 2017, annual IP CTS minutes have grown from approximately 29 million to 363 million. According to the TRS Fund administrator, in 2018-2019, IP CTS will represent approximately 78 percent of the total minutes compensated by the TRS Fund and about 66 percent of total TRS Fund payments to TRS providers.

The TRS Fund administrator has estimated that a total of \$999 million will be paid from the TRS Fund to IP CTS providers in 2018-2019. At the same time, the telecommunications revenue base from which IP CTS and other forms of TRS are supported is steadily declining, raising the threat that over the long term, ever-increasing levels of support for IP CTS may not be sustainable. The TRS Fund contribution base has decreased from about \$79 billion in 2008 to about \$53 billion in 2018.

In the Order and FNPRM, the FCC presents several measures to address waste and abuse in the program. Key areas include: (1) prohibitions against referrals-for-rewards programs and other incentives for the use of IP CTS; (2) certification requirements; (3) labeling requirements to prevent misuse of IP CTS devices by ineligible users; (4) a requirement for captions to be defaulted to "off," so that users would need to take an affirmative step to turn on the service before each use; and (5) a rule prohibiting distribution of IP CTS devices for less than \$75.

IP CTS Compensation

Prior to issuance of the IP CTS Order, rates were determined using a methodology known as the Multistate Average Rate Structure (MARS), which calculates the weighted average per-minute compensation paid by state TRS programs to providers of intrastate CTS for the prior calendar year. In this Order, the FCC has concluded that MARS is no longer an effective methodology to ensure that IP CTS compensation rates correlate to actual reasonable costs.

Based on this conclusion, the FCC terminated the use of the MARS methodology and reduced the \$1.9467 per minute IP CTS compensation rate to bring it more in line with the reasonable costs of providing service. Based on available cost data, the FCC adopted the following per-minute compensation rates to bring them more in line with providers' average reasonable costs: \$1.75 per minute from July 1, 2018, to June 30, 2019; and \$1.58 per minute from July 1, 2019 to

June 30, 2020. In the FNPRM, the FCC seeks comment on: 1) the reasonableness of the costs currently reported by IP CTS providers; 2) level of subcontractor, outreach, and marketing expenses; and 3) use of historical vs. projected costs.

Measures to Limit IP CTS Waste and Abuse

The FCC points out that the dramatic growth in IP CTS call volume appears to result in part from provider practices that promote over-use of IP CTS. This would include the use by people with hearing loss who may be able to achieve functionally equivalent telephone service using other forms of assistive technologies.

To address this issue, the FCC believes additional safeguards are needed, such as: 1) amending rules to prohibit IP CTS providers from linking the volume control and captioning functions of an IP CTS device or software application; 2) requiring IP CTS providers to include clear factual notifications on their advertising brochures, websites, user manuals, and other informational materials; and 3) general prohibitions on providing service to users who do not need it.

Restructuring the Funding of IP CTS

To ensure effective cost recovery for TRS, Congress directed the FCC to prescribe TRS regulations governing the jurisdictional separation of the associated costs, which shall generally provide that costs caused by interstate telecommunications relay services shall be recovered from all subscribers for every interstate service, and costs caused by intrastate telecommunications relay services shall be recovered from the intrastate jurisdiction. However, when the FCC approved IP CTS in 2007 as a type of TRS eligible for compensation from the TRS Fund, the FCC determined that, on an interim basis, all IP CTS minutes, both interstate and intrastate, would be supported by contributions from carriers' interstate revenues to the TRS Fund, consistent with the treatment of VRS and IP relay calls.

The FCC is now considering expanding the contribution base for IP CTS to include a percentage of annual intrastate revenues from telecommunications carriers and VoIP service providers. In support, the FCC points out that intrastate end-user revenues for the services that support the TRS Fund currently comprise approximately 60 percent of total end-user revenues, and that intrastate minutes of use of CTS (the most analogous form of TRS) represent approximately 76 percent of total CTS minutes. The FCC further notes that at present, no revenues from intrastate services are used to help support IP CTS. The FCC seeks comment on its conclusions and any other benefits or costs that would result from expanding the contribution base for IP CTS to include intrastate voice service revenues.

State Role in the Administration of IP CTS

The FCC seeks further comment on whether certified state TRS programs should be allowed or required to take a more active role in the administration of IP CTS. The FCC acknowledges that state TRS programs have the expertise, demonstrated skills, and on-the-ground experience to assume administrative functions with respect to IP CTS. In 2013, the FCC issued its IP CTS Reform FNPRM.² In that FNPRM, it similarly questioned whether it would be desirable for

² FCC, Report and Order and Further Notice of Proposed Rulemaking, FCC 13-118, CG Docket Nos: 13-24, 03-123, released August 26, 2013.

states to take on IP CTS funding and administration before issues related to user eligibility, uncontrolled growth of IP CTS demand, and standards of service have been addressed at the federal level. In response, some states, including Florida, communicated that state legislative authority would be needed to allow such a transition.³ In this Order, the FCC acknowledged Florida's 2013 comments.

As an alternative, the FCC suggests that it will consider allowing or requiring state entities to take on particular roles in the administration of IP CTS, specifically intrastate funding and provider certification. The FCC seeks comment on whether state TRS programs should be required or permitted to administer intrastate funding for the costs of IP CTS to their residents (i.e., to "opt out" of having revenues from their intrastate carriers contributed to the TRS Fund, so that they can handle such funding on their own). Further, the FCC seeks comment on whether state TRS programs should be required or permitted to certify IP CTS providers that are allowed to deliver IP CTS services to the residents of their states. Presently, such provider certifications are handled exclusively by the FCC.

Notice of Inquiry

In the NOI, the FCC seeks comment on establishing objective, quantifiable, and measurable performance goals and service quality metrics to evaluate the efficacy of the IP CTS program. The FCC states that by developing well-defined measures of IP CTS performance that would be transparent to the public, consumers could make more informed decisions in their selection of IP CTS providers. This would allow the program to evolve as technological changes are adopted in the telecommunications industry.

³ See California 2013 FNPRM Comments at 3-4; Florida 2013 FNPRM Comments at 3, 5-7; Nebraska 2013 FNPRM Comments at 3; Kentucky 2013 FNPRM Comments at 3-5; *see also* NARUC 2013 FNPRM Comments at 8; NASRA 2013 FNPRM Comments at 1.

DRAFT

**Before the
Federal Communications Commission
Washington, D.C. 20554**

In the Matter of)	
)	
Misuse of Internet Protocol (IP) Captioned Telephone Service)	CG Docket No. 13-24
)	
Telecommunications Relay Services and Speech-to-Speech Services for Individuals with Hearing and Speech Disabilities)	CG Docket No. 03-123
)	

**EX PARTE COMMENTS OF
THE FLORIDA PUBLIC SERVICE COMMISSION**

CHAIRMAN ART GRAHAM
COMMISSIONER JULIE I. BROWN
COMMISSIONER DONALD J. POLMANN
COMMISSIONER GARY F. CLARK
COMMISSIONER ANDREW GILES FAY

November, 2018

INTRODUCTION

On June 8, 2018, the Federal Communications Commission (FCC) released the Report and Order, Declaratory Ruling, Further Notice of Proposed Rulemaking, and Notice of Inquiry (FCC 18-79) regarding Internet Protocol Captioned Telephone Service (IP CTS). In the Further Notice of Proposed Rulemaking (FNPRM), the FCC is proposing to transfer responsibilities for administering and overseeing IP CTS to state telecommunications relay service (TRS) programs. Among other things, this would transfer the responsibility for registering and certifying the eligibility of new IP CTS users from providers to the state relay programs. The FCC also asks for comment on whether captioned telephone service such as CapTel in Florida and IP CTS should be mandated services to ensure all states will participate in the provision of these services. In addition, the FCC is proposing that states assume the costs of providing intrastate IP CTS. The Florida Public Service Commission (FPSC) submits these Ex Parte Comments in response to the FCC's FNPRM.⁴

The FPSC addressed many of the same issues in previous comments submitted to the FCC.⁵ The FPSC has not changed its position. We continue to have concerns regarding transferring the program to states prior to the FCC providing detailed cost information regarding potential state impacts, service funding, and waste and abuse.

The FPSC acknowledges that IP CTS is a necessary and valuable service offered to the hearing loss community. The FPSC applauds the FCC's past and current efforts to improve the program. However, we believe there remain critical issues that need to be resolved before the program can be successfully implemented in a manner that is fair, just, and beneficial to the hearing loss community, service providers, state relay programs, and other stakeholders.

⁴ The FPSC originally planned to file Reply Comments. However, due to Hurricane Michael we were unable to meet the October 16, 2018 deadline and are now submitting these comments as Ex Parte.

⁵ Comments of FPSC to FCC, CG Docket Nos. 13-24, 03-123, filed September 27, 2013.

State Role in the Administration of IP CTS

Presently, IP CTS is funded through the interstate TRS fund on a national level. A primary underlying reason for the FCC's decision to have the interstate TRS Fund reimburse providers for IP CTS calls was the difficulty in ascertaining the location of calls made using IP transmissions. The FCC now states that IP CTS providers are able to ascertain the origination and destination points of IP CTS calls in a manner that would allow for the compensation for these calls to be billed to the states. The FCC believes that it should reconsider its prior decision to treat IP CTS as an entirely interstate service and proposes instead that this service be treated like traditional captioned telephone service, wherein state relay programs would be required to compensate providers for intrastate IP CTS calls.

Florida's ability to provide TRS pursuant to its current statute could be adversely impacted if the FCC requires the states to fund the intrastate portion of IP CTS. Presently, Section 427.704(4)(a)(1.), Florida Statutes, states:

[The commission shall] require all local exchange telecommunications companies to impose a monthly surcharge on all local exchange telecommunications company subscribers on an individual access line basis, except that such surcharges shall not be imposed upon more than 25 basic telecommunications access lines per account bill rendered.

The Florida statute provides that the TRS surcharge be collected from only local exchange company access lines. If the FCC decides to require states to assume intrastate IP CTS costs, the Florida Legislature would need to consider a change to the statute to address how the Florida Relay program is funded.

The FPSC agrees with comments filed by the California Public Utilities Commission (CPUC) that it cannot support transferring the program to the states unless the FCC provides sufficient transition time to effect statutory change.⁶ The Florida Legislature convenes its regular

⁶ California Comments, CG Docket No. 13-24, CG Docket No. 03-123, filed September 17, 2018.

legislative session once a year. Adequate time to educate legislators on the issues requires appropriate lead time. Further, bill drafting, analysis, public input, and proper public notice and education would be necessary. The FPSC believes this process would take three to five years to implement.

The FCC is proposing that states assume the responsibility of intrastate IP CTS, but has not provided information as to how many IP CTS minutes are historically used in each state, and how many IP CTS units are currently in use in each state. If a decision is made to require states to assume intrastate IP CTS costs, the FCC should provide IP CTS minutes and number of IP CTS units by state as soon as possible. This would allow states to make informed decisions on possible migration of IP CTS to state relay programs. Currently, states do not know the extent of potential funding obligation they would incur by assuming the intrastate costs of IP CTS.

The FPSC agrees with comments filed by National Association of State Relay Administrators (NASRA) and the CPUC, that state-specific data and information is needed to determine the level of support that would be required at the state level.⁷ We concur that states do not have critical data on provider cost, minutes of use, and user enrollment within individual states. The FPSC agrees with comments filed by the CPUC stating that it cannot support transferring the program to the states unless the FCC provides detailed information regarding potential state impacts, including minutes of use, cost and funding data.

Waste and Abuse

While the FPSC has observed the continuing decline in demand for TTY-based TRS,⁸ we are concerned with the current rate of growth in IP CTS usage reported by the FCC in light of

⁷ NASRA Comments CG Docket No. 13-24, CG Docket No. 03-123, filed September 14, 2018. California Comments, CG Docket No. 13-24, CG Docket No. 03-123, filed September 17, 2018.

⁸ Florida Relay Report, December 2017, <http://www.floridapsc.com/Files/PDF/Publications/Reports/Telecommunication/Telecommunication Access/2017.pdf>, accessed September 24, 2018.

needed reforms. According to the TRS Fund administrator, in 2018-2019, IP CTS will represent approximately 78 percent of the total minutes of TRS compensated by the TRS Fund.⁹

At the same time, the end-user telecommunications revenue base, from which IP CTS and other forms of TRS are supported, is steadily declining. As a result, there is a significant threat that over the long term, increasing levels of support may not be sustainable. The FPSC is concerned that waste and abuse has been included in the rate of growth. Consistent with comments filed by the FPSC in the 2013 IP CTS FNPRM, the FPSC believes that waste and abuse issues related to IP CTS must be resolved before transferring funding responsibility to the states.

The FPSC agrees with comments filed by NASRA citing support of the FCC's ruling in the 2018 Report and Order that prohibits IP CTS providers from linking volume control and captioning functions. This would avoid unintended duplication of service delivery and reduce expenses associated with captioning service for users who have no desire to use captioning when only increased volume is needed.

In reply to comments filed by the National Association of Regulatory Utility Commissioners (NARUC), we agree that the FCC should take additional action to minimize waste and abuse by adopting more uniform and thorough user eligibility assessments applicable to all states before transferring the program. We agree with NARUC that current self-assessments may be contributing to participation by users who do not need the IP CTS service. We believe third-party assessment would be a step in the right direction to address this issue. We also agree with NASRA's Comments encouraging the FCC to work closely with national and state equipment distributors to establish effective independent assessments.

Competition at the State Level

Mandating IP CTS as part of the TRS program may eliminate competition for these services in Florida since, by statute, Florida can have only one relay service provider. Inclusion of IP CTS in Florida's TRS contract would eliminate competition for these services in Florida because there

⁹ 2018 TRS Rate Report at 20, Exh. 2.

would not be a funding mechanism for the intrastate portion of the service for any provider other than the one under contract with the FPSC. Section 427.704(1), Florida Statutes, in part states:

[The commission shall] establish, implement, promote, and oversee the administration of a statewide telecommunications access system to provide access to telecommunications relay services by persons who are hearing impaired or speech impaired, or others who communicate with them. The telecommunications access system shall provide for the purchase and distribution of specialized telecommunications devices and the establishment of *statewide single provider* telecommunications relay service system which operates continuously. . . .
(emphasis added)

Consumers currently have a choice of several providers of IP CTS in Florida because IP CTS is regulated at the federal level. Should the FCC mandate that IP CTS become part of a state's TRS program, Florida would have only one contracted provider pursuant to its current statute. In Order FCC 00-56, the FCC affirmed its belief that competition among TRS providers is preferred, stating:

We agree with commenters that competitive forces are generally the preferred way to improve service quality and bring new services to customers. Although using a single vendor may not automatically lead to poor service quality, we believe that giving consumers a choice among different TRS providers might well improve the quality of TRS service in different states.

In the 2007 IP CTS Declaratory Ruling,¹⁰ the FCC concluded on an interim basis that all IP CTS calls would be compensated from the interstate TRS Fund. The FCC explained that this approach was consistent with the treatment of VRS and IP Relay calls, and would provide an incentive for competition among multiple providers to offer this service on a nationwide basis that would

¹⁰ In the Matter of Telecommunications Relay Services and Speech-to-Speech Services for Individuals with Hearing and Speech Disabilities Internet-based Captioned Telephone Service. CG Docket No. 03-123. FCC 06-182, released January 11, 2007.

“enhance consumer choice, service quality and available features.” The FPSC urges the FCC not to include IP CTS as a mandatory service of a state’s TRS program at this time. In order to comply with the FCC’s desire for competition options for IP CTS services, sufficient time to effect legislative changes to Florida’s statute would be required.

CONCLUSION

The FPSC will continue to be responsive to the needs of the deaf, hard-of-hearing, deaf-blind, and speech-impaired community in Florida. However, the FPSC continues to have concerns regarding transferring the IP CTS program to states until the FCC has taken necessary action. Specifically, the FCC should provide detailed cost information regarding IP CTS usage by state and address existing waste and abuse within the program. The FCC should also provide sufficient transition time, which would be necessary for Florida to consider state statutory revisions and implement a sufficient funding mechanism.

The FPSC supports the FCC’s current efforts to improve the relay program. Critical issues remain, however, that need to be resolved before the program can be successfully implemented in a manner that is fair, just, and beneficial to the hearing loss community, service providers, state relay programs, and other stakeholders.

State of Florida



Public Service Commission

CAPITAL CIRCLE OFFICE CENTER • 2540 SHUMARD OAK BOULEVARD
TALLAHASSEE, FLORIDA 32399-0850

-M-E-M-O-R-A-N-D-U-M-

DATE: October 25, 2018

TO: Braulio L. Baez, Executive Director

FROM: Office of Industry Development & Market Analysis (Deas, Fogleman) *S.D.* *GF* *GH*
Office of the General Counsel (Dziechciarz) *DD* *TT*

RE: Draft petition to the Federal Communications Commission for Temporary Waiver of Lifeline Recertification and Non-usage Rules due to Hurricane Michael.
CRITICAL INFORMATION: Please place on the October 30, 2018 Internal Affairs.

COMMISSION APPROVAL OF PETITION IS SOUGHT

On October 10, 2018, Hurricane Michael made landfall on the Florida Panhandle impacting the lives of many Floridians. The draft Petition for Temporary Waiver would grant Lifeline subscribers in the counties designated by Federal Emergency Management Agency (FEMA) as major disaster areas, additional time before having to comply with federal rules relating to recertification and usage (Attachment A). These counties are: Bay, Calhoun, Franklin, Gadsden, Gulf, Holmes, Jackson, Leon, Liberty, Taylor, Wakulla, and Washington.

Similar temporary waivers of federal Lifeline rules have been granted by the FCC in the past to California, Florida, Georgia, Puerto Rico, and U.S. Virgin Islands. On November 8, 2017 California Public Utility Commission filed a Temporary Waiver with the FCC when California subscribers were impacted by wildfires. On February 9, 2018 the FCC granted California a four month Temporary Waiver. Also, after Hurricanes Harvey, Irma, and Maria, Open Mobile and Telerite Corporation filed a petition for temporary waiver of the FCC's rules for those affected in Puerto Rico and the U.S. Virgin Islands. The FCC granted this request on September 8, 2017, on its own motion, and included those areas affected in Florida and Georgia.

Attachment

cc: Keith Hetrick, General Counsel
Mark Futrell, Deputy Executive Director, Technical
Apryl Lynn, Deputy Executive Director, Administrative

DRAFT

**Before the
Federal Communications Commission
Washington, D.C. 20554**

In the Matter of)
)
Lifeline and Link Up Reform and) WC Docket No. 11-42
Modernization)
)

**PETITION OF
THE FLORIDA PUBLIC SERVICE COMMISSION
FOR TEMPORARY WAIVER**

CHAIRMAN ART GRAHAM
COMMISSIONER JULIE I. BROWN
COMMISSIONER DONALD J. POLMANN
COMMISSIONER GARY F. CLARK
COMMISSIONER ANDREW GILES FAY

October 30, 2018

I. INTRODUCTION

Pursuant to Section 1.3 of the Federal Communications Commission's (FCC) rules, the Florida Public Service Commission (FPSC) requests a temporary waiver of the FCC's Lifeline recertification and non-usage rules for subscribers affected by Hurricane Michael in Florida.¹ The recertification rules require Lifeline subscribers to recertify their eligibility every twelve months to continue receiving Lifeline support.² The non-usage rules require subscribers to use their phone service for 30 consecutive days, or otherwise risk being de-enrolled from the program.³

On October 10, 2018, Hurricane Michael made landfall on the Florida Panhandle as a high-end Category 4 hurricane, with maximum sustained winds of 155 mph. The damage from Hurricane Michael affected residents in Bay, Calhoun, Franklin, Gadsden, Gulf, Holmes, Jackson, Leon, Liberty, Taylor, Wakulla, and Washington counties (Affected Counties). Residents in these counties are now eligible for Federal Emergency Management Agency (FEMA) Individual Assistance. The hurricane destroyed thousands of homes and businesses and forced the ordered evacuation of roughly 375,000 residents. In this Petition, the FPSC requests a four-month waiver of the recertification and non-usage rules to provide temporary relief to those subscribers residing in the Affected Counties. The request period is October 10, 2018 to February 10, 2019.

II. DISCUSSION

Hurricane Michael caused significant destruction of property and utility facilities causing loss of power and essential communication services. Prior to landfall, Governor Scott declared a state of emergency for 35 counties and requested that President Trump issue an emergency disaster declaration. President Trump approved the request on October 9, 2018. FEMA declared the

¹ See 47 C.F.R. § 1.3 – “The provisions of this chapter may be suspended, revoked, amended, or waived for good cause shown, in whole or in part, at any time by the Commission, subject to the provisions of the Administrative Procedure Act and the provisions of this chapter. Any provision of the rules may be waived by the Commission on its own motion or on petition if good cause therefor is shown.”

² See 47 C.F.R. §§ 54.405(e)(4) and 54.410(f).

³ See 47 C.F.R. §§ 54.405(e)(3) and 54.407(c)(2).

Affected Counties as major disaster areas on October 11, 2018.⁴ Currently there are 29 deaths in Florida attributed to Hurricane Michael and hundreds of people who are missing.⁵

A. Lifeline Non-Usage Rules

In this Petition, the FPSC requests a four-month suspension of the FCC's non-usage rules for subscribers residing in the Affected Counties. In their rush to evacuate, some Lifeline customers may have forgotten to bring their phones. In other instances, the lack of power for an extended period of time prohibits use of their phones. The hurricane has also destroyed cellular hubs causing major disruption in telecommunication services. This temporary waiver would provide support and assistance to those hurricane victims in need of replacement mobile devices or the reestablishment of phone services.

B. Suspension of the Renewal/Recertification Process

The FPSC also requests a temporary waiver of the FCC's renewal/recertification requirements for Lifeline subscribers residing in the Affected Counties. The FPSC is concerned that recertification packets will not be received by subscribers whose homes have been destroyed or rendered uninhabitable. Thousands of residents have lost their homes in the hurricane and have been forced to relocate. As a result, it will be difficult, if not impossible, for many subscribers to receive mail at their original service address to complete the renewal process. Furthermore, subscribers wishing to complete recertification online may lack access to broadband services.

Accordingly, the FPSC requests that renewal/recertification rules be suspended for subscribers residing in the Affected Counties whose service anniversary dates fall between October 10, 2018 and February 10, 2019. This waiver should apply to subscribers in the following categories:

⁴ United States Department of Homeland Security, Federal Emergency Management Agency, *Florida Hurricane Michael (DR-4399)*, Major Disaster Declaration, October 11, 2018, <https://www.fema.gov/disaster/4399>, accessed on October 24, 2018.

⁵ Associated Press, *Hurricane Michael killed at least 29 in Florida, 39 total*, October 22, 2018, <https://www.apnews.com/bca698d342d74390ba2c97f83b9fab65>, accessed October 24, 2018.

1. Subscribers that have already begun the renewal process;
2. Subscribers that have not yet begun the renewal process; and
3. Subscribers that have received a denial decision for non-response. Since the hurricane may have destroyed the renewal forms, these subscribers should be provided another opportunity to renew their eligibility after the waiver ends.

III. CONCLUSION

For the foregoing reasons, the FPSC requests a temporary waiver of the FCC's Lifeline non-usage and recertification rules for subscribers residing in the Affected Counties. The de-enrollment of eligible subscribers from the Lifeline program during this emergency would subject already vulnerable Lifeline subscribers to unnecessary endangerment resulting from the termination of essential communications services to which they have willfully subscribed. Granting the FPSC's waiver request would ensure that the affected subscribers have continued access to communications services during this difficult time, as they attempt to rebuild their lives, find new housing, and mourn the loss of their loved ones and friends.



Public Service Commission

CAPITAL CIRCLE OFFICE CENTER • 2540 SHUMARD OAK BOULEVARD
TALLAHASSEE, FLORIDA 32399-0850

-M-E-M-O-R-A-N-D-U-M-

DATE: October 17, 2018

TO: Braulio L. Baez, Executive Director

FROM: Gregory D. Fogleman, Public Utilities Supervisor, Office of Industry Development & Market Analysis
Sakina Deas, Public Utility Analyst I, Office of Industry Development & Market Analysis
Brandon Wendel, Public Utility Analyst I, Office of Industry Development & Market Analysis
Cynthia L. Muir, Director, Office of Consumer Assistance & Outreach

GF *CB*

S.D.

BMW

AM

RE: 2018 Annual Lifeline Report regarding the Number of Customers Subscribing to Lifeline Service and the Effectiveness of any Procedures to Promote Participation.

Critical Information: ACTION IS NEEDED – Please place on the October 30, 2018 Internal affairs agenda. Commission approval of the draft Lifeline Report is sought. The 2018 Lifeline Report is due to the Governor, President of the Senate, and speaker of the House by December 31, 2018

Staff is seeking approval of the draft 2018 Annual Lifeline Report regarding the number of customers subscribing to Lifeline Service and the effectiveness of any procedures to promote participation. The report details State and Federal regulatory action impacting the Lifeline program and Lifeline Awareness promotions in Florida. As of June 30, 2018, 694,647 eligible households participated in the Lifeline program in Florida. This was an increase of 1.4 percent compared to 2017.

Section 364.10(2)(h), Florida Statutes, require the FPSC to provide this report to the Governor, President of the Senate, and speaker of the House by December 31 of each year. The attached draft report has been prepared to fulfill the Florida legislative requirement. Commission approval of the draft Lifeline report is sought.

DRAFT



A report to the
Governor
President of the Senate
Speaker of the House of Representatives

FLORIDA

LIFELINE

ASSISTANCE

Number of Customers
Subscribing to Lifeline Service
And the Effectiveness of
Procedures to Promote Participation

December 2018



A report to the
Governor
President of the Senate
Speaker of the House of Representatives

FLORIDA

LIFELINE

ASSISTANCE

Number of Customers
Subscribing to Lifeline Service
And the Effectiveness of
Procedures to Promote Participation

Office of Industry Development & Market Analysis
Office of Consumer Assistance & Outreach

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List of Acronyms

CFR	Code of Federal Regulations
DCF	Department of Children and Families
ETC	Eligible Telecommunications Carrier
FCC	Federal Communications Commission
FPHA	Federal Public Housing Assistance
FPSC	Florida Public Service Commission
F.S.	Florida Statutes
NLAD	National Lifeline Accountability Database
OPC	Office of Public Counsel
SNAP	Supplemental Nutrition Assistance Program (formerly Food Stamps)
USAC	Universal Service Administrative Company

I. Executive Summary

The Florida Public Service Commission (FPSC) is required to report to the Governor, the President of the Senate, and the Speaker of the House of Representatives each year on the number of customers subscribing to Lifeline service and the effectiveness of procedures to promote participation in the program. This report is prepared pursuant to the requirements contained in Section 364.10, Florida Statutes (F.S.).

The Lifeline program is designed to enable low-income households to obtain and maintain basic telephone and broadband services. The Lifeline program offers qualifying households a discount on their monthly bills. Alternatively, consumers can select a free Lifeline cell phone and monthly minutes and/or measured data service from certain wireless providers. This report presents Lifeline participation data from July 2017 through June 2018, and evaluates procedures put in place to strengthen and streamline the Lifeline program.

As of June 30, 2018, there were 694,647 eligible households participating in the Lifeline program in Florida. This equates to approximately one of every twelve Florida households.¹ Lifeline participation includes the involvement of the FPSC, the Florida Department of Children and Families (DCF), and the Florida Office of Public Counsel (OPC).²

The Supplemental Nutrition Assistance Program (SNAP) continues to be the largest qualifying program for Lifeline assistance in Florida. Based upon June 2018 SNAP participation numbers, 42 percent of Lifeline eligible Florida households are receiving Lifeline assistance. The number of Lifeline eligible households decreased by two percent compared to June of last year.³

“Stay Connected Florida” was the slogan for Florida’s 2018 Lifeline Awareness Week, September 10-16. In addition to increasing awareness among eligible citizens, this year’s Lifeline Awareness Week continued educating residents on the FCC rule changes that expanded support to include broadband services.

The FPSC continues to focus on improving the enrollment process, while eliminating any waste, fraud, and abuse in the program. Specific enrollment initiatives include the following:

- FPSC Lifeline Coordinated Online Application Process
- FPSC/DCF Coordinated Lifeline Enrollment
- Annual Recertification Procedures
- DCF Certification/Verification Web Services Interface
- Lifeline Work Group Meetings
- National Lifeline Accountability Database

¹ Florida Legislature Office of Economic and Demographic Research, Demographic Estimating Conference, Florida Households July 2018: 8,266,408, <http://edr.state.fl.us/Content/conferences/population/ConferenceResults.pdf>, accessed September 10, 2018, p. T-2.

² Section 364.10(2)(g)1, F.S.

³ USDA, Supplemental Nutrition Assistance Program: Households Participating, Florida SNAP households for June 2018: 1,628,111, <https://www.fns.usda.gov/pd/supplemental-nutrition-assistance-program-snap>, accessed September 10, 2018.

II. Lifeline Program

Since 1985, the Lifeline program has provided phone service discounts for qualifying low-income consumers. While the goal of the program was to ensure that all Americans had the opportunities and security that phone service brings, that goal has evolved to include broadband service.⁴ Qualifying households are eligible to receive up to a \$9.25 discount on their monthly phone or broadband bills from certain wireline service providers. Alternatively, customers may choose a free Lifeline cell phone and limited voice or broadband service from certain wireless carriers.

In accordance with Section 364.10, F.S., the FPSC has oversight over the Florida Lifeline program. However, the Lifeline program is part of the federal Universal Service Program, which also includes the high-cost, rural healthcare, and schools and libraries programs. Lifeline is available to eligible low-income households in every state, territory, commonwealth, and on Tribal lands.

The federal Universal Service Program provides funding for the Lifeline program. The rules affecting the Lifeline program are established by the Federal Communications Commission (FCC); however, the FCC has designated the Universal Service Administrative Company (USAC), an independent not-for-profit corporation, to act as the program's administrator. USAC is responsible for data collection and maintenance, support calculation, and disbursement for the Lifeline program along with other federal universal service programs.

In Florida, there are several ways to apply for Lifeline assistance. Consumers may choose to apply for Lifeline directly with an Eligible Telecommunications Carrier (ETC) by providing documentation of participation in a qualifying program along with a Lifeline application. Consumers applying for Medicaid or Supplemental Nutrition Assistance Program (SNAP) through DCF may utilize the electronic Lifeline Coordinated Enrollment Process to also apply for Lifeline.⁵ ETCs that have agreements with DCF may access their Web Service Interface in real-time to confirm program participation for Medicaid and SNAP.⁶ The process will then confirm that the applicant is currently enrolled in one of these two programs. Consumers can also apply for Lifeline through income eligibility with OPC.

In the 2016 Lifeline Modernization Order, the FCC directed USAC to develop a national eligibility verifier (National Verifier) by 2019, which will remove carriers from the process of verifying customer eligibility. As of November 2018, the National Verifier has been implemented in six states. No further information has been provided concerning USAC's implementation schedule as it relates to Florida's inclusion into the program. While the FPSC has reviewed and updated its rules to comply with changes in the program, the future implementation of the national eligibility verifier in Florida has components that would limit the FPSC's continued involvement in the Lifeline program. This will be addressed in more detail in Section V.

⁴ FCC 16-38, WC Docket No. 11-42, Lifeline and Link Up Reform and Modernization, Third Report and Order, released April 27, 2016, https://apps.fcc.gov/edocs_public/attachmatch/FCC-16-38A1.pdf, accessed on August 18, 2017.

⁵ The electronic Lifeline Coordinated Enrollment Process was developed by the FPSC and DCF to allow an applicant for Medicaid or SNAP to request and receive Lifeline assistance after being approved for the DCF program.

⁶ The Web Services Interface allows Florida ETCs a secure gateway into the DCF computer to verify that a Lifeline customer is participating in the Medicaid or SNAP programs administered by DCF. The ETC enters the person's first and last name, date of birth, and last four digits of the person's social security number. The DCF computer verifies whether the person currently participates in one of the DCF programs without identifying the program. An ETC must pre-register with DCF to use the Web services interface to ensure security is maintained.

III. Lifeline Eligibility and Participation

Federal rules allow up to a \$9.25 reimbursement per Lifeline eligible customer per month from USAC to a participating Lifeline carrier. Additional support of up to \$25.00 per month is available only to eligible subscribers living on Tribal lands. Appendix A identifies federally recognized Tribal lands in Florida. Consumers can qualify to participate in the Lifeline program either through program-based or income-based eligibility standards. In 2016 the FCC implemented reforms that specify the criteria for such qualifications.⁷

Program-Based Eligibility

Customers can qualify for Lifeline program in Florida by enrollment in any one of the following programs:

- Supplemental Nutrition Assistance Program (SNAP)
- Medicaid
- Federal Public Housing Assistance (FPHA)
- Supplemental Security Income
- Veterans or Survivors Pension Program
- Bureau of Indian Affairs Programs: Tribal Temporary Assistance to Needy Families, Head Start Subsidy and National School Lunch Program

Income-Based Eligibility

Consumers can also qualify for Lifeline program based on income. Specifically, a consumer whose total household income is less than 135 percent of the Federal Poverty Guidelines is eligible to participate in the Lifeline program. The Federal Poverty Guidelines are updated annually by the U.S. Department of Health and Human Services. The 2018 Federal Poverty Guidelines are shown in Appendix B. OPC certifies consumer eligibility based on submitted documentation for certain carriers.⁸ Between July 2017 and June 2018, OPC received over 3,000 calls from potential applicants seeking assistance and processed 9,456 applications.⁹ Carriers that do not coordinate with OPC are responsible for verifying consumer income eligibility.

Participation

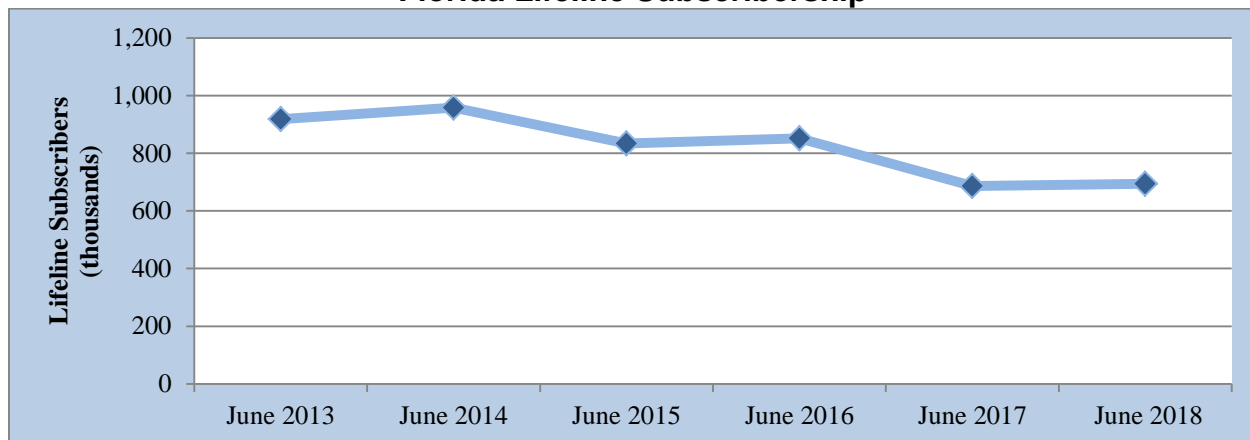
The number of subscribers enrolled in Lifeline was 694,647 as of June 30, 2018, a one percent increase from the number of subscribers last year. Figure 1 shows the number of Lifeline subscribers from June 2013 through June 2018. In 2018, wireless providers increased the number of Lifeline subscribers served by roughly three percent from the previous year. Wireline service providers saw a decrease in Lifeline subscription of 56 percent, a further decline from the 25 percent decrease in wireline Lifeline subscribers from 2016 to 2017. For 2018, only two carriers, Assurance Wireless and T-Mobile, saw an increase in the number of Lifeline customers.

⁷ FCC 16-38, WC Docket No. 11-42, Lifeline Reform and Modernization, Third Report and Order, released April 27, 2016, https://apps.fcc.gov/edocs_public/attachmatch/FCC-16-38A1.pdf, accessed on September 20, 2018.

⁸ AT&T, CenturyLink, Frontier Communications, T-Mobile, SafeLink Wireless and Assurance Wireless.

⁹ Source: OPC.

**Figure 1
Florida Lifeline Subscriberhip**



Source: Industry responses to FPSC data requests (2013-2018)

Figure 2 shows the percent of Lifeline subscription by service type. This data appears to reflect that the type of Lifeline supported service consumers are using (voice or broadband) is related to the type of technology utilized by the provider (wireline or wireless). Currently, incumbent and competitive wireline carriers provide 95.8 percent and 99.3 percent of their Lifeline subscribers with voice service, respectively, while 68.9 percent of wireless Lifeline subscribers are receiving broadband assistance packages.

All of the wireless ETCs in Florida voluntarily include at least 250 minutes of voice minutes as part of their broadband service offering. However, this is fewer than the 750 minutes required for wireless voice-only Lifeline service. Appendix C provides greater detail of Lifeline subscriptions by service type for each carrier.

**Figure 2
Percent of Lifeline Subscription by Service Type**

Carrier Type	Voice	Broadband	Bundled
Wireless	19.3%	68.9%	11.8%
Incumbent Wireline	95.8%	0.8%	3.4%
Competitive Wireline	99.3%	0.4%	0.3%

Source: USAC Disbursements Florida as of June 2017

While an overall increase in Lifeline subscription has been observed, a large reduction in wireline Lifeline subscription has become apparent. Fifty-three percent of this year’s wireline subscription reduction is attributable to AT&T’s relinquishment of their ETC designation in certain areas in Florida.

Other wireline ETCs have identified a shift in consumer demand towards wireless service, as well as difficulty with USAC recertification processes as primary reasons for the decline in their Lifeline subscribership. Additionally, certain providers have noted that they have abstained from the acquisition of new customers as a result of higher costs and profitability concerns attributed to the FCC’s new Lifeline service standards.

Overall, Lifeline subscribership increased by 8,783 households for the fiscal year ending June 2018. At the same time, the number of Lifeline eligible households as measured by SNAP enrollment decreased by 34,263. The resulting participation rate for 2018 was 42.7 percent.¹⁰ This was an increase of 1.4 percent compared to 2017. Figure 3 shows participation rates in Florida households from June 2015 through June 2018.

Figure 3
Lifeline Participation Rate in Eligible Florida Households

Year	Lifeline Enrollment	Eligible Households	Percent Participation Rate
June 2015	833,426	2,011,166	41.40%
June 2016	852,255	1,712,005	49.80%
June 2017	685,864	1,662,374	41.30%
June 2018	694,647	1,628,111	42.67%

Source: U.S. Department of Agriculture

Considering the number of households which are eligible to receive Lifeline in Florida and the current participation rate, these numbers continue to demonstrate the need for Lifeline outreach. However, the need for greater outreach may be at odds with the changing costs associated with offering the expanded Lifeline services. Specifically, some carriers have noted that with the implementation of the FCC’s 2016 Lifeline Modernization Order, it has become increasingly difficult to profitably acquire Lifeline subscribers at the current monthly support amount of \$9.25.

Transitional Lifeline

A customer usually transitions from the Lifeline program when their socio-economic status has improved, thus advancing them beyond the qualifying eligibility criteria. As required by Section 364.105, F.S., current Lifeline customers who no longer meet eligibility criteria and are removed from Lifeline service are eligible to receive a 30 percent discount on the residential basic local service rate for a period of one year. For example, a former Lifeline customer with a \$25 phone bill would receive a \$7.50 monthly discount for one year.

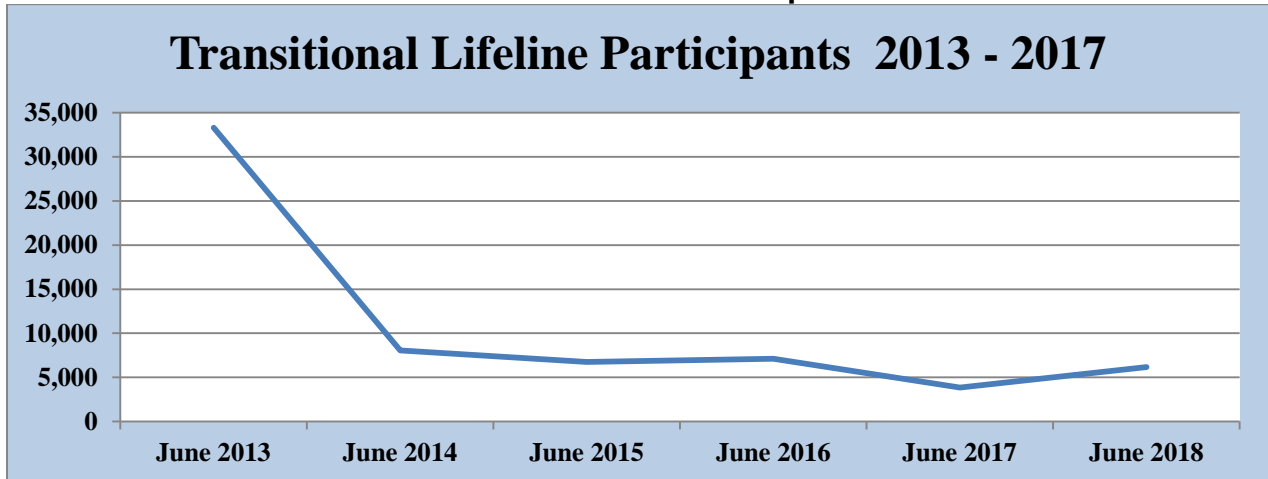
Figure 4 presents the number of Transitional Lifeline customers of Florida ETCs from June 2013 through June 2018. The large number of Transitional Lifeline participants in 2013 is attributable to customers being de-enrolled from the Florida Lifeline program due to the new FCC requirement to annually recertify Lifeline customers.

Transitional Lifeline participation increased by 2,346 subscribers from 2017 to 2018. This increase may be due to AT&T voluntarily providing a Transitional Lifeline benefit to the customers living in areas where AT&T relinquished its ETC designation in Florida. These customers may still be qualified for the Lifeline program, but would be required to switch to a different carrier in order to receive the Lifeline benefit.

¹⁰ USDA, Supplemental Nutrition Assistance Program: Households Participating, Florida SNAP households for June 2018: 1,628,111, <https://www.fns.usda.gov/pd/supplemental-nutrition-assistance-program-snap>, accessed September 20, 2018.

Responses to FCC Form 555 have historically been used by the FPSC to track Lifeline subscriber de-enrollment and establish relationships between newly ineligible households and those that are participating in Transitional Lifeline. Changes to the 2018 Form 555 have removed the distinction between an ETC finding a subscriber ineligible and a customer that fails to respond to a recertification attempt (which would remove a customer from the Lifeline program). As such the FPSC cannot make a direct comparison between the number of customers that have lost eligibility and those that are taking advantage of Transitional Lifeline.

Figure 4
Transitional Lifeline Participation



Source: Industry responses to FPSC data requests (2013-2018)

IV. Lifeline Providers

As part of the Telecommunications Act of 1996, Congress allows state commissions to designate carriers as ETCs if they meet certain requirements.¹¹ Conversely, a state commission also has the authority to rescind the ETC status of any ETC that does not follow the requirements of the Lifeline Program.

To qualify as an ETC, a telecommunications carrier must offer services that are supported by federal universal service support mechanisms.¹² The carrier must advertise the availability of such services and charges, and must provide the services either using its own facilities or a combination of its own facilities and another carrier's resold service. A company applying for designation as an ETC must demonstrate good management and legitimate business practices to successfully administer the Lifeline program.¹³

Currently, the FPSC only evaluates wireline ETC applications, while wireless ETC applications are evaluated by the FCC.¹⁴ Figure 5 shows the 19 companies that had ETC status and participated in the Lifeline program in Florida as of June 30, 2018. Appendix D provides Lifeline enrollment figures for each ETC between 2015 and 2018.

Figure 5
ETCs Participating in Florida Lifeline Program

Access Wireless (i-wireless)	NEFCOM
Assurance Wireless (Virgin Mobile)	Phone Club Corporation
AT&T Florida (AT&T)	SafeLink Wireless (TracFone)
CenturyLink	Smart City Telecom
Cox Florida Telecom, LP	TDA (Quincy Telephone Company)
Consolidated Communications (f.k.a. FairPoint)	Tele Circuit Corporation
Frontier Communications of the South	T-Mobile
Frontier Florida, LLC (f.k.a. Verizon)	Windstream Florida, Inc.
Global Connection Inc.	WOW! (Knology of Florida, Inc.)
ITS Telecommunications	

Source: Industry responses to 2018 FPSC data requests

Prior to August 15, 2016, resellers could sell Lifeline discounted service from an ETC through a resale agreement. The ETC would receive the support from USAC, and reduce the price of service to the reseller by the corresponding amount. As part of the FCC's reforms to the Lifeline program, rules were established that eliminate Lifeline reimbursement for these resale arrangements out of concern of possible waste and abuse of program funds. As a result, some

¹¹ Section 214(e)(2) of the Telecommunications Act of 1996.

¹² 47 CFR. §54.101(a)(1); Those services include: (1) voice grade access to the public switched network, (2) minutes of use for local service provided at no additional charge to end users, (3) toll limitation to qualifying low-income consumers, and (4) access to the emergency services 911 and enhanced 911 services.

¹³ 47 CFR. §54.201(h).

¹⁴ The Florida Legislature in 2011 (HB 1231), removed the FPSC authority to designate ETC wireless providers. Effective July 1, 2012, wireless providers must directly apply for Florida ETC designation with the FCC.

affected carriers have left the Florida market. The FCC established a process for affected carriers to become an ETC and provide Lifeline service by filing a compliance plan addressing the FCC’s concerns regarding potential waste and abuse of the program. Specifically, such non-facilities based carriers must file a plan that demonstrates:

- Commitment and ability to provide the supported services throughout the designated area
- Ability to remain functional in emergency situations
- Ability to satisfy consumer protection and service quality standards
- Provision of local usage comparable to that offered by the incumbent local exchange companies

As previously mentioned, the FPSC no longer has authority to designate wireless ETCs in the State of Florida. Wireless ETC applications for Florida are now filed directly with the FCC. Figure 6 shows the 35 Florida wireless ETC petitions pending at the FCC. Some of these companies applied with the FCC as early as June 2011. The date of each company’s respective initial wireless ETC petition is included.

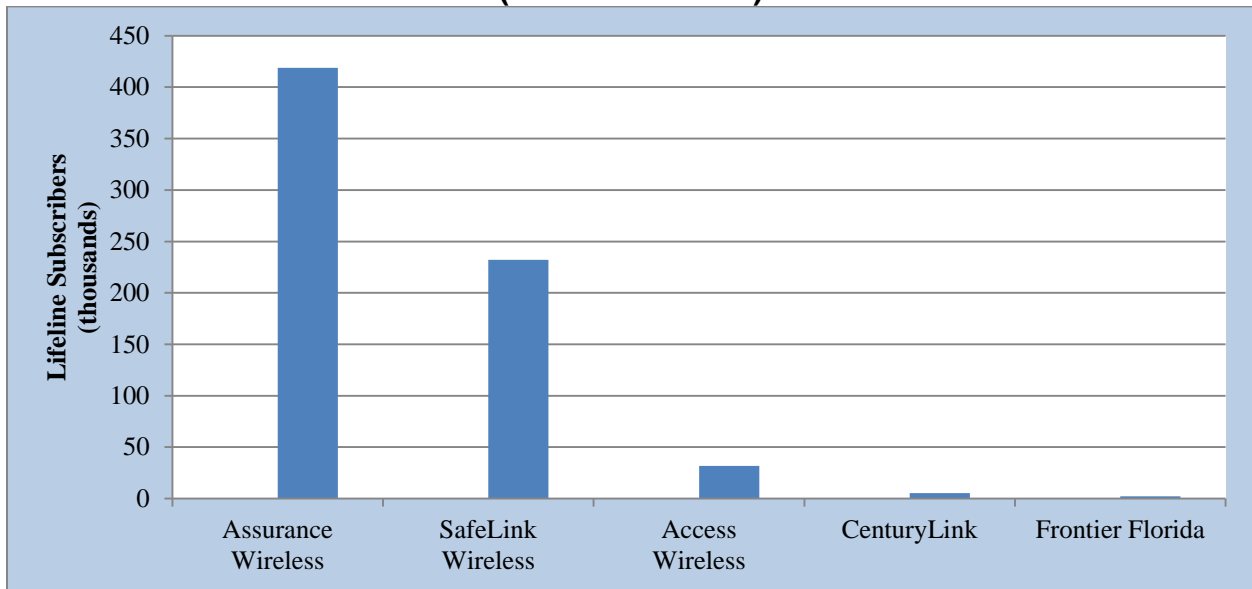
Figure 6
Florida Pending Wireless ETC Designation Petitions at FCC
(As of August 2018)

Airvoice Wireless (2/13)	NewPhone Wireless (9/12)
American Broadband (6/13)	Pinnacle Telecommunications (2/13)
Amerimex (2/13)	Q Link Wireless (8/15)
AmTel (1/13)	Sage Telecom Communications, LLC (8/13)
Assist Wireless (1/13)	SelecTel Wireless (8/15)
Blue Jay Wireless (5/12)	TAG Mobile (6/11)
Boomerang Wireless (8/16)	TNT Wireless (1/13)
Budget PrePay, Inc. (8/11)	Tele Circuit Network (7/12)
Cintex Wireless (5/12)	Telrite (4/12)
Consumer Cellular (4/12)	Tempo Telecom (11/14)
EZ Reach Mobile (5/12)	TerraCom (4/12)
Free Mobile, Inc. (9/12)	Total Call Mobile (4/13)
Global Connection (4/12)	True Wireless (5/12)
IM Telecom, LLC (1/16)	TX Mobile (11/12)
Kajeet (3/12)	Vast Communications (4/13)
LTS of Rocky Mount (10/12)	You Talk Mobile (2/13)
Millennium 2000 (4/13)	ZING PCS (12/12)
Mobile Net POSA (5/14)	

Source: FCC Lifeline Compliance Plans & ETC Petitions

Figure 7 shows the five Florida ETCs with the most Lifeline subscribers as of June 2018. These ETCs represent 99 percent of Lifeline subscriber participation in Florida. For 2018, Assurance Wireless had the highest number of Lifeline subscribers in Florida. This represents a significant shift from the status quo. For the prior nine years, the carrier with the most Lifeline subscribers was SafeLink Wireless.

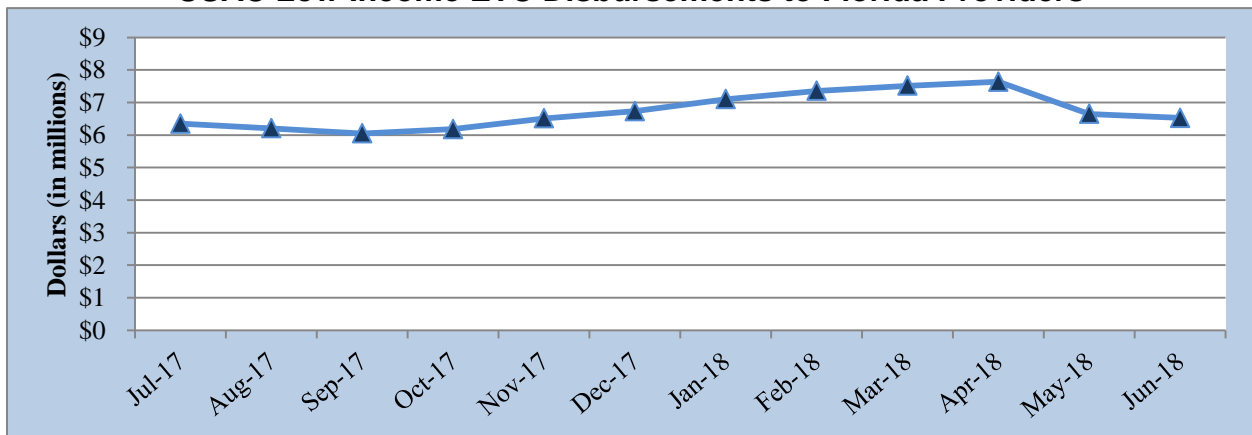
Figure 7
Top Five Florida Lifeline ETCs
(As of June 2018)



Source: Industry responses to 2018 FPSC data requests

Figure 8 reflects USAC Lifeline disbursements to Florida ETCs between July 2017 and June 2018. The total amount disbursed during this 12 month period was \$80,813,546, an average of \$6.7 million per month. These amounts also include support corrections or true-ups from prior months when errors are made.

Figure 8
USAC Low Income ETC Disbursements to Florida Providers



Source: USAC Disbursements Florida July 2017-June 2018

V. Regulatory Activities and Updates

A. Florida Public Service Commission Activities

Lifeline Electronic Coordinated Enrollment Process

In 2007, Florida implemented the Lifeline Electronic Coordinated Enrollment Process. This process involves a computer interface between the FPSC and DCF for Lifeline applicants who currently participate in the Medicaid and SNAP programs. The coordinated enrollment process requires a DCF client to indicate an interest in receiving Lifeline assistance. The applicant then identifies a telephone service provider from a drop-down box on the application and answers applicable questions. Once a client is determined to be eligible for Medicaid and/or SNAP, DCF will forward the necessary information for Lifeline enrollment to the FPSC. The FPSC places this information on a secure website for retrieval by the appropriate ETC.

Once ETC's retrieve and process customer information from the FPSC's secure website, all rejected applications are submitted back to the FPSC. An application may be rejected if an applicant identifies the wrong ETC as their current provider or if the ETC does not provide Lifeline assistance in the applicant's area. The FPSC sends these rejected applicants a paper application along with a list of each ETC's contact information.

Comments filed by the FPSC in response to the FCC 2017 Lifeline Reform Order

On December 1, 2017, the FCC released an Order implementing further reforms to the federal Lifeline program and sought comment on additional proposed reforms.¹⁵ The FCC sought comment on whether to limit Lifeline support to facilities-based carriers, whether to continue the phase down of voice-only support, possible changes to the existing Lifeline budget, and strategies intended to limit waste, fraud and abuse. On February 21, 2018, the FPSC submitted comments encouraging the FCC to consider the following:

- Resellers contribute, albeit indirectly, to the infrastructure of the underlying network they use. Specifically, resellers pay wholesale companies a market-based rate for the services they use that should include the wholesale companies expenses related to infrastructure.
- Competitive options for consumers would be constrained if the FCC limited support to only facility-based Lifeline providers. Resellers are the only option in many areas where AT&T relinquished its ETC designation for wireline service.¹⁶
- Consumers are best situated to determine if they need or can afford both broadband and voice services.
- Broadband Internet Access Service cannot be eligible for universal service support unless it includes a telecommunications service such as voice.

¹⁵ FCC 17-155, WC Docket Nos. 17-287, 11-42, 09-197, Fourth Report and Order, Order on Reconsideration, Memorandum Opinion and Order, Notice of Proposed Rulemaking, and Notice of Inquiry, released December 1, 2017, <https://www.fcc.gov/document/fcc-action-transform-lifeline-program-low-income-americans>, accessed September 28, 2018.

¹⁶ The areas AT&T relinquished as an ETC can be found in Appendix E.

- Any conduct-based standards adopted by the FCC should be applied to all ETCs.
- Collaboration among the FCC, USAC, and state commissions to identify instances of potential fraud is in everyone's best interest.
- Integrating access to existing state databases for purposes of eligibility verification may take time and requires resources that should be reimbursed to states.
- If the FCC implements a self-enforcing budget, the FCC should not discriminate among rural, non-rural, and tribal households.

FPSC Continues Actions to Prevent Waste, Fraud and Abuse of the Federal Universal Service Fund

Florida continues to enforce safeguards to prevent waste, fraud, and abuse of the Universal Service Fund. The FPSC strives to protect the integrity of the Lifeline program in the State of Florida and takes appropriate enforcement action when necessary. The FPSC has statutory authority to grant wireline ETC designations, and can also revoke ETC status when warranted. Unlawful and inappropriate federal Universal Service Fund disbursements are inconsistent with public trust and negatively impacts states like Florida, which contribute more into the Universal Service Fund than it receives. Therefore, the FPSC monitors federal Universal Service Funds disbursed to Florida ETCs to ensure that funds are being disbursed and expended according to state and federal regulations and guidelines.

B. Federal Communications Commission Activities

2016 Lifeline Modernization Reform Order

On April 27, 2016, the FCC released its Lifeline Modernization Order which became effective December 1, 2016. This Order was primarily established to modernize the Lifeline program by including broadband as a supported service and to streamline qualifying programs. Specific changes that occurred during 2018 are discussed below.

Minimum Service Standards

In the 2016 Lifeline Modernization Order, the FCC required all ETC's to provide broadband internet access support that meets the FCC's established minimum service standards, unless they were granted a forbearance. Minimum service standards were established to determine the level of service an ETC must provide in order to receive the Lifeline support amount. These minimum standards are updated on an annual basis by the FCC to ensure that low-income consumers have access to supported services that will remain viable as technology improves. Below are the minimum service standards effective December 1, 2018:

- Mobile voice: 1,000 minutes per month
- Mobile broadband: 2 GB/month at 3G or better speeds
- Fixed broadband: 1 TB/month at 18/2 Mbps or better speeds

Additionally, the 2016 Lifeline Modernization Order gradually phases out Lifeline support for voice-only services to further its goal of transitioning to a broadband-focused Lifeline program. Support for voice-only Lifeline service will end on December 1, 2021. The FCC included an

exception for those census blocks with only one Lifeline provider. The Lifeline program will continue to support voice services when bundled with a broadband service that meets the FCC’s minimum service standards. Figure 9 outlines the FCC’s phase down schedule.

**Figure 9
Lifeline Support Phase Down Schedule**

Effective Dates	Fixed Voice	Mobile Voice	Fixed Broadband	Mobile Broadband
Through 11/30/19	\$9.25	\$9.25	\$9.25	\$9.25
From 12/1/19 to 11/30/20	\$7.25	\$7.25	\$9.25	\$9.25
From 12/1/20 to 11/30/21	\$5.25	\$5.25	\$9.25	\$9.25
After 11/30/21	\$0	\$0	\$9.25	\$9.25

Source: FCC 2016 Lifeline Modernization Order (FCC 16-38)

Forbearance from Lifeline Voice Obligation

The 2016 Lifeline Modernization Order also established forbearance from Lifeline voice service obligations in targeted areas where certain competitive conditions are met. In particular, the FCC granted forbearance from high-cost/Lifeline ETCs’ obligation to offer and advertise Lifeline voice service in counties where the following conditions are met: (a) 51 percent of Lifeline subscribers in the county are obtaining broadband Internet access service; (b) there are at least three other providers of Lifeline broadband Internet access service that each serve at least five percent of the Lifeline broadband subscribers in that county; and (c) the ETC does not actually receive federal high-cost universal service support. In last year’s report there were 44 counties in Florida that met these conditions; however, no Florida counties met all of these conditions in 2018.

National Lifeline Eligibility Verifier

The FCC’s Order directed USAC to develop a National Verifier to determine initial subscriber eligibility, conduct annual recertification, populate the Lifeline database and provide support payments to providers. The National Verifier was intended to be implemented in phases with nationwide implementation by December 31, 2019. The first wave of states identified to transition to the National Verifier were Colorado, Mississippi, Montana, New Mexico, Utah, and Wyoming. Initially, the National Verifier was expected to be utilized in the initial six states by December 5, 2017. However, the FCC postponed the initial launch mainly due to potential vulnerabilities that had not been resolved in accordance with the Federal Information Security Management Act of 2002. Upon resolution of these issues on June 18, 2018, a soft launch of the National Verifier was implemented in the initial six states. On November 3, 2018, the soft launch ended for states in the first wave and those states have fully transitioned to utilizing the National Verifier. The second implementation wave began on October 15, 2018, in the following five states and one territory: Hawaii, Idaho, New Hampshire, North Dakota, South Dakota, and Guam.

During the soft launch period, ETCs could use the National Verifier for eligibility determinations, in addition to using existing eligibility determination processes. The soft launch period also provided ETCs the opportunity to become familiar with the National Verifier online portal before use of the National Verifier became mandatory. Consumers could not access the National Verifier to file their Lifeline applications online during this period. The soft launch

process is expected to be implemented again as additional states transition to using the National Verifier. Florida’s transition to the National Verifier has not been determined.

Once the National Verifier is implemented in a state, service providers in that state will no longer determine eligibility. Where available, the National Verifier will automatically verify an applicant’s participation in a qualifying government program through automated eligibility data sources from state and federal government organizations. However, where automated eligibility data sources are not available, the National Verifier will utilize manual processes to review eligibility documentation submitted by consumers. Figure 10 identifies the eligibility data sources used for automatic verification in the first phase on the National Verifier.

Figure 10
Automatic National Verifier Eligibility Data Sources

State	Automated Verifications
Colorado	SNAP, Medicaid, and FPHA
Mississippi	SNAP, and FPHA
Montana	FPHA
New Mexico	SNAP, Medicaid, and FPHA
Utah	SNAP, Medicaid, and FPHA
Wyoming	FPHA

Source: USAC

Under current Florida statutes, the FPSC may only share a customer’s confidential information with the ETC serving the customer.¹⁷ Once the National Verifier is implemented, enrollment data would no longer go to the ETC, but would go directly to USAC for verification. As such, without a legislative change the FPSC would not be able to participate in the application process.

Universal Lifeline Forms

On February 20, 2018, the FCC announced the implementation of Universal Lifeline forms.¹⁸ These forms are to be used by all ETCs to verify and recertify customer eligibility for Lifeline benefits by July 1, 2018. In the 2016 Order, the FCC stated that “Implementing universal forms will foster greater consistency in the Lifeline eligibility determination and recertification processes, thereby aiding in program administration and reducing improper payments due to errors in application and recertification forms.”

The FCC approved the Lifeline application form, Lifeline Annual Recertification form, and Lifeline household worksheet form. Beginning on July 1, 2018, ETCs using paper enrollment forms must use these Universal Lifeline forms. ETCs enrolling Lifeline applicants with an electronic form must use exactly the same language used in the FCC’s Universal Lifeline forms.

¹⁷ Section 364.107, F.S.

¹⁸ FCC, Public Notice, DA 18-161, WC Docket No. 11-42, released February 20, 2018, <https://docs.fcc.gov/public/attachments/DA-18-161A1.pdf>, accessed September 19, 2018.

Florida's coordinated enrollment process is currently exempt from using the national Lifeline form based on a waiver from the FCC.

2017 Recertification of Florida Lifeline Subscribers

The FCC adopted a set of uniform recertification procedures that all ETCs must perform annually to verify the ongoing eligibility of their Lifeline subscribers.¹⁹ To comply with the annual requirement for 2017, all ETCs were required to recertify the eligibility of their Lifeline subscriber base by the end of 2017, and report the results to USAC by January 31, 2018. Subscribers failing to respond to recertification efforts had to be de-enrolled from Lifeline.

ETCs have the option of recertifying subscribers in one of three ways. The first is to verify program or income-based eligibility where an ETC can query the available database to confirm the subscriber's continued eligibility. Second, the ETC can verify subscribers continued eligibility by writing, phoning, text messaging, emailing, Interactive Voice Response, or otherwise through the Internet using an electronic signature.

The third method of recertifying Lifeline customers would be to have the ETC elect USAC to perform Lifeline recertification for their subscribers. USAC recertifies by mailing each subscriber a letter notifying them they have 30 days to recertify or they will be de-enrolled from the Lifeline program. The letter would also explain the recertification process and how the subscriber may confirm his or her eligibility. Subscribers also would receive a call or text message during the 30-day period to prompt a response. Any subscriber response submitted after the 30-day deadline will not be processed, and the subscriber would be considered ineligible for the program and de-enrolled.

Duplicate Lifeline Support

Eligible consumers can only receive one Lifeline-supported service per household.²⁰ If there are two households residing at one address and each desires to participate in Lifeline, each applicant has to complete a household worksheet to demonstrate that each applicant is living in a separate economic unit and not sharing living expenses (bills, food, etc.) or income with another resident.²¹

The FCC directed USAC to establish a database to both eliminate existing duplicative support and prevent duplicative support in the future.²² To prevent waste in the Universal Service Fund, the FCC created a National Lifeline Accountability Database (NLAD) and mandated its use to ensure that multiple ETCs do not seek and receive reimbursement for the same Lifeline subscriber. NLAD conducts a nationwide real-time check to determine if the consumer or another person at the address of the consumer is already receiving a Lifeline program-supported service. Florida ETCs were operational on NLAD starting March 6, 2014. States have read-only access to this database to help prevent waste, fraud, and abuse of the Lifeline program.

¹⁹ 47 CFR. § 54.410(f).

²⁰ 47 CFR. § 54.409(c).

²¹ A household Lifeline eligibility pre-screening tool is available at www.lifelinesupport.org.

²² FCC 12-11, WC Docket No. 11-42, Lifeline Reform and Modernization, Report and Order, released February 6, 2012, https://apps.fcc.gov/edocs_public/attachmatch/FCC-12-11A1.pdf, accessed September 19, 2018.

VI. Lifeline Promotion Activities

Promotional activities in 2018 featured National Lifeline Awareness Week, National Consumer Protection Week, Older Americans Month, and ongoing “grassroots” efforts to increase awareness and enrollment in the Lifeline program.

The FPSC continues to work with state commissions, the National Association of Regulatory Utility Commissioners, the FCC, and the National Association of State Utility Consumer Advocates to promote Lifeline Awareness Week and educate consumers on the nationwide implementation of a consumer-friendly Lifeline National Verifier by USAC. The national effort also ensures that low income families and individuals are aware of the Lifeline program and understand the participation requirements, including annual recertification and that only one Lifeline discount per household is allowed. The shared goal is for all eligible households to be enrolled and receive Lifeline program benefits.

National Lifeline Awareness Week

As the FCC and USAC continue work to implement the Lifeline National Verifier, the National Association of Regulatory Utility Commissioners observed Lifeline Awareness Week, again in September for those states able to participate. “*Stay Connected Florida!*” was the slogan for Florida’s 2018 Lifeline Awareness Week, September 10-14. In addition to increasing awareness among eligible citizens, this year’s Lifeline Awareness Week continued educating residents about the discount on voice and broadband services.

Lifeline Awareness Week consumer events were held in Lecanto, Hudson, Jacksonville, and Woodville to help Florida’s eligible residents connect with the Lifeline program. Each event also offered individual assistance to consumers interested in the program.

National Consumer Protection Week and Other Community Events

The FPSC seeks existing community events as well as new venues and opportunities where Lifeline educational materials can be distributed and discussed with consumers. National Consumer Protection Week, March 4-10, 2018, was a good back drop for Lifeline outreach activities. An annual consumer education campaign, National Consumer Protection Week encourages consumers to take advantage of their consumer rights. This year, Chairman Art Graham recognized the 20th anniversary of this event and emphasized the importance of education and awareness about utility services and avoiding scams. During National Consumer Protection Week, Chairman Graham explained how the FPSC has been protecting consumers for more than 130 years, and encouraged consumers to contact the Commission for utility information or assistance if needed. The Commission keeps consumers informed year-round through awareness and education, free resources, and hearings, meetings and workshops. Also during the week, the Commission made presentations to consumers statewide showing them how to save money through energy and water conservation, how to avoid scams, and how to sign up for a Lifeline telephone and broadband discount program, if they qualify.

For the seventh year, the FPSC participated in a national project called Older Americans Month, which is celebrated each May to honor and recognize older Americans for their contributions to families, communities, and society. “*Engage At Every Age*” was this year’s theme, and the

Commission hosted educational sessions, distributing Lifeline, conservation and fraud prevention information at senior communities in Palm Beach, Leon and Hillsborough Counties. The FPSC also distributed brochures and publications at the Jacksonville Expo during the month.

Each quarter, the FPSC also names a valued partner agency or organization as a “Helping Hand,” for helping raise public awareness about the Lifeline program, energy and water conservation, and utility impersonation scams. The Central Citrus Community Center in Lecanto partner received the FPSC Helping Hand for its assistance in promoting 2018 Lifeline Awareness Week. Figure 11 represents the various events and locations where Lifeline information was shared in Florida as of July 2018.

**Figure 11
FPSC Lifeline Promotion in Florida**

Lifeline Events and Locations	
2018 Elder Abuse and Fraud Prevention Summit	35th Annual Children’s Day–FL Museum of History
Active Living Expo	Boynton Beach Senior Center
Brandon Senior Center	Calhoun County Public Library
Calhoun County Senior Citizens Association	Community Back to School Family Health Fair
Earth Day – Museum of Florida History	Florida Department of Agriculture and Consumer Services’ Consumer Protection – Tallahassee
Florida Department of Agriculture and Consumer Services’ Consumer Protection Fair – Altamonte Springs	Florida Department of Agriculture and Consumer Services’ Consumer Protection Fair – Ocala
Florida Department of Agriculture and Consumer Services’ Consumer Protection Fair – Pensacola	Florida Department of Agriculture and Consumer Services’ Consumer Protection Fair – The Villages
Florida Senior Day at the Capitol	Fort White Senior Recreation Center
Fran Carlton Center	Gadsden County Senior Center
Gadsden County Senior Center	Jackson County Senior Center
Jackson County Senior Citizens Center	Jacksonville Senior Expo
Low-income/Affordable Housing in Gadsden County - Triple Oaks, Omega Villas, and Vanguard Village Apartments	Lunch and Learn–Chaires Community Center
Lunch & Learn–Ft. Braden Community Center	Lunch & Learn–Lake Jackson Community Center
Lunch & Learn–Miccosukee Community Center	Lunch & Learn–Woodville Senior Center
Ruskin Center	Senior Friendship Center – Venice
Senior Friendship Center, Inc. - Sarasota	Suwanee County Health and Wellness Fair at Advent Christian Village in Dowling Park
Tampa Baptist	Tampa Housing Authority – J. L. Young Garden Apartments
The Oaks at Riverview	Volen Center
Wakulla Senior Citizens Center	Washington County Council on Aging – 2018 Senior Citizen Expo
Washington County on Aging	

Source: Florida Public Service Commission, Office of Consumer Assistance & Outreach

Library Outreach Campaign

Each year the FPSC provides educational packets, including FPSC publications and Lifeline brochures and applications in English, Spanish, and Creole to Florida public libraries across the state for consumer distribution. The FPSC's Library Outreach Campaign reached 600 state public libraries and branches in 2018. The FPSC sent the materials via a CD that included a print-ready copy of FPSC brochures for easy reproduction. Following the Campaign, many libraries' requests for additional publications have been filled.

Community Services Block Grant Program

The Florida Department of Economic Opportunity includes Lifeline services as an indicator in its work plan, allowing Community Action Agencies to report the number of clients they help to secure Lifeline services. Between October 1, 2016 and September 30, 2017, 788 households applied for Lifeline benefits through local Community Action Agencies, providing \$88,384 in benefits to clients. During this time period, 12 of the 27 Community Action Agencies provided Lifeline enrollment services to clients.

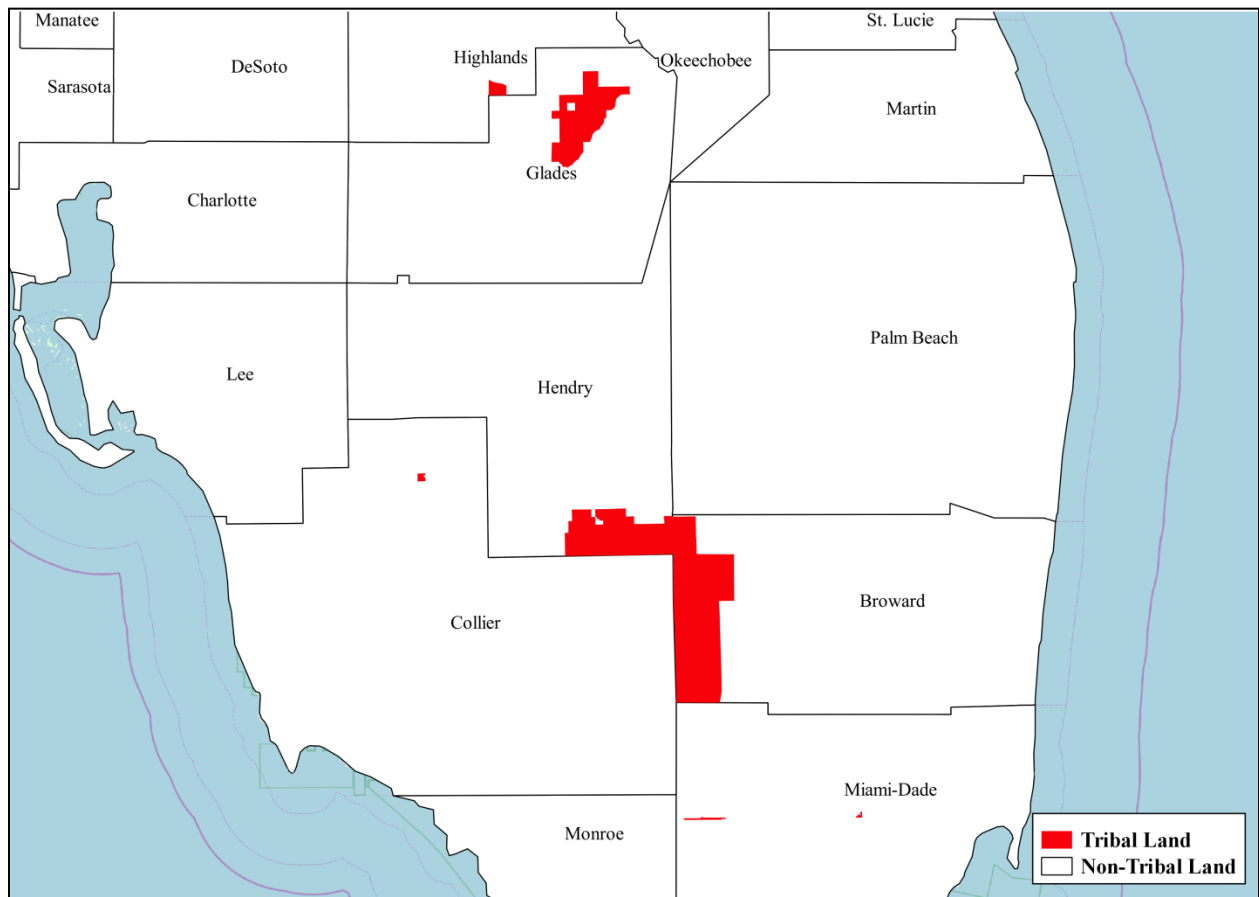
Ongoing Lifeline Outreach

Ensuring easy access to Lifeline information through the agencies and organizations having regular interaction with eligible consumers is crucial to the Lifeline awareness effort. The FPSC partners with many agencies year-round to make sure eligible consumers know about Lifeline and how to apply. Additionally, the FPSC schedules and conducts two monthly community events to promote Lifeline. Each month, the FPSC sends a cover letter and informational packet to two organizations to encourage continued Lifeline outreach to their eligible clientele.

Lifeline Partners

The local, state, and federal agencies, organizations, businesses and telecommunications companies listed in Appendix F are involved in the collaborative effort to increase awareness and participation in the Lifeline program. These Lifeline Partners have continued to develop new partnerships, participate in local community events, offer training sessions, provides updates about program changes and supply brochures and applications.

Appendix A Map of Florida Tribal Lands



Source: USAC locational data

Appendix B
2018 U.S. Poverty Guidelines

Persons in family/household	2018 U.S. Federal Poverty Guidelines	135% of Federal Poverty Guidelines	Monthly income at 135% of Federal Poverty Guidelines
1	\$12,140.00	\$16,389.00	\$1,365.75
2	\$16,460.00	\$22,221.00	\$1,851.75
3	\$20,780.00	\$28,053.00	\$2,337.75
4	\$25,100.00	\$33,885.00	\$2,823.75
5	\$29,420.00	\$39,717.00	\$3,309.75
6	\$33,740.00	\$45,549.00	\$3,795.75
7	\$38,060.00	\$51,381.00	\$4,281.75
8	\$42,380.00	\$57,213.00	\$4,767.75

Source: Department of Health and Human Services. Annual Update of the Department of Health and Human Service Poverty Guidelines. Federal Register Notice, January 18, 2018.

<https://www.federalregister.gov/documents/2018/01/18/2018-00814/annual-update-of-the-hhs-poverty-guidelines>

Appendix C
Lifeline Subscription by Service Type
(as of June 2017)

	ETCs	Voice	Broadband	Bundled	Total
Wireless	Assurance Wireless	59,895	347,751	4,284	411,930
	SafeLink Wireless	38,689	125,633	76,387	240,709
	Access Wireless	34,076	758	0	34,834
	T-Mobile	297	1	709	1,007
Incumbent Wireline	CenturyLink	6,047	73	307	6,427
	Frontier Florida	2,223	14	26	2,263
	Windstream	1,543	1	0	1,544
	Consolidated Communications	399	0	16	415
	NEFCOM	302	3	0	305
	AT&T	129	0	0	129
	TDS Telecom	113	0	1	114
	ITS Telecom	20	0	24	44
	Frontier of the South	22	0	3	25
	Smart City	1	2	0	3
Competitive Wireline	Cox Telecom	577	0	0	577
	TeleCircuit	281	0	0	281
	Phone Club	121	0	0	121
	WOW!	38	4	3	45
	Global Connection	7	0	0	7
	Total	144,780	474,240	81,760	700,780

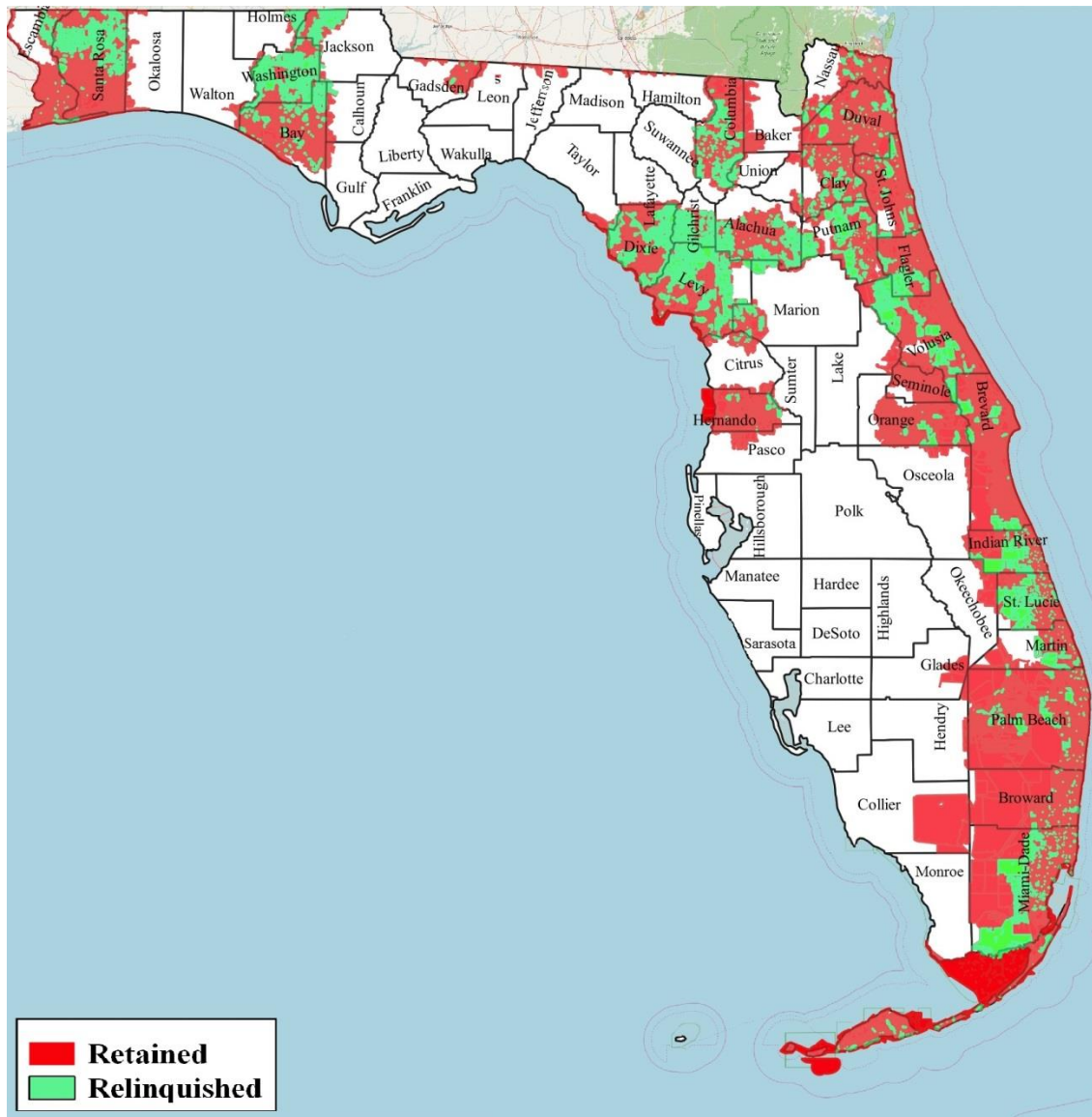
Source: USAC Disbursements in Florida

Appendix D
Lifeline Enrollment and Year-to-Year Net Growth Rate

	ETCs	June 2015	June 2016	Net Growth Rate	June 2017	Net Growth Rate	June 2018	Net Growth Rate
Wireless	Assurance Wireless	208,902	232,481	11%	224,282	-4%	418,874	87%
	SafeLink Wireless	470,695	405,506	-14%	346,488	-15%	232,088	-33%
	Access Wireless	106,440	179,429	69%	89,904	-50%	31,874	-65%
	T-Mobile	2,110	762	-64%	630	-17%	1,023	62%
Incumbent Wireline	CenturyLink	16,163	12,528	-22%	9,108	-27%	5,251	-42%
	Frontier Florida	4,721	3,896	-17%	3,116	-20%	2,113	-32%
	Windstream	2,746	2,436	-11%	2,004	-18%	1,546	-23%
	Consolidated Communications	671	526	-22%	561	7%	397	-29%
	NEFCOM	458	286	-38%	366	28%	247	-33%
	AT&T	18,302	11,404	-38%	7,871	-31%	123	-98%
	TDS Telecom	264	179	-32%	138	-23%	112	-19%
	ITS Telecom	80	86	8%	69	-20%	46	-33%
	Frontier of the South	46	28	-39%	26	-7%	20	-23%
	Smart City	7	11	57%	4	-64%	3	-25%
Competitive Wireline	Cox Telecom	659	689	5%	675	-2%	556	-18%
	TeleCircuit	337	646	92%	321	-50%	201	-12%
	Phone Club	n/a	n/a	n/a	148	n/a	120	-19%
	WOW!	138	79	-43%	58	-27%	46	-21%
	Global Connection	8	3	-63%	95	3067%	7	-93%
	ETCs which Relinquished Designation	184	0	0%	0	0%	0	0%
Total	833,426	850,975	2%	685,864	-19%	694,647	1%	

Source: FPSC Data Requests 2015-2018

Appendix E Map of AT&T Relinquishment Areas



Appendix F
Agencies, Organization and Business Lifeline Partners

Florida Lifeline Partners	
1000 Friends of Florida, Inc.	Federal Social Security Admin - Tallahassee District
A Caring Hand Home Care	Feeding South Florida
AARP - Florida Chapter	First Quality Home Care
Ability Housing of Northeast Florida	Florida Alliance for Information and Referral Services
ACCESS Florida Community Network Partners	Florida Assisted Living Association
Agency for Health Care Administration	Florida Association for Community Action
Agency for Persons with Disabilities	Florida Association of Community Health Centers
Aging Matters in Brevard County	Florida Association of Counties
Aging True Community Senior Services	Florida Assoc of County Human Service Admin
Aging With Dignity	Florida Association of Food Banks
Alliance for Aging, Inc.	Florida Assoc of Housing and Redevelopment Officials
America's Second Harvest of the Big Bend, Inc.	Florida Coalition for Children
Area Agencies on Aging	Florida Coalition for the Homeless
ASPIRE Health Partners	Florida Council on Aging
Big Bend 2-1-1 and other 2-1-1 Agencies	Florida Deaf Services Centers Association
Boley Centers, Inc.	Florida Dept of Business and Professional Regulation
Braille and Talking Book Library	Florida Department of Children and Families
Brain Injury Association of Florida, Inc.	Florida Department of Community Affairs
Bridges at Riviera Beach	Florida Department of Economic Opportunity
Broward County Elderly & Veterans Services Division	Florida Department of Education
Bureau of Indian Affairs Programs	Florida Department of Education
Capital Area Community Action Agency, Inc.	Florida Department of Elder Affairs
Catholic Charities of Central Florida	Florida Department of Revenue
Center for Hearing and Communication	Florida Department of Veterans' Affairs
Centers for Drug Free Living	Florida Developmental Disabilities Council
Centers for Independent Living	Florida Elder Care Services
Central Florida Community Action Agency	Florida Highway Safety and Motor Vehicles
City and County Consumer Assistance Departments	Florida Home Partnership
City and County Departments of Human Services	Florida Hospital Association
City and County Health Departments	Florida Housing Coalition
City and County Housing Authorities	Florida Housing Finance Corporation
City and County Social Programs	Florida League of Cities, Inc.
Communities In Schools Foster Grandparent Program	Florida Low Income Housing Associates
Community Partnership Group	Florida Nurses Association
Disability Rights Florida	Florida Office of Public Counsel
Elder Options	Florida Ombudsman Program
Faith Radio Station and other Florida radio stations	Florida Public Libraries

Florida Lifeline Partners (continued)	
Florida Public School Districts	Nursing Homes Administrators
Florida Rural Legal Services, Inc.	One-Stop Career Centers
Florida Senior Medicare Patrol	Refuge House of the Big Bend
Florida Senior Program	Seminole County Community Development
Florida Telecommunications Relay, Inc.	Senior Friendship Centers
Florida Voters League	Senior Medicare Patrol
Good News Outreach	Senior Resource Alliance
Goodwill Industries of Central Florida	Senior Solutions
Habitat for Humanity – Florida	Seniors First
HANDS of Central Florida	SHINE Program
Hemophilia Foundation of Greater Florida	South East American Council, Inc.
Hispanic Office for Local Assistance	Tallahassee Memorial Hospital
HOPE Community Center	Tallahassee Urban League
HOPE Connection	Tampa Vet Center
League for the Hard of Hearing	Three Rivers Legal Services, Inc.
Leon County School Board	U.S. Department of Housing and Urban Development
Little Havana Activities and Nutrition Centers	United Home Care Services
Living Stones Native Circle	United Way of Florida
Marion Senior Services	Urban Jacksonville
Micosukee Tribe of Indians of Florida	Urban Leagues of Florida
Mid-Florida Housing Partnership, Inc.	Wakulla County Senior Citizens Council
Monroe County Social Services	Washington County Council on Aging
NAACP (Florida Associations)	We Care-Jacksonville
National Church Residences	



Public Service Commission

CAPITAL CIRCLE OFFICE CENTER • 2540 SHUMARD OAK BOULEVARD
TALLAHASSEE, FLORIDA 32399-0850

-M-E-M-O-R-A-N-D-U-M-

DATE: October 19, 2018

TO: Braulio L. Baez, Executive Director

FROM: Office of Industry Development & Market Analysis (Breman, Laux, Whitfield) *JB* *MEL* *SW*
Office of the General Counsel (Davis) *RC* *CH*
S.M.C.

RE: Draft comments to the U.S. Environmental Protection Agency regarding proposed Emission Guidelines for Greenhouse Gas Emissions From Existing Electric Utility Generating Units; Revisions to Emission Guideline Implementing Regulations; Revisions to New Source Review Program.

CRITICAL INFORMATION: Please place on the October 30, 2018 Internal Affairs. Comments are due on October 31, 2018.

COMMISSION GUIDANCE AND APPROVAL OF COMMENTS IS SOUGHT

On June 18, 2014, the U.S. Environmental Protection Agency (EPA) published the proposed Carbon Pollution Emission Guidelines for Existing Electric Generating Units (Clean Power Plan or CPP). On December 1, 2014, the Florida Public Service Commission (FPSC) filed comments regarding the CPP. On October 23, 2015, EPA finalized the CPP rule. Afterwards, legal challenges of the CPP were filed with the D.C. Circuit Court. On February 9, 2016, the U.S. Supreme Court stayed EPA's implementation and enforcement of the CPP.

In April 2017, EPA withdrew proposed CPP implementation rules. In October 2017, EPA issued a notice of proposed repeal of the CPP. An advance notice of proposed rulemaking was issued in December 2017. On August 31, 2018, EPA issued three proposed actions addressing emissions of greenhouse gas from existing electric utility generating units, which were designed to replace the CPP. EPA will take comments on these proposed actions until October 31, 2018.

Staff seeks Commission guidance on whether to file written comments on this EPA rulemaking. Attachment A provides an overview of EPA's proposed rules. Attachment B provides draft comments on the proposed rules for Commission consideration. The draft comments provide information on the FPSC statutory jurisdiction and highlight particular attributes of Florida that merit consideration when addressing the implementation of the proposed rules.

cc: Keith Hetrick, General Counsel
Mark Futrell, Deputy Executive Director - Technical
Apyrl Lynn, Deputy Executive Director - Administration

Overview of EPA's Proposed Rules

Background

Pursuant to Section 111(d) of the Clean Air Act, EPA is required to issue guidelines for emission reductions, or best system of emission reduction (BSER), that EPA has determined is adequately demonstrated for the existing electric generating units (EGUs). EPA's guidelines indicate the degree of emission reduction it believes is technically feasible and cost-effective through the application of the BSER. EPA's guidelines must also permit a state to consider remaining useful life of the EGU when applying a standard of performance.

In the CPP rule, EPA's application of its BSER resulted in state specific emission limitations, or targets. Achieving these emission targets required states to limit the usage of carbon dioxide emitting generating units, thereby shifting generation to new zero-emitting resources. Separately, EPA proposed CPP related guidelines addressing emission trading and state plan requirements. In April 2017, EPA withdrew its proposed CPP implementation rules.

On August 31, 2018, EPA issued three proposed actions that replace the CPP and address carbon dioxide emissions from existing EGUs. First, EPA seeks to replace the CPP with the Affordable Clean Energy Rule (ACE), which revises emission guidelines. Next, EPA proposed new regulations that give both EPA and states direction on how to implement rules that are issued pursuant to Section 111(d) of the Clean Air Act. Last, EPA is proposing revisions to the New Source Review (NSR) program that seeks to remove a regulatory "barrier" associated with anticipated ACE compliance issues for some of the existing EGUs.

While these three proposed actions have been simultaneously issued, it appears that each of the proposed revisions should be considered independent and severable. As such, each proposed revision is worded as a standalone proposal resulting in the appearance of repetition and overlap. EPA will take comments on these proposals until October 31, 2018.

Proposed Affordable Clean Energy Rule

Based on its review, EPA concluded that heat rate improvement (HRI) measures are the BSER for existing coal-fired EGUs that are greater than 25 MWs. At this time, EPA has not made a determination regarding the BSER applicable to other fossil-fuel fired EGU technologies. Therefore, ACE as currently proposed would only apply to coal-fired EGUs. EPA's guidance on application of the BSER is limited to assessing HRI options at the actual EGU site, commonly referred to as an "inside the fence" approach. EPA's assessment of HRI options at coal plants identified seven actions or practices that are cost-effective and reasonable:

- (i) Neural network/intelligent sootblowers
- (ii) Boiler feed pumps
- (iii) Air heater and duct leakage control
- (iv) Variable frequency drives
- (v) Blade path upgrades for steam turbines
- (vi) Redesign or replacement of economizer
- (vii) Improved operating and maintenance practices

At a minimum, the proposed ACE rule requires states to assess each of these seven options when the state is determining the applicable carbon dioxide standard of performance, i.e., lbs./MWh, for a given EGU.

A state is afforded up to three years from the effective date of the rule to assess each affected EGU and file its state implementation plan (SIP). The Department of Environmental Protection has jurisdiction to prepare and file a SIP for Florida. The SIP is required to include legally enforceable increments of progress for any EGU with a compliance period extending 24 months beyond the SIP filing date. The SIP is also required to include additional information supporting the state's standard of performance for each EGU. The proposed ACE rule also describes the state's ongoing record keeping and reporting requirements.

For informational purposes the following table presents various differences between the CPP and ACE.

Differences Between CPP and ACE

Concept	CPP	ACE
Best System of Emission Reduction	Heat rate improvements on coal-fired steam generation Shift electric generation to lower-emitting fossil technologies Shift electric generation to new renewable zero-emitting resources	Heat rate improvements on coal-fired steam generation; seven potential heat rate improvement actions identified
Application of the BSER	EPA applies the BSER on a regional and national basis and sets emission goals for each state Each state adopts and implements a plan that achieves the state's emission goal	Each state applies a site-by-site BSER review addressing the specified heat rate improvement actions and unique site specific factors such as cost and remaining useful life Each state adopts and implements a plan that achieves site specific compliance
Emission limit	Pounds per MWh of retail sales	Pounds per MWh to electric grid
Affected facilities	All existing fossil electric generators greater than 25 MW and resources required to implement the electric generation supply shifts to low and zero-emitting resources	All existing coal-fired steam boiler electric generation greater than 25 MW

Revision to Emission Guideline Implementing Regulations

EPA is proposing revisions of general guidance regulations that would be applicable to ACE and any future emission guideline issued pursuant to Section 111(d) of the Clean Air Act. These proposed revisions address the regulatory process, applicable definitions, requirements for state adoption and submittal of the SIP, and timelines for EPA's review.

A state's adopted SIP must demonstrate that the state considered each EGU's site-specific factors, such as unreasonable costs, remaining useful life, and physical impossibility of installing necessary control equipment in its setting of the EGU's standard of performance. The timeline for SIP submissions is three years after the emission guidance rule becomes final.

Once the SIP is submitted, EPA will determine if the SIP is complete within 6 months. Within 12 months, EPA will evaluate and determine whether the plan can be approved. In the event a state does not submit a plan, fails to submit a plan, or fails to submit an approvable plan, EPA will have two years to develop a federal plan for that state.

Revision to New Source Review (NSR) Program

The NSR program requires utility planning to consider whether a tentative physical or operational power plant change is expected to increase annual emissions that exceed any enforceable pollutant-specific threshold. Under the current rule, a major NSR construction permit is triggered if a project is predicted to cause a significant net increase in the facility's actual annual emissions of any pollutant. This approach, while intended to avoid environmental harm, can discourage electric utilities from investing in beneficial efficiency improvements, even when the improvements could ultimately result in less pollution per MWh and a more cost-efficient power plant. The proposed NSR revisions are intended to promote utility implementation of heat rate improvements required by ACE without triggering the need for a major NSR construction permit.

EPA is proposing to add an hourly emission test based on maximum achieved emissions (i.e., what the unit has actually emitted in the past) and an alternative test based on maximum achievable emissions (i.e., what the unit could have emitted when operating at its maximum capacity). If either of these tests show no hourly emissions increase, then the proposed revisions would not require a major NSR construction permit. States have the option of adopting the new preliminary applicability test into their SIP rules to determine what types of power plant modifications may trigger a major NSR permitting event.

DRAFT

**UNITED STATES OF AMERICA
BEFORE THE
ENVIRONMENTAL PROTECTION AGENCY**

Emission Guidelines for Greenhouse Gas Emission From Existing Electric Utility Generating Units; Revision to Emission Guideline Implementing Regulations; Revisions to New Source Review Program

Docket ID No. EPA-HQ-OAR-2017-0355

COMMENTS OF THE FLORIDA PUBLIC SERVICE COMMISSION

The Florida Public Service Commission (FPSC) respectfully requests consideration of the comments provided herein on the proposed Emission Guidelines for Greenhouse Gas Emission from Existing Electric Utility Generating Units, also referred to as the Affordable Clean Energy rule (Proposed Rule). The FPSC recognizes the necessity and role of the U.S. Environmental Protection Agency (EPA) in addressing public health and environmental issues. The FPSC notes that in February 2011, the National Association of Regulatory Utility Commissioners (NARUC) approved a resolution entitled “Resolution on the Role of State Regulatory Policies in the Development of Federal Environmental Regulations.” The resolution states ten broad principals EPA should consider when developing new environmental rules. These ten principles are:

- Avoid compromising energy system reliability;
- Seek ways to minimize cost impacts to consumers;
- Ensure that EPA’s actions do not impair the availability of adequate electricity and natural gas resources;
- Consider cumulative economic and reliability impacts in the process of developing multiple environmental rulemakings that impact the electricity sector;

- Recognize the needs of states and regions to deploy a diverse portfolio of cost-effective supply-side and demand-side resources based on the unique circumstances of each state and region;
- Encourage the development of innovative, multi-pollutant solutions to emissions challenges as well as collaborative research and development efforts in conjunction with the Department of Energy;
- Employ rigorous cost-benefit analyses consistent with federal law, in order to ensure sound public policy outcomes;
- Provide an appropriate degree of flexibility and timeframes for compliance that recognizes the highly localized and regional nature of the provision of electricity services;
- Engage in timely and meaningful dialog with state energy regulators in pursuit of these objectives; and
- Recognize and account for, where possible, state or regional efforts already undertaken to address environmental challenges.

The FPSC believes that these stated principals are just as important in the current EPA rulemaking process as they were in 2011. Therefore, the FPSC respectfully suggests that EPA take these principles and the comments listed below into consideration when developing the proposed rules.

I. FPSC Jurisdiction

The FPSC is charged with ensuring that Florida's five investor-owned electric utilities provide safe, reliable energy for Florida's consumers in a cost-effective manner. The FPSC additionally

regulates 35 municipal electric utilities and 18 rural electric cooperative utilities regarding safety, rate structure, and oversight of generation and transmission planning.

In Florida, the FPSC has exclusive jurisdiction to require electric power conservation and reliability measures within the coordinated electric power grid for operational and emergency purposes.¹ The FPSC's exclusive jurisdiction includes the planning, development, and maintenance of the coordinated electric power grid to assure an adequate and reliable source of energy and to avoid uneconomic duplication of generation, transmission, and distribution facilities.² The FPSC is charged with determining the need for all new steam electric generating facilities and solar generation over 75 megawatts.³ The FPSC has the responsibility of allowing recovery of prudently incurred environmental compliance costs by investor-owned electric utilities, such as costs incurred in compliance with the Clean Air Act.⁴

In 1980, the FPSC developed a generating performance incentive factor program (GPIF) for investor-owned utilities that encourages utilities to maximize heat rate efficiency of electric baseload generating units.⁵ Unit specific heat rate and availability targets are set annually through a formal hearing procedure, and the FPSC has the authority to reward utilities that reach their targets and penalize those utilities that do not.

¹ Section 366.04(2)(c), Florida Statutes

² Section 366.04(5), Florida Statutes

³ Section 403.519, Florida Statutes

⁴ Section 366.8255(2), Florida Statutes

⁵ Order No. 9558, in Docket No. 800400-CI, issued September 19, 1980, *In re: Investigation of Fuel Cost Recovery Clause Application to Investor-owned Electric Utilities*.

II. FPSC Response to Certain EPA Solicitation For Comments

Reliability, Diversity, Flexibility, and Cost-effective Compliance (C-14, 20, 22, 23)

EPA requested comments on other factors not explicitly included in the proposed rule and potential compliance implementation measures. The FPSC respectfully asserts that the Proposed Rule need not identify all factors, technologies, or compliance measures that may be discovered through the rigor of a site-specific review at affected existing generating units (EGUs). Additional general criteria and guidance would not be superior to allowing states to act on the information acquired through site-specific reviews of affected EGUs. As such, each state should be afforded flexibility and discretion in their efforts to address cost-efficient solutions that respond to that state's respective strategic interests while satisfying federal environmental performance requirements.

The process of establishing a standard of performance for affected EGUs should be based on a determination of the best standard of emission reduction (BSER) that considers factors such as technical feasibility^{6,7} and costs.^{8,9} The resulting standard of performance requirements must be technically achievable and based on relevant and adequate data.^{10,11} Furthermore, "To be achievable, a standard must be capable of being met under the most adverse conditions which can reasonably be expected to recur."¹² Thus, a site-specific review of each affected EGU must

⁶ *Essex Chemical Corp v. Ruckelshaus*, 486 F. 2d 427, 433-434 (D.C. Cir 1973)(stating that an achievable standard is one which is within the realm of the adequately demonstrated system's efficiency and which need not necessarily be routinely achieved within the industry prior to its adoption), *cert denied*, 416 U.S. 969 (1974).

⁷ 60.24a(e)(2), FR 44805

⁸ *Portland Cement Association v. Ruckelshaus*, 486 F. 2d 375, 385, 402 (D.C. Cir. 1973), *cert. denied* 417 U.S. 921 (1974).

⁹ 60.24a(e)(1) at FR 44805

¹⁰ *Essex Chemical Corp v. Ruckelshaus*, 393 (D.C. Cir 1973).

¹¹ 60.24a(e) at FR 44805

¹² *White Stallion Energy Ctr., LLC v. EPA*, 748 F. 3d 1222 (S.D. Cal. 2014), citing to *Nat'l Lime Association v. EPA*, 627 F. 2d 416, 431 n. 46, 200 US App. DC 363 (D.C. Cir. 1980).

be undertaken to adequately identify all relevant unique factors supporting an affected EGU's standard of performance.

The Proposed Rule should disregard factors that a state's review may show to be relevant in determining the standard of performance. For example, a site-specific BSER review should take into account not only the potential for incremental heat rate improvements but also recognize the potential for heat rate variability. Data from Florida's GPIF program shows a general heat rate improvement since inception but also that the efficiency of an EGU does vary over time. Consequently, cost-effective options addressing heat rate variability should also be considered in determining the standard of performance of a particular EGU.

Additionally, Florida currently imports all of its fossil fuel by rail, barge, truck, and pipeline. Florida's unique geography results in exposure to extreme weather events that make it vulnerable to interruption of delivery for one or more fuel types. Therefore, fuel supply security, reliability, and diversity are strategic factors that impact safe, reliable, and cost-effective electric service in Florida. Not all states share the same strategic interests. Consequently, each state must be afforded great latitude and discretion when determining which actions are cost-effective for its affected EGUs. The FPSC believes the appropriate general criteria expressed in the Proposed Rule should be that states establish an affected EGU's compliance measures, timeline, and standard of performance based on consideration of site-specific factors guided by, but not limited to, EPA's published BSER.

However, if the Proposed Rule is intended to bar states from pursuing cost-efficient compliance measures that are not specifically identified in the rule, then the FPSC respectfully suggests that

EPA consider revising the Proposed Rule to remove the unnecessary constraint on state flexibility and discretion. The FPSC believes that the Proposed Rule should avoid unnecessary tension between EPA's efforts establishing public health and environmental guidelines, pursuant to Section 111(d) of the Clean Air Act, and a state's discretion in achieving cost-efficient environmental performance.

III. Conclusion

It is critical to economic regulators, like the FPSC, that the Proposed Rule does not fetter a state's due-diligence in identifying cost-efficient environmental compliance that serves the public interest. Flexibility to assess all available environmental compliance options promotes reliability of the electric grid and diversity of fuel resources, which are also in the public interest.

State of Florida



Public Service Commission

CAPITAL CIRCLE OFFICE CENTER • 2540 SHUMARD OAK BOULEVARD
TALLAHASSEE, FLORIDA 32399-0850

-M-E-M-O-R-A-N-D-U-M-

DATE: October 19, 2018
TO: Braulio L. Baez, Executive Director
FROM: Takira Thompson, Engineering Specialist I, Division of Engineering
RE: Review of 2018 Ten-Year Site Plan

TT TB

CRITICAL INFORMATION: Place on October 30, 2018 Internal Affairs Agenda. Approval by the Commission is required by December 31, 2018.

Pursuant to Section 186.801(2), F.S., the Commission is required to classify each generating electric utility's Ten-Year Site Plan as either "suitable" or "unsuitable" by December 31 each year. The attached draft satisfies this requirement and its approval by the Commission is sought.

Please let me or Phillip Ellis know if you have any questions or need additional information in reference to the attached document.

Thank you.

TTT:pz

Attachment

cc: Deputy Executive Director – TECH (M. Futrell)
Division of Engineering (P. Ellis, L. King, T. Ballinger)

REVIEW OF THE
2018 TEN-YEAR SITE PLANS
OF FLORIDA'S ELECTRIC UTILITIES



FLORIDA
PUBLIC
SERVICE
COMMISSION

OCTOBER 2018

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List of Ten-Year Site Plan Utilities

Name	Abbreviation
Investor-Owned Electric Utilities	
Florida Power & Light Company	FPL
Duke Energy Florida, LLC	DEF
Tampa Electric Company	TECO
Gulf Power Company	GPC
Municipal Electric Utilities	
Florida Municipal Power Agency	FMPA
Gainesville Regional Utilities	GRU
JEA	JEA
Lakeland Electric	LAK
Orlando Utilities Commission	OUC
City of Tallahassee Utilities	TAL
Rural Electric Cooperatives	
Seminole Electric Cooperative	SEC

Executive Summary

Integrated resource planning (IRP) is a utility process that includes a cost-effective combination of demand-side resources and supply-side resources. While each utility has slightly different approaches to IRP, some things are consistent across the industry. Each utility must update its load forecast assumptions based on Florida Public Service Commission (Commission) decisions in various dockets, such as demand-side management goals. Changes in government mandates, such as appliance efficiency standards, building codes and environmental requirements, must also be considered. Other input assumptions such as demographics, financial parameters, generating unit operating characteristics, fuel costs, etc. are more fluid and do not require prior approval by the Commission. Each utility then conducts a reliability analysis to determine when resources may be needed to meet expected load. Next, an initial screening of demand-side and supply-side resources is performed to find candidates that meet the expected resource need. The demand-side and supply-side resources are combined in various scenarios to decide which combination meets the need most cost-effectively. After the completion of all these components, utility management reviews the results of the varying analyses and the utility's Ten-Year Site Plan (TYSP or Plan) is produced as the culmination of the IRP process. Commission Rules also require the utilities to provide aggregate data which provides an overview of the State of Florida electric grid.

The Commission's annual review of utility Ten-Year Site Plans is non-binding but it does provide state, regional, and local agencies advance notice of proposed power plants and transmission facilities. Any concerns identified during the review of the utilities' Ten-Year Site Plans may be addressed by the Commission at a formal public hearing, such as a power plant need determination proceeding. While Florida Statutes and Commission Rules do not specifically define IRP, they do provide a solid framework for flexible, cost-effective utility resource planning. In this way, the Commission fulfills its oversight and regulatory responsibilities while leaving day-to-day planning and operations to utility management.

Pursuant to Section 186.801, Florida Statutes (F.S.), each generating electric utility must submit to the Commission a Ten-Year Site Plan which estimates the utility's power generating needs and the general locations of its proposed power plant sites over a 10-year planning horizon. The Ten-Year Site Plans of Florida's electric utilities summarize the results of each utility's IRP process and identifies proposed power plants and transmission facilities. The Commission is required to perform a preliminary study of each plan and classify each one as either "suitable" or "unsuitable." This document represents the review of the 2018 Ten-Year Site Plans for Florida's electric utilities, filed by 11 reporting utilities.¹

All findings of the Commission are made available to the Florida Department of Environmental Protection for its consideration at any subsequent certification proceeding pursuant to the

¹Investor-owned utilities filing 2018 TYSPs include Florida Power & Light Company (FPL), Duke Energy Florida, LLC. (DEF), Tampa Electric Company (TECO), and Gulf Power Company (GPC). Municipal utilities filing 2018 TYSPs include Florida Municipal Power Agency (FMPA), Gainesville Regional Utilities (GRU), JEA (formerly Jacksonville Electric Authority), Lakeland Electric (LAK), Orlando Utilities Commission (OUC), and City of Tallahassee Utilities (TAL). Seminole Electric Cooperative (SEC) also filed a 2018 TYSP.

Electrical Power Plant Siting Act or the Electric Transmission Line Siting Act.² In addition, this document is sent to the Florida Department of Agriculture and Consumer Services pursuant to Section 377.703(2)(e), F.S., which requires the Commission provide a report on electricity and natural gas forecasts.

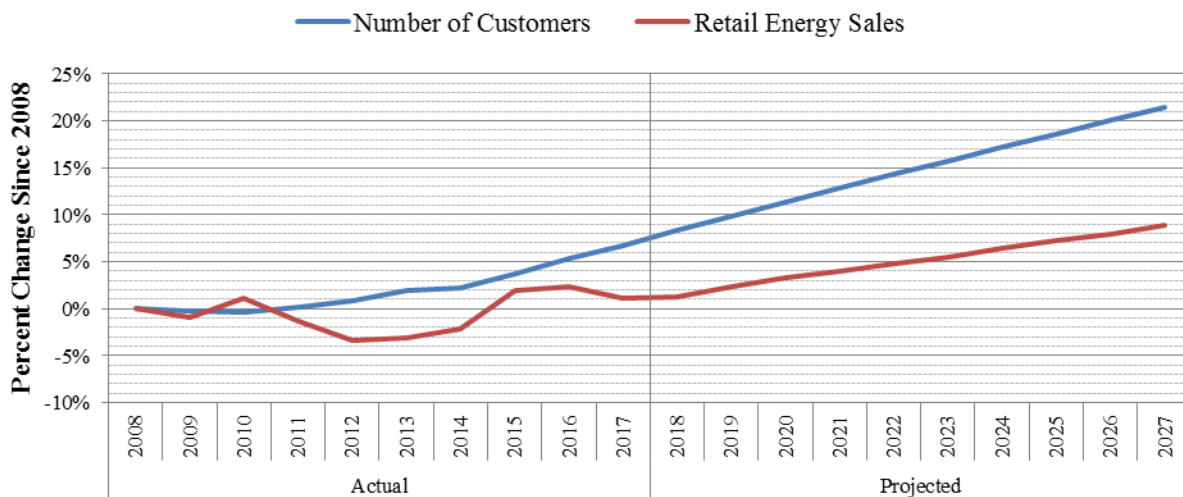
Review of the 2018 Ten-Year Site Plans

The Commission has divided this review into two portions: (1) a Statewide Perspective, which covers the whole of Florida; and (2) Utility Perspectives, which address each of the reporting utilities. From a statewide perspective, the Commission has reviewed the implications of the combined trends of Florida’s electric utilities regarding load forecasting, renewable generation, and traditional generation.

Load Forecasting

Forecasting load growth is an important component of system planning for Florida’s electric utilities. Florida’s electric utilities reduce the rate of growth in customer peak demand and annual energy consumption through demand-side management programs. The Commission, through its authority granted by Sections 366.80 through 366.83 and Section 403.519, F.S., otherwise known as the Florida Energy Efficiency and Conservation Act (FEECA), encourages demand-side management by establishing goals for the reduction of seasonal peak demand and annual energy consumption for those utilities under its jurisdiction. Based on current projections, Florida’s electric utilities anticipate exceeding the 2010 peak by 2020. Figure 1 details these trends.

Figure 1: State of Florida - Growth in Customers and Sales



Source: 2018 FRCC Load and Resource Plan

²The Electrical Power Plant Siting Act is Sections 403.501 through 403.518, F.S. Pursuant to Section 403.519, F.S., the Commission is the exclusive forum for the determination of need for an electrical power plant. The Electric Transmission Line Siting Act is Sections 403.52 through 403.5365, F.S. Pursuant to Section 403.537, F.S., the Commission is the sole forum for the determination of need for a transmission line.

Renewable Generation

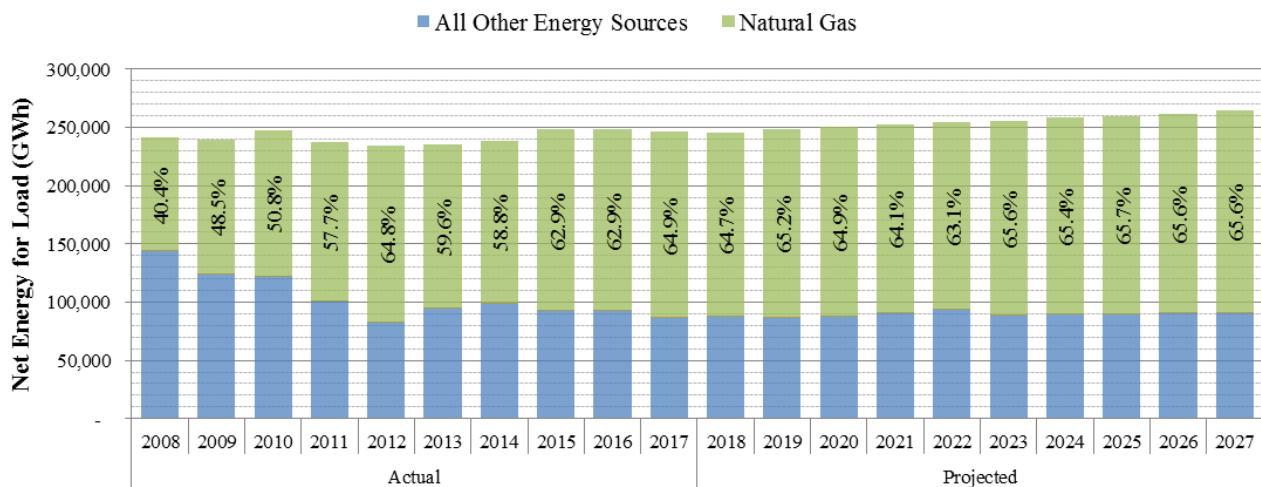
Renewable resources continue to expand in Florida, with approximately 2,583 MW of renewable generating capacity currently installed in Florida. The majority of installed renewable capacity is represented by biomass, solar, and municipal solid waste, making up approximately 73 percent of Florida’s renewables. Other major renewable types, in order of capacity contribution, include waste heat, wind, landfill gas, and hydroelectric. Notably, Florida electric customers had installed 205 MW of demand-side renewable at the end of 2017, resulting in an increase in capacity of 45.4 percent from 2016.

Florida’s total renewable resources are expected to increase by an estimated 7,049 MW over the 10-year planning period, excluding any potential demand-side renewable energy additions. Over three-quarters of the projected capacity additions are solar photovoltaic generation. Some utilities are including a portion of these solar resources as a firm resource for reliability considerations. Reasons given for these additions are a continued reduction in the price of solar facilities, availability of utility property with access to the grid, and actual performance data obtained during solar demonstration projects. If these conditions continue, cost-effective forms of renewable generation will continue to improve the state’s fuel diversity and reduce dependence on fossil fuels.

Traditional Generation

Generating capacity within Florida is anticipated to grow to meet the increase in customer demand, with approximately 8,190 MW of new utility-owned generation added over the planning horizon. This figure represents a decrease from the previous year, which estimated the need for about 8,850 MW new generation. While natural gas usage is expected to grow slowly, natural gas remains the dominant fuel over the planning horizon, with usage in 2017 at approximately 65 percent of the state’s net energy for load (NEL). Figure 2 illustrates the use of natural gas as a generating fuel for electricity production in Florida.

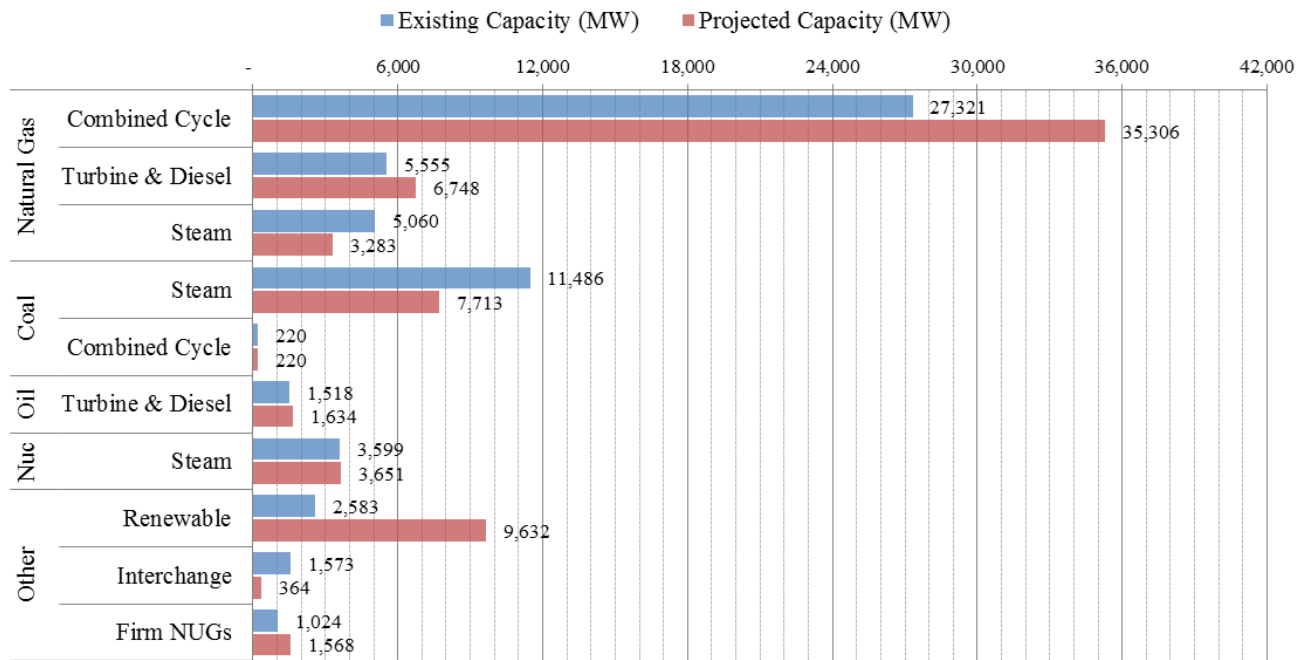
Figure 2: State of Florida - Natural Gas Contribution to Energy Consumption



Source: 2009-2018 FRCC Load and Resource Plan

Based on the 2018 Ten-Year Site Plans, Figure 3 illustrates the present and future aggregate capacity mix of Florida. The capacity values in Figure 3 incorporate all proposed additions, changes, and retirements planned during the 10-year period. As in previous planning cycles, natural gas-fired generating units make up a majority of the generation additions and now represent a majority of capacity within the state. However, this planning cycle differs from previous cycles in that renewable capacity is projected to surpass coal generation, becoming the second highest installed capacity source in the state.

Figure 3: State of Florida - Current and Projected Installed Capacity by Fuel



Source: 2018 FRCC Load & Resource Plan and TYSP Data Responses

As noted previously, the primary purpose of this review is to provide information regarding proposed electric power plants for local and state agencies to assist in the certification process. Table 1 displays those planned generation facilities that have not yet received a determination of need from the Commission. A petition for a determination of need is generally anticipated four years in advance of the in-service date for a natural gas-fired combined cycle unit.

Table 1: State of Florida - Planned Units Requiring a Determination of Need

Year	Utility Name	Unit Name	Fuel & Unit Type	Net Capacity (Sum MW)
2024	GPC	Unspecified CC	Natural Gas Combined Cycle	595

Source: 2018 Ten-Year Site Plans

Future Concerns

Florida’s electric utilities must also consider environmental concerns associated with existing generators and planned generation to meet Florida’s electric needs. The U.S. Environmental Protection Agency (EPA) has finalized several new rules that are expected to have a sizeable impact on Florida’s existing generation fleet, as well as on its proposed new facilities.

The EPA published final rules in October 2015 associated with carbon pollution for existing power plants, also known as the Clean Power Plan. On the same date, the EPA also published final rules setting carbon emissions limits for new facilities. On October 10, 2017, the EPA proposed a repeal of the Clean Power Plan. On August 21, 2018, as part of its proposed Affordable Clean Energy Rule, the EPA proposed updates to the New Source Review permitting program that may impact utility decisions regarding power plant modifications and reconstruction. These recent regulatory developments will be addressed in a subsequent Ten-Year Site Plan review, and the potential effects on Florida’s electric utilities are not considered as part of this review

Conclusion

The Commission has reviewed the 2018 Ten-Year Site Plans and finds that the projections of load growth appear reasonable. The reporting utilities have identified sufficient additional generation facilities to maintain an adequate supply of electricity at a reasonable cost. The Commission will continue to monitor the impact of current and proposed EPA Rules and the state’s dependence on natural gas for electricity production.

Based on its review, the Commission finds the 2018 Ten-Year Site Plans to be suitable for planning purposes. Since the Plans are not a binding plan of action for electric utilities, the Commission’s classification of these Plans as suitable or unsuitable does not constitute a finding or determination in docketed matters before the Commission. The Commission may address any concerns raised by a utility’s Ten-Year Site Plan at a public hearing.

Introduction

The Ten-Year Site Plans of Florida's electric utilities are the culmination of an integrated resource plan which is designed to give state, regional, and local agencies advance notice of proposed power plants and transmission facilities. The Commission receives comments from these agencies regarding any issues with which they may have concerns. The Plans are planning documents that contain tentative data that is subject to change by the utilities upon written notification to the Commission.

For any new proposed power plants and transmission facilities, certification proceedings under the Florida Electrical Power Plant Siting Act, Sections 403.501 through 403.518, Florida Statutes (F.S.), or the Florida Electric Transmission Line Siting Act, Sections 403.52 through 403.5365, F.S., will include more detailed information than is provided in the Plans. The Commission is the exclusive forum for determination of need for electrical power plants, pursuant to Section 403.519, F.S., and for transmission lines, pursuant to Section 403.537, F.S. The Plans are not intended to be comprehensive, and therefore may not have sufficient information to allow regional planning councils, water management districts, and other reviewing state and local agencies to evaluate site-specific issues within their respective jurisdictions. Other regulatory processes may require the electric utilities to provide additional information as needed.

Statutory Authority

Section 186.801, F.S., requires all major generating electric utilities submit a Ten-Year Site Plan to the Commission. Based on these filings, the Commission performs a preliminary study of each Plan and makes a non-binding determination as to whether it is suitable or unsuitable. The results of the Commission's study are contained in this report, the Review of the 2018 Ten-Year Site Plans, and are forwarded to the Florida Department of Environmental Protection for use in subsequent proceedings. In addition, Section 377.703(2)(e), F.S., requires the Commission to collect and analyze energy forecasts, specifically for electricity and natural gas, along with the Department of Agriculture and Consumer Services. The Commission has adopted Rules 25-22.070 through 25-22.072, Florida Administrative Code (F.A.C.) in order to fulfill these statutory requirements and provide a solid framework for flexible, cost-effective utility resource planning. In this way, the Commission fulfills its oversight and regulatory responsibilities while leaving day-to-day planning and operations to utility management.

Applicable Utilities

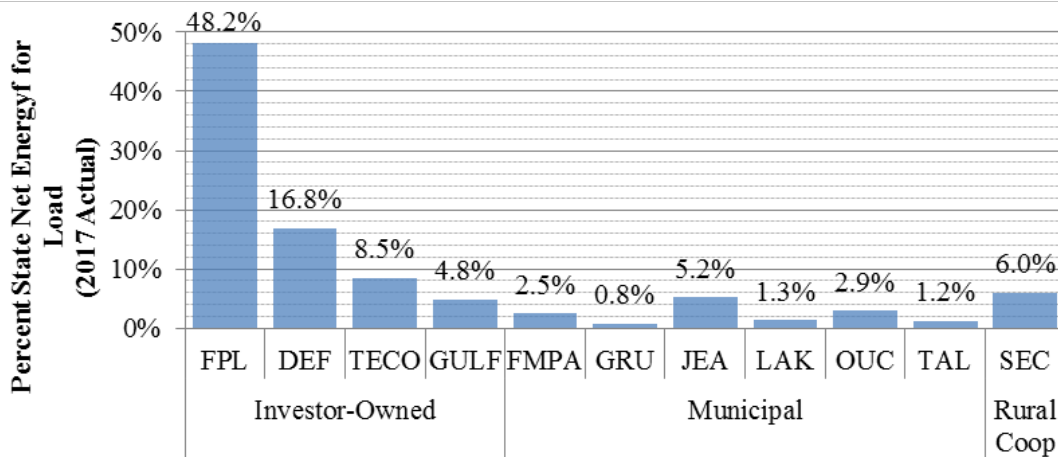
Florida is served by 57 electric utilities, including 5 investor-owned utilities, 35 municipal utilities, and 17 rural electric cooperatives. Pursuant to Rule 25-22.071(1), F.A.C., only generating electric utilities with an existing capacity above 250 megawatts (MW) or a planned unit with a capacity of 75 MW or greater are required to file with the Commission a Ten-Year Site Plan every year.

In 2018, 11 utilities met these requirements and filed a Ten-Year Site Plan, including 4 investor-owned utilities, 6 municipal utilities, and 1 rural electric cooperative. The investor-owned utilities, in order of size, are Florida Power & Light Company (FPL), Duke Energy Florida, LLC (DEF), Tampa Electric Company (TECO), and Gulf Power Company (GPC). The municipal utilities, in alphabetical order, are Florida Municipal Power Agency (FMPA), Gainesville

Regional Utilities (GRU), JEA (formerly Jacksonville Electric Authority), Lakeland Electric (LAK), Orlando Utilities Commission (OUC), and City of Tallahassee Utilities (TAL). The sole rural electric cooperative filing a 2018 Plan is Seminole Electric Cooperative (SEC). Collectively, these utilities are referred to as the Ten-Year Site Plan Utilities (TYSP Utilities).

Figure 4 illustrates the comparative size of the TYSP Utilities, in terms of each utility’s percentage share of the state’s retail energy sales in 2017. Combined, the reporting investor-owned utilities account for 78.3 percent of the state’s retail energy sales. The reporting municipal and cooperative utilities make up approximately 19.9 percent of the state’s retail energy sales.

Figure 4: TYSP Utilities - Comparison of Reporting Electric Utility Size



Source: 2018 Ten-Year Site Plans, 2018 FRCC Load & Resource Plan

Required Content

The Commission requires each reporting utility to provide information on a variety of topics. Schedules describe the utility’s existing generation fleet, customer composition, demand and energy forecasts, fuel requirements, reserve margins, changes to existing capacity, and proposed power plants and transmission lines. The utilities also provide a narrative documenting the methodologies used to forecast customer demand and the identification of resources to meet that demand over the 10-year planning period. This information, supplemented by additional data requests, provides the basis of the Commission’s review.

Additional Resources

The Commission’s Rules also task the reporting electric utilities with collecting information on both a statewide basis and for Peninsular Florida, which excludes the area west of the Apalachicola River. The Florida Reliability Coordinating Council (FRCC) provides this aggregate data for the Commission’s review. Each year, the FRCC publishes a Regional Load and Resource Plan, which contains historic and forecast data on demand and energy, capacity and reserves, and proposed new generating units and transmission line additions. In addition, the FRCC publishes an annual Reliability Report used for this review. Certain comparisons

additional data from various government agencies is relied upon, including the Energy Information Administration and the Florida Department of Highway Safety and Motor Vehicles.

Commission staff held a public workshop on October 29, 2018, (previously scheduled for October 11, 2018), to facilitate discussion of the annual planning process and allow for public comments. A presentation was conducted by the FRCC summarizing the 2018 Load and Resource Plan and other related matters, including fuel supply reliability, environmental regulations, and physical security of infrastructure. Presentations were also provided by FPL and DEF, on battery storage.

Structure of the Commission's Review

The Commission's review is divided into multiple sections. The Statewide Perspective provides an overview of Florida as a whole, including discussions of load forecasting, renewable generation, and traditional generation. The Utility Perspectives provides more focus, discussing the various issues facing each electric utility and its unique situation. Comments collected from various review agencies, local governments, and other organizations are included in Appendix A.

Conclusion

Based on its review, the Commission finds all 11 reporting utilities' 2018 Ten-Year Site Plans to be suitable for planning purposes. During its review, the Commission has determined that the projections for load growth appear reasonable and that the reporting utilities have identified sufficient generation facilities to maintain an adequate supply of electricity at a reasonable cost.

The Commission notes that, as the Ten-Year Site Plans are non-binding, the classification of suitable does not constitute a finding or determination in any docketed matter before the Commission, nor an approval of all planning assumptions contained within the Ten-Year Site Plans. The Commission may address any concerns raised by a utility's Ten-Year Site Plan at a public hearing.

Statewide Perspective

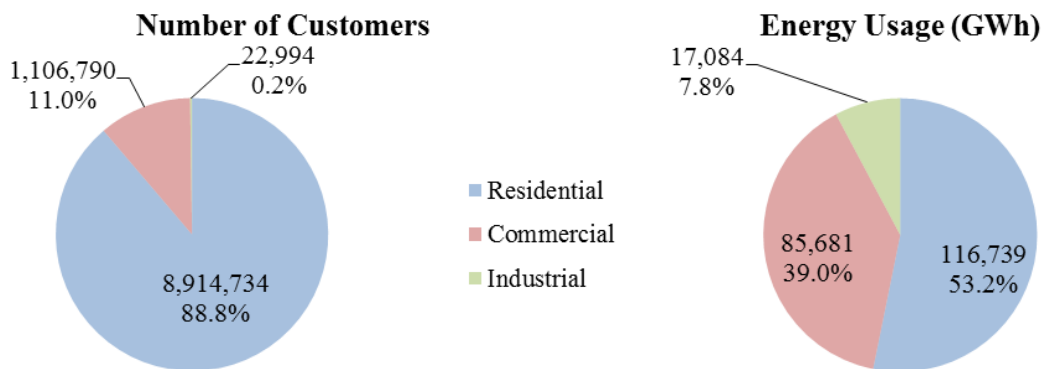
Load Forecasting

Forecasting load growth is an important component of the IRP process for Florida’s electric utilities. In order to maintain system reliability, utilities must be prepared for future changes in electricity consumption, including changes to the number of electric customers, customer usage patterns, building codes and appliance efficiency standards, new technologies such as electric vehicles, and the role of demand-side management.

Electric Customer Composition

Utility companies categorize their customers by residential, commercial, and industrial classes. As of January 1, 2018, residential customers account for 88.8 percent of the total, followed by commercial (11.0 percent) and industrial (0.2 percent) customers, as illustrated in Figure 5. Commercial and industrial customers make up a sizeable percentage of energy sales, due to their higher energy usage per customer.

Figure 5: State of Florida - Electric Customer Composition in 2017



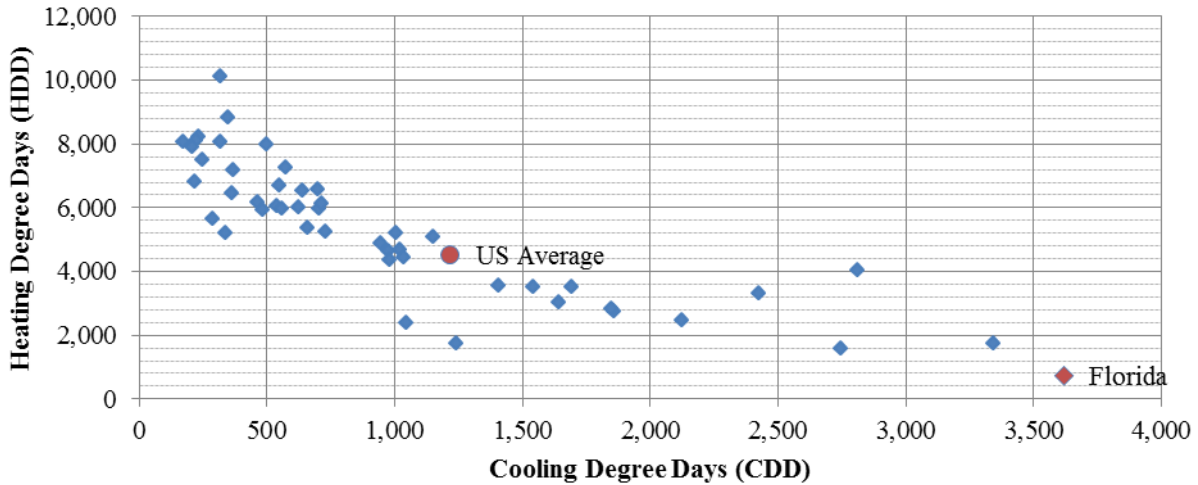
Source: FRCC 2018 Load & Resource Plan

Residential customers in Florida make up the largest portion of retail energy sales. Florida’s residential customers accounted for 53.2 percent of retail energy sales in 2017, compared to a national average of 37.4 percent.³ As a result, Florida’s utilities are influenced more by trends in residential energy usage, which tend to be associated with weather conditions. In addition, Florida’s residential customers rely more upon electricity for heating than the national average, with only a small portion using alternate fuels such as natural gas or oil for home heating needs.

³U.S. Energy Information Administration June 2018 Electric Power Monthly.

Florida’s unique climate plays an important role in electric utility planning, with the highest number of cooling degree days and lowest number of heating degree days within the continental United States, as shown in Figure 6. Other states tend to rely upon alternative fuels for heating, but Florida’s heavy use of electricity results in high winter peak demand.

Figure 6: National - Climate Data by State (Continental US)

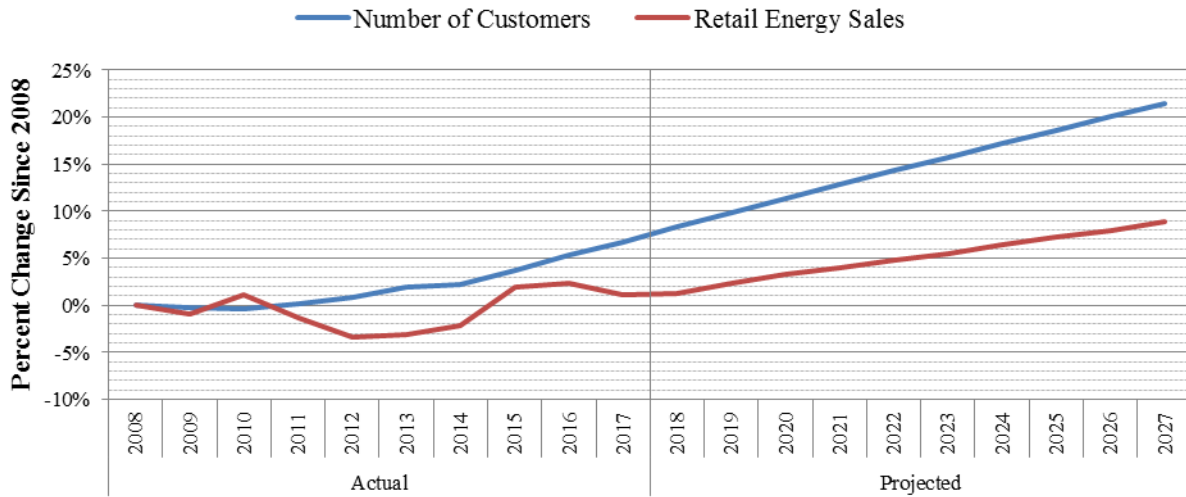


Source: National Oceanic & Atmospheric Administration, Historical Climatology Series 5-1 and 5-2

Growth Projections

For the next 10-year period, Florida’s retail sales are anticipated to grow at a faster pace than the last few years, breaking a trend of flattening retail sales. While this rate remains below that experienced before 2007, it would set Florida on track to exceed its 2007 retail sales peak by 2020. The current divide between customers and retail sales is anticipated to remain similar over the 10-year period, with customers growing at an average annual rate of about 1.28 percent, while retail sales increase by about 0.81 percent annually. Florida’s electric utilities are projecting an increase in economic growth in the state, but at levels below those experienced before 2007. The trends are showcased in Figure 7 below.

Figure 7: State of Florida - Growth in Customers and Sales



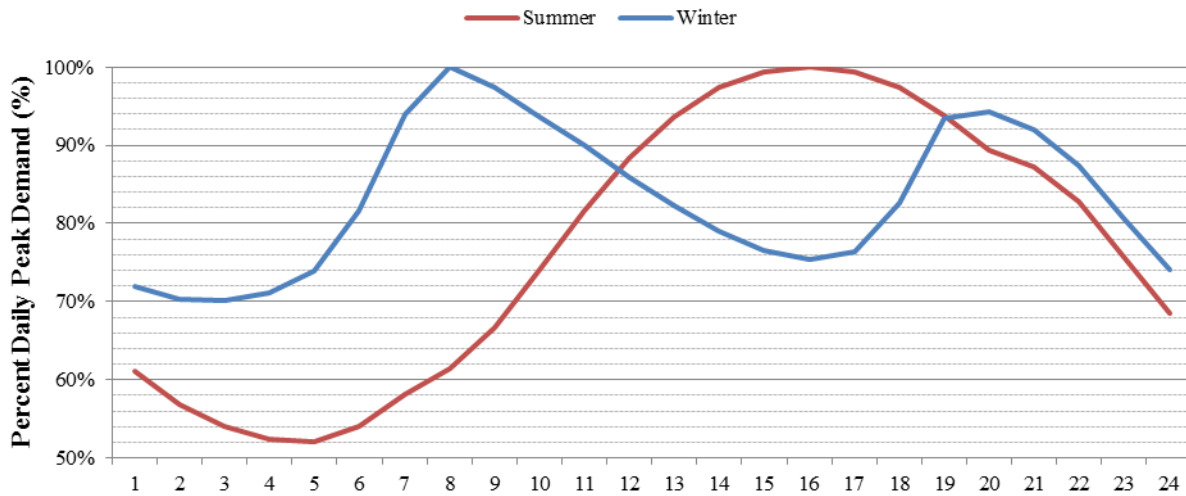
Source: FRCC 2018 Load & Resource Plan

Peak Demand

The aggregation of each individual customer’s electric consumption must be met at all times by Florida’s electric utilities to ensure reliable service. The time at which customers demand the most energy simultaneously is referred to as peak demand. While retail energy sales dictate the amount of fuel consumed by the electric utilities to deliver energy, peak demand determines the amount of generating capacity required to deliver that energy at a single moment in time.

A primary factor in this is seasonal weather patterns, with peak demands calculated separately for the summer and winter periods annually. The influence of residential customers is evident in the determination of these seasonal peaks, as they correspond to times of increased usage to meet home heating (winter) and cooling (summer) demand. Figure 8 illustrates a daily load curve for a typical day for each season. In summer, air-conditioning needs increase throughout the day, climbing steadily until a peak is reached in the late afternoon and then declining into the evening. In winter, electric heat and electric water heating produce a higher base level of usage, with a large spike in the morning and a smaller spike in the evening.

Figure 8: TYSP Utilities - Example Daily Load Curves

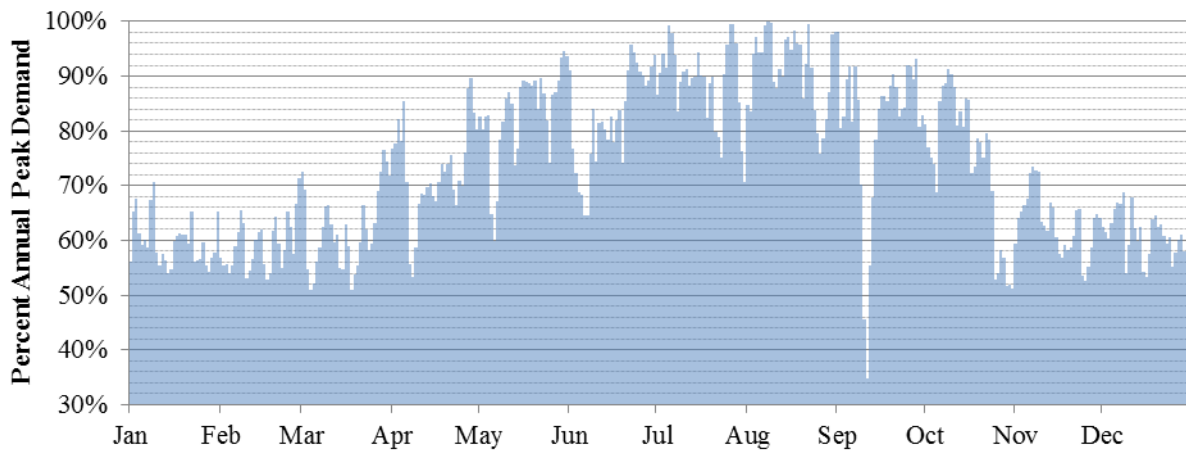


Source: TYSP Utilities Data Responses

Florida is typically a summer-peaking state, meaning that the summer peak demand generally exceeds winter peak demand, and therefore controls the amount of generation required. Higher temperatures in summer also reduce the efficiency of generation, with high water temperatures reducing the quality of cooling provided, and can sometimes limit the quantity as units may be required to operate at reduced power or go offline based on environmental permits. Conversely, in winter, utilities can take advantage of lower ambient air and water temperatures to produce more electricity from a power plant.

As daily load varies, so do seasonal loads. Figure 9 shows the 2017 daily peak demand as a percentage of the annual peak demand for the reporting investor-owned utilities combined. Typically, winter peaks are short events while summer demand tends to stay at near peak levels for longer periods. The periods between seasonal peaks are referred to as shoulder months, in which the utilities take advantage of lower demand to perform maintenance without impacting their ability to meet daily peak demand.

Figure 9: TYSP Utilities - Daily Peak Demand (2017 Actual)



Source: TYSP Utilities Data Responses (Investor-Owned Utilities Only)

Unusual events such as natural disasters can also impact load, due to evacuations and potential damage to infrastructure. These impacts, however, tend to be temporary, with system load quickly returning to season norms as infrastructure is repaired and customers return. Figure 9 exemplifies this in the loss of load shown during the first half of September, when Hurricane Irma caused widespread damage throughout much of Florida.

Florida's utilities assume normalized weather in forecasts of peak demand. During operation of their systems, they continuously monitor short-term weather patterns. Utilities adjust maintenance schedules to ensure the highest unit availability during the utility's projected peak demand, bringing units back online if necessary or delaying maintenance until after a weather system has passed.

Electric Vehicles

Utilities also examine other trends that may impact customer peak demand and energy consumption. These include new sources of energy consumption, such as electric vehicles, which can be considered analogous to home air conditioning systems in terms of system demand. At present, the reporting electric utilities estimate approximately 27,500 electric plug-in vehicles were operating in Florida at the end of 2017. The Florida Department of Highway Safety and Motor Vehicles lists the number of registered automobiles, pickups, and buses in Florida, as of December 3, 2017, as 16.5 million vehicles, resulting in 0.17 percent penetration rate of electric vehicles.

Florida's electric utilities anticipate growth in the electric vehicle market, as illustrated in Table 2. Electric vehicle ownership is anticipated to grow rapidly throughout the planning period, resulting in approximately 420,000 electric vehicles operating within the electric service territories by the end of 2027.

**Table 2: TYSP Utilities - Estimated Number of Electric Vehicles by Service Territory
(Five-Year Rolling Average)**

Year	FPL	DEF	TECO	GULF	JEA	OUC	TAL	Total
2017	17,753	4,945	2,008	449	968	485	1,365	27,488
2018	22,830	8,665	2,532	635	1,209	609	1,379	37,250
2019	29,076	12,327	2,866	809	1,527	757	1,392	47,997
2020	39,071	16,817	3,133	959	1,910	938	1,406	63,296
2021	52,564	22,573	3,385	1,094	2,351	1,160	1,420	83,387
2022	70,779	30,270	3,842	1,243	2,853	1,432	1,435	110,422
2023	95,370	40,096	4,490	1,412	3,412	1,767	1,449	146,229
2024	133,309	52,283	5,385	1,605	4,026	2,180	1,463	198,071
2025	179,786	67,271	6,899	1,861	4,698	2,690	1,478	261,993
2026	242,529	84,285	8,794	2,149	5,429	3,318	1,493	344,679
2027	290,930	103,071	11,170	2,498	6,219	4,093	1,508	419,489

Source: TYSP 2018 Data Responses

In terms of energy consumed by electric vehicles, Table 3 illustrates the estimates provided by the reporting utilities. The anticipated growth would result in an annual energy consumption of 1,697 GWh by 2027. Current estimates represent a less than 1 percent impact on net energy for load by 2027.

Table 3: TYSP Utilities - Estimated Electric Vehicle Annual Energy Consumption (GWh)

Year	FPL	DEF	TECO	GULF	JEA	OUC	TAL*	Total
2017	-	-	10.4	1.6	6.0	2.3	-	20.2
2018	30.0	4.6	13.7	2.2	7.2	2.9	-	60.6
2019	58.0	15.6	15.8	2.7	9.1	3.6	-	104.7
2020	103.0	29.7	17.5	3.2	11.4	4.4	-	169.2
2021	164.0	47.6	19.1	3.6	14.2	5.4	-	253.9
2022	246.0	71.4	22.0	4.0	17.6	6.7	-	367.7
2023	357.0	102.6	26.1	4.4	21.6	8.2	-	519.9
2024	528.0	142.8	31.7	4.9	26.1	10.1	-	743.7
2025	738.0	192.7	41.3	5.7	31.3	12.5	-	1,021.5
2026	1,021.0	252.6	53.2	6.6	37.2	15.4	-	1,386.0
2027	1,239.0	319.7	68.2	7.7	43.8	19.0	-	1,697.4

Source: TYSP 2018 Data Responses

*City of Tallahassee Utilities did not provide estimates of electric vehicle annual energy consumption.

The effect of increased electric vehicle ownership on peak demand is more difficult to determine. While comparable in electric demand to a home air conditioning system, the time of charging and whether charging would be shifted away from periods of peak demand are uncertainties. As electric vehicle ownership increases, the projected impacts of electric vehicles on system peak

demand should become clearer and electric utilities will be better positioned to respond accordingly.

In order to investigate potential unknowns associated with the electric vehicle energy market in Florida, several utilities have initiated Commission-approved electric vehicle pilot programs. The nature of these pilot programs vary among utilities, but include investments in vehicle charging infrastructure, research partnerships, and electric vehicle rebate programs. Utilities will note key findings and track metrics of interest within these pilot programs to help inform the Commission regarding the future power needs of electric vehicles in Florida.

Demand-Side Management

Florida's electric utilities also consider how the efficiency of customer energy consumption changes over the planning period. Changes in government mandates, such as building codes and appliance efficiency standards, reduce the amount of energy consumption for new construction and electric equipment. Electric customers, through the power of choice, can elect to engage in behaviors that decrease peak load or annual energy usage. Examples include: turning off lights and fans in vacant rooms, increasing thermostat settings, and purchasing appliances that go beyond efficiency standards. While a certain portion of customers will engage in these activities without incentives due to economic, aesthetic, or environmental concerns, other customers may lack information or require additional incentives. Demand-side management represents an area where Florida's electric utilities can empower and educate its customers to make choices that reduce peak load and annual energy consumption.

Florida Energy Efficiency and Conservation Act (FEECA)

The Florida Legislature has directed the Commission to encourage utilities to decrease the growth rates in seasonal peak demand and annual energy consumption by FEECA, which consists of Sections 366.80 through 366.83 and Section 403.519, F.S. Under FEECA, the Commission is required to set goals for seasonal demand and annual energy reduction for seven electric utilities, known as the FEECA Utilities. These include the five investor-owned electric utilities (including Florida Public Utility Company, which is a non-generating utility and therefore does not file a Ten-Year Site Plan) and two municipal electric utilities (JEA and OUC). The FEECA utilities represented approximately 86 percent of 2017 retail sales in Florida.

The FEECA Utilities currently offer demand-side management programs for residential, commercial, and industrial customers. Energy audit programs are designed to provide an overview of customer energy usage and to evaluate conservation opportunities, including behavioral changes, low-cost measures customers can undertake themselves, and participation in utility-sponsored DSM programs.

The last FEECA goal-setting proceeding was completed in December 2014, establishing goals for the period 2015 through 2024. During 2015, the Commission reviewed the FEECA Utilities' proposed DSM Plans to comply with the established goals, approving the plans with some modifications in July 2015. The 2018 Ten-Year Site Plans incorporate the impacts of the DSM Plans established by the Commission for the planning period. The next FEECA goal-setting proceeding will occur in 2019, which will establish goals for the period 2020 through 2029.

DSM Programs

DSM Programs generally are divided into three categories: interruptible load, load management, and energy efficiency. The first two are considered dispatchable, and are collectively known as demand response, meaning that the utility can call upon them during a period of peak demand or other reliability concerns, but otherwise they are not utilized. In contrast, energy efficiency measures are considered passive and are always working to reduce customer demand and energy consumption.

Interruptible load is achieved through the use of agreements with large customers to allow the utility to interrupt the customer's load, reducing the generation required to meet system demand. Interrupted customers may use back-up generation to fill their energy needs, or cease operation until the interruption has passed. A subtype of interruptible load is curtailable load, which allow the utility to interrupt only a portion of the customer's load. In exchange for the ability to interrupt these customers, the utility offers a discounted rate for energy or other credits which are paid for by all ratepayers.

Load management is similar to interruptible load, but focuses on smaller customers and targets individual appliances. The utility installs a device on an electric appliance, such as a water heater or air conditioner, which allows for remote deactivation for a short period of time. Load management activations tend to have less advanced notice than those for interruptible customers, but tend to be activated only for short periods and are cycled through groups of customers to reduce the impact to any single customer. Due to the focus on specific appliances, certain appliances would be more appropriate for addressing certain seasonal demands. For example, load management programs targeting air conditioning units would be more effective to reduce a summer peak, while water heaters are more effective for reducing a winter peak.

As of 2018, demand response available for reduction of peak load is 2,956 MW for summer peak and 2,762 MW for winter peak. Demand response is anticipated to increase to approximately 3,334 MW for summer peak and 3,124 MW for winter peak by the end of the planning period in 2027.⁴

Energy efficiency or conservation measures also have an impact on peak demand, and due to their passive nature do not require activation by the utility. Conservation measures include improvements in a home or business' building envelope to reduce heating or cooling needs, or the installation of more efficient appliances. By installing additional insulation, energy-efficient windows or window films, and more efficient appliances, customers can reduce both their peak demand and annual energy consumption, leading to reductions in customer bills. Demand-side management programs work in conjunction with building codes and appliance efficiency standards to increase energy savings above the minimum required by local, state, or federal regulations. As of 2018, energy efficiency is responsible for peak load reductions of 4,333 MW for summer peak and 3,830 MW for winter peak. Energy efficiency is anticipated to increase to approximately 4,981 MW for summer peak and 4,431 MW for winter peak by the end of the planning period in 2027.⁵

⁴ TYSP Utilities Data Responses

⁵ Id.

Forecast Load & Peak Demand

The historic and forecasted seasonal peak demand and annual energy consumption values for Florida are illustrated in Figure 10. It should be noted, that the forecasts shown below are based upon normalized weather conditions, while the historic demand and energy values represent the actual impact of weather conditions on Florida's electric customers. Florida relies heavily upon both air conditioning in the summer and electric heating in the winter, so both seasons experience a great deal of variability due to severe weather conditions.

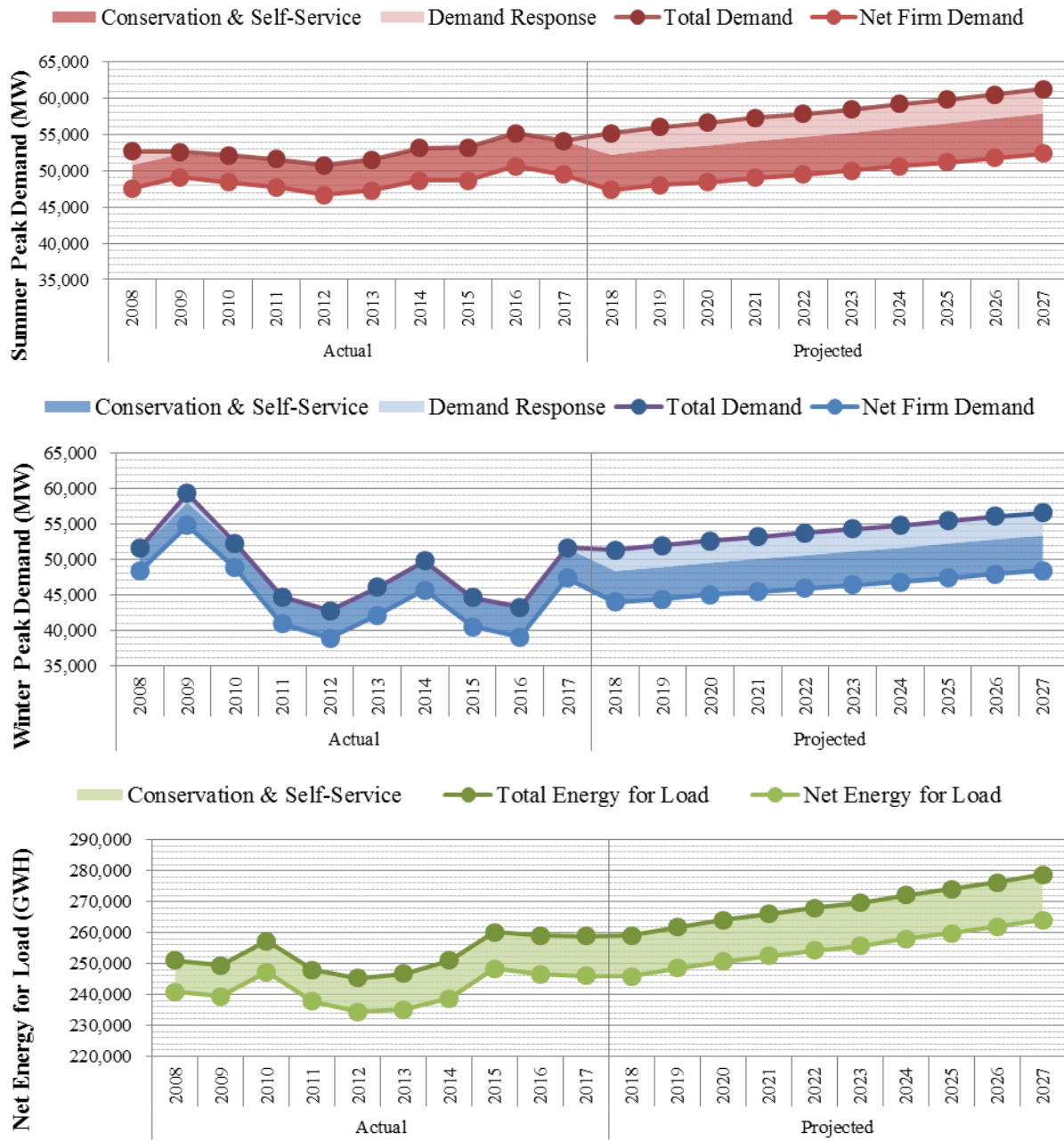
Demand-side management, including demand response and energy efficiency, along with self-service generation is included in each figure for seasonal peak demand and annual energy for load. The total demand or total energy for load represents what otherwise would need to be served if not for the impact of these programs and self-service generators. The net firm demand is used as a planning number for the calculation of generating reserves and determination of generation needs for Florida's electric utilities.

Demand response is included in Figure 10, in two different ways based upon the time period considered. For historic values of seasonal demand, the actual rates of demand response activation are shown, not the full amount demand response that was available at the time. Overall, demand response has only been partially activated as sufficient generation assets were available during the annual peak. Residential load management has been called upon to a limited degree during peak periods, with a lesser amount of interruptible load activated. The primary exception to this trend was the summer of 2008 and winter of 2009, when a larger portion of the available demand response resources were called upon.

For forecast values of seasonal demand, it is assumed that all demand response resources will be activated during peak. The assumption of all demand response being activated reduces generation planning need. Based on operating conditions in the future, if an electric utility has sufficient generating units, and it is economical to serve all customers load demand, response would not be activated or only partially activated in the future.

As previously discussed, Florida is normally a summer-peaking state. Only three of the past ten years have had higher winter net firm demand than summer, and all ten of the forecast years are anticipated to be summer peaking. Based upon current forecasts using normalized weather data, Florida's electric utilities do not anticipate exceeding the winter 2009 peak during the planning period.

Figure 10: State of Florida - Historic & Forecast Seasonal Peak Demand & Annual Energy



Source: 2018 FRCC Load & Resource Plan

Forecast Methodology

Florida's electric utilities perform forecasts of peak demand and annual energy sales using various forecasting models, including econometric and end-use models, and other forecasting techniques such as surveys. In the development of econometric models, the utilities use historical data sets including dependent variables (e.g. summer peak demand per customer, residential energy use per customer) and independent variables (e.g. cooling degree days, real personal income, etc.) to infer relationships between the two types of variables. These historical relationships, combined with available forecasts of the independent variables and the utilities' forecasts of customers, are then used to forecast the peak demand and energy sales. For some customer classes, such as industrial customers, surveys may be conducted to determine the customers' expectations for their own future electricity consumption.

The forecasts also account for demand-side management programs. Sales models are prepared by revenue class (e.g. residential, small and large commercial, small and large industrial, etc.). Commonly, the results of the models must be adjusted to take into account exogenous impacts, such as the impact of the recent growth in plug-in electric vehicles and distributed generation.

End-use models are sometimes used to project energy use in conjunction with econometric models. End use models are used to capture trends in appliance and equipment saturation and efficiency, as well as building size and thermal efficiency, on residential and commercial energy use. If such end use models are not used, the econometric models for energy often include an index comprised of efficiency standards for air conditioning, heating, and appliances, as well as construction codes for recently built homes and commercial buildings.

Florida's electric utilities rely upon data sourced from public and private entities for historic and forecast values of specific independent variables used in econometric modeling. Public resources such as the University of Florida's Bureau of Economic and Business Research, which provides county-level data on population growth, and the U.S. Department of Commerce's Bureau of Labor Statistics, which publishes the Consumer Price Index, are utilized along with private forecasts for economic growth from macroeconomic experts, such as Moody's Analytics. By combining historic and forecast macroeconomic data with customer and climate data, Florida's electric utilities project future load conditions.

The various forecast models and techniques used by Florida's electric utilities are commonly used throughout the industry, and each utility has developed its own individualized approach to projecting load. The resulting forecasts allow each electric utility to evaluate its individual needs for new generation, transmission, and distribution resources to meet customers' current and future needs reliably and affordably.

For each reporting electric utility, the Commission reviewed the historic forecast accuracy of past retail energy sales forecasts. The review methodology, previously used by the Commission, involves comparing actual retail sales for a given year to energy sales forecasts made three, four, and five years prior. For example, the actual 2017 retail energy sales were compared to the forecasts made in 2012, 2013, and 2014. These differences, expressed as a percentage error rate, are used to determine each utility's historic forecast accuracy using a five-year rolling average. An average error with a negative value indicates an under-forecast, while a positive value

represents an over-forecast. An absolute average error provides an indication of the total magnitude of error, regardless of the tendency to under or over forecast.

For the 2018 TYSPs, determining the accuracy of the five-year rolling average forecasts involves comparing the actual retail energy sales for the period 2013 through 2017 to forecasts made between 2008 and 2014. As discussed previously, the period before the 2007 recession, experienced a higher annual growth rate for retail energy sales than the post-crisis period. As most electric utilities and macroeconomic forecasters did not predict the financial crisis, the economic impact and its resulting effect on retail energy sales of Florida’s electric utilities were not included in these projections. Therefore, the use of a metric that compares pre-recession forecasts with pre-recession actual data has a high rate of error.

Table 4 shows that the forecast errors (the difference between the actual data and the forecasts made five years prior) were increasing with time starting in 2012 due to the unexpected impact of the recession and its impact on retail energy sales in Florida. However, the forecast errors have started to return to lower levels as utility retail sales forecasts include more post-recession years. This was indicated by the actual sales data provided in the 2017 TYSPs. The forecasting error rates (five-year rolling average and/or absolute average) derived from 2018 TYSPs show continued decreases.

Table 4: TYSP Utilities - Accuracy of Retail Energy Sales Forecasts (Five-Year Rolling Average)

Year	Five-Year Analysis Period	Forecast Years Analyzed	Forecast Error (%)	
			Average	Absolute Average
2011	2010 - 2006	2007 - 2001	8.28%	8.29%
2012	2011 - 2007	2008 - 2002	11.93%	11.93%
2013	2012 - 2008	2009 - 2003	15.14%	15.14%
2014	2013 - 2009	2010 - 2004	16.16%	16.16%
2015	2014 - 2010	2011 - 2005	14.90%	14.90%
2016	2015 - 2011	2012 - 2006	12.48%	12.48%
2017	2016 - 2012	2013 - 2007	9.18%	9.18%
2018	2017 - 2013	2014 - 2008	6.08%	6.08%

Source: 2001-2018 Ten-Year Site Plans

To verify whether more recent forecasts lowered the error rates, an additional analysis was conducted to determine with more detail, the source of high error rates in terms of forecast timing. Table 5 provides the error rates for forecasts made between one to six years prior, along with the three-year average and absolute average error rates for the forecasting period of three- to five-year period used in the analysis in Table 4.

As displayed in Table 5 the utilities’ retail energy sales forecasts show a consistent positive error rate beginning in 2007. The error rates reach a peak during the period 2009 through 2013. Starting in 2014, the error rates have declined considerably; and the error rates calculated based the recent years’ TYSPs continue to show lower forecast error rates, compared to the peak value of the error rates related to 2009-2013 sales forecasts. Additionally, the last three years’ one year

ahead forecasts all bear negative error rates (under-forecast), with the current TYSPs showing an even smaller error rate.

**Table 5: TYSP Utilities – Accuracy of Retail Energy Sales Forecasts – Annual Analysis
(Analysis of Annual and Three-Year Average of Three- to Five- Prior Years)**

Year	Annual Forecast Error Rate (%)						3-5 Year Error (%)	
	Years Prior						Average	Absolute Average
	6	5	4	3	2	1		
2006	-3.29%	-0.03%	1.03%	2.30%	2.43%	2.37%	1.10%	1.12%
2007	0.57%	2.26%	3.49%	3.59%	4.20%	3.05%	3.11%	3.11%
2008	7.02%	8.40%	8.56%	9.97%	9.24%	8.34%	8.98%	8.98%
2009	11.95%	12.15%	14.48%	13.91%	12.68%	10.18%	13.51%	13.51%
2010	12.93%	15.57%	14.89%	13.70%	10.55%	-0.73%	14.72%	14.72%
2011	21.56%	20.79%	20.09%	17.02%	3.79%	0.08%	19.30%	19.30%
2012	26.31%	25.97%	23.04%	8.47%	3.90%	3.71%	19.16%	19.16%
2013	28.55%	26.29%	10.00%	5.98%	5.58%	2.97%	14.09%	14.09%
2014	27.28%	9.80%	6.10%	5.73%	2.84%	2.21%	7.21%	7.21%
2015	7.29%	3.63%	3.23%	1.02%	0.00%	-1.17%	2.63%	2.63%
2016	4.49%	4.54%	2.44%	1.40%	0.35%	-0.82%	2.79%	2.79%
2017	6.99%	4.93%	3.59%	2.53%	1.57%	-0.07%	3.68%	3.68%

Source: 2001-2018 Ten-Year Site Plans

Barring any unforeseen economic crises or atypical weather patterns, average forecasted energy sales error rates in the next few years are likely to be more reflective of the error rates shown for 2015 through 2017 in Table 5 than the significantly higher error rates shown in earlier years associated with the recession. It is important to recognize that the dynamic nature of the economy and the weather continue to present a degree of uncertainty for Florida utilities' load forecasts, ultimately impacting the accuracy of energy sales forecasts.

Renewable Generation

Pursuant to Section 366.91, F.S., it is in the public interest to promote the development of renewable energy resources in Florida. Section 366.91(2)(d), F.S., defines renewable energy in part, as follows:

“Renewable energy” means electrical energy produced from a method that uses one or more of the following fuels or energy sources: hydrogen produced from sources other than fossil fuels, biomass, solar energy, geothermal energy, wind energy, ocean energy, and hydroelectric power.

Although not considered a traditional renewable resource, some industrial plants take advantage of waste heat, produced in production processes, to also provide electrical power via cogeneration. Phosphate fertilizer plants, which produce large amounts of heat in the manufacturing of phosphate from the input stocks of sulfuric acid, are a notable example of this type of renewable resource. The Section 366.91(2)(d), F.S., definition also includes the following language which recognizes the aforementioned cogeneration process:

The term [Renewable Energy] includes the alternative energy resource, waste heat, from sulfuric acid manufacturing operations and electrical energy produced using pipeline-quality synthetic gas produced from waste petroleum coke with carbon capture and sequestration.

Existing Renewable Resources

Currently, renewable energy facilities provide approximately 2,583 MW of firm and non-firm generation capacity, which represents 4.3 percent of Florida’s overall generation capacity of 59,948 MW in 2017. Table 6 summarizes the contribution by renewable type of Florida’s existing renewable energy sources.

Table 6: State of Florida - Existing Renewable Resources

Renewable Type	MW	% Total
Solar	804	31.1%
Biomass	592	22.9%
Municipal Solid Waste	484	18.7%
Waste Heat	306	11.8%
Wind*	272	10.5%
Landfill Gas	75	2.9%
Hydro	51	2.0%
Renewable Total	2,583	100.00%
*JEA’s and Gulf’s wind resources are not present in-state.		

Source: FRCC 2018 Load & Resource Plan and TYSP Utilities Data Responses

Of the total 2,583 MW of renewable generation, approximately 780 MW are considered firm, based on either operational characteristics or contractual agreement. Firm renewable generation can be relied on to serve customers and can contribute toward the deferral of new fossil fueled power plant construction. Solar generation contributes approximately 163 MW to this total, based upon the coincidence of solar generation and summer peak demand. Changes in timing of peak demand may influence the firm contributions of renewable resources such as solar and wind.

The remaining renewable generation can generate energy on an as-available basis or for internal use (self-service). As-available energy is considered non-firm, and cannot be counted on for reliability purposes; however, it can contribute to the avoidance of burning fossil fuels in existing generators. Self-service generation reduces demand on Florida's utilities.

Non-Utility Renewable Generation

The majority of Florida's existing renewable energy generation, approximately 71 percent, comes from non-utility generators. In 1978, the US Congress enacted the Public Utility Regulatory Policies Act (PURPA). PURPA requires utilities to purchase electricity from cogeneration facilities and renewable energy power plants with a capacity no greater than 80 MW (collectively referred to as Qualifying Facilities or QFs). PURPA required utilities to buy electricity from QFs at the utility's full avoided cost. These costs are defined in Section 366.051, F.S., which provides in part that:

A utility's "full avoided costs" are the incremental costs to the utility of the electric energy or capacity, or both, which, but for the purchase from cogenerators or small power producers, such utility would generate itself or purchase from another source.

If a renewable energy generator can meet certain deliverability requirements, it can be paid for its capacity and energy output under a firm contract. Rule 25-17.250, F.A.C., requires each IOU to establish a standard offer contract with timing and rate of payments based on each fossil-fueled generating unit type identified in the utility's TYSP. In order to promote renewable energy generation, the Commission requires the IOUs to offer multiple options for capacity payments, including the options to receive early (prior to the in-service date of the avoided-unit) or levelized payments. The different payment options allow renewable energy providers the option to select the payment option that best fits its financing requirements, and provides a basis from which negotiated contracts can be developed.

As previously discussed, large amounts of renewable energy is generated on an as-available basis. As-available energy is energy produced and sold by a renewable energy generator on an hour-by-hour basis for which contractual commitments as to the quantity and time of delivery are not required. As-available energy is purchased at a rate equal to the utility's hourly incremental system fuel cost, which reflects the highest fuel cost of generation each hour.

Customer-Owned Renewable Generation

With respect to customer-owned renewable generation, Rule 25-6.065, F.A.C., requires the IOUs to offer net metering for all types of renewable generation up to 2 MW in capacity and a standard

interconnection agreement with an expedited interconnection process. Net metering allows a customer, with renewable generation capability, to offset their energy usage. In 2008, the effective year of Rule 25-6.065, F.A.C., customer-owned renewable generation accounted for 3 MW of renewable capacity. As of the end of 2017, approximately 205 MW of renewable capacity from over 24,000 systems has been installed statewide. Table 7 summarizes the growth of customer-owned renewable generation interconnections. Almost all installations are solar, with non-solar generation accounting for only 37 installations and 7.6 MW of installed capacity. The renewable generators in this category include wind turbines and anaerobic digesters.

Table 7: State of Florida - Customer-Owned Renewable Growth

Year	2010	2011	2012	2013	2014	2015	2016	2017
Number of Installations	2,833	3,994	5,302	6,697	8,581	11,626	15,994	24,166
Installed Capacity (MW)	19.9	28.4	42.2	63.0	79.8	107.5	141	205

Source: Annual Utility Reports

Utility-Owned Renewable Generation

Utility-owned renewable generation also contributes to the state’s total renewable capacity. The majority of this generation is from solar facilities. Due to the intermittent nature of solar resources, capacity from these facilities has previously been considered non-firm for planning purposes. However, several utilities are attributing firm capacity contributions to their solar installations based on the coincidence of solar generation and summer peak demand. Of the approximately 379 MW of existing utility-owned solar capacity, approximately 150 MW, or 40 percent, is considered firm.

In 2008, Section 366.92(4), F.S., was enacted and provides, in part, the following:

In order to demonstrate the feasibility and viability of clean energy systems, the commission shall provide for full cost recovery under the environmental cost-recovery clause of all reasonable and prudent costs incurred by a provider for renewable energy projects that are zero greenhouse gas emitting at the point of the generation, up to a total of 110 MW statewide.

In 2008, the Commission approved a petition by FPL seeking installation of the full 110 MW across three solar energy facilities. The solar projects consisted of a pair of solar PV facilities and a single solar thermal facility. In response to staff interrogatories, FPL estimated that the three solar facilities would cost an additional \$573 million above traditional generation costs over the life of the facilities. In 2012, Section 366.92, F.S., was revised and no longer includes the passage discussed.

In 2016, the Commission approved a settlement agreement entered into by FPL that included a provision for a Solar Base Rate Adjustment (SoBRA) mechanism.⁶ The SoBRA mechanism

⁶ Order No. PSC-16-0560-AS-EI, issued December 15, 2016, in Docket No. 20160021-EI, *In re: Petition for rate increase by Florida Power & Light Company*.

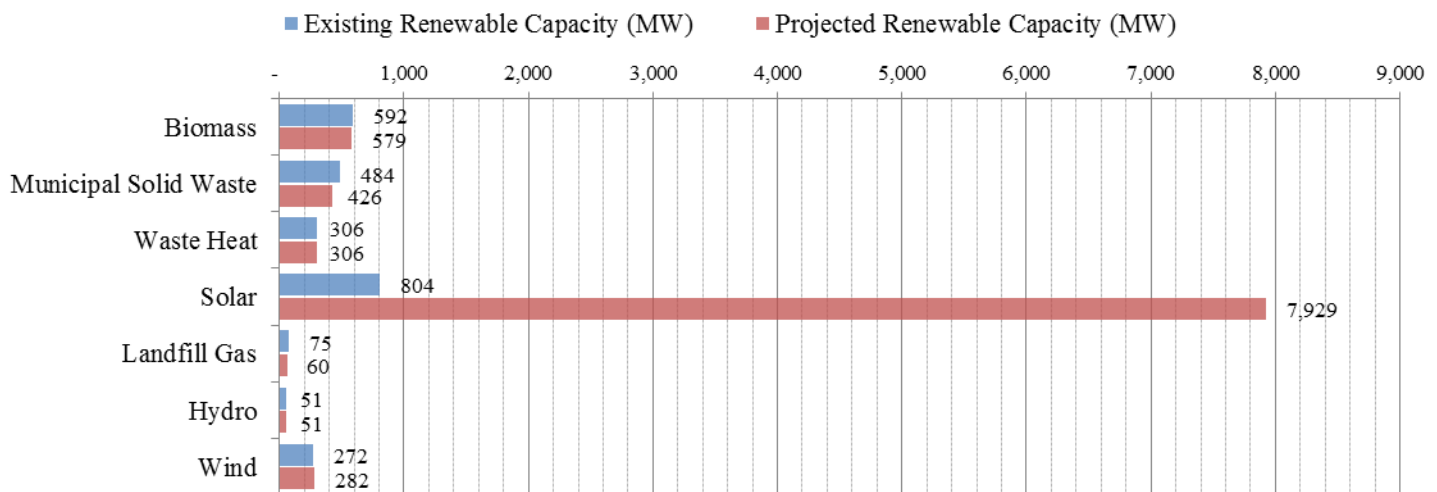
details a process by which FPL may seek approval from the Commission to recover costs for solar projects brought into service that meet certain project cost and operational criteria. In 2017, the Commission approved settlement agreements entered into by DEF and TECO that also included provisions for similar SoBRA mechanisms.^{7,8} As of December 31, 2017, no solar capacity additions, through SoBRA mechanisms, have gone into commercial operation.

GPC has entered into purchase power agreements linked to 272 MW of wind energy produced by facilities located in Oklahoma. While the energy from the facilities may not actually be delivered to GPC’s system, the renewable attributes for their output are retained by GPC for the benefit of its customers.

Planned Renewable Resources

Florida’s total renewable resources are expected to increase by an estimated 7,049 MW over the 10-year planning period, a significant increase from last year’s estimated 4,204 MW projection. Figure 11 summarizes the existing and projected renewable capacity by generation type. Solar generation is projected to have the greatest increase over the planning horizon.

Figure 11: State of Florida - Current and Projected Renewable Resources⁹



Source: 2018 FRCC Load & Resource Plan, TYSP Utilities Data Responses

Of the 7,049 MW projected net increase in renewable capacity, firm resources contribute 3,155 MW, with 3,058 MW of that firm amount coming from solar generation. For some existing renewable facilities, contracts for firm capacity are projected to expire within the 10-year planning horizon. If new contracts are signed in the future to replace those that expire, these

⁷ Order No. PSC-2017-0451-AS-EU, issued November 20, 2017, in Docket No. 20170183-EI, *In re: Application for limited proceeding to approve 2017 second revised and restated settlement agreement, including certain rate adjustments, by Duke Energy Florida, LLC.*

⁸ Order No. PSC-2017-0456-S-EI, issued November 27, 2017, in Docket No. 20170210-EI, *In re: Petition for limited proceeding to approve 2017 amended and restated stipulation and settlement agreement, by Tampa Electric Company.*

⁹JEA’s and Gulf’s wind resources are not present in-state.

resources will once again be included in the state's capacity mix to serve future demand. If these contracts are not extended, the renewable facilities could still deliver energy on an as-available basis.

As noted above, solar generation is anticipated to increase significantly over the 10-year period, with a total of 7,125 MW to be installed. This consists of 5,551 MW of utility-owned solar and 1,574 MW of contracted solar. As a result of their settlement agreements, FPL, DEF, and TECO are projecting solar capacity additions through SoBRA mechanisms totalling 1,200 MW, 700 MW, and 600 MW, respectively. The Commission has already approved 596 MW of FPL's SoBRA capacity and 145 MW of TECO's SoBRA capacity. FPL and DEF are also projecting solar capacity additions throughout the remainder of the planning period outside of their respective SoBRA mechanisms. Table 8 lists some of the utility-scale (greater than 10 MW) solar installations with in-service dates within the planning period.

Table 8: TYSP Utilities - Planned Solar Installations

Year	Utility	Facility Name	Type	Capacity (MW)
2018	FPL	2018 Solar Projects	Utility Owned	597
2018	JEA	2018 Solar PPAs	Purchased	84
2018	TECO	Balm & Payne Creek	Utility Owned	144
2018 Subtotal				826
2019	DEF	Hamilton Solar Power Plant	Utility Owned	75
2019	DEF	Solar 6, 7, & QF 3	Combined	270
2019	FPL	2019 Solar Projects	Utility Owned	300
2019	TAL	FL Solar 4 PPA	Purchased	40
2019	TECO	2019 Solar Projects	Utility Owned	279
2019	RCI	FL Solar 5 PPA	Purchased	50
2019 Subtotal				1014
2020	DEF	Solar 8, 9, 10, 11, & QF 4	Combined	445
2020	FMPA	NextEra PPAs	Purchased	149
2020	FPL	Unsitd Projects	Utility Owned	522
2020	OUC	Future Solar 1 & 2	Purchased	56
2020	TECO	Wimauma & Alafia	Utility Owned	125
2020 Subtotal				1296
2021	DEF	Solar 12, 13, 14, & QF 5	Combined	360
2021	FPL	Unsitd Projects	Utility Owned	596
2021	SECI	Tillman Solar Center	Purchased	40
2021	TECO	Lake Hancock	Utility Owned	50
2021 Subtotal				1045
2022	DEF	Solar 15 & QF 6	Combined	150
2022	FPL	Unsitd Projects	Utility Owned	298
2023	DEF	Solar 16 & QF 7	Combined	150
2023	FPL	Unsitd Projects	Utility Owned	298
2024	DEF	Solar 17 & QF 8	Combined	150
2024	FPL	Unsitd Projects	Utility Owned	298
2025	DEF	Solar 18 & QF 9	Combined	150
2025	FPL	Unsitd Projects	Utility Owned	298
2026	DEF	Solar 19 & QF 10	Combined	150
2026	FPL	Unsitd Projects	Utility Owned	298
2027	DEF	Solar 20 & QF 11	Combined	150
2027	FPL	Unsitd Projects	Utility Owned	298
2022 - 2027 Subtotal				2687
TBD	DEF	National Solar Projects	Purchased	250
TBD Subtotal				250
Total Installations				7119

Source: 2018 FRCC Load & Resource Plan, TYSP Utilities Data Responses

Renewable Outlook

Florida's renewable generation is projected to increase over the planning period. A significant portion of this increase can be attributed to growth in solar PV generation. As a result of the operational characteristics of these installations, namely the coincidence of solar generation and summer peak demand, some utilities are reporting a fraction of the nameplate capacity of these installations as firm resources for reliability considerations. However, emerging energy storage technologies have the potential to considerably increase not only the firm capacity contributions from solar PV installations, but their overall functionality as well.

A number of energy storage methodologies are currently being researched for utility-scale application. These include pumped hydropower, flywheels, compressed air, thermal storage, and electrochemical batteries. Among those listed, batteries are being extensively researched due to their declining costs, operational characteristics, scalability, and siting flexibility. A number of Florida utilities have developed pilot programs of varying sizes to explore where and how batteries can be incorporated into their systems. However, due to the infancy of the technology, firm capacity values are not being attributed to these programs. Nevertheless, these programs continue to explore the role battery storage can play in resource planning.

Traditional Generation

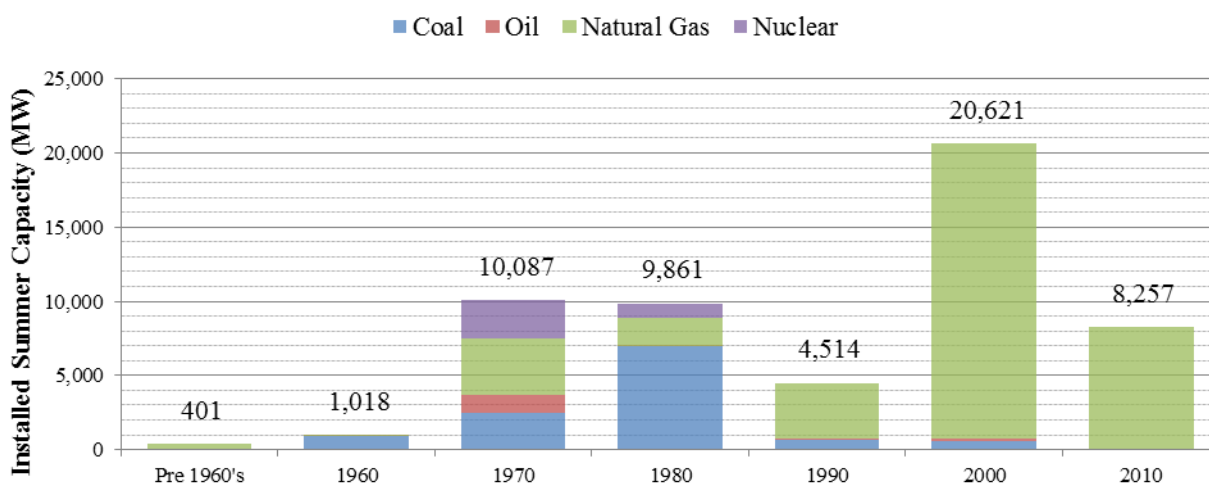
While renewable generation increases its contribution to the state's generating capacity, a majority of generation is projected to come from traditional sources, such as fossil-fueled steam and combustion turbine generators, that have been added to Florida's electric grid over the last several decades. Due to forecasted increases in peak demand, further traditional resources are anticipated over the planning period.

Florida's electric utilities have historically relied upon several different fuel types to serve customer load. Previous to the oil embargo, Florida used oil-fired generation as its primary source of electricity until the increase in oil prices made this undesirable. Since that time, Florida's electric utilities have sought a variety of other fuel sources to diversify the state's generation fleet and more reliably and affordably serve customers. Numerous factors, including swings in fuel prices, availability, environmental concerns, and other factors have resulted in a variety of fuels powering Florida's electric grid. Solid fuels, such as coal and nuclear, increased during the shift away from oil-fired generation, and more recently natural gas has emerged as the dominant fuel type in Florida.

Existing Generation

Florida's generating fleet includes incremental new additions to a historic base fleet, with units retiring as they become uneconomical to operate or maintain. Currently, Florida's existing capacity ranges greatly in age and fuel type, and legacy investments continue. The weighted average age of Florida's generating units is 23 years. While the original commercial in-service date may be in excess of 60 years for some units, they are constantly maintained as necessary in order to ensure safe and reliable operation, including uprates from existing capacity, which may have been added after the original in-service date. Figure 12 illustrates the decade current operating generating capacity was originally added to the grid, with the largest additions occurring in the 2000s.

Figure 12: State of Florida - Electric Utility Installed Capacity by Decade



Source: 2018 FRCC Load & Resource Plan

The existing generating fleet will be impacted by several events over the planning period. New and proposed environmental regulations may require changes in unit dispatch, fuel switching, or installation of pollution control equipment which may reduce net capacity. Modernizations will allow more efficient resources to replace older generation, while potentially reusing power plant assets such as transmission and other facilities, switching to more economic fuel types, or uprates at existing facilities to improve power output. Lastly, retirements of units which can no longer be economically operated and maintained or meet environmental requirements will reduce the existing generation.

Impact of EPA Rules

In addition to maintaining a fuel efficient and diverse fleet, Florida's utilities must also comply with environmental requirements that impose incremental costs or operational constraints. During the planning period, six EPA rules were anticipated to affect electric generation in Florida:

- Carbon Pollution Emissions Standards for New, Modified and Reconstructed Secondary Sources: Electric Utility Generating Units - Sets carbon dioxide emissions limits for new, modified or reconstructed electric generators. These limits vary by type of fuel (coal or natural gas). New units are those built after January 18, 2014. Units that undergo modifications or reconstructions after June 18, 2014, that materially alter their air emissions are subject to the specified limits. This rule is currently under appeal. On August 21, 2018, as part of its proposed Affordable Clean Energy Rule, the EPA proposed updates to the New Source Review permitting program that may impact utility decisions regarding power plant modifications and reconstruction. These recent regulatory developments will be addressed in a subsequent Ten-Year Site Plan review.
- Carbon Pollution Emission Guideline for Existing Electric Generating Units (Clean Power Plan) - Requires each state to submit a plan to the EPA that outlines how the

state's existing electric generation fleet over 25 megawatts will meet a series of goals, in terms of pounds of carbon dioxide emitted per generated megawatt-hour, to reduce the state's carbon dioxide emissions. The guidelines include increased use of renewable generation and decreased use of coal-fired generation by 2030. This rule has been stayed pending an appeal review. On October 10, 2017, the EPA proposed a repeal of the Clean Power Plan. On August 21, 2018, the EPA announced its Affordable Clean Energy Rule that replaces the Clean Power Plan. This recent regulatory development will be addressed in a subsequent Ten-Year Site Plan review.

- Mercury and Air Toxics Standards (MATS) - Sets limits for air emissions from existing and new coal- and oil-fired electric generators with a capacity greater than 25 megawatts. Covered emissions include: mercury and other metals, acid gases, and organic air toxics for all generators, as well as particulate matter, sulfur dioxide, and nitrogen oxide from new and modified coal and oil units.
- Cross-State Air Pollution Rule (CSAPR) - Requires certain states to reduce air emissions that contribute to ozone and/or fine particulate pollution in other states. The rule applies to all fossil-fueled (i.e., coal, oil, and natural gas) electric generators with a capacity over 25 megawatts within the upwind states. Originally, the Rule included Florida, however, the final Rule, issued September 7, 2016, removes North Carolina, South Carolina, and Florida from the program because modeling for the final Rule indicates that these states do not contribute significantly to ozone air quality problems in downwind states.
- Cooling Water Intake Structures (CWIS) - Sets impingement standards to reduce harm to aquatic wildlife pinned against cooling water intake structures at electric generating facilities. All electric generators that use state or federal waters for cooling with an intake velocity of at least two million gallons per day must meet impingement standards. Generating units with higher intake velocity may have additional requirements to reduce the damage to aquatic wildlife due to entrapment in the cooling water system.
- Coal Combustion Residuals (CCR) - Requires liners and ground monitoring to be installed on new landfills in which coal ash is deposited.

Each utility will need to evaluate whether these additional costs or operational limitations allow the continued economic operation of each affected unit, and whether installation of emissions control equipment, fuel switching, or retirement is the proper course of action.

Modernization and Efficiency Improvements

Modernizations involve removing existing generator units that may no longer be economical to operate, such as oil-fired steam units, and reusing the power plant site's transmission or fuel handling facilities with a new set of generating units. The modernization of existing plant sites, allows for significant improvement in both performance and emissions, typically at a lower price than new construction at a greenfield site. Not all sites are candidates for modernization due to site layout and other concerns, and to minimize rate impacts, modernization of existing units should be considered along with new construction at greenfield sites.

The Commission has previously granted determinations of need for several conversions of oil-fired steam units to natural gas-fired combined cycle units, including FPL's Cape Canaveral, Riviera, and Port Everglades power plants. DEF has also conducted a conversion of its Bartow power plant, but this did not require a determination of need from the Commission.

Utilities also plan several efficiency improvements to existing generating units. For example, the conversion of existing simple cycle combustion turbines into a combined cycle unit, which captures the waste heat and uses it to generate additional electricity using a steam turbine. The Commission has granted a determination of need for the conversion of TECO's Polk Units 2 through 5 to a single combined cycle unit.¹⁰ TECO is also modernizing its Big Bend Power Station through the conversion of Big Bend Unit 1, along with two planned combustion turbines, into a 2x1 combined cycle unit by 2023. Per the Florida Department of Environmental Protection, this conversion does not require a determination of need by the Commission. FPL plans on upgrading its existing combined cycle fleet by improving the performance of the integrated combustion turbines at many of its current and planned power plants. By 2018, DEF plans to increase the summer capacity rating at the Hines Energy Center through the installation of Inlet Chilling.

Planned Retirements

Power plant retirements occur when the electric utility is unable to economically operate or maintain a generating unit due to environmental, economic, or technical concerns. Table 9 lists the 6,056 MW of existing generation that is scheduled to be retired during the planning period. While the number of natural gas units scheduled for retirement (17) is greater than that of coal units (8), only 2,849 MW of natural gas-fueled capacity is being retired, as compared to 3,183 MW of coal-fueled capacity.

¹⁰Order No. PSC-13-0014-FOF-EI, issued January 8, 2013, in Docket No. 20120234-EI, *In re: Petition to determine need for Polk 2-5 combined cycle conversion, by Tampa Electric Company.*

Table 9: State of Florida - Electric Generating Units to be Retired

Year	Utility Name	Plant Name & Unit Number	Unit Type	Fuel Type	Net Capacity (MW)
					Summer
2018	DEF	Crystal River 1 & 2	Steam Turbine	Coal	766
2018	FPL	SJRPP 1 & 2	Steam Turbine	Coal	254
2018	FPL	Lauderdale 4 & 5	Combustion Turbine	Natural Gas	884
2018	FPL	Martin 1 & 2	Steam Turbine	Natural Gas	1626
2018	JEA	SJRPP 1 & 2	Steam Turbine	Coal	1002
2018	TAL	Purdom 2	Combustion Turbine	Natural Gas	10
2018	TAL	Hopkins 1	Steam Turbine	Natural Gas	76
2018 Subtotal					4,618
2020	DEF	Avon Park 1	Combustion Turbine	Natural Gas	24
2020	DEF	Avon Park 2	Combustion Turbine	Distillate Fuel Oil	24
2020	DEF	Higgins 1 - 4	Combustion Turbine	Natural Gas	107
2020 Subtotal					155
2021	TECO	Big Bend 2	Steam Turbine	Coal	385
2021 Subtotal					385
2022	GRU	Deerhaven FS01	Steam Turbine	Natural Gas	75
2022 Subtotal					75
2023	SECI	Seminole Generating Station 1 or 2*	Steam Turbine	Coal	626
2023 Subtotal					626
2024	GPC	Crist 4	Steam Turbine	Coal	75
2024 Subtotal					75
2025	GPC	Pea Ridge 1 - 3	Combustion Turbine	Natural Gas	12
2025 Subtotal					12
2026	GRU	Deerhaven GT01 & GT02	Combustion Turbine	Natural Gas	35
2026	GPC	Crist 5	Steam Turbine	Coal	75
2026 Subtotal					110
Total Retirements					6,056

* SECI has not determined whether to retire SGS 1 (626 MW) or SGS 2 (634 MW) at this time.

Source: 2018 Ten-Year Site Plans

A notable retirement is DEF's Crystal River Units 1 and 2. Originally scheduled to retire in 2016, the retirement of these units has been delayed until 2018. This delay is due in part to a temporary averaging of emissions across the existing four units at the Crystal River site to meet environmental regulations, as Crystal River Units 4 and 5 have pollution controls installed. Another notable retirement is the St. Johns River Power Park (SJRPP) Units 1 and 2. The SJRPP is a large coal-fired generation facility that is jointly owned by both JEA and FPL and should be fully retired by 2019. Finally, TECO's retirement of its Big Bend Unit 2 in 2021 is part of the previously mentioned modernization of its Big Bend Power Station.

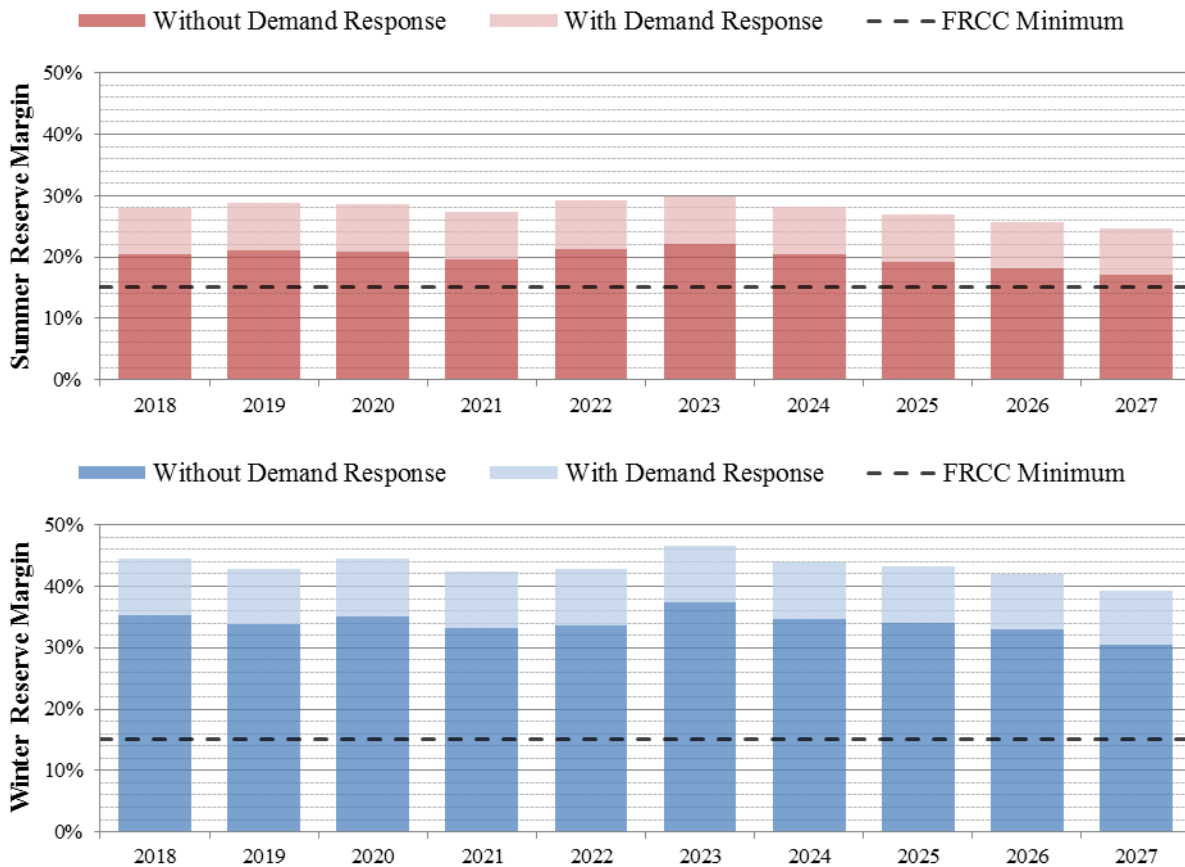
Reliability Requirements

Florida’s electric utilities are expected to have enough generating assets available at the time of peak demand to meet forecasted customer demand. If utilities only had sufficient generating capacity to meet forecasted peak demand, then potential instabilities could occur if customer demand exceeds the forecast, or if generating units are unavailable due to maintenance or forced outages. To address these circumstances, utilities are required to maintain additional planned generating capacity above the forecast customer demand, referred to as the reserve margin.

Electric utilities within the Florida Reliability Coordinating Council region, which consists of Peninsular Florida, must maintain a minimum of 15 percent reserve margin for planning purposes. Certain utilities have elected to have a higher reserve margin, either on an annual or seasonal basis. The three largest reporting electric utilities, FPL, DEF, and TECO, are party to a stipulation approved by the Commission that utilizes a 20 percent reserve margin for planning.

While Florida’s electric utilities are separately responsible for maintaining an adequate planning reserve margin, a statewide view illustrates the degree to which capacity may be available for purchases during periods of high demand or unit outages. Figure 13 is a projection of the statewide seasonal reserve margin including all proposed power plants.

Figure 13: State of Florida - Projected Reserve Margin by Season



Source: 2018 FRCC Load & Resource Plan

Role of Demand Response in Reserve Margin

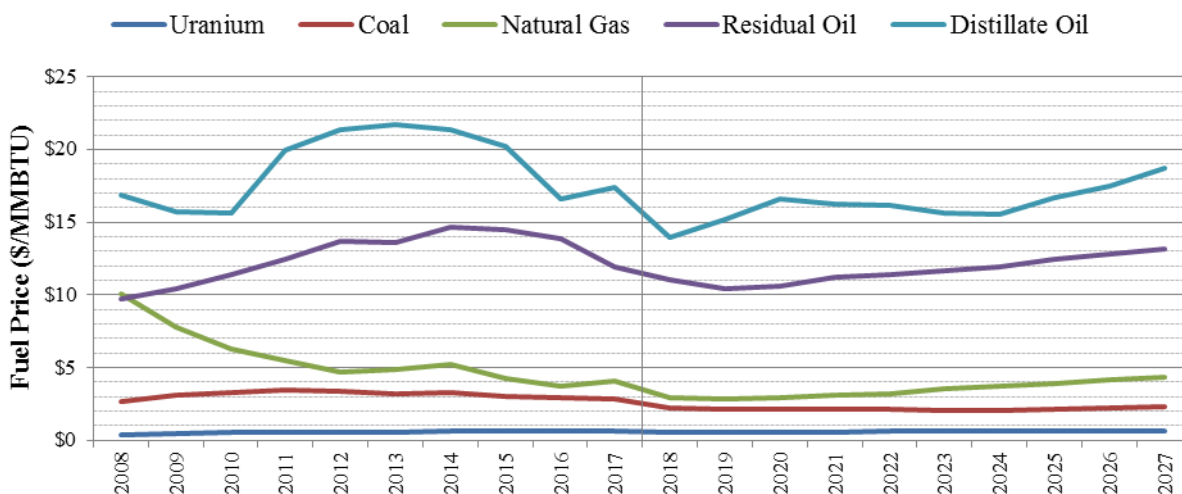
The Commission also considers the planning reserve margin without demand response. As illustrated above in Figure 13, the statewide seasonal reserve margin exceeds the FRCC’s required 15 percent planning reserve margin without activation of demand response. Demand response activation increases the reserve margin in summer by 7.7 percent on average, and represents 28 percent of the planning reserve margin.

Demand response participants receive discounted rates or credits regardless of activation, with these costs recovered from all ratepayers. Because of the voluntary nature of demand response, a concern exists that a heavy reliance upon this resource would make participants eschew the discounted rates or credits for firm service. For interruptible customers, participants must provide notice that they intend to leave the demand response program, with a notice period of three or more years being typical. For load management participants, usually residential or small commercial customers, no advanced notice is typically required to leave. Historically, demand response participants have rarely been called upon during the peak hour, but are more frequently called upon during off-peak periods due to unusual weather conditions.

Fuel Price Forecast

Fuel price is an important economic factor affecting the dispatch of the existing generating fleet and the selection of new generating units. In general, the capital cost of a power plant is inversely proportional to the cost of the fuel used to generate electricity from that unit. The major fuels consumed by Florida’s electric utilities are natural gas, coal, uranium, and oil. Figure 14 illustrates the weighted average fuel price history and forecasts for the reporting electric utilities. While there has been a recent projected decrease in fuel oil prices, it remains the most expensive fuel and suitable primarily for backup and peaking purposes only.

Figure 14: TYSP Utilities - Average Reporting Electric Utility Fuel Price



Source: TYSP Utilities Data Responses

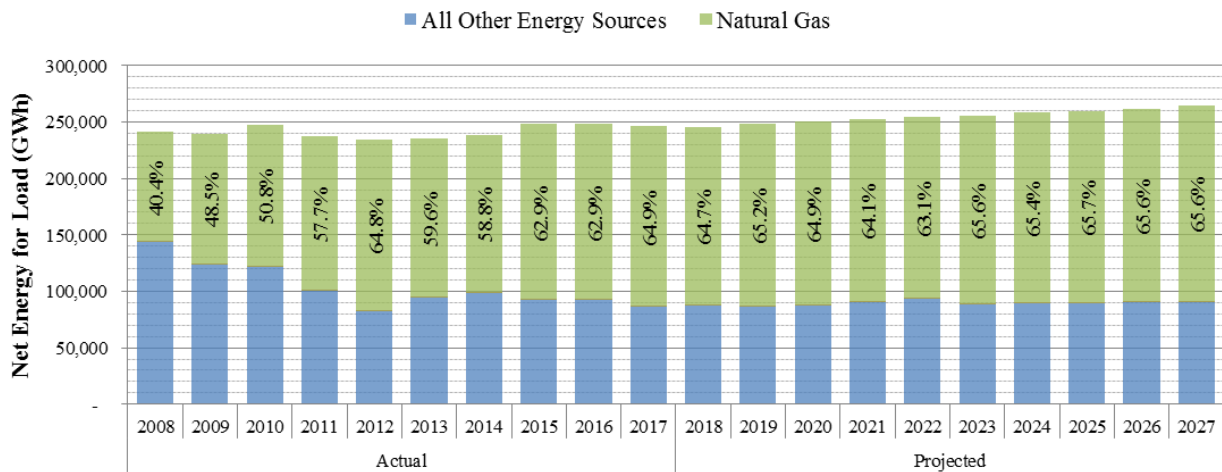
From 2003 to 2005, the price of natural gas was substantially higher than utilities had forecast. This natural gas price volatility led to concern regarding escalating customer bills and an expectation that natural gas prices would remain high. As a result, Florida’s electric utilities began making plans to build coal-fired units rather than continuing to increase the reliance on natural gas. Concerns regarding potential environmental regulations, and other projected costs, lead to this coal-fired generation not to materialize. Traditionally, coal was the lowest cost fuel besides uranium and was dispatched before most natural gas-fired units. While natural gas-fired units have the advantage of a lower heat rate, and therefore consume less units of thermal energy per unit of electrical energy produced, the fuel price differential allowed coal to remain dominant until 2008.

The price of natural gas declined rapidly after 2008, and is forecasted to remain at historically low levels. The smaller differential and higher efficiency of natural gas has shifted the dispatch order, with natural gas units displacing some coal units. The trend has also encouraged utilities to modify existing units to be capable of burning natural gas, either as a starter fuel, supplemental fuel, or primary fuel.

Fuel Diversity

Natural gas has risen to become the dominant fuel in Florida within the last 10 years, displacing coal, and since 2010 has generated more net energy for load than all other fuels combined. As Figure 15 illustrates, natural gas is the source of approximately 65 percent of electric energy consumed in Florida. Natural gas generation is anticipated to remain somewhat steady at its current level until the end of the planning period.

Figure 15: State of Florida - Natural Gas Contribution to Energy Consumption



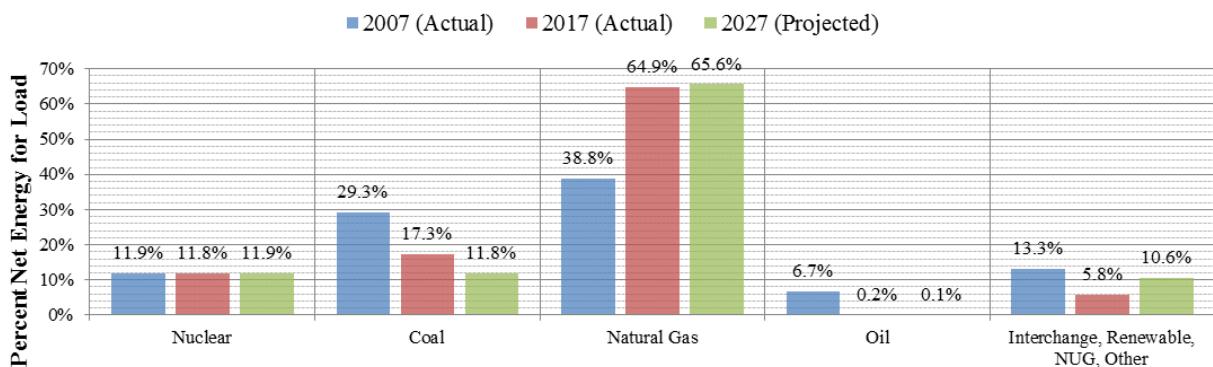
Source: 2008-2018 FRCC Load & Resource Plans

Because a balanced fuel supply can enhance system reliability and mitigate the effects of volatility in fuel price fluctuations, it is important that utilities have a level of flexibility in their generation mix. Maintaining fuel diversity on Florida’s system faces several difficulties. Existing coal units will require additional emissions control equipment leading to reduced output, or

retirement if the emissions controls are uneconomic to install or operate. New solid fuel generating units such as nuclear and coal have long lead times and high capital costs. New coal units face challenges relating to new environmental compliance requirements, making it unlikely they could be permitted without novel emissions control technology.

Figure 16 shows Florida’s historic and forecast percent net energy for load by fuel type for the actual years 2007 and 2017, and forecast year 2027. Oil has declined significantly, with its uses reduced to start-up fuel, peaking, and back-up for dual-fuel units in case of a fuel outage. Nuclear generation was reduced beginning in 2010 by the outage and eventual retirement of Crystal River 3 and extended outages for uprates at FPL’s St. Lucie and Turkey Point power plants. The resulting capacity leaves Florida’s contribution from nuclear approximately the same even with the loss of one of five nuclear units. Coal generation is expected to continue its downward trend well into the planning period. Natural gas has been the primary fuel used to meet the growth of energy consumption, and this trend is anticipated to continue throughout the planning period.

Figure 16: State of Florida - Historic and Forecast Fuel Consumption



Source: 2008-2018 FRCC Load & Resource Plans

Based on 2014 Energy Information Administration (EIA) data, Florida ranks fourth place in terms of the total volume natural gas consumption compared to the rest of the United States. For volume of natural gas consumed for electric generation, Florida ranks second, behind Texas.

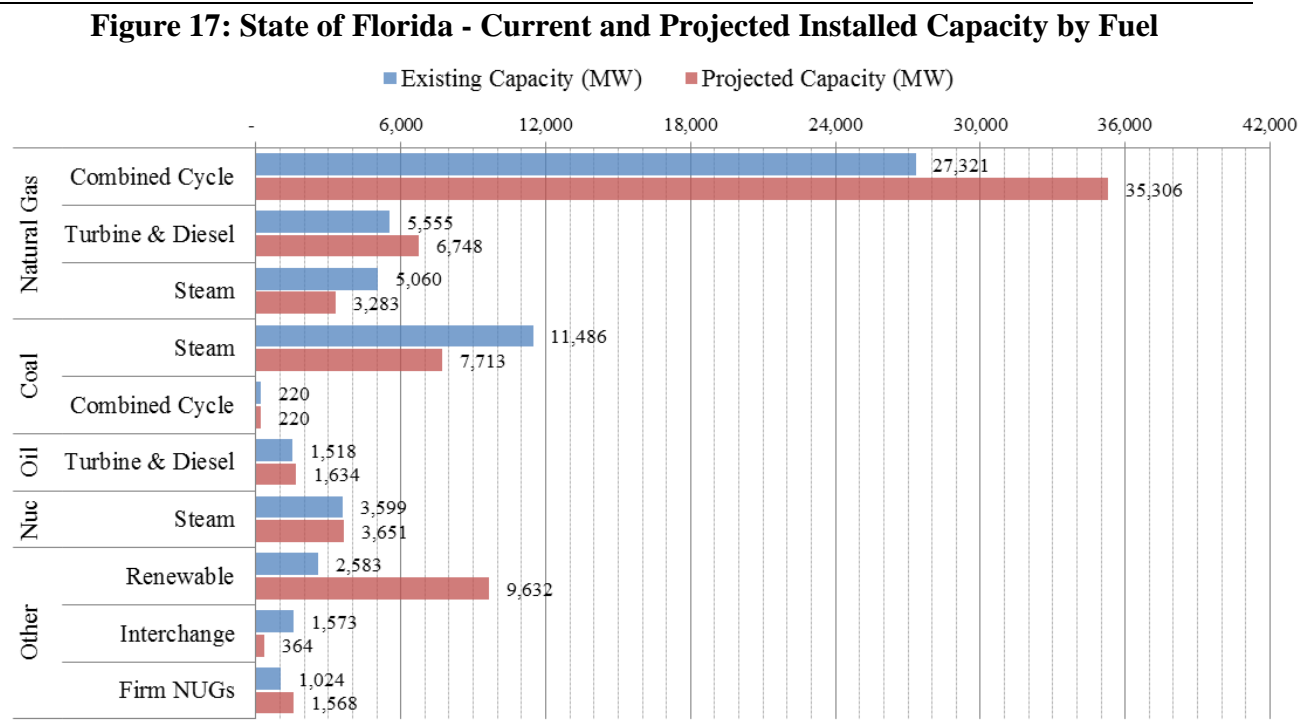
Florida’s percentage of natural gas consumption for electric generation is the highest in the country, with 90 percent of all natural gas consumed in the state for electricity. However, these figures do not consider population. On a per capita basis, Florida’s total consumption of natural gas ranks thirtieth, while natural gas consumption for electricity ranks sixth. Natural gas is not used as a heating fuel in most of Florida’s homes and businesses, which rely instead upon electricity that is increasingly being generated by natural gas. This leads to Florida’s per capita consumption of natural gas being 15 percent less than the national average, but twice the national average per capita consumption of natural gas for electricity. As Florida has very little natural gas production and no gas storage capacity, the state is reliant upon out-of-state production and storage to satisfy the growing electric demands of the state.

New Generation Planned

Current demand and energy forecasts continue to indicate that in spite of increased levels of conservation, energy efficiency, renewable generation, and existing traditional generation resources, the need for additional generating capacity still exists. While reductions in demand have been significant, the total demand for electricity is expected to increase, making the addition of traditional generating units necessary to satisfy reliability requirements and provide sufficient electric energy to Florida’s consumers. Because any capacity addition has certain economic impacts based on the capital required for the project, and due to increasing environmental concerns relating to solid fuel-fired generating units, Florida’s utilities must carefully weigh the factors involved in selecting a supply-side resource for future traditional generation projects.

In addition to traditional economic analyses, utilities also consider several strategic factors, such as fuel availability, generation mix, and environmental compliance prior to selecting a new supply-side resource. Limited supplies, access to water or rail delivery points, pipeline capacity, water supply and consumption, land area limitations, cost of environmental controls, and fluctuating fuel costs are all important considerations to the utilities’ IRP process.

Figure 17 illustrates the present and future aggregate capacity mix. The capacity values in Figure 17 incorporate all proposed additions, changes, and retirements contained in the reporting utilities’ 2018 Ten-Year Site Plans and the FRCC’s 2018 Load and Resource Plan.



Source: 2018 FRCC Load & Resource Plan and TYSP Utilities Data Responses

New Power Plants by Fuel Type

Nuclear

Nuclear capacity, while an alternative to natural gas-fired generation, is capital-intensive and requires a long lead time to construct. FPL has two nuclear projects at Turkey Point that have minimal uprates planned for 2018 and 2019. FPL had previously uprated its existing four nuclear generating units, with the last uprate completed in early 2013.

Natural Gas

Excluding renewables and minor nuclear and coal generation uprates, all remaining new power plants are natural gas-fired combustion turbines, internal combustion units, or combined cycle units. Combustion turbines run in simple cycle mode as peaking units represent the third most abundant type of generating capacity, behind only coal-fired steam generation. As combustion turbines are not a form of steam generation, unless part of a combined cycle unit, they do not require siting under the Power Plant Siting Act. Table 10 summarizes the approximately 8,190 MW of proposed new natural gas-fired generation included in the 2018 Ten-Year Site Plans. Of this amount, approximately 6,441 MW are already under construction or have been previously certified.

Table 10: State of Florida - Planned Natural Gas Units

In-Service Year	Utility Name	Plant Name & Unit Number	Net Capacity (MW)	Notes
Previously Approved New Units				
2018	DEF	Citrus	1,640	Docket No. 20140110-EI
2019	FPL	Okeechobee Energy Center	1,778	Docket No. 20150196-EI
2022	FPL	Dania Beach Energy Center	1,163	Docket No. 20170225-EI
2022	SEC	Seminole CC Facility*	1,108	Docket No. 20170266-EI
Subtotal				5,689
New Units Requiring PPSA Approval				
2024	GPC	Unspecified CC	595	
Subtotal				595
New Units Not Requiring PPSA Approval				
2018	TAL	Sub 12 IC 1-2	18	
2018	TAL	Hopkins IC 1-4	74	
2021	TEC	Big Bend CT5 & CT6	660	Convert to CC in 2023
2023	TEC	Future CT 1	229	Not under construction
2025	TAL	Hopkins IC 5	18	
2026	TEC	Future CT 2	229	
2027	DEF	Undesignated CT P1	226	
2027	DEF	Undesignated CT P2	226	
2027	DEF	Undesignated CT P3	226	
Subtotal				1,906
Total Planned Natural Gas Capacity				8,190
* The Seminole CC Facility's Determination of Need is currently under appeal.				

Source: 2018 Ten-Year Site Plans

Commission's Authority Over Siting

The Commission has been given exclusive jurisdiction to determine the need for new electric power plants by the Legislature, through the Electrical Power Plant Siting Act (PPSA), contained in Sections 403.501 through 403.518, F.S. Any proposed steam or solar generating unit greater than 75 MW requires a certification under the PPSA. Upon receipt of a determination of need, the electric utility would then seek approval from the Florida Department of Environmental Protection, which addresses land use and environmental concerns. Finally, the Governor and Cabinet, sitting as the Siting Board, ultimately must approve or deny the overall certification of a proposed power plant. As shown in Table 10 above, there is approximately 595 MW of generation that would require certification under the PPSA. Based on the unit type, GPC may be filing a need determination sometime in 2019.

Transmission

As generation capacity increases, the transmission system must grow accordingly to maintain the capability of delivering energy to end users. The Commission has been given broad authority

pursuant to Chapter 366, F.S., to require reliability within Florida’s coordinated electric grid and to ensure the planning, development, and maintenance of adequate generation, transmission, and distribution facilities within the state.

The Commission has authority over certain proposed transmission lines under the Electric Transmission Line Siting Act (TLSA), contained in Sections 403.52 through 403.5365, F.S. To require certification under Florida’s TLSA, a proposed transmission line must meet the following criteria: a nominal voltage rating of at least 230 kV, crossing a county line, and a length of at least 15 miles. Proposed lines in an existing corridor are also exempt from TLSA requirements. The Commission determines the reliability need and the proposed starting and end points for lines requiring TLSA certification. The proposed corridor route is subsequently determined by the Florida Department of Environmental Protection during the certification process. Much like the PPSA, the Governor and Cabinet sitting as the Siting Board ultimately must approve or deny the overall certification of a proposed line.

Table 11 lists all proposed transmission lines in the 2018 Ten-Year Site Plans that require TLSA certification. All planned lines have already received the approval of the Commission, either independently or as part of a PPSA determination of need.

Table 11: State of Florida - Planned Transmission Lines

Utility	Transmission Line	Line Length	Nominal Voltage	Date Need	Date TLSA	In-Service Date
		(Miles)	(kV)	Approved	Certified	
FPL	St Johns – Pringle	25	230	05/13/2005	04/21/2006	12/01/2018
FPL	Levee-Midway	150	500	05/28/1988	04/20/1990	06/01/2019
FPL	Duval - Raven	45	230	02/25/2016	06/29/2016	12/01/2018
TECO	Thonotosassa Wheeler	8	230	06/21/2007	08/07/2008	TBD
TECO	Wheeler to Willow Oak	17	230	06/21/2007	08/07/2008	TBD

Source: 2018 Ten-Year Site Plans

Utility Perspectives

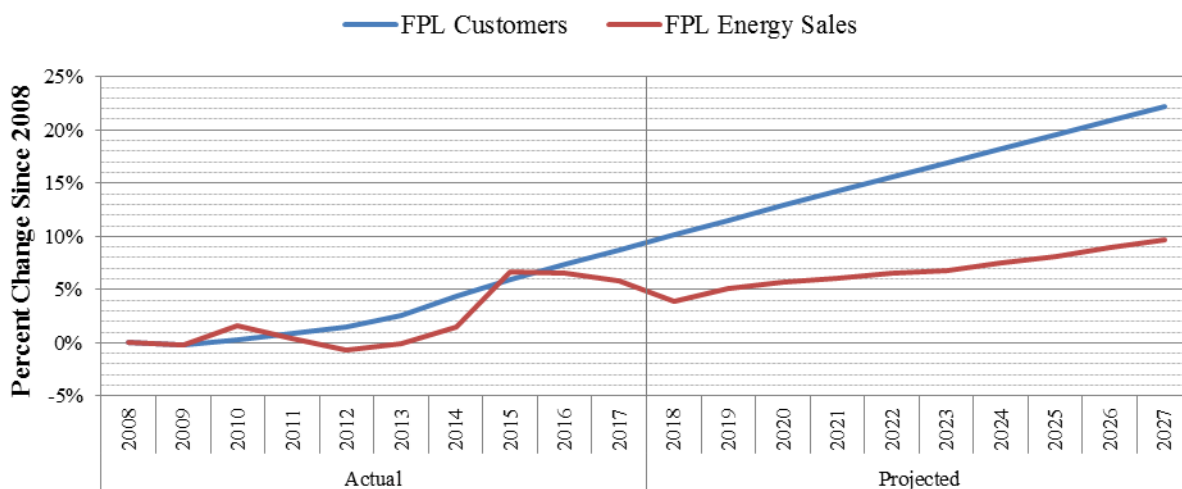
Florida Power & Light Company (FPL)

FPL is an investor-owned utility and Florida’s largest electric utility. The Utility’s service territory is within the FRCC region and is primarily in south Florida and along the east coast. As an investor-owned utility, the Commission has regulatory authority over all aspects of FPL’s operations, including rates, reliability, and safety. Pursuant to Section 186.801(2), F.S., the Commission finds FPL’s 2018 Ten-Year Site Plan suitable for planning purposes.

Load and Energy Forecasts

In 2017, FPL had approximately 4,901,886 customers and annual retail energy sales of 108,871 GWh or approximately 48.2 percent of Florida’s annual retail energy sales. Figure 18 illustrates the Utility’s historic and forecast number of customers and retail energy sales, in terms of percentage growth from 2008. Over the past 10 years, FPL’s customer base has increased by 8.70 percent, while retail sales have grown by 5.78 percent. As illustrated, FPL’s retail energy sales are anticipated to exceed its historic 2015 peak in 2023. Since 2009, FPL has been outperforming the state average in retail energy sales growth, a trend it projects to continue into the future.

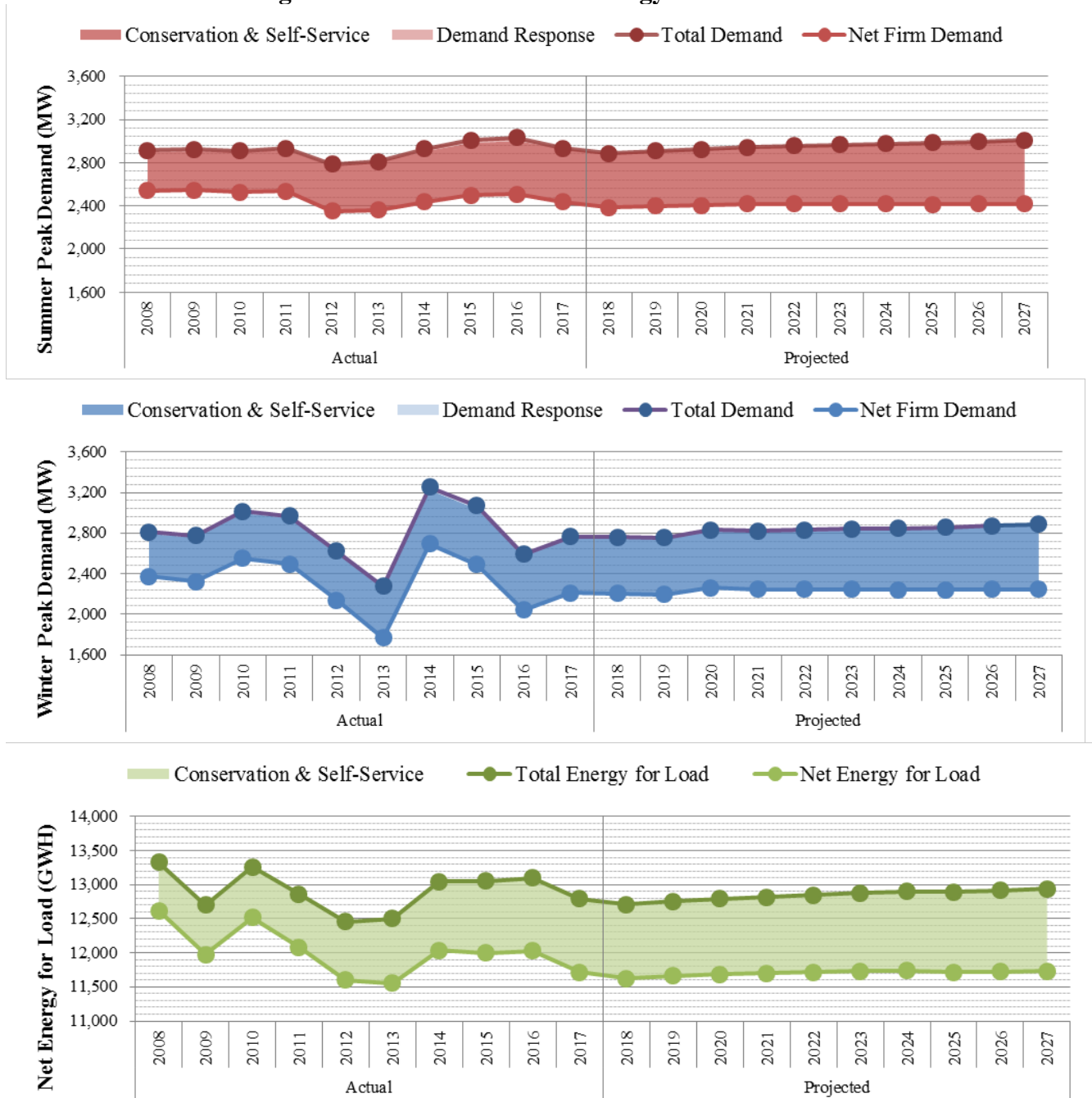
Figure 18: FPL Growth Rate



Source: 2018 Ten-Year Site Plan

The three graphs in Figure 19 show FPL’s seasonal peak demand and net energy for load, for the historic years 2008 through 2017 and forecast years 2018 through 2027. These graphs include the impact of demand-side management, and for future years assume that all available demand response resources will be activated during the seasonal peak. Historically, demand response has not been activated during the seasonal peak demand, excluding the winters of 2010 and 2011. As an investor-owned utility, FPL is subject to FEECA and currently offers energy efficiency and demand response programs to customers to reduce peak demand and annual energy consumption. The Utility’s 2018 Ten-Year Site Plan reflects the revised demand-side management goals established by the Commission in December 2014.

Figure 19: FPL Demand and Energy Forecasts



Source: 2018 Ten-Year Site Plan and Data Responses

Fuel Diversity

Table 12 shows FPL’s actual net energy for load by fuel type for 2017, and the projected fuel mix for 2027. FPL relies primarily upon natural gas and nuclear for energy generation, making up 95 percent of net energy for load. Consistent with its previously discussed SoBRA, FPL projects that renewable energy will provide over 7 percent of generation by 2027.

Table 12: FPL Energy Consumption by Fuel Type

Fuel Type	Net Energy for Load			
	2017		2027	
	GWh	%	GWh	%
Natural Gas	86,706	71.8%	82,601	66.3%
Coal	4,057	3.4%	1,966	1.6%
Nuclear	27,971	23.2%	28,363	22.8%
Oil	400	0.3%	19	0.0%
Renewable	658	0.5%	9,391	7.5%
Interchange	1,598	1.3%	0	0.0%
Other	-642	-0.5%	2,215	1.8%
Total	120,748		124,555	

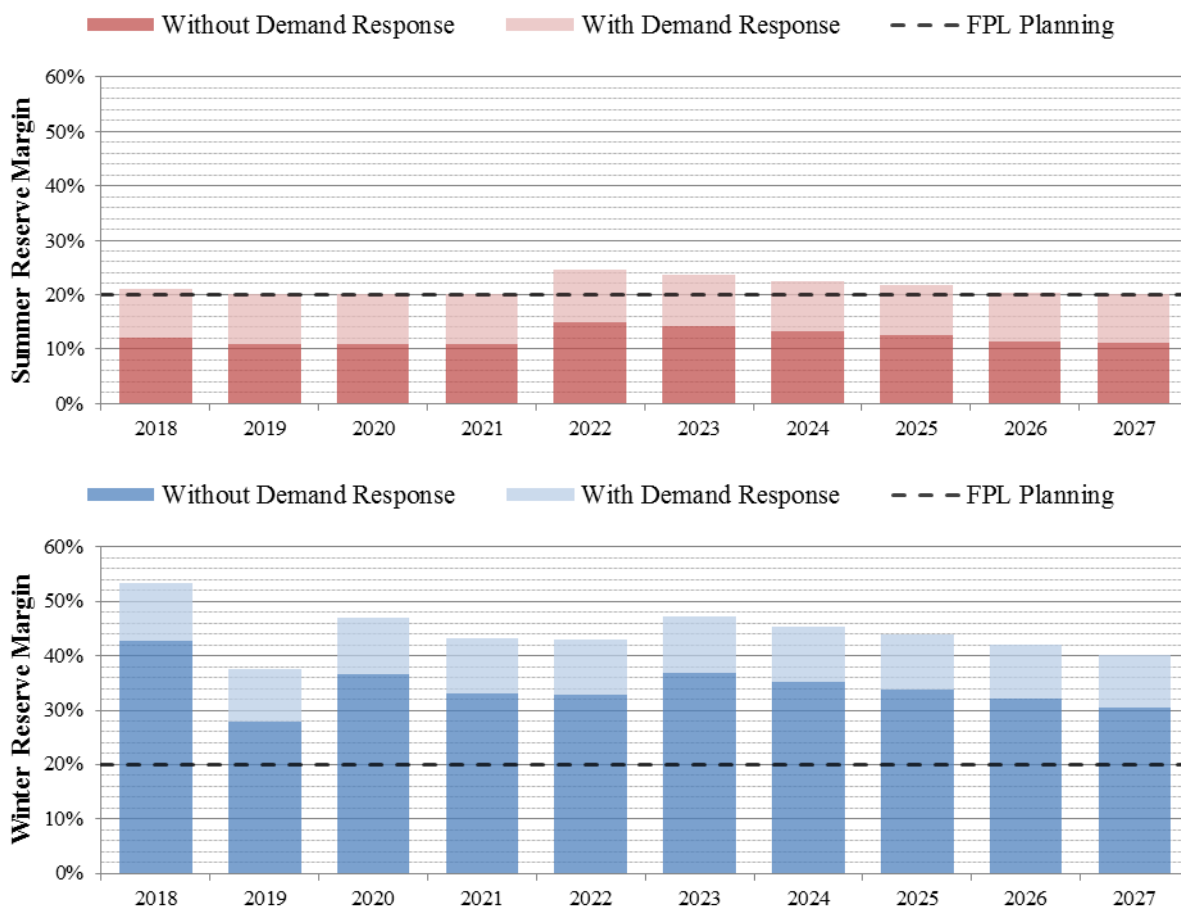
Source: 2018 Ten-Year Site Plan

Reliability Requirements

While previously only reserve margin has been discussed, Florida’s utilities use multiple indices to determine the reliability of the electric supply. An additional metric is the Loss of Load Probability (LOLP), which is a probabilistic assessment of the duration of time electric customer demand will exceed electric supply, and is measured in units of days per year. FPL uses a maximum LOLP of no more than 0.1 days per year, or approximately 1 day of outage per 10 years. Between the two reliability indices, LOLP and reserve margin, the reserve margin requirement is typically the controlling factor for the addition of capacity.

Since 1999, FPL has utilized a 20 percent planning reserve margin criterion. Figure 20 displays the forecast planning reserve margin for FPL through the planning period for both seasons, with and without the use of demand response. As shown in the figure, FPL’s generation needs are controlled by its summer peak throughout the planning period.

Figure 20: FPL Reserve Margin Forecast



Source: 2018 Ten-Year Site Plan

In addition to LOLP and the reserve margin, FPL utilizes a third reliability criterion. FPL’s criterion would be to have available firm capacity 10 percent greater than the sum of customer seasonal demand, without consideration of incremental energy efficiency and all existing and incremental demand response resources. FPL refers to this as its 10 percent generation-only reserve margin. Currently, no other utility utilizes this same metric. FPL’s generation-only reserve margin is not the controlling factor for any planned unit additions. However, it does provide useful information regarding the assurance that the projected 20 percent reserve margin will be realized.

While FPL does not include incremental energy efficiency resources and cumulative demand response in its resource planning for the generation-only reserve margin criterion, the Utility would remain subject to FEECA and the conservation goals established by the Commission. FPL would continue paying rebates and other incentives to participants, which are collected from all ratepayers through the Energy Conservation Cost Recovery Clause, but would not consider the potential capacity reductions of any future participation in energy efficiency or demand response programs during the 10-year planning period for planning purposes with this new reliability criterion only.

Energy efficiency, which includes installation of equipment designed to reduce peak demand and annual energy consumption, is considered a passive resource. While demand response must be activated by the Utility, energy efficiency provides benefits consistently for the duration of the installation, reducing annual energy consumption, and if usage is coincident with system peak, peak demand. Customers do not remove building envelope improvements or newly installed equipment until the end of its service life for replacement.

As noted in the Statewide Perspective, the Commission does review the impact on reserve margin of demand response resources. At this time, FPL offers two types of demand response programs. The first type is interruptible and curtailable load programs, consisting of the Commercial/Industrial Load Control Program (CILC) and Commercial/Industrial Demand Reduction Rider (CDR) tariffs. The second type is load management programs, including the Residential On-Call and Business On-Call Programs. FPL utilizes load management programs on residential customers more often than commercial/industrial customers.

Generation Resources

FPL plans multiple unit retirements and additions during the planning period, as described in Table 13. The projected in-service dates of FPL's new planned nuclear units are now outside the 10-year planning period. On September 3, 2015, FPL filed a need determination with the Commission for the Okeechobee Unit which was granted on January 19, 2016. The Okeechobee Unit is expected to be in-service by 2019. At the hearing on September 25, 2017, the Commission approved the Stipulation and Settlement Agreement which included FPL's proposal for early shutdown of SJRPP.¹¹ The SJRPP Units 1 & 2 are set to retire in 2018. FPL also plans to retire Martin Units 1 & 2 in 2018 due to the units' age and inefficiency in regards to converting natural gas or oil into electricity. Additionally, FPL is planning to retire Lauderdale Units 4 & 5 and replace them with the Dania Beach Clean Energy Center, a natural gas-fired combined cycle unit, consistent with the Commission approved need determination for the Dania Beach facility.¹² The Dania Beach Clean Energy Center is expected to be in-service by 2022.

FPL plans to increase the amount of planned solar projects by approximately 300 MW per calendar year, consistent with its last base rate case settlement.¹³ FPL has included planned solar additions of 3,204 MW outside of the 596 MW of SoBRA additions approved in the fuel and purchased power cost recovery clause dockets.¹⁴ FPL plans to conduct further economic analysis before reaching a decision to proceed with these additions. The planned solar additions make up approximately 56 percent of FPL's planned future units.

¹¹Document No. 07922-2017, filed September 26, 2017, in Docket No. 20170123-EI, *In re: Petition for approval of arrangement to mitigate unfavorable impact of St. Johns River Power Park, by Florida Power & Light Company.*

¹²Order No. PSC-2018-0150-FOF-EI, issued March 19, 2018, in Docket No. 20170225-EI, *In re: Petition of determination of need for Dania Beach Clean Energy Center Unit 7, by Florida Power & Light Company.*

¹³Order No. PSC-16-0560-AS-EI, issued December 15, 2016, in Docket No. 20160021-EI, *In re: Petition for rate increase by Florida Power & Light Company.*

¹⁴Order No. PSC-2018-0028-FOF-EI, issued January 8, 2018, in Docket No. 20180001-EI, *In re: Fuel and purchased power cost recovery clause with generating performance incentive factor.*

Table 13: FPL Generation Resource Changes

Year	Plant Name & Unit Number	Unit Type	Net Capacity (MW)	Solar Firm Capacity (Summer)	Notes
			Sum	Sum	

Retiring Units					
2018	Lauderdale 4 & 5	Natural Gas Combustion Turbine	884		
2018	SJRPP 1 & 2	Coal Steam Turbine	254		
2018	Martin 1 & 2	Natural Gas Steam Turbine	1,626		
Total Retirements			2,764		

New Units					
2018	Coral Farms	Photovoltaic	75	40	
2018	Horizon	Photovoltaic	75	40	
2018	Indian River	Photovoltaic	75	40	
2018	Wildflowerr	Photovoltaic	75	40	
2018	Barefoot Bay	Photovoltaic	75	40	
2018	Blue Cypressr	Photovoltaic	75	40	
2018	Hammock	Photovoltaic	75	40	
2018	Loggerhead	Photovoltaic	75	40	
2019	Interstate	Photovoltaic	75	41	
2019	Miami-Dade	Photovoltaic	75	41	
2019	Okeechobee	Natural Gas Combined Cycle	1,778		Docket No. 20150196-EI
2019	Pioneer Trail	Photovoltaic	75	41	
2019	Sunshine Gateway	Photovoltaic	75	41	
2020	SoBRA PV Unsited	Photovoltaic	298	165	
2020	Unsited Solar	Photovoltaic	224	124	
2021	Unsited Solar	Photovoltaic	596	330	
2022	Dania Beach	Natural Gas Combined Cycle	1,163		Docket No. 20170225-EI
2022	Unsited Solar	Photovoltaic	298	165	
2023	Unsited Solar	Photovoltaic	298	165	
2024	Unsited Solar	Photovoltaic	298	165	
2025	Unsited Solar	Photovoltaic	298	155	
2026	Unsited Solar	Photovoltaic	298	131	
2027	Unsited Solar	Photovoltaic	298	116	
Total New Units			6,741	2,003	

Percentage of Solar Units Planned of Total New Units	56.4%		
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Net Additions	3,977		
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Source: 2018 Ten-Year Site Plan

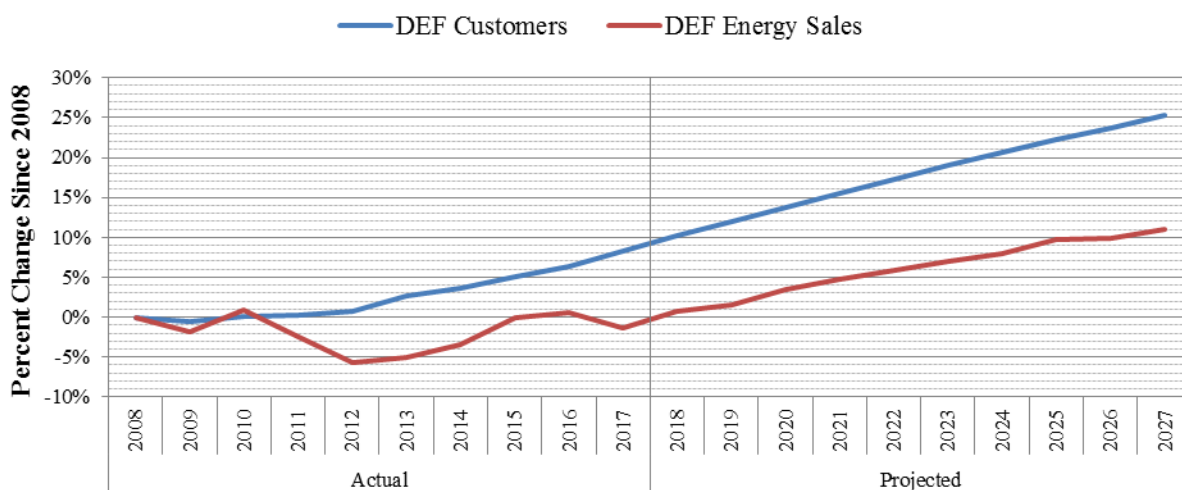
Duke Energy Florida, LLC (DEF)

DEF is an investor-owned utility and Florida’s second largest electric utility. The Utility’s service territory is within the FRCC region and is primarily in central and west central Florida. As an investor-owned utility, the Commission has regulatory authority over all aspects of operations, including rates, reliability, and safety. Pursuant to Section 186.801(2), F.S., the Commission finds DEF’s 2018 Ten-Year Site Plan suitable for planning purposes.

Load & Energy Forecasts

In 2017, DEF had approximately 1,775,340 customers and annual retail energy sales of 38,023 GWh or approximately 16.8 percent of Florida’s annual retail energy sales. Figure 21 illustrates the Utility’s historic and forecast number of customers and retail energy sales, in terms of percentage growth from 2008. Over the last 10 years, DEF’s customer base has increased by 8.32 percent, while retail sales have declined by 1.38 percent. As illustrated, DEF’s retail energy sales are anticipated to exceed its historic 2010 peak in 2019.

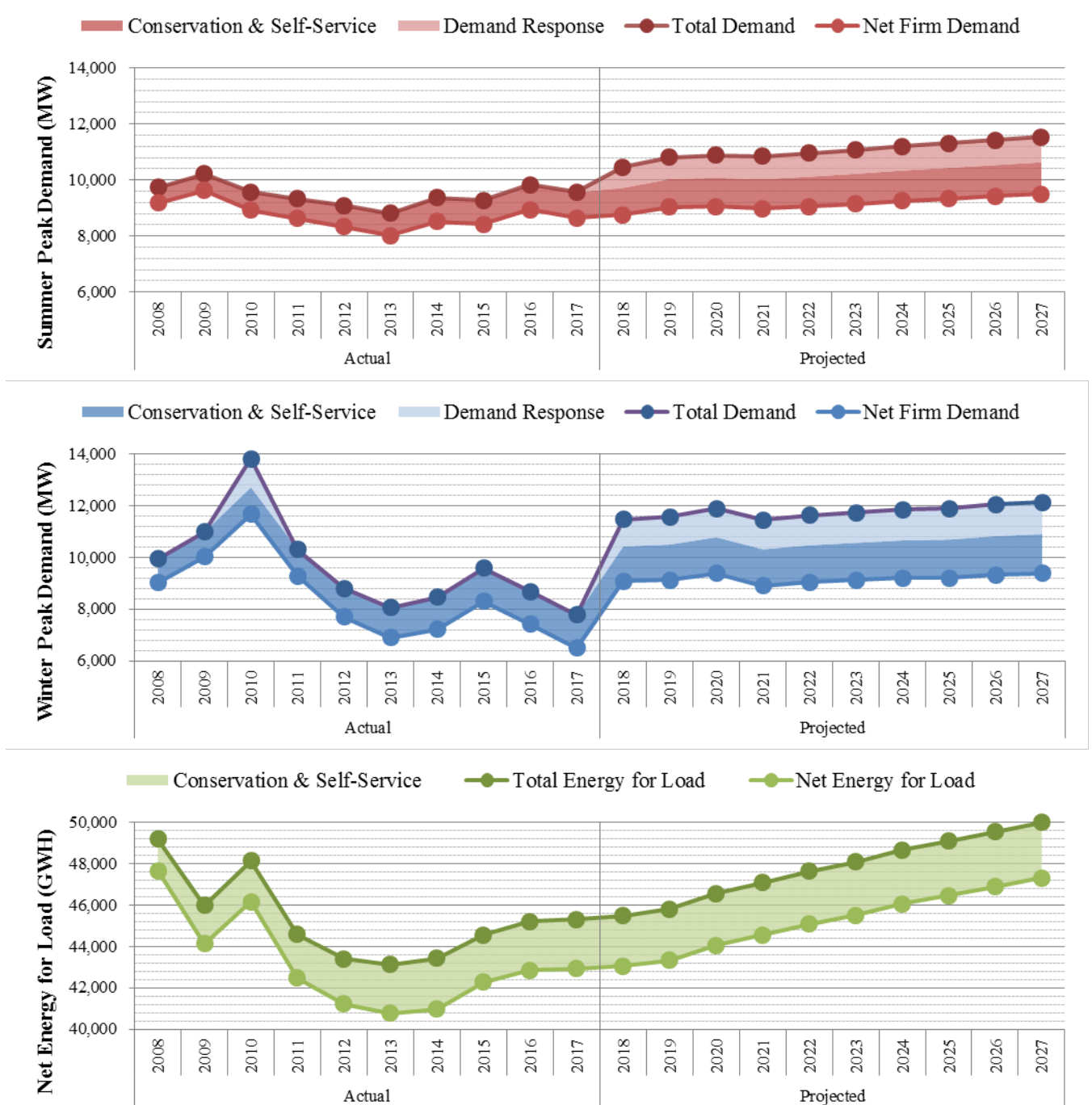
Figure 21: DEF Growth Rate



Source: 2018 Ten-Year Site Plan

The three graphs in Figure 22 show DEF’s seasonal peak demand and net energy for load for the historic years of 2008 through 2017 and forecast years 2018 through 2027. These graphs include the full impact of demand-side management and assume that all available demand response resources were or will be activated during the seasonal peak. Historically, demand response has not been activated during seasonal peak demand, excluding extreme weather events. As an investor-owned utility, DEF is subject to FEECA, and currently offers energy efficiency and demand response programs to customers to reduce peak demand and annual energy consumption. The Utility’s 2018 Ten-Year Site Plan reflects the revised demand-side management goals established by the Commission in December 2014.

Figure 22: DEF Demand and Energy Forecasts



Source: 2018 Ten-Year Site Plan and Data Responses

Fuel Diversity

Table 14 shows DEF’s actual net energy for load by fuel type as of 2017 and the projected fuel mix for 2027. DEF relies primarily upon natural gas and coal for energy generation, making up approximately 84 percent of net energy for load. DEF plans to reduce coal usage over the planning period, and to increase renewable energy generation, making natural gas and renewable energy DEF’s primary sources of generation by 2027. DEF projects the highest percentage of renewable energy generation in 2027 of the Ten-Year Site Plan utilities.

Table 14: DEF Energy Consumption by Fuel Type

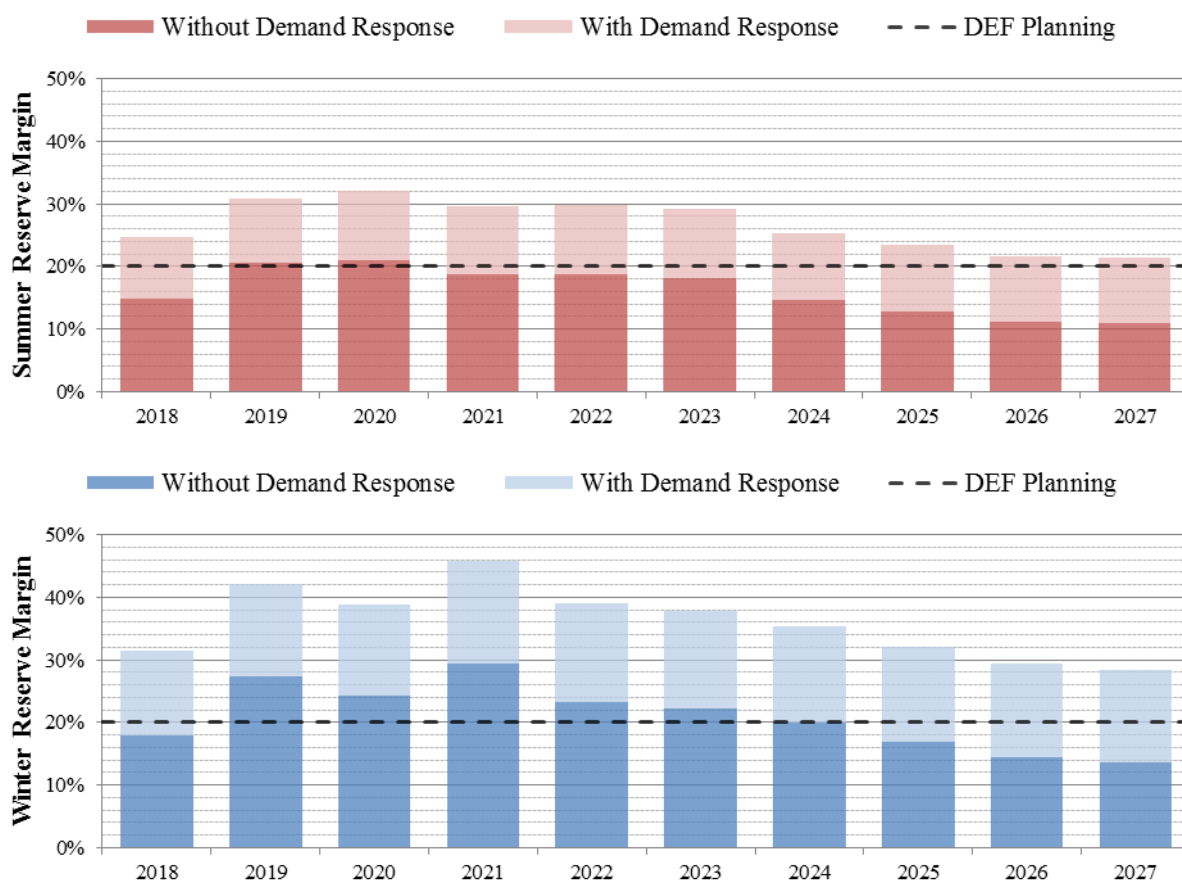
Fuel Type	Net Energy for Load			
	2017		2027	
	GWh	%	GWh	%
Natural Gas	27,307	63.6%	36,552	77.3%
Coal	8,722	20.3%	3,908	8.3%
Nuclear	0	0.0%	0	0.0%
Oil	62	0.1%	102	0.2%
Renewable	1,496	3.5%	6,504	13.7%
Interchange	2,037	4.7%	248	0.5%
NUG & Other	3,295	7.7%	2	0.0%
Total	42,919		47,316	

Source: 2018 Ten-Year Site Plan and Data Responses

Reliability Requirements

Since 1999, DEF has utilized a 20 percent planning reserve margin criterion. Figure 23 displays the forecast planning reserve margin for DEF through the planning period for both seasons, with and without the use of demand response. As shown in the figure, DEF’s generation needs are controlled by its summer peaking throughout the planning period.

Figure 23: DEF Reserve Margin Forecast



Source: 2018 Ten-Year Site Plan

Generation Resources

DEF plans multiple unit retirements and additions during the planning period, as described in Table 15. DEF’s 2018 Ten-Year Site Plan includes the retirement of the coal-fired Crystal River Units 1 and 2, to be replaced by a pair of natural gas-fired combined cycle units. In addition to the units discussed above, DEF includes the retirement of five gas-fired units at multiple power plant sites. DEF’s planned additions include a combined cycle facility in 2018 in Citrus County, and three planned Combustion Turbine Units at an undesignated site(s) in 2024, 2025, and 2026.

DEF also anticipates increasing the amount of planned solar projects by approximately 175 MW per calendar year, not to exceed 700 MW, consistent with its 2017 Second Revised and Restated Settlement Agreement.¹⁵ DEF has included 450 MW of planned solar additions outside of the 700 MW cap. Currently, DEF is petitioning the Commission for approval of 149.8 MW of solar

¹⁵Order No. PSC-2017-0451-AS-EU, issued November 20, 2017, in Docket No. 20170183-EI, *In re: Application for limited proceeding to approve 2017 second revised and restated settlement agreement, including certain rate adjustments, by Duke Energy Florida, LLC.*

additions as part of its first SoBRA.¹⁶ As a result of forecasts that show the continued reduction in the price of solar PV technology, DEF has incorporated this energy source as a supply-side resource in both its near-term and long-term generation plans. The solar additions make up approximately 33 percent of DEF’s planned future units.

Table 15: DEF Generation Resource Changes

Year	Plant Name & Unit Number	Unit Type	Net Capacity (MW)	Solar Firm Capacity (Summer)	Notes
			Sum	Sum	
Retiring Units					
2018	Crystal River 1 & 2	Coal Steam Turbine	766		
2020	Avon Park P1	Natural Gas Combustion Turbine	24		
2020	Avon Park P2	Distillate Oil Gas Turbine	24		
2020	Higgins P1-4	Natural Gas Combustion Turbine	107		
Total Retirements			921		
New Units					
2018	Citrus CC	Natural Gas Combined Cycle	1,640		Docket No. 20140110-EI
2019	Hamilton	Photovoltaic	75	43	
2019	Solar 6 & 7	Photovoltaic	120	68	
2020	Solar 8, 9, 10, & 11	Photovoltaic	295	168	
2021	Solar 12, 13, & 14	Photovoltaic	210	120	
2022	Solar 15	Photovoltaic	75	43	
2023	Solar 16	Photovoltaic	75	43	
2024	Solar 17	Photovoltaic	75	43	
2025	Solar 18	Photovoltaic	75	43	
2026	Solar 19	Photovoltaic	75	43	
2027	Unknown CT P1, P2, & P3	Natural Gas Combustion Turbine	678		
2027	Solar 20	Photovoltaic	75	43	
Total New Units			3,468	655	
Percentage of Solar Units Planned of Total New Units			33%		
Net Additions			2,547		

Source: 2018 Ten-Year Site Plan

¹⁶Document No. 049910-2018, filed July 31, 2018, in Docket No. 20180149-EI, *In re: Petition for a limited proceeding to approve first solar base rate adjustment, by Duke Energy Florida, LLC.*

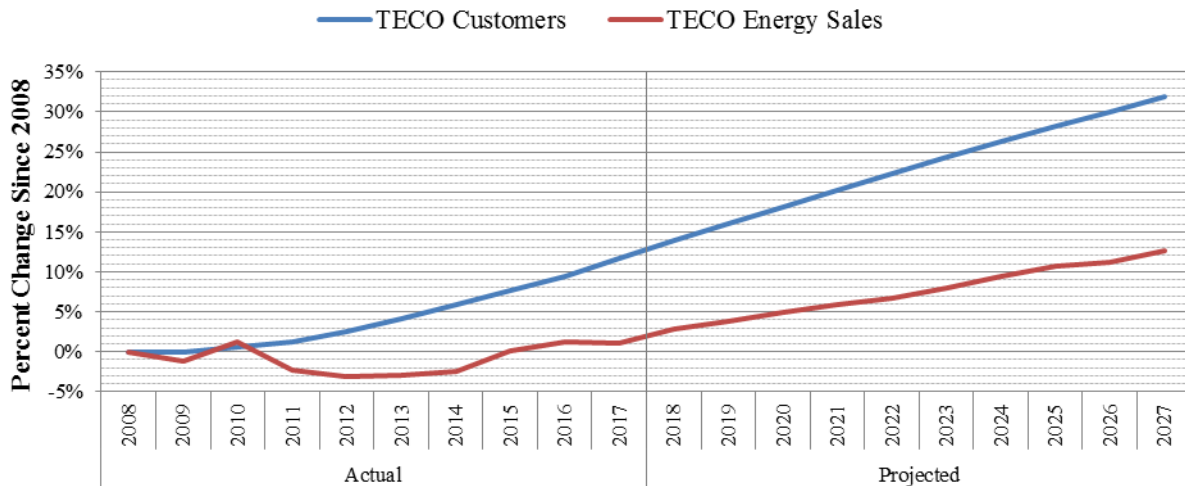
Tampa Electric Company (TECO)

TECO is an investor-owned utility and Florida’s third largest electric utility. The Utility’s service territory is within the FRCC region and consists primarily of the Tampa metropolitan area. As an investor-owned utility, the Commission has regulatory authority over all aspects of operations, including rates, reliability, and safety. Pursuant to Section 186.801(2), F.S., the Commission finds TECO’s 2018 Ten-Year Site Plan suitable for planning purposes.

Load & Energy Forecasts

In 2017, TECO had approximately 744,690 customers and annual retail energy sales of 19,186 GWh or approximately 8.5 percent of Florida’s annual retail energy sales. Figure 24 illustrates the Utility’s historic and forecast number of customers and retail energy sales, in terms of percentage growth from 2008. Over the last 10 years, TECO’s customer base has increased by 11.6 percent, while retail sales have increased by 1.03 percent. As illustrated, TECO’s retail energy sales are anticipated to exceed its historic 2016 peak in 2018.

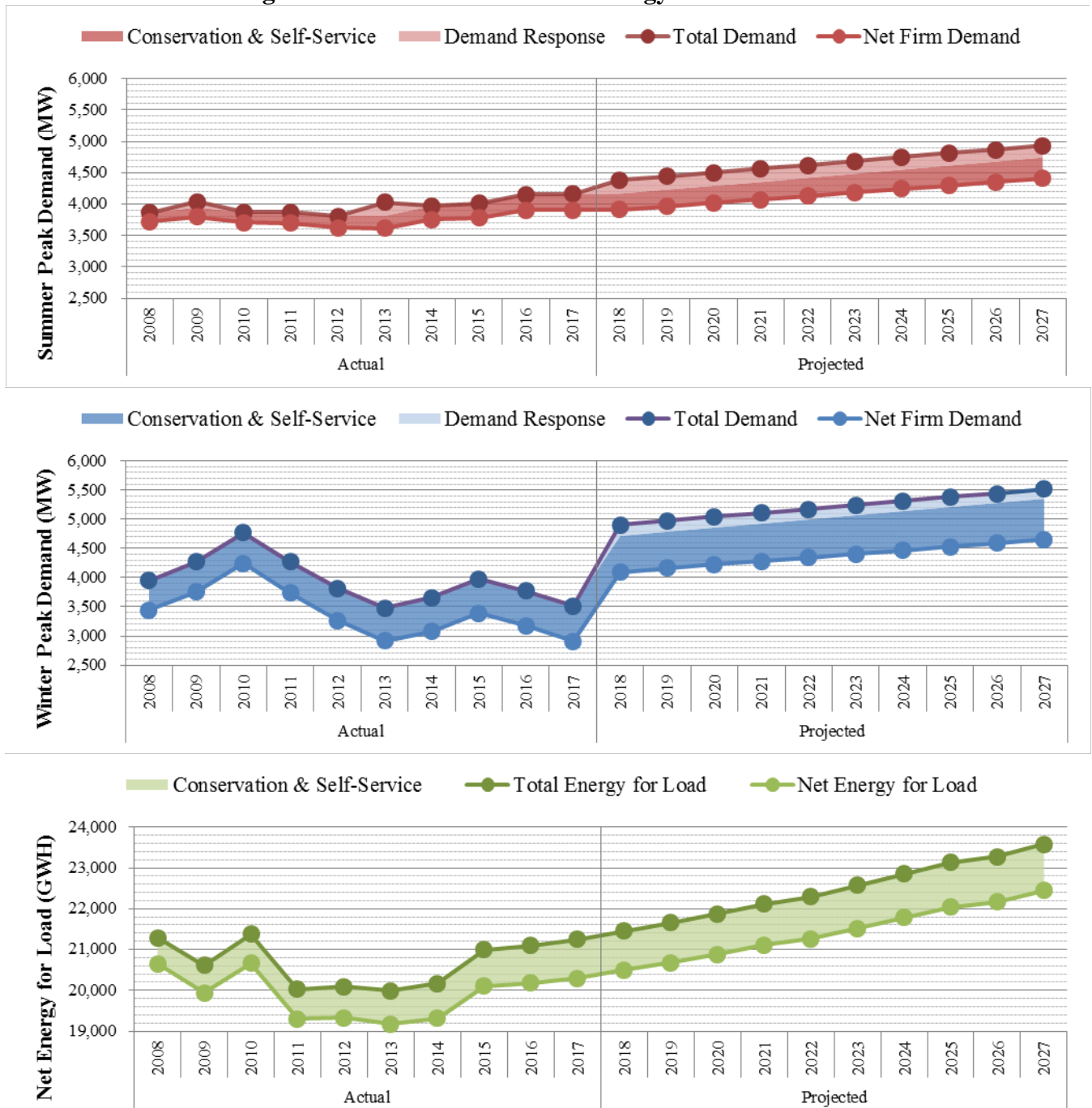
Figure 24: TECO Growth Rate



Source: 2018 Ten-Year Site Plan

The three graphs in Figure 25 show TECO’s seasonal peak demand and net energy for load for the historic years of 2008 through 2017 and forecast years 2018 through 2027. These graphs include the full impact of demand-side management, and assume that all available demand response resources were or will be activated during the seasonal peak. Historically, demand response has not been activated during seasonal peak demand excluding extreme weather events.

Figure 25: TECO Demand and Energy Forecasts



Source: 2018 Ten-Year Site Plan and Data Responses

As an investor-owned utility, TECO is subject to FEECA and currently offers energy efficiency and demand response programs to customers to reduce peak demand and annual energy consumption. The Utility's 2018 Ten-Year Site Plan reflects the revised demand-side management goals established by the Commission in December 2014.

Fuel Diversity

Table 16 shows TECO’s actual net energy for load by fuel type as of 2017 and the projected fuel mix for 2027. Based on its 2018 Ten-Year Site Plan, natural gas is used for the majority of TECO’s energy generation. Natural gas accounts for approximately 67 percent of net energy for load. In the future, TECO projects that energy from coal will slightly decrease and energy from natural gas will increase. TECO projects that renewable energy will increase from 0.2 percent to 6.2 percent of generation by 2027.

Table 16: TECO Energy Consumption by Fuel Type

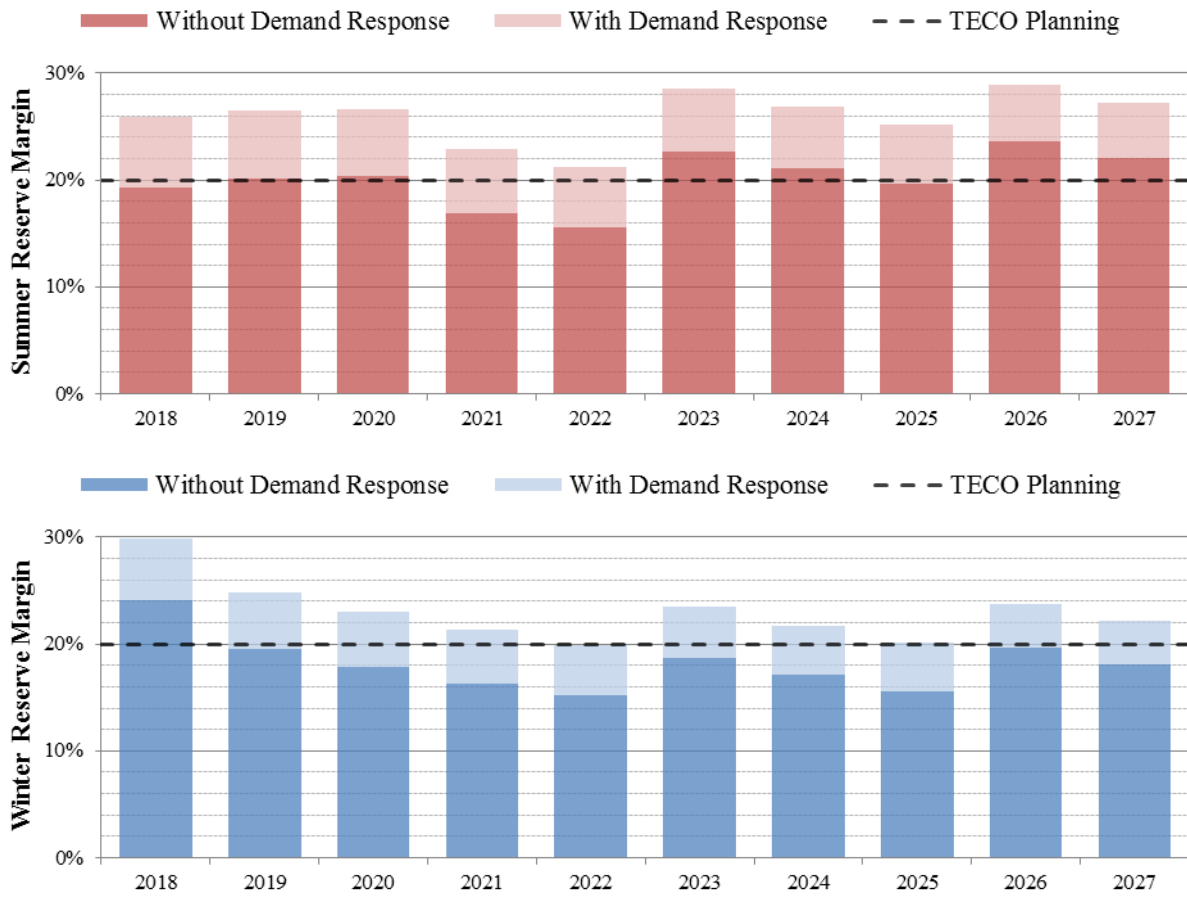
Fuel Type	Net Energy for Load			
	2017		2027	
	GWh	%	GWh	%
Natural Gas	13,685	67.4%	16,379	73.0%
Coal	4,949	24.4%	3,430	15.3%
Nuclear	0	0.0%	0	0.0%
Oil	0	0.0%	0	0.0%
Renewable	45	0.2%	1,387	6.2%
Interchange	122	0.6%	0	0.0%
NUG & Other	1,496	7.4%	1,256	5.6%
Total	20,298		22,452	

Source: 2018 Ten-Year Site Plan and Data Responses

Reliability Requirements

Since 1999, TECO has utilized a 20 percent planning reserve margin criterion. TECO also elects to maintain a minimum supply-side reserve margin of 7 percent. Figure 26 displays the forecast planning reserve margin for TECO through the planning period for both seasons, with and without the use of demand response. As shown in the figure, TECO’s generation needs are controlled by its summer peak throughout the planning period. TECO’s 7 percent supply-side only reserve margin is not the controlling factor for any planned unit additions. However, it does provide useful information regarding the assurance that the projected 20 percent reserve margin will be realized.

Figure 26: TECO Reserve Margin Forecast



Source: 2018 Ten-Year Site Plan

Generation Resources

TECO plans a unit retirement and multiple unit additions during the planning period, as described in Table 17. TECO's 2018 Ten-Year Site Plan includes the retirement of the coal-fired Big Bend Unit 2 in 2021. TECO also plans to convert its coal-fired Big Bend Unit 1 steam turbine into a natural gas-fired combined cycle unit by 2023. The Florida Department of Environmental Protection has determined that a determination of need is not necessary for this conversion. TECO also plans the addition of two natural gas-fired combustion turbine peaking units in 2023 and 2026, and anticipates increasing the amount of planned solar projects over the planning period.

TECO's planned solar projects are consistent with its 600 MW cap, included in its 2017 Stipulation and Settlement Agreement.¹⁷ In TECO's first SoBRA, 144.7 MW were approved.¹⁸ Currently, TECO is petitioning the Commission for approval of 260.3 MW of solar additions as part of its second SoBRA.¹⁹ The solar additions make up approximately 35 percent of TECO's planned future units.

¹⁷Order No. PSC-2017-0456-S-EI, issued November 27, 2017, in Docket No. 20170210-EI, *In re: Petition for limited proceeding to approve 2017 amended and restated stipulation and settlement agreement, by Tampa Electric Company.*

¹⁸Order No. PSC-2018-0288-FOF-EI, issued July 5, 2018, in Docket No. 20170260-EI, *In re: Petition for limited proceeding to approve first solar base rate adjustment (SoBRA), effective September 1, 2018, by Tampa Electric Company.*

¹⁹Document No. 04469-2018, filed June 29, 2018, in Docket No. 20180133-EI, *In re: Petition for limited proceeding to approve second solar base rate adjustment (SoBRA), effective January 1, 2019, by Tampa Electric Company.*

Table 17: TECO Generation Resource Changes

Year	Plant Name & Unit Number	Unit Type	Net Capacity (MW)	Solar Firm Capacity (Summer)
			Sum	Sum
Retiring Units				
2021	Big Bend 2	Coal Steam Turbine	385	
Total Retirements			385	
New Units				
2018	Balm Solar	Photovoltaic	74	74
2018	Payne Creek Solar	Photovoltaic	70	70
2019	Bonnie Mine Solar	Photovoltaic	35	35
2019	Grange Hall Solar	Photovoltaic	61	61
2019	Lithia Solar	Photovoltaic	75	75
2019	Mountain View Solar	Photovoltaic	55	55
2019	Peace Creek Solar	Photovoltaic	57	57
2020	Alafia Solar	Photovoltaic	50	50
2020	Wimauma Solar	Photovoltaic	75	75
2021	Big Bend 5 & 6	Natural Gas Combustion Turbine	660	
2021	Lake Hancock Solar	Photovoltaic	50	50
2023	Future CT 1	Natural Gas Combustion Turbine	229	
2026	Future CT 2	Natural Gas Combustion Turbine	229	
Total New Units			1,719	601
Percentage of Solar Units Planned of Total New Units			35%	
Net Additions			1,334	

Source: 2018 Ten-Year Site Plan

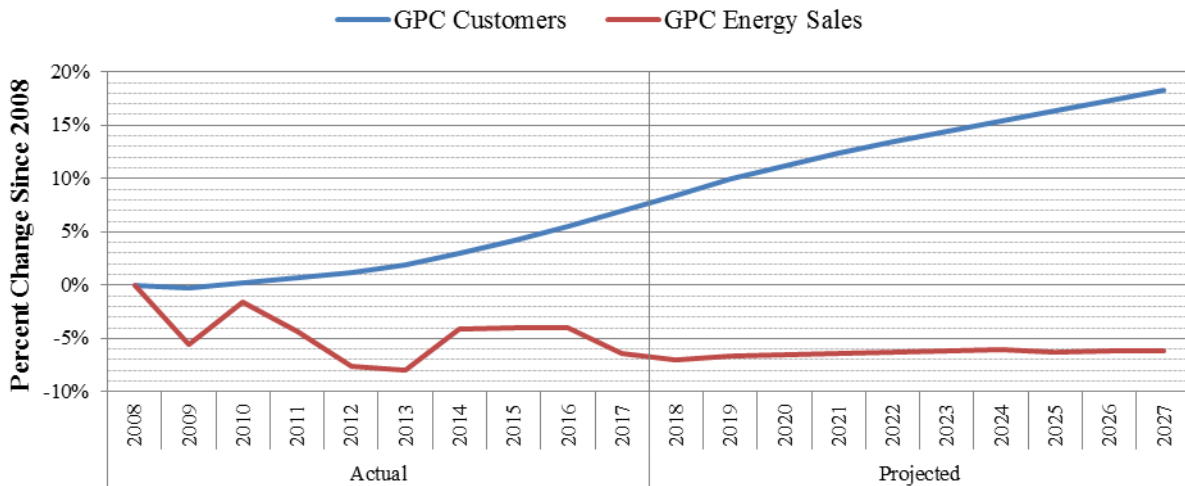
Gulf Power Company (GPC)

GPC is an investor owned utility, and is Florida’s sixth largest electric utility. It represents the smallest of the generating investor-owned utilities, and the only one inside the Southern Company electric system. As GPC plans and operates its system in conjunction with the other Southern Company utilities, not all of the energy generated by GPC is consumed within Florida. NextEra Energy Inc., FPL’s parent company, plans to acquire GPC through a purchase, subject to federal approval, expected to close during the first half of 2019. The effects, if any, to future TYSP is unknown at this time. As an investor-owned utility, the Commission has regulatory authority over all aspects of operations, including rates, reliability, and safety. Pursuant to Section 186.801(2), F.S., the Commission finds GPC’s 2018 Ten-Year Site Plan suitable for planning purposes.

Load & Energy Forecasts

In 2017, GPC had approximately 459,050 customers and annual retail energy sales of 10,809 GWh or approximately 4.8 percent of Florida’s annual retail energy sales. Figure 27 illustrates the Utility’s historic and forecast number of customers and retail energy sales, in terms of percentage growth from 2008. Over the last 10 years, GPC’s customer base has increased by 6.93 percent, while retail sales have declined by 6.36 percent. As illustrated, GPC’s retail energy sales are not anticipated to exceed its historic 2008 peak during the planning period.

Figure 27: GPC Growth Rate

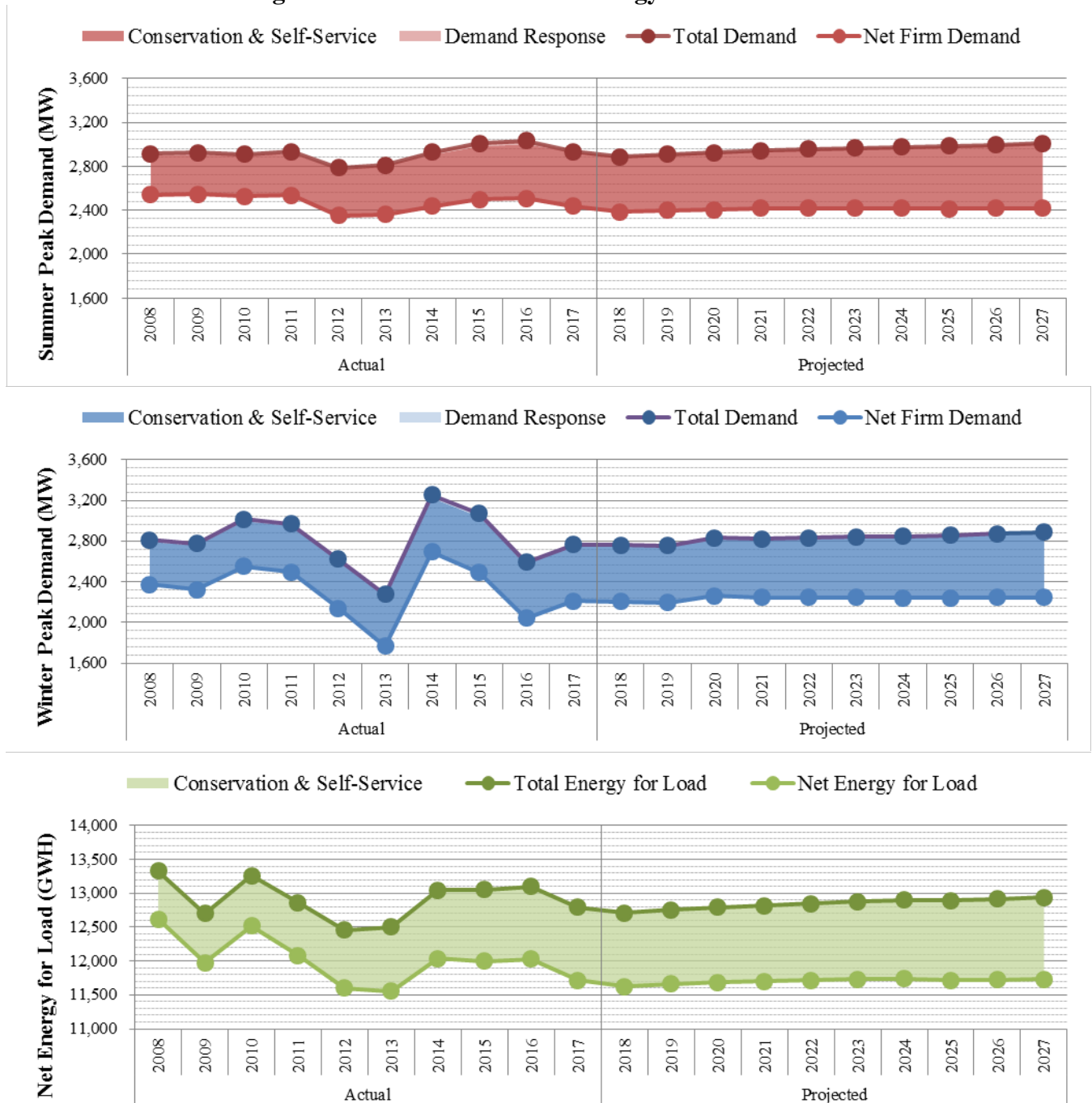


Source: 2018 Ten-Year Site Plan

As an investor-owned utility, GPC is subject to FEECA and currently offers energy efficiency and demand response programs to customers to reduce peak demand and annual energy consumption. The Utility’s 2018 Ten-Year Site Plan reflects the revised demand-side management goals established by the Commission in December 2014. The three graphs in Figure 28 shows GPC’s seasonal peak demand and net energy for load for the historic years of 2008

through 2017 and forecast years 2018 through 2027. These graphs include the full impact of demand-side management.

Figure 28: GPC Demand and Energy Forecasts



Source: 2018 Ten-Year Site Plan and Data Responses

Fuel Diversity

Table 18 shows GPC’s actual net energy for load by fuel type as of 2017, and the projected fuel mix for 2027. GPC is an energy exporter, producing approximately 31 percent more energy than it requires for native load. While natural gas was the dominant fuel source in 2017, coal was the second most utilized fuel source. By 2027, GPC’s 2018 Ten-Year Site Plan projects a decrease in export to Southern Company Services that will be 29.7 percent of native load, with coal representing approximately 53 percent of system energy. GPC projects the second highest percentage of energy consumption from coal in 2027 of the Ten-Year Site Plan utilities.

Table 18: GPC Energy Consumption by Fuel Type

Fuel Type	Net Energy for Load			
	2017		2027	
	GWh	%	GWh	%
Natural Gas	8,983	76.6%	7,527	64.2%
Coal	4,973	42.4%	6,205	52.9%
Nuclear	0	0.0%	0	0.0%
Oil	0	0.0%	1	0.0%
Renewable	1,214	10.4%	1,285	11.0%
Interchange	-3,633	-31.0%	-3,485	-29.7%
NUG & Other	188	1.6%	196	1.7%
Total	11,725		11,729	

Source: 2018 Ten-Year Site Plan and Data Responses

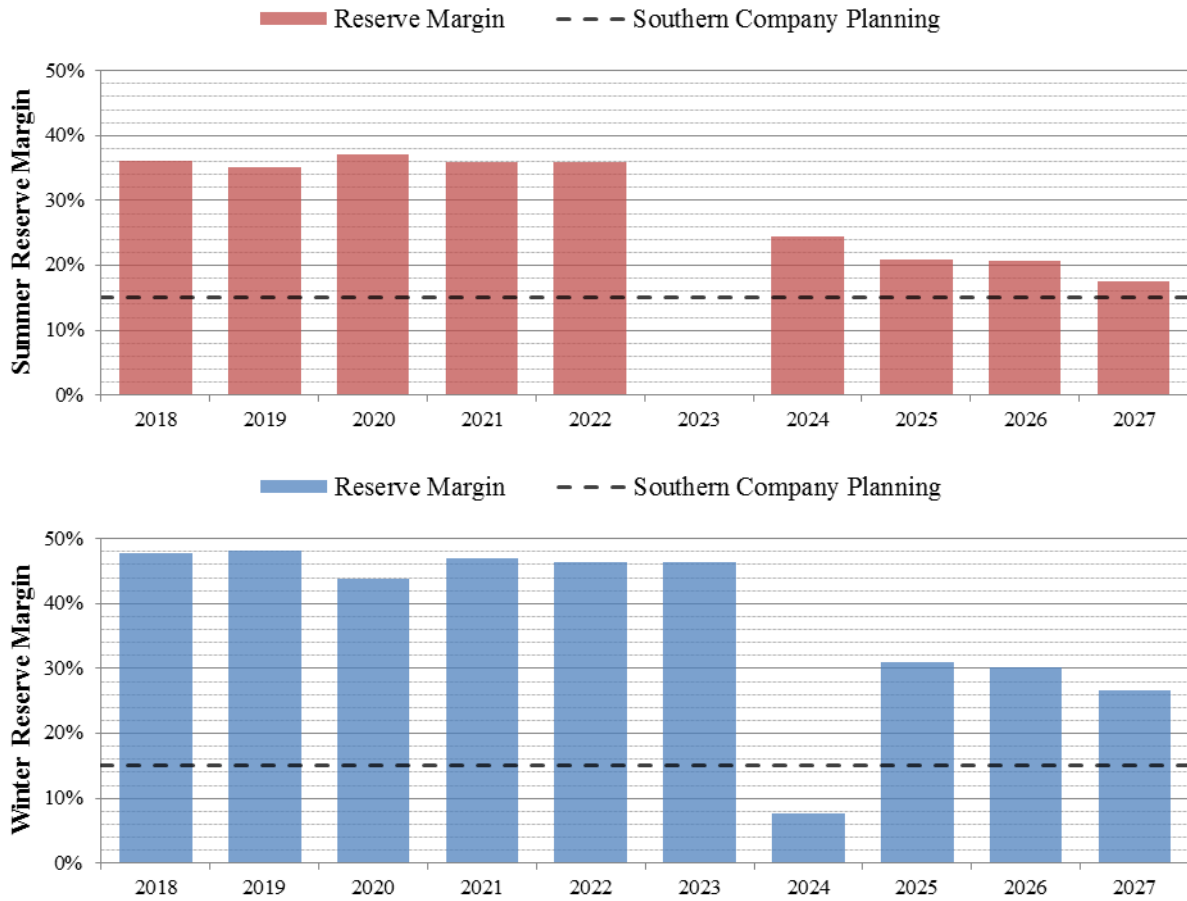
Reliability Requirements

As previously noted, GPC is the only Ten-Year Site Plan utility outside of the FRCC region. As part of Southern Company’s electric system, GPC plans to maintain a 16.25 percent summer reserve margin beginning in 2021. Figure 29 displays the forecast planning reserve margin for GPC through the planning period for both seasons, including the impact of energy efficiency programs.

As shown in Figure 29, GPC is reporting a near-zero reserve margin for Summer 2023 and a 7.7 percent reserve margin for Winter 2023 through 2024. This is due to the expiration of a purchased power agreement with Shell Energy North America (Shell PPA) for 885 MW of firm capacity in May 2023. GPC currently anticipates replacing a portion of this lost capacity with a 595 MW 1x1 combined cycle unit in June 2024. GPC expects to manage its reserve margin requirements in the interim, between the expiration of the Shell PPA and the in-service date of its anticipated new combined cycle unit, with short-term arrangements that are available through the Intercompany Interchange Contract’s reserve sharing mechanism or through capacity purchases from the market. The Intercompany Interchange Contract’s reserve sharing mechanism is a benefit afforded to GPC from its association with the Southern electric system. However, while GPC expects that these purchases will serve to meet its reserve margin requirements, it has not included any contributed capacity from the purchases into its reserve margin projections due to their nature as market purchases. The FRCC’s reserve margin is projected to be 30 percent in 2023 at the time of summer peak, and is projected to be 47 percent in 2023/24 at the time of

winter peak. GPC will provide an update on its reserve margin for the specified timeframe in its next Ten-Year Site Plan. As shown below, GPC’s generation needs are typically determined by its summer peak.

Figure 29: GPC Reserve Margin Forecast



Source: 2018 Ten-Year Site Plan

Generation Resources

GPC plans unit retirements and additions during the planning period, as described in Table 19. Three natural gas-fired combustion turbines will be retired during the planning period. GPC has also indicated that the coal-fired units Crist 4 & 5 are tentatively scheduled for retirement in 2024 and 2026, respectively. GPC has indicated these retirement dates borrow from end-of-life depreciation calculations and do not represent results from an operational evaluation of the units.

Based on its 2018 Ten-Year Site Plan, GPC plans to add a natural gas-fired combined cycle unit in 2024, after the expiration of a purchased power agreement. The planned combined cycle addition will require a determination of need from the Commission.

Table 19: GPC Generation Resource Changes

Year	Plant Name & Unit Number	Unit Type	Net Capacity (MW)
			Sum
Retiring Units			
2024	Crist 4	Coal Fossil Steam Turbine	75
2025	Pea Ridge 1 - 3	Natural Gas Combustion Turbine	12
2026	Crist 5	Coal Fossil Steam Turbine	75
Total Retirements			162
New Units			
2024	Combined Cycle 2	Natural Gas Combined Cycle	595
Total New Units			595
Net Additions			433

Source: 2018 Ten-Year Site Plan

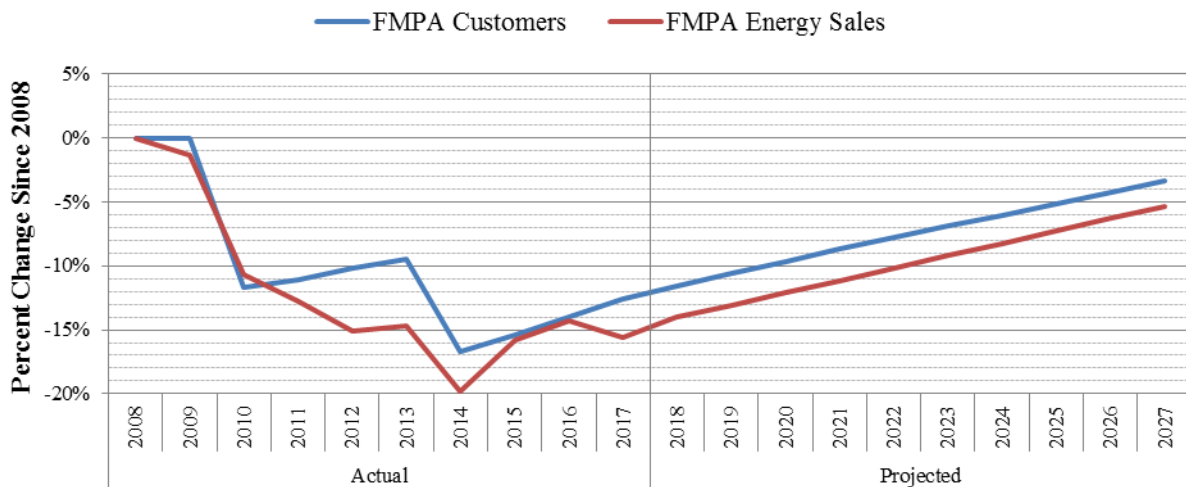
Florida Municipal Power Agency (FMPA)

FMPA is a governmental wholesale power company owned by several Florida municipal utilities throughout Florida. Collectively, FMPA is Florida’s eighth largest electric utility and third largest municipal electric utility. While FMPA has 31 member systems, only those members who are participants of the All-Requirements Power Supply Project (ARP) are addressed in the Utility’s Ten-Year Site Plan. FMPA is responsible for planning activities associated with ARP member systems. As a municipal utility, the Commission’s regulatory authority is limited to safety, rate structure, territorial boundaries, bulk power supply, operations, and planning. Pursuant to Section 186.801(2), F.S., the Commission finds FMPA’s 2018 Ten-Year Site Plan suitable for planning purposes.

Load & Energy Forecasts

In 2017, FMPA had approximately 257,698 customers and annual retail energy sales of 5,629 GWh or approximately 2.5 percent of Florida’s annual retail energy sales. Figure 30 illustrates the Utility’s historic and forecast number of customers and retail energy sales in terms of percentage growth from 2008. Over the last 10 years, FMPA’s customer base has decreased by 12.59 percent, while retail sales have decreased by 15.66 percent. As illustrated, FMPA’s retail energy sales are not anticipated to exceed its historic 2008 peak during the planning period. The reduction in sales is associated with several ARP member systems modifying their contractual agreements with FMPA, such that FMPA no longer provides for the system’s capacity and energy needs. Those member systems modifying agreements include the City of Vero Beach in 2010, the City of Lake Worth in 2014, the City of Fort Meade in 2015, and the City of Green Cove Springs in 2019.

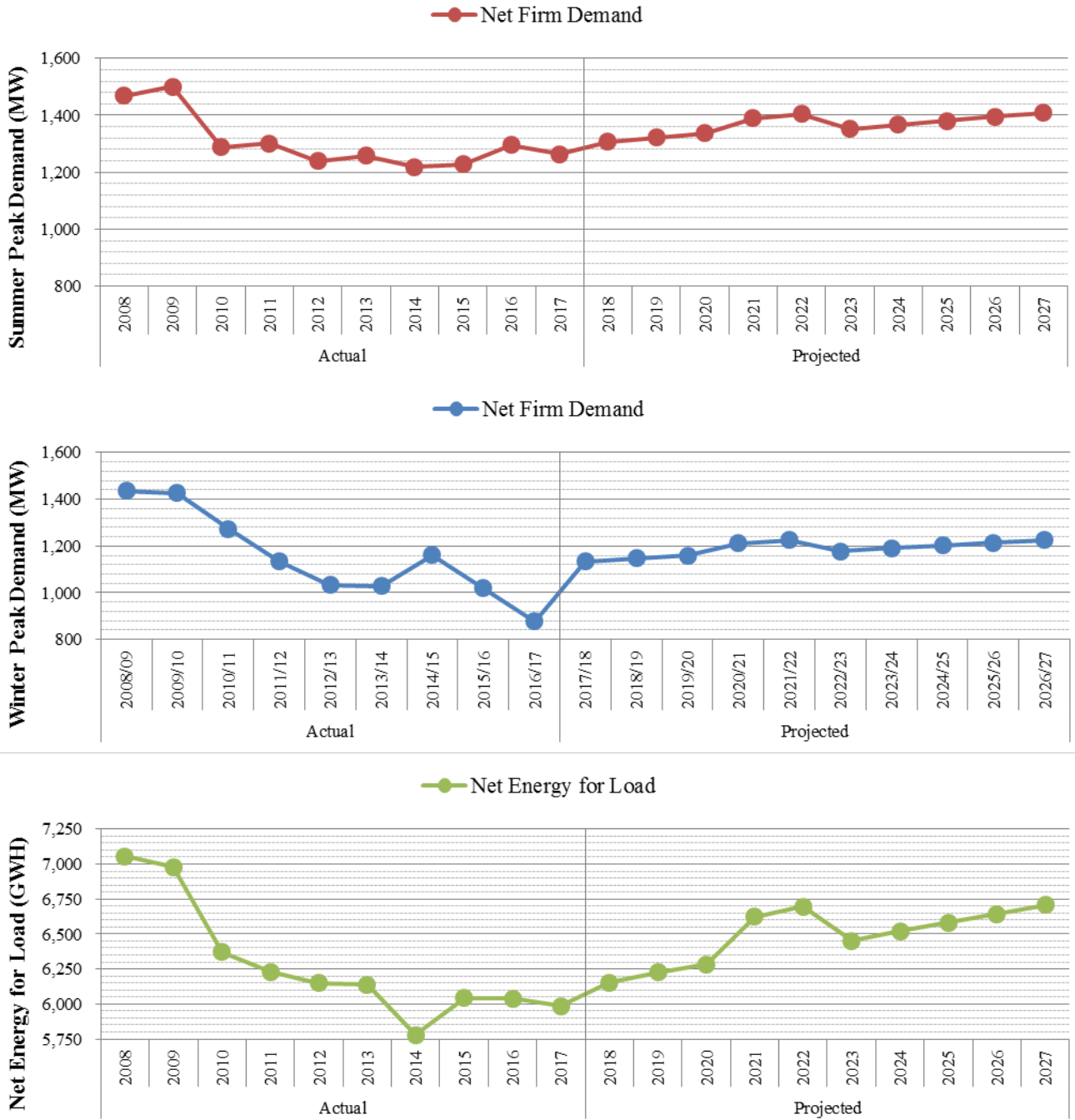
Figure 30: FMPA Growth Rate



Source: 2018 Ten-Year Site Plan

The three graphs in Figure 31 show FMPA's seasonal peak demand and net energy for load for the historic years of 2008 through 2017 and forecast years 2018 through 2027. As FMPA is a wholesale power company, it does not directly engage in energy efficiency or demand response programs. ARP member systems do offer demand-side management programs, the impacts of which are included in the graphs.

Figure 31: FMPA Demand and Energy Forecasts



Source: 2018 Ten-Year Site Plan and Data Responses

Fuel Diversity

Table 20 shows FMPA’s actual net energy for load by fuel type as of 2017 and the projected fuel mix for 2027. FMPA uses natural gas as its primary fuel, supplemented by coal and nuclear generation. FMPA projects a decrease in energy generation from coal in 2027, but approximately 93 percent of energy would still be sourced from natural gas and nuclear.

Table 20: FMPA Energy Consumption by Fuel Type

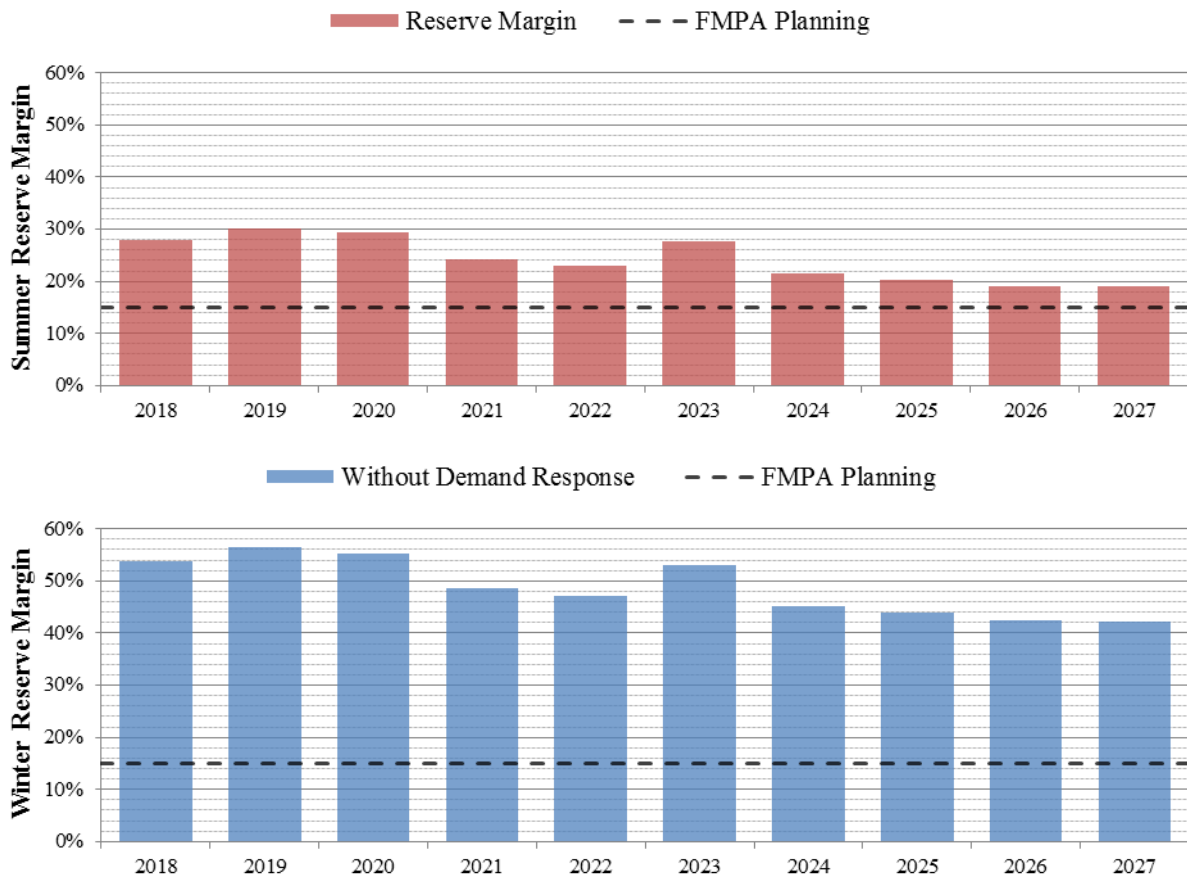
Fuel Type	Net Energy for Load			
	2017		2027	
	GWh	%	GWh	%
Natural Gas	4,741	79.2%	5,828	86.9%
Coal	915	15.3%	472	7.0%
Nuclear	294	4.9%	376	5.6%
Oil	1	0.0%	1	0.0%
Renewable	33	0.6%	32	0.5%
Interchange	0	0.0%	0	0.0%
NUG & Other	0	0.0%	0	0.0%
Total	5,984		6,708	

Source: 2018 Ten-Year Site Plan and Data Responses

Reliability Requirements

FMPA utilizes a 15 percent planning reserve margin criterion. Figure 32 displays the forecast planning reserve margin for FMPA through the planning period for both seasons, with the impact of energy efficiency programs. As shown in the figure, FMPA’s generation needs are controlled by its summer peak throughout the planning period.

Figure 32: FMPA Reserve Margin Forecast



Source: 2018 Ten-Year Site Plan

Generation Resources

FMPA plans no unit additions or retirements during the planning period. However, as discussed above, several ARP member systems have elected to modify their contractual agreements with FMPA, such that FMPA no longer utilizes the member system’s generation resources.

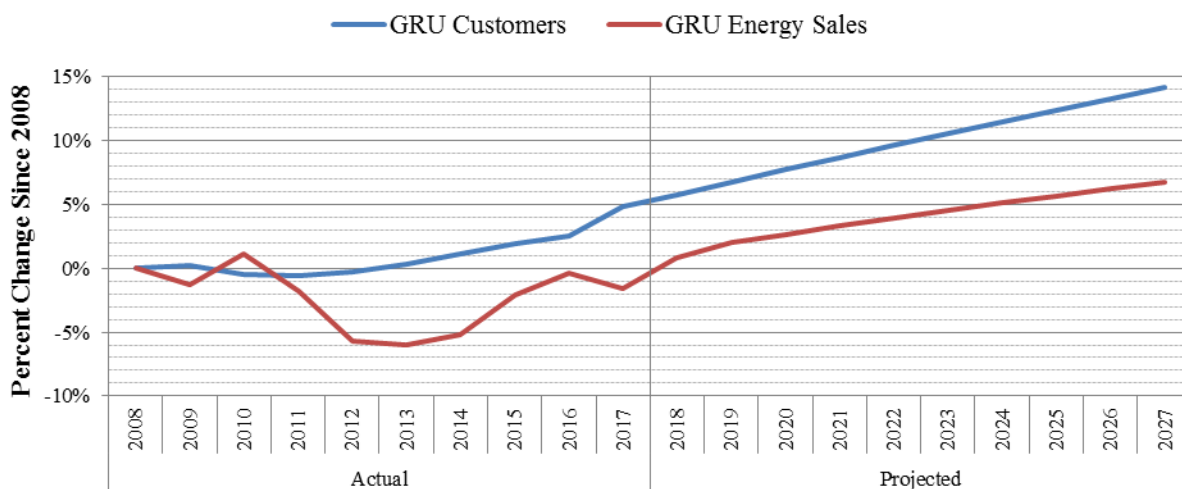
Gainesville Regional Utilities (GRU)

GRU is a municipal utility and the smallest electric utility required to file a Ten-Year Site Plan. The Utility’s service territory is within the FRCC region and consists of the City of Gainesville and its surrounding area. GRU also provides wholesale power to the City of Alachua and Clay Electric Cooperative. As a municipal utility, the Commission’s regulatory authority is limited to safety, rate structure, territorial boundaries, bulk power supply, operations, and planning. Pursuant to Section 186.801(2), F.S., the Commission finds GRU’s 2018 Ten-Year Site Plan suitable for planning purposes.

Load & Energy Forecasts

In 2017, GRU had approximately 97,245 customers and annual retail energy sales of 1,774 GWh or approximately 0.8 percent of Florida’s annual retail energy sales. Figure 33 illustrates the Utility’s historic and forecast number of customers and retail energy sales, in terms of percentage growth from 2008. Over the last 10 years, GRU’s customer base has increased by 4.8 percent, while retail sales have decreased by 1.61 percent. As illustrated, GRU’s retail energy sales are anticipated to exceed its historic 2010 peak in 2019.

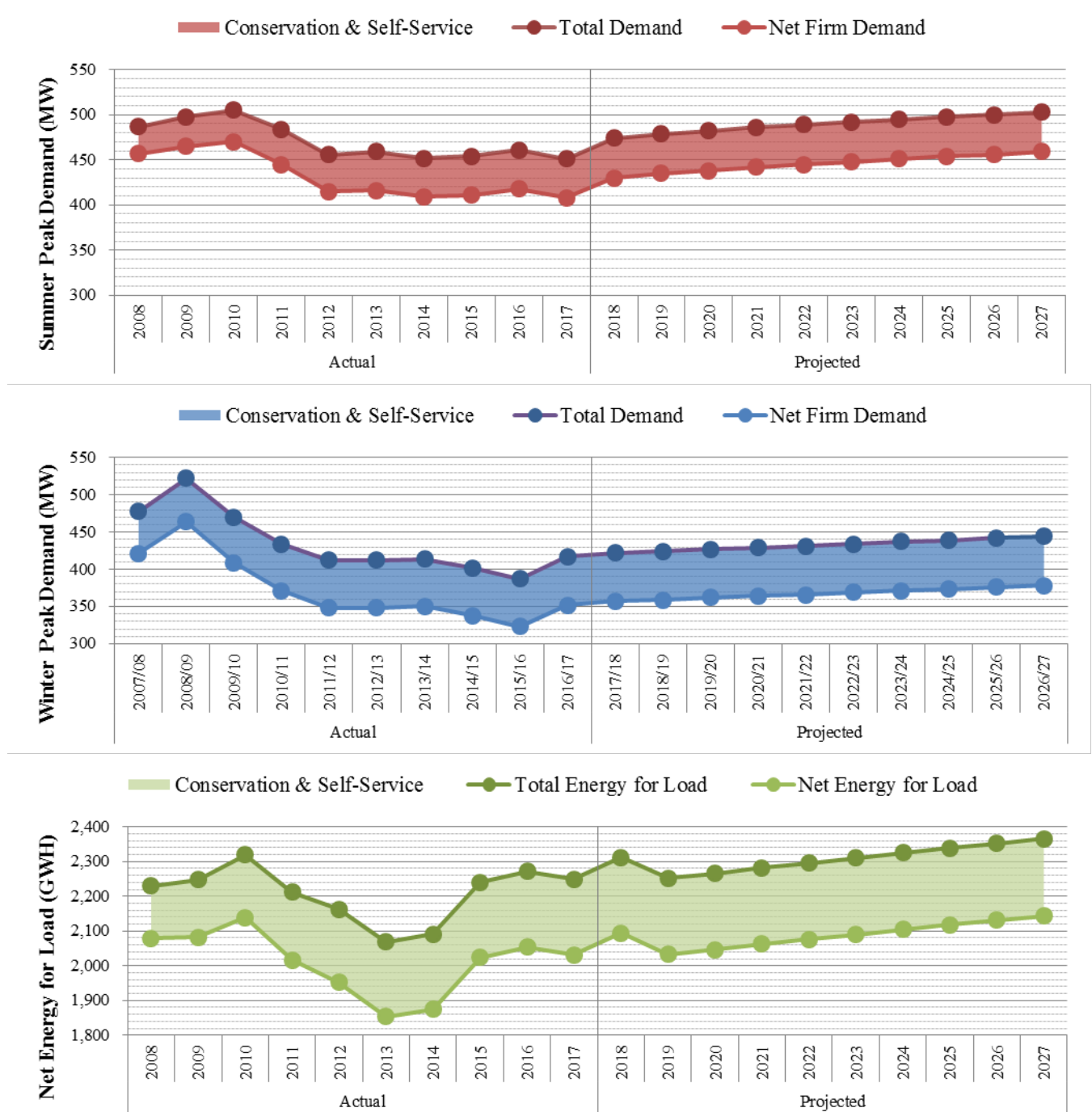
Figure 33: GRU Growth Rate



Source: 2018 Ten-Year Site Plan

The three graphs in Figure 34 show GRU’s seasonal peak demand and net energy for load for the historic years of 2008 through 2017 and forecast years 2018 through 2027. GRU engages in multiple energy efficiency programs to reduce customer peak demand and annual energy for load. The graphs in Figure 35 include the impact of these demand-side management programs.

Figure 34: GRU Demand and Energy Forecasts



Source: 2018 Ten-Year Site Plan and Data Responses

Fuel Diversity

Table 21 shows GRU’s actual net energy for load by fuel type as of 2017 and the projected fuel mix for 2027. In 2014, coal was approximately two times natural gas in terms of contribution to net energy for load, with the remaining energy split between renewable generation and non-utility generators. In 2015, natural gas became GRU’s primary fuel source which has continued into 2017. By 2027, GRU projects an increase in natural gas, approximately an increase from 25 percent to 33 percent in coal, and an approximate decrease from 18 percent to 15 percent in renewable energy.

Table 21: GRU Energy Consumption by Fuel Type

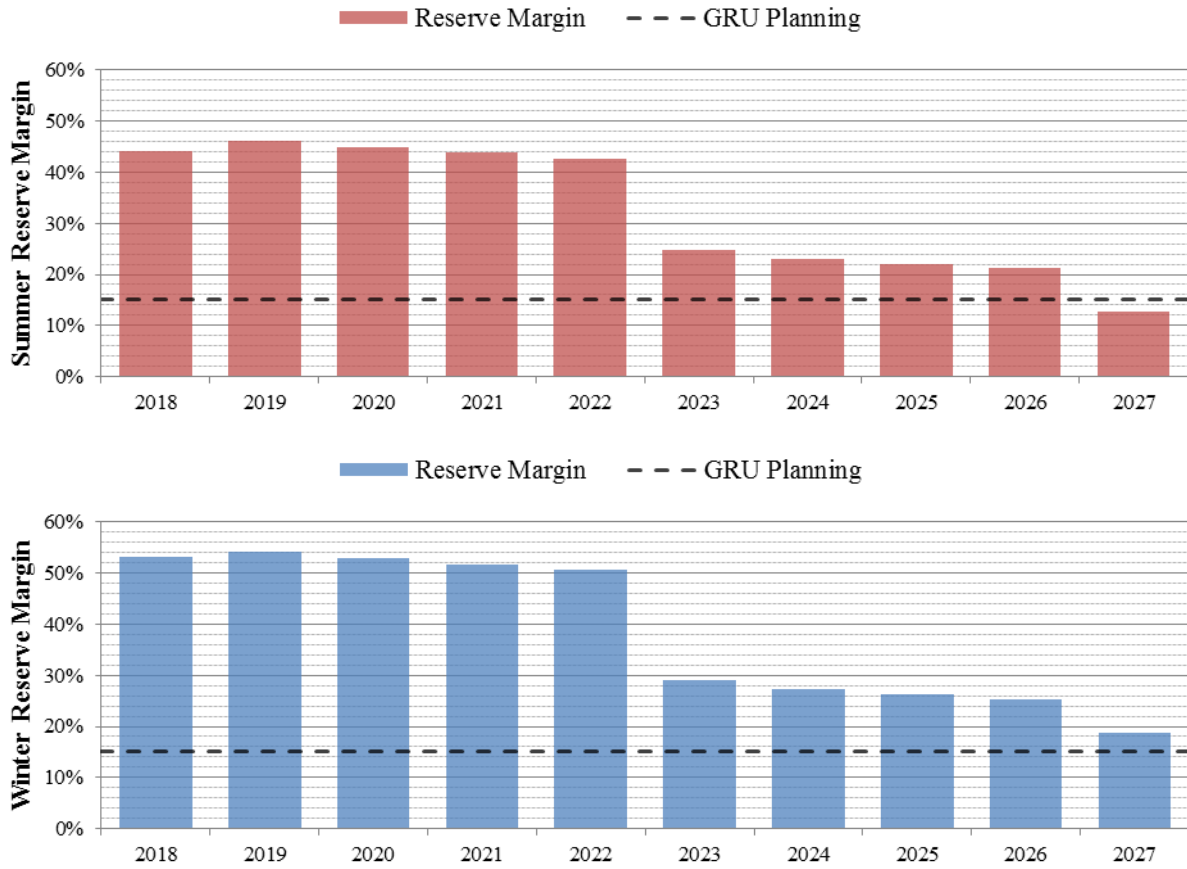
Fuel Type	Net Energy for Load			
	2017		2027	
	GWh	%	GWh	%
Natural Gas	800	39.4%	980	45.7%
Coal	501	24.7%	696	32.5%
Nuclear	0	0.0%	0	0.0%
Oil	2	0.1%	0	0.0%
Renewable	373	18.4%	315	14.7%
Interchange	0	0.0%	0	0.0%
NUG & Other	355	17.5%	153	7.1%
Total	2,031		2,144	

Source: 2018 Ten-Year Site Plan and Data Responses

Reliability Requirements

GRU utilizes a 15 percent planning reserve margin criterion for seasonal peak demand. Figure 35 displays the forecast planning reserve margin for GRU through the planning period for both seasons, including the impacts of demand-side management. As shown in the figure, GRU’s generation needs are controlled by its summer peak throughout the planning period. As a smaller utility, the reserve margin is an imperfect measure of reliability due to the relatively large impact a single unit may have on reserve margin. For example, GRU’s largest single unit, Deerhaven 2, a coal-fired steam unit, represented 36.4 percent of summer net firm peak demand in 2017, almost the entirety of the Utility’s reserve margin.

Figure 35: GRU Reserve Margin Forecast



Source: 2018 Ten-Year Site Plan

Generation Resources

GRU currently plans to retire a natural gas-fired steam unit in 2022, and a two natural gas-fired combustion turbines in 2026, as described in Table 22. As a smaller utility, single units can have a large impact upon reserve margin.

Table 22: GRU Generation Resource Changes

Year	Plant Name & Unit Number	Unit Type	Net Capacity (MW)
			Sum
Retiring Units			
2022	Deerhaven FS01	Natural Gas Steam Turbine	75
2026	Deerhaven GT01 & GT02	Natural Gas Combustion Turbine	35
Total Retirements			110
Net Additions			(110)

Source: 2018 Ten-Year Site Plan

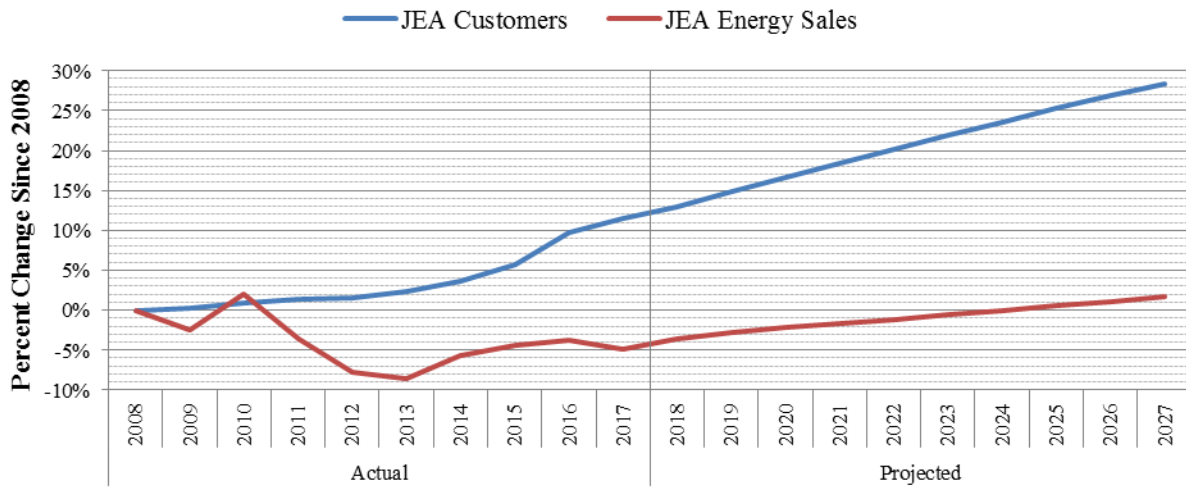
JEA

JEA, formerly known as Jacksonville Electric Authority, is Florida’s largest municipal utility and fifth largest electric utility. JEA’s service territory is within the FRCC region, and includes all of Duval County as well as portions of Clay and St. Johns Counties. As a municipal utility, the Commission’s regulatory authority is limited to safety, rate structure, territorial boundaries, bulk power supply, operations, and planning. Pursuant to Section 186.801(2), F.S., the Commission finds JEA’s 2018 Ten-Year Site Plan suitable for planning purposes.

Load & Energy Forecasts

In 2017, JEA had approximately 456,981 customers and annual retail energy sales of 11,805 GWh or approximately 5.2 percent of Florida’s annual retail energy sales. Figure 36 illustrates the Utility’s historic and forecast number of customers and retail energy sales, in terms of percentage growth from 2008. Over the last 10 years, JEA’s customer base has increased by 11.44 percent, while retail sales have declined by 4.9 percent. As illustrated, JEA’s retail energy sales are not anticipated to exceed its historic 2010 peak during the planning period.

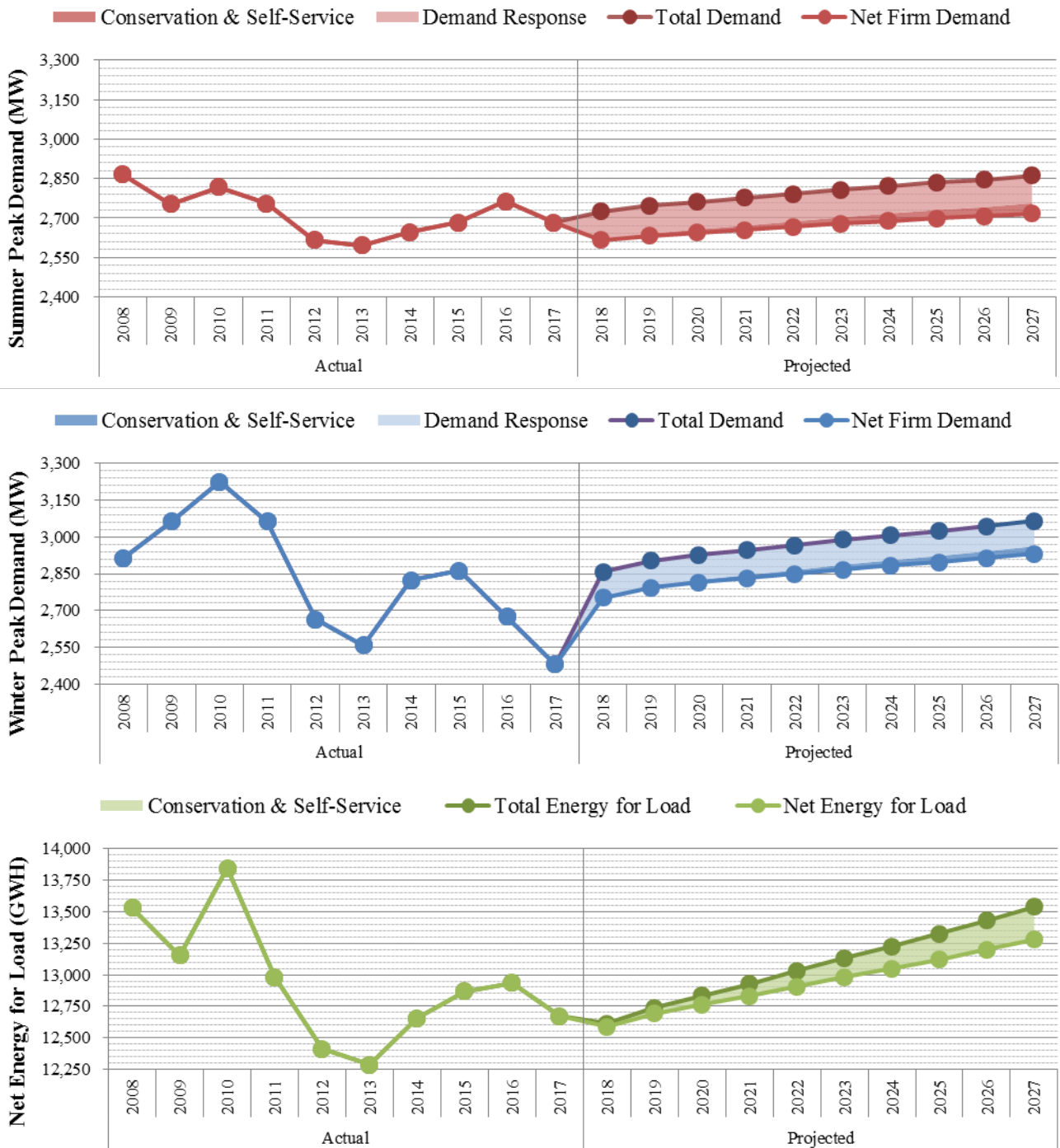
Figure 36: JEA Growth Rate



Source: 2018 Ten-Year Site Plan

The three graphs in Figure 37 show JEA’s seasonal peak demand and net energy for load for the historic years of 2008 through 2017 and forecast years 2018 through 2027. These graphs include the full impact of demand-side management, and assume that all available demand response resources were or will be activated during the seasonal peak.

Figure 37: JEA Demand and Energy Forecasts



Source: 2018 Ten-Year Site Plan and Data Responses

While a municipal utility, JEA is subject to FEECA and currently offers energy efficiency and demand response programs to customers to reduce peak demand and annual energy consumption. The Utility’s 2018 Ten-Year Site Plan reflects the revised demand-side management goals established by the Commission in December 2014.

Fuel Diversity

Table 23 shows JEA’s actual net energy for load by fuel type as of 2017 and the projected fuel mix for 2027. While natural gas was the dominant fuel source in 2017, coal was JEA’s second most utilized fuel source. JEA’s 2018 Ten-Year Site plan projects a majority of its net energy for load will continue to come from natural gas and coal in 2027. JEA projects the third highest percentage of energy consumption from coal in 2027 of the Ten-Year Site Plan utilities.

Table 23: JEA Energy Consumption by Fuel Type

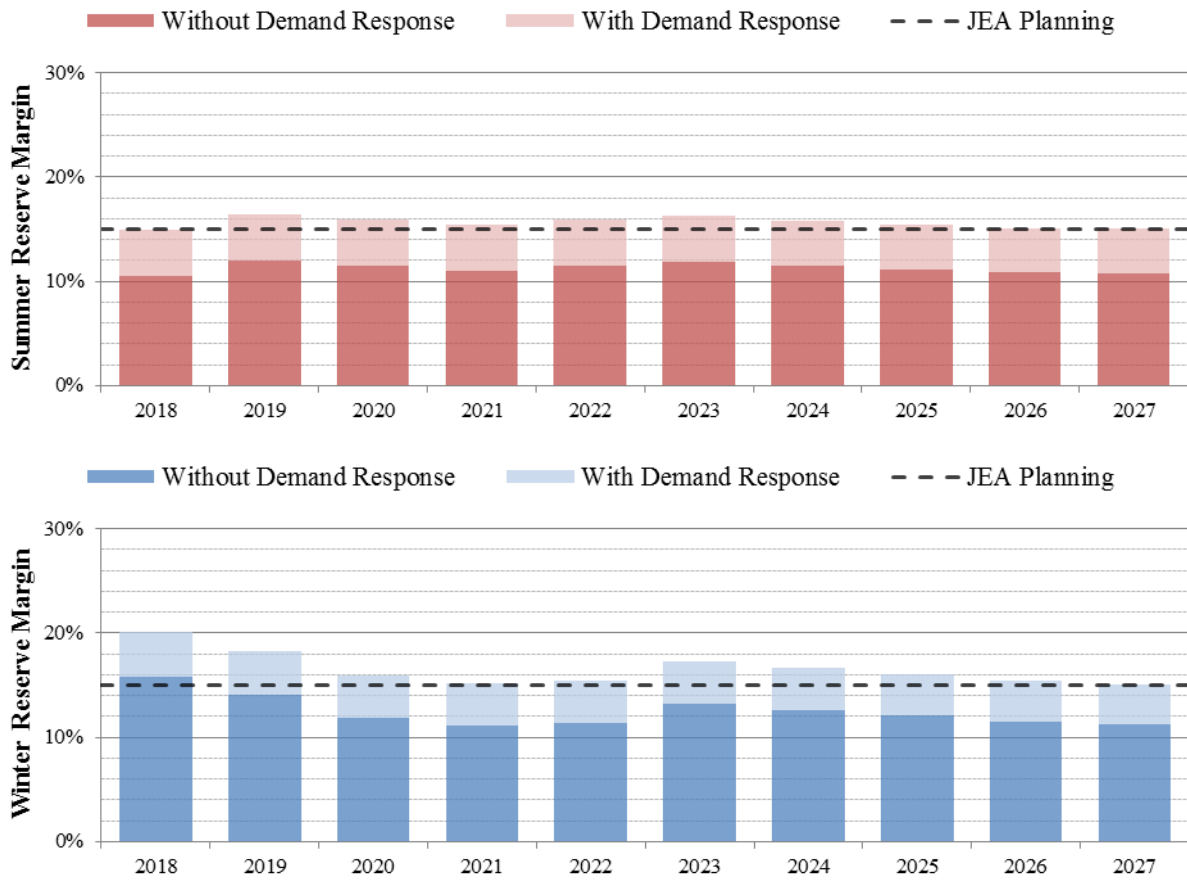
Fuel Type	Net Energy for Load			
	2017		2027	
	GWh	%	GWh	%
Natural Gas	5,697	45.0%	6,471	48.7%
Coal	5,416	42.7%	5,115	38.5%
Nuclear	0	0.0%	0	0.0%
Oil	1	0.0%	5	0.0%
Renewable	111	0.9%	79	0.6%
Interchange	1,447	11.4%	1,611	12.1%
NUG & Other	0	0.0%	0	0.0%
Total	12,672		13,281	

Source: 2018 Ten-Year Site Plan and Data Responses

Reliability Requirements

JEA utilizes a 15 percent planning reserve margin criterion for seasonal peak demand. Figure 38 displays the forecast planning reserve margin for JEA through the planning period for both seasons, with and without the use of demand response. As shown in the figure, JEA’s generation needs are controlled by its summer peak throughout the planning period.

Figure 38: JEA Reserve Margin Forecast



Source: 2018 Ten-Year Site Plan

Generation Resources

JEA plans to retire two units during the planning period, as described in Table 24. As discussed in FPL’s section, the coal-fired steam SJRPP Units 1 & 2 are set to retire in 2018, based on the Utility’s Ten-Year Site Plan.

Table 24: JEA Generation Resource Changes

Year	Unit Name	Fuel & Unit Type	Net Capacity (MW)
			Sum
Retiring Units			
2018	SJRPP 1 & 2	Coal Steam Turbine	1,002
Total Retirements			1,002
Net Additions			(1,002)

Source: 2018 Ten-Year Site Plan

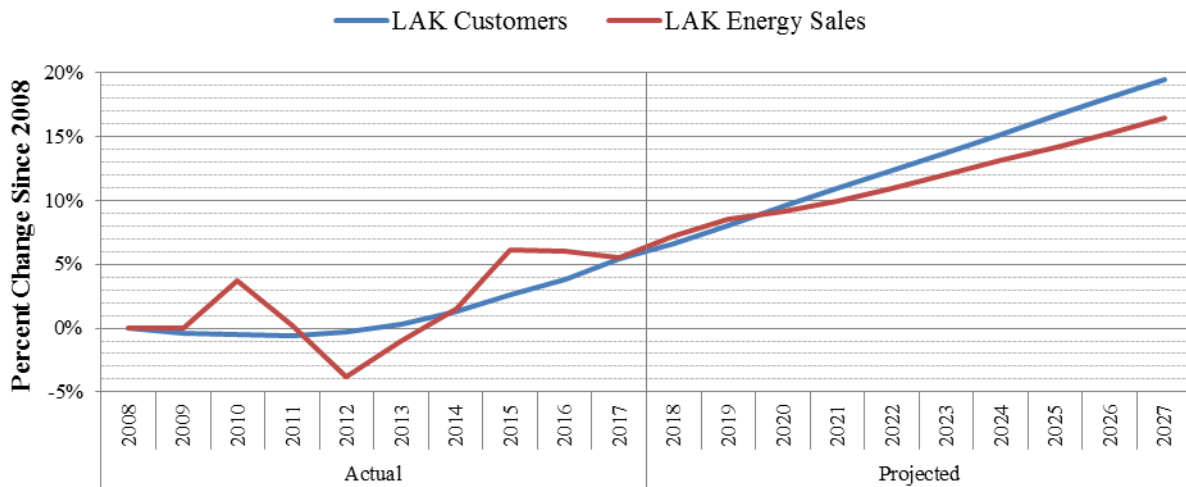
Lakeland Electric (LAK)

LAK is a municipal utility and the state’s third smallest electric utility required to file a Ten-Year Site Plan. The Utility’s service territory is within the FRCC region and consists of the City of Lakeland and surrounding areas. As a municipal utility, the Commission’s regulatory authority is limited to safety, rate structure, territorial boundaries, bulk power supply, operations, and planning. Pursuant to Section 186.801(2), F.S., the Commission finds LAK’s 2018 Ten-Year Site Plan suitable for planning purposes.

Load & Energy Forecasts

In 2017, LAK had approximately 129,113 customers and annual retail energy sales of 3,018 GWh or approximately 1.3 percent of Florida’s annual retail energy sales. Figure 39 illustrates the Utility’s historic and forecast number of customers and retail energy sales, in terms of percentage growth from 2008. Over the last 10 years, LAK’s customer base has increased by 5.46 percent, while retail sales have grown by 5.56 percent. As illustrated, LAK’s retail energy sales are anticipated to exceed its historic 2015 peak in 2018.

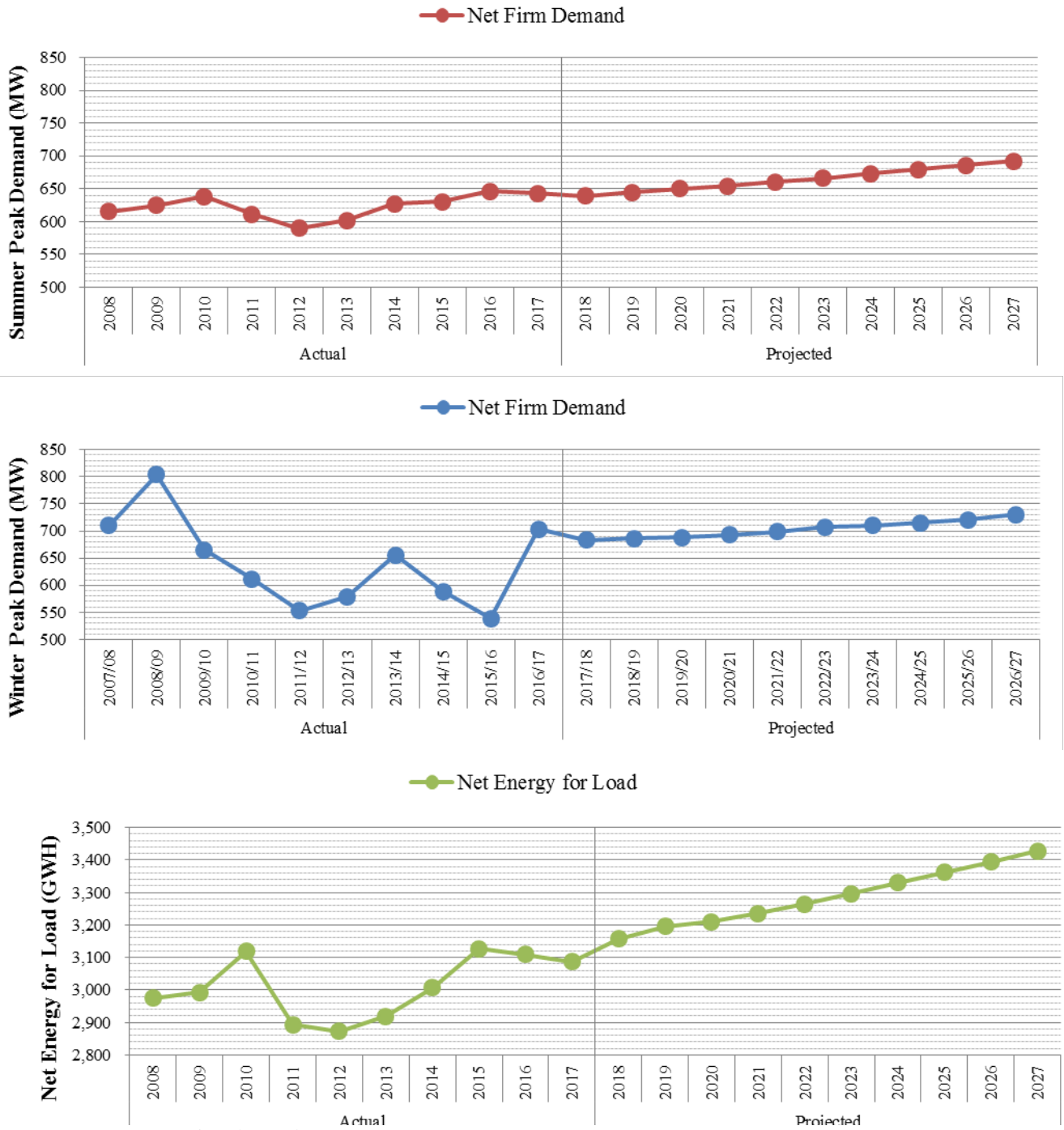
Figure 39: LAK Growth Rate



Source: 2018 Ten-Year Site Plan

The three graphs in Figure 40 show LAK’s seasonal peak demand and net energy for load for the historic years of 2008 through 2017 and forecast years 2018 through 2027. LAK offers energy efficiency programs, the impacts of which are included in the graphs.

Figure 40: LAK Demand and Energy Forecasts



Source: 2018 Ten-Year Site Plan and Data Responses

Fuel Diversity

Table 25 shows LAK’s actual net energy for load by fuel type as of 2017 and the projected fuel mix for 2027. LAK uses natural gas as its primary fuel type for energy, with coal representing about 27 percent net energy for load. While natural gas usage is anticipated to increase as a percent of net energy for load, coal is projected to decrease by 2027.

Table 25: LAK Energy Consumption by Fuel Type

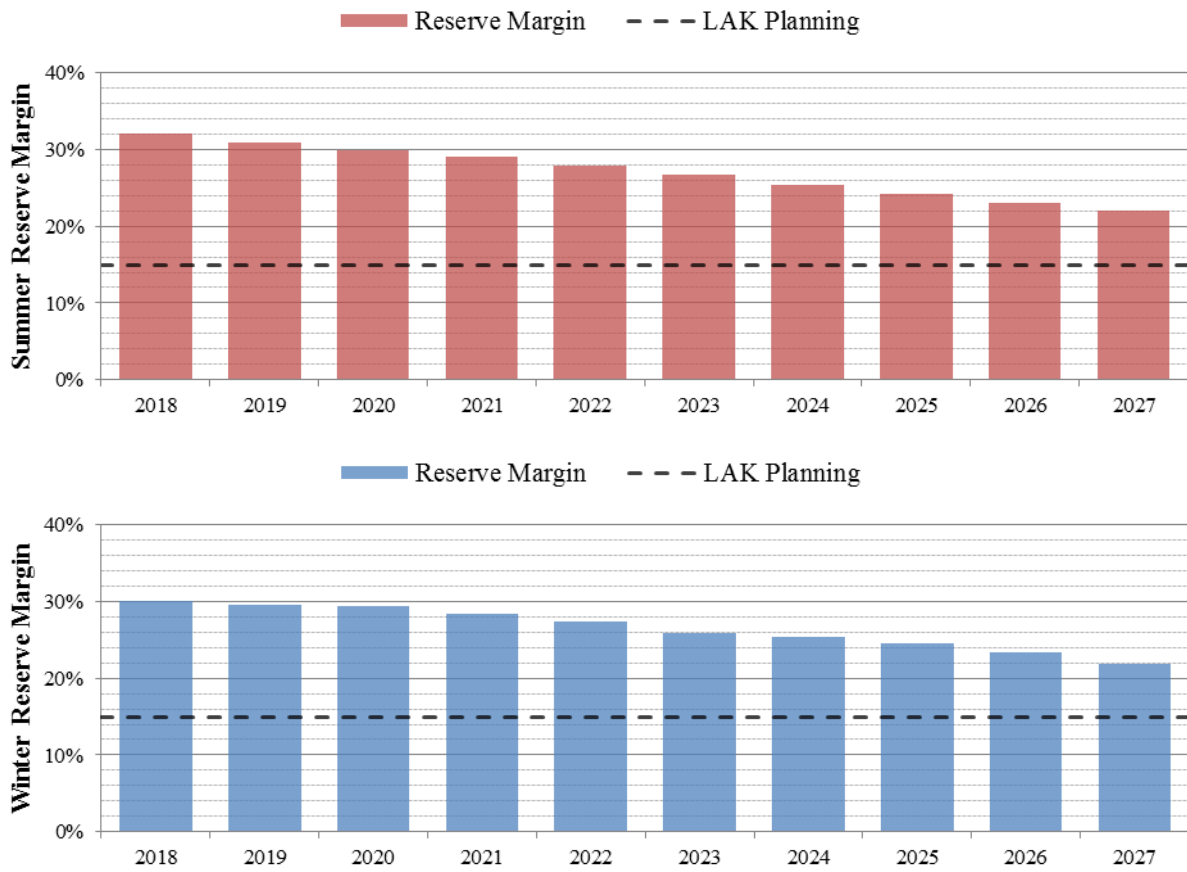
Fuel Type	Net Energy for Load			
	2017		2027	
	GWh	%	GWh	%
Natural Gas	1,589	51.5%	2,667	77.8%
Coal	846	27.4%	474	13.8%
Nuclear	0	0.0%	0	0.0%
Oil	0	0.0%	1	0.0%
Renewable	27	0.9%	37	1.1%
Interchange	0	0.0%	0	0.0%
NUG & Other	624	20.2%	248	7.2%
Total	3,086		3,427	

Source: 2018 Ten-Year Site Plan and Data Responses

Reliability Requirements

LAK utilizes a 15 percent planning reserve margin criterion for seasonal peak demand. Figure 41 displays the forecast planning reserve margin for LAK through the planning period for both seasons, including the impacts of demand-side management. As a smaller utility, the reserve margin is an imperfect measure of reliability due to the relatively large impact a single unit may have on reserve margin. For example, LAK’s largest single unit, McIntosh 5, a natural gas-fired combined cycle unit, represents 25.2 percent of winter net firm peak demand in 2017, in excess of the Utility’s reserve margin.

Figure 41: LAK Reserve Margin Forecast



Source: 2018 Ten-Year Site Plan

Generation Resources

LAK plans no unit additions or retirements during the planning period.

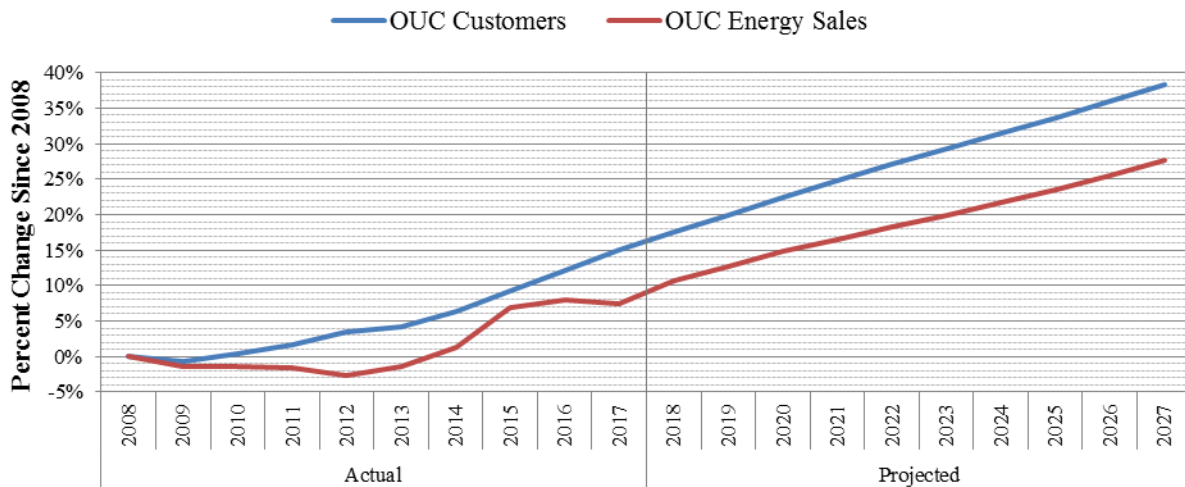
Orlando Utilities Commission (OUC)

OUC is a municipal utility and Florida’s seventh largest electric utility and second largest municipal utility. The Utility’s service territory is within the FRCC region and primarily consists of the Orlando metropolitan area. As a municipal utility, the Commission’s regulatory authority is limited to safety, rate structure, territorial boundaries, bulk power supply, operations, and planning. Pursuant to Section 186.801(2), F.S., the Commission finds OUC’s 2018 Ten-Year Site Plan suitable for planning purposes.

Load & Energy Forecasts

In 2017, OUC had approximately 237,121 customers and annual retail energy sales of 6,568 GWh or approximately 2.9 percent of Florida’s annual retail energy sales. Figure 42 illustrates the Utility’s historic and forecast number of customers and retail energy sales, in terms of percentage growth from 2008. Over the last 10 years, OUC’s customer base has increased by 15 percent, while retail sales have grown by 7.41 percent. As illustrated, OUC’s retail energy sales are anticipated to exceed its historic 2016 peak in 2018.

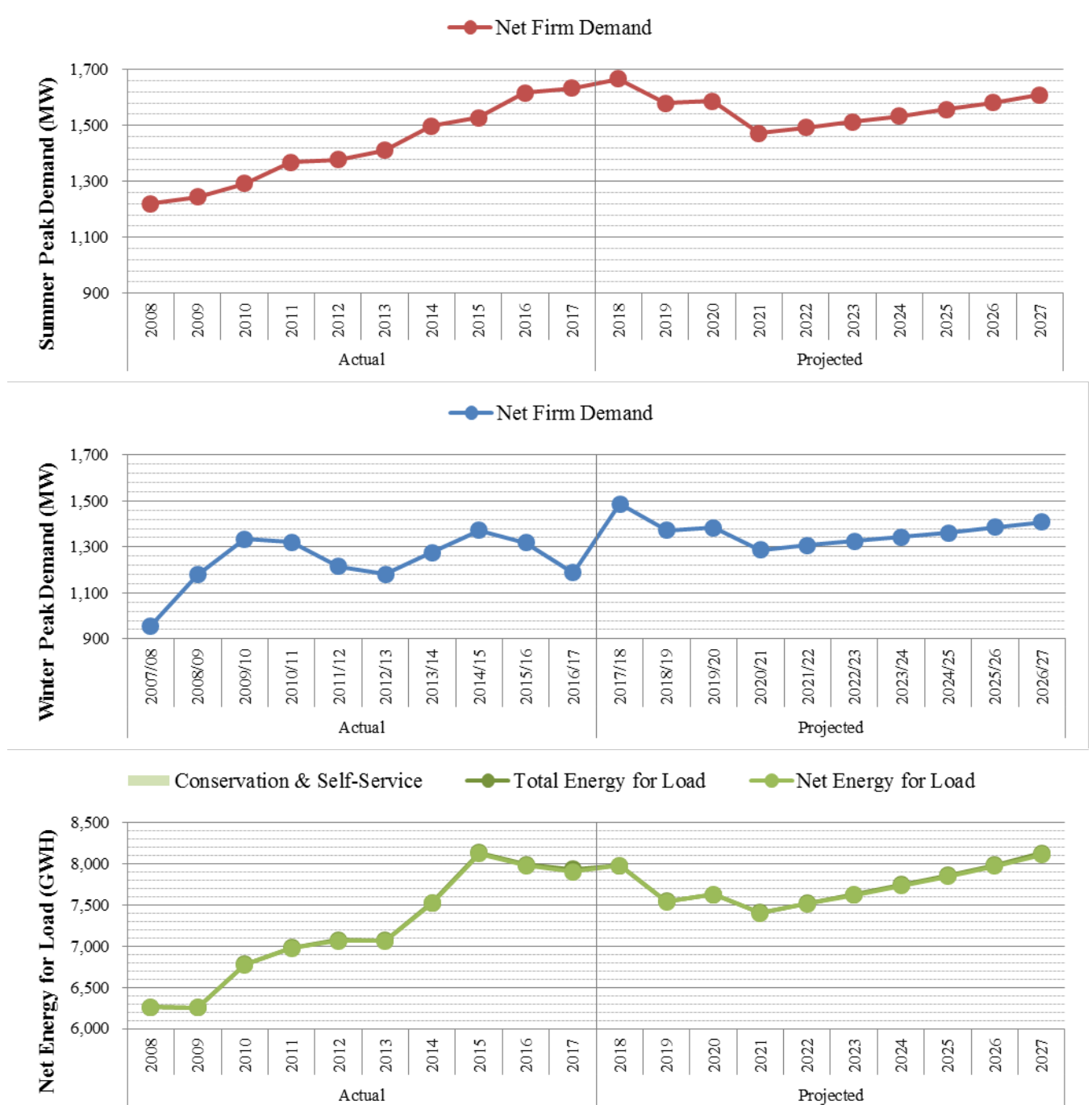
Figure 42: OUC Growth Rate



Source: 2018 Ten-Year Site Plan

The three graphs in Figure 43 show OUC’s seasonal peak demand and net energy for load for the historic years of 2008 through 2017 and forecast years 2018 through 2027. These graphs include the impact of the Utility’s demand side management programs. While a municipal utility, OUC is subject to FEECA and currently offers energy efficiency and demand response programs to customers to reduce peak demand and annual energy consumption.

Figure 43: OUC Demand and Energy Forecasts



Source: 2018 Ten-Year Site Plan and Data Responses

Fuel Diversity

Table 26 shows OUC’s actual net energy for load by fuel type as of 2017 and the projected fuel mix for 2027. In 2017, OUC primarily used coal as fuel to meet its net energy for load at approximately 50 percent, with natural gas as the second most used fuel at approximately 42 percent. OUC projects an increase in the quantity of energy consumed from coal by 2027. Natural gas usage is planned to decrease to about 24 percent by 2027. Based upon this projection, OUC, as a percent of net energy for load, would be the largest user of coal of the Ten-Year Site Plan Utilities by 2027.

Table 26: OUC Energy Consumption by Fuel Type

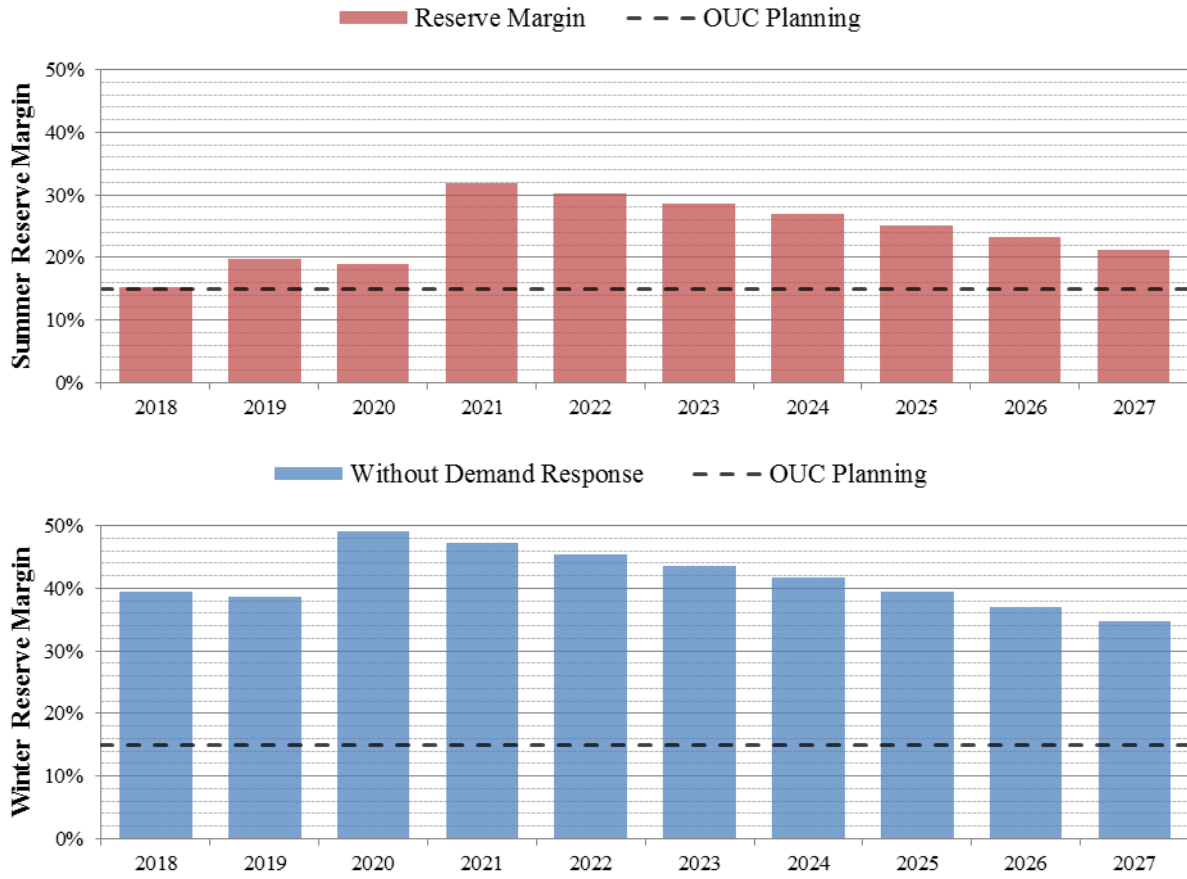
Fuel Type	Net Energy for Load			
	2017		2027	
	GWh	%	GWh	%
Natural Gas	3,326	42.1%	1,944	24.0%
Coal	3,955	50.1%	4,920	60.6%
Nuclear	467	5.9%	560	6.9%
Oil	0	0.0%	0	0.0%
Renewable	154	1.9%	689	8.5%
Interchange	0	0.0%	0	0.0%
NUG & Other	0	0.0%	0	0.0%
Total	7,902		8,113	

Source: 2018 Ten-Year Site Plan and Data Responses

Reliability Requirements

OUC utilizes a 15 percent planning reserve margin criterion for seasonal peak demand. Figure 44 displays the forecast planning reserve margin for OUC through the planning period for both seasons, including the impact of demand-side management programs. As shown in the figure, OUC’s generation needs are controlled by its summer peak demand throughout the planning period.

Figure 44: OUC Reserve Margin Forecast



Source: 2018 Ten-Year Site Plan

Generation Resources

OUC plans no unit additions or retirements during the planning period.

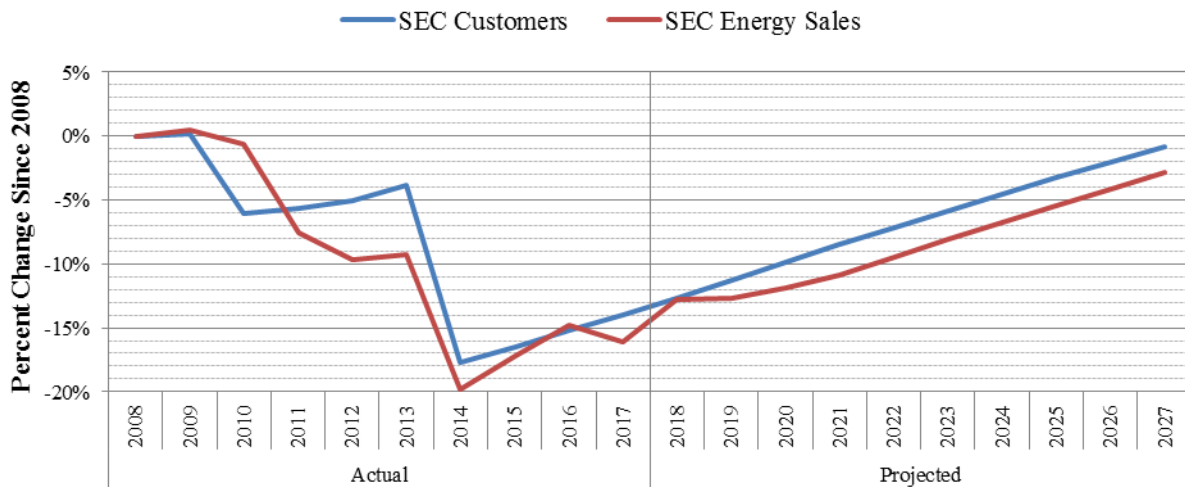
Seminole Electric Cooperative (SEC)

SEC is a generation and transmission rural electric cooperative that serves its member cooperatives, and is collectively Florida’s fourth largest utility. SEC’s generation and member cooperatives are within the FRCC region, with member cooperatives located in central and north Florida. As a rural electric cooperative, the Commission’s regulatory authority is limited to safety, rate structure, territorial boundaries, bulk power supply, operations, and planning. Pursuant to Section 186.801(2), F.S., the Commission finds SEC’s 2018 Ten-Year Site Plan suitable for planning purposes.

Load & Energy Forecasts

In 2017, SEC had approximately 774,337 customers and annual retail energy sales of 13,563 GWh or approximately 6 percent of Florida’s annual retail energy sales. Figure 45 illustrates the Utility’s historic and forecast number of customers and retail energy sales, in terms of percentage growth from 2008. Over the last 10 years, SEC’s customer base has decreased by 13.97 percent, and retail sales have decreased 16.08 percent. As illustrated, SEC’s retail energy sales are not anticipated to exceed its historic 2009 peak during this planning period. The decline shown in 2014 is associated with one member cooperative, Lee County Electric Cooperative, electing to end its membership with SEC.

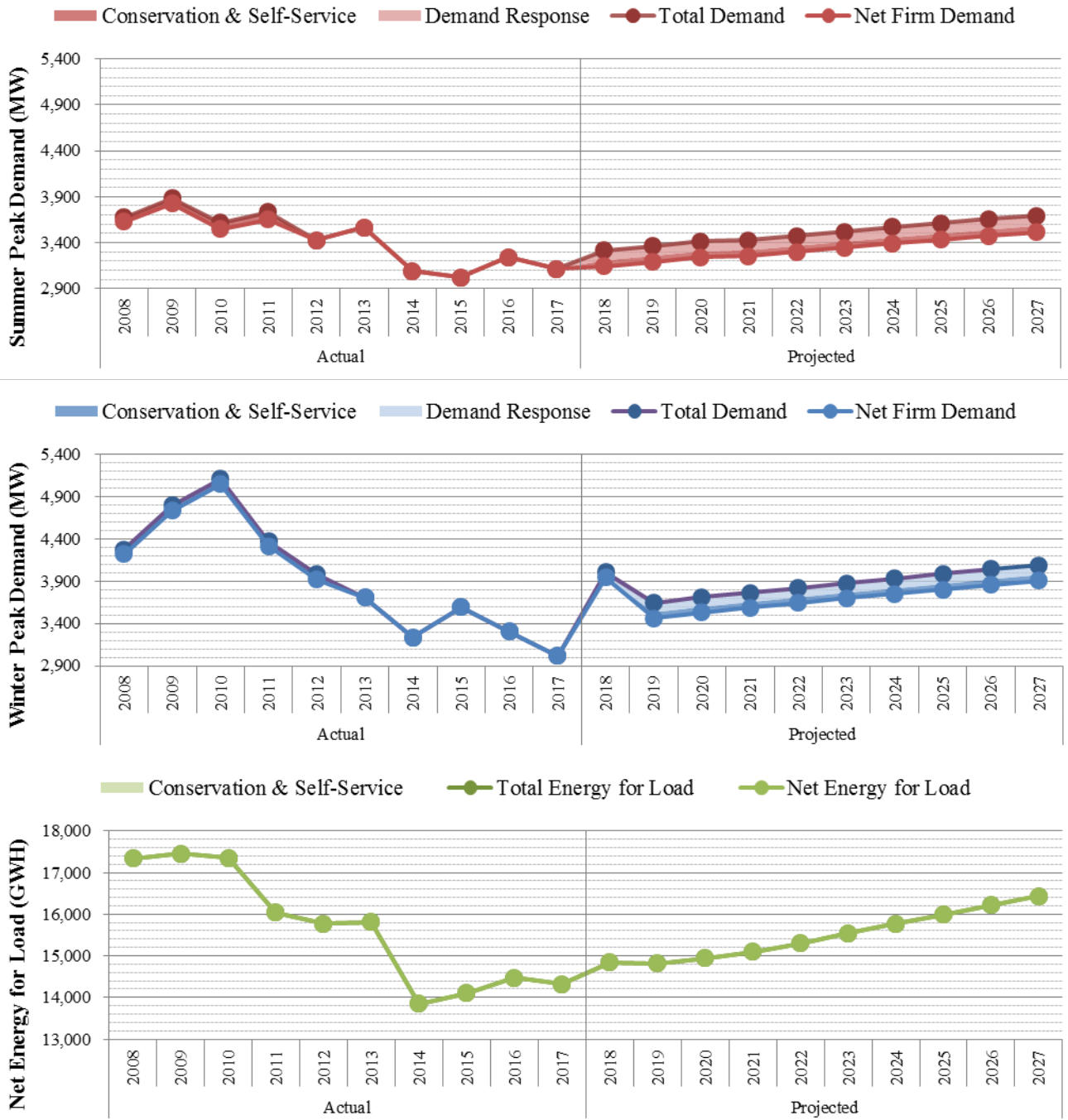
Figure 45: SEC Growth Rate



Source: 2018 Ten-Year Site Plan

The three graphs in Figure 46 show SEC’s seasonal peak demand and net energy for load for the historic years of 2008 through 2017 and forecast years 2018 through 2027. As SEC is a generation and transmission company, it does not directly engage in energy efficiency or demand response programs. Member cooperatives do offer demand-side management programs, the impacts of which are included in Figure 47.

Figure 46: SEC Demand and Energy Forecasts



Source: 2018 Ten-Year Site Plan and Data Responses

Fuel Diversity

Table 27 shows SEC’s actual net energy for load by fuel type as of 2017 and the projected fuel mix for 2027. In 2017, SEC used a combination of coal and natural gas to meet its member cooperatives’ net energy for load, with coal use exceeding all other combined sources. By 2027, SEC projects this to reverse, with natural gas usage higher than coal.

Table 27: SEC Energy Consumption by Fuel Type

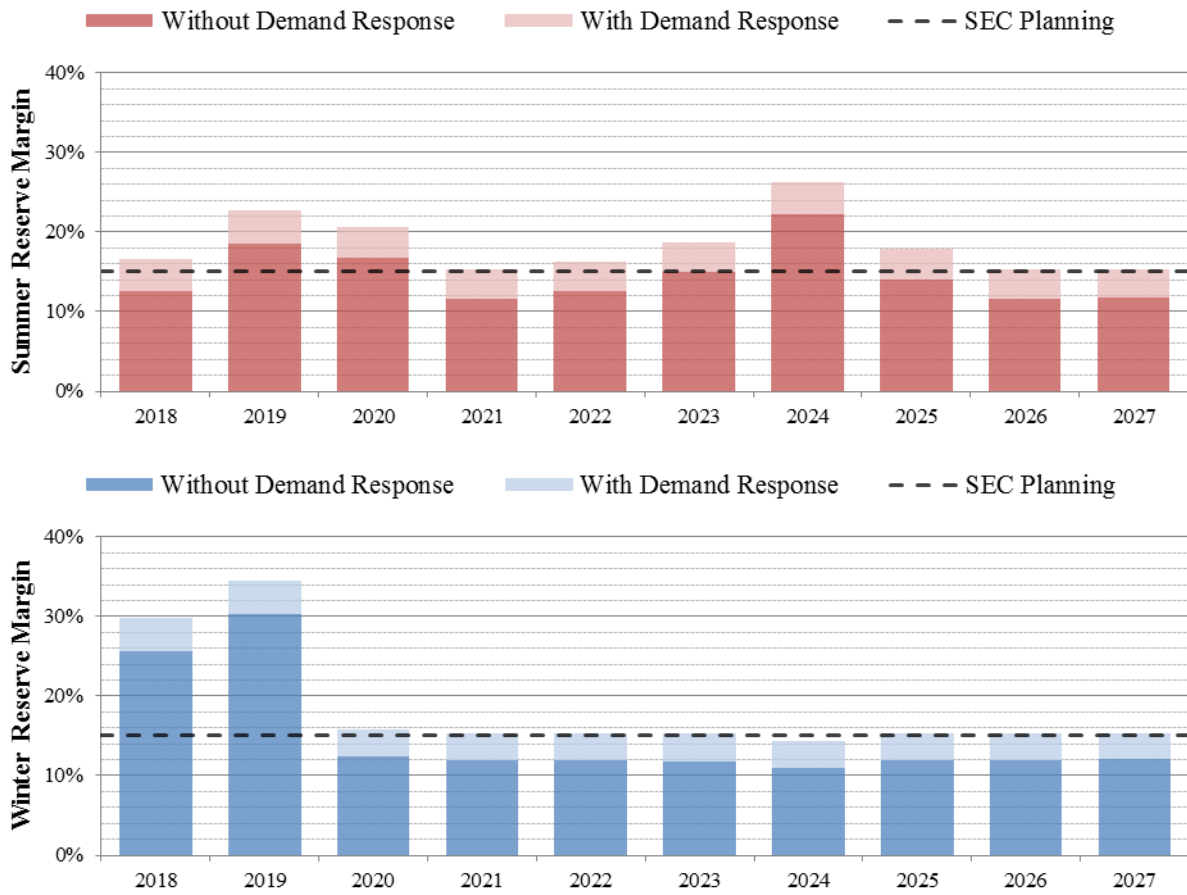
Fuel Type	Net Energy for Load			
	2017		2027	
	GWh	%	GWh	%
Natural Gas	3,299	23.0%	9,863	60.0%
Coal	7,508	52.4%	3,040	18.5%
Nuclear	0	0.0%	0	0.0%
Oil	17	0.1%	8	0.0%
Renewable	581	4.1%	113	0.7%
Interchange	0	0.0%	0	0.0%
NUG & Other	2,920	20.4%	3,413	20.8%
Total	14,325		16,437	

Source: 2018 Ten-Year Site Plan and Data Responses

Reliability Requirements

SEC utilizes a 15 percent planning reserve margin criterion for seasonal peak demand. Figure 47 displays the forecast planning reserve margin for SEC through the planning period for both seasons, with and without the use of demand response. Member cooperatives allow SEC to coordinate demand response resources to maintain reliability. As shown in the figure, SEC’s generation needs are determined by winter peak demand more often than summer peak demand during the planning period.

Figure 47: SEC Reserve Margin Forecast



Source: 2018 Ten-Year Site Plan

Generation Resources

SEC plans to retire one unit and add one unit during the planning period, as described in Table 28. On December 21, 2017, SEC filed a need determination with the Commission for the Seminole CC Facility which was granted on May 25, 2018.²⁰ Consistent with its need determination filing, SEC plans to retire one of its coal-fired SGS units in 2023, and the Seminole CC Facility is expected to be in-service by 2022. However, this need determination is currently under appeal.

Table 28: SEC Generation Resource Changes

Year	Plant Name & Unit Number	Unit Type	Net Capacity (MW)	Notes
			Sum	
Retiring Units				
2023	SGS Unit	Coal Steam Turbine	630	
Total Retirements			630	
New Units				
2022	Seminole CC Facility	Natural Gas Combined Cycle	1,108	Docket No. 20170266-EC
Total New Units			1,108	
Net Additions			478	

Source: 2018 Ten-Year Site Plan

²⁰ Order No. PSC-2018-0262-FOF-EC, issued May 25, 2018, in Docket No. 20170266-EC, *In re: Petition to determine need for Seminole combined cycle facility, by Seminole Electric Cooperative, Inc.*

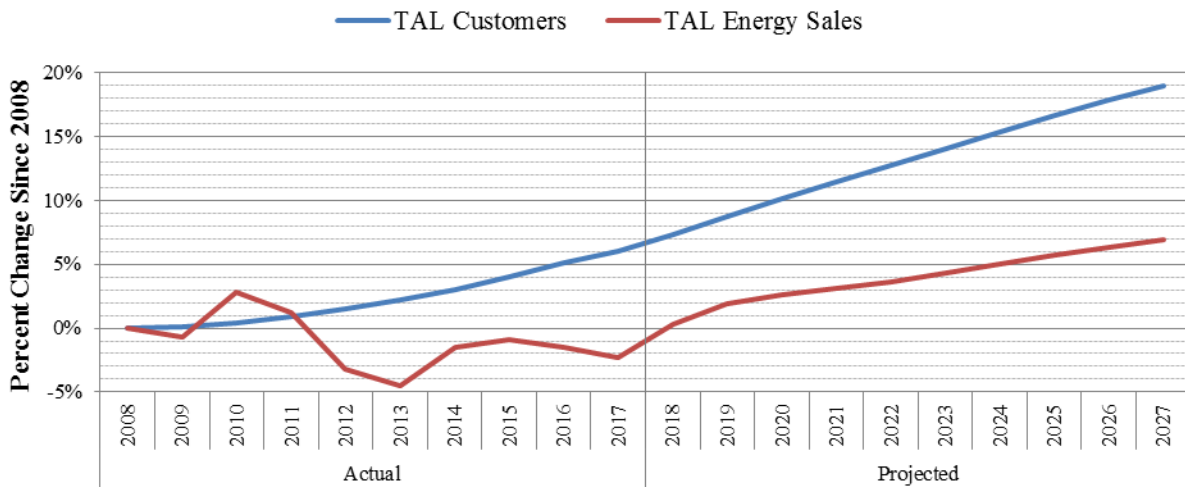
City of Tallahassee Utilities (TAL)

TAL is a municipal utility and the second smallest electric utility which files a Ten-Year Site Plan. The Utility’s service territory is within the FRCC region and primarily consists of the City of Tallahassee and surrounding areas. As a municipal utility, the Commission’s regulatory authority is limited to safety, rate structure, territorial boundaries, bulk power supply, operations, and planning. Pursuant to Section 186.801(2), F.S., the Commission finds TAL’s 2018 Ten-Year Site Plan suitable for planning purposes.

Load & Energy Forecasts

In 2017, TAL had approximately 120,051 customers and annual retail energy sales of 2,617 GWh or approximately 1.2 percent of Florida’s annual retail energy sales. Figure 48 illustrates the Utility’s historic and forecast number of customers and retail energy sales, in terms of percentage growth from 2008. Over the last 10 years, TAL’s customer base has increased by 6.02 percent, while retail sales have declined by 2.31 percent. As illustrated, TAL’s retail energy sales are not anticipated to exceed its historic 2010 peak until 2021.

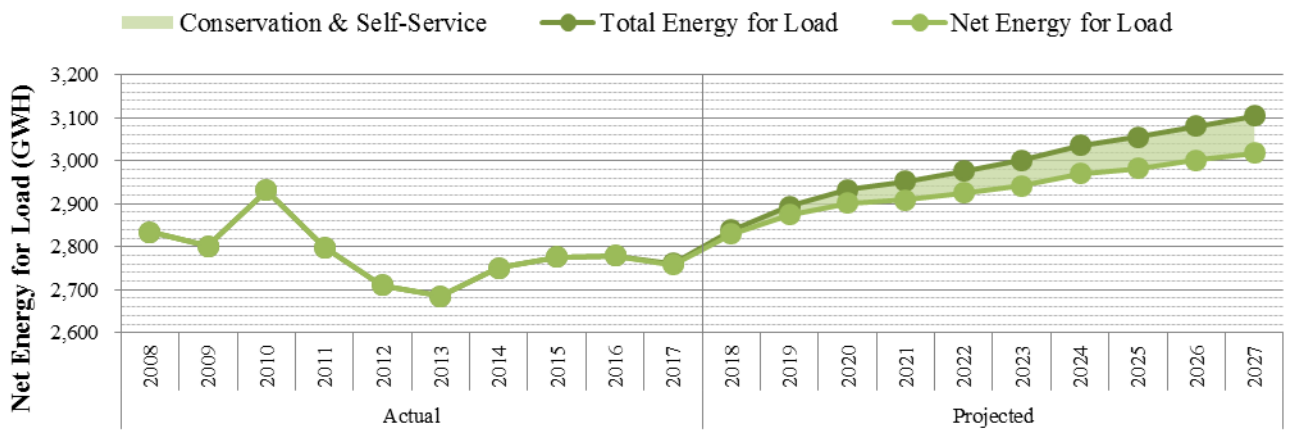
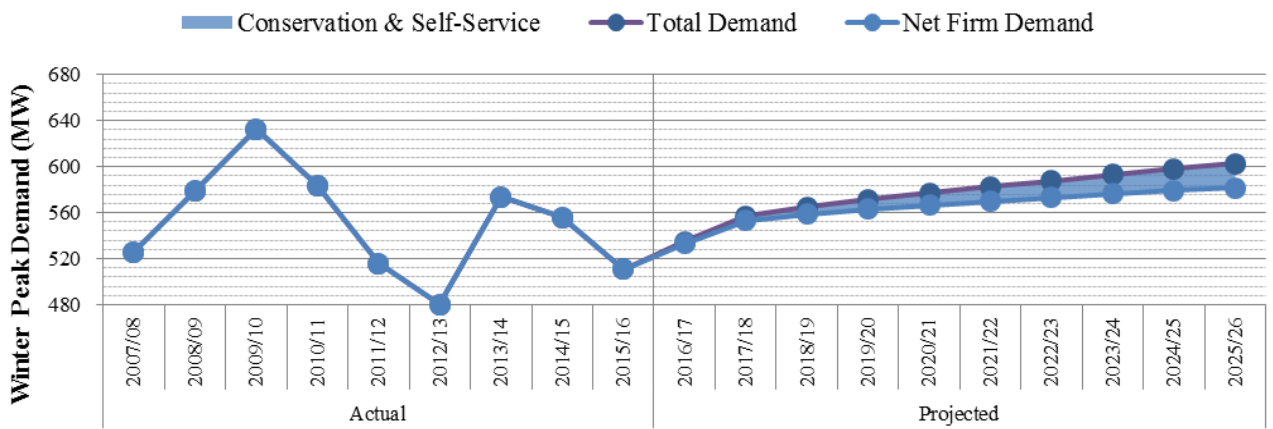
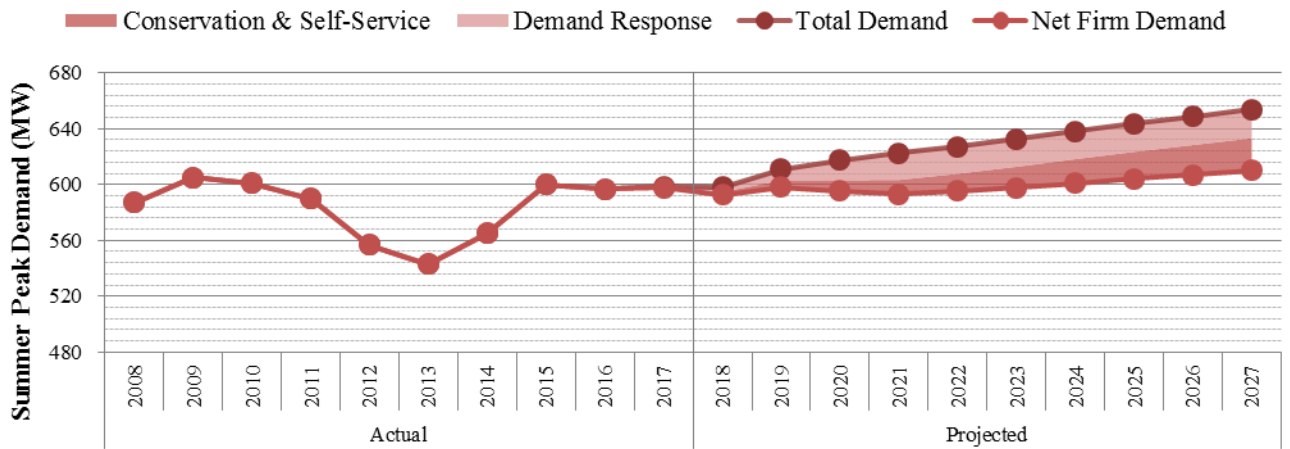
Figure 48: TAL Growth Rate



Source: 2018 Ten-Year Site Plan

The three graphs in Figure 49 shows TAL’s seasonal peak demand and net energy for load for the historic years of 2008 through 2017 and forecast years 2018 through 2027. These graphs include the impact of demand-side management, and for future years assume that all available demand response resources will be activated during the seasonal peak. TAL offers energy efficiency and demand response programs to customers to reduce peak demand and annual energy consumption. Currently TAL only offers demand response programs targeting appliances that contribute to summer peak, and therefore have no effect upon winter peak.

Figure 49: TAL Demand and Energy Forecasts



Source: 2018 Ten-Year Site Plan and Data Responses

Fuel Diversity

Table 29 shows TAL’s actual net energy for load by fuel type as of 2017 and the projected fuel mix for 2027. TAL relies almost exclusively on natural gas for its generation, excluding some purchases from other utilities and qualifying facilities and the use of oil as a backup fuel. Natural gas is anticipated to remain the primary fuel source on the system.

Table 29: TAL Energy Consumption by Fuel Type

Fuel Type	Net Energy for Load			
	2017		2027	
	GWh	%	GWh	%
Natural Gas	2,635	95.5%	2,907	96.3%
Coal	0	0.0%	0	0.0%
Nuclear	0	0.0%	0	0.0%
Oil	0	0.0%	0	0.0%
Renewable	13	0.5%	132	4.4%
Interchange	110	4.0%	-21	-0.7%
NUG & Other	0	0.0%	0	0.0%
Total	2,758		3,018	

Source: 2018 Ten-Year Site Plan and Data Responses

Reliability Requirements

TAL utilizes a 17 percent planning reserve margin criterion for seasonal peak demand. Figure 50 displays the forecast planning reserve margin for TAL through the planning period for both seasons, with and without the use of demand response. As discussed above, TAL only offers demand response programs applicable to the summer peak. As shown in the figure, TAL’s generation needs are controlled by its summer peak throughout the planning period.

Figure 50: TAL Reserve Margin Forecast



Source: 2018 Ten-Year Site Plan

Generation Resources

TAL plans multiple unit retirements and additions during the planning period, as described in Table 30. A natural gas-fired steam unit and a natural gas-fired combustion turbine unit are anticipated to be retired during the planning period. Based upon its current planning, TAL intends to add several natural gas-fired internal combustion units.

Table 30: TAL Generation Resource Changes

Year	Plant Name & Unit Number	Unit Type	Net Capacity (MW)
			Sum
Retiring Units			
2018	Hopkins 1	Natural Gas Steam Turbine	76
2018	Purdom CT-2	Natural Gas Combustion Turbine	10
Total Retirements			86
New Units			
2018	Hopkins IC 1-4	Natural Gas Internal Combustion	74
2018	Substation 12 IC 1 & 2	Natural Gas Internal Combustion	18
2025	Hopkins IC 5	Natural Gas Internal Combustion	18
Total New Units			110
Net Additions			24

Source: 2018 Ten-Year Site Plan

State of Florida



Public Service Commission

CAPITAL CIRCLE OFFICE CENTER • 2540 SHUMARD OAK BOULEVARD
TALLAHASSEE, FLORIDA 32399-0850

-M-E-M-O-R-A-N-D-U-M-

DATE: October 19, 2018

TO: Braulio Baez, Executive Director

FROM: Division of Economics (Morgan, Coston) *WEC CM JDN mbm*

RE: Draft Report on Activities Pursuant to the Florida Energy Efficiency and Conservation Act (FEECA). Due March 1, 2019 to the Governor and Legislature.

Critical Information: Please place on the October 30, 2018 Internal Affairs agenda. Commission approval is sought.

Section 366.82(10), Florida Statutes (F.S.), requires the Florida Public Service Commission (Commission) to submit an annual report to the Governor and Legislature on progress towards meeting goals established by the Commission pursuant to the Florida Energy Efficiency and Conservation Act. The report is due by March 1, 2019.

Furthermore, Section 377.703(2)(f), F.S., requires the Commission to file information on electricity and natural gas energy conservation programs with the Department of Agriculture and Consumer Services.

Staff is seeking Commission approval of the attached draft report. Upon approval, the report will be submitted to the Governor, President of the Senate, Speaker of the House, and the Commissioner of Agriculture.

cc: Keith Hetrick, General Counsel
Mark Futrell, Deputy Executive Director, Technical
Apyrl Lynn, Deputy Executive Director, Administrative



FLORIDA
PUBLIC
SERVICE
COMMISSION

FEECA

Annual Report on Activities Pursuant to the Florida Energy Efficiency and Conservation Act

As Required by Sections 366.82(10) and 377.703(2)(f), Florida Statutes

DECEMBER 2018

Florida Public Service Commission

Annual Report on
Activities
Pursuant
to the
Florida
Energy
Efficiency and
Conservation
Act

As Required by Sections 366.82(10)
and 377.703(2)(f), Florida Statutes

December 2018

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List of Acronyms

C/I	Commercial and Industrial (Customers)
Commission or FPSC	Florida Public Service Commission
DEF	Duke Energy Florida, LLC
DOE	U.S. Department of Energy
DSM	Demand-Side Management
ECCR	Energy Conservation Cost Recovery Clause
EV	Electric Vehicle
F.A.C.	Florida Administrative Code
FEECA	Florida Energy Efficiency and Conservation Act
FLBC	Florida Building Code
FPL	Florida Power & Light Company
FPUC	Florida Public Utilities Company
FRCC	Florida Reliability Coordinating Council
F.S.	Florida Statutes
GWh	Gigawatt-Hour
Gulf	Gulf Power Company
HVAC	Heating, Ventilation and Air Conditioning
HPWH	Heat Pump Water Heater
IOU	Investor-owned Utility
JEA	commonly known as Jacksonville Electric Authority
kWh	Kilowatt-Hour
LDC	Natural Gas Local Distribution Company
Load	Demand for Electricity
MMBtu	One Million British Thermal Units
MW	Megawatt
MWh	Megawatt-Hour
OUC	Orlando Utilities Commission
O&M	Operations and Maintenance
PGS	Peoples Gas Systems
RIM	Rate Impact Measure Test
TECO	Tampa Electric Company
TRC	Total Resource Cost Test

Executive Summary

Purpose

Reducing the growth of Florida's peak electric demand and energy consumption became a statutory objective in 1980, with the enactment of the Florida Energy Efficiency and Conservation Act (FEECA). The Florida Energy Efficiency and Conservation Act emphasizes four key areas: reducing the growth rates of weather-sensitive peak demand and electricity usage, increasing the efficiency of the production and use of electricity and natural gas, encouraging demand-side renewable energy systems, and conserving expensive resources, particularly petroleum fuels. Sections 366.82(2) and 366.82(6), F.S., require the Florida Public Service Commission (FPSC or Commission) to establish goals for the FEECA utilities and review the goals every five years, at minimum. The utilities are required to develop cost-effective demand-side management (DSM) plans that meet those goals and submit them to the Commission for approval.

The Commission is required by Section 366.82(10), F.S., to provide an annual report to the Florida Legislature and the Governor summarizing the adopted goals and the progress made toward achieving those goals. Similarly, Section 377.703(2)(f), F.S., requires the Commission to file information on electricity and natural gas energy conservation programs with the Department of Agriculture and Consumer Services. Pursuant to Section 366.82(10), F.S., this report on conservation results achieved by the FEECA utilities is due to the Florida Legislature and Governor by March 1, 2019. This report reviews the 2017 annual goal results for each of the seven FEECA electric utilities and fulfills these statutory obligations.

The seven electric utilities currently subject to FEECA are:

- Five Florida investor-owned utilities (IOUs), listed in order of sales
 - Florida Power & Light Company (FPL)
 - Duke Energy Florida, LLC (DEF)
 - Tampa Electric Company (TECO)
 - Gulf Power Company (Gulf)
 - Florida Public Utilities Company (FPUC)

- Two municipal utilities, listed in order of sales
 - JEA
 - Orlando Utilities Commission (OUC)

The Commission regulates the electric rates and energy conservation cost recovery of the five IOUs. In contrast, the Commission does not regulate the rates or conservation program costs of the two municipal utilities for which it sets DSM goals.

Report Layout

This report presents the FEECA utilities' progress towards achieving the Commission-established goals and the Commission's efforts in overseeing these conservation initiatives. This report details these efforts through the following five sections and appendices:

Section 1 provides a brief history of FEECA and a description of existing tools for increasing conservation throughout the State of Florida.

Section 2 discusses the most recent Commission-established goals set for the FEECA utilities.

Section 3 reviews the utilities' goal achievements and progress towards Low-Income and Research and Development programs.

Section 4 provides an overview of the associated program costs recovered through the Energy Conservation Cost Recovery Clause for 2017.

Section 5 discusses methods the Commission has used to educate consumers about conservation during the prior period, including a list of related web sites.

Appendices A and B provide a list of the currently-offered conservation programs and a description of each program's purpose.

Goal-Setting Process for the Current Period

On November 25, 2014, the Commission approved winter and summer peak demand and annual energy savings goals for the seven FEECA electric utilities beginning in 2015 through 2024. The approved goals were based on the Rate Impact Measure (RIM) cost-effectiveness test. This test was used to ensure that all ratepayers benefit from energy efficiency programs due to downward pressure on electric rates. The Commission identified fewer cost-effective energy efficiency programs as a result of more stringent building codes and appliance efficiency standards. The higher the current efficiency standards and codes, the less opportunity there is for utility-sponsored programs to be cost-effective. Additionally, reduced utility avoided costs, caused by relatively low natural gas prices, have resulted in fewer cost-effective programs. For these reasons, the 2014 approved DSM goals for the FEECA utilities were lower than the Commission-approved goals in 2009. The 2014 goal-setting process is discussed further in Section 2.

The November 2014 hearing also resulted in the Commission mandating that a focus be placed on energy efficiency for low-income consumers in its 2014 Goals Order. The Commission ordered, "When the FEECA utilities file their DSM implementation plans, each plan should address how the utilities will assist and educate their low-income customers, specifically with respect to the measures with a two-year or less payback."¹ Further discussion of the utilities' low-income programs can be found in Section 3.

Following the Commission's establishment of the goals in late 2014, the FEECA utilities filed DSM plans designed to meet the Commission's goals. In mid-2015, the Commission approved each DSM plan. Subsequently, in late 2015, the utilities filed program standards which provide details on how each program will be administered. At the end of 2015, the Commission approved

¹ Order No. PSC-14-0696-FOF-EU, Docket Nos. 130199-EI through 130205-EI, In re: Commission review of numeric conservation goals, issued December 16, 2014.

the program standards, and the utilities implemented the new programs in late 2015 and early 2016.

The Commission will next set goals for the FEECA electric utilities in 2019. The revised goals will cover the 2020-2029 time period. As a first step, the IOUs are in the process of conducting technical potential studies to assess the level of DSM savings that is achievable within their service territories. The FEECA utilities will work with Commission staff and other interested parties in preparation for a hearing, planned to take place in the second-half of 2019.

2017 Achievements and Related Program Costs

Since FEECA's inception, it is estimated that DSM programs offered by FEECA utilities have reduced summer peak demand by 7,863 megawatts (MW) and winter peak demand by 7,285 MW. During 2017, the Florida FEECA utilities offered 110 residential and commercial programs focused on demand reduction and energy conservation. In addition, FEECA electric utilities performed over 200,000 residential and commercial energy audits. Each FEECA utility's achievements toward the 2017 Commission-approved goals are detailed in Section 3.

The Commission has authority by statute to allow investor-owned utilities to recover prudently-incurred costs related to conservation.² The Commission has implemented this authority through the Energy Conservation Cost Recovery (ECCR) clause. The ECCR clause has been in existence since 1980. For 2017, Florida's investor-owned electric utilities recovered approximately \$313 million in conservation program expenditures.

Conclusion

The potential demand and energy savings from utility-sponsored DSM programs are affected by consumer education and behavior, building codes, and appliance efficiency standards. Consumer actions to implement energy efficiency measures outside of utility programs, as well as codes and efficiency standards, create a baseline for a new program's cost-effectiveness and reduce the potential incremental electric demand and energy savings available from utility-sponsored DSM programs.

Utilities design DSM programs to encourage conservation that exceeds levels set by current building codes and minimum efficiency standards. The level of realized savings from these types of programs is uncertain because it requires voluntary participation and, in some cases, changes in customer behavior. Because all customers pay for the utility conservation programs as a portion of their monthly utility bills, the Commission focuses on ensuring that all customers benefit from utility-sponsored DSM programs. The Commission also encourages customers to use energy efficiently through its customer education efforts. Overall, reducing Florida's electric demand and energy usage relies on customer education and participation in utility DSM programs, along with each individual's efforts to save electricity.

Conservation and renewable energy will continue to play an important role in Florida's energy future. The Commission is continuing its efforts to encourage cost-effective conservation that defers the need for new electric-generating capacity and reduces the use of fuel. These initiatives

² Section 366.82(11), F.S.

support a balanced mix of resources that reliably and cost-effectively meet the needs of Florida's ratepayers.

Section 1. Florida Energy Efficiency and Conservation Act

1.1 FEECA History and Implementation

The Florida Energy Efficiency and Conservation Act (FEECA), emphasizes four key areas: reducing the growth rates of weather-sensitive peak demand and electricity usage, increasing the efficiency of electricity and natural gas production and use, encouraging demand-side renewable energy systems, and conserving expensive resources, particularly petroleum fuels. Pursuant to FEECA, the Commission is required to establish conservation goals and the FEECA utilities must develop demand-side management (DSM) programs to meet those goals.

Originally, all electric utilities in Florida were subject to FEECA. In 1989, changes were made to the law limiting the requirement to electric utilities with more than 500 gigawatt-hours (GWh) of annual retail sales. At that time, 12 Florida utilities met this threshold requirement and their combined sales accounted for 94 percent of Florida's retail electricity sales. An additional change to the law encouraged cogeneration projects.

In 1996, the Florida Legislature raised the minimum retail sales threshold for municipal and cooperative electric utilities to 2,000 GWh. Retail sales for these utilities were measured as of July 1, 1993, and two municipal utilities met the threshold of the new law: JEA and OUC. In addition to these two utilities, all five Florida investor-owned electric utilities must comply with FEECA regardless of sales levels. No rural electric cooperatives are currently subject to FEECA.

The FEECA statute also allows the Commission to provide appropriate financial rewards and penalties to the utilities over which it has rate-setting authority. The Commission also has the authority to allow an IOU to receive an additional return on equity of up to 50 basis points for exceeding 20 percent of its annual load growth through energy efficiency and conservation measures. To date, the Commission has not awarded financial rewards or assessed penalties for any of the IOUs through FEECA. The Commission does not have rate-setting authority over JEA and OUC and therefore cannot assess financial penalties or provide financial rewards under FEECA.

Table 1 lists the seven FEECA utilities and shows their 2017 retail electricity sales and the percentage of total electricity sales by each utility. The table also includes the total energy sales for all non-FEECA utilities. Currently, the seven electric utilities that are subject to FEECA account for approximately 83.9 percent of all Florida energy sales.

Table 1

Energy Sales by Florida's FEECA Utilities in 2017

Florida's FEECA Utilities	Energy Sales GWh	Percent of Total Energy Sales
Florida Power & Light Company	108,871	46.6%
Duke Energy Florida, LLC	38,024	16.3%
Tampa Electric Company	19,187	8.2%
JEA	12,067	5.2%
Gulf Power Company	10,809	4.6%
Orlando Utilities Commission	6,568	2.8%
Florida Public Utilities Company	627	0.3%
FEECA Utilities' Total	196,153	83.9%
Non-FEECA Utilities' Total	37,567	16.1%
Total Statewide Energy Sales	233,720	100.0%

Source: Commission's "Statistics of the Florida Electric Utility Industry" (Table 26), October 2018.

Sections 366.82(2) and 366.82(6), F.S., require the Commission to set demand-side management (DSM) goals at least every five years for the seven electric utilities subject to FEECA. The Commission sets goals with respect to summer and winter electric-peak demand and annual energy savings over a ten-year period, with a re-evaluation every five years. Once goals are established, the seven FEECA utilities must submit DSM plans containing cost-effective programs intended to meet the goals for Commission approval.

In 2008, the Florida Legislature amended the FEECA statute, placing upon the Commission additional responsibilities when adopting conservation goals. These responsibilities included the consideration of the benefits and costs to program participants and ratepayers as a whole, as well as the need for energy efficiency incentives for customers and utilities. The Commission must also consider any costs imposed by state and federal regulations on greenhouse gas emissions.

1.2 FEECA's Influence on the Florida Energy Market

FEECA's mission is important to Florida's overall energy market. Florida's total electric consumption ranks among the highest in the country due to its sizeable population and climate-induced demand for cooling. When compared to the rest of the country, Florida's energy market is unique. The distinction is largely due to the state's climate, high proportion of residential customers, and the reliance on electricity for heating and cooling.

Florida is typically a summer-peaking state. On a typical summer day, the statewide demand for electricity can increase from approximately 18,000 MW to 34,000 MW over the span of hours.³ Additionally, 87.7 percent of Florida's electricity customers are residential, consuming

³Electric IOU responses to Staff's First Data Request, re: 2018 Ten-Year Site Plan.

approximately 52 percent of the electrical energy produced. In contrast, nationally, residential customers account for only 41 percent of total electric sales, while commercial customers represent 35 percent of electric consumption and industrial customers represent 23 percent.⁴ Table 2 shows the makeup of Florida's electric customers by class and consumption.

Table 2
Florida's Electric Customers by Class and Consumption in 2017

Customer Class	Number of Customers	Percent of Customers	Energy Sales (GWh)	Percent of Sales
Residential	9,397,810	87.7%	121,687	52.1%
Commercial	1,150,123	10.7%	84,617	36.2%
Industrial	28,381	0.3%	20,670	8.8%
Other*	143,089	1.3%	6,746	2.9%
Total	10,719,403	100.0%	233,720	100.0%

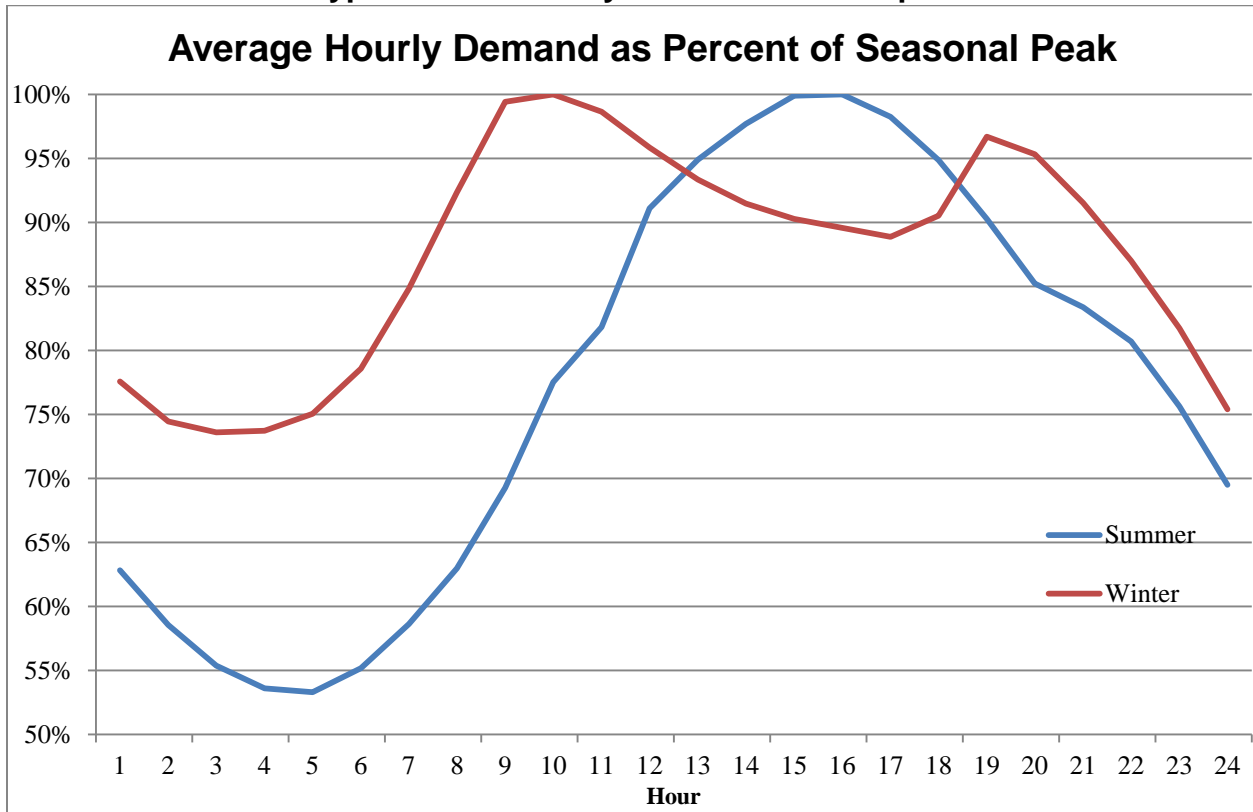
*Street and highway lighting, sales to public authorities, and interdepartmental sales.

Source: Commission's "Statistics of the Florida Electric Utility Industry" (Tables 26 and 33), October 2018.

Figure 1 shows the daily load curves for a typical Florida summer and winter day. In the summer, air-conditioning demand starts to increase in the morning and peaks in the early evening; a pattern which aligns with the sun's heating of buildings. In comparison, the winter load curve has two peaks—the largest in mid-morning, followed by a smaller peak in the late evening—which correspond to heating loads.

⁴As of July, 2018. <http://www.eia.gov/electricity/data.cfm#sales> Retail sales of electricity to ultimate consumers, annual, by sector by provider.

**Figure 1
Typical Florida Daily Electric Load Shapes**



Source: Electric IOU responses to Staff’s First Data Request, re: 2018 Ten-Year Site Plan.

Residential load patterns are rapidly shifting and have high peak-to-trough variation. In contrast, commercial or industrial loads demonstrate more consistency throughout the 24-hour day and experience fewer spikes in demand.

Utilities dispatch additional generating capacity throughout the day to follow the customer load patterns. Peaking generating units, which are dispatched during high peak demand periods of the day, are less fuel-efficient than baseload or intermediate generating units. Utility demand side management programs play a role in reducing energy usage and shifting peak demand. Therefore, they reduce the need to dispatch relatively fuel-inefficient generating units.⁵ Over time, the need for additional generating capacity has grown in Florida, in large part due to population growth. In addition to providing fuel savings at existing generating units, utility-sponsored DSM programs and conservation efforts by individual consumers can avoid or defer the need for new electric generating capacity. Utility-sponsored DSM programs are funded by all ratepayers. Therefore, in order to meet FEECA requirements, the Commission and utilities must ensure that the DSM programs created to reap the benefits of reduced fuel usage and deferred generating capacity are cost-effective, i.e. less costly than generation. The Commission’s

⁵ Electric generating units typically are categorized as baseload, intermediate, or peaking. Aside from planned and forced outages, baseload units are scheduled to operate continuously. Intermediate units generate power to follow load for periods of time, but are not planned to operate nonstop. Peaking units supplement baseload and intermediate power, operating during high-demand, or peak, periods.

methodologies to determine the cost-effectiveness of demand-side management programs are explained in detail in Section 2.1.

FEECA has been successful in reducing the growth rates of weather-sensitive peak electric demand and conserving expensive fuel resources. Since its inception, FEECA utility-sponsored DSM programs have cumulatively saved 7,863 MW of summer peak demand and 7,285 MW of winter peak demand, referenced in Table 3. This reduction in peak demand has helped offset the use of peaking units that rely on expensive fuel sources and deferred new generating capacity. In 2017, FEECA DSM programs saved 210 gigawatt-hours (GWh), enough electricity to power approximately 15,583 homes for a year.⁶ In addition, some FEECA utilities have also implemented programs, such as community solar, which allows customers to voluntarily participate in the development of solar generation and other renewable options.

Table 3
Estimated Cumulative DSM Savings Since 1980

Savings	
Summer Peak Demand	7,863 MW
Winter Peak Demand	7,285 MW
Annual Energy Reduction	10,904 GWh

Source: Florida Reliability Coordinating Council Load and Resource Plan 2018, S-3, S-4, S-5.

Currently, the FEECA utilities provide 110 programs for residential, commercial, and industrial customers. Programs focus on either reducing energy use at a given moment, which shifts/reduces demand, or toward reducing overall energy consumption over a period of time. Utility-sponsored DSM programs are an important means of achieving demand and energy savings and these programs are designed to encourage customer conservation efforts.

Additionally, residential energy audits, required by Section 366.82(11), F.S., serve as an avenue to identify and evaluate conservation opportunities for customers and identify opportunities to implement many DSM and conservation programs. During 2017, Florida’s FEECA electric utilities performed 187,799 residential audits. Though FEECA does not require commercial energy audits, Florida’s FEECA electric utilities also performed 13,720 commercial energy audits in 2017.

1.3 Recovery of Conservation Expenditures

The IOUs are allowed by Commission Rule 25-17.015, F.A.C., to recover prudent and reasonable expenses for DSM programs through the Energy Conservation Cost Recovery (ECCR) clause. Such expenses may include administrative costs, equipment, and incentive payments. Before attempting to recover costs through the ECCR clause, a utility must prove that its DSM programs are cost-effective. Utilities must have Commission approval for any new programs or program modifications prior to seeking cost recovery.

⁶ Average Florida annual household kWh use is 13,476 kWh. Data from Forms EIA-861-schedules 4A-D, EIA-861S and EIA-861U. <https://www.eia.gov/tools/faqs/faq.php?id=97&t=3>

Commission Rule 25-17.015, F.A.C., also permits natural gas distribution companies (LDC) to seek recovery for costs related to Commission-approved conservation programs. Natural gas conservation programs have historically focused on providing rebates to residential customers that support the replacement of less efficient appliances with new, energy-efficient gas appliances. However, many LDCs have recently expanded their rebate programs to commercial customers.⁷

Each year, the Commission conducts financial audits of these expenses for both the electric IOUs and LDCs. A full evidentiary hearing is held annually to determine the following year's conservation cost recovery factor to be applied to customer bills. The Commission-approved 2019 conservation cost recovery factors are discussed further in Section 4.

⁷ Order No. PSC-14-0039-PAA-EG, Docket 130167-EG, In re: Petition for approval of natural gas energy conservation programs for commercial customers, by Associated Gas Distributors of Florida, issued January 14, 2014.

Section 2. DSM Goal Setting

2.1 DSM Programs Cost-Effectiveness and Energy Savings

Section 366.81, F.S., requires utility conservation programs to be cost-effective. This statutory requirement is codified in Rule 25-17.008, F.A.C. The rule identifies the cost-effectiveness methodologies to be used and requires that utilities provide cost and benefit information to the Commission when requesting to add or make changes or additions to an existing program. The Commission requires that utilities measure cost-effectiveness from three perspectives, the program participant, the utility's ratepayers, and society's overall cost for energy services. The Participants Test, the Rate Impact Measure (RIM) test, and the Total Resource Cost (TRC) test capture these viewpoints. FEECA utilities are required to provide cost-benefit analysis using the three tests when seeking to add a new program or make changes to an existing program. Table 4 summarizes the costs and benefits considered in the three Commission-approved cost-effectiveness methodologies.

Table 4
Summary of Cost-Effectiveness Methodologies

	Participants	RIM	TRC
Benefits			
Bill Reduction	X		
Incentives Received	X		
Avoided Generation (Capital and O&M)		X	X
Avoided Transmission (Capital and O&M)		X	X
Fuel savings		X	X
Costs			
Program Costs		X	X
Incentives Paid		X	
Lost Revenues		X	
Participant's Costs (Capital and O&M)	X		X

Participants Test

The Participants Test analyzes costs and benefits from a program participant's point of view and ignores the impact on the utility and other ratepayers not participating in the program. The Participants Test includes the up-front costs customers pay for equipment and costs to maintain this equipment. Benefits considered in the test include the incentives paid by utilities to the customers and the reduction in customer bills. Failure to demonstrate cost-effectiveness under this test would infer that rational customers would not elect to participate in this program.

Rate Impact Measure Test (RIM)

The RIM test is designed to ensure that all ratepayers, not just the program's participants, will benefit from a proposed DSM program. The RIM test includes the costs associated with incentive payments to participating customers and decreased revenues to the utility. DSM programs can reduce utility revenues due to reduced kWh sales and reduced demand. The

decreased utility revenues typically are recovered from the general body of ratepayers at the time of a rate case. A DSM program that passes the RIM test ensures that all customer rates are lower than rates would be without the DSM program.

Total Resource Cost Test (TRC)

The TRC test measures the overall economic efficiency of a DSM program from a social perspective. This test measures the net costs of a DSM program based on its total costs, including both the participants' and the utility's costs. Unlike the RIM test, customer incentives and decreased utility revenues are not included as costs in the TRC test. Instead, these factors are treated as transfer payments among ratepayers. Moreover, if appropriate, certain external costs and benefits such as environmental impacts may be taken into account. Because incentives and foregone revenues are not treated as "costs", electric rates for all customers tend to be higher for programs implemented solely using the TRC test to judge cost-effectiveness.

Ensuring Cost-Effectiveness

Ensuring utility-sponsored DSM programs remain cost-effective benefits the general body of electric ratepayers. These programs can reduce costs to ratepayers by postponing capital expenditures such as future power plant construction, and reducing current electrical generation costs, including fuel and variable operating and maintenance costs. DSM programs can also benefit customers by improving reliability.

When IOUs determine that their programs are no longer cost-effective, the utilities must petition the Commission for modification or discontinuation of the program. In many instances, programs may need to be modified due to the adoption of a more stringent appliance efficiency standard or building code. In contrast, if new efficiency measures become available that are cost-effective, the utility may petition the Commission for approval of a new program.

2.2 Summary of the 2014 DSM Goal Setting

The Commission set a schedule in 2013 to establish goals for electric FEECA utilities by December 2014. This action fulfilled the statutory requirement that DSM goals must be reviewed at least every five years. Subsequently, both FPUC and OUC independently filed petitions to use proxy methodologies to establish their goals and be excused from participating in the goals hearing. These utilities stated that costs associated with the hearing would represent a hardship to the companies and their ratepayers due to each company's small size. On August 4, 2013, the Commission approved FPUC and OUC's request and excused them from participating in the goals hearing.⁸

On July 21 and July 22, 2014, the Commission heard evidence from the remaining electric FEECA utilities, FPL, DEF, TECO, Gulf, JEA, and intervenors regarding the proposed DSM goals. Throughout the proceeding there were discussions regarding the FEECA utilities' numerical goals, payback/subsidization, consumer education, and solar initiatives. During the goal-setting process, the Commission also considered the costs and benefits of conservation programs. Costs are recovered from the general body of ratepayers, and affect both participant and non-participant customers.

⁸ Order No.PSC-13-0645-PAA-EU, Docket Nos. 130204-EM and 130205-EI, issued December 4, 2013.

The Commission reviewed the results of all three required cost-effectiveness tests during the hearing. Based on evidence from the DSM goal-setting proceeding on November 25, 2014, the Commission voted to approve goals based on a RIM cost-effectiveness analysis. By using the RIM test to establish goals, the Commission addressed concerns regarding subsidies between individuals who participate in DSM programs and those who do not, and ensured rates would remain the same or lower and that cross-subsidies would be minimized. The Commission also directed each utility to demonstrate in its DSM plan how it would make all customers, in particular low-income customers, aware of energy efficiency opportunities and utility DSM programs.

Established 2015-2024 Goals

The Commission issued the DSM Final Order, Order No. PSC-14-0696-FOF-EU, on December 16, 2014. The utilities subsequently filed DSM plans in March 2015 in accordance with Section 366.82(7), F.S., to meet the newly-set goals. The Commission reviewed and approved the utilities' DSM plans in August 2015. Around the same time, the FEECA utilities submitted their program standards for approval, providing detailed descriptions on the administrative approaches for each DSM program. Beginning in late 2015, the FEECA utilities started to phase out old programs and began implementing the modifications needed to reflect the approved DSM plans. This report covers the second full year of the utilities' DSM plans.

Table 5 shows each utility's Commission-approved summer demand, winter demand, and annual energy reduction goals for 2015-2024, established in Order No. PSC-14-0696-FOF-EU.⁹ A list of all programs provided by FEECA utilities and descriptions can be found in Appendices 1 and 2 of this report.

Table 5
Commission-Approved DSM Goals 2015-2024

Electric Utility	Summer Demand Goals (MW)	Winter Demand Goals (MW)	Annual Energy Goals (GWh)
FPL	526.1	324.2	526.3
DEF	259.1	419.3	195.0
TECO	56.3	78.3	144.3
Gulf	68.1	36.7	84.2
FPUC	1.3	0.4	2.0
OUC	5.0	8.4	13.0
JEA	10.8	9.7	25.8
Total	926.7	877.0	990.6

Source: Order No. PSC-14-0696-FOF-EU.

⁹ Order No. PSC-14-0696-FOF-EU, Docket Nos. 130199-EI through 130205-EI, In re: Commission review of numeric conservation goals, issued December 16, 2014.

The Commission will next set goals for the FEECA electric utilities in 2019. The revised goals will cover the 2020-2029 time period. Commission staff will work with the FEECA utilities and other interested parties in preparation for a hearing, planned to take place in August of 2019.

Peoples Gas System (PGS) is the only natural gas utility that meets the retail therm sales threshold for conservation goals under FEECA. In October 2018, PGS completed its technical potential study and filed a petition for approval of numeric goals for the period 2019-2028 and two audit programs.

2.3 Effect of Efficiency Standards on FEECA Utility DSM Programs

Federal efficiency standards and state building codes establish a baseline in assessing the cost-effectiveness of a potential DSM program. Currently, Florida utility DSM programs offer rebates and incentives for appliances that exceed federally established minimum efficiency standards. However, increases in federal efficiency standards, independent conservation efforts by consumers, and general conservation practices make it more challenging for utilities to achieve demand and energy savings through DSM programs. Moreover, participation rates in the utility programs are driven by the anticipated payback to the participating customer. While utility incentives tend to increase customers' "take rate" in conservation programs, electric rates are also a contributing factor in customers' decisions to invest in more efficient appliances. Thus, low or declining electric prices tend to reduce customer energy efficiency investments. This makes it crucial that the FEECA utilities frequently evaluate conservation programs to ensure that they remain cost-effective.

Since 2009, the cost-effectiveness of DSM measures has declined due to several factors outside of FEECA utilities' control. First, new federal efficiency standards and state building codes have become more stringent over time. These higher standards and codes decrease the number of cost-effective DSM measures that can be offered by the electric utilities. Second, natural gas is the primary fuel source for electricity generation in Florida. The average price of natural gas fell from \$8.86/MMBtu in 2008 to \$3.73/MMBtu in 2013, the most recent full year before the Commission established the 2015-2024 DSM goals.¹⁰ In turn, lower natural gas prices reduced utility avoided costs, making fewer programs pass cost-effectiveness testing.¹¹ Lower fuel prices can also impact customer participation in utility-sponsored DSM programs due to reduced monthly electric bills. As a result, customers could have less of an incentive to implement energy efficiency measures.

State Building Code

At the state level, the Florida Building Code is amended annually to incorporate interpretations and clarifications as well as to update efficiency standards. The Florida Building Commission updates the Florida Building Code with relevant new standards every three years. In 2017, the Florida Building Code (FLBC) was updated and became effective in December 2017. After review of the updated FLBC and the existing DSM programs, it was found that there was no impact on existing programs.

¹⁰ EIA Henry Hub Natural Gas Spot Price Annual Average <https://www.eia.gov/dnav/ng/hist/rngwhhdD.htm>

¹¹ Current gas prices have remained low at \$3.01/MMBtu as of August 15, 2018.
<https://www.eia.gov/naturalgas/weekly/>

Federal Government Standards

At the federal government level, the U.S. Department of Energy's (DOE) Building Technologies Office establishes minimum energy efficiency standards for more than 60 categories of appliances and other equipment. According to DOE, "Products covered by standards represent about 90 percent of home energy use, 60 percent of commercial building use, and 30 percent of industrial energy use."¹² From August 2016 to February 2018, DOE completed 66 rulemaking actions. During this period, the agency also completed 37 final rules, addressing 16 Conservation Standards and 21 Test Procedures.

DOE's 37 completed final rules from August 2016 through February 2018 included the following:

Conservation Standards

- Walk-in Coolers and Freezers
- Ceiling Fans
- General Service Lamps
- Dishwashers
- Central Air Conditioners and Heat Pumps

Test Procedures

- Commercial Compressors
- Central Air Conditioners and Heat Pumps
- Conventional Cooking Products
- Commercial Packaged Boilers
- Uninterruptible Power Supplies

The DOE also has 40 pending Energy Conservation Standards and Test Procedures being considered or in development. Some of the products being considered for Conservation Standards and Test Procedures include:

- Computer Room Air Conditioners
- Distribution Transformers
- Electric Motors
- Dedicated Outdoor Air Systems
- General Service Florescent Lamps

Further details can be found on the DOE Office of Energy Efficiency and Renewable Energy's buildings reports website at <http://energy.gov/eere/buildings/reports-and-publications>.

Federal standards that change the baseline requirements for a product may have a direct effect on DSM programs. If a federal standard change occurs, the utilities must file petitions modifying the program standards to account for the newly established baseline. Future changes to federal efficiency standards may impact the 2019 DSM goal-setting process and beyond.

¹² <http://energy.gov/eere/buildings/appliance-and-equipment-standards-program>.

Section 3. FEECA Utility Goal Achievements

3.1 Assessing Goal Achievement

Commission rules require separate goals be set for residential and C/I customers, assigning context to measuring goal achievement within these two primary customer categories. Each utility's achievements in these categories are also combined and compared against total goals.

Each FEECA utility must file an annual DSM report pursuant to Rule 25-17.0021, F.A.C., which summarizes demand savings, energy savings, and customer participation rates for each approved program. The report also includes the residential, C/I, and total energy efficiency achievements compared to the approved DSM goals. Each of the utility's 2017 DSM annual reports and prior year reports can be found on the Commission's website: <http://www.floridapsc.com/>.

Monitoring annual goal achievements enables the Commission to evaluate the effectiveness of each utility's programs. In addition to reviewing the utilities' annual DSM reports, staff may request additional information from the FEECA utilities on their demand and energy saving achievements. Staff's data requests can, for example, seek explanations of factors preventing the utilities from achieving projected participation levels. Each utility's DSM performance in 2017 is discussed below. The utility achievements have been compared to the annual goals established by the Commission in November 2014. Table 6 provides a breakdown of each utility's goal achievements for the period.

FPL

FPL met its 2017 total goals and all individual customer class goals.

DEF

DEF met its 2017 total goals and all individual customer class goals.

TECO

TECO met its 2017 total goals and all individual customer class goals.

FPUC

Overall, FPUC met its 2017 total and residential goals; however, it did not meet any of its C/I customer class goals. FPUC had no participants in its commercial rebate programs, resulting in no energy savings.

Table 6

DSM Goals Compared to Annual (2017) Achievements

Utility	Winter (MW)		Summer (MW)		Annual (GWh)	
	Goals	Achieved Reduction	Goals	Achieved Reduction	Goals	Achieved Reduction
FPL*						
Residential	16.0	17.6	25.9	26.2	22.8	23.6
Commercial/Industrial	14.9	21.9	24.9	35.8	24.7	47.7
Total	30.9	39.6	50.8	62.0	47.5	71.4
DEF						
Residential	49.0	54.0	22.0	31.0	21.0	46.0
Commercial/Industrial	6.0	26.0	11.0	52.0	12.0	35.0
Total	54.0	81.0	33.0	82.0	33.0	82.0
TECO						
Residential	5.2	6.9	2.2	4.7	4.8	14.9
Commercial/Industrial	1.6	9.2	2.7	10.4	8.0	30.2
Total	6.8	16.1	4.9	15.1	12.8	45.2
Gulf						
Residential	2.30	3.16	4.10	4.14	4.20	4.79
Commercial/Industrial	0.10	0.00	0.50	0.12	1.50	0.30
Total	2.40	3.16	4.60	4.26	5.70	5.09
FPUC						
Residential	0.02	0.25	0.06	0.44	0.04	0.85
Commercial/Industrial	0.01	0.00	0.03	0.00	0.09	0.00
Total	0.03	0.25	0.09	0.44	0.13	0.85
JEA						
Residential	2.88	2.19	2.82	3.24	7.50	7.40
Commercial/Industrial	0.02	0.02	0.42	1.12	0.24	3.13
Total	2.90	2.20	3.24	4.36	7.74	10.50
OUC						
Residential	0.12	0.31	0.12	0.42	0.45	0.83
Commercial/Industrial	0.70	4.44	0.30	5.04	0.66	31.01
Total	0.82	4.76	0.42	5.45	1.11	31.83

*Bold numbers indicate the utility did not meet its annual goals within that category.

Source: FEECA utility demand-side management annual reports.

Gulf

Gulf met all of its 2017 Residential customer class goals and its total Winter Peak goal. Gulf did not meet its C/I customer class goals nor its total energy savings goal.¹³ C/I programs, including incentive levels and customer participation, will be reviewed during the 2019 goal-setting process.

JEA

JEA met its 2017 total savings goal. However, the company missed its total Residential customer class goal, Winter Peak Residential and C/I, and total Winter Peak goal. The company missed participation goals for two of its Residential programs, resulting in lower-than-projected savings.

OUC

OUC met its 2017 total goals and all individual customer class goals.

3.2 Low-Income Programs

The 2014 Commission DSM Goals Order states, “When the FEECA utilities file their DSM implementation plans, each plan should address how the utilities will assist and educate their low-income customers, specifically with respect to the measures with a two-year or less payback.”¹⁴ In accordance with this order, each FEECA utility has implemented programs within its DSM plan that address low-income conservation. Low-income customer participation in energy conservation programs furthers the intent of FEECA by encouraging potential demand and energy reduction in the State of Florida. Customers that participate in these programs benefit through increased knowledge of conservation opportunities and through rebates on energy saving equipment, resulting in potential bill reduction.

Low-income programs mainly focus on efforts to provide energy efficiency information, weatherization opportunities and the installation of energy efficient appliances to residential homes. In many cases, the utilities have established partnerships with government and non-profit agencies. They work together to help identify low-income neighborhoods and distribute information and educate customers on conservation opportunities through energy audits, bill inserts, presentations, and other measures.

All of the FEECA utilities submitted programs in 2015 in their DSM plans highlighting how they reach and encourage qualifying customers. Each FEECA utility’s conservation efforts with respect to low-income customers during 2017 are discussed below.

¹³ In its 2017 Annual FEECA Program Progress Report filed with the Commission, Gulf reported savings in its C/I Custom Incentive Program stemming from the installation of a lighting changeout project by one customer. Gulf did not issue an incentive as the project was not cost-effective; however, the customer completed the project. The inclusion of savings from this project causes Gulf to meet or exceed its C/I goals. However, because the project was not cost-effective and Gulf properly did not issue an incentive per the program participation standards, savings should not be counted toward Gulf’s goals. Gulf’s actions met the intent of FEECA to inform customers of energy conservation opportunities.

¹⁴ Order No. PSC-14-0696-FOF-EU, Docket Nos. 130199-EI through 130205-EI, In re: Commission review of numeric conservation goals, issued December 16, 2014.

FPL

FPL promotes energy-efficiency education targeted at low-income customers. FPL states that its energy audit, the Residential Energy Survey, is available to all customers and is a way to identify energy-saving opportunities at no cost to the customer. In 2017, FPL continued to enhance the Energy Retrofit sector of its Residential Low-Income Program. Changes included proactive outreach to customers in designated low-income zip codes to offer retrofit services. It also allowed Field Service Representatives the ability to perform retrofits in designated low-income zip codes during energy surveys. These enhancements helped the program more than double the participation results in 2017.

DEF

DEF offers information to its customers about energy conservation programs through bill inserts, the company's website, and community outreach efforts. In 2017, DEF filed a request for modifications to eligibility requirements for the Low Income Weatherization Assistance Program. The modifications helped align the program eligibility criteria with the organizations and agencies that provide weatherization assistance. These changes were approved by the Commission in April 2017. DEF also changed its process for selecting neighborhoods for the Neighborhood Energy Saver program. DEF began to target neighborhoods with higher concentrations of single family homes that would benefit from insulation, duct repair, and HVAC tune-ups.

TECO

TECO utilizes a multi-pronged approach of communication and education to reach out to low-income customers. TECO performs door-to-door advertising, participates in local community events and fairs, and works with Senior Outreach and Elder Affairs Centers to promote, educate, and advise on energy efficiency. In 2017, TECO added several new communication avenues, largely in social media, to assist in creating awareness of the company's conservation programs. TECO continues to grow its customer awareness by focusing on increasing participation in energy education and awareness events.

Gulf

Gulf provides energy conservation installations at no cost to low-income families through its Community Energy Saver Program. Gulf offers home energy audits, through which company representatives provide advice on opportunities to lower electricity consumption. Gulf also presents energy efficiency advice, as appropriate, when customers call or visit, as well as through access to its website. In addition, Gulf also partners with the Salvation Army to provide instructor-led "energy education" sessions, as a part of its financial literacy training. Gulf states that it received positive feedback from the Salvation Army and from customers participating in the program and is currently in the process of expanding the partnership to increase the number of participants.

FPUC

FPUC continues to ensure that low-income customers are aware of and have access to conservation programs. Offerings include home energy audits, contractor training, and educational materials for low-income customers. FPUC works with existing weatherization organizations to increase awareness and encourage participation in FPUC's DSM programs and

continues to coordinate community events to promote energy-saving techniques to low-income customers.

JEA

JEA maintains its focus on low-income customers through its Neighborhood Energy Efficiency Program. This program provides the installation of conservation products and provides energy education packets that give customers energy saving ideas and information about JEA's other DSM programs, as well as community conservation programs.

OUC

OUC offers education and direct installation of energy efficient measures at no cost to income-qualified customers through its Residential Efficiency Delivered Program. OUC markets its programs and services through its monthly "Connections" customer newsletter, bill stuffers, online and print advertising, and radio and TV spots. OUC participates in more than 150 community events every year, including the City of Orlando's Neighborhood and Community Summit, which includes more than 300 neighborhood associations. OUC uses these opportunities to provide information on conservation programs, services and rebates, payment options, as well as energy-efficiency tips.

3.3 Investor-Owned Utility Research & Development Programs

In addition to specific DSM programs that provide measurable energy savings, the five electric IOUs conduct conservation research and development initiatives to evaluate emerging DSM opportunities. In these programs, Florida's electric IOUs often partner with universities or established industry research organizations. With the constant arrival of new electricity-consuming products and new technologies, research and development by Florida's IOUs creates a unique opportunity to identify emergent opportunities to conserve electricity. The recent initiatives undertaken by the IOUs are discussed below.

FPL

FPL's Conservation Research and Development (CRD) program features many ongoing projects that are conducted in both laboratory and field settings. FPL partners with the Florida Solar Energy Center and engineering departments of several Florida universities in its CRD projects. In addition, the company participates in relevant co-funded projects through the DOE and the Electric Power Research Institute (EPRI).

In 2017, FPL completed research on the CO₂ water heating heat pump. The study focused on testing a heat pump water heater (HPWH) using commercially-available carbon dioxide as the refrigerant. The study found that the carbon dioxide HPWH system could be expected to provide high-efficiency water heating and provide greater energy savings and demand reduction than a conventional HPWH. However, higher up-front costs could prevent the adoption of these systems. With these results in hand, further research is to be conducted to confirm savings and investigate whole-building impacts of these systems to provide a complete comparison.

DEF

In 2017, DEF continued to investigate emerging DSM technologies that could be used to enhance current DSM programs as well as develop new programs. DEF continued its research on CTA-2045 Technology, a port that enables connected appliances to receive and execute commands and its potential for energy conservation programs. DEF has also continued its partnership with the University of South Florida, testing integrated advanced control algorithms for commercial buildings and the benefits of energy storage technologies for renewable energy sources. DEF is also participating in a project with EPRI to study the potential of using customer DSM to compensate for variable loads and intermittent renewable generation sources.

TECO

TECO's Research and Development Program explores potential areas to benefit from energy conservation. The company is currently researching initiatives in electric vehicle (EV) impacts, small to mid-size commercial battery storage, commercial low-income weatherization, and the inclusion of HPWH as an electric thermal storage device. The research completed in these areas will help reveal cost-effectiveness, potential load-shifting, and opportunities for new conservation programs.

One of the company's newer programs, TECO's EV Energy Education Program has completed the initial implementation plan. This includes the installation of the first EV charger and the inclusion of EVs in the schools' leased vehicle agreements. Full classroom deployment of the program will begin in the 2018-2019 school year.

Gulf

In August 2018, Gulf provided its final report on its Energy Smart Rate Pilot to the Commission. The pilot provided interested residential customers with a smart thermostat and special Time-of-Use rate to help manage their energy usage. The program also allowed Gulf to control customers' air conditioning or electric heating usage during "critical peak" periods in exchange for a \$5 bill credit. Gulf was able to reduce demand by up to 1.2 kW per customer during load control events and up to 0.2 kW otherwise. Participants' bills decreased an average of 7 percent over the full year (October 2016-September 2017). Of 300 participants, 75 percent were somewhat satisfied or very satisfied with the program overall. Customers particularly liked the ease of using the thermostat and Ecobee app. However, bill savings did not meet customers' initial expectations.

Gulf is also conducting two projects that revolve around the Tesla Powerwall, a rechargeable energy storage product designed for home use. The Tesla Powerwall Demand Response project investigates its ability to improve the effectiveness of current DSM programs, specifically its impact on load-shifting and peak reduction. The Tesla Powerwall Demand Photovoltaic Project evaluates the impact of solar shifting and solar smoothing, and how battery storage may be able to overcome the typical shortcomings of grid-tied solar photovoltaics. Other projects include the Domestic Hot Water Analysis and the Eaton Smart Breaker Test.

FPUC

In 2017, FPUC continued its Distributed Battery Technology Pilot program. This research explores the impacts battery technology has on FPUC's electrical system and how this may provide future benefits to customers. Development of the pilot was completed in August 2017

and FPUC has identified two customers that meet the criteria for the pilot program. The pilot program is set to be initiated in the second half of 2018.

Section 4. Conservation Cost Recovery

IOUs are allowed by statute to recover prudent and reasonable expenses for DSM programs approved by the Commission through the ECCR clause. These expenses include administrative costs, equipment, and incentive payments. Before attempting to recover costs through the ECCR clause, a utility must prove its DSM programs are cost-effective and benefit the general body of ratepayers.

4.1 Electric IOU Cost Recovery

From 2007 through 2014, electric utility expenditures to fund conservation programs grew due to additions and modifications of these programs. However, costs recovered from customers through the ECCR have declined for most IOUs, due to DSM program modifications designed to meet the Commission's revised goals. Table 7 shows the annual DSM expenditures recovered by Florida's IOUs from 2007-2017.

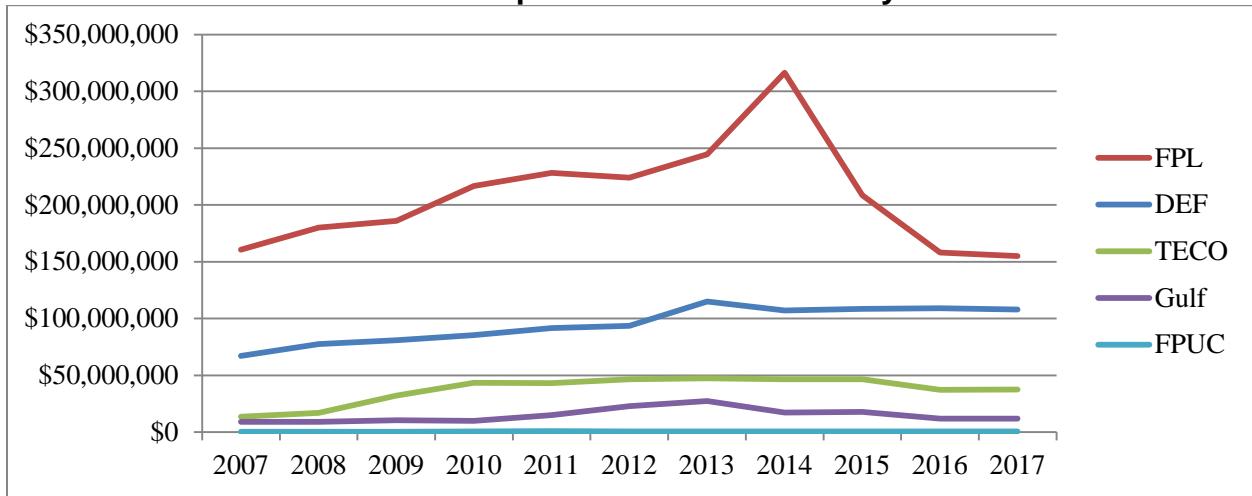
Table 7
DSM Expenditures Recovered by IOUs

	FPL	DEF	TECO	Gulf	FPUC	Total
2007	\$160,749,639	\$67,109,875	\$13,652,585	\$9,107,192	\$515,022	\$251,134,253
2008	\$180,016,994	\$77,593,960	\$16,989,411	\$9,257,740	\$534,350	\$284,392,455
2009	\$186,051,381	\$80,954,071	\$32,243,315	\$10,576,197	\$540,433	\$310,365,397
2010	\$216,568,331	\$85,354,924	\$43,371,442	\$9,859,407	\$693,331	\$355,847,435
2011	\$228,293,640	\$91,738,039	\$43,349,092	\$15,003,596	\$954,297	\$379,338,664
2012	\$224,033,738	\$93,728,110	\$46,593,831	\$22,885,826	\$695,235	\$387,936,740
2013	\$244,443,534	\$115,035,455	\$47,502,652	\$27,431,962	\$806,698	\$435,220,301
2014	\$316,311,166	\$107,033,335	\$46,620,508	\$17,412,618	\$772,612	\$488,150,239
2015	\$208,643,788	\$108,455,141	\$46,516,401	\$17,961,885	\$718,616	\$382,295,831
2016	\$158,174,787	\$109,155,438	\$37,242,148	\$11,915,459	\$687,590	\$317,175,422
2017	\$154,916,595	\$107,890,962	\$37,585,598	\$11,854,558	\$640,996	\$312,888,709
Total						\$3,904,745,446

Source: Docket Nos. 080002-EG through 20180002-EG, Schedules CT-2 from the IOUs' May testimony.

Figure 2 shows the trends in annual DSM expenditures for the five electric IOUs from 2006 to 2017.

Figure 2
Annual DSM Expenditures Recovered by IOUs



Source: Docket Nos. 20070002-EG through 20180002-EG, Schedules CT-2 from the IOUs' May testimony.

*FPL's 2014 recovery included a one-time \$56.3 million capacity payment to Solid Waste Authority of Palm Beach County.

During the annual ECCR clause proceedings, the Commission approves the energy conservation cost recovery factors, by customer class, which each utility will apply to the energy and demand portions of customer bills. These factors are set using each IOUs estimated conservation costs for the next year and reconciliation for any actual conservation cost over- or under-recovery associated with the current and prior years.

In November 2018, the Commission set the ECCR factors for the 2019 billing cycle. Table 8 illustrates the five IOUs' conservation cost recovery factors for residential customers' monthly bills. For illustrative purposes, these factors are applied to a typical monthly residential bill based on a 1,000 kilowatt-hour (kWh) per month energy usage.

Table 8
Residential Energy Conservation Cost Recovery Factors in 2019

Utility*	ECCR Factor (cents per kWh)	Monthly Bill Impact (Based on 1,000 kWh)
FPL	0.150	\$1.50
DEF	0.297	\$2.97
TECO	0.321	\$3.21
Gulf	0.125	\$1.25
FPUC	0.097	\$0.97

* While JEA and OUC fall under the FEECA Statute, the Commission does not regulate electric rates for municipal utilities. Thus, they do not appear in this table.

Source: Order No. PSC-XX-XXXX-FOF-EG, Docket No. 20180002-EG.

4.2 Natural Gas Cost Recovery

Commission Rule 25-17.015, F.A.C., also allows for recovery of costs attributed to natural gas conservation programs. Like the electric IOUs, the Commission also audits expenditures requested for recovery on a yearly basis and adjusts the cost recovery factors appropriately. Table 9 shows the amount each LDC recovered in natural gas conservation program expenditures from 2007-2017.

Table 9
DSM Expenditures Recovered by LDCs

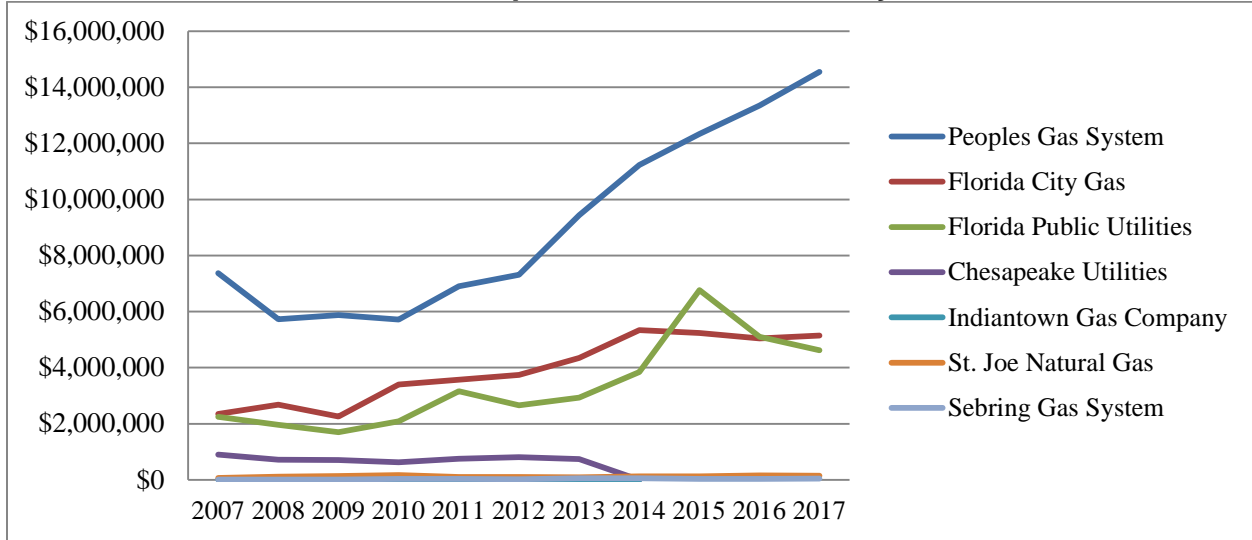
	Peoples Gas System	Florida City Gas	Florida Public Utilities	Chesapeake Utilities	Indiantown Gas Company	St. Joe Natural Gas	Sebring Gas System	Total
2007	\$7,367,135	\$2,345,976	\$2,249,573	\$906,159	\$15,563	\$73,171	\$12,344	\$12,969,921
2008	\$5,730,116	\$2,678,650	\$1,962,670	\$714,243	\$11,970	\$116,975	\$6,816	\$11,221,440
2009	\$5,880,890	\$2,254,121	\$1,702,041	\$710,850	\$21,682	\$137,675	\$11,926	\$10,719,185
2010	\$5,721,003	\$3,404,142	\$2,084,724	\$627,734	\$8,733	\$170,374	\$37,283	\$12,053,993
2011	\$6,906,668	\$3,573,513	\$3,163,050	\$755,779	\$11,357	\$106,300	\$34,640	\$14,551,307
2012	\$7,314,940	\$3,743,811	\$2,655,654	\$806,747	\$5,238	\$102,425	\$25,090	\$14,653,905
2013	\$9,432,551	\$4,342,603	\$2,935,140	\$742,412	\$10,222	\$96,575	\$53,967	\$17,613,470
2014	\$11,229,211	\$5,343,191	\$3,844,386	*	*	\$128,000	\$58,382	\$20,603,170
2015	\$12,335,245	\$5,240,383	\$6,768,175			\$123,400	\$33,563	\$24,500,766
2016	\$13,345,716	\$5,037,863	\$5,098,245			\$156,250	\$36,801	\$23,674,875
2017	\$14,543,555	\$5,149,573	\$4,617,501			\$144,900	\$42,237	\$24,497,766
Total								

Source: Docket Nos. 080004-GU through 20180004-GU, Schedules CT-2 from LDCs' May testimony.

*Spending combined with Florida Public Utilities Company via Order No. PSC-14-0655-FOF-GU in Docket No. 140004-GU.

Figure 3 shows the trends in annual conservation expenditures for all LDCs from 2007 to 2017. In 2013, the Commission approved the LDCs' Commercial Conservation programs, resulting in additional overall conservation expenditures.¹⁵

Figure 3
Annual DSM Expenditures Recovered by LDCs



Source: Docket Nos. 070002-EG through 20180002-EG, Schedules CT-2 from the IOUs' May testimony.

In November 2018, the Commission set the natural gas LDC conservation cost recovery factors for the 2019 billing cycle. Table 10 provides the LDCs' conservation cost recovery factors for 2019 and the impact on a typical residential customer's bill using 20 therms of natural gas per month.

Table 10
Residential Natural Gas Conservation Cost Recovery Factors in 2019

Utility	Cost Recovery Factor (Cents per Therm)	Monthly Bill Impact (Based on 20 Therms)
Peoples Gas System	10.655	\$2.13
Florida City Gas	19.799	\$3.96
Florida Public Utilities	7.369	\$1.47
Chesapeake Utilities	18.507	\$3.70
Indiantown Gas Company	7.277	\$1.46
St. Joe Natural Gas	43.076	\$8.62
Sebring Gas System	22.268	\$4.45

Source: Order No. PSC-X-X-FOF-GU, Docket 20180004-GU.

¹⁵ Order No. PSC-14-0039-PAA-EG

Section 5. Educating Florida’s Consumers on Conservation

5.1 Commission Consumer Education Outreach

While the Commission has statutory authority to require conservation efforts by regulated utilities, as part of the agency’s outreach program, the Commission complements utility efforts with its own conservation-related activities. To effectively reach as many consumers as possible, the Commission’s consumer education program uses a variety of platforms to share conservation information, including the Commission website, public events, brochures, press releases, e-newsletters, and Twitter. Conservation information is also available through other governmental and utility websites. Section 5.2 lists related websites for state and federal agencies, investor-owned electric utilities, and local gas distribution companies to further assist consumers. Most of the data in this section covers October 2017 through September 2018.

Triple E Award

Each quarter, the Commission recognizes a small business for implementing Commission-approved, cost-effective conservation programs. Covering the state’s five major geographic areas, the Commission presents its Triple E Award, for Energy Efficiency Efforts, to a local business that has accomplished superior energy efficiency by working with its local utility to help reduce its energy footprint. Triple E Award recipients receive an award plaque and are featured under Hot Topics on the homepage, www.FloridaPSC.com. A statewide press release recognizing the recipient is also issued and highlighted on Twitter, @floridapsc.

Website Outreach Resources

An assortment of information is available on the Commission website to help consumers save energy. According to Google Analytics, website page views for October 1, 2017 through September 4, 2018 totaled almost 1.2 million. Requests for permission to use the Commission’s Conservation House, highlighted on the homepage, have come from the U.S. and also overseas. Its interactive design illustrates energy saving strategies for both inside and outside the home.

The Commission also offers several energy conservation brochures to help consumers save energy. Brochures can be accessed and printed directly from the website, ordered online, or requested by mail or phone. From October 2017 through September 2018, almost 53,000 brochures were mailed by request.

Newsletters

The Commission’s quarterly *Consumer Connection Newsletter* features current energy and water conservation topics, consumer tips, and general Commission information. Consumer tips highlighted through video and text during the reporting period include *Holiday Energy-Saving Gifts*, *Who is the PSC?*, and *Commissioner Donald Polmann Talks Conservation to Students*. The newsletter can be accessed under Consumer Corner on the Commission’s homepage or by subscribing [online](#), and it’s also distributed on Twitter, @floridapsc.

National Consumer Protection Week

National Consumer Protection Week (NCPW), highlighting consumer protection and education efforts, was important to the Commission's 2018 conservation education efforts. Chairman Art Graham recognized the 20th Annual NCPW (March 4-10, 2018), with an emphasis on education and awareness about utility services and avoiding scams. During NCPW, Chairman Graham announced how the PSC has been protecting consumers for more than 130 years and encouraged consumers to contact the Commission for utility information or assistance if needed. The Commission keeps consumers informed year-round through awareness and education, free resources, and hearings, meetings and workshops. Also during the week, the Commission made presentations to consumers statewide showing them how to save money through energy and water conservation and how to avoid scams.

Older Americans Month

Each May, the Commission participates in *Older Americans Month*, a national project to honor and recognize older Americans for their contributions to families, communities, and society. *Engage at Every Age* was this year's theme. The Commission hosted educational sessions on ways to conserve energy and water, and on strategies to prevent becoming a victim of fraud at senior communities in Palm Beach, Leon and Hillsborough Counties. The Commission also distributed brochures and publications at the Jacksonville Expo during the month.

Energy Awareness Month

Each October, the U.S. Department of Energy (DOE) sponsors National Energy Awareness Month to promote smart energy choices and highlight economic and job growth, environmental protection, and increased energy independence. The Commission highlights Energy Awareness Month annually through press releases and energy conservation awareness events.

Community Events

FPSC Commissioners are active in communities around the state and regularly present energy conservation information to students at area schools, seniors and low-income residents at local community centers, and county and city businesses at meetings or other events.

Through ongoing partnerships with governmental entities, consumer groups, and many other service organizations, the Commission regularly distributes energy and water conservation materials. The Commission also actively seeks new community events, venues, and opportunities where conservation materials can be distributed and discussed with consumers. Events where conservation information was shared during October 2017 through September 2018 include:

- Senior Day at the Capitol
- Active Living Expo
- Low-income/Affordable Housing in Gadsden County
 - Triple Oaks Apartments
 - Omega Villas Apartments
 - Vanguard Village Apartments
- Jacksonville Senior Expo
- Florida Department of Agriculture and Consumer Services' Consumer Protection Fair – Pensacola

- Florida Department of Agriculture and Consumer Services' Consumer Protection Fair – Altamonte Springs
- Florida Department of Agriculture and Consumer Services' Consumer Protection Fair – Ocala
- Florida Department of Agriculture and Consumer Services' Consumer Protection Fair – Tallahassee
- Fran Carlton Center
- 35th Annual Florida Children's Day – Florida Museum of History
- Lunch and Learn – Miccosukee Community Center
- Gadsden County Senior Center
- Tampa Housing Authority – J. L. Young Garden Apartments
- The Oaks at Riverview
- Lunch and Learn – Woodville Senior Center
- Washington County Council on Aging
- Advent Christian Village Health and Wellness Fair – Suwannee County
- Lunch and Learn – Ft. Braden Community Center
- Earth Day – Museum of Florida History
- Washington Council on Aging – 2018 Senior Citizen Expo
- Boynton Beach Senior Center
- Volen Center
- Lunch and Learn – Lake Jackson
- Tampa Baptist
- Brandon Senior Center
- Ruskin Center
- 2018 Elder Abuse and Fraud Prevention Summit
- Lunch and Learn – Chaires Community Center
- 40th Anniversary Celebration – Tallahassee Senior Center
- Florida Department of Agriculture and Consumer Services' Consumer Protection Fair – The Villages
- Central Citrus Community Center
- CARES Rao Musunuru, M.D. Enrichment Center
- Louis Dinah Senior Center
- Mary L. Singleton Senior Center
- Woodville Community Center

Hearings and Customer Meetings

As an ongoing outreach initiative, the Commission supplies conservation brochures to consumers at Commission hearings and customer meetings across the state. Consumers who file a complaint with the Commission about high electric or natural gas bills also receive conservation information.

Library Outreach Campaign

Each August, the Commission provides educational packets, including conservation materials, to Florida public libraries across the state for consumer distribution. The Commission's Library Outreach Campaign reached 600 state public libraries and branches in 2018. To reduce mailing

and production costs, the Commission sends the materials via a CD that includes a print-ready copy of brochures for easy reproduction. Following the Campaign, many libraries' requests for additional publications are filled.

Media Outreach

News releases are posted to the website and distributed via email and Twitter on major Commission decisions, meetings, and public events. The Office of Consumer Assistance & Outreach also issues news releases urging conservation. For instance, in March, the Commission highlighted the federal government's *Fix a Leak Week* and offered easy repairs to save valuable water and money. And in April, water conservation month was recognized. For May's National Drinking Water Week, the PSC reminded consumers to conserve water and also issued a release for Older Americans Month on how seniors can learn to save money on their utility bills and how to avoid utility-related scams.

Youth Education

The Commission emphasizes conservation education for Florida's young consumers. During 2017 and 2018, the Commission continued to produce its student resource booklet, *Get Wise and Conserve Florida!* to teach children about energy and water conservation. The booklet is distributed to all public libraries through the Library Outreach Program and is available at all Commission outreach events. The student resource booklet is also a favorite at senior events.

5.2 Related Websites

State Agencies and Organizations

Florida Public Service Commission – <http://www.floridapsc.com/>

Florida Department of Environmental Protection – <http://www.dep.state.fl.us>

The Office of Energy – <http://www.freshfromflorida.com/Divisions-Offices/Energy>

Florida Solar Energy Center – <http://www.fsec.ucf.edu/>

Florida Weatherization Assistance – <http://floridajobs.org/community-planning-and-development/community-services/weatherization-assistance-program>

Florida's Local Weatherization Agencies List – <http://floridajobs.org/community-planning-and-development/community-services/weatherization-assistance-program/contact-your-local-weatherization-office-for-help>

U.S. Agencies and National Organizations

U.S. ENERGY STAR Program – <http://www.energystar.gov/>

U.S. Department of Energy – Energy Efficiency and Renewable Energy Information - <http://www.eere.energy.gov/>

National Energy Foundation – <https://nef1.org/>

Florida's Electric Utilities Subject to FEECA

Florida Power & Light Company – <http://www.fpl.com/>

Duke Energy Florida, LLC – <http://www.duke-energy.com/>

Tampa Electric Company – <http://www.tampaelectric.com/>

Gulf Power Company – <http://www.gulfpower.com/>

Florida Public Utilities Company – <http://www.fpuc.com/>

JEA – <http://www.jea.com/>

Orlando Utilities Commission – <http://www.ouc.com/>

Florida's Investor-Owned Natural Gas Utilities

Florida City Gas – <http://www.floridacitygas.com/>

Florida Division of Chesapeake Utilities – <http://www.chpk.com/companies/chesapeake-utilities/>

Florida Public Utilities Company – <http://www.fpuc.com/>

Florida Public Utilities Company – Ft. Meade Div. – <http://www.fpuc.com/fortmeade/>

Florida Public Utilities Company – Indiantown Div. – <http://www.fpuc.com/about/fpufamily/>

Peoples Gas System – <http://www.peoplesgas.com/>

Sebring Gas System – <http://www.sebringgas.com/>

St. Joe Natural Gas Company – <http://www.stjoenaturalgas.com/>

Appendix A. FEECA Utilities' Conservation Programs

IOUs

Florida Power & Light Company https://www.fpl.com/save/programs-and-resources.html	
Residential Programs	Residential Home Energy Survey Residential Ceiling Insulation Residential Air Conditioning Residential New Construction (BuildSmart) Residential Low-Income Residential Load Management (On Call)
Commercial/Industrial Programs	Business Energy Evaluation Business Lighting Business Heating, Ventilating, and Air Conditioning (HVAC) Business Custom Incentive Business On Call Commercial/Industrial Load Control (CILC) Commercial/Industrial Demand Reduction (CDR)
Other	Conservation Research and Development (CRD) Cogeneration & Small Power Production

Duke Energy Florida, LLC https://www.duke-energy.com/home/savings	
Residential Programs	Home Energy Check Residential Incentive Low-Income Weatherization Assistance Program Neighborhood Energy Saver Residential Energy Management
Commercial/Industrial Programs	Business Energy Check Commercial Energy Management Better Business Florida Custom Incentive Standby Generation Interruptible Service Curtaillable Service
Other	Technology Development Qualifying Facility

Tampa Electric Company http://www.tampaelectric.com/residential/saveenergy/ http://www.tampaelectric.com/business/saveenergy/	
Residential Programs	Residential Energy Audits Residential Ceiling Insulation Residential Duct Repair Residential Electronically Commutated Motors (ECM) Energy Education, Awareness, and Agency Outreach ENERGY STAR Multi-Family ENERGY STAR for New Homes Residential Heating and Cooling Neighborhood Weatherization (Low-Income) Residential Price Responsive Load Management (Energy Planner) Residential Wall Insulation Residential Window Replacement
Commercial/Industrial Programs	Commercial/Industrial Energy Audits Commercial Ceiling Insulation Commercial Chiller Cogeneration Conservation Value Commercial Cool Roof Commercial Cooling Demand Response Commercial Duct Repair Commercial Electronically Commutated Motors (ECM) Industrial Load Management (GSLM 2&3) Lighting Conditioned Space Lighting Non-Conditioned Space Lighting Occupancy Sensors Commercial Load Management Refrigeration Anti-Condensate Control Standby Generator Thermal Energy Storage Commercial Wall Insulation Commercial Water Heating
Other	Conservation Research and Development Renewable Energy

Gulf Power Company https://www.gulfpower.com/residential/savings-and-energy https://www.gulfpower.com/business/savings-and-energy	
Residential Programs	Residential Energy Audit and Education Community Energy Saver (Low-Income) Residential Custom Incentive HVAC Efficiency Improvement Residential Building Efficiency Energy Select Residential Service Time of Use Pilot
Commercial/Industrial Programs	Commercial/Industrial Energy Analysis Commercial HVAC Retrocommissioning Commercial Building Efficiency Commercial/Industrial Custom Incentive Critical Peak Option
Other	Conservation Demonstration and Development

Florida Public Utilities Company http://www.fpuc.com/electric/residential/rebates/ http://www.fpuc.com/electric/commercial/commercial-rebates/	
Residential Programs	Residential Energy Survey Residential Heating and Cooling Efficiency Upgrade
Commercial/Industrial Programs	Commercial Energy Consultation Commercial Heating and Cooling Efficiency Upgrade Commercial Reflective Roof Commercial Chiller Upgrade
Other	Low-Income Energy Outreach Conservation Demonstration and Development

Non-IOUs

JEA	
https://www.jea.com/ways_to_save/home/ https://www.jea.com/ways_to_save/business/	
Residential Programs	Residential Energy Audit Residential Solar Water Heating Residential Solar Net Metering Neighborhood Efficiency (Low-Income) Residential Efficiency Upgrade Energy Efficient Products Residential New Build
Commercial/Industrial Programs	Commercial Energy Audit Commercial Solar Net Metering Commercial Prescriptive Small Business Direct Install Custom Commercial

OUC	
http://www.ouc.com/residential/save-energy-water-money http://www.ouc.com/business/business-rebates-programs	
Residential Programs	Residential Home Energy Survey Residential Duct Repair/Replacement Rebate Residential Ceiling Insulation Upgrade Rebate Residential Window Film/Solar Screen Rebate Residential High Performance Windows Rebate Residential Efficient Electric Heat Pump Rebate Residential New Home Rebate Residential Efficiency Delivered (Low-Income)
Commercial/Industrial Programs	Commercial Energy Survey Commercial Efficient Electric Heat Pump Rebate Commercial Duct Repair Rebate Commercial Window Film/Solar Screen Rebate Commercial High Performance Windows Rebate Commercial Ceiling Insulation Rebate Commercial Cool/Reflective Roof Rebate

Appendix B. FEECA Utilities' Conservation Program Descriptions

FEECA IOUs

A. Florida Power & Light Company

Residential Programs

Residential Home Energy Survey

The Residential Home Energy Survey Program encourages implementation of recommended energy efficiency measures, even if they are not included in FPL's DSM programs. The Residential Home Energy Survey Program also identifies FPL DSM programs that could be appropriate considering the residential customers' home layouts and electricity usage patterns.

Residential Ceiling Insulation

The Residential Ceiling Insulation Program encourages customers to improve their homes' thermal efficiency.

Residential Air Conditioning

The Residential Air Conditioning Program encourages customers to install high-efficiency central air conditioning systems.

Residential New Construction (BuildSmart)

The Residential New Construction Program encourages builders and developers to design and construct new homes that achieve BuildSmart certification and move towards ENERGY STAR qualifications.

Residential Low-Income

The Residential Low-Income Program assists low-income customers through state Weatherization Assistance Provider ("WAP") agencies and FPL conducted energy retrofits.

Residential Load Management (On Call)

The Residential Load Management Program allows FPL to turn off certain customer-selected appliances using FPL-installed equipment during periods of extreme demand, capacity shortages, or system emergencies.

Commercial/Industrial Programs

Business Energy Evaluation

The Business Energy Evaluation Program educates customers on energy efficiency and encourages implementation of recommended practices and measures, even if these are

not included in FPL's DSM programs. The Business Energy Evaluation is also used to identify potential opportunities to implement for other FPL DSM programs.

Business Lighting

The Business Lighting Program encourages customers to install high-efficiency lighting systems.

Business Heating, Ventilating, and Air Conditioning (HVAC)

The Business HVAC program encourages customers to install high-efficiency HVAC systems.

Business Custom Incentive

The Business Custom Incentive Program encourages customers to install unique high-efficiency technologies not covered by other FPL DSM programs.

Business On Call

The Business On Call Program allows FPL to turn off customers' direct expansion central air conditioning units using FPL-installed equipment during periods of extreme demand, capacity shortages, or system emergencies.

Commercial/Industrial Load Control (CILC)

The Commercial/Industrial Load Control Program allows FPL to control customer loads of 200 kW or greater during periods of extreme demand, capacity shortages, or system emergencies. The CILC Program was closed to new participants as of 2000.

Commercial/Industrial Demand Reduction (CDR)

The Commercial/Industrial Demand Reduction Program allows FPL to control customer loads of 200 kW or greater during periods of extreme demand, capacity shortages, or system emergencies. FPL installs a load management device at the customer's facility and provides monthly credits to customers. Unlike the CILC program, the CDR program is still open to new customers.

Cogeneration & Small Power Production

The Cogeneration and Small Power Production Program facilitates the interconnection and administration of contracts for cogenerators and small power producers.

Research and Development and Pilot Programs

Conservation Research and Development (CRD)

Under Conservation Research and Development, FPL conducts research projects to identify, evaluate, and quantify the impact of new energy efficient technologies. FPL uses the findings to potentially add new energy efficient technologies to DSM programs.

B. Duke Energy Florida, LLC

Residential Programs

Home Energy Check

The Home Energy Check is a residential energy audit program that provides residential customers with an analysis of their energy consumption and educational information on how to reduce energy usage and save money.

Residential Incentive

The Residential Incentive Program provides incentives to residential customers for energy efficiency improvements in both existing and new homes.

Low-Income Weatherization Assistance Program

The Low-Income Weatherization Assistance Program works with the Florida Department of Economic Opportunity and local weatherization providers to deliver energy education, efficiency measures, and incentives to weatherize the homes of low-income families.

Neighborhood Energy Saver

The Neighborhood Energy Saver Program installs energy conservation measures, identified through an energy assessment, in the homes of customers in selected neighborhoods where at least 50 percent of households have incomes equal to or less than 200 percent of the poverty level established by the U.S. government.

Residential Energy Management

The Residential Energy Management Program uses direct control of customer equipment to reduce system demand during winter and summer peak capacity periods by temporarily interrupting select customer appliances.

Commercial/Industrial Programs

Business Energy Check

The Business Energy Check Program provides no-cost energy audits at non-residential facilities either over the phone or at the customer's facility.

Commercial Energy Management

The Commercial Energy Management Program uses direct control of customer equipment to reduce system demand during winter and summer peak capacity periods. The Commercial Energy Management Program was closed to new participants in 2000, but is still open for existing participants.

Better Business

Better Business is an umbrella efficiency program that provides incentives to existing C/I and government customers for HVAC, roof insulation, duct leakage and repair, demand-control ventilation, and cool roof coating.

Florida Custom Incentive

The Florida Custom Incentive Program provides incentives for individual custom projects, such as new construction measures or thermal energy storage systems, that are cost effective but not addressed by DEF's other programs.

Standby Generation

The Standby Generation Program is a demand control program that reduces DEF's system demand based on control of customer equipment. This program is available to C/I customers who have on-site generation capability and are willing to reduce demand on DEF's system when requests for system reliability purposes.

Interruptible Service

Interruptible Service is a direct load control DSM program in which customers allow DEF to interrupt their electrical service during times of capacity shortages based on peak or emergency conditions. In return, customers receive a monthly bill credit.

Curtable Service

Curtable Service is an indirect load control DSM program in which customers contract to curtail all or a portion of their electricity demand during times of capacity shortages. In contrast to the Interruptible Service Program, the customer, instead of DEF, controls whether or not the customer's appliances are turned off during times of stress on the grid. In return, customers receive a monthly bill credit.

Qualifying Facility

The Qualifying Facility Program supports the interconnection and purchase of as-available energy as well as firm energy and capacity from qualifying facilities including those that use renewable energy and distributed energy resources.

Research and Development

Technology Development

The Technology Development Program allows DEF to investigate technologies that hold promise for cost-effective demand reduction and energy efficiency. DEF will investigate variable capacity heat pump air conditioners, building automated energy efficiency and demand response, energy management circuit breakers, and more.

C. Florida Public Utilities Company

Residential Programs

Residential Energy Survey

In the Residential Energy Survey Program, FPUC provides the customer with specific whole-house energy efficiency recommendations. FPUC also provides customers with lists of blower-door test contractors who can check for duct leakage. Finally, FPUC provides the customer with a conservation kit.

Residential Heating and Cooling Efficiency Upgrade

The Residential Heating and Cooling Upgrade Program incentivize customers operating inefficient heat pumps and air conditioners to replace them with more efficient units. The program incentivizes also customers to install a new heat pump. Finally, the program incentivizes customers who are replacing older heat pumps or air conditioners with more efficient heat pump or air conditioners.

Low-Income Energy Outreach

The Low-Income Energy Outreach Program partners with Department of Economic Opportunity approved Low-Income Weatherization Program operators to offer Residential Energy Surveys, distributing energy conservation materials, and more.

Commercial Programs

Commercial Energy Consultation

In the Commercial Energy Consultation Program, FPUC energy conservation representatives conduct commercial site visits to assess the potential for applicable DSM programs, educate customers about FPUC's commercial DSM programs, and more.

Commercial Heating and Cooling Efficiency Upgrade

The Commercial Heating and Cooling Upgrade Program provides rebates to small commercial customers (customers with a maximum of 5 ton units) if the customers install a high-efficiency central air conditioner or heat pump with a minimum 15 SEER.

Commercial Reflective Roof

The Commercial Reflective Roof Program provides rebates to non-residential customers who convert or install a new cool roof on an existing or new building. The rebates cover up to 25 percent of the added upfront cost of building a cool roof compared to an alternative roof.

Commercial Chiller Upgrade

The Commercial Chiller Upgrade Program offers customers an incentive of up to \$175/kW of savings above minimum efficiency levels.

Research Programs

Conservation Demonstration and Development

The Conservation Demonstration and Development Program researches energy efficiency and conservation projects to identify, develop, demonstrate, and evaluate promising end-use energy efficient technologies across a wide variety of applications.

D. Gulf Power Company

Residential Programs

Residential Energy Audit and Education

The Residential Energy Audit and Education Program is the primary educational program to help customers improve the energy efficiency of their new or existing home. The program provides energy conservation advice and information that encourages the implementation of efficiency measures and behaviors that result in electricity bill savings.

Community Energy Saver (Low-Income)

The Community Energy Saver Program installs energy conservation measures in the homes of low-income families at no cost to the customers. The program also educates families on behavioral changes designed to save money by decreasing energy use.

Residential Custom Incentive

The Residential Custom Incentive Program aims to increase energy efficiency in the residential rental property sector. The program promotes the installation of efficiency measures available through other programs, such as HVAC maintenance and quality installation, high performance windows, and reflective roofing. As suitable, the program has other incentives to surmount the split-incentive barrier in a landlord/renter situation.

HVAC Efficiency Improvement

The HVAC Efficiency Improvement Program aims to increase energy efficiency and improve HVAC cooling system performance for new and existing homes. Gulf increases efficiency through HVAC maintenance, duct repair, and HVAC quality installation.

Residential Building Efficiency

The Residential Building Efficiency Program is an umbrella efficiency program for existing and new residential customers to install eligible equipment such as high performance windows, reflective roof, and ENERGY STAR window air conditioners. The goals are to increase customer demand for energy efficient technologies and to create long-term energy savings and peak demand reduction.

Energy Select

The Energy *Select* Program gives customers a way to manage their energy consumption by programming their heating and cooling systems and major appliances, such as electric water heaters and pool pumps, to respond automatically to prices that vary during the day and by season in relation to Gulf's cost of producing or purchasing energy.

Residential Service Time of Use Pilot

The Residential Service Time of Use Pilot Program provides residential customers the opportunity to use customer-owned equipment to respond automatically and take advantage of a variable pricing structure with a critical peak component. The pilot will be offered to 400 residential customers. The goal is to measure customers' response, with customer owned equipment, to a variable electricity price.

Commercial Programs

Commercial/Industrial Audit

The Commercial/Industrial Audit Program provides advice to Gulf's existing C/I customers on how to reduce energy consumption. The program ranges from an Energy Analysis Audit and walk-through surveys to a Technical Assistance Audit and computer programs that simulate options for very large, energy-intensive customers.

Commercial HVAC Retrocommissioning

The Commercial HVAC Retrocommissioning program offers retrocommissioning at a reduced cost for qualifying installations by C/I customers. Retrocommissioning is a process of identifying suboptimal performance in a facility's systems and replacing the outdated equipment.

Commercial Building Efficiency

The Commercial Building Efficiency Program is an umbrella efficiency program for C/I customers to encourage the installation of high-efficiency equipment in order to reduce energy and demand. The high-efficiency equipment is focused on commercial geothermal heat pumps, ceiling/roof insulation, and reflective roofs.

Commercial/Industrial Custom Incentive

The Commercial/Industrial Custom Incentive Program offers energy efficient end-user equipment to C/I customers. The C/I Custom Incentive Program also offers energy services such as comprehensive audits, design, and construction of energy conservation projects. Covered projects include demand reduction or energy improvement retrofits that are beyond the scope of other DSM programs.

Critical Peak Option

This program allows customers on Gulf's Large Power Time-of-Use rate schedule an option to receive credits for capacity that can be reduced during peak load conditions. The program provides a fixed, per-kW credit for measured on-peak demand and a charge for any measured demand recorded during a called critical peak event.

Research and Development Programs

Conservation Demonstration and Development

The Conservation Demonstration and Development Program is an umbrella program for the identification, development, and evaluation of end-use energy efficient technologies.

E. Tampa Electric Company

Residential Programs

Residential Energy Audits

The Residential Energy Audits Program includes a walk-through free energy check, a customer assisted energy audit, a computer assisted paid energy audit, and a building energy ratings system (BERS).

Residential Ceiling Insulation

The Residential Ceiling Insulation Program offers rebates to existing residential customers to install additional ceiling insulation in existing homes.

Residential Duct Repair

The Residential Duct Repair Program encourages residential customers to repair leaky duct work of central air conditioning systems in existing homes.

Residential Electronically Commutated Motors (ECM)

The Residential Electronically Commutated Motors Program encourages residential customers to replace their existing HVAC air handler motors with more efficient ECMs.

Energy Education, Awareness, and Agency Outreach

The Energy Education, Awareness, and Agency Outreach Program engages and educates groups of customers and students on energy efficiency in an organized setting. Also, participants receive an energy savings kit with energy saving devices and information.

ENERGY STAR for New Multi-Family Residences

The ENERGY STAR for Multi-Family Residences Program utilizes a rebate to encourage construction of new multi-family residences that meet the requirements to achieve the ENERGY STAR certified apartments and condominiums label.

ENERGY STAR for New Homes

The ENERGY STAR for New Homes Program incentivizes residential customers to build homes that qualify for the ENERGY STAR award by achieving energy efficiency levels greater than current Florida building code baseline practices.

Residential Heating and Cooling

The Residential Heating and Cooling Program offers rebates to residential customers for installing high-efficiency heating and cooling equipment in existing homes.

Neighborhood Weatherization (Low-Income)

The Neighborhood Weatherization Program provides for the installation of energy efficient measures for qualified low-income customers.

Renewable Energy

The Renewable Energy Program delivers renewable energy options to TECO's customers through program administration, renewable electricity generation, evaluation of potential new renewable sources, and market research.

Residential Price Responsive Load Management (Energy Planner)

The Residential Price Responsive Load Management (Energy Planner) Program reduces weather-sensitive loads through an innovative price responsive rate. The price responsive rate encourages residential customers to make behavioral or equipment usage changes by pre-programming HVAC, water heating, and pool pumps.

Residential Wall Insulation

The Residential Wall Insulation Program offers rebates to existing residential customers to install additional wall insulation in existing homes.

Residential Window Replacement

The Residential Window Replacement Program offers rebates to existing residential customers to install window upgrades in existing homes.

Commercial Programs**Commercial/Industrial Energy Audits**

In the C/I Energy Audits Program, C/I customers can receive more limited free energy audits or comprehensive paid energy audits.

Commercial Ceiling Insulation

The Commercial Ceiling Insulation Program incentivizes C/I customers to install additional ceiling insulation in existing commercial buildings.

Commercial Chiller

The Commercial Chiller Program offers rebates to C/I customers for installing high efficiency chiller equipment.

Cogeneration

The Cogeneration Program incentivizes large industrial customers with waste heat or fuel resources to use their onsite energy to avoid fuel waste and install electric generating equipment. The large industrial customers may sell their surplus electric generation to TECO.

Conservation Value

The Conservation Value Program offers rebates to C/I customers to invest in energy conservation measures that are not in other C/I programs.

Commercial Cool Roof

The Commercial Cool Roof Program encourages C/I customers to install a cool roof system above conditioned spaces.

Commercial Cooling

The Commercial Cooling Program encourages C/I customers to install high efficiency direct expansion commercial air conditioning cooling equipment.

Demand Response

The Demand Response Program incentivizes C/I customers to reduce electricity demand at certain peak times.

Commercial Duct Repair

The Commercial Duct Repair Program encourages C/I customers to repair leaky ductwork of central air conditioning systems in existing C/I facilities.

Commercial Electronically Commutated Motors (ECM)

The Commercial Electronically Commutated Motors Program encourages C/I customers to replace air handler motors or refrigeration fan motors with ECMs.

Industrial Load Management (GSLM 2&3)

The Industrial Load Management Program incentivizes large industrial customers to allow TECO to interrupt part of or their entire electrical service during periods of peak stress on the grid.

Lighting Conditioned Space

The Lighting Conditioned Space Program encourages C/I customers to invest in more efficient lighting technologies in existing conditioned areas of C/I facilities.

Lighting Non-Conditioned Space

The Lighting Non-Conditioned Space Program encourages C/I customers to invest in more efficient lighting technologies in existing non-conditioned areas of C/I facilities.

Lighting Occupancy Sensors

The Lighting Occupancy Sensors Program encourages C/I customers to install occupancy sensors to control C/I lighting systems.

Commercial Load Management

The Commercial Load Management Program incentivizes C/I customers to allow TECO to control weather-sensitive heating, cooling, and water heating systems to reduce the associated weather-sensitive peak demand.

Refrigeration Anti-Condensate Control

The Refrigeration Anti-Condensate Control Program encourages C/I customers to install anti-condensate equipment sensors within refrigerated door systems.

Standby Generator

The Standby Generator Program incentivizes C/I customers to use available emergency electrical generation capacity in order to reduce weather-sensitive peak demand on the grid.

Thermal Energy Storage

The Thermal Energy Storage Program encourages C/I customers to install an off-peak air conditioning system.

Commercial Wall Insulation

The Commercial Wall Insulation Program encourages C/I customers to install wall insulation in existing C/I structures.

Commercial Water Heating

The Commercial Water Heating Program encourages C/I customers to install high efficiency water heating systems.

Research and Development

Conservation Research and Development (R&D)

The Conservation Research and Development Program allows TECO to explore DSM measures that have insufficient data on cost-effectiveness and the impact on TECO's ratepayers.

Non-IOU FEECA Utilities

A. JEA

Residential Programs

Residential Energy Audit

In the Residential Energy Audit Program, JEA examines homes, educates customers, and makes recommendations on low-cost or no-cost energy-saving practices and measures.

Residential Solar Water Heating

The Residential Solar Water Heating Program pays a financial incentive to customers to encourage the use of solar water heating technology.

Residential Solar Net Metering

The Residential Solar Net Metering Program promotes the use of PV by purchasing excess electricity from residential customers who have PV.

Neighborhood Efficiency (Low-Income)

The Neighborhood Efficiency Program offers education concerning the efficient use of energy and water as well as the direct installation of an array of energy and water efficiency measures at no cost to income qualified customers.

Residential Efficiency Upgrade

The Residential Efficiency Upgrade Program provides incentives to encourage the use of high efficiency HVAC and water heating. This is one of the DSM programs that JEA offers which has not been approved by the Commission and is not part of FEECA. Nevertheless, this program creates demand and energy savings.

Energy Efficient Products

The Energy Efficient Products Program provides incentives to encourage the use of high efficiency lighting and efficient appliances. This is one of the DSM programs that JEA offers which has not been approved by the Commission and is not part of FEECA.

Residential New Build

The Residential New Build Program promotes the use of high efficiency HVAC, water heating, lighting, and appliances in the new construction market. This is one of the DSM programs that JEA offers which has not been approved by the Commission and is not part of FEECA. Nevertheless, this program creates demand and energy savings.

Commercial Programs

Commercial Energy Audit

In the Commercial Energy Audit Program, JEA examines businesses, educates customers, and makes recommendations on low-cost or no-cost energy-saving practices.

Commercial Solar Net Metering

The Commercial Solar Net Metering Program promotes the use of PV by purchasing excess electricity from commercial customers who have PV.

Commercial Prescriptive

The Commercial Prescriptive Program provides incentives to encourage the use of high efficiency HVAC, lighting, cooking, and water heating products. This is one of the DSM programs that JEA offers which has not been approved by the Commission and is not part of FEECA. Nevertheless, this program creates demand and energy savings.

Small Business Direct Install

The Small Business Direct Install Program promotes the use of high efficiency HVAC, lighting, water heating, and appliances in the small business sector. This is one of the DSM programs that JEA offers which has not been approved by the Commission and is not part of FEECA. Nevertheless, this program creates demand and energy savings.

Custom Commercial

The Custom Commercial Program promotes the use of custom efficiency measures based on specific applications for each customer. This is one of the DSM programs that JEA offers which has not been approved by the Commission and is not part of FEECA. Nevertheless, this program creates demand and energy savings.

B. Orlando Utilities Commission

Residential Programs

Residential Home Energy Survey

The Residential Home Energy Survey Program consists of three measures: a Residential Energy Walk-Through Survey, a Residential Energy Survey DVD, and an interactive Online Energy Survey.

Residential Duct Repair/Replacement Rebate

The Residential Duct Repair/Replacement Rebate Program provides up to a \$160 rebate to encourage customers to repair leaking ducts on existing systems.

Residential Ceiling Insulation Upgrade Rebate

The Residential Ceiling Insulation Upgrade Rebate Program is offered to residential customers to encourage the upgrade of attic insulation.

Residential Window Film/Solar Screen Rebate

The Residential Window Film/Solar Screen Rebate Program encourages solar shading on windows.

Residential High Performance Windows Rebate

The Residential High Performance Windows Rebate Program encourages customers to install windows that minimize heating, cooling, and lighting costs.

Residential Efficient Electric Heat Pump Rebate

The Residential Efficient Electric Heat Pump Rebate Program provides rebates to customers in existing homes who install heat pumps having a seasonal energy efficiency ratio (SEER) of 15.0 or higher.

Residential New Home Rebate

The Residential New Home Rebate Program offers rebates for cool/reflective roofs, block wall insulation, ceiling insulation upgrades to R-38, heat pumps, ENERGY STAR washing machines, ENERGY STAR heat pump water heaters, and solar water heaters.

Residential Efficiency Delivered (Low-Income)

The Residential Efficiency Delivered Program is income based and provides up to \$2,000 of energy and water efficiency upgrades based on the needs of the residential customer's home. An OUC Conservation Specialist visits the home, performs a home survey, and recommends which home improvements have the most potential of lowering utility bills.

Commercial Programs**Commercial Energy Survey**

The Commercial Energy Audit Program includes a free survey consisting of a physical walk-through inspection of the commercial facility performed by experienced energy experts. Following the inspection, the customer receives a written report.

Commercial Efficient Electric Heat Pump Rebate

The Commercial Efficient Electric Heat Pump Rebate Program provides rebates to qualifying customers in existing buildings who install heat pumps having a seasonal energy efficiency ratio (SEER) of 15.0 or higher.

Commercial Duct Repair Rebate

The Commercial Duct Repair Rebate Program provides rebates of 100 percent of the cost, up to \$160, when qualifying customers have an existing central air conditioning system of 5.5 tons or less. Then, customers must seal ducts with mastic and fabric tape or Underwriters Laboratory approved duct tape.

Commercial Window Film/Solar Screen Rebate

The Commercial Window Film/Solar Screen Rebate Program aims to reflect heat during hot summer days and retain heat on cool winter days. The program provides rebates of \$1 per square foot for window tinting and solar screening with a solar heat gain coefficient (SHGC) of 0.44 or shading coefficient of 0.5 or less.

Commercial High Performance Windows Rebate

The Commercial High Performance Windows Rebate Program encourages customers to install windows that minimize heating, cooling, and lighting costs.

Commercial Ceiling Insulation Rebate

The Commercial Ceiling Insulation Rebate Program aims to increase a building's resistance to heat loss and gain. Participating customers receive a per square foot for upgrading their attic insulation up to R-30

Commercial Cool/Reflective Roof Rebate

The Commercial Cool/Reflective Roof Rebate Program aims to reflect the sun's rays and lower roof surface temperature while increasing the lifespan of the roof. OUC provides rebates per square foot of ENERGY STAR cool/reflective roofing that has an initial solar reflectance greater than or equal to 0.70.

II. Outside Persons Who Wish to Address the Commission at Internal Affairs

Note: The records reflect that no outside persons addressed the Commission at this Internal Affairs meeting.

III. Supplemental Materials for Internal Affairs

Hurricane Michael Response Summary

Items of Note:

- ▶ 733 out of 2,543 cell sites in the 21 affected Florida counties were reported to the FCC as inoperable the day after the storm. Down sites were reduced to 45 by 10/26.
- ▶ While most facilities have been restored, as of last Friday (10/26), Bay County still had 12.4% of its cell sites down (30 of 242 sites), and Gulf County still had 14.3% down (3 of 21 sites)
- ▶ Cable/wireline outages for all counties went from a peak of 252,748 to 43,182 by the end of the reporting period (10/26)
- ▶ Cell providers have offered a variety of credits, including unlimited talk/text, late fee waivers, free service, etc. for up to three months
- ▶ Verizon announced Panama City would be included in its initial rollout of 5G advanced services, starting in 2019

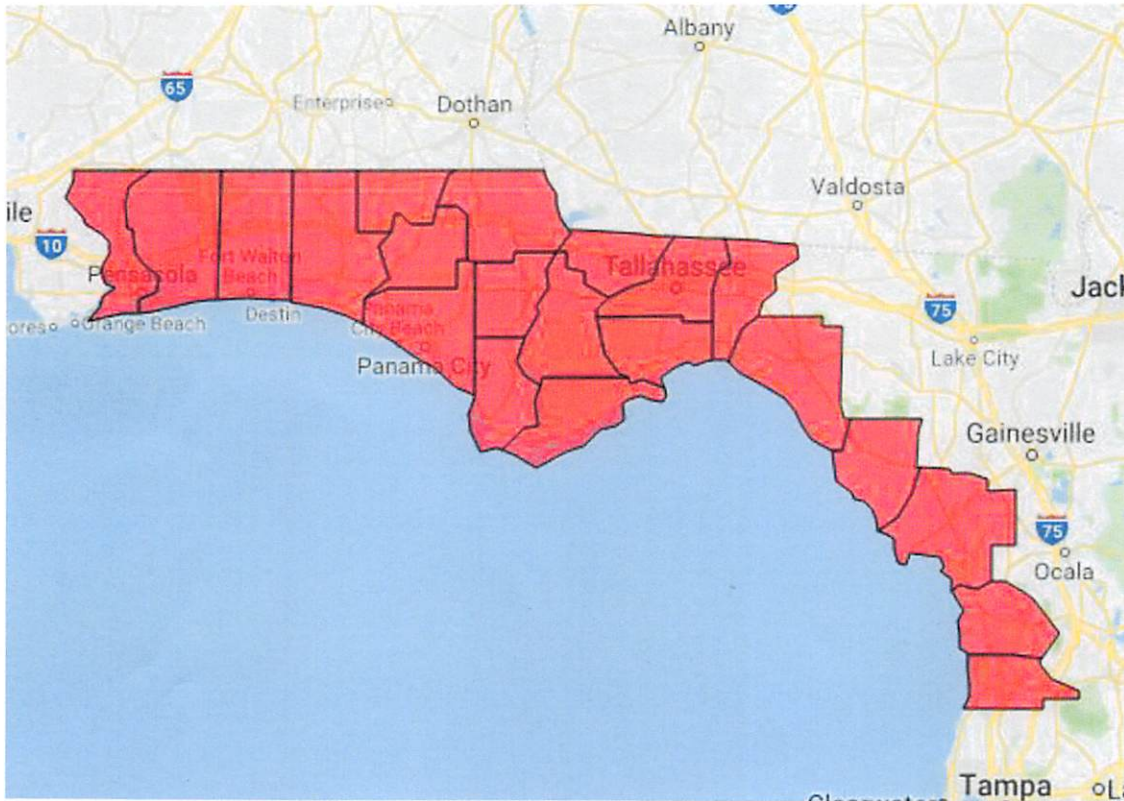
Parties/Staff Handout
Internal Affairs/Agenda
on 10 / 30 / 18
Item No. 8

Hurricane Michael Response Summary

FCC Reports

The FCC's Disaster Information Reporting System (DIRS) was activated on October 11, 2018, in response to Hurricane Michael. Providers report directly to DIRS from October 11 until October 26, 2018. The following is a summary of the reported information.

Counties Included in Reporting: 21(Bay, Calhoun, Citrus, Dixie, Escambia, Franklin, Gadsden, Gulf, Hernando, Holmes, Jackson, Jefferson, Leon, Levy, Liberty, Okaloosa, Santa Rosa, Taylor, Wakulla, Walton, Washington)



Total percentage of cell sites down in affected counties (beginning/ending reporting dates):¹

¹ Per the FCC: The number of cell site outages in a specific area does not necessarily correspond to the availability of wireless service to consumers in that area. See Improving the Resiliency of Mobile Wireless Communications Networks, Order, 31 FCC Rcd 13745, para. 10 (2016) (recognizing the difficulties in accurately depicting the ongoing status of a wireless provider's service during emergencies). Wireless networks are often designed with numerous, overlapping cell sites that provide maximum capacity and continuity of service even when an individual site is inoperable. Moreover, wireless providers frequently use temporary facilities such as cells-on-wheels, increased power at operational sites, roaming agreements, or take other actions to maintain service to affected consumers during emergencies or other events that result in cell site outages.

Cell Site Percentage Down		
County	10/11	10/26
Bay	78.30%	12.40%
Calhoun	38.10%	7.10%
Citrus	1.00%	1.00%
Dixie	0.00%	0.00%
Escambia	0.80%	0.00%
Franklin	38.90%	5.40%
Gadsden	71.00%	9.70%
Gulf	69.60%	14.30%
Hernando	0.00%	0.00%
Holmes	74.10%	0.00%
Jackson	77.10%	0.00%
Jefferson	5.70%	0.00%
Leon	43.30%	0.00%
Levy	0.00%	0.00%
Liberty	88.90%	0.00%
Okaloosa	0.00%	0.00%
Santa Rosa	0.00%	0.00%
Taylor	24.40%	0.00%
Wakulla	35.90%	0.00%
Walton	21.50%	0.00%
Washington	69.20%	0.00%
Total	28.80%	2.00%

Other Outages:

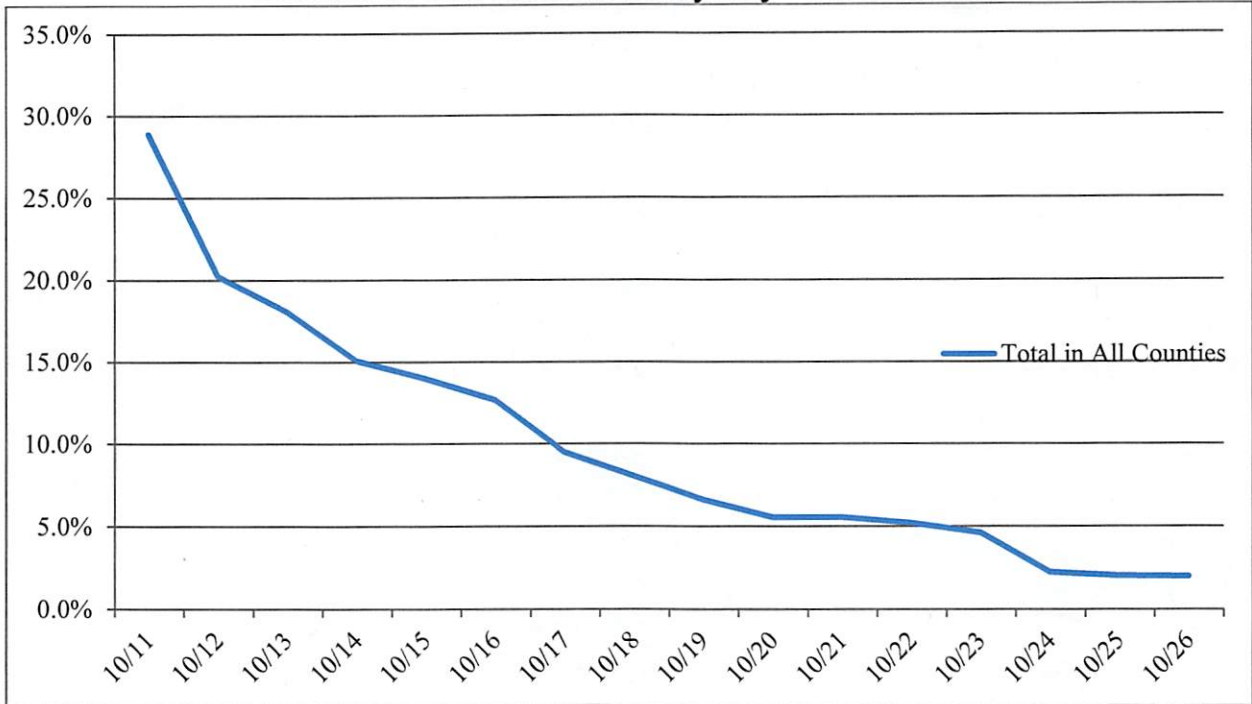
Cable Systems and Wireline ²		
	10/11	10/26
Outages	185,841	43,182

Broadcast Stations		
Out	10/11	10/26
TV	4	1
FM	30	7
AM	4	2

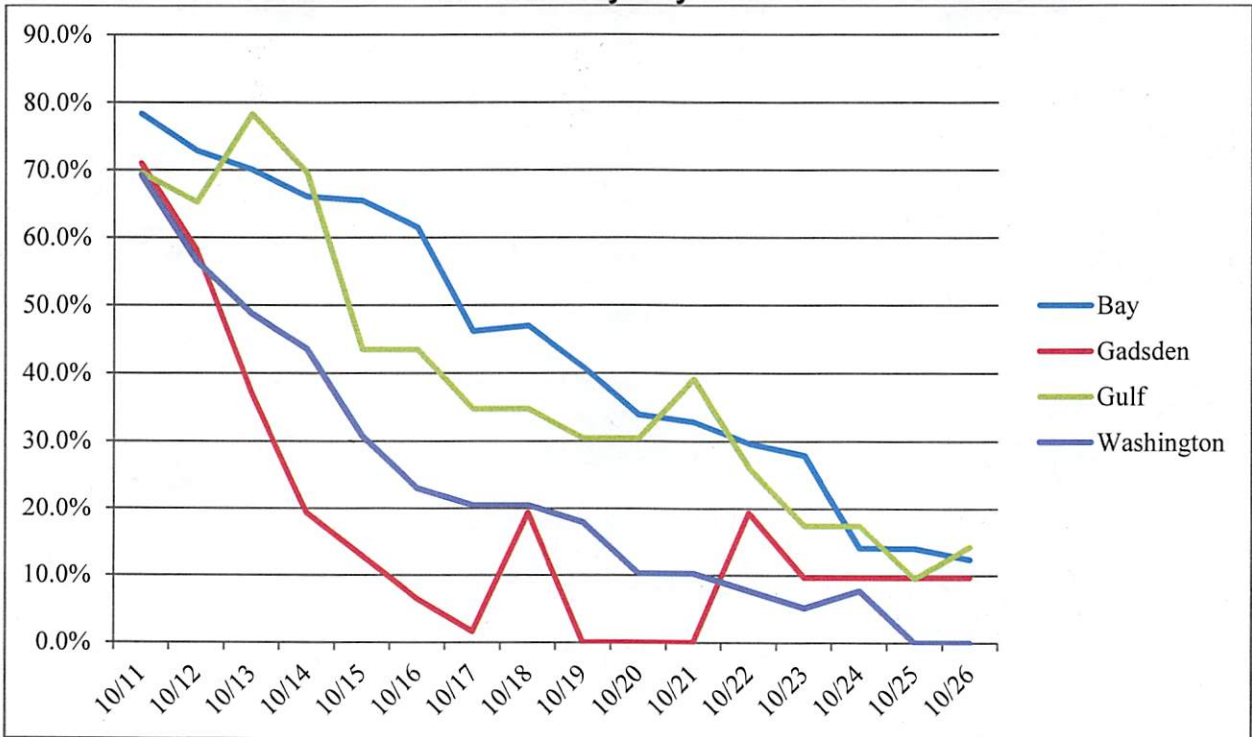
911 PSAPs		
	10/11	10/26
Down	1	0
Rerouted	6	2

² Per the FCC, This number reflects outages of communications service provided by cable and wireline companies in the impacted area, which may include the loss of telephone, television, and/or Internet services.

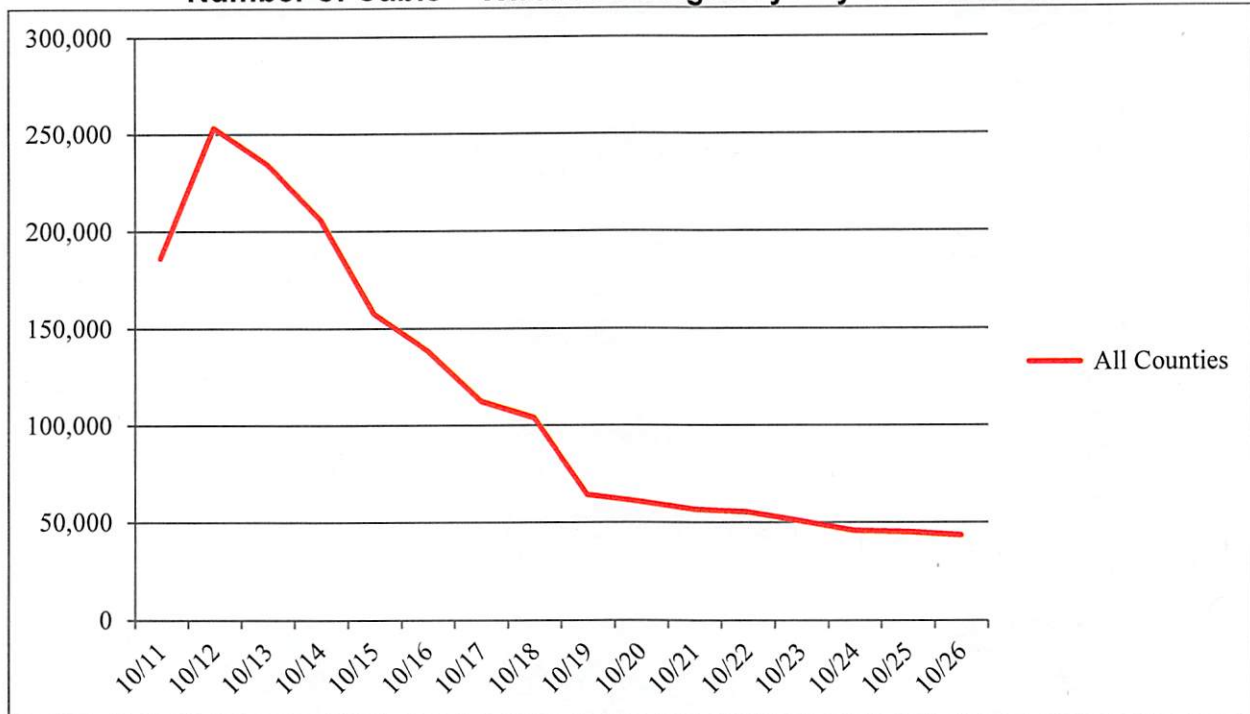
Percent of Cell Sites Down by Day – All Counties



Percent of Cell Sites Down by Day – Most Affected Counties



Number of Cable + Wireline Outages by Day – All Counties



Provider Response

In an article published on 10/22/18, Verizon reported “its network is really almost back to full strength.”³ This followed criticism from Governor Rick Scott about the slow restoration period that Verizon has had. The Governor suggested that Verizon misled the public when it (Verizon) originally claimed that they covered “98% of Florida.”⁴ Verizon claims it has been able to stabilize its networks and provide a multi-layer system of fiber in case one line is cut, the fiber optics can still perform without interruption. Verizon is still currently using mobile cell sites to help alleviate the data load on cell sites that are operational to improve speed. FCC Chairman Ajit Pai has recently stated that the rate of recovery has been “completely unacceptable” and the FCC would open an investigation. However, Pai did face some criticism due to his previous deregulation efforts that eliminated consumer protections that were designed for situations like this one.⁵

On October 24, 2018, Verizon Communications Inc. issued a press release, to say that the company would be investing \$25 million to upgrade its network in the Florida panhandle. It also indicated that it would deploy 5G technology in Panama City, joining other cities planned for

³ 12 days after hurricane, Verizon says Florida network is back to normal, Jon Brodtkin, arstechnica.com, October 22, 2018, <https://arstechnica.com/information-technology/2018/10/verizon-declares-success-says-florida-network-is-back-up-after-hurricane/>, accessed October 22, 2018.

⁴ Ibid; see also <https://www.flgov.com/2018/10/16/gov-scott-telecommunications-companies-should-treat-floridians-fairly/>

⁵ Ibid.

early 5G deployments: Los Angeles, Houston, Indianapolis and Sacramento, California. The majority of this increased investment is expected to occur in 2019.⁶

Wireless providers, including Verizon, have been criticized by several officials, including FCC Chairman Ajit Pai, Florida Governor Rick Scott, and Florida Senator Bill Nelson, for delays in restoration of service following Hurricane Michael.⁷

FCC Chairman Pai and Governor Scott called for wireless carriers to waive October bills for people most severely affected by Hurricane Michael. All four of the major wireless providers indicated that they would extend credits and fee waivers to customers in the affected counties or zip codes.⁸

Verizon:

- Bill waiver for consumer and business customers for three-months in nine Florida counties
- Unlimited domestic Talk, Text & Data through 10/31/18 to our active customers in affected zip codes

AT&T:

- Credits and data overage charge waivers through October 21 to provide unlimited talk, text and data for customers in Bay, Calhoun, Franklin, Gulf, Liberty, Taylor, and Wakulla counties
- Waivers or adjustments to late payment charges for affected customers for this month and next.

⁶ “Verizon's new network, including 5G technology, will help drive the Florida Panhandle's future, includes \$25 Million investment,” NASDAQ, Verizon Press Release, released October 24, 2018, <https://www.nasdaq.com/press-release/verizons-new-network-including-5g-technology-will-help-drive-the-florida-panhandles-future-include-20181024-01436>, accessed October 29, 2018.

⁷ “Chairman Pai Statement on Hurricane Michael Restoration Efforts,” FCC, released October 16, 2018, <https://www.fcc.gov/document/chairman-pai-statement-hurricane-michael-restoration-efforts>, accessed October 29, 2018.

“Gov. Scott: Telecommunications Companies Should Treat Floridians Fairly,” Florida Governor, released October 16, 2018, <https://www.flgov.com/2018/10/16/gov-scott-telecommunications-companies-should-treat-floridians-fairly/>, accessed October 29, 2018.

“Florida Senator Urges Verizon To Promptly Restore Services,” Bill Nelson Senate, released October 18, 2018, <https://www.billnelson.senate.gov/newsroom/news-articles/florida-senator-urges-verizon-promptly-restore-services>, accessed October 29, 2018.

⁸ “Verizon: Three free months of service for customers affected by Hurricane Michael,” WJHG, published October 18, 2018, <https://www.wjhg.com/content/news/Verizon-Three-free-months-of-service-for-customers-affected-by-Hurricane-Michael-497974521.html>, accessed October 29, 2018,

Verizon Disaster Assistance, <https://www.verizonwireless.com/featured/>, accessed October 29, 2018,

“AT&T Extends Relief to Customers Affected by Hurricane Michael,” ATT, updated October 19, 2018, https://about.att.com/story/2018/hurricane_michael_relief.html, accessed October 29, 2018,

“Hurricane Michael: Update for Customers,” T-Mobile newsroom, released October 17, 2018, <https://www.t-mobile.com/news/hurricane-michael-update>, accessed October 29, 2018,

Sprint Hurricane Michael Update web site, updated October 19, 2018, <https://newsroom.sprint.com/sprint-updates-hurricane-michael.htm>, accessed October 29, 2018.

- Payment due dates extension to October 22, 2018 for customers in Bay, Gadsden, Jackson and Washington counties in Florida, and in Decatur County, Georgia for Cricket Wireless customers.

T-Mobile:

- Free service through the end of the month (including features and applicable late fees, sim starter kits, and device replacement fees) for postpaid, Magenta Prepaid, and Metro customers in areas with continued network impact. The credit does not apply to device charges, down payments, deposits, and insurance features. Zip codes included are:
 - Gulf County: 32456, 32465, 32457
 - Bay County: 32401, 32403, 32404, 32405, 32407, 32408, 32409, 32413, 32428, 32437, 32438, 32444, 32456, 32462, 32466, 32402, 32406, 32410, 32411, 32412, 32417
- Through the end of October:
 - suspending collections for impacted customers
 - waiving fees for customers who choose to come to T-Mobile (no fee for leaving)
 - waiving device replacement fees

Sprint:

- Call, text and data overage fee waivers from October 10, 2018 through October 18, 2018

IV. Transcript

BEFORE THE
FLORIDA PUBLIC SERVICE COMMISSION

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PROCEEDINGS: INTERNAL AFFAIRS

COMMISSIONERS
PARTICIPATING: CHAIRMAN ART GRAHAM
COMMISSIONER JULIE I. BROWN
COMMISSIONER DONALD J. POLMANN
COMMISSIONER GARY F. CLARK
COMMISSIONER ANDREW GILES FAY

DATE: Tuesday, October 30, 2018

TIME: Commenced: 11:17 a.m.
Concluded: 12:14 p.m.

PLACE: Gerald L. Gunter Building
Room 105
2540 Shumard Oak Boulevard
Tallahassee, Florida

REPORTED BY: ANDREA KOMARIDIS
Court Reporter and
Notary Public in and for
the State of Florida at Large

PREMIER REPORTING
114 W. 5TH AVENUE
TALLAHASSEE, FLORIDA
(850) 894-0828

1 P R O C E E D I N G S

2 CHAIRMAN GRAHAM: All right. My hourglass is
3 empty. So, I think that's approximately five
4 minutes. Let the record show it is still Tuesday,
5 October 30th. It is now 11:17. And this is the
6 internal affairs meeting. We will call this
7 meeting to order.

8 First thing on our agenda is draft reply
9 comments in response to the FCC report and order,
10 attachment 1.

11 Staff.

12 MR. WILLIAMS: Commissioners, Curtis Williams
13 with the Office of Industry Development and Market
14 Analysis.

15 Item 1 addresses staff's recommended draft ex-
16 parte comments to the FCC regarding internet
17 protocol caption telephone service or IPCTS.

18 The FCC is considering the transfer of
19 responsibilities for administering IPCTS to state
20 relay programs. This would include registration,
21 certification, and the assumption of intrastate
22 IPCTS costs.

23 The draft comments before you ask the FCC to
24 allow sufficient time for states to make
25 legislative changes if the FCC requires states to

1 assume intrastate costs.

2 The comments also ask for intrastate minutes
3 of use to understand potential costs associated
4 with the transfer. In the interim, the draft
5 comments urge the FCC continue -- to continue to
6 address problems such as misuse by people without a
7 hearing loss, and creating incentives for
8 referrals.

9 Staff is available to answer questions.

10 CHAIRMAN GRAHAM: Thank you, staff.

11 Commissioners, any questions of staff?

12 Commissioner Brown.

13 COMMISSIONER BROWN: Thank you.

14 I appreciate you providing the comments, the
15 draft comments, for us to consider. I do have some
16 suggestions, Commissioners, to some of the draft
17 comments.

18 Starting on Page 8, you reference California's
19 Public Utilities Commission as it relates to
20 sufficient time that was necessary to effectuate
21 the statutory changes. I don't think we need to
22 reference the CPUC at all.

23 We -- you go -- I think we should just talk
24 about what the Florida Legislature and the process
25 that we do here in our state, without any reference

1 to another state's comments that were already
2 provided.

3 And you make a recommendation that it take --
4 it will take three to five years to implement. Can
5 you -- is there a way to kind of go through that a
6 little bit more in that paragraph?

7 You talk about that our session meets once a
8 year. Maybe include some language that that -- you
9 know, it's for -- the exact number of days that
10 they're in session during that time, along with our
11 legislative process.

12 And I -- I don't know if three to five years
13 is actually accurate. How did you gauge that time
14 frame?

15 MR. WILLIAMS: It -- yes, Commissioner Brown.
16 It was -- it was challenging because it's difficult
17 to make that term -- that determination. We did
18 look at Florida Legislature meeting once a year,
19 and then taking into consideration not knowing
20 exactly when the FCC may make a decision -- it may
21 be at the beginning of the session or it may be a
22 month after the session starts. So, that may take
23 us over to the actual -- another year.

24 And then we wanted to make sure we had
25 sufficient time to educate the Legislature and

1 educate the hearing-loss community and any other
2 interested parties and then also allow time for
3 bill drafting and bill analysis. We also consulted
4 our legislative group here and we actually had a --
5 kind of a longer time period, but based on --

6 COMMISSIONER BROWN: Oh.

7 MR. WILLIAMS: -- meeting with them and
8 conversations with our legislative team here, we
9 kind of concluded that three to five would be a
10 good range to include.

11 COMMISSIONER BROWN: Do you know what -- do
12 you have any inclination of what the FCC time frame
13 is going to be proposed, potentially?

14 MR. WILLIAMS: I do not, Commissioner. I'm
15 sorry.

16 COMMISSIONER BROWN: So, Commissioners, my
17 suggestion would be to remove the reference to
18 California, and bolster the legislative session
19 and -- and include dates for the upcoming session
20 so that they have some guidance of our time frame,
21 and -- and poten- -- and possibly the following
22 year's session, which will be earlier, I assume.
23 That was just one comment that I have there.

24 The -- there's another area --

25 CHAIRMAN GRAHAM: Let's go with the first one

1 first.

2 COMMISSIONER BROWN: Yeah.

3 CHAIRMAN GRAHAM: Any comments on the
4 recommendation from Commissioner Brown?

5 Commissioner Polmann.

6 COMMISSIONER POLMANN: Thank you,
7 Mr. Chairman.

8 I would agree, unless there's a specific
9 reason or value -- and I'm not sure there is -- the
10 reference to California -- that we can remove that.
11 I -- I'm not quite sure -- unless there were
12 multiple other states or if there was, you know,
13 some regional concern.

14 MR. WILLIAMS: No, I mean, I -- I don't see a
15 problem --

16 COMMISSIONER POLMANN: Okay.

17 MR. WILLIAMS: -- with removing them. The
18 only -- just to give you a little background, the
19 reason why we put it in there -- it wasn't so much
20 to acknowledge California, but these were reply
21 comments, ex-parte comments. And just to give them
22 a little more strength, we referenced California.
23 We referenced NARUC. We referenced the -- the
24 Relay Association.

25 But I think Florida -- based on the fact that

1 we've commented on this issue before, we've made
2 those -- the same comments in previous proceedings.
3 And the FCC has actually acknowledged Florida's
4 comments before.

5 I think Florida's position on this issue is
6 strong enough to stand on its own.

7 MR. HINTON: And Commissioners, these were
8 originally drafted as reply comments. So, you're
9 looking to reference comments that had already been
10 filed. Since they're ex-parte now, now there's no
11 problem removing California. We don't need to
12 reference another --

13 COMMISSIONER POLMANN: Okay.

14 MR. HINTON: Another --

15 COMMISSIONER POLMANN: The other -- the other
16 point Commissioner Brown made or -- or was
17 discussed -- with regard to our Legislature,
18 your -- your reference to three to five years --
19 you know, it sounds like it takes us a long time to
20 do things in Florida, and it may well.

21 Is that the -- the three to five years -- is
22 that -- your reference there has to do with our
23 legislative process? Do I understand that in the
24 right context?

25 MR. WILLIAMS: Legislative process and

1 educating the -- the hearing-loss community
2 throughout Florida.

3 We -- five years is -- is stretching. I mean,
4 we -- we kind of put that in there just to give
5 ourselves some -- some time, but I think that's a
6 point well taken. And I think we can -- five years
7 is a stretch.

8 COMMISSIONER POLMANN: Well, I -- I'm trying
9 to understand the -- the purpose of -- of those few
10 sentences -- you say they're appropriate lead time.
11 The reference at three to five years -- I think the
12 point that it takes multiple sessions, multiple
13 years and -- and significant time is what we're
14 trying to express.

15 And the message that we're trying to deliver
16 is the important message; that we don't know how
17 long it takes other than it takes multiple years,
18 it takes significant effort, and so forth. And
19 there's a purpose that -- and a reason why we're
20 saying that.

21 So, I'm not quite sure I can sit here right at
22 this moment and give you alternative words, but
23 it -- we can bolster the point that there is
24 significant effort and -- and you point out why,
25 drafting analysis, public education, and -- and

1 informing the legislators.

2 Perhaps there's a different use of language.
3 I wouldn't necessarily make reference to three to
4 five years or any particular time frame.

5 COMMISSIONER BROWN: Maybe "several."

6 COMMISSIONER POLMANN: That's a suggestion.

7 MR. WILLIAMS: No -- yes. Yes --

8 MR. HINTON: Commissioner --

9 MR. WILLIAMS: Understood. We can delete
10 the --

11 MR. HINTON: Commissioners --

12 MR. WILLIAMS: -- reference to three to five.

13 MR. HINTON: We -- we could also make a simple
14 change to make the point in that final sentence
15 there at the top of Page 9, the first paragraph:
16 The FPSC believes this process could take multiple
17 years to implement.

18 MR. WILLIAMS: Yes.

19 MR. HINTON: Something as simple as that.

20 COMMISSIONER POLMANN: Thank you,
21 Mr. Chairman.

22 CHAIRMAN GRAHAM: Any other comments,
23 concerns? Okay.

24 Commissioner Brown.

25 COMMISSIONER BROWN: And thank you, again. I

1 wanted to reiterate that. Again, I think it would
2 be helpful to give them an overview of our
3 legislative-timing process, too.

4 As for the funding aspect, what -- and I can't
5 specifically point to the restructuring of the
6 funding and how that's going to interplay.

7 Do you have any thoughts on that?

8 MR. WILLIAMS: There would be a -- if it was
9 on an intrastate minutes-of-use basis and the
10 funding requirement was transferred to Florida, we
11 would need to go back to the Legislature to address
12 our current funding structure in Florida for relay
13 service.

14 COMMISSIONER BROWN: So, we -- have we heard
15 from TASA or the relay provider, Sprint?

16 MR. WILLIAMS: Not on the funding issue.

17 COMMISSIONER BROWN: Or -- or on any aspect of
18 this proposed rule?

19 MR. WILLIAMS: On this -- the FCC's proposal?
20 We have not directly. I think TASA did communicate
21 some comments, but mainly regarding what they do on
22 equipment distribution.

23 COMMISSIONER BROWN: Okay. Thank you, again.

24 I don't have any further comments or...

25 CHAIRMAN GRAHAM: Any other Commissioners?

1 So, with the changes that Commissioner Brown
2 and Commissioner Polmann mentioned, are you just
3 looking for a tentative approval of this draft?

4 MR. WILLIAMS: Yes.

5 CHAIRMAN GRAHAM: Okay. Commissioners?

6 COMMISSIONER BROWN: Move to approve with the
7 suggestions that have --

8 COMMISSIONER POLMANN: Second.

9 COMMISSIONER BROWN: -- been made.

10 CHAIRMAN GRAHAM: It's been --

11 COMMISSIONER FAY: Mr. Chair?

12 CHAIRMAN GRAHAM: Commissioner Fay.

13 COMMISSIONER FAY: Can you just clarify the
14 deadline for the filing of these comments?

15 MR. WILLIAMS: The -- there was a deadline
16 of -- to file reply comments, but based on the
17 Hurricane Michael impact, staff filed ex-parte
18 comments. So, there is not a deadline. It's just
19 we should move as expeditiously as possible.

20 COMMISSIONER FAY: Okay. So, you're --
21 there -- there is, however, a deadline, you're --
22 you're saying there is an extension, until they
23 close the comment period --

24 MR. WILLIAMS: There's not a deadline for
25 ex-parte comments.

1 COMMISSIONER FAY: Gotcha. Okay. Thank you.

2 CHAIRMAN GRAHAM: Okay. Any further
3 discussion?

4 All in favor, say aye.

5 (Chorus of ayes.)

6 CHAIRMAN GRAHAM: Any opposed?

7 Okay. By your action, you have approved that.
8 And so, the final will come before my office?

9 MR. HINTON: Yes.

10 CHAIRMAN GRAHAM: Okay.

11 MR. WILLIAMS: Yes.

12 CHAIRMAN GRAHAM: All right. Thank you.

13 I guess we have 1A now.

14 MR. FOGLEMAN: Commissioners, Greg Fogleman
15 with IDM. Item 1A is a petition to the FCC,
16 seeking a temporary waiver of Lifeline rules
17 regarding recertification and usage in counties
18 affected by Hurricane Michael.

19 This waiver would ensure that customers in
20 these counties who are unable to complete the
21 recertification process or are unable to use their
22 phone will not lose their Lifeline assistance.

23 Staff has been working with USAC to obtain an
24 estimate regarding the number of Lifeline customers
25 in the affected areas identified in the petition.

1 Based on that information, it appears that
2 there are 21,000 Lifeline customers in those
3 counties. I would note that not all of these
4 customers are in the recertification process.

5 If approved, staff requests editorial
6 privileges to reflect this information in the
7 petition. In addition, staff notes that the FCC
8 has recently approved an E-rate waiver petition
9 filed by the Florida Department of Management
10 Services related to Hurricane Michael.

11 Staff is available for questions.

12 CHAIRMAN GRAHAM: Thank you, staff.

13 The four-month period is based on California,
14 again?

15 MR. FOGLEMAN: There was a petition that was
16 filed with California regarding the -- with
17 wildfires, and it was a four-month petition, and it
18 was granted by the FCC.

19 CHAIRMAN GRAHAM: So, you feel comfortable
20 that that four months is sufficient?

21 MR. FOGLEMAN: I believe so. And if not, we
22 can file a further petition if needed.

23 CHAIRMAN GRAHAM: Okay. Commissioners,
24 comments, questions, motions?

25 COMMISSIONER BROWN: Move to approve the draft

1 petition as presented.

2 CHAIRMAN GRAHAM: It's been moved and
3 seconded. Any further discussion?

4 Seeing none, all in favor, say aye.

5 (Chorus of ayes.)

6 CHAIRMAN GRAHAM: Any opposed?

7 By your action, you have approved the motion.

8 Thank you very much, staff.

9 All right. No. 2. You guys are popular
10 today.

11 MS. DEAS: I know.

12 Good morning, Commissioners. Sakina Deas with
13 IDM. Staff -- Item 2 is staff's draft 2018
14 Lifeline report. This report is re- -- required by
15 Florida Statute to be submitted to the Governor,
16 the president of the Senate, and Speaker of the
17 House by December 31st of each year. It details
18 regulatory actions impacting the Lifeline program
19 as well as Lifeline awareness promotions in
20 Florida.

21 Staff requests editorial privileges to replace
22 Attachment E of the report, to correct an error in
23 the map, which was -- we inadvertently switched the
24 colors in the key. And we have copies of the new
25 map, if you would like to see it, as staff is

1 seeking approval of this report and is available
2 for questions.

3 CHAIRMAN GRAHAM: Thank you, staff.

4 My only comment is -- I believe we're going to
5 have a same senator and same speaker, but we will
6 have a governor-elect. We'll make sure that person
7 gets a copy as well.

8 Commissioners, questions, comments, motions?

9 COMMISSIONER CLARK: Move approval,
10 Mr. Chairman.

11 COMMISSIONER POLMANN: Second.

12 CHAIRMAN GRAHAM: It's been moved and second,
13 approval of Item No. 2. Any further discussion?

14 Seeing none, all in favor, say aye.

15 (Chorus of ayes.)

16 CHAIRMAN GRAHAM: Any opposed?

17 By your action, you have approved that motion.

18 Staff, thank you. Good report.

19 Item No. 3 -- or Attachment No. 3.

20 MS. EICHLER: Good morning, Commissioners.

21 CHAIRMAN GRAHAM: Good morning.

22 MS. EICHLER: My name is Shelby Eichler, and
23 I'm here to talk to you about the ACE rule. On
24 Oct- -- on August 31st, 2018, the Environmental
25 Protection Agency issued three proposed actions

1 addressing emissions of greenhouse gas,
2 specifically carbon dioxide, from existing
3 electric-utility generating units.

4 The EPA is taking comments on these proposals
5 through Wednesday, October 31st, 2018, which is
6 tomorrow. Staff has prepared draft comments that
7 include a summary of the Commission's jurisdiction
8 and that highlight particular attributes of Florida
9 that merit consideration when addressing
10 implementation of the proposed rules.

11 Staff seeks Commission guidance on whether or
12 not to file written comments on the EPA rulemaking.
13 Staff is ready to answer questions that you may
14 have.

15 As the agenda for today, I notice, is a little
16 on the heavy side, at your discretion, I can give a
17 brief summary of the three rules or we can go
18 straight into any questions Commissioners may have
19 for staff.

20 CHAIRMAN GRAHAM: Give us a brief summary.

21 MS. EICHLER: The first proposed rule pertains
22 to emissions guidelines that will replace the 2015
23 Clean Power Plan, which EPA has proposed to repeal.
24 EPA has determined that heat-rate improvement
25 measures are the best system of emission reduction

1 for existing fossil-steam units when reducing Co2
2 emissions. The emission guidelines exclude all
3 other types of electric-generating units.

4 In the second proposed rule, EPA is proposing
5 new regulations that provide direction to both EPA
6 and the states on the implementation of emission
7 guidelines.

8 The new proposed implementing regulations
9 would apply to the rule replacing the CPP and any
10 further emission guideline issued under
11 Section 111D of the Clean Air Act.

12 The third rule, EPA is proposing revisions to
13 the new source-review program that will help remove
14 a barrier to the implementation of efficiency
15 projects.

16 That's the three rules.

17 CHAIRMAN GRAHAM: Thank you, staff.

18 Commissioners.

19 Commissioner Polmann.

20 COMMISSIONER POLMANN: Thank you,

21 Mr. Chairman.

22 Ms. Eichler, in your introductory remarks and
23 in the writing here, the point made was guidance on
24 whether -- and you said whether or not to file
25 comments. Have there been occasions in the past

1 where this Commission has elected to not file
2 comments on rules of this type? Is there --

3 MS. EICHLER: Yes, there has been situations
4 where we have chosen not to.

5 COMMISSIONER POLMANN: The recommendation of
6 staff is -- I -- I'm reading that your
7 recommendation is that we should file comments.

8 MS. EICHLER: That is not the recommendation.
9 It is up to the Commission on whether or not you
10 would like to file them. We have prepared them for
11 your pleasure; whether or not you decide that is up
12 to you guys.

13 COMMISSIONER POLMANN: Okay. Thank you.

14 CHAIRMAN GRAHAM: Commissioner Clark.

15 COMMISSIONER CLARK: Thank you, Mr. Chairman.

16 I think that the proposed response, as I've
17 read it, is -- is accurate and well-written. I
18 think the key thing to point out is the unique
19 diversity of Florida's generating assets. And
20 that's -- that's a very critical issue for us.

21 The physical and geographic constraints that
22 we face make us somewhat different and unique to
23 other states. And any imposed standards that the
24 EPA is going to put out, I think, needs to have
25 flexibility for states that are in unique

1 circumstances and that.

2 So, I appreciate those comments in the draft.

3 You did a good job with that.

4 MS. EICHLER: Thank you.

5 MR. BAEZ: Mr. Chairman.

6 CHAIRMAN GRAHAM: Yes.

7 MR. BAEZ: Just -- just for the record, what
8 you have before you is -- is very much a
9 restatement of things along the lines of what
10 Commissioner Clark has -- has mentioned, which we
11 have filed before on -- on -- when the CPP was
12 first issued way back in -- in the tens.

13 So, I think the way we approach this was --
14 was to kind of make the mark, once again. And --
15 and we focused our comments -- or your comments,
16 ultimately -- on -- on the uniqueness of Florida
17 and the conditions that we have today. It's not --
18 it's not really an up or down or -- or a critique
19 of any of the proposed rules in any way.

20 CHAIRMAN GRAHAM: Commissioner Brown.

21 COMMISSIONER BROWN: Mr. Chairman, I would
22 move to approve the draft comments to the U.S. EPA
23 regarding the proposed guidelines and rules as
24 presented.

25 COMMISSIONER CLARK: Second, Mr. Chairman.

1 CHAIRMAN GRAHAM: It's been moved and
2 seconded. Any further discussion?

3 Seeing none, all in favor, say aye.

4 (Chorus of ayes.)

5 CHAIRMAN GRAHAM: Any opposed?

6 By your action, you have approved that motion.

7 Staff, thank you. Nobody even wanted to make
8 any changes.

9 MS. EICHLER: That's good.

10 CHAIRMAN GRAHAM: Attachment No. 4.

11 MS. THOMPSON: Good morning, Commissioners.

12 Takira Thompson with Commission staff.

13 Attachment No. 4 is the draft review of the
14 2018 ten-year site plans. The review is similar in
15 form and content to last year's review. Natural
16 gas is still the predominant utility generation
17 addition, and renewable resources are expected to
18 increase by about 7,049 megawatts by 2027.

19 At this time, staff seeks the Commission's
20 approval of the draft review of the 2018 ten-year
21 site plans, which we find each utility's plan
22 suitable for planning purposes.

23 If the Commission approves the draft, the
24 review and attached comments will be provided to
25 the Department of Environmental Protection for

1 consideration in the future need-determination
2 proceedings.

3 Staff is available for any questions.

4 CHAIRMAN GRAHAM: Staff, thank you very much.

5 Commissioners, comments, questions, motions to
6 approve?

7 COMMISSIONER CLARK: Move to approve ten-year
8 site plan, Mr. Chairman.

9 COMMISSIONER BROWN: Second.

10 CHAIRMAN GRAHAM: It's been moved and second
11 to approve the ten-year site plan. Any further
12 discussion?

13 Commissioner Brown.

14 COMMISSIONER BROWN: I just want to thank the
15 staff for preparing this very-voluminous report
16 that includes so much information and also the
17 inclusion of the electric-vehicles component that
18 we discussed at last year's ten-year site plan,
19 which I think is very important, good -- in this
20 report as well as moving forward. So, thank you
21 for all of your work.

22 CHAIRMAN GRAHAM: All in favor of the motion,
23 say aye.

24 (Chorus of ayes.)

25 CHAIRMAN GRAHAM: Any opposed?

1 By your actions, you have approved the motion
2 to -- to approve.

3 Staff, thank you very much.

4 Actually it's got a thing we're not making any
5 changes.

6 Okay. Attachment No. 5.

7 MR. MORGAN: Good morning, Commissioners.

8 Charles Morgan --

9 CHAIRMAN GRAHAM: Mic.

10 MR. MORGAN: Good morning, Commissioners.

11 Charles Morgan with Commission staff.

12 The item before you is a 2018 draft report on
13 activities pursuant to the Florida Energy
14 Efficiency and Conservation Act. Section 366.8210,
15 Florida Statutes, requires the Commission to submit
16 this report annually to the Governor and the
17 Legislature by March 1st. In order to ensure this
18 information remains pertinent, staff is presenting
19 this report before the March 1st deadline.

20 This reports summarizes each utilities'
21 achievements towards meeting goals set by this
22 Commission. Additional highlights include updates
23 on programs geared toward low-income customers,
24 research-and-development progress, and a summary of
25 conservation expenditures recovered through the

1 Energy Conservation Cost Recovery Clause.

2 Staff will update able- -- Tables 8 and 10
3 once the Commission issues its final order in the
4 2018 Energy Conservation Cost Recovery dockets.

5 I would like to thank Cindy Muir and the
6 Division of Consumer Assistance and Outreach for
7 their contributions to Section 5, which highlights
8 the efforts of the Commission in educating
9 consumers on conservation.

10 Staff asks for the ability to make any
11 scrivener's errors and requests permission to work
12 with the Chairman's office on the distribution
13 letter to the Governor and other parties.

14 Staff is seeking approval of the FEECA report
15 and is here to answer any questions.

16 CHAIRMAN GRAHAM: Staff, thank you very much.
17 Commissioners, comments, questions,
18 Commissioner Clark?

19 COMMISSIONER CLARK: Thank you, Mr. Chairman.

20 I can't pass the opportunity to -- to make
21 some comments when it comes to energy efficiency.
22 First of all, thank you to the staff for an
23 outstanding job on pulling the report together and
24 complying with the requirements that we have to
25 meet.

1 I will say that I have always been impressed
2 with the utilities in this state and the efforts
3 that they have made to work with consumers when it
4 comes to improvements in energy-efficiency
5 standards and improvements to demand-side
6 reductions and -- and the overall effort to help to
7 reduce the cost, the end cost to the consumers.

8 And I want to thank this Commission for their
9 continued support of energy-conservation measures.
10 I want to advocate that we go even further and we
11 do even more and that we encourage innovation when
12 it comes to energy conservation.

13 The effects that this has on future generation
14 needs in the State of Florida, I believe, are the
15 most significant way that we can in- -- impact
16 future generation requirements in the State and the
17 way that, I think, that we can best serve the
18 consumers of the State of Florida.

19 And I would also, Mr. Chairman, like to
20 request that we invite the utility companies to
21 come to an internal affairs meeting at some point
22 in the future and talk about some of the
23 highlights. And maybe it's -- it's some of the
24 companies out there that are promoting energy-
25 efficient programs and features and devices that we

1 can begin to integrate and to look at it and
2 technologies, I -- I've been harping for the last
3 six months on the initiatives with prepaid metering
4 and what -- the effects that that program has on
5 energy conservation, what we've seen in the past
6 with the reduction in average kilowatt-hour
7 consumption.

8 So, I would encourage us, Mr. Chairman, to
9 make an effort to highlight some of these
10 technologies and some of the programs that are out
11 there so that the Commission has a better
12 understanding of what's incorporated in these
13 reports and what the real value is to the State of
14 Florida in the future.

15 Thank you. Thank you for your effort.

16 CHAIRMAN GRAHAM: Thank you, Commissioner
17 Clark.

18 Staff, we last addressed the goals in -- was
19 it 2014? So, Commissioner Clark, you may get your
20 wish because we're going to have to address those
21 goals again before December 2019. So, I'm sure
22 we're going to have a workshop and other things set
23 up for next year. So, be careful the things you
24 ask for.

25 COMMISSIONER CLARK: I'm ready.

1 CHAIRMAN GRAHAM: Commissioner Polmann.

2 COMMISSIONER POLMANN: Thank you,
3 Mr. Chairman.

4 I appreciate Commissioner Clark's enthusiasm
5 as well as his comments and -- and keep harping. I
6 didn't know you were a harper.

7 COMMISSIONER CLARK: Well --

8 COMMISSIONER POLMANN: That's excellent.

9 In terms of the utilities being asked to come
10 forward, I think that's an excellent idea. I'm --
11 I'm particularly interested in that regard for
12 efforts beyond education to the customers. That's
13 been going on for -- for a very long time.

14 And I'm -- I don't want to say the customers
15 are -- are numb to that. I really don't have any
16 idea whether they are or not, but I -- I don't know
17 if there are new and different ways to educate the
18 public and educate the customers as to energy
19 conservation and energy savings and so forth.

20 I think there is -- my perception is that
21 there is an evolution in education toward new
22 technologies and how to use new technologies in the
23 home and in the business.

24 So, I would like to see some information, as
25 the Chairman has indicated, as we look forward to

1 next year, as to how education and the new
2 technologies kind of come together. And in
3 particular, from the utilities' side, what role do
4 they play in the deployment of new technologies for
5 energy saving and -- and energy reductions to the
6 customers; not necessarily in terms of rebates or
7 anything like that, but what's being done to
8 educate the consumer, the customer to the use of
9 new technologies at -- at any scale, from the
10 resident to the -- to the commercial and so forth,
11 and being aware to the extent that -- that we can
12 help with security and -- and so forth.

13 So many of the technologies deal with the
14 internet of things. And that's of great concern to
15 me. Being too connected is -- is a problem, in my
16 mind, but so many of those have to do with energy
17 conservation, energy reductions. And I don't want
18 us to get involved in that business. That's not --
19 that's not our role.

20 But you know, what -- what technologies are
21 out there and what role does -- does the electric
22 company play in -- in helping educate in that
23 regard. And I think it would be a great
24 opportunity in the coming year to understand what
25 the utility's role is in that because it seems to

1 me that there's an education part of that. It's
2 not just about changing out your light bulbs
3 anymore.

4 So, to the extent that we can, let -- let's
5 try to engage in that discussion, but thank you
6 very much. Mr. Chairman, this is an excellent
7 effort and I -- I appreciate all of that.

8 I would -- I would move approval to -- of the
9 staff recommendation here to move this effort
10 forward.

11 CHAIRMAN GRAHAM: It's been moved and
12 seconded. Any comments?

13 Commissioner Brown.

14 COMMISSIONER BROWN: I just wanted to
15 reiterate and express my appreciation for
16 Commissioner Clark's sentiments. I think it's a
17 great idea to offer the utilities to come in.

18 You know, around the country there are a
19 variety of different type of demand-side programs
20 and -- that are being utilized and it -- it would
21 be nice to hear, even on an annual basis, of what
22 they see are trends and what they see -- how
23 they're educating their customers, I think, is an
24 important thing.

25 Our own staff does such a robust amount of

1 programs throughout the year on the various
2 opportunities that are available to customers.

3 Commissioners always have an opportunity to
4 also do that. And local schools, I think, is
5 helpful for it, but I would completely support that
6 type of initiative in seeking information.

7 That's all.

8 CHAIRMAN GRAHAM: My encouragement, especially
9 since the goals-setting is coming up again in the
10 next 12 months, reach out to staff. If there are
11 specifics you want to look at, specifics about
12 things that you want to discuss and talk about, now
13 is the time to start planting those seeds.

14 And we can make those changes as we move
15 forward so we're not doing it last minute before
16 the approval.

17 That all being said, we have a motion and
18 second on the floor. All in favor, say aye.

19 (Chorus of ayes.)

20 CHAIRMAN GRAHAM: Any opposed?

21 By your action, you have approved that motion.
22 Staff, thank you very much.

23 MR. MORGAN: Thank you.

24 CHAIRMAN GRAHAM: Okay. General counsel
25 report. I think Keith is going to tell us how he's

1 going to plug that hole that Roxanne caused when
2 she left -- Rosanne, rather.

3 MR. HETRICK: We do have some new, exciting
4 folks on the horizon. And I'll be glad to announce
5 them in December and January.

6 CHAIRMAN GRAHAM: Okay.

7 MR. HETRICK: We've got an exciting appellate
8 attorney coming from the First District Court of
9 Appeal. So, really I have to thank Commissioner
10 Fay. Thank you for the reference for him. When we
11 interviewed him, he -- excellent. And so, we're
12 really looking forward to that. So, thank you.

13 CHAIRMAN GRAHAM: He's only been here five
14 minutes and he's trying to drag his people in the
15 door? He's a slick one, ain't he?

16 COMMISSIONER FAY: Lawyers.

17 (Laughter.)

18 CHAIRMAN GRAHAM: Is that it, Keith?

19 MR. HETRICK: That's it.

20 CHAIRMAN GRAHAM: Exec- -- executive director
21 report?

22 MR. BAEZ: Thank you, Mr. Chairman. One
23 update and a couple of recognitions. As -- as we
24 had let you know, our continuation budget for the
25 '19 and '20 fiscal year was filed October 19th.

1 Regrettably, we didn't get a chance to put it
2 before you ahead of time, but that was filed.

3 Quick hits, the -- as I said it was a
4 continuation budget. I think it was on -- around
5 2 percent under year-over-year. So, it might
6 represent a 2-percent-or-so reduction, numbers-
7 wise.

8 And as we had discussed also, it had -- we --
9 we are carrying a general-revenue issue with
10 respect to the back-up generation that we want to
11 secure for -- for our operations and -- and so, we
12 will keep you posted.

13 We're already going through the Q & A with the
14 Governor's agencies on -- on the issue as well.
15 So, we'll keep you posted as the -- as the progress
16 continues. Looking forward to the session.

17 In terms of recognition -- and I was remiss at
18 agenda conference, but you had someone -- a
19 familiar yet new face handing you papers for your
20 autographs. And I want to officially welcome Adam
21 Teitzman to the -- to the light and --

22 CHAIRMAN GRAHAM: Who?

23 (Laughter.)

24 MR. BAEZ: Adam Teitzman, who -- I think he's
25 behind me. Adam, as some of you know, was a

1 real -- a great attorney for us for many years, and
2 then went down to Palm Beach County Clerk's Office,
3 and -- where he -- where he received his baptism by
4 fire in the business of clerkship.

5 And we're very, very fortunate, I think. I'm
6 very excited to have him back. He was pressed
7 into -- into service today because Carlotta had
8 grandchildren -- new grandchildren to break in and
9 spoil. And so, we're very happy about that, but
10 we're glad to have him. And I urge you to sit with
11 him and -- and chat him up any time you like.

12 And lastly, Commissioner Brown spoke of it
13 earlier this morning. And I wanted to take time
14 out to -- to recognize our folks that -- that serve
15 in ESF12 over at the emergency operations center.

16 I won't get into the specifics of what we, as
17 a state and, certainly, folks in the Panhandle
18 have -- have gone through directly and are still
19 going through and will still be going through for
20 some time, but our folks were -- were in the EOC,
21 along with the representatives from -- from the
22 industry, trying to manage information and -- and
23 lend their support and all their efforts to the
24 restoration effort, which is still undergoing.

25 They are the ones that are responsible for --

1 for the outage reports that you receive and -- and
2 other information and so forth during -- during
3 the -- the duration of the restoration effort
4 and -- and the OEC. They are several.

5 I'll start with Takira Thompson, Orlando
6 Wooten, Penny Buys, Emily Knoblauch, Phil Ellis,
7 Laura King, Robert Graves, who really distinguished
8 himself during this time. And as always, the
9 anchor, Rick Moses, who we've all come to know and
10 respect and rely on. Thank you, all.

11 (Applause.)

12 MR. BAEZ: This -- this -- you know, storms
13 are -- are difficult things to be going through,
14 and some of us here in Tallahassee got some wind --
15 and I know, Commissioner Clark, in particular, got
16 most of it, unfortunately. And we're all very
17 sorry about that, but these are folks that were
18 having to lash down their garbage cans just like
19 everybody else in preparation, and yet, you know,
20 they -- they put in the -- they went the extra mile
21 and they were helping us -- helping the whole rest
22 of the State as well. So, it was a good -- it was
23 a notable sacrifice for them. And I do thank them,
24 as always.

25 Chairman, if you all have any questions, I'll

1 be glad to take, but we're done here.

2 CHAIRMAN GRAHAM: Commissioner --

3 MR. BAEZ: That's all I have.

4 CHAIRMAN GRAHAM: Commissioner Clark?

5 COMMISSIONER CLARK: And I neglected to -- to
6 kind of comment on that as well, but thank you,
7 Director, for those words for our staff.

8 I had the opportunity to come over one day
9 during the storm and sit in the EOC as an ESF12.
10 I've been there before. I think we were ESF16 the
11 last time I was there, but coming back in this new
12 role, I had to kick Commissioner Fay out of the EOC
13 a couple of times so I could go in and actually see
14 what was going on. I appreciate his response and
15 being there and available.

16 For us, we -- we try not to get in the way.
17 That's the most important thing we can do as a
18 commissioner during this time, I think, for our
19 staff, but it was a fantastic opportunity to see
20 how our group responded and worked together and --
21 and the comradery and the working relationship
22 between, not only staff, but the different
23 utilities that were represented in that room at the
24 time. It's absolutely amazing.

25 And if you don't know and understand the

1 importance of the role that this -- this particular
2 state function plays, it's extremely critical, and
3 those utilities that staff that have my heartfelt
4 appreciation.

5 Those utilities that don't necessarily see the
6 importance of staffing the ESF12 during these
7 things -- I would encourage you to reconsider that
8 and make sure that you have representatives
9 available.

10 There are numerous times during the day,
11 especially very early on in a crisis, where the
12 simplest, easiest way to avoid a problem or deal
13 with a specific situation is a direct communication
14 link. And having that individual there,
15 representing that utility company is critically
16 important.

17 So, I wanted to, Mr. Polmann, harp on that and
18 get on my stump for one second about that issue,
19 but I think it's critically important,
20 Mr. Chairman. Thank you for your time.

21 CHAIRMAN GRAHAM: Thank you.

22 Executive director, I have to tell you, I
23 think it's great that -- going over to the EOC is
24 not what I consider a Chairman's job. I think all
25 of you should take the opportunity to get over

1 there to see what's going on, to see firsthand the
2 complaints coming in, what people are dealing with,
3 and how -- not only just our staff, but the State
4 as a whole, comes together to stay on top of this
5 issue.

6 And if you haven't been out towards the
7 Panhandle to look at some of that stuff, I would
8 encourage you to do that. I know Commissioner
9 Clark has been out there.

10 I know all or most of us are going to a
11 conference out that direction next week. So, when
12 you're heading out there, I would encourage you to
13 take a little extra time, maybe make a phone call
14 or two so someone can take you around so you can
15 see some of that stuff. No sense passing up the
16 opportunity while you're driving down the road
17 to -- to take a look at what actually happened
18 because seeing that stuff firsthand, I -- I lived
19 through Andrew down in Miami. So, seeing that
20 stuff firsthand is impressive, if nothing else.

21 Any other matters to come before us?

22 Commissioner Brown.

23 COMMISSIONER BROWN: Thank you.

24 And I was hoping to hold this for other
25 matters. And it's a very similarly-related note.

1 And it is the Hurricane Michael response. I asked
2 staff to take a look at some of the response times
3 that -- even though we do not regulate wireless
4 companies, we still received a voluminous amount of
5 complaints from -- for the lack of restoration, the
6 lack of visible, active participation on the part
7 of certain carriers.

8 And staff prepared a summary. And if they
9 could just walk through -- I don't know if you have
10 it in front of you. I -- we have distributed it,
11 at least, to all of the offices.

12 Chairman Pai came down to Florida last week,
13 and he met with several -- all four major wireless
14 carriers to express the urgency. The challenge
15 with some of these telecom companies is that they
16 are not doing the hardening that our utilities,
17 electric utilities, are doing. And it is a
18 critical service.

19 And the complaints that I personally received
20 are that, you know, folks just want to be able
21 to have -- be able to contact their family, and
22 there's nobody out there.

23 The utilities were out there, providing
24 immediate response, as soon as the storm passed,
25 after October 10th. And as of October 26th, in Bay

1 County, there are still 17 percent without any
2 infra- -- any power, any infrastructure, no cell
3 towers.

4 And -- and in Gulf County, there's still
5 14 percent -- although, the FCC says that all --
6 still -- all sites have -- are back online and in
7 service. That is inaccurate.

8 Now, I -- I have heard that Verizon has agreed
9 to spend 25 million to upgrade the Florida network.
10 That's not going to happen until next year. I kind
11 of wanted to have the discussion with you all to --
12 to feel your temperature about -- since we are so
13 limited in our authority, but this is such a
14 critical area and -- and there is a disparity in
15 response from what the electric IOUs and the --
16 even the co-ops and the munis do versus these
17 carriers -- certain carriers, not all. I wanted to
18 kind of seek your input.

19 I even heard that one of the carriers -- the
20 major carriers, was offered to have cells on wheels
21 by another ut- -- another provider and they
22 declined it. And it -- unfortunately, the
23 customers were the ones that suffered that loss.

24 So, I mean, there aren't a lot of mechanisms
25 that -- measures that we have, but I think that the

1 Florida Public Service Commission has a duty to be
2 engaged on this issue, this critical service.

3 If we're receiving complaints and people want
4 to know, who can they -- who can they talk to? Who
5 can they complain to? How do they get service
6 restored more swiftly when their electric providers
7 are doing that type of action?

8 I think the Commission has a duty and
9 obligation to somehow weigh in on -- on this
10 measure. And I don't know what that is, but I'm
11 seeking staff's guidance on it.

12 MR. BAEZ: Commissioner Brown, I appreciate
13 your comments. We would be ready, willing, and
14 able to come and discuss with you what your options
15 might be, what -- what might be a good way for --
16 for you or -- or the Commission, if it's their
17 will, to -- to get involved.

18 So, we'd appreciate the opportunity to --

19 COMMISSIONER BROWN: Awesome. Thank you.

20 MR. BAEZ: -- have a chat and go over those
21 things.

22 CHAIRMAN GRAHAM: Thank you.

23 COMMISSIONER BROWN: You know -- thank you. I
24 know our hands are tied in -- in a lot of regards,
25 but it does put us in a position of frustration

1 when we're getting complaints from folks.

2 MR. BAEZ: It -- I -- I would tell you that
3 nowhere -- nowhere does a frustration grow than in
4 times like this. It is -- it's still a legacy
5 frustration, if you will. I think you can ask
6 anybody down in consumer affairs, who did. And
7 they will tell you that those calls are -- are
8 daily, in general. They -- they spike at a time
9 like this, as you would expect.

10 I think what our -- what our ability and what
11 kind of room we have to operate is something
12 that -- that ought to be discussed and -- and
13 appreciated. So, we would -- we would look forward
14 to talking to you about it.

15 COMMISSIONER BROWN: Thank you.

16 MR. BAEZ: Thank you.

17 CHAIRMAN GRAHAM: And -- and we know that it
18 wasn't all the cellular networks because -- and
19 I'll go ahead and throw the name out there. AT&T
20 did a phenomenal job during this.

21 COMMISSIONER BROWN: Absolutely.

22 CHAIRMAN GRAHAM: And I thought they -- I'm
23 sure they'll probably be happy that I said that,
24 but it is what it is.

25 Commissioner Clark.

1 COMMISSIONER CLARK: Thank you, Mr. Chairman.

2 I would acknowledge that AT&T did an excellent
3 job. The problem is the lack of coverage that AT&T
4 does offer in this specific area. They are
5 primarily limited to the more highly-populated
6 areas. And the rural consumers did not fare as
7 well.

8 I was out of service Wednesday until Sunday,
9 cellular service. That was our primary means of
10 communication to -- to learn and find out what's
11 going, what the effects of the storm were.

12 More importantly -- and I want to address --
13 and thank you, Commissioner Brown, for -- for the
14 work that you did on this. This was an area of
15 concern that I had as well -- understanding our
16 lack of regulatory oversight authority in this
17 area.

18 I think there are some overlap areas where we
19 do play a role and I think that we can draw
20 ourselves, if you will, into this mix a little bit.

21 There are two specific areas -- and that comes
22 to -- that I want to focus on. One is, the ability
23 for our utility companies to communicate during
24 this time period is very, very critical. Most
25 utility companies have their own private radio

1 network system and gives them the ability to
2 communicate on an intercompany basis.

3 But during these specific outages, when you
4 triple and quadruple the staff that you have on-
5 site, you have to have a way to communicate with
6 your outside contract crews. That is usually done
7 via a cell phone network. That's when it becomes
8 critically important for you to be able to get
9 resources.

10 And it's my understanding that, had it not
11 been for Gulf Power specifically, Southern Link
12 Communication Systems, which is privately owned,
13 being able to be restored by their own staff in a
14 very, very short period of time, they would have
15 had a tremendous amount of difficulty in
16 coordinating and working with the crews.

17 So, that is a lot to be said for the
18 development of those private networks and -- and
19 these -- but it also says that we would have had a
20 bigger problem in restoring power in the area had
21 that network not existed.

22 The second area, I think, that we have an
23 effect in comes to -- comes in pole attachments.
24 We do have regulatory authority over pole-
25 attachment agreements between telephone hardline

1 carriers and the utility companies.

2 There are issues where, I know for a fact,
3 that fiber lines, telephone lines, other
4 attachments that are on utility poles don't receive
5 high priority during restoration. Sometimes
6 they're just left laying on the ground.

7 I think we can all admit, they get cut and
8 thrown aside and cut out of the way a lot of times.
9 They are much more difficult to repair. So, some
10 oversight and more intense look at what goes on
11 during this restoration period might help there.

12 The third area comes to -- and it's just one
13 of the things I know AT&T did specifically during
14 this outage, was pull in some mobile satellite
15 links and establish hotspot areas within
16 communities.

17 In my particular community, you could get
18 cellular service via Verizon if you went to the
19 hospital parking lot and sat in the hospital
20 parking lot. You were -- I don't know how or why,
21 but you were able to get a signal in that one
22 location. So, that became the magic melting point
23 for the entire community during this four- and
24 five-day period for communications.

25 But to -- for us to call on these wireless

1 providers to establish these hotlink services, to
2 build these local area networks or ethernet
3 networks -- however you want to describe it -- for
4 us to call on them during this specific times --
5 during specific times like this, to bring and
6 deploy these kind of resources, I think would be
7 certainly an area that this Commission could be
8 involved in.

9 But thank you for your leadership in this
10 area, Commissioner Brown.

11 CHAIRMAN GRAHAM: Commissioner Polmann?

12 COMMISSIONER POLMANN: Thank you,
13 Mr. Chairman.

14 I -- I lived in an area, worked in an area, 25
15 years ago when cellular -- cellular service was --
16 was truly that. And you would drive from an urban
17 area through a rural area, and you knew exactly
18 when the phone was going to disconnect because you
19 would shift from one cell to the next. You
20 would -- you would drive over the causeway or the
21 bridge in Tampa Bay and you would be talking to
22 somebody and you would say, okay, the call is going
23 to drop, and I'll call you back.

24 That's no longer the service -- the situation
25 there, but it is still the case driving from --

1 from here to Tampa Bay. And -- and it depends on
2 who the carrier is. You know, I -- I have multiple
3 providers, and it depends on which phone you're
4 using.

5 As was said, you know, one company claims they
6 have the best coverage in Florida; another one
7 says, you know, we have the best; no, we have the
8 best, and it depends on where you are.

9 So, I don't even know if it's wireless
10 service, as Commissioner Clark indicates, if it's
11 cell service, if it's whatever because it's no
12 longer a particular technology.

13 So, yes, it's all deregulated, and we don't
14 have as -- as Public Service Commission, authority
15 over what this Commission once did, but what do we
16 have authority over?

17 Because I'm not quite sure what the technology
18 is. So, I would like to have that question really
19 examined. So, where -- where can we reach in and
20 at least raise serious questions because it's --
21 it's public service. It really is.

22 We talk about the Lifeline and -- and the wire
23 line, and so many of those folks are leaving the
24 landline service and going to cell service, some
25 wireless. And we're struggling with that here now,

1 as to -- you know, how do we maintain or contribute
2 to a low-income community because they're all going
3 to mobile service.

4 And it -- it seems to me that that's something
5 we should be involved with. And for the Federal
6 Government to say, no, you can't -- you can't be
7 involved in that because you don't regulate that
8 just is totally unreasonable.

9 I'm not quite sure what we have authority to
10 do right now, but we need to get that authority and
11 maybe reach very far beyond what we think we have,
12 until somebody tells us, you absolutely don't have
13 it and then force the issue, because there are
14 lives at stake. And it's not just during
15 hurricane; it's during many other -- many other
16 problems, if not just day to day.

17 So, I appreciate this information coming
18 forward. And I think we need to push just as hard
19 as we can. And it -- it shouldn't be depending on
20 which company you're using. It should be
21 throughout Florida. It's a big challenge here
22 because we have urban areas. We have significant
23 rural areas. And the public is not being equally
24 served. I think it's a tragedy when folks don't --
25 don't have service.

1 Thank you, Mr. Chairman.

2 CHAIRMAN GRAHAM: You know, it's a shame
3 that -- it's been one of my issues since I got
4 here. We collect so much money for the Universal
5 Service Fund for the State of Florida and return
6 more than half of it to D.C. every year and -- that
7 we can't use some of those funds for, you know,
8 like, during hurricanes, restoration, the things
9 along that line, or just reaching out to some of
10 these rural areas you're talking, even though it is
11 supposed to be designated to that.

12 You know, I -- that's one of the things I know
13 they're broadening it now so you can use it for --
14 for internet, but you know, that's just one of
15 those things I think we need to be even more
16 creative and use those funds if -- because if we
17 can't cut back the amount that they -- they drag
18 out of us, suck out of us every year, then maybe
19 there -- there's opportunities for us to use those
20 funds for something else.

21 Commissioner Brown?

22 COMMISSIONER BROWN: Thank you. So, I have --
23 I do have a suggestion. And obviously, restoration
24 is still ongoing, but I would suggest that staff
25 ask representatives from the four major carriers to

1 provide us with -- they did not participate in our
2 hurricane round table following Hurricane Irma, but
3 I would like to hear from the four major carriers,
4 specifically Verizon, and -- and expressing what
5 happened and what problems they incurred; whether
6 they have mutual-aid agreements like our electric
7 utilities have.

8 I -- I like Commissioner Clark's suggestion
9 about kind of looking at the area of the joint use,
10 the joint pole attachments, but I think having them
11 come in with the data and the information would
12 give us a -- kind of a holistic view before we take
13 action and -- and how to proceed further, if
14 that -- if the Commissioners are amenable to that.

15 CHAIRMAN GRAHAM: I'm sure we won't be able to
16 get them in here before March or April just because
17 they have their plates full right now, but I think
18 that's a great idea.

19 Any further discussion? Any other -- other
20 matters?

21 Seeing none, I'm glad to hear that you guys
22 went to rate school. I think it's fantastic. Once
23 again, I encourage anybody in this building who
24 hasn't been through there to go through there. I
25 think it's well worth your time.

1 And if there nothing is else, we are
2 adjourned. Travel safe. And I'll see you guys
3 next week.

4 (Whereupon, proceedings concluded at 12:14
5 p.m.)

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CERTIFICATE OF REPORTER

STATE OF FLORIDA)
COUNTY OF LEON)

I, ANDREA KOMARIDIS, Court Reporter, do hereby certify that the foregoing proceeding was heard at the time and place herein stated.

IT IS FURTHER CERTIFIED that I stenographically reported the said proceedings; that the same has been transcribed under my direct supervision; and that this transcript constitutes a true transcription of my notes of said proceedings.

I FURTHER CERTIFY that I am not a relative, employee, attorney or counsel of any of the parties, nor am I a relative or employee of any of the parties' attorney or counsel connected with the action, nor am I financially interested in the action.

DATED THIS 8th day of November, 2018.



ANDREA KOMARIDIS
NOTARY PUBLIC
COMMISSION #GG060963
EXPIRES February 9, 2021