FILED 1/31/2018 DOCUMENT NO. 00817-2018 FPSC - COMMISSION CLERK

AUSLEY MCMULLEN

ATTORNEYS AND COUNSELORS AT LAW

123 SOUTH CALHOUN STREET
P.O. BOX 391 (ZIP 32302)
TALLAHASSEE, FLORIDA 32301
(850) 224-9115 FAX (850) 222-7560

January 31, 2018

VIA: ELECTRONIC FILING

Ms. Carlotta S. Stauffer Commission Clerk Florida Public Service Commission 2540 Shumard Oak Boulevard Tallahassee, FL 32399-0850

Re: FPSC Rule 25-6.0185 - Electric Utility Procedures for Long-Term Energy

Emergencies

Dear Ms. Stauffer:

In compliance with Rule 25-6.0185, we attach Tampa Electric Company's Long-Term Energy Emergency Plan for Fuel Supply Shortage.

Also attached is one copy of the above document in type and strike format, indicating the changes.

Thank you for your assistance in connection with this matter.

Sincerely,

James D. Beasley

JDB/pp Attachment

cc: Rick Moses (w/attachment)

LONG-TERM ENERGY EMERGENCY PLAN FOR FUEL SUPPLY SHORTAGE (ANNEX 4) TAMPA ELECTRIC COMPANY

EFFECTIVE DATE: 01/01/2018

TABLE OF CONTENTS

l.	PURPOSE	3
II.	DEFINITION	3
III.	APPLICABILITY	3
IV.	NOTIFICATION, RESPONSIBILITY & DECLARATION	4
V.	GENERAL	5
A.	Inventory Planning and Fuel Supply Forecasting	5
B.	Emergency Coordination of Fuel Supplies	5
C.	System Operation and Interchange	5
VI.	ACTION PLAN	6
A.	Overview	6
B.	Phase 1 (30 days)	6
C.	Phase 2 (20 days)	8
D.	Phase 3 (10 days)	9
E.	Phase 4 (7 days)	10
F.	Relaxation of Action Plan	10
G.	Essential Services	10
VII.	GOVERNOR DECLARED EMERGENCY	11
VIII	ASSISTANCE	11

ATTACHMENTS

Attachment I - Long-term Energy Emergency Plan Summary

I. PURPOSE

The purpose of this Long-Term Energy Emergency Plan for a fuel supply shortage (hereafter referred to as the Plan) is to document the plan for responding to a Tampa Electric Company (TEC) fuel shortage emergency. This Plan applies to fuel emergencies as defined in Section II and works in cooperation with the *Capacity and Energy Emergency Plan*, which covers abrupt, short-term capacity/energy emergencies.

TEC strives to maintain adequate fuel supplies to enable the company to serve customers reliably. The company accomplishes fuel adequacy through a diverse fuel supply portfolio, multiple suppliers, alternative transportation paths, and flexible storage capacity for the various fuel supply commodities such as natural gas, oil, coal and petroleum coke. Natural gas, is a just-in-time fuel, meaning storage is limited and generation resources consume the fuel when needed via pipeline delivery. Therefore, TEC monitors natural gas commodity and pipeline availabilities constantly. TEC does contract for gas supply storage capacity located in Mobile, Alabama. The storage contract would supply TEC with approximately 10 days of gas supply in the event of a total loss of supply from its traditional sources.

TEC also uses oil as a back-up fuel and retains inventories that complement the fuel's practical use in an emergency situation. For the solid fuels (i.e., coal and petroleum coke), TEC strives to maintain 45 days of inventory on the ground at Big Bend Station. Natural gas can also be used as a back-up fuel source for our solid fuel units.

II. DEFINITION

A fuel supply emergency exists when (a) evidence indicates that within 30 days or less TEC will be unable to receive fuel supplies sufficient to satisfy forecasted fuel supply demands of TEC's generating units, (b) such situation places the entire system at-risk of electric disruption and alternative fuel or energy sources are not available.

III. APPLICABILITY

This Plan applies to a fuel supply emergency, potentially of an unknown duration, that: (a) cannot be remedied by alternative sources of fuel, capacity and/or energy, and (b) will potentially result in widespread outages if no action is taken.

The Plan addresses both a TEC fuel supply emergency, fuel supply shortages for other Florida utilities, and a fuel supply emergency declared by the Governor of the state of Florida ("Governor"), as noted in Sections IV and VII herein.

IV. NOTIFICATION, RESPONSIBILITY & DECLARATION A. Notification Groups

The identification of each group applies also to any group member's designee.

- a. *Group 1* is the Senior Vice President, Energy Supply; Managing Director of Fuels, Wholesale Power and Planning; the Director of Portfolio Optimization; and the Director of Transmission.
- b. *Group 2* is the Vice President, Customer Experience and the Vice President of Electric Delivery.

B. Fuel Supply Shortage (Potential Fuel Supply Emergency)

Whenever a forecast predicts a fuel supply shortage exists, Fuels Management will notify Group 1 that a potential fuel emergency exists. Also, the Senior Vice President, Energy Supply will convene Group 2 to assess the fuel supply emergency. Group 2, if appropriate, will brief the President of Tampa Electric ("President") on the potential fuel supply emergency. The President shall be responsible for declaring a fuel supply emergency, which sets in motion the actions documented in this Plan.

C. Fuel Supply Emergency Declared

Whenever the President declares a fuel supply emergency, Group 2 shall orchestrate within their areas the applicable portions of this Plan. Additionally, the Vice President of Electric Delivery, shall, at a minimum, notify the applicable Florida Reliability Coordinating Council ("FRCC") contact of the existence of such emergency. Similarly, whenever the Governor declares a statewide fuel supply emergency, the Senior Vice President, Energy Supply shall, at a minimum, notify the President and other members of Group 2. Group 2, as directed by the President, shall orchestrate within their areas the applicable portions of this Plan.

The Director of Transmission will be the company coordinator responsible for tactical implementation of the action plans detailed in Section VI of the Plan.

V. GENERAL

A. Inventory Planning and Fuel Supply Forecasting

By no later than the end of October of the prior year, Fuels Management, with the support of Generation Asset Management, will forecast the upcoming calendar year's fuel inventory for each generating plant in TEC's system. Such forecasts will be updated at least monthly throughout the calendar year.

Whenever such forecasting predicts a fuel supply shortage that has the potential to result in a fuel supply emergency, Fuels Management will notify Group 1, who will convene and assess the situation. The Director of Transmission shall then implement the appropriate portions of Sections V(B) and V(C) below and continue to monitor the situation. If the fuel supply shortage situation is deteriorating and does not appear to be remediable, the Director of Transmission shall caucus with Group 1 then convey the deteriorating fuel condition to Group 2, which moves this Plan forward towards potentially implementing Section VI below.

B. Emergency Coordination of Fuel Supplies

During a potential or actual fuel supply emergency, TEC will monitor and forecast fuel availabilities and inventory levels at least weekly and will conduct regularly scheduled meetings between the applicable fuels, operations, regulatory, and business areas. TEC will also identify all potential fuel supply sources and delivery options and, if needed, purchase and accelerate delivery of fuel supplies even if of a lesser quality or higher cost. TEC will reimburse or replace, as appropriate, any fuel or energy supplied on an emergency basis by other entities.

C. System Operation and Interchange

The following actions may be taken to mitigate the effects of a fuel supply concern prior to implementing any of the demand-side reductions in Section VI:

- TEC may halt or limit the company generation resources from producing energy for non-firm sales.
- TEC may purchase energy from other systems which are able and willing to supply interchange energy for reliability to conserve fuel or minimize the use of fuels that are in short supply regionally.

- TEC may operate its units out of economic dispatch or, as environmental permits allow, on an alternative fuel in order to conserve the type of fuel that is in short supply.
- TEC may implement alternative fuel transportation measures if the fuel supply emergency is associated with restrictions in traditional fuel transport methods.
- TEC may implement a system-wide alert, as appropriate.

VI. ACTION PLAN

A. Overview

This action plan is a systematic approach to curtailing electricity usage during a fuel supply emergency. The action plan has four progressive phases. Each phase becomes more severe and addresses energy service reductions to an increasing number of customers. *Phase 1*, with the exception of the implementation of demand-side management as needed, is entirely voluntary for customers and would be implemented when there are projected to be 30 days or less of fuel supply availability. *Phase 2* is implemented when the projected fuel supply reaches 20 days. *Phase 3* is implemented at 10 days; and *Phase 4* is implemented at 7 days of available supply remaining. Prior to implementing any phases of the action plan, TEC will exhaust all practical steps and methods of extending and conserving fuel. While this Plan provides a step-by-step response to an emergency condition, circumstances at the time may require variations from the Plan. See Attachment I for a complete summary of steps for each phase of the Plan.

B. Phase 1 (30 days)

- 1. Initiate communication with customers and make appeals to all customers for voluntary reduction in the use of electricity in observance of an impending fuel supply shortage. Appeals will be made through news conferences, news releases, paid advertising, and other available means. Listed below are energy conservation recommendations to be stressed in the appeals:
 - A. Lower heating thermostats to 65 degrees or less during heating hours and raise cooling thermostats to at least 80 degrees during cooling hours in all conditioned spaces where this action will result in less energy consumption and does not

- threaten the health of customers or damage equipment or structure.
- B. Reduce all indoor lighting levels as close to minimum safety and task levels as practical (particularly commercial and industrial customers).
- C. Eliminate all unnecessary outdoor lighting.
- D. Eliminate display lighting, decorative lighting, and any lighting purely for aesthetics.
- E. Reduce parking lot lighting to the extent practical and where safety is not compromised.
- F. TEC, upon customer request, will give suggestions to individual customers regarding conservation measures applicable to specific installations. However, each customer is responsible for ensuring the implementation of any suggestion is not detrimental to the customer's facilities.
- G. To the extent practical and safe, discontinue use of supplemental energy demanding equipment such as second and third refrigerators, unnecessary freezers, electric pumps, and so on.
- 2. Initiate curtailment of TEC energy use and provide communication to employees.
- 3. Purchase and expedite the transportation of proper fuels.
- 4. End non-firm sales to wholesale customers, purchase available wholesale power, implementing demand-side management as needed, and optimize the use of available fuel.
- TEC representatives will meet with all firm wholesale customers and apprise them of the fuel situation. At this meeting, TEC will strongly suggest that the individual firm wholesale customers make a public appeal immediately to their respective energy service customers to conserve energy.
- 6. Regulatory, Environmental, and Corporate Communications will coordinate notifying the appropriate agencies.

7. Grid Operations and Portfolio Optimization will review the maintenance schedule and reduce spinning reserves, where possible, to optimize use of available fuel.

C. Phase 2 (20 days)

- 8. TEC will make a public announcement that a fuel supply emergency exists, and that TEC must implement the second phase of several energy conservation measures and continue to promote load conservation.
- 9. Initiate communication with governmental organizations, including a request to the Governor to suspend the State Implementation Plan of the Clean Air Act.
- 10. Purchase any satisfactory burnable coal.
- 11. Commercial, Industrial, and Governmental customers will be requested to take the following steps:
 - a. Eliminate the use of lighting for indoor and outdoor advertising devices and displays and building flood lighting, except for lighting a single business identification.
 - b. Reduce weekly energy consumption by 20 percent at all retail businesses, institutional facilities, public and private schools, office buildings, and industrial plants, except for vital health and safety institutions. (A 20 percent energy reduction on a 40-hour operating week is equivalent to one day's worth of energy.) Vital health and safety institutions, although excluded from the request specifically, will be asked to implement all reasonable reductions.
 - c. Eliminate non-essential outdoor lighting.
- 12. Request TEC's environmental department to petition governing authorities to temporarily remove environmental constraints from generating units that inhibit the use of available fuel in a manner that mitigates the fuel supply emergency.
- 13. Continue curtailment of TEC energy use.

- 14. Continue or implement demand-side management, continue to purchase available wholesale power, and request maximum output from co-generators and wholesale power purchases.
- 15. TEC representatives will meet with all firm wholesale customers and request a 20% voluntary reduction.
- 16. Continue to modify system dispatch to optimize use of available fuel, including fuel transfers.

D. Phase 3 (10 days)

In this phase, TEC would take additional actions under this Plan to further reduce electric demand, including the following actions, as appropriate:

- 17. Continue media communications promoting load conservation. Particularly, residential customers will be requested to curtail their use of high energy demand devices and appliances such as clothes dryers, dishwashers, pool pumps, and the like.
- 18. Request that all Commercial, Industrial, and Governmental customers decrease their energy requirements by up to an additional 20 percent, for a total reduction of up to 40 percent as of this phase. A 40 percent energy reduction on a 40-hour operating week is equivalent to two days' worth of energy. Request that all window and display lighting be turned off and A/C Units be turned off during non-use hours limitation.
- 19. Minimize firm sales by requesting a 40% voluntary reduction, purchase all available non-emergency reserve power, and continue demand-side management.
- 20. Continue curtailment of TEC energy use.
- 21. Purchase any satisfactory burnable oil.
- 22. Alert Customer Experience to initiate outbound communication to Medical Watch Customers. This provides at least three days' notice in advance of a disconnection if the Firm Load Curtailment Plan must be implemented during Phase 4. Customer Experience will maintain an updated list of Medical Watch customers, so they can immediately begin outbound communication.

E. Phase 4 (7 days)

Notify the applicable FRCC personnel that the fuel supply for electric generation has reached a crisis level. TEC will then utilize the *Capacity and Energy Emergency Plan* for the remainder of Phase 4. The implementation of Phase 4 will be accompanied by a revised TEC news release.

F. Relaxation of Action Plan

Whenever the fuel supply emergency ceases or improves to the point where a lower phase of action is sufficient to continue electric service at the current level, the President, public, and the FRCC will be notified by the Vice President, Electric Delivery. The relaxation will befit the current fuel supply situation and may involve implementing in reverse sequence the phases described in Section VI.

G. Essential Services

In Phase 4, the *Firm Load Curtailment Plan* may be implemented. If so, essential services shall be given priority on electric service for as long as the situation allows, provided that alternative sources of electric generation/supply are not available to such essential services. Essential services are electric services that are essential to the health, safety, or welfare of the community.

The following types of customers may be included in this category:

- Critical TEC facilities
- Hospitals and similar medical facilities
- Police and fire stations
- Certain vital military bases
- Navigational aids
- Water and sanitation facilities
- Critical communications facilities
- Essential emergency governmental facilities and services
- Certain food storage and distribution centers

Residential customers being served in accordance with TEC's *Medically Essential Service Tariff* will receive individual notification well in advance of

any disconnect (communicated in Phase 3). These customers are advised during the application process to either install back-up power or to make adequate plans in case of an outage. TEC will assist these customers as appropriate.

VII. GOVERNOR DECLARED EMERGENCY

Whenever the Governor's declaration does not have a direct effect on TEC's electric generation resources, only portions of this Plan will be implemented as appropriate to the situation.

VIII. ASSISTANCE

If other utilities in the state would benefit from the company's assistance, TEC would take whatever steps are prudent and appropriate to provide such assistance. The determination of prudency would include the evaluation of TEC's fuel projections and the status of TEC's system resources. This assistance would include, but not be limited to

- Making surplus fuel available for the other utility's use
- Maximizing the safe transfer of electricity across applicable system interfaces

Version History

Date	Version	Summary of	Reason for	Changed By
	Number	Change	Change	
1/18/2010	2010A	Yearly review	Update	Andrew
			document with	Kennedy
			organizational	
			changes	
1/21/2011	2011A	Yearly review	Update	Andrew
			document with	Kennedy
			organizational	
			changes	
10/10/2011	2012A	Yearly review	Update	Andrew
		,	document	Kennedy
12/7/2012	2013A	Yearly review	Updated	Andrew
		,	document	Kennedy
				,
01/18/2014	2014A	Yearly review	Updated	Andrew
		,	document	Kennedy
01/23/2015	2015A	Yearly review	Revised to	Brent Caldwell
		,	simplify and	
			improve clarity of	
			triggers and	
			actions.	
			Modeled after	
			similar plans of	
			other Florida	
			electric IOUs.	
2/1/2016	2016A	Yearly review	Updated	Brent Caldwell
	20.07	10011, 100100	document	2.0.10 Galawon
2/1/2017	2017A	Yearly review	Updated	Brent Caldwell
<i>, ,,,_</i>	20177	1 carry review	document	Didit dalawell
1/31/2018	2018A	Yearly review &	Updated	Brent Caldwell
1/01/2010	2010/	publish	document	DIGIT GAIGWEII
		publish	document	

Attachment I

LONG-TERM ENERGY EMERGENCY PLAN SUMMARY

10 Days

7 Days

20 Days

transportation.

Maximize gas storage.

ACTION

30 Days

transportation.

		PHASE 1 (Emergency Declared)	PHASE 2	PHASE 3	PHASE 4
1	. Expedite Fuel:				
	Oil	Purchase any proper oil.	Determine types of oil available.	Purchase any satisfactory burnable oil.	Search for and purchase <u>any</u> usable fuel.
	Coal/Petcoke	Purchase any proper coal or petcoke. Expedite coal or petcoke transportation.	Purchase any satisfactory burnable coal or petcoke. Plan fuel transfers.		
	Natural Gas	Purchase additional gas and	Purchase additional gas and		

Attachment I

	ACTION	30 Days	20 Days	10 Days	7 Days
		PHASE 1 (Emergency Declared)	PHASE 2	PHASE 3	PHASE 4
2.	Communicate with TEC Employees	Use appropriate internal communication platforms (e.g., electronic mail and/or bulletins) to provide updates to employees as needed.	Use appropriate internal communication platforms (e.g., electronic mail and/or bulletins) to provide updates to employees as needed.	Use appropriate internal communication platforms (e.g., electronic mail and/or bulletins) to provide updates to employees as needed.	Use appropriate internal communication platforms (e.g., electronic mail and/or bulletins) to provide updates to employees as needed.
3.	Communicate with Public and Media	Notify officers and key departments about plans to contact the public and media, if the total fuel supply continues to decrease in Step B.	Issue news release. Provide daily status briefing. Promote load conservation.	Issue news release. Provide daily status briefing. Promote load conservation.	Issue news release. Provide daily status briefing. Promote load conservation.
4.	Communicate with Governmental Organizations	Coordinate with Corporate Communications in notifying appropriate agencies.	Request legal authorities for actions such as waive/modify environmental restrictions, to be taken in this step. Update governmental agencies.		

Attachment I

	ACTION	30 Days	20 Days	10 Days	7 Days
		PHASE 1 (Emergency Declared)	PHASE 2	PHASE 3	PHASE 4
5.	Wholesale Market Power Sales and Purchases	Stop non-firm sales to wholesale customers. Purchase economic wholesale power to the extent possible. TEC will request Firm wholesale customers to make a public appeal immediately to their respective energy service customers to conserve energy.	Arrange non- emergency power purchases, reserve transmission services and tag transaction(s). Request maximum output and availability from co-generators and wholesale power purchases. Request voluntary 20% KWH reduction from firm wholesale customers.	Purchase all available non-emergency power, reserve available transmission service, and tag transaction(s). Request 40% voluntary KWH reduction from firm wholesale customers.	Implement TEC Capacity and Energy Emergency Plan
6.	Waive/Modify Environmental Restrictions		Request to Governor to suspend State Implementation Plan of the Clean Air Act.		

Attachment I

LONG-TERM ENERGY EMERGENCY PLAN SUMMARY

	ACTION	30 Days	20 Days	10 Days	7 Days
		PHASE 1 (Emergency Declared)	PHASE 2	PHASE 3	PHASE 4
7.	Curtail TEC Non-essential Energy Use:	Curtail non-essential energy uses.	Curtail non-essential energy uses.	Curtail non-essential energy uses.	
	Curtail TEC Offices and Operations Center:	Reduce KWH's by 10%. Monitor usage weekly.	Reduce KWH's by 20%. Set thermostats to 65° for heating and to 80° for cooling. Cut off 25% of exterior lights. Cut off hot water heaters.	Further reduce A/C. Cut off 50% of exterior lights. Cancel use of TECO Plaza Halls or atrium.	Implement TEC Capacity and Energy Emergency Plan
8.	Promote Load Conservation:	Educate customers. Advertise conservation.	Commercial, Industrial & Governmental Customers: Request 20% KWH reduction. Adjust thermostat settings +/-5°, depending on the season.	Commercial, Industrial, & Governmental: Request 40% KWH reduction. Set thermostats to 65° to 80°. Encourage alternate energy usage. Reduce operating hours if necessary. Residential: Curtail use of A/C, heating, hot	Implement TEC Capacity and Energy Emergency Plan.

16

Attachment I

	ACTION	30 Days	20 Days	10 Days	7 Days
		PHASE 1 (Emergency Declared)	PHASE 2	PHASE 3	PHASE 4
				water heaters, dryers, dish washers, etc.	
	Reduce Lighting		Request elimination of non-essential outdoor, sport and advertising lighting.	Eliminate window and display lighting. Request commercial establishments limit: a) A/C and heating during nonuse hours and in unoccupied areas b) Non-essential use of hot water.	
9.	Utilize Demand- Side Management	Implement as needed.	Implement as needed.	Implement as needed.	Implement TEC Capacity and Energy Emergency Plan.

10. Modify System Operations

Review maintenance schedule to optimize use of available fuel. Minimize spinning reserve while maintaining Operating Reserves. Modify unit dispatch. Cycle units off-line.

Implement TEC Capacity and Energy Emergency Plan.

LONG-TERM ENERGY EMERGENCY PLAN FOR FUEL SUPPLY SHORTAGE

(ANNEX 4)

TAMPA ELECTRIC COMPANY

EFFECTIVE DATE: 01/01/2015

TABLE OF CONTENTS

l.	PURPOSE	3 <u>53</u>
II.	DEFINITIONS	3
<u>II.</u>	DEFINITION	53
III.	APPLICABILITY	
IV.	NOTIFICATION, RESPONSIBILITY & DECLARATION	4 <u>64</u>
V.	GENERAL	5 <u>75</u>
A .	INVENTORY PLANNING AND FUEL SUPPLY FORECASTING	5
B	EMERGENCY COORDINATION OF FUEL SUPPLIES	5
C. —	SYSTEM OPERATION AND INTERCHANGE	5
<u>A.</u>	Inventory Planning and Fuel Supply Forecasting	75
<u>B.</u>	Emergency Coordination of Fuel Supplies	75
<u>C.</u>	System Operation and Interchange	85
VI.	ACTION PLAN	6 <u>86</u>
A .	OVERVIEW	6
B.	PHASEA. 86	Overview
В.	Phase 1 (30 DAYS)	6 <u>days)</u>
C.	PHASEPhase 2 (20 DAYS)	8 <u>days)</u>
D.	PHASEPhase 3 (10 DAYS)	9 <u>days)</u>
E.	PHASEPhase 4 (7 DAYS)	9 <u>days)</u>
F	RELAXATION OF ACTION PLAN	9
G.	ESSENTIAL SERVICES	9
F.	Relaxation of Action Plan	
<u>G.</u>	Essential Services.	
VII.	GOVERNOR DECLARED EMERGENCY	
VIII.	ASSISTANCE	13 11
VIII. -	_ASSISTANCE	

<u>ATTACHMENTS</u>

Attachment I - Long-term Energy Emergency Plan Summary

I. PURPOSE

The purpose of this Long-Term Energy Emergency Plan for Fuel Supply Shortagea fuel supply shortage (hereafter referred to as the Fuel Supply Emergency Plan) is to document the plan for responding to a Tampa Electric Company (TEC) fuel shortage emergency. This Plan applies to fuel emergencies as defined in Section II and works in cooperation with the Capacity and Energy Emergency Plan, which covers abrupt, short-term capacity/energy emergencies.

TEC strives to maintain adequate fuel supplies to enable the company to serve customers reliably. The company accomplishes fuel adequacy through a diverse fuel supply portfolio, multiple suppliers, redundantalternative transportation paths, and flexible storage capacity for the various fuel supply commodities such as natural gas, oil, coal and petroleum coke. Natural gas, although some supply area storage exists, is for the most part an is a just-intime fuel, meaning storage is limited and generation resources consume the fuel when needed via pipeline delivery. Therefore, TEC monitors natural gas commodity and pipelines' availabilities constantlypipeline availabilities constantly. TEC does contract for gas supply storage capacity located in Mobile, Alabama. The storage contract would supply TEC with approximately 10 days of gas supply in the event of a total loss of supply from its traditional sources.

TEC has oil storage and, since the companyalso uses oil primarily as a back-up fuel and during emergencies, retains inventories that complement the fuel's practical use in an emergency situation. For the solid fuels (i.e., coal and petroleum coke), TEC strives to maintain 45 days of inventory on-the-ground at Big Bend Station. Nonetheless, the company recognizes Natural gas can also be used as a back-up fuel emergencies can occur. This plan applies to source for our solid fuel emergencies as defined in Section II and works in cooperation with the Capacity and Energy Emergency Plan, which covers abrupt, short-term capacity/energy emergencies. units.

II. DEFINITION

A fuel supply emergency exists when (a) evidence indicates that within 30 days or less TEC will be unable to receive fuel supplies sufficient to satisfy forecasted fuel supply demands of TEC's generating units—and, (b) such situation places the entire system at-risk of electric disruption and alternative fuel or energy sources are not available.

III. APPLICABILITY

This planPlan applies to a fuel supply emergency that: (a) is expected to continue for potentially of an unknown duration, (bthat: (a) cannot be remedied by alternative sources of fuel, capacity and/or energy, and (eb) will potentially result in widespread electricity shortagesoutages if no action is taken.

The <u>planPlan</u> addresses both a TEC fuel supply emergency, fuel supply shortages for other Florida utilities, and a fuel supply emergency declared by the Governor of the state of Florida ("Governor"), as noted in Sections IV and VII herein.

IV. NOTIFICATION, RESPONSIBILITY & DECLARATION A. Notification Groups

The identification of each group applies also to any group member designeesmember's designee.

- a. Group 1 is the <u>Senior</u> Vice President, <u>Marketing, Customer Service, Business Development & Fuels Operations; Energy Supply; Managing Director of Fuels; Wholesale Power and Planning; the Director of Resource Planning; Portfolio Optimization; and the Director of Transmission.</u>
- b. Group 2 is the Vice President, Marketing, Customer Service, Business Development & Fuels Operations; Experience and the Vice President of Energy Supply; and the Senior Vice President of Electric and Gas Delivery.

B. Fuel Supply Shortage (Potential Fuel Supply Emergency)

Whenever a forecast predicts a fuel supply shortage exists, Fuels Management will notify Group 1 that a potential fuel emergency exists. Also, the <u>Senior</u> Vice President, <u>Marketing, Customer Service, Business Development & Fuels Operations Energy Supply</u> will convene Group 2 to assess the fuel supply emergency. Group 2, if appropriate, will brief the President of Tampa Electric ("President") on the potential fuel supply emergency. The President shall be responsible for declaring a fuel supply emergency, which sets in motion the actions documented in this planPlan.

C. Fuel Supply Emergency Declared

Whenever the President declares a fuel supply emergency, Group 2 shall orchestrate within their areas the applicable portions of this planPlan.

Additionally, the Senior-Vice President of Electric and Gas Delivery, shall, at a minimum, notify the applicable Florida Reliability Coordinating Council ("FRCC") contact of the existence of such emergency. Similarly, whenever the Governor declares a statewide fuel supply emergency, the Senior Vice President, Marketing, Customer Service, Business Development & Fuels Operations Energy Supply shall, at a minimum, notify the President and other members of Group 2. Group 2, as directed by the President, shall orchestrate within their areas the applicable portions of this planPlan.

The Director of Transmission will be the company coordinator responsible for tactical implementation of the action plans detailed in Section VI of the Fuel Supply Emergency Plan.

V. GENERAL

A. Inventory Planning and Fuel Supply Forecasting

By no later than the end of October of the prior year, Fuels Management, with the support of Resource PlanningGeneration Asset Management, will forecast the upcoming calendar year's fuel inventory for each generating plant in TEC's system. Such forecasts will be updated at least monthly throughout the calendar year.

Whenever such forecasting predicts a fuel supply shortage that has the potential to result in a fuel supply emergency, Fuels Management will notify Group 1, who will convene and assess the situation. The Director of Transmission shall then implement the appropriate portions of Sections V(B) and V(C) below and continue to monitor the situation. If the fuel supply shortage situation is deteriorating and does not appear to be remediable, the Director of Transmission shall caucus with Group 1 then convey the deteriorating fuel condition to Group 2, which moves this planPlan forward towards potentially implementing Section VI below.

B. Emergency Coordination of Fuel Supplies

During a potential or actual fuel supply emergency, TEC will monitor and forecast fuel availabilities and inventory levels at least weekly with and will conduct regularly scheduled meetings between the applicable fuels, operations, regulatory, and business areas. TEC will also identify all potential fuel supply sources and delivery options and, if needed, purchase and accelerate delivery of fuel supplies even if of a lesser quality or higher cost. TEC will reimburse or replace, as appropriate, any fuel or energy supplied on an emergency basis by other entities.

C. System Operation and Interchange

The following actions may be taken to mitigate the effects of a fuel supply concern prior to implementing any of the demand-side reductions in Section VI:

- TEC may halt or limit the company generation resources from producing energy for non-firm sales.
- TEC may purchase energy from other systems which are able and willing to supply interchange energy for reliability to conserve fuel or minimize the use of fuels that are in short supply regionally.
- TEC may operate its units out of economic dispatch or, as environmental permits allow, on an alternative fuel in order to conserve the type of fuel that is in short supply.
- TEC may implement alternative fuel transportation measures if the fuel supply emergency is associated with restrictions in traditional fuel transport methods.
- TEC may implement a system-wide alert, as appropriate.

VI. ACTION PLAN

A. Overview

This action plan is a systematic approach to curtailing electricity usage during a fuel supply emergency. The action plan has four progressive phases. Each phase becomes more severe and addresses energy service reductions to an increasing number of customers. *Phase 1*, with the exception of the implementation of demand-side management as needed, is entirely voluntary, for customers and would be implemented when there are projected to be 30 days or less of fuel supply availability. *Phase 2* is implemented when the projected fuel supply reaches 20 days. *Phase 3* is implemented at 10 days; and *Phase 4* is implemented at 7 days of available fuel supply remaining. Prior to implementing any phases of the action plan, TEC will exhaust all practical steps and methods of extending and conserving fuel. While this planPlan provides a step-by-step response to an emergency condition, circumstances at the time may require variations from the planPlan. See Attachment I for a complete summary of steps for each phase of the planPlan.

B. Phase 1 (30 days)

- 1. Initiate communication with customers and make appeals to all customers for voluntary reduction in the use of electricity because in observance of an impending fuel supply shortage. Appeals will be made through news conferences, news releases, paid advertising, and other available means. Listed below are energy conservation recommendations to be stressed in the appeals:
 - A. Lower heating thermostats to 65 degrees or less during heating hours and raise cooling thermostats to at least 80 degrees during cooling hours in all conditioned spaces where this action will result in less energy consumption and does not threaten the health of customers or damage equipment or structure. This excludes customers with physician-advised medical exemptions.
 - B. Reduce all indoor lighting levels as close to minimum safety and task levels as practical (particularly commercial and industrial customers).
 - C. Eliminate all unnecessary outdoor lighting.
 - D. Eliminate display lighting, decorative lighting, and any lighting purely for aesthetics.
 - E. Reduce parking lot lighting to the extent practical and where safety is not compromised.
 - F. TEC, upon customer request, will give suggestions to individual customers regarding conservation measures applicable to specific installations. However, each customer is responsible for ensuring the implementation of any suggestion is not detrimental to the customer's facilities.
 - G. To the extent practical and safe, discontinue use of supplemental energy demanding equipment such as second and third refrigerators, unnecessary freezers, electric pumps, and so on.
- 2. Initiate curtailment of TEC energy use and provide communication to employees.

- 3. Purchase and expedite the transportation of proper fuels.
- 4. End non-firm sales to wholesale customers, purchase available wholesale power, implementing demand—side management as needed, and optimize the use of available fuel.
- TEC representatives will meet with all firm wholesale customers and apprise them of the fuel situation. At this meeting, TEC will strongly suggest that the individual firm wholesale customers make a public appeal immediately to their respective energy service customers to conserve energy.
- 6. Regulatory, Environmental, and Corporate Communications will coordinate notifying the appropriate agencies.
- 7. Grid Operations and Portfolio Optimization will review the maintenance schedule and reduce spinning reserves, where possible, to optimize use of available fuel.

C. Phase 2 (20 days)

- 4.8. TEC will make a public announcement that a fuel supply emergency exists, and that TEC must implement the second phase of several energy conservation measures and continue to promote load conservation.
- 2.9. Initiate communication with governmental organizations, including a request to the Governor to suspend SIP of CAAthe State Implementation Plan of the Clean Air Act.

10. Purchase any satisfactory burnable coal.

- 3.11. Commercial, Industrial, and Governmental customers will be requested to take the following steps:
 - a. Eliminate the use of lighting for indoor and outdoor advertising devices and displays and building flood lighting, except for lighting a single business identification.
 - b. Reduce weekly energy consumption by 20 percent at all retail businesses, institutional facilities, public and private schools, office buildings, and industrial plants, except for vital health and

safety institutions. (A 20 percent energy reduction on a 40-hour operating week is equivalent to one day's worth of energy.) Vital health and safety institutions, although excluded from the request specifically, will be expected to implement all operationally possible reductions.

- c. Eliminate non-essential outdoor lighting.
- 4.12. Request TEC's environmental department to petition governing authorities to temporarily remove environmental constraints from generating units that inhibit the use of available fuel in a manner that mitigates the fuel supply emergency.
- 5.13. Continue curtailment of TEC energy use.
- 6.14. Continue or implement demand—side management, continue to purchase available wholesale power, and request maximum output from co-generators and wholesale power purchases.
- 7.15. TEC representatives will meet with all firm wholesale customers at this meeting, TEC willand request a 20% voluntary reduction.
- 16. Continue to modify system dispatch to optimize use of available fuel, including fuel transfers.

D. Phase 3 (10 days)

In this phase, TEC would take additional actions under this planPlan to further reduce electric demand, including the following actions, as appropriate:

- 4.17. Continue media communications promoting load conservation. Particularly, residential customers will be requested to curtail their use of high energy demand devices and appliances such as clothes dryers, dishwashers, pool pumps, and the like.
- 2.18. Request that all industrialCommercial, Industrial, and Governmental customers decrease their energy requirements by up to an additional 20 percent, for a total reduction of up to 40 percent as of this phase. A 40 percent energy reduction on a 40—hour operating week is equivalent to two days' worth of energy. Implement

- a ban on Request that all window and display lighting be turned off and a ban on A/C Units be turned off during non-use hours. Imitation.
- <u>19.</u> Minimize firm sales <u>by requesting a 40% voluntary reduction</u>, purchase all available non-emergency reserve power, and continue demand—side management.
- 20. Continue curtailment of TEC energy use.
- 21. Purchase any satisfactory burnable oil.
- 22. Alert Customer Experience to initiate outbound communication to Medical Watch Customers. This provides at least three days' notice in advance of a disconnection if the Firm Load Curtailment Plan must be implemented during Phase 4. Customer Experience will maintain an updated list of Medical Watch customers, so they can immediately begin outbound communication.

 3.

E. Phase 4 (7 days)

Notify the applicable FRCC personnel that the fuel supply for electric generation has reached a crisis level. TEC will then applyutilize the Capacity and Energy Emergency Plan for the remainder of Phase 4. The implementation of Phase 4 will be accompanied by a revised TEC news release.

F. Relaxation of Action Plan

Whenever the fuel supply emergency ceases or improves to the point where a lower phase of action is sufficient to continue electric service at the current level, the President, public, and the FRCC will be notified by the Senior-Vice President, Electric and Gas-Delivery. The relaxation will befit the current fuel supply situation and may involve implementing in reverse sequence the phases described in Section VI.

G. Essential Services

In Phase 4, the *Firm Load Curtailment Plan* may be implemented. If so, essential services shall be given priority on electric service for as long as the situation allows, provided that alternative sources of electric generation/supply are not available to such essential services. Essential services are electric services that are essential to the health, safety, or welfare of the community.

The following types of customers may be included in this category:

- **1.•** Critical TEC facilities
- 2. Hospitals and similar medical facilities
- 3. Police and fire stations
- 4. Certain vital military bases
- 5. Navigational aids
- 6. Water and sanitation facilities
- 7. Critical communications facilities
- 8. Essential emergency governmental facilities and services
- 9. Certain food storage and distribution centers

Residential customers being served in accordance with TEC's *Medically Essential Service Tariff* will receive individual notification well in advance of any disconnect-(communicated in Phase 3). These customers are advised during the application process to either install back-up power or to make adequate plans in case of an outage. TEC will assist these customers as appropriate.

VII. GOVERNOR DECLARED EMERGENCY

Whenever the Governor's declaration does not have a direct effect on TEC's electric generation resources, only portions of this plan will be implemented as appropriate to the situation.

VIII. ASSISTANCE

If other utilities in the state would benefit from the company's assistance, TEC would take whatever steps are prudent and appropriate to provide such assistance. The determination of prudency would include the evaluation of TEC's fuel projections and the status of TEC's system resources. This assistance would include, but not be limited to:

- 4.• Making surplus fuel available for the other utility's use-
- 2. Maximizing the safe transfer of electricity across applicable system interfaces.

3. Maximizing voltage support to the utility's system as practical.

Version History

Date	Version Number	Summary of Change	Reason for Change	Changed By
1/18/2010	2010A	Yearly review	Update document with organizational changes	Andrew Kennedy
1/21/2011	2011A	Yearly review	Update document with organizational changes	Andrew Kennedy
10/10/2011	2012A	Yearly review	Update document	Andrew Kennedy
12/7/2012	2013A	Yearly review	Updated document	Andrew Kennedy
01/18/2014	2014 A2014A	Yearly Reviewreview	Updated document	Andrew Kennedy
01/23/2015	2015A	Yearly Review.review	Revised to simplify and improve clarity of triggers and actions. Modeled after similar plans of other Florida electric IOUs.	Brent Caldwell
2/1/2016	<u>2016A</u>	Yearly review	Updated document	Brent Caldwell
2/1/2017	<u>2017A</u>	Yearly review	Updated document	Brent Caldwell
1/31/2018	2018A	Yearly review & publish	Updated document	Brent Caldwell

Attachment I

ACTION	30 Days	20 Days	10 Days	7 Days
		PHASE 2	PHASE 3	PHASE 4
	PHASE 1			
	<pre>(Emergency</pre>			
	Declared PHASE 1)			

		Declared PHASE 1)			
1.	Expedite Fuel:		-		
	Oil	Purchase any proper oil.	Determine types of oil available.	Purchase any satisfactory burnable oil.	Search for and purchase <u>any</u> usable fuel.
	Coal <u>/Petcoke</u>	Purchase any proper coal or petcoke. Expedite coal or petcoke transportation.	Purchase any satisfactory burnable coal or petcoke. Plan fuel transfers.		
	Natural Gas	Purchase additional gas and transportation.	Purchase additional gas and transportation.		

Attachment I

LONG-TERM ENERGY EMERGENCY PLAN SUMMARY

ACTION 30 Days 20 Days 10 Days 7 Days

PHASE 2 PHASE 3 PHASE 4

PHASE 1
(Emergency
Declared PHAS

Declared PHASE 1)

Maximize gas storage.

2. Communicate
Withwith TEC
Employees

Use appropriate internal communication platforms (e.g., electronic mail and/or bulletins) to provide updates to employees as needed.

Use appropriate internal communication platforms (e.g., electronic mail and/or bulletins) to provide updates to employees as needed.

Use appropriate internal communication platforms (e.g., electronic mail and/or bulletins) to provide updates to employees as needed.

Use appropriate internal communication platforms (e.g., electronic mail and/or bulletins) to provide updates to employees as needed.

3. Communicate
Withwith Public
and Media

Notify officers and key departments about plans to contact the public and media, if the total fuel supply Issue news release. Provide daily status briefing. Promote load conservation. Issue news release. Provide daily status briefing. Promote load conservation. Issue news release. Provide daily status briefing. Promote load conservation.

Attachment I

	ACTION	30 Days	20 Days	10 Days	7 Days
		PHASE 1 (Emergency Declared PHASE 1)	PHASE 2	PHASE 3	PHASE 4
		continues to decrease in Step B.			
4.	Communicate Withwith Governmental Organizations	Coordinate with Corporate Communications in notifying appropriate agencies.	Request legal authorities for actions such as waive/modify environmental restrictions, to be taken in this step. Update governmental agencies.		
5.	Wholesale Market Power Sales and Purchases	Stop non-firm sales to wholesale customers. Purchase economic wholesale power to the extent possible. TEC will request Firm wholesale customers to make a public	Arrange non- emergency power purchases, reserve transmission services and tag transaction(s). Request maximum output and availability from co-generators	Reduce firm sales to a minimum. Purchase all available non-emergency power, reserve available transmission service, and tag transaction(s).	Implement TEC Capacity and Energy Emergency Plan

Attachment I

	ACTION	30 Days	20 Days	10 Days	7 Days
		PHASE 1 (Emergency Declared PHASE 1)	PHASE 2	PHASE 3	PHASE 4
		appeal immediately to their respective energy service customers to conserve energy.	and wholesale power purchases. Request voluntary 20% KWH reduction from firm wholesale customers.	Request 40% voluntary KWH reduction from firm wholesale customers.	
6.	Waive/Modify Environmental Restrictions		Request to Governor to suspend SIPState Implementation Plan of CAAthe Clean Air Act.		
7.	Curtail TEC Non-essential Energy Use:	Curtail non-essential energy uses.	Curtail non-essential energy uses.	Curtail non-essential energy uses.	
	Curtail TEC Offices and OperationOperationS Center:	Reduce KWH's by 10%. Monitor usage weekly.	Reduce KWH's BYby 20%.	Reduce Industrial Customer Usage by an additional 20%. Further reduce A/C.	Implement TEC Capacity and Energy Emergency Plan

Attachment I

	ACTION	30 Days	20 Days	10 Days	7 Days
		PHASE 1 (Emergency Declared PHASE 1)	PHASE 2	PHASE 3	PHASE 4
			Set thermostats to 65° for heating and to 80° for cooling. Cut off 25% of exterior lights. Cut off hot water heaters.	Cut off 50% of exterior lights. Cancel use of TECO Plaza Halls or atrium.	
8.	Promote Load Conservation:	Educate customers. Advertise conservation.	Commercial, Industrial & Governmental Customers: Request 20% KWH reduction. Adjust thermostat settings +/-5°, depending on the season.	Commercial-&, Industrial, & Governmental: Request 40% KWH reduction. Set thermostats to 65° to 80°. Encourage alternate energy usage. Reduce operating hours if necessary. Residential: Stop using Curtail use of A/C, heating, H.W.H.,hot	Implement TEC Capacity and Energy Emergency Plan.

Attachment I

	ACTION	30 Days	20 Days	10 Days	7 Days
		PHASE 1 (Emergency Declared PHASE 1)	PHASE 2	PHASE 3	PHASE 4
	Lighting		Request elimination of	water heaters, dryers, dish washers, etc. Request reduced	
	Lighting		non-essential outdoor, sport and advertising lighting.	displays & window lighting. Request commercial establishments limit: a) A/C and heating during nenuse hours and in unoccupied areas b) Non essential use of het water.	
9.	Utilize Demand Side Management	Implement as needed.	Implement as needed.	Implement as needed.	Implement Capacity and Energy Emergency Plan.
10.	Curtail Customer Load				Implement Capacity and Energy Emergency Plan.

Attachment I

	ACTION	30 Days	20 Days	10 Days	7 Days
		PHASE 1 (Emergency Declared PHASE 1)	PHASE 2	PHASE 3	PHASE 4
	Reduce Lighting		Request elimination of non-essential outdoor, sport and advertising lighting.	Eliminate window and display lighting. Request commercial establishments limit: a) A/C and heating during nonuse hours and in unoccupied areas b) Non-essential use of hot water.	
11 <u>9</u> .	Modify System OperationsUtilize Demand-Side Management	Implement as needed.Review maintenance schedule to optimize use of available fuel. Minimize spinning reserve while maintaining Operating Reserves.	Implement as needed. Modify unit dispatch. Cycle units off-line.	Implement as needed.	Implement TEC Capacity and Energy Emergency Plan.

10. Modify System Operations

Review maintenance schedule to optimize use of available fuel. Minimize spinning reserve while maintaining Operating Reserves. Modify unit dispatch.
Cycle units off-line.

Implement TEC
Capacity and Energy
Emergency Plan.