period due in large part to the major planned outages at Sabine Units 3 and 4 (as discussed above).

Q37. WHAT ARE YOUR CONCLUSIONS REGARDING ETI'S FOSSIL UNIT AVAILABILITY DURING THE RECONCILIATION PERIOD?

A. The SOF, FOR, and EAF for ETI's fleet of fossil units are comparable with those of other utilities, particularly given ETI's need for several substantial planned outages during the Reconciliation Period. The Company performed reasonable on-line and outage maintenance to ensure that units were available for dispatch. When forced outages did occur, the Company took reasonable steps to restore the units to operation when those units were expected to be needed to serve customers. Overall, ETI achieved a reasonable level of fossil unit availability during the Reconciliation Period.

VII. PLANT EFFICIENCY

Q38. PLEASE EXPLAIN THE CONCEPT OF HEAT RATE AND HOW HEAT RATE MEASURES UNIT EFFICIENCY.

A. Unit heat rate measures the thermal performance, or efficiency, of a generating unit and is defined as the amount of fuel energy required to produce one unit of electrical energy, or kilowatt-hour ("kWh"). The lower the heat rate, the less fuel required to produce a specific amount of electricity. It is common practice to use the term "net unit heat rate" in describing the performance of a steam power plant. Net unit heat rate is defined as the amount of fuel energy input in British Thermal Units ("Btu")

needed to produce one kWh of electricity delivered to the transmission system. A Btu is the amount of heat required to raise the temperature of one pound of water one degree Fahrenheit at standard temperature and pressure conditions. All references to heat rates in my testimony are considered to be net heat rates.

Q39. PLEASE DEFINE ANY OTHER TERMS THAT YOU USE IN DISCUSSING HEAT RATE.

A. I also use the term "average actual heat rate" in this section of my testimony. The average actual heat rate of a unit achieved over a specific time period is calculated by dividing the total fuel heat input (Btus) by the total net generation (kWhs) during that period of time. The average actual heat rate for gas plants is calculated from monthly fuel invoice usage data and measured monthly net electrical outputs. The average actual heat rate for coal units is calculated from the fuel burn rates and coal heat content routinely measured at the plant and the measured net monthly electrical output. Test heat rates, in contrast, are based on formal tests of units under ideal, controlled conditions. Average actual heat rates are normally higher (i.e., less efficient) than test heat rates due to the fact that test heat rates are carefully measured at steady-state conditions, while average actual heat rates are measured under a variety of loading and transient conditions.

Q40. WHAT HEAT RATE DATA HAVE YOU PROVIDED?

A. Average actual monthly heat rates for each ETI unit during the Reconciliation Period are provided in Schedule FR-4.2a. Design heat rate curve, test heat rate, and

incremental heat rate data for each of ETI's fossil units are provided in confidential Schedule FR-4.2c. In addition, Exhibits CKB-6 and CKB-7 provide average heat rate data for ETI's gas and coal units, respectively, as discussed below.

Q41. WHAT FACTORS SIGNIFICANTLY AFFECT A GENERATING UNIT'S HEAT RATE?

A. A number of unit-specific factors can significantly affect heat rate. Examples of such factors include unit design (e.g., boiler type, type of cooling system, etc.), fuel type, composition and quality, the dispatch of the unit, age of the unit, and the effects of normal wear and tear. These factors must be considered when analyzing unit heat rate data. Also, similar to unit availability, it is not uncommon to see some year-to-year variation in heat rate performance. So, one should look at a sufficient period of data to assess whether operations and maintenance programs are effective at maintaining unit efficiency.

Q42. HOW DOES THE AVERAGE HEAT RATE FOR ETI'S GAS UNITS COMPARE TO THE INDUSTRY?

A. Exhibit CKB-6 presents the average heat rates for ETI's gas units for the years 2015 through 2018 and during the Reconciliation Period. Exhibit CKB-6 demonstrates that ETI's gas unit heat rates are below, or better than, the NERC four-year industry average.

Q43. HOW DOES THE AVERAGE HEAT RATE OF ETI'S COAL PLANTS COMPARE TO THE INDUSTRY?

A. Exhibit CKB-7 presents the average heat rate for ETI coal units for the years 2015 through 2018 and during the Reconciliation Period. ETI's composite heat rate for its coal units is higher than the most recent NERC four-year average. This is largely a result of the heat rate of Nelson 6, which averaged 11,835 Btu/kWh during the Reconciliation Period. Comparing Nelson 6 to the industry average may produce misleading results in some years because the industry data represents the average heat rate for units with a variety of differences in factors that can affect heat rates. Heat rates in the industry data vary from a low of approximately 8,398 to a high of 15,546. Nelson 6's heat rate is certainly within that range.

Q44. BASED UPON YOUR ANALYSIS, DID NELSON UNIT 6 AND BIG CAJUN II, UNIT 3 OPERATE EFFICIENTLY DURING THE RECONCILIATION PERIOD?

A. Yes. My analysis indicates that the heat rates for Nelson Unit 6 and Big Cajun II, Unit 3 demonstrate that the units were reasonably maintained during the Reconciliation Period.

VIII. CONCLUSION

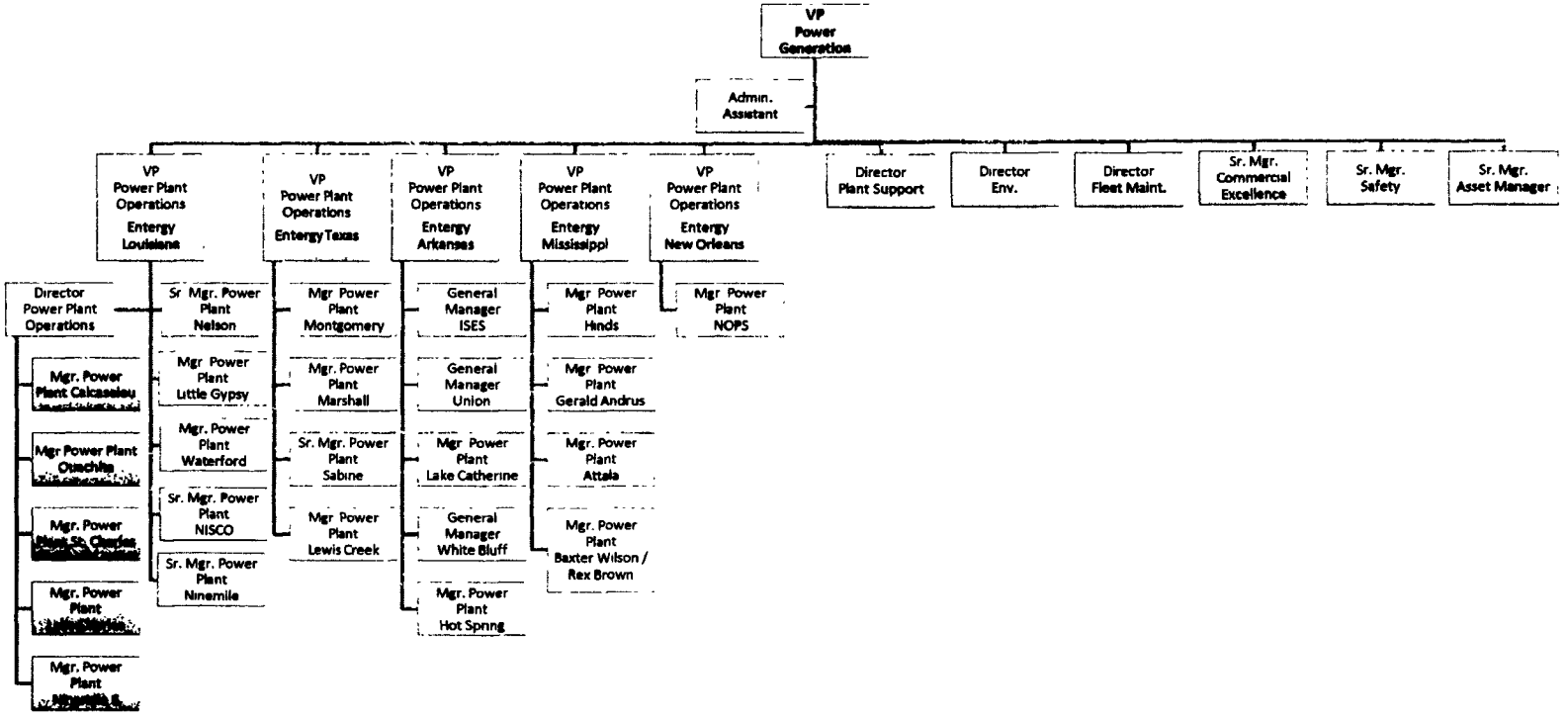
Q45. WHAT DO YOU CONCLUDE ABOUT THE PERFORMANCE OF ETI'S FOSSIL POWER PLANTS DURING THE RECONCILIATION PERIOD?

A. ETI operated its fossil generating units in a reasonable, efficient, and reliable manner during the Reconciliation Period.

Q46. DOES THIS CONCLUDE YOUR DIRECT TESTIMONY?

A. Yes, it does.

Power Generation



WE POWER LIFE℠

Exhibit CBK-1
Docket No. 49916
Page 1 of 1

1

0687

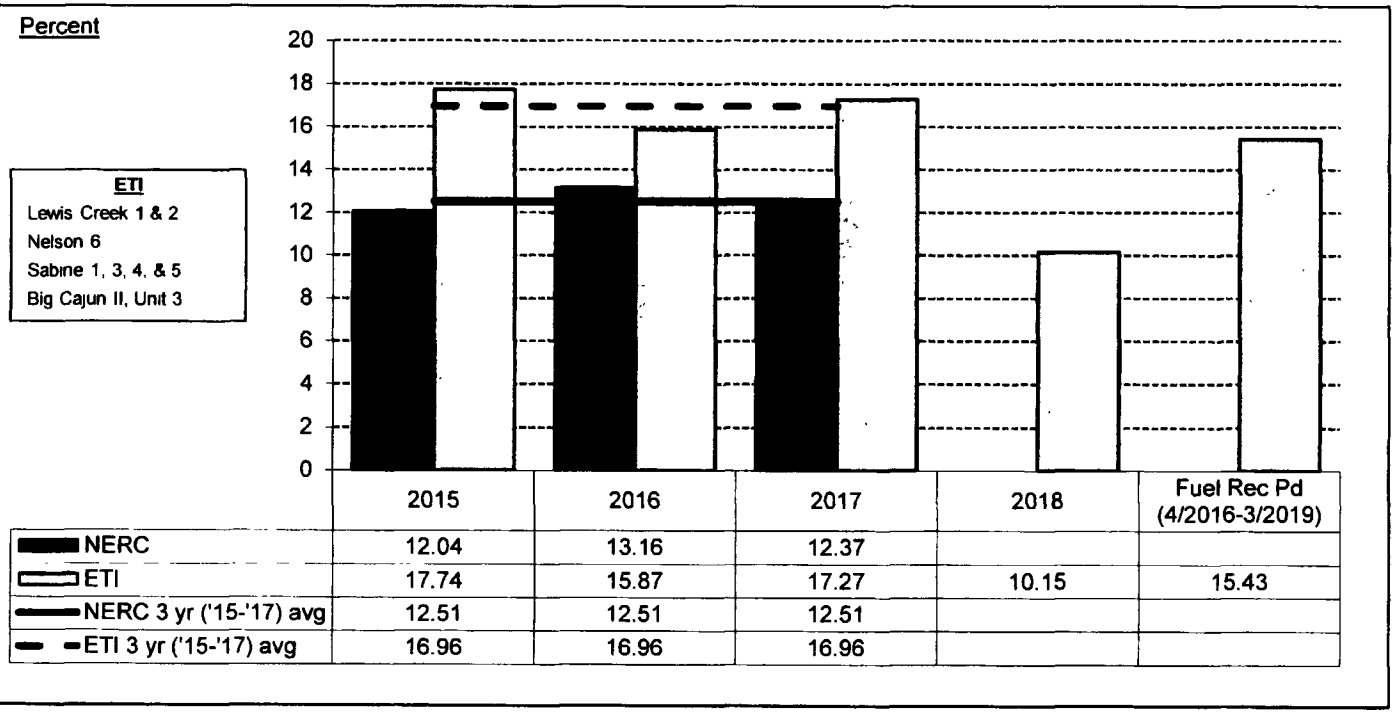
Power Generation
Entergy Texas, Inc.
Fossil Generating Unit Information
Effective June 01, 2019

Plant	Unit	Next Maximum Demonstrated Capacity MW		Primary Fuel Type	Year of Operation	Location	ETI Ownership	Comments
		ETI Owned	ETI Operated					
Big Cajun II	3	104	0	Coal	1983	New Roads, LA Point Coupee Parish	17.85%	580 MW unit maintained and operated by Louisiana Generating LLC.
Lewis Creek	1	252	252	Gas	1970	Willis, TX Montgomery County	100.00%	
	2	253	253	Gas	1971		100.00%	
Nelson	6	164	0	Coal	1982	Westlake, LA Calcasieu	29.75%	Nelson 6 is a 550 MW unit operated and maintained by Entergy Louisiana, LLC.
Sabine	1	212	212	Gas	1962	Bridge City, TX Orange County	100.00%	Sabine Unit 2 was retired effective October 01, 2019. Last rating before retirement was 213.
	2	0	0	Gas	1962		100.00%	
	3	411	411	Gas	1966		100.00%	
	4	534	534	Gas	1974		100.00%	
	5	448	448	Gas	1979		100.00%	

MW capacity based on MISO Planning Year 2019/2020 capacity ratings

Exhibit CBK-2
Docket No. 49916
Page 1 of 1

Entergy Texas, Inc.
Scheduled Outage Factor (SOF)
Industry Comparison
All Fossil Fuels 100 - 600 MW



	2015	2016	2017	2018	Fuel Rec Pd (4/2016-3/2019)
NERC	12.04	13.16	12.37		
ETI	17.74	15.87	17.27	10.15	15.43
NERC 3 yr ('15-'17) avg	12.51	12.51	12.51		
ETI 3 yr ('15-'17) avg	16.96	16.96	16.96		

Note: 2018 Benchmarking data not yet available.

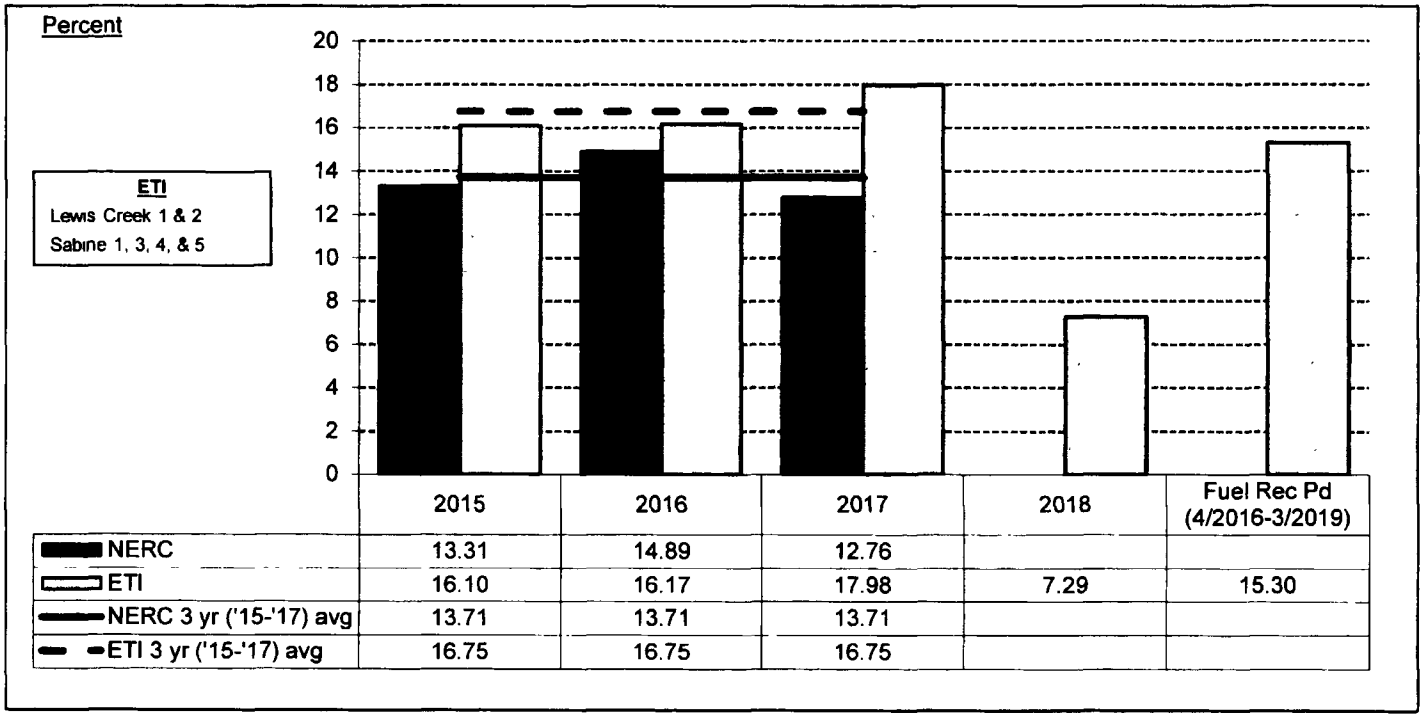
Source: NERC Averages. NERC pc-gar, Criteria: All Fossil Fuels 100 - 600 MW.

SOF = [(Schedule Outage Hours x NMC)/(Period Hours x NMC)] x 100(%) Schedule Outage Hours = Sum of Planned and Maintenance Outage hours plus any Scheduled Outage Extension hours associated with those outages NMC = Net Maximum Capacity

Exhibit CBK-3
Docket No. 49916
Page 1 of 3

0689

Entergy Texas, Inc.
Scheduled Outage Factor (SOF)
Industry Comparison
Gas Fired Units 100 - 600 MW



	2015	2016	2017	2018	Fuel Rec Pd (4/2016-3/2019)
NERC	13.31	14.89	12.76		
ETI	16.10	16.17	17.98	7.29	15.30
NERC 3 yr ('15-'17) avg	13.71	13.71	13.71		
ETI 3 yr ('15-'17) avg	16.75	16.75	16.75		

Note: 2018 Benchmarking data not yet available.

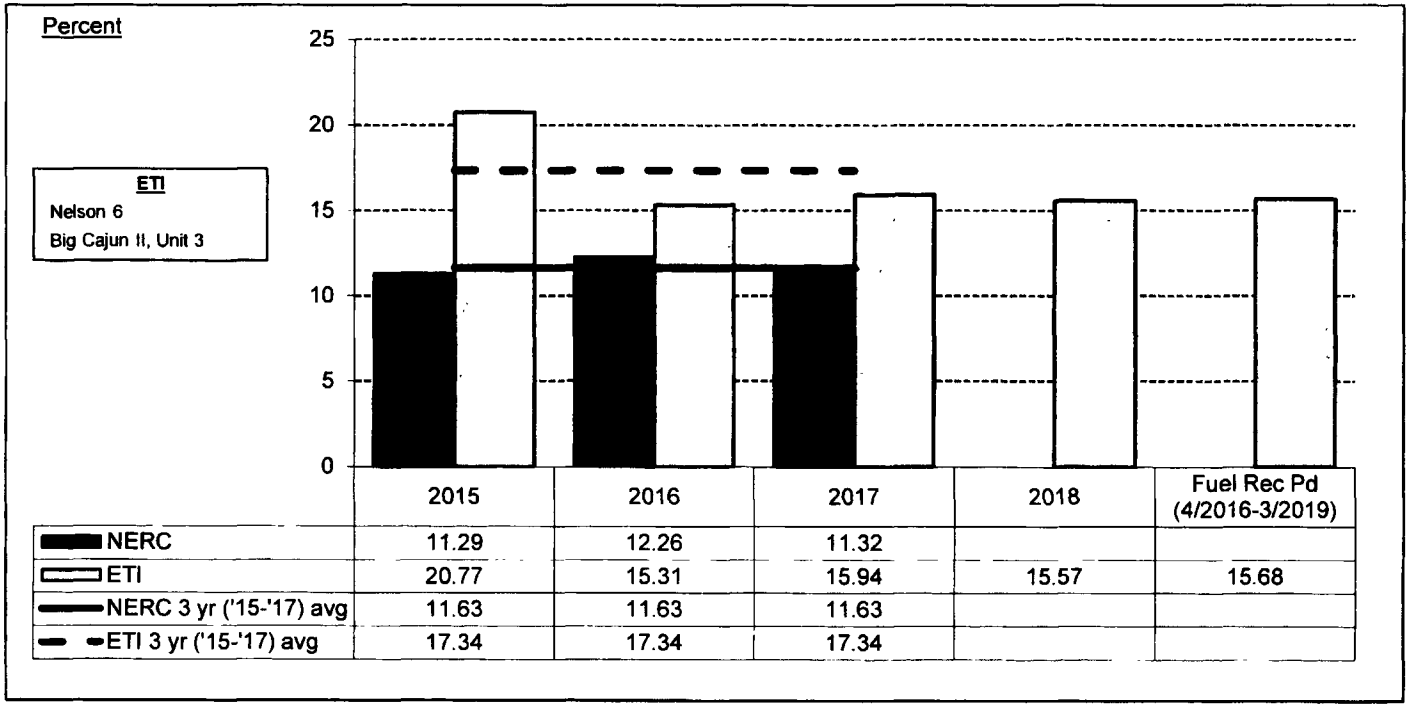
Source: NERC Averages. NERC pc-gar; Criteria: Gas fired 100 - 600 MW units.

SOF = [(Schedule Outage Hours x NMC)/(Period Hours x NMC)] x 100(%) Schedule Outage Hours = Sum of Planned and Maintenance Outage hours plus any Scheduled Outage Extension hours associated with those outages NMC = Net Maximum Capacity

0690

Exhibit CBK-3
Docket No. 49916
Page 2 of 3

Entergy Texas, Inc.
Scheduled Outage Factor (SOF)
Industry Comparison
Coal Fired Units 400 - 600 MW



	2015	2016	2017	2018	Fuel Rec Pd (4/2016-3/2019)
NERC	11.29	12.26	11.32		
ETI	20.77	15.31	15.94	15.57	15.68
NERC 3 yr ('15-'17) avg	11.63	11.63	11.63		
ETI 3 yr ('15-'17) avg	17.34	17.34	17.34		

Note: 2018 Benchmarking data not yet available.

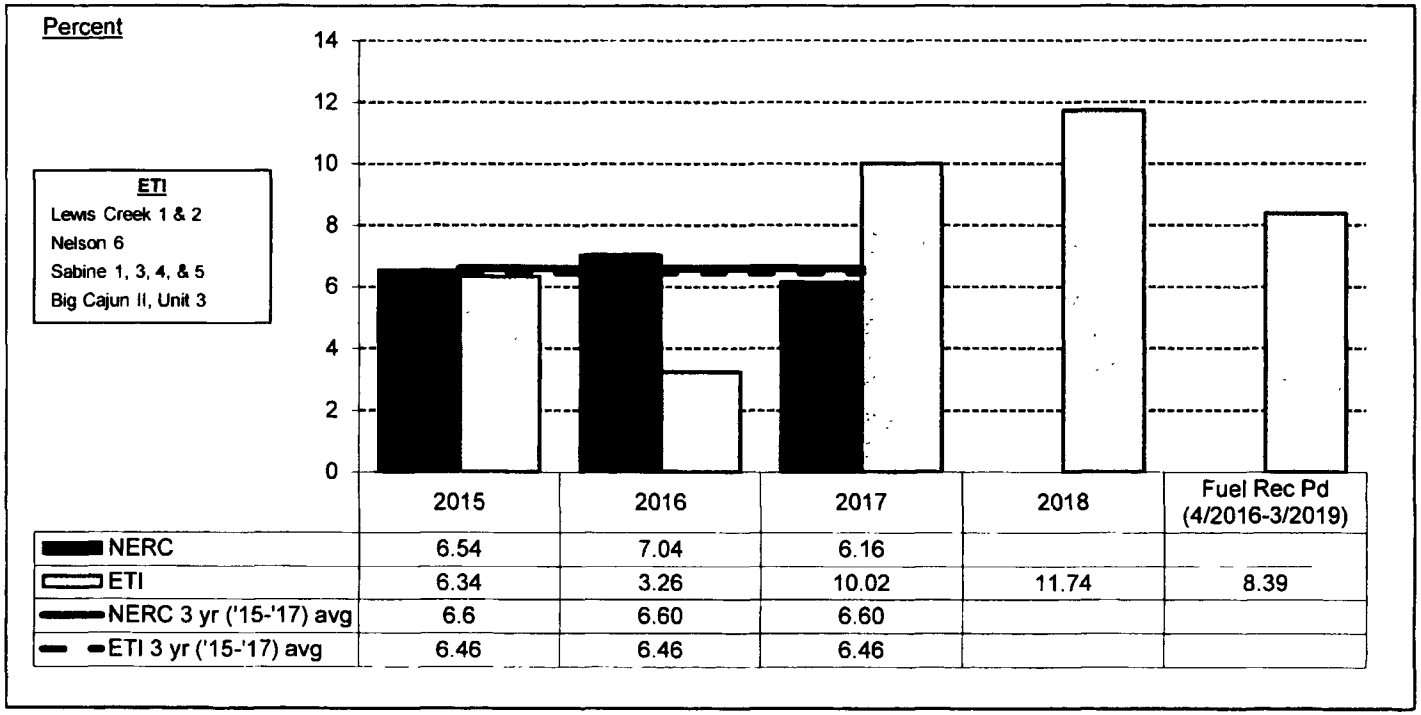
Source: NERC Averages. NERC pc-gar; Criteria: Coal fired 400 - 600 MW units.

SOF = [(Schedule Outage Hours x NMC)/(Period Hours x NMC)] x 100(%). Schedule Outage Hours = Sum of Planned and Maintenance Outage hours plus any Scheduled Outage Extension hours associated with those outages. NMC = Net Maximum Capacity

0691

Exhibit CBK-3
Docket No. 49916
Page 3 of 3

Entergy Texas, Inc.
Fossil Forced Outage Rate (FOR)
Industry Comparison
All Fossil Fuels 100 - 600 MW



	2015	2016	2017	2018	Fuel Rec Pd (4/2016-3/2019)
NERC	6.54	7.04	6.16		
ETI	6.34	3.26	10.02	11.74	8.39
NERC 3 yr ('15-'17) avg	6.6	6.60	6.60		
ETI 3 yr ('15-'17) avg	6.46	6.46	6.46		

Note: 2018 Benchmarking data is not yet available

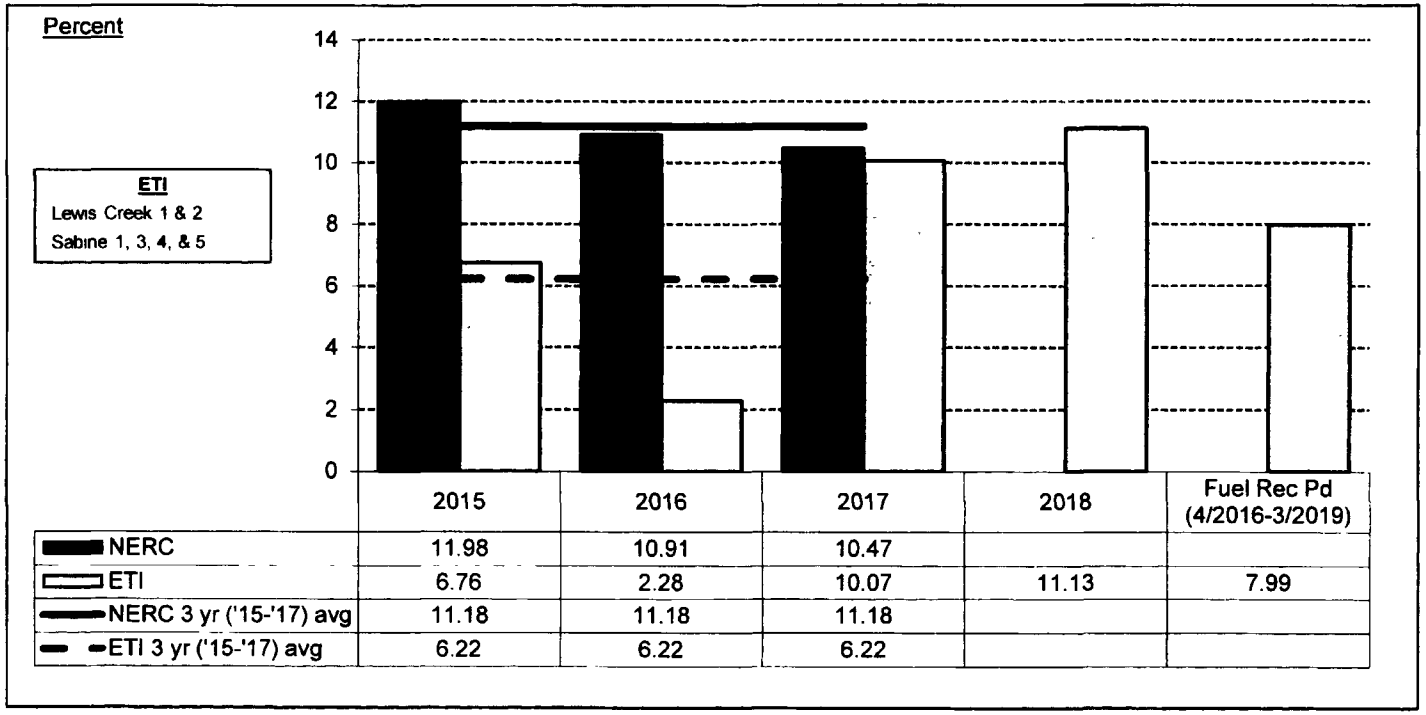
Source: NERC Averages. NERC pc-gar; Criteria: All Fossil Fuels 100 - 600 MW.

FOR = {(Forced Outage Hours x NMC)/ [(Forced Outage Hours + Service Hours) x NMC]} x 100 (%). NMC = Net Maximum Capacity

Exhibit CBK-4
Docket No. 49916
Page 1 of 3

0692

Entergy Texas, Inc.
Fossil Forced Outage Rate (FOR)
Industry Comparison
Gas Fired Units 100 - 600 MW



	2015	2016	2017	2018	Fuel Rec Pd (4/2016-3/2019)
NERC	11.98	10.91	10.47		
ETI	6.76	2.28	10.07	11.13	7.99
NERC 3 yr ('15-'17) avg	11.18	11.18	11.18		
ETI 3 yr ('15-'17) avg	6.22	6.22	6.22		

Note: 2018 Benchmarking data is not yet available

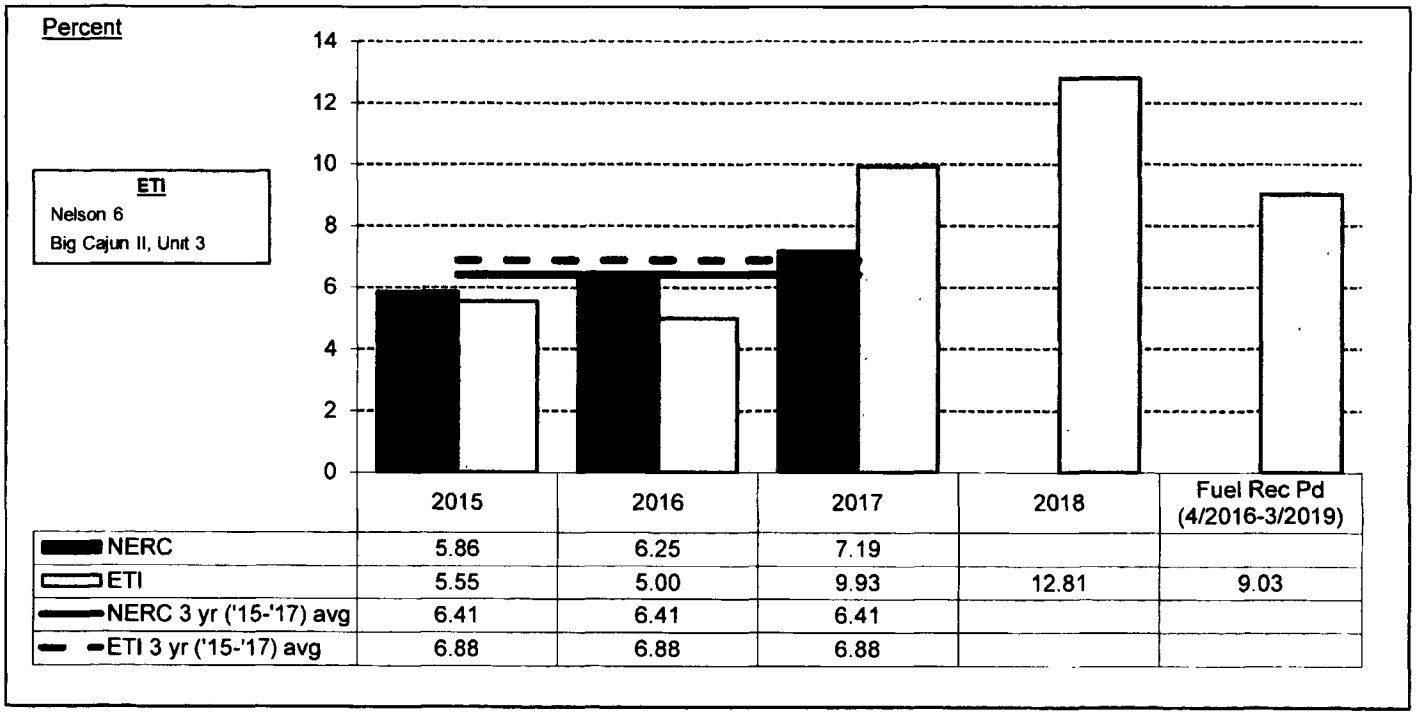
Source: NERC Averages. NERC pc-gar; Criteria: Gas fired 100 - 600 MW units.

FOR = {(Forced Outage Hours x NMC)/ [(Forced Outage Hours + Service Hours) x NMC]} x 100 (%) NMC = Net Maximum Capacity

Exhibit CBK-4
Docket No. 49916
Page 2 of 3

0693

Entergy Texas, Inc.
Fossil Forced Outage Rate (FOR)
Industry Comparisons
Coal Fired Units 400 - 600 MW



	2015	2016	2017	2018	Fuel Rec Pd (4/2016-3/2019)
NERC	5.86	6.25	7.19		
ETI	5.55	5.00	9.93	12.81	9.03
NERC 3 yr ('15-'17) avg	6.41	6.41	6.41		
ETI 3 yr ('15-'17) avg	6.88	6.88	6.88		

Note 2018 Benchmarking data is not yet available

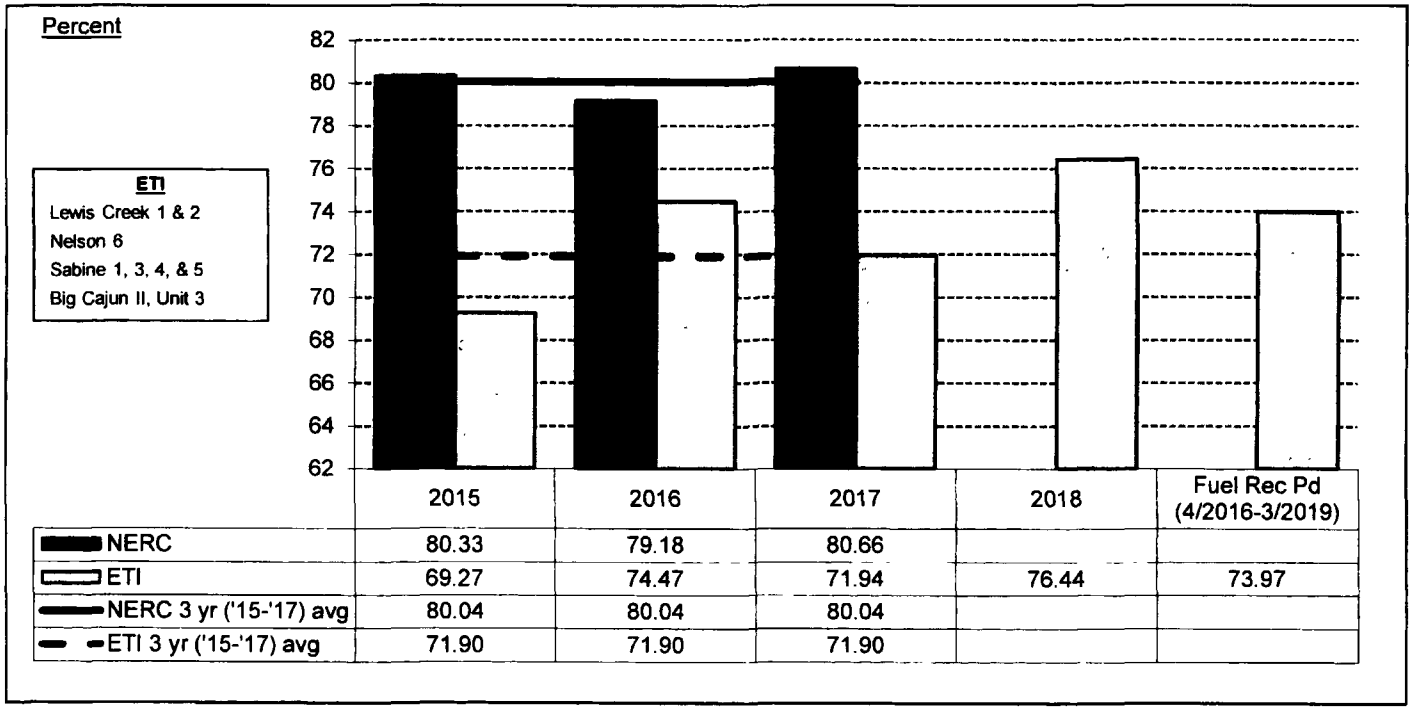
Source: NERC Averages. NERC pc-gar; Criteria: Coal fired 400 - 600 MW units.

FOR = {(Forced Outage Hours x NMC)/ [(Forced Outage Hours + Service Hours) x NMC]} x 100 (%) NMC = Net Maximum Capacity

Exhibit CBK-4
Docket No. 49916
Page 3 of 3

0694

Entergy Texas, Inc.
Fossil Equivalent Availability Factor (EAF)
Industry Comparison
All Fossil Fuels 100 - 600 MW



	2015	2016	2017	2018	Fuel Rec Pd (4/2016-3/2019)
NERC	80.33	79.18	80.66		
ETI	69.27	74.47	71.94	76.44	73.97
NERC 3 yr ('15-'17) avg	80.04	80.04	80.04		
ETI 3 yr ('15-'17) avg	71.90	71.90	71.90		

Note 2018 Benchmarking data not yet available.

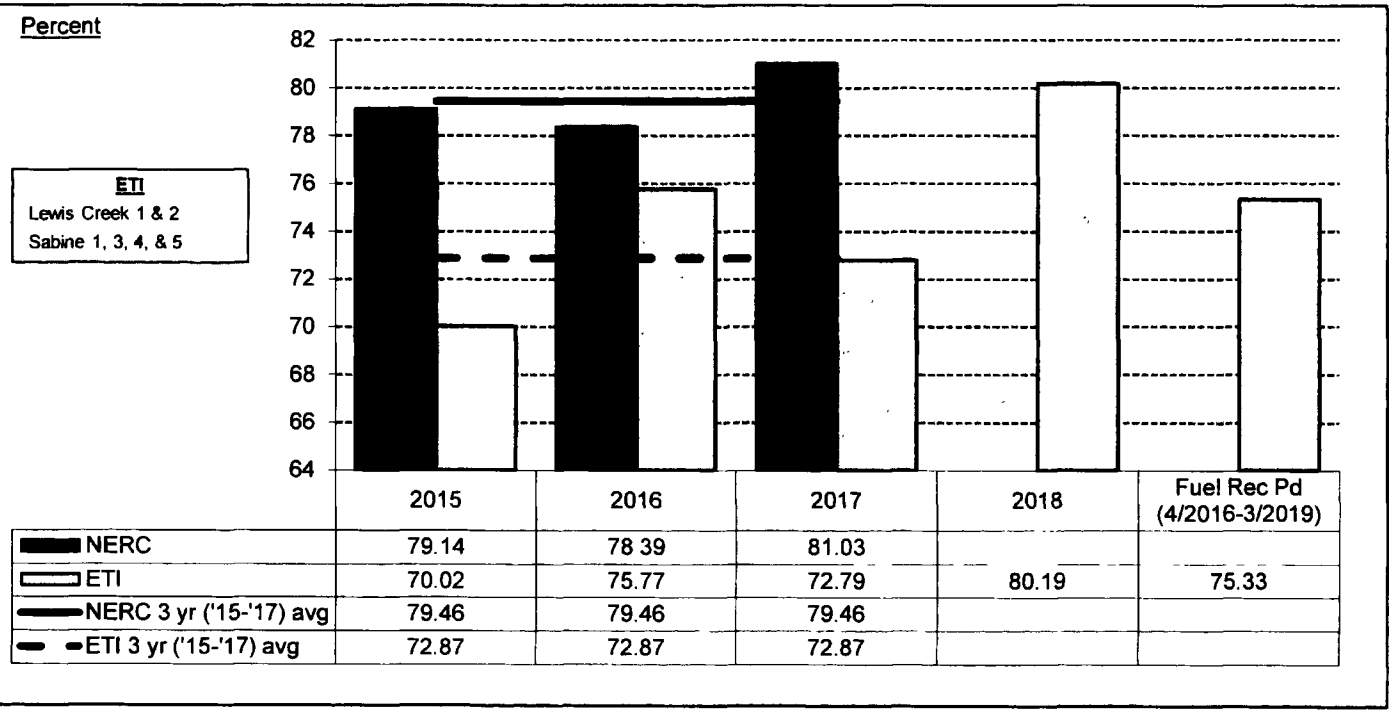
Source: NERC Averages. NERC pc-gar; Criteria: All Fossil Fuels 100 - 600 MW

EAF = {(Available Hours x NMC) – [(Equivalent Unplanned Derated Hours + Equivalent Planned Derated Hours = Equivalent Seasonal Derated Hours) x NMC]/(Period Hours x NMC)} x 100 (%) NMC = Net Maximum Capacity

Exhibit CBK-5
Docket No. 49916
Page 1 of 3

0695

Entergy Texas, Inc.
Fossil Equivalent Availability Factor (EAF)
Industry Comparison
Gas Fired Units 100 - 600 MW



	2015	2016	2017	2018	Fuel Rec Pd (4/2016-3/2019)
NERC	79.14	78 39	81.03		
ETI	70.02	75.77	72.79	80.19	75.33
NERC 3 yr ('15-'17) avg	79.46	79.46	79.46		
ETI 3 yr ('15-'17) avg	72.87	72.87	72.87		

Note 2018 Benchmarking data not yet available

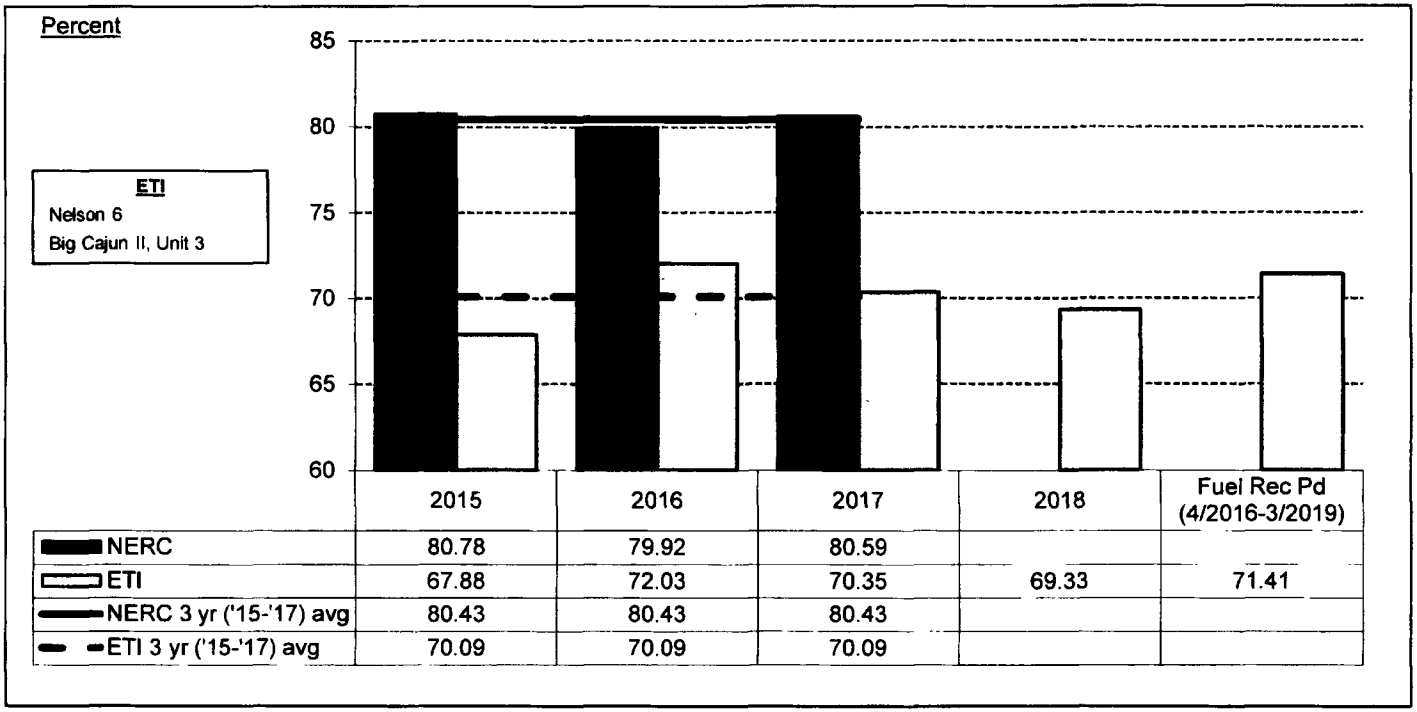
Source: NERC Averages. NERC pc-gar; Criteria: Gas fired 100 - 600 MW units.

EAF = {(Available Hours x NMC) – [(Equivalent Unplanned Derated Hours + Equivalent Planned Derated Hours = Equivalent Seasonal Derated Hours) x NMC]/(Period Hours x NMC)} x 100 (%) NMC = Net Maximum Capacity

Exhibit CBK-5
Docket No. 49916
Page 2 of 3

0696

Entergy Texas, Inc.
Fossil Equivalent Availability Factor (EAF)
Industry Comparisons
Coal Fired Units 400 - 600 MW



	2015	2016	2017	2018	Fuel Rec Pd (4/2016-3/2019)
NERC	80.78	79.92	80.59		
ETI	67.88	72.03	70.35	69.33	71.41
NERC 3 yr ('15-'17) avg	80.43	80.43	80.43		
ETI 3 yr ('15-'17) avg	70.09	70.09	70.09		

Note 2018 Benchmarking data not yet available

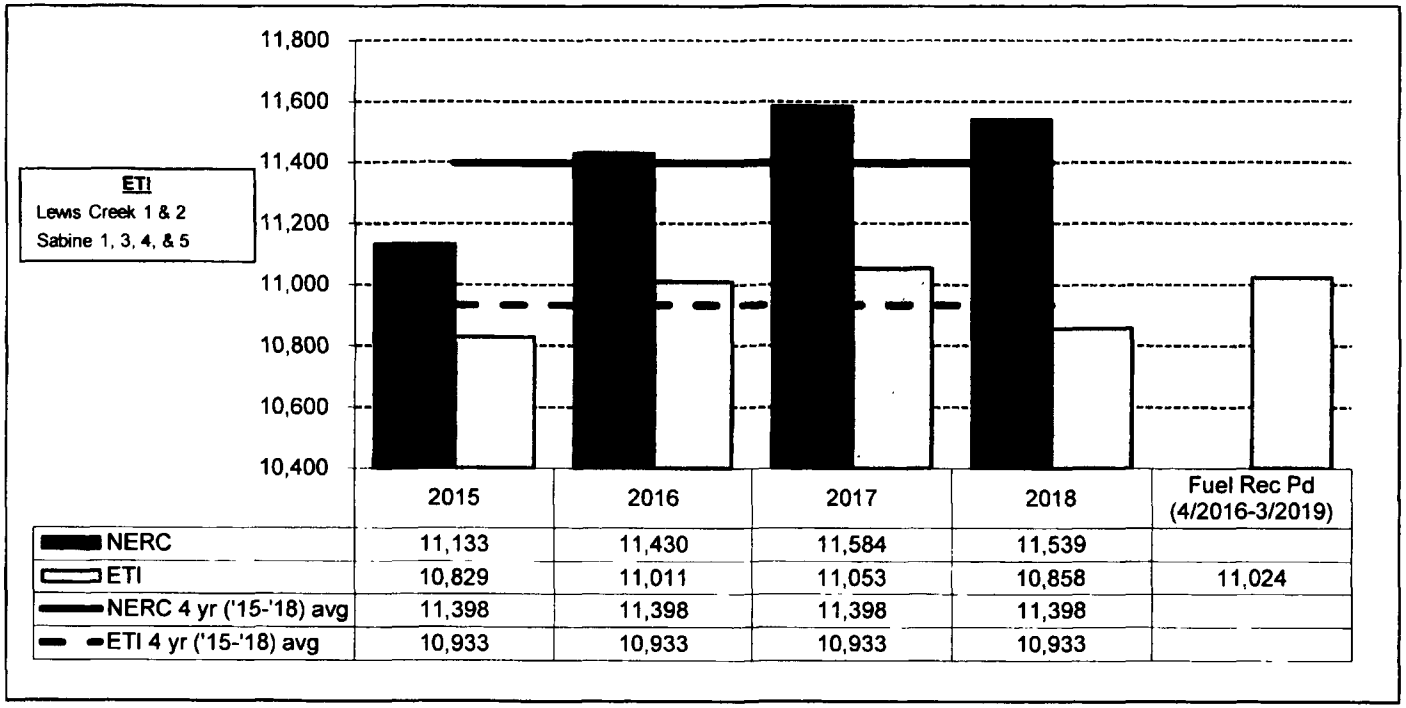
Source: NERC Averages. NERC pc-gar; Criteria: Coal fired 400 - 600 MW units.

EAF = {(Available Hours x NMC) – [(Equivalent Unplanned Derated Hours + Equivalent Planned Derated Hours = Equivalent Seasonal Derated Hours) x NMC]/(Period Hours x NMC)} x 100 (%). NMC = Net Maximum Capacity

Exhibit CBK-5
Docket No. 49916
Page 3 of 3

0697

Entergy Texas, Inc.
Gas Unit Heat Rate (Btu/kWh)
Industry Comparison



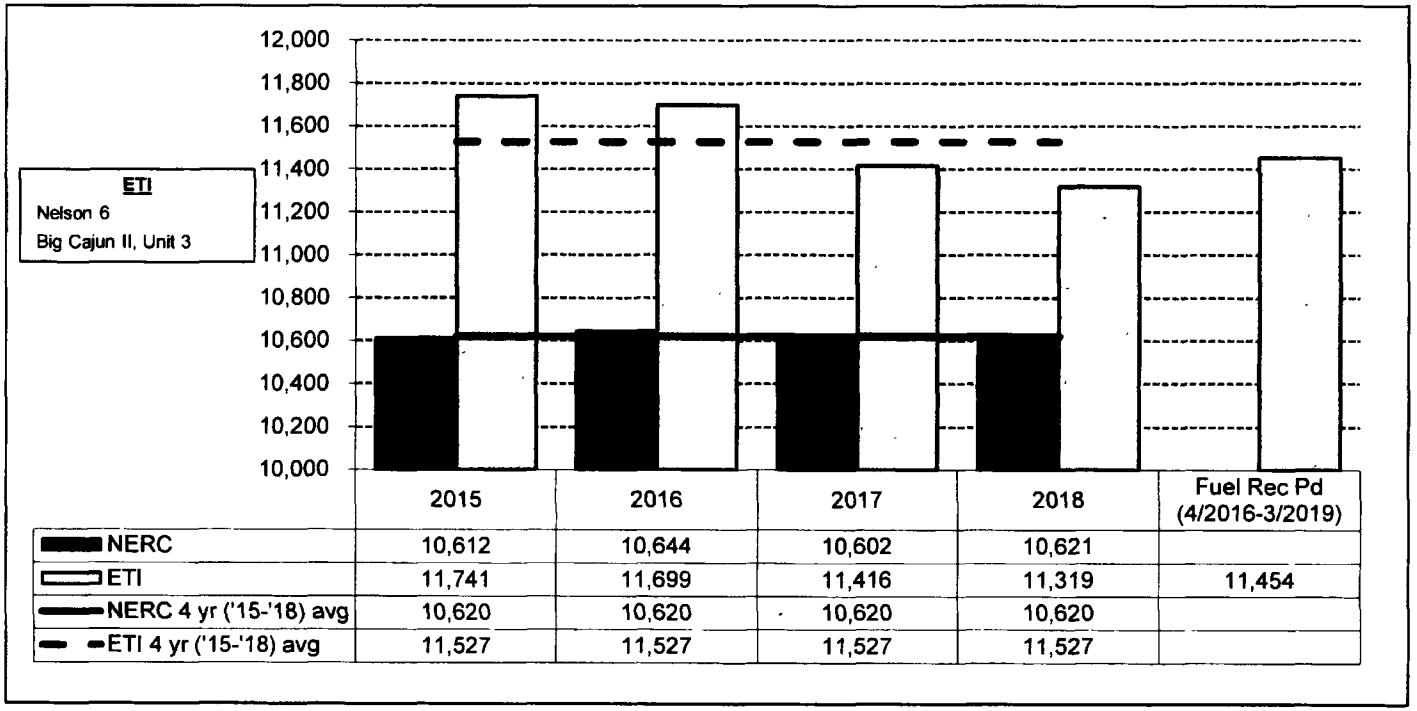
	2015	2016	2017	2018	Fuel Rec Pd (4/2016-3/2019)
NERC	11,133	11,430	11,584	11,539	
ETI	10,829	11,011	11,053	10,858	11,024
NERC 4 yr ('15-'18) avg	11,398	11,398	11,398	11,398	
ETI 4 yr ('15-'18) avg	10,933	10,933	10,933	10,933	

Source: S&P Market Intelligence as of 08/09/2019. NERC Region. ETI (Lewis Creek, Sabine)

Exhibit CBK-6
Docket No. 49916
Page 1 of 1

0698

Entergy Texas, Inc.
Coal Unit Heat Rate (Btu/kWh)
Industry Comparison – Subbituminous Coal



	2015	2016	2017	2018	Fuel Rec Pd (4/2016-3/2019)
NERC	10,612	10,644	10,602	10,621	
ETI	11,741	11,699	11,416	11,319	11,454
NERC 4 yr ('15-'18) avg	10,620	10,620	10,620	10,620	
ETI 4 yr ('15-'18) avg	11,527	11,527	11,527	11,527	

Source: S&P Market Intelligence as of 08/09/2019. NERC Region. ETI (Nelson 6, Big Cajun II, Unit 3)

Exhibit CBK-7
Docket No. 49916
Page 1 of 1

SOAH DOCKET NO. 473-20-0259
PUC DOCKET NO. 49916

APPLICATION OF ENTERGY TEXAS, INC. FOR AUTHORITY TO RECONCILE FUEL AND PURCHASED POWER COSTS	§ § § §	BEFORE THE STATE OFFICE OF ADMINISTRATIVE HEARINGS

REBUTTAL TESTIMONY

AND EXHIBITS

OF

ANASTASIA R. MEYER

ON BEHALF OF

ENTERGY TEXAS, INC.

APRIL 2020

SOAH DOCKET NO. 473-20-0259
PUC DOCKET NO. 49916

APPLICATION OF ENTERGY TEXAS, INC. FOR AUTHORITY TO RECONCILE FUEL AND PURCHASED POWER COSTS	§ § § §	BEFORE THE STATE OFFICE OF ADMINISTRATIVE HEARINGS

TABLE OF CONTENTS

EXHIBITS

I. INTRODUCTION AND PURPOSE

Q1. PLEASE STATE YOUR NAME AND CURRENT BUSINESS ADDRESS.

A. My name is Anastasia R. Meyer. My business address is 10055 Grogans Mill Road, The Woodlands, Texas 77380.

Q2. ARE YOU THE SAME ANASTASIA R. MEYER WHO SUBMITTED DIRECT TESTIMONY IN THIS DOCKET?

A. Yes, I am.

Q3. WHAT IS THE PURPOSE OF YOUR REBUTTAL TESTIMONY?

A. The purpose of my rebuttal testimony is to respond to the claims by the Office of Public Utility Counsel's ("OPUC") witness, Scott Norwood, regarding the type of economic analysis that is required for ETI to demonstrate the benefits of operating ETI's generating units during the Reconciliation Period (April 1, 2016 to March 31, 2019).

Q4. WHAT CLAIMS DID MR. NORWOOD MAKE REGARDING THE REQUIRED ECONOMIC ANALYSIS FOR OPERATING ETI'S GENERATING UNITS?

A. Mr. Norwood claims that it is not possible to determine whether generation resources and purchased capacity levels or eligible fuel and purchased power expenses on ETI's system were necessary, reasonable, or prudent or whether the resultant fuel expense and purchased power costs requested by ETI are necessary and reasonable because 1) ETI allegedly provided no economic analysis to support

its planned retirement dates for the Company's generating units and 2) ETI has not prepared an integrated resource plan ("IRP") "to evaluate the optimal type and quantity of capacity required to reliably and economically operate its system."[1]

Q5. DID MR. NORWOOD MAKE ANY RECOMMENDATIONS REGARDING ETI'S SYSTEM PLANNING?

A. Yes. While he proposes no disallowance related to this issue, Mr. Norwood recommends that the Commission order ETI to: "(1) conduct the necessary system planning studies to support the Company's generation resource retirement dates, purchased power capacity decisions, and its decision to continue operating the Spindletop gas storage facility, and (2) present these analyses to support the prudence of its eligible fuel and purchased power expenses, along with its direct testimony in the Company's next fuel reconciliation case."[2]

Q6. HOW DO YOU RESPOND TO MR. NORWOOD'S CLAIMS?

A. I disagree with Mr. Norwood's claims and believe his corresponding recommendations should be rejected. First, Mr. Norwood is incorrect that ETI provided no economic analysis supporting its planning assumptions regarding when its current fleet of generation will be removed from service. ETI provided this information in response to discovery in this proceeding. I have provided as my

[1] Direct Testimony of Scott Norwood at 20-21.

[2] *Id.* at 22-23.

Exhibit ARM-R-1 the Company's response to OPUC 5-17, which includes several unit-specific analyses of the supply role and viability of ETI's gas-fired steam generators located at the Lewis Creek and Sabine plants. I will discuss those studies later, as they are part and parcel of ETI's long-term resource planning process.

Second, ETI is not required to prepare an IRP and has not done so for many years. This fact does not mean the Company has failed to engage in economic, prudent resource planning. ETI undertakes significant analysis to develop and periodically update its long-range supply plan to provide reliable service to customers at the lowest reasonable cost. This is true for both deactivations and the procurement of new resources. For instance, during the Reconciliation Period, ETI retired Sabine Unit 2 prior to its originally scheduled retirement date after conducting an economic analysis that showed that it would be more efficient to procure replacement power in the MISO market than to repair and maintain the unit. This decision was addressed in two prior Commission proceedings,[3] and no party complained that ETI made an uneconomic decision in those dockets, nor has Mr. Norwood made such an allegation here.

As far as the procurement of new resources, as a result of that long-term planning process, ETI is planning for and executing on a portfolio transformation plan to include new, more efficient combined-cycle gas turbine ("CCGT") and solar

[3] *See Application of Entergy Texas, Inc. for a Certificate of Convenience and Necessity to Construct Montgomery Power Station in Montgomery County*, Docket No. 46416, Direct Testimony of Stuart Barrett at 15-16; *Application of Entergy Texas, Inc. for Authority to Change Rates*, Docket No. 48371, Direct Testimony of Anastasia Meyer at 6-12.

resources to modernize its supply portfolio to serve customers' needs. This is exhibited by the planned addition of Montgomery County Power Station ("MCPS") and the recent requests for proposals ("RFP") for additional new supply resources.[4] These decisions are made based on extensive economic analyses, and are subject to Commission review in certificate of convenience and necessity proceedings. In July of 2017, which was during the Reconciliation Period, ETI obtained a CCN from the Commission to construct, own, and operate MCPS, based on findings that: "MCPS is a reasonable alternative to meet ETI's identified capacity and energy needs" and "[g]ranting a CCN for MCPS will enhance ETI's ability to procure long-term capacity, energy, and voltage support at a reasonable cost."[5]

In further responding to Mr. Norwood, I will first address ETI's long-term planning process, which is a much broader topic than he suggests, that encompasses planning to reliably and economically serve customers following the removal of a generating unit from service. I will then explain how, as part of its long-term resource planning, ETI employs reasonable assumptions regarding when each of its generation resources will be removed from active operations, or "deactivated."

[4] The 2019 ETI Solar RFP soliciting up to 200 MW of solar photovoltaic resources was issued in March 2019, and the upcoming 2020 ETI CCGT RFP targeting another 1,000 – 1,200 MW of CCGT capacity and energy located in ETI's service territory is expected to be issued in April 2020.

[5] Docket No. 46416, Order at Finding of Fact Nos. 34-35.

Q7. YOU USE THE TERM "DEACTIVATE," AND MR. NORWOOD USES THE TERM "RETIRE." DOES ETI USE THOSE TWO TERMS SYNONYMOUSLY IN ITS LONG-TERM RESOURCE PLANNING?

A. No. A decision to retire a unit is a permanent decision that has implications beyond resource planning (*e.g.*, how to account for any remaining invested capital for the unit and permanent relinquishment of transmission interconnection rights). As such, it is ETI's practice to make unit retirement decisions separate from resource planning. Thus, ETI does not set "planned retirement dates" as part of its long-term resource planning process.

In contrast, Mr. Norwood uses the term "retirement" in the resource planning context. I understand Mr. Norwood to be addressing the extent to which ETI evaluates whether it would be economic to remove a unit from service. ETI typically refers to this as a "deactivation" decision. As I explain later, the evaluation called for by Mr. Norwood is encompassed in the establishment of unit deactivation date assumptions as part of ETI's long-term resource planning. Accordingly, my testimony will address unit deactivation, not unit retirement.

II. RESOURCE PLANNING

Q8. PLEASE EXPLAIN WHY ETI IS NOT REQUIRED TO PREPARE AN IRP.

A. I understand that the Public Utility Regulatory Act and Commission rules at one time required that bundled utilities prepare comprehensive IRPs. That process involved holding "town hall" meetings to solicit customer preferences to be used to develop a coordinated preliminary demand and supply-side resource plan that

was submitted for Commission review. After Commission review, the final IRP became the basis for procuring the resources identified in the IRP to best meet customers' needs.

That IRP process was eliminated through a repeal of the relevant governing laws and Commission rules in 1999. Thus, there is no longer an obligation to prepare an IRP. Now, the deployment of demand-side resources is conducted pursuant to the Commission's energy efficiency rules, and the identification and procurement of supply-side resources is left to the discretion of the bundled utility, subject to Commission review.

Q9. IS MR. NORWOOD AWARE OF THE FACT THAT THERE IS NO REQUIREMENT THAT A BUNDLED TEXAS UTILITY SUCH AS ETI CONDUCT AN IRP?

A. Yes. I have provided as my Exhibit ARM-R-2 several discovery responses wherein Mr. Norwood recognizes that is the case. He goes on to acknowledge that reasonable resource planning can be accomplished through comparable comprehensive planning and economic analysis. I explain below that ETI does, in fact, undertake a comprehensive long-term resource planning process that entails a thorough economic analysis of supply options.

Q10. ON WHAT BASIS DOES ETI CONDUCT ITS LONG-TERM RESOURCE PLANNING?

A. ETI's conducts its long-term resource planning pursuant to the following primary objectives:

- ***To serve customers' power needs reliably***, helping to meet the energy needs of the homes, businesses, and communities ETI serves now and in the future.
- ***To reliably provide power at the lowest reasonable supply cost***, by pursuing a diverse mix of energy resources, new generation techniques, and customer-centric technological innovations.
- ***To mitigate exposure to risks that may affect customer cost or reliability***, keeping energy as affordably priced and reliable for ETI customers as possible.

Further, ETI's long-term planning process is guided by the following principles to support the planning objectives identified above:

- ***Capacity*** – Provide adequate capacity to meet customer needs.
- ***Base Load Production Cost*** – Meet base load requirements to keep costs stable.
- ***Load Following Production Cost*** – Respond to the varying needs of customers based on a number of factors.
- ***Modern Portfolio*** – Leverage ETI's modern, efficient resources while evaluating economics and reliability associated with less efficient legacy units.
- ***Price Stability*** – Mitigate exposure to price volatility.
- ***Supply Diversity*** – Diversify technology, location, capital commitments, and supply channels.
- ***In-Region Resources*** – Leverage a variety of in-region resources to meet customers' needs reliably and affordably.

Q11. PLEASE DESCRIBE THE PROCESS ETI UNDERTAKES TO PLAN FOR RESOURCES CONSISTENT WITH THOSE LONG-TERM PLANNING PRINCIPLES AND OBJECTIVES.

A. ETI's long-term planning process begins with preparation of a long-term monthly kWh consumption sales forecast, which is developed by using historical billed sales volumes and customer counts, historical weather data, econometric drivers and input from larger customers to estimate future consumption. Importantly, this process takes into consideration expected changes in customer demand from organic energy efficiency opportunities as well as from the deployment of energy efficiency measures and programs pursuant to the Commission's energy efficiency rules. In addition, the forecasted monthly consumption volumes include estimates for other items such as expected future use of electric vehicles, which would increase consumption, and the incremental addition of behind-the-meter (*e.g.*, rooftop) solar facilities, which would decrease consumption. The monthly consumption forecast is then converted to an hourly load forecast by applying historical profiles to the monthly energy volumes to develop peak and hourly estimates for use in the long-term planning process.

Q12. WHAT IS THE NEXT STEP IN ETI'S LONG-TERM PLANNING PROCESS?

A. ETI next assesses the capability of its existing resources to serve the forecasted load plus a reserve margin at the lowest reasonable cost over a 20-year planning horizon to identify any shortfall in capacity that ETI must plan to fill. In conducting long-term resource planning, the Company analyzes not only its overall capacity needs,

but also its need for capacity that serves specific supply roles, such as: base load, core and seasonal load following, peaking, and reserve. Having the right amount of capacity that is suitable to serve each of these supply roles allows the Company to develop a resource portfolio that will efficiently, cost-effectively, and reliably serve the time-varying level of customer load.

Each supply resource has its own unique cost and performance characteristics that make it functionally and economically suited to serving certain supply roles. Base load resources typically cost more to construct per MW, but operate with relatively low variable cost and, because the resource is expected to operate in most hours at high utilization levels, the total supply cost is relatively low on a $/MWh basis. Conversely, a peaking or reserve unit is expected to operate at low utilization levels and higher variable costs but typically has a relatively low capital cost and, therefore, is the most economical alternative when utilized in a peaking or reserve role. Load following units have moderate capital cost and variable cost.

In the MISO markets, portfolio balance also means having resources capable of supplying energy into the day-ahead and real-time markets at roughly the same volumes and same times as is expected to be purchased from those markets to serve customers. In this manner, the locational marginal prices ("LMP") paid to ETI's generation serve to offset the LMPs paid by the load. Such alignment of resource supply roles with the characteristics of customer load shape mitigates exposure to energy price risk.

Q13. HOW DOES ETI DETERMINE THE APPROPRIATE MIX OF RESOURCES IN ITS SUPPLY PORTFOLIO?

A. Planning Analysis is the group within Entergy Services, LLC's ("ESL") System Planning and Operations ("SPO") organization that is responsible for supporting economic and financial evaluation of generation supply resources for the Entergy Operating Companies, including ETI. Planning Analysis assists ETI in developing its long-term plans to satisfy the Company's resource adequacy and planning reserve requirements. As part of those processes, Planning Analysis maintains a current view of the types and costs of resources available to meet the resource needs and provide reliable service at the lowest reasonable cost (*e.g.*, CCGT, simple-cycle and aeroderivative combustion turbines, biomass, reciprocating internal combustion engines, utility-scale solar photovoltaic, and battery storage). Planning Analysis assists ETI in the modeling of those various resource options using an industry-standard tools (*e.g.*, the AURORA production cost model) to identify the supply portfolio that will best serve customers consistent with the Company's long-term planning objectives and principles.

Q14. PLEASE ELABORATE ON ETI'S USE OF THE AURORA PRODUCTION COST MODEL TO SUPPORT ITS LONG-TERM PLANNING.

A. SPO's Planning Analysis group has used AURORA, developed by EPIS, Inc., for MISO energy market modeling and long-term supply cost planning since April 2011. AURORA has been used in the industry for power market modeling and price forecasting since 1997. Its use has grown steadily for over 20 years, and it is

now used by over 80 organizations worldwide. These organizations range from large investor owned utilities to small public utilities. Results from AURORA have been used in rate cases, integrated resource plans (where they are required), and other regulatory proceedings. Other organizations that use AURORA include regulators and planning authorities (such as the North American Electric Reliability Corporation), traders, independent power producers and developers, research institutions, and electric industry consultants.

The AURORA model includes all generation and load across about 1/3 of the Eastern Interconnect, including the Entergy Region (MISO South), traditional MISO (MISO North), Southern, Tennessee Valley Authority, Associated Electric Cooperative, Inc., and the Southwest Power Pool Regional Transmission Organization. AURORA simulates hourly economic dispatch and projects generation and energy prices based on the load and generation represented in the model and the associated generation costs. The AURORA model also includes a capacity expansion function that identifies the economic type, amount and timing of supply-side resources needed to serve load and satisfy reserve margin requirements. Thus, the AURORA model evaluates both the capacity and energy effects of potential resource additions.

As part of its ongoing long-term planning process, Planning Analysis uses the AURORA model, as needed, to assess a reference case and high and low cases representing a reasonable range of potential futures on ETI's system based on assumptions around such things as natural gas prices, customer load, and carbon regulation. The most recent example of the use of AURORA in ETI's long-term

planning process is the 2020 ETI Portfolio Evaluation provided in Exhibit ARM-R-1. This process involved using the AURORA model to run several iterations of differing scenarios to, as Mr. Norwood puts it, "evaluate the optimal type and quantity of capacity required to reliably and economically operate [ETI's] system."[6]

Q15. DID ETI FOLLOW THIS LONG-TERM PLANNING PROCESS DURING THE RECONCILIATION PERIOD?

A. Yes. Exhibit ARM-R-3 includes presentations setting out the results of the Company's load forecasts and supply plans prepared during the Reconciliation Period pursuant to the long-term planning process I describe above. Exhibit ARM-R-4 presents similar information in spreadsheet form, including ETI's load and capability forecast and planned unit deactivations and additions.

III. UNIT DEACTIVATIONS

Q16. DOES ETI'S LONG-TERM PLANNING PROCESS INCLUDE ANALYSIS OF THE ECONOMIC VIABILITY OF ITS EXISTING GENERATION?

A. Yes. That is accomplished through the development of unit deactivation date assumptions that are incorporated into the assessment of the capability of ETI's existing resources to serve forecasted load, as I describe above. A unit deactivation

[6] Direct Testimony of Scott Norwood at 20.

date assumption represents the Company's view of the point in time when it will no longer be economic to keep a unit in service.

Q17. WHO DEVELOPS THE GENERATING UNIT DEACTIVATION DATE ASSUMPTIONS USED IN ETI'S LONG-TERM PLANNING?

A. ESL's Power Generation group develops deactivation date assumptions for generating units, which are then incorporated into the analyses supporting ETI's long-term planning. ETI does not issue a planned retirement schedule that ignores evolving economic conditions and circumstances, but instead uses deactivation assumptions for planning purposes as described below.

Q18. HOW DOES THE POWER GENERATION GROUP ARRIVE AT ITS UNIT DEACTIVATION ASSUMPTIONS?

A. The process used to develop unit deactivation assumptions for planning and the scope of analysis performed to support a decision to actually remove a unit from active service is a robust process that is based on economic and operational considerations. The Power Generation organization is tasked with continuously monitoring, ascertaining the condition of and budgeting for the power generation fleets of the Entergy Operating Companies, including ETI. As part of those duties, Power Generation estimates deactivation dates for each unit by considering a number of factors, including the age, condition, and current operating role of each unit. However, the deactivation assumptions developed by the Power Generation group do not constitute fixed dates to which ETI adheres regardless of evolving unit

conditions, market economics, and other considerations. Rather, they are planning assumptions that appropriately incorporate the best information available at the time.

Q19. ARE THE ASSUMPTIONS EVER MODIFIED?

A. Yes. Deactivation assumptions are changed based on the projected cost to maintain a generating unit, which can be affected by unexpected equipment degradation or failure, unanticipated operational requirements that affect unit condition, weather-related events, availability of replacement parts, and other factors affecting the projected cost to keep a unit in service. In addition, the estimated availability, cost, and performance characteristics of resource alternatives change over time. All of these variable factors may affect the economic and operational viability of existing generating units. These technical and budgetary assessments of power generation units are iterative processes that occur as part of the normal business planning process.

Q20. ARE THERE OTHER CONSIDERATIONS THAT FACTOR INTO DEVELOPMENT OF DEACTIVATION DATE ASSUMPTIONS?

A. Yes. The magnitude and timing of potential investments required to maintain a plant (in excess of routine operating and maintenance expenses) are uncertain and difficult to forecast, especially as units reach the end of their useful lives. However, for purposes of long-term planning, absent a material change in market conditions or major investment, it is generally a reasonable assumption to expect maintaining

an existing operating plant will be lower cost to customers than the capital cost to build a new generating facility in its place, unless circumstances affecting the cost to maintain or sustain the facility, market conditions, or policy changes dictate a more detailed evaluation. For example, in 2015, the Sabine Unit 2 experienced a forced outage that warranted a detailed evaluation to determine whether making the necessary repairs would be economical. I discussed the decision to deactivate Sabine Unit 2 in my Direct Testimony, and presented the complete underlying analysis supporting the decision in Docket No. 48371.[7] Another example is the Company's decision to make significant capital upgrades to the Lewis Creek units in 2006-2009 because that was the lowest cost option to assure regional reliability in the transmission-constrained Western Region of the Company's service territory. Those plant upgrades were designed to extend the useful life of the Lewis Creek units and, therefore, warranted extending the deactivation date assumptions for those units.

Q21. WHAT DOES A MORE DETAILED EVALUATION ENTAIL?

A. When circumstances arise that require a more detailed evaluation, the SPO Planning Analysis group will undertake more specific analyses by: 1) assessing the extent to which the deactivated capacity would leave ETI short of long-term resources, and 2) preparing cost/benefit analyses of unit deactivation compared to other alternative scenarios.

[7] *Application of Entergy Texas, Inc. for Authority to Change Rates*, Docket No. 48371, Direct Testimony of Anastasia Meyer (May 2018).

Q22. WHAT IS THE SCOPE OF THE COST/BENEFIT ANALYSES?

A. The scope of the cost/benefit analyses includes consideration of ETI's need for a portfolio of resources, serving a range of roles, to meet customer needs, which vary from time-to-time, at the lowest reasonable total supply cost. Unit-specific attributes, along with life-cycle considerations, also weigh heavily in deactivation decisions. ETI considers a variety of factors in determining which units are appropriate candidates for deactivation, including: size and vintage (*e.g.*, older, smaller units are better candidates for deactivation than are newer, larger units); operational characteristics (*e.g.*, diversity of fuel supplies, the ability to provide quick-start capacity, whether a unit was designed to operate as a "supercritical" unit); and real-time maintenance needs (*e.g.*, a unit that experiences a major equipment failure may be a good deactivation candidate). In addition, each generating unit's characteristics, contribution to reliability, role,[8] age, condition, fuel supply diversity, and planned capital and operations and maintenance projects are unique and continue to evolve over time. Decisions regarding planning for each unit's role, and the decision to deactivate any unit, must consider these and other unit-specific attributes, along with the suitable alternatives available.

Ultimately, when analyzing the economics of deactivating a particular unit, Planning Analysis seeks to compare the cost of continuing to maintain and operate that unit over a particular time frame at a particular level of reliability to the cost of

[8] For example, as Mr. Norwood acknowledged on pages 17-18 of his direct testimony, "ETI relies on Sabine 3 to produce a significant amount of energy to serve its customers in its east Texas service area; therefore, it is important that availability of the generating unit be maintained at acceptable levels."

deactivating that unit and obtaining comparable replacement capacity over a similar time frame. In determining what constitutes comparable replacement capacity, Planning Analysis considers a number of factors, including the age, size, and supply role of the unit that may be deactivated.

For example, in analyzing the economics of deactivating a 200 MW, 50 year-old gas-fired steam generator, Planning Analysis might consider the cost of purchasing capacity for two years in the Midcontinent Independent System Operator, Inc. Planning Resource Auction under certain capacity price sensitivities.

On the other hand, in analyzing the economics of a major reliability-sustainability investment to achieve the assumed useful life of a 375 MW, 40 year-old coal unit, Planning Analysis might consider the cost of new-build capacity as a suitable alternative. The goal in each instance is to identify the lowest reasonable cost comparable alternative that will ensure customers receive reliable service.

Q23. WHAT ARE ETI'S CURRENT DEACTIVATION DATE ASSUMPTIONS?

A. ETI's current deactivation date assumptions for its generating units are provided in my Exhibit ARM-R-5, which is the Company's response to OPUC 1-7.

Q24. YOU PREVIOUSLY NOTED THAT, CONTRARY TO MR. NORWOOD'S ASSERTION, ETI PROVIDED IN DISCOVERY SEVERAL ECONOMIC ANALYSES SUPPORTING DEACTIVATION DATE ASSUMPTIONS FOR CERTAIN UNITS. PLEASE DISCUSS THE TIMING AND SCOPE OF THOSE ANALYSES?

A. ETI produced the results of six different analyses in response to OPUC 5-17, which is my Exhibit ARM-R-1. They are as follows:

- **2020 ETI Portfolio Evaluation** – ETI's most recent long-term supply plan where one of the supply portfolios analyzed included keeping Sabine Unit 4 in service for an additional eight years beyond its current deactivation date assumption.[9]

- **2016 Sabine Early Deactivation** – An analysis of the economics of deactivating Sabine Units 1 and 3 earlier relative to building either new transmission capacity to facilitate purchasing replacement capacity or a new CCGT as replacement capacity.[10]

- **2009 Western Region** – An analysis of the performance and condition of the Lewis Creek units and their importance to regional reliability.[11]

- **2007 Lewis Creek Analysis** – An analysis of the effect of the timing of planned capital upgrades at the Lewis Creek units on ETI's ability to serve forecasted loads.[12]

- **2007 WOTAB/Western WOTAB Generation Status and Supply Roles** – An analysis of the performance and condition of the Lewis Creek units and their importance to regional reliability.[13]

- **2006 Long Term Resource Requirements for Western WOTAB** – An analysis of options to support regional reliability in the transmission

[9] Exhibit ARM-R-1 at pp. 4-43.

[10] *Id.* at pp. 45-48.

[11] *Id.* at pp. 50-52.

[12] *Id.* at pp. 71-74.

[13] *Id.* at pp. 54-69.

constrained Western portion of ETI's service territory, which included assessment of the age, condition and performance of the Lewis Creek units.[14]

Q25. ARE THERE ANY RECENT ANALYSES PERTAINING TO ETI'S COAL GENERATION?

A. No, for several reasons. First, the current deactivation date assumptions for ETI's coal units currently fall outside the 20-year planning horizon. Second, ETI is a minority owner in both its coal resources. As such, deactivation decisions are not solely up to ETI. Third, neither the majority owners of those resources nor ETI have identified any material change in unit or market conditions that would warrant revisiting the current deactivation date assumptions for those baseload units at this time.

IV. CONCLUSION

Q26. PLEASE SUMMARIZE YOUR RESPONSE TO MR. NORWOOD.

A. I have explained that ETI engages in comprehensive long-term resource planning to identify the portfolio of resources that will provide reliable service to customers as the lowest reasonable cost, which long-term planning includes reasonable analyses regarding and planning assumptions for deactivation of its existing generation resources. Accordingly, Mr. Norwood's recommendations are unnecessary and should be rejected.

[14] *Id.* at pp. 76-84.

Q27. DOES THIS CONCLUDE YOUR REBUTTAL TESTIMONY?

A. Yes.

EXHIBIT ARM-R-1 (HSPM)

This exhibit contains information that is highly sensitive and will be provided under the terms of the Protective Order entered in this case.

SOAH Docket No. 473-20-0259
PUC Docket No. 49916
OPUC's Response to Entergy Texas, Inc.'s
First Request for Information

ETI-OPUC 1-11:

Is Mr. Norwood aware of any requirement in the Texas Public Utility Regulatory Act ("PURA") or Commission rules that an electric utility operating in Texas prepare an Integrated Resource Plan ("IRP")? If so, please reference such requirement.

RESPONSE:

No. However, in order for electric utilities to demonstrate the need for and prudence of major electric utility supply-side resource investments, there must be a comprehensive and documented planning and evaluation process supporting such investments, similar to what would be provided by an IRP or other similar analysis.

Prepared by: Scott Norwood

Sponsored by: Scott Norwood

SOAH Docket No. 473-20-0259
PUC Docket No. 49916
OPUC's Response to Entergy Texas, Inc.'s
First Request for Information

ETI-OPUC 1-12:

Is Mr. Norwood aware of any Commission proceeding since the repeal of PURA Ch 34 in which the electric utility was required or ordered to prepare an IRP? If so, please provide the associated docket number.

RESPONSE:

No. However, Mr. Norwood is not aware of any regulatory approval of a major electric utility generating facility investment in Texas or other jurisdictions, in which the utility seeking approval of the investment did not present an IRP analysis or comparable comprehensive planning and economic analysis as a primary basis for supporting the need for and prudence of the generation facility investment.

Prepared by: Scott Norwood

Sponsored by: Scott Norwood

SOAH Docket No. 473-20-0259
PUC Docket No. 49916
OPUC's Response to Entergy Texas, Inc.'s
First Request for Information

ETI-OPUC 1-13:

Please admit or deny that reasonable system planning by an electric utility can be accomplished without the preparation of an IRP. If your response is anything other than an unqualified "Admit," please explain your response.

RESPONSE:

Admit. However, it is normally desirable to have systematic and thorough system planning and economic analysis that integrates the evaluation of supply and demand-side resources over a study period with due consideration given to uncertainty in variables that influence the level of system production costs, as is provided under most IRP studies.

Prepared by: Scott Norwood

Sponsored by: Scott Norwood

EXHIBIT ARM-R-3 (HSPM)

This exhibit contains information that is highly sensitive and will be provided under the terms of the Protective Order entered in this case.

EXHIBIT ARM-R-4 (HSPM)

This exhibit contains information that is highly sensitive and will be provided under the terms of the Protective Order entered in this case.

EXHIBIT ARM-R-5 (HSPM)

This exhibit contains information that is highly sensitive and will be provided under the terms of the Protective Order entered in this case.

SOAH DOCKET NO. 473-20-0259
PUC DOCKET NO. 49916

APPLICATION OF ENTERGY TEXAS, INC. FOR AUTHORITY TO RECONCILE FUEL AND PURCHASED POWER COSTS	§ § § §	BEFORE THE STATE OFFICE OF ADMINISTRATIVE HEARINGS

REBUTTAL TESTIMONY

OF

DEVON S. JAYCOX

ON BEHALF OF

ENTERGY TEXAS, INC.

APRIL 2020

91

ENTERGY TEXAS, INC.
REBUTTAL TESTIMONY OF DEVON S. JAYCOX
SOAH DOCKET NO. 473-20-0259
PUC DOCKET NO. 49916

TABLE OF CONTENTS

EXHIBITS

I. INTRODUCTION AND PURPOSE

Q1. PLEASE STATE YOUR NAME, BUSINESS ADDRESS, EMPLOYER AND JOB TITLE.

A. My name is Devon S. Jaycox. My business address is Entergy Services, LLC, Parkwood II Building, Suite 300, 10055 Grogans Mill Road, The Woodlands, Texas 77380.

Q2. ARE YOU THE SAME DEVON S. JAYCOX WHO SUBMITTED DIRECT TESTIMONY IN THIS DOCKET?

A. Yes, I am.

Q3. WHAT IS THE PURPOSE OF YOUR REBUTTAL TESTIMONY?

A. I respond to Office of Public Utility Counsel ("OPUC") witness Mr. Scott Norwood's assertion that $24.4 million incurred during the Reconciliation Period to operate the Spindletop Gas Storage Facility ("Spindletop") should be disallowed. I explain that such costs were reasonably incurred and that Spindletop provides valuable flexibility and reliability of gas supply at a lower cost than comparable services could otherwise be obtained from the natural gas commodity and pipeline markets.

II. RESPONSE TO MR. NORWOOD

Q4. PLEASE SUMMARIZE THE CONCLUSIONS OF MR. NORWOOD WITH REGARD TO THE OPERATING COSTS OF THE SPINDLETOP GAS STORAGE FACILITY.

A. Mr. Norwood recommends a disallowance of 100% of the operating costs related to Spindletop. His recommendation essentially turns on his assertion that the Company failed to demonstrate through cost/benefit analysis, testimony, or discovery that the cost to operate Spindletop was necessary, economically justified, or beneficial to its customers. He maintains that the Spindletop operating costs are too high and should therefore be disallowed in their entirety.

Q5. IS THERE ANY BASIS FOR THIS DISALLOWANCE?

A. No. As I testified in my direct testimony, the Spindletop facility provides two principal services that benefit ETI customers: (1) supply reliability and (2) hourly and daily swing flexibility. In the absence of Spindletop, ETI would need to replace those services with other market-priced alternatives. ETI has demonstrated, as discussed below, that the cost to operate Spindletop is lower than the cost of such market alternatives. Accordingly, there is no basis for disallowing any portion of the cost to operate this facility.

As recently as August 2018, a different OPUC witness, Constance Cannady, recognized the value of the services provided by Spindletop, conceding that

"Spindletop is used and useful in providing service to Texas customers."[1] And yet, by proposing to disallow the full cost of Spindletop, Mr. Norwood is essentially arguing, not just that ETI could have obtained these services more economically (which is not true), but that there is *no value* in supply reliability or hourly and daily swing flexibility. No evidence supports Mr. Norwood's recommendation, and it should be rejected in its entirety.

Q6. PLEASE ELABORATE REGARDING THE TWO PRINCIPAL SERVICES PROVIDED BY SPINDLETOP?

A. As I explain in my Direct Testimony, Spindletop serves two important functions. First, the natural gas in storage assures a reliable supply of natural gas to both the Sabine and Lewis Creek plants in the event natural gas supplies are disrupted for a period of time. A reliable supply of fuel to those two plants is critical, as they comprise nearly half of the generation capacity ETI relies on to provide reliable service to its customers.[2]

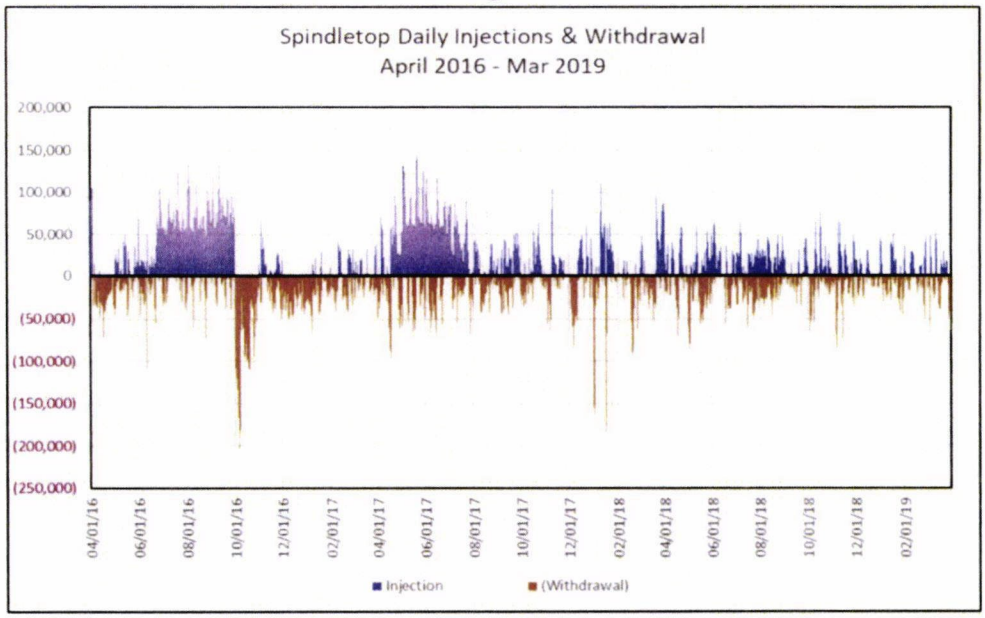
Second, Spindletop provides the Sabine plant a flexible supply of fuel, which is also important in that the Sabine units are routinely called upon by MISO to be dispatched to follow load as it varies over time. Spot gas is generally delivered ratably over the contract period such that the contracted volumes are delivered in equal amounts every hour. If the Company wishes to deviate from this ratable flow,

[1] *Application of Entergy Texas, Inc. for Authority to Change Rates*, Docket No. 48371, Direct Testimony of Constance T. Cannady at p. 26, ll. 7-8.

[2] *See* Exhibit ARM-R-1 (Attachment 3 – 2009 Western Region), which illustrates the criticality of the Lewis Creek unit to serving load in the Western Region load pocket.

the pipeline and/or the supplier will typically charge an additional amount for this "swing" flexibility. Greater swing requirements will, of course, demand a higher fee. In the case of ETI, its generating plants must adjust their generation to follow customer load. This means that during high-load situations, such as on-peak, the plants may be at or near their peak generating capacity and must therefore have gas available on demand to be able to achieve that peak requirement. During off-peak hours, however, those same plants may be required to turn down their generation to minimum load capacity. As a result, gas supplies delivered into the plant during low-load hours must also be significantly reduced. Generally, this degree of swing flexibility can only be provided under firm contracts, either with the pipeline, the supplier, or both. At Sabine Station, this swing flexibility is principally managed through Spindletop, which allows ETI to withdraw or inject natural gas to match the varying consumption patterns of the Sabine units. Figure 1, below, shows the daily injections and withdrawals at Spindletop during the Reconciliation Period.

Figure 1



Q7. MR. NORWOOD CITES SEVERAL REASONS WHY HE BELIEVES THE COST OF OPERATING SPINDLETOP WAS NOT JUSTIFIED DURING THE RECONCILIATION PERIOD – THE MARKET PRICE OF NATURAL GAS HAS DECLINED SIGNIFICANTLY OVER THE LAST SEVERAL YEARS, ETI EXITED THE ENTERGY SYSTEM AGREEMENT, AND ETI JOINED MISO.[3] HAVE ANY OF THOSE EVENTS RENDERED OPERATION OF SPINDLETOP UNECONOMIC?

A. No. I will first address ETI's exit from the Entergy System Agreement. That event occurred when the System Agreement was terminated, at 11:59 PM on August 31, 2016. As noted above, in August 2018, well after that event, OPUC witness Constance Cannady acknowledged that Spindletop is used and useful to the provision of service to ETI's customers.[4] Mr. Norwood provides no basis for his speculative position that ETI's exit from the System Agreement "may" have affected the value of Spindletop, and has not explained any reason for his apparent disagreement with Ms. Cannady.

Moreover, ETI's exit from the System Agreement did not alter the importance of Spindletop to providing fuel supply reliability and flexible daily and hourly swing service on behalf of ETI's customers. Spindletop continues to support the ability of Sabine to respond to dispatch signals in order to provide load-following capability. As I explain in my Direct Testimony, ETI relies on the Sabine

[3] Norwood Direct at p. 13.

[4] *Entergy Texas, Inc.'s Statement of Intent and Application for Authority to Change Rates*, Docket No. 48371, Direct Testimony of Constance Cannady at p. 25 (Aug. 1, 2018).

units and their ability to make use of Spindletop and the natural gas in storage to serve the day-to-day and hourly variations in customer demand. Figure 1, above, shows the variation in daily injections and withdrawals from Spindletop made during the Reconciliation Period to support that supply role, including during the period after ETI exited the Entergy System Agreement.

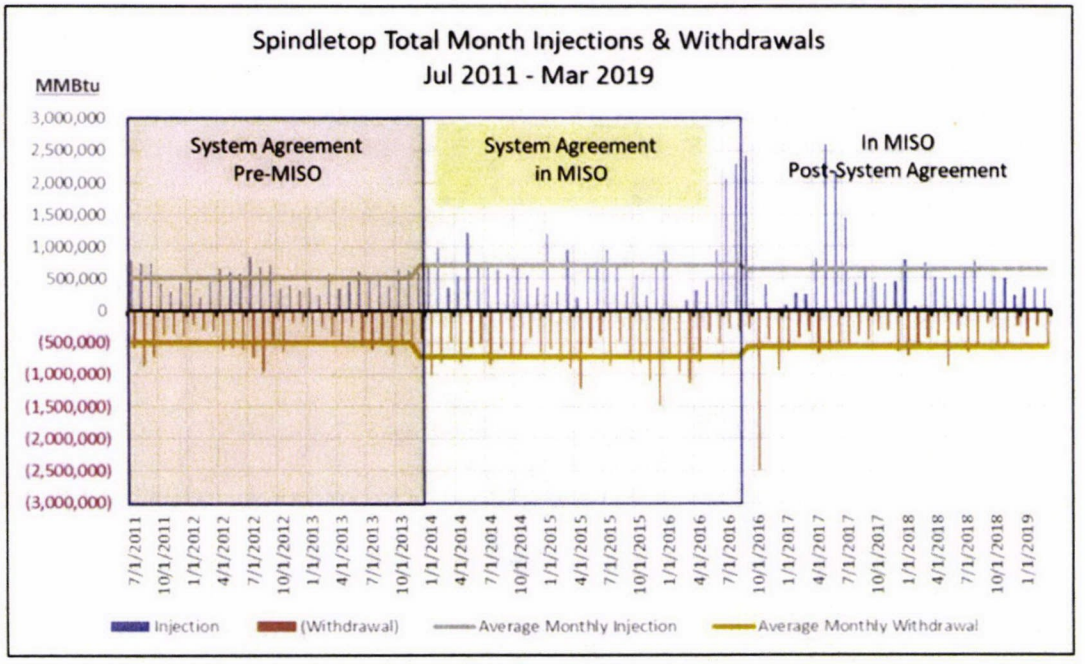
Q8. HAS ETI'S MEMBERSHIP IN MISO DIMINISHED THE VALUE OF OPERATING SPINDLETOP?

A. No. ETI plans and operates its generation resources with the objective of being capable of supplying energy into the MISO day-ahead and real-time markets at roughly the same volumes and same times as is expected to be purchased from those markets to serve customers. In this manner, the locational marginal prices ("LMP") paid to ETI's generation serve to offset the LMPs paid by the load. Such alignment of generation resources with the characteristics of customer load shape mitigates exposure to energy price risk. Thus, in the MISO markets, it remains important to have sufficient resources that are capable of following customer load. As I explain above and in my Direct Testimony, the Sabine units utilize Spindletop to serve that supply role.

Q9. HAVE THESE CHANGES IN ETI'S OPERATING ENVIRONMENT (EXIT FROM THE SYSTEM AGREEMENT AND ENTRANCE INTO MISO) SIGNIFICANTLY ALTERED THE MANNER IN WHICH ETI USES SPINDLETOP FOR SWING FLEXIBILITY?

A. No. Those two factors that Mr. Norwood cited as cause for concern have not had a noticeable effect on Spindletop operations. Figure 2, below, shows the total Spindletop monthly injections and withdrawals for the period July 2011 – March 2019:

Figure 2



The data for this chart is drawn from the current and the previous two fuel reconciliation periods. In addition, the chart shows the three periods referenced by Mr. Norwood. The first period shows Spindletop monthly injections and

withdrawals when ETI was under the System Agreement, but prior to its entry into MISO. The second period represents the period during which ETI was in MISO, and under the System Agreement. The last period shows Spindletop activity post-System Agreement, with ETI operating in MISO. In all three types of operating environments, Spindletop has been consistently employed to manage swing flexibility at Sabine Station through injections and withdrawals.

For further clarity, the following table shows the average monthly injections and withdrawals during these three periods:

Spindletop Activity Including Period of Cavern Tests		
	Avg Monthly Injections	Avg Monthly Withdrawals
Period 1: System Agreement, pre-MISO (Jul-11-Nov-13*)	522,339	(494,558)
Period 2: System Agreement, post-MISO (Dec-13-Aug-16)	714,527	(721,491)
Period 3: Post System Agreement, post-MISO (Sep-16-Mar-19)	655,669	(557,898)
Avg All Periods	634,978	(596,196)
*Joined MISO effective December 19, 2013.		

As this table illustrates, the Company's utilization of Spindletop to manage swing flexibility during Period 3 (as measured by total injections and withdrawals), after all of the operational changes noted by Mr. Norwood had occurred, was approximately 19% greater than during Period 1, before any of the changes had occurred.

Q10. DO CHANGES IN THE MARKET PRICE OF NATURAL GAS REDUCE THE NEED FOR SPINDLETOP TO PROVIDE SWING FLEXIBILITY TO THE SABINE PLANT?

A. No. Each day, the Company purchases gas according to its anticipated needs for the next day. As I discussed earlier, the delivery of this gas is largely made on a ratable basis with an equal amount delivered in every hour. Because the actual gas requirements will deviate from the ratable delivery throughout the day, ETI uses Spindletop to match Sabine plant's gas requirements with gas deliveries. When generating requirements dictate the need for more gas than is being delivered, the additional gas requirements will be withdrawn from storage. When generating load drops below the level of gas being delivered, the excess gas will be injected into storage. The market price of natural gas does not reduce the need for this flexibility.

Q11. MR. NORWOOD COMPARES THE COST OF OPERATING SPINDLETOP TO THE NON-FUEL O&M OF OPERATING THE LEWIS CREEK AND SABINE PLANTS.[5] IS THAT COMPARISON INDICATIVE OF THE REASONABLENESS OF THE COST TO OPERATE SPINDLETOP?

A. No. The comparison itself and the resulting outcome are irrelevant for establishing the reasonableness of the cost to operate the Spindletop facility. The Spindletop operating costs are not part of the operating costs of either Lewis Creek or Sabine station. Moreover, the operation of a natural gas storage facility serves a

[5] Norwood Direct at pp. 13-14.

completely different function than, and is not comparable to, the operation of a power plant. Mr. Norwood offers no explanation of why such a comparison is valid.

Instead, the appropriate comparison is the cost of operating Spindletop versus the cost of obtaining similar services through market purchases. As illustrated in the analyses provided by ETI in response to OPUC RFI 4-25, attached here as Exhibit DSJ-R-1, Spindletop provides needed services at a cost below which such services could be obtained at market.

Q12. MR. NORWOOD ASSERTS THAT THE ANALYSES PRESENTED IN EXHIBIT DSJ-R-1 "OFFERS [SIC] FEW DETAILS REGARDING THE UNDERLYING CALCULATIONS, ASSUMPTIONS AND ALTERNATIVES THAT WERE EVALUATED BY THE COMPANY."[6] IS THAT AN ACCURATE OBSERVATION?

A. No. The two presentations, one from 2015 and the other from 2019, were made to the ETI Operating Committee, and although each was prompted by a different set of circumstances, the underlying analysis was the same. The 2015 analysis methodically evaluated the cost to obtain 57.5% of the range of flexibility of natural gas supply provided by Spindletop.[7] The analysis first considered the fact that the

[6] Norwood Direct at p. 14.

[7] ETI analyzed 57.5% of the capability of Spindletop because the Company was evaluating the value of that portion attributable to serving Entergy Gulf States Louisiana, L.L.C.'s share of the Sabine and Lewis Creek plants per a power purchase agreement that was in place at that time and scheduled to terminate concurrently with termination of the Entergy System Agreement.

Sabine units must be offered into the MISO energy and ancillary services markets in order for those units to count toward satisfaction of MISO's annual resource adequacy requirements. From there, the analysis presented the range of output MISO had historically called on from the Sabine units and the variation in gas supply needed to support that range of flexibility. Looking back over the 18 months prior to the study, the Company found that on approximately 38% of the days the peak load gas requirements would have exceeded the volume of gas that could have been extracted from only ETI's portion of the Spindletop facility. The analysis then evaluated the market alternatives that could be used to supply a level of flexible gas that would be comparable to the flexibility that would otherwise have been provided by EGSL's portion of Spindletop. The result was a combination of day-ahead and no notice call options on gas supply. To secure these options year-round, the Company would incur total reservation fees of approximately $3.5 million under a combination of day-ahead and no-notice contracts. In addition, for those days that it would be necessary for the Company to exercise its options under these contracts in order to meet peak demand, it would pay a premium of up to $0.63/MMBtu. Assuming this premium would only be invoked in 38% of the days during the year, the total annual cost to replace *just EGSL's* 57.5% share of Spindletop flexibility was estimated to be approximately $7.9 million, which equates to approximately the same cost ETI incurred during the Reconciliation Period to operate the entire Spindletop facility.

The 2019 analysis evaluated the flexibility function provided by the entirety of the facility. It summarized the daily injections and withdrawals over the period

2017 - 2018 and compressor run-rate over the period 2016 - 2018. The analysis identified a volume of flexibility service provided by Spindletop consistent with the 2015 analysis. Using prices for comparable flexibility services quoted by Kinder Morgan, the analysis concluded that the annual cost would range from $11 to $16 million annually, which range exceeds the cost to operate Spindletop during the Reconciliation Period. Notably, this already uneconomic cost to procure flexibility service from the market did not include the cost to replace the reliability function that Spindletop provides. As the presentation notes, the market alternative for that reliability function would be a year-round, no-notice supply of gas, which would render a market-based replacement of Spindletop's capabilities even more uneconomical.

Q13. DID MR. NORWOOD CONSIDER THE COST TO REPLACE THE SWING SERVICE AND RELIABILITY FUNCTION PROVIDED BY SPINDLETOP IN HIS PROPOSED DISALLOWANCE?

A. No. Mr. Norwood recommended a disallowance of the entire $24.4 million cost to operate Spindletop. It is unclear whether he simply failed to understand the importance and necessity of swing flexibility and reliability of gas supply, or perhaps he believed that those services could be provided from market-based alternatives at no cost. Regardless, Mr. Norwood's recommended disallowance failed to consider the cost to replace the swing flexibility and reliability function provided by Spindletop.

Q14. WERE THE SPINDLETOP OPERATING COSTS DURING THE RECONCILIATION PERIOD TYPICAL OF NORMAL OPERATIONS?

A. No. As I noted in my Direct Testimony, in October 2015 the Company began preparing for a Mechanical Integrity Test and wellhead inspections of the Spindletop caverns as required by the Texas Railroad Commission. Although the work was begun prior to this Reconciliation Period, a significant portion of the work was performed during the Period. The eligible O&M costs incurred during the Reconciliation Period amounted to approximately $2.5 million. As discussed above, the operation of Spindletop is economic compared to market alternatives even with these highly infrequent costs included. However, when these infrequent costs are excluded from the total eligible operating costs during the Reconciliation Period, the normal operating costs would have been even lower – approximately $21.5 million, or approximately $7.2 million per year, compared to at least $11 - $16 million per year for market-based alternatives.

Q15. MR. NORWOOD ALSO COMPARES THE AVERAGE COST OF OPERATING SPINDLETOP TO THE COMPANY'S WEIGHTED AVERAGE COST OF GAS.[8] IS THAT COMPARISON INFORMATIVE?

A. No. Mr. Norwood testified that the average operating cost of Spindletop was $1.19 per MMBtu, based on withdrawal volumes, during the Reconciliation Period. He then compared this figure to ETI's weighted average cost of gas ("WACOG")

[8] Norwood Direct at p. 13.

and concluded that Spindletop's cost (on a per MMBtu basis) is 40% of ETI's WACOG of $3.03 per MMBtu. While his calculations may be correct arithmetically, they are meaningless and misleading.

Q16. PLEASE EXPLAIN.

A. To begin with, the $1.19/MMBtu is calculated by dividing Spindletop operating costs by gas withdrawn from storage. At a bare minimum, his calculation should have included both injections and withdrawals since both are necessary to provide the swing flexibility that is required to the plant. When gas injections are included in his equation, the resulting rate would be $0.51/MMBtu. Even this, though, would not be the correct comparison because the swing provided by Spindletop benefits all gas burned at Sabine Station in that all gas purchases can be delivered ratably, and the Company does not pay more for them to provide any degree of swing flexibility. Furthermore, as explained in my direct testimony and Schedule FR-9, the Spindletop facilities include the nine-mile pipeline header into the Sabine plant, the fourteen-mile pipeline header from the storage caverns to the nine-mile header, as well as the storage facilities themselves. Consequently, the operating cost of Spindletop should be spread over all the gas purchased at Sabine. Using this metric, the rate would be $0.17/MMBtu.

In addition, the 40% statistic is meaningless because it compares two incomparable values. It is calculated by dividing the $1.19 per MMBtu withdrawn from Spindletop by the $3.03 system weighted average cost of gas purchased. Clearly, the two values Mr. Norwood compares are calculated from different bases

and are therefore not comparable, at least not in the form in which he has presented them. In order to make the comparison valid, it would be necessary to calculate the rates using the same divisor or basis. The proper comparison, using Mr. Norwood's own approach, would be to compare Spindletop's operating cost ($24 million) to system gas cost ($628 million). When compared on an equal basis, Spindletop's operating costs were only 3.8% of the system gas cost. If the costs associated with the cavern tests and inspections are excluded, the Spindletop operating costs would have been 3.4%.

Q17. MR. NORWOOD TESTIFIED THAT SPINDLETOP SUPPLIED LESS THAN 3% OF ETI'S TOTAL SYSTEM ENERGY REQUIREMENT DURING THE RECONCILIATION PERIOD.[9] IS THIS CORRECT?

A. Like other statistics that he has presented, this figure is arithmetically correct but meaningless. To arrive at the 3% figure Mr. Norwood simply converted the MMBtus of gas withdrawn from Spindletop into MWH assuming an 11.5 heat rate, and then compared this figure to the total system MWH to arrive at 2.7%. However, Mr. Norwood's calculation compares two fundamentally different things – the amount of energy generated by a fleet of resources and the amount of gas withdrawn from a facility that provides reliability and swing services to *enable* that production of electricity from a subset of those resources. The reason this figure is meaningless is that Spindletop is not fundamentally a gas supplier but rather a gas

[9] Norwood Direct at p. 15.

transporter. The cost of Spindletop is not incurred as a direct alternative to another source of generation. Rather, Spindletop provides valuable delayed transportation and redelivery of gas previously purchased, a necessary service to ensure hourly and daily swing flexibility not available from ratable gas.

Q18. MR. NORWOOD POINTS TO A STUDY PERFORMED BY PUBLIC SERVICE COMPANY OF OKLAHOMA TO SUGGEST THAT USE OF GAS STORAGE IS NOT ECONOMICAL UNDER CURRENT MARKET CONDITIONS.[10] DOES THAT STUDY SUPPORT A CONCLUSION THAT OPERATION OF SPINDLETOP WAS NOT ECONOMICAL DURING THE RECONCILIATION PERIOD?

A. No. Although I am not personally familiar with the study, and Mr. Norwood himself apparently is not in possession of the study on which he relies,[11] based on the limited excerpt quoted by Mr. Norwood, there are several key points that differentiate the storage service studied by Public Service Company of Oklahoma ("PSO") from Spindletop. First, it is unclear whether the $2.87/MMBtu figure quoted in the PSO study represents capital cost to construct the facility or variable transportation cost. If the former, then it far exceeds that of Spindletop, and at any rate, capital costs are not eligible for recovery through fuel. If it is the latter, then once again it represents a variable cost that is far higher than Spindletop.

[10] Norwood Direct at p. 15.

[11] Exhibit DSJ-R-2 (OPUC's Response to ETI RFI 1-7).

Second, the service studied by PSO apparently requires ratable, constant flow injections and withdrawals and is therefore not responsive to the peaking demands of their generation. That is not the case with Spindletop, and indeed, the swing flexibility provided by Spindletop is one of its principal benefits.

Third, although the summary information supplied in the PSO report does not address how or whether injections would have to be scheduled in advance, it does indicate that withdrawals would have to be scheduled in advance and the difficulty this would pose when trying to anticipate peak hourly and daily supply needs. By contrast, the Spindletop facility provides "on demand" injection and withdrawal capability, giving it a tremendous advantage over the storage service described in the PSO study.

Finally, PSO apparently analyzed storage service based on reliability of supply only. As described in the excerpt quoted by Mr. Norwood, PSO anticipates injecting gas in the summer and then withdrawing gas in the winter. By comparison, ETI's utilization of Spindletop is more robust in that it provides both hourly/daily swing flexibility throughout the year in addition to providing a reliable supply during periods of time that market supplies of gas may be reduced or curtailed. In sum, Mr. Norwood's brief excerpt from a study of a different facility under different circumstance does nothing to contradict the evidence ETI has provided demonstrating the value the Spindletop facility provides to customers.

III. CONCLUSION

Q19. PLEASE SUMMARIZE YOUR RESPONSE TO MR. NORWOOD.

A. As I testified in my direct testimony, Spindletop supplies two critical benefits to ETI and its customers: (1) supply reliability; and (2) hourly and daily swing flexibility. In proposing to disallow the full cost of Spindletop, Mr. Norwood is essentially arguing that there is *no value* in supply reliability or hourly and daily swing flexibility. That is an absurd conclusion, and Mr. Norwood's proposed disallowance should be rejected.

In case after case, ETI has provided testimony and other evidence demonstrating the value Spindletop provides to customers by helping to ensure a reliable, flexible, and economic supply of gas to two critical generation facilities in the Company's service area.[12] This value was recently recognized by OPUC's own witness, Constance Cannady, who conceded that "Spindletop is used and useful in providing service to Texas customers."[13]

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[12] *See Application of Entergy Texas Inc. for Authority to Change Rates and Reconcile Fuel Costs*, Docket 37744, (Dec. 13, 2010), Direct Testimony of Devon S. Jaycox at 41-43, Rebuttal Testimony of Devon S. Jaycox at 32-41; *Application of Entergy Texas Inc. for Authority to Change Rates, Reconcile Fuel Costs, and Obtain Deferred Accounting Treatment*, Docket No. 39896, (Nov. 2, 2012), Direct Testimony of Testimony of Karen McIlvoy at 31-33, Rebuttal Testimony of Michael P. Considine at 2-5, Rebuttal Testimony of Karen McIlvoy at 2-19; *Application of Entergy Texas Inc. for Authority to Change Rates and Reconcile Fuel Costs*, Docket No. 41791, (May. 16, 2014), Direct Testimony of Michelle H. Thiry at 45-48; *Application of Entergy Texas, Inc. for Authority to Change Rates*, Docket No. 44704, (Jul. 20, 2015), Direct Testimony of Michael J. Goin at 34-36; *Application of Entergy Texas, Inc. for Authority to Reconcile Fuel and Purchased Power Costs*, Docket 46076, (Mar. 14, 2017), Direct Testimony of Michelle H. Thiry at 98-104, Direct Testimony of Karl J. Nalepa, at 8-16; *Application of Entergy Texas for Authority to Change Rates*, Docket 48371, (Dec. 20, 2018), Direct Testimony of Michelle H. Thiry at 2-8, Direct Testimony of Patrick J. Stack at 3-9, Direct Testimony of Ruth Stark at 21-27, Direct Testimony of Constance Cannady at 19-21, Rebuttal Testimony at 1-7.

[13] *Application of Entergy Texas, Inc. for Authority to Change Rates*, Docket No. 48371, Direct Testimony of Constance T. Cannady at p. 26, ll. 7-8.

In the absence of Spindletop, ETI would need to replace those services with market-priced alternatives. ETI has provided testimony and two studies establishing that replacing those services with such market alternatives would increase costs to customers. Mr. Norwood's proposed disallowance of the cost to operate Spindletop is completely at odds with the evidence and is unsupported by the various simplistic and irrelevant arithmetic comparisons he offers. Nor is his proposed disallowance supported by the brief excerpt of a study he does not possess about a different facility, in a different location, studied by a different utility with different resource needs.

For these reasons, Mr. Norwood's proposed disallowance of the cost to operate the Spindletop gas storage facility should be rejected.

Q20. DOES THIS CONCLUDE YOUR REBUTTAL TESTIMONY?

A. Yes.

EXHIBIT DSJ-R-1 (HSPM)
Docket No. 49916

EXHIBIT DSJ-R-1 (HSPM)

This exhibit contains information that is highly sensitive and will be provided under the terms of the Protective Order entered in this case.

SOAH Docket No. 473-20-0259
PUC Docket No. 49916
OPUC's Response to Entergy Texas, Inc.'s
First Request for Information

ETI-OPUC 1-7:

Please provide a copy of the PSO study referenced on pages 14-15 of the Direct Testimony of Scott Norwood.

RESPONSE:

Mr. Norwood does not have a copy of the referenced study.

Prepared by: Scott Norwood

Sponsored by: Scott Norwood

		MMBTU	
	Date	Injection	(Withdrawal)
04/01/16	04/01/16	91,230	(4,776)
04/01/16	04/02/16	104,373	0
04/01/16	04/03/16	106,019	(4,043)
04/01/16	04/04/16	0	(34,841)
04/01/16	04/05/16	14,974	(5,233)
04/01/16	04/06/16	0	(31,075)
04/01/16	04/07/16	0	(34,909)
04/01/16	04/08/16	0	(36,575)
04/01/16	04/09/16	0	(16,545)
04/01/16	04/10/16	0	(29,365)
04/01/16	04/11/16	0	(47,735)
04/01/16	04/12/16	6,675	(31,002)
04/01/16	04/13/16	0	(24,098)
04/01/16	04/14/16	0	(33,615)
04/01/16	04/15/16	0	(34,509)
04/01/16	04/16/16	0	(73,081)
04/01/16	04/17/16	0	(42,767)
04/01/16	04/18/16	0	(40,460)
04/01/16	04/19/16	0	(32,630)
04/01/16	04/20/16	0	(27,445)
04/01/16	04/21/16	0	(23,910)
04/01/16	04/22/16	0	(20,712)
04/01/16	04/23/16	0	(21,371)
04/01/16	04/24/16	0	(22,029)
04/01/16	04/25/16	0	(18,791)
04/01/16	04/26/16	0	(17,128)
04/01/16	04/27/16	0	(14,550)
04/01/16	04/28/16	0	0
04/01/16	04/29/16	0	(35,093)
04/01/16	04/30/16	0	(46,989)
05/01/16	05/01/16	0	(38,532)
05/01/16	05/02/16	19,170	(4,121)
05/01/16	05/03/16	26,772	(12,100)
05/01/16	05/04/16	16,683	(5,598)
05/01/16	05/05/16	17,034	(5,822)
05/01/16	05/06/16	33,524	(2,489)
05/01/16	05/07/16	0	(16,726)
05/01/16	05/08/16	6,461	(17,445)
05/01/16	05/09/16	0	(15,697)
05/01/16	05/10/16	9,691	(14,915)
05/01/16	05/11/16	0	(7,851)
05/01/16	05/12/16	0	(15,802)
05/01/16	05/13/16	41,021	(807)
05/01/16	05/14/16	36,753	(6,289)
05/01/16	05/15/16	50,143	(8,735)
05/01/16	05/16/16	36,418	(9,297)
05/01/16	05/17/16	0	(48,018)
05/01/16	05/18/16	0	(39,904)
05/01/16	05/19/16	29,270	(605)
05/01/16	05/20/16	21,022	(3,589)

	TOTAL MONTH			
	Injection	(Withdrawal)		
7/1/2011	796,987	(575,426)	522,339	(494,558)
8/1/2011	732,535	(857,455)	522,339	(494,558)
9/1/2011	735,155	(725,490)	522,339	(494,558)
10/1/2011	435,593	(374,615)	522,339	(494,558)
11/1/2011	303,351	(359,700)	522,339	(494,558)
12/1/2011	445,643	(399,670)	522,339	(494,558)
1/1/2012	481,690	(229,637)	522,339	(494,558)
2/1/2012	206,766	(299,406)	522,339	(494,558)
3/1/2012	456,604	(336,598)	522,339	(494,558)
4/1/2012	658,501	(609,361)	522,339	(494,558)
5/1/2012	612,005	(577,643)	522,339	(494,558)
6/1/2012	579,935	(614,908)	522,339	(494,558)
7/1/2012	850,807	(729,745)	522,339	(494,558)
8/1/2012	690,947	(947,817)	522,339	(494,558)
9/1/2012	730,942	(508,779)	522,339	(494,558)
10/1/2012	343,881	(640,385)	522,339	(494,558)
11/1/2012	405,706	(198,716)	522,339	(494,558)
12/1/2012	321,080	(180,682)	522,339	(494,558)
1/1/2013	374,090	(430,012)	522,339	(494,558)
2/1/2013	242,234	(249,965)	522,339	(494,558)
3/1/2013	589,692	(394,003)	522,339	(494,558)
4/1/2013	350,421	(511,365)	522,339	(494,558)
5/1/2013	465,327	(268,746)	522,339	(494,558)
6/1/2013	611,389	(548,249)	522,339	(494,558)
7/1/2013	525,061	(618,294)	522,339	(494,558)
8/1/2013	531,052	(508,285)	522,339	(494,558)
9/1/2013	382,702	(684,021)	522,339	(494,558)
10/1/2013	650,904	(507,080)	522,339	(494,558)
11/1/2013	636,836	(456,123)	522,339	(494,558)
12/1/2013	597,929	(443,476)	714,527	(721,491)
1/1/2014	729,164	(1,024,336)	714,527	(721,491)
2/1/2014	985,282	(810,364)	714,527	(721,491)
3/1/2014	365,100	(480,718)	714,527	(721,491)
4/1/2014	533,858	(817,750)	714,527	(721,491)
5/1/2014	1,229,566	(572,962)	714,527	(721,491)
6/1/2014	700,722	(518,148)	714,527	(721,491)
7/1/2014	747,826	(838,491)	714,527	(721,491)
8/1/2014	644,536	(597,857)	714,527	(721,491)
9/1/2014	564,772	(703,472)	714,527	(721,491)
10/1/2014	690,152	(743,766)	714,527	(721,491)
11/1/2014	549,732	(424,903)	714,527	(721,491)
12/1/2014	363,145	(661,193)	714,527	(721,491)
1/1/2015	1,204,030	(603,511)	714,527	(721,491)
2/1/2015	307,135	(796,598)	714,527	(721,491)
3/1/2015	955,247	(911,410)	714,527	(721,491)
4/1/2015	212,012	(1,232,750)	714,527	(721,491)
5/1/2015	709,082	(576,664)	714,527	(721,491)
6/1/2015	776,780	(389,530)	714,527	(721,491)
7/1/2015	958,353	(854,334)	714,527	(721,491)
8/1/2015	694,457	(488,970)	714,527	(721,491)

05/01/16	05/21/16	6,909	(1,407)
05/01/16	05/22/16	0	(16,143)
05/01/16	05/23/16	0	(5,997)
05/01/16	05/24/16	0	(25,134)
05/01/16	05/25/16	0	(6,940)
05/01/16	05/26/16	11,002	(5,674)
05/01/16	05/27/16	30,693	0
05/01/16	05/28/16	36,689	0
05/01/16	05/29/16	12,155	(835)
05/01/16	05/30/16	16,325	(4,201)
05/01/16	05/31/16	17,954	(7,485)
06/01/16	06/01/16	69,309	(2,530)
06/01/16	06/02/16	12,942	(20,236)
06/01/16	06/03/16	12,267	(46,566)
06/01/16	06/04/16	19,479	(12,188)
06/01/16	06/05/16	19,016	(20,075)
06/01/16	06/06/16	12,471	(20,886)
06/01/16	06/07/16	16,977	(34,106)
06/01/16	06/08/16	17,536	(29,847)
06/01/16	06/09/16	12,199	(1,049)
06/01/16	06/10/16	7,373	(110,005)
06/01/16	06/11/16	17,391	(42,755)
06/01/16	06/12/16	50,277	0
06/01/16	06/13/16	1,935	(6,106)
06/01/16	06/14/16	12,606	(9,040)
06/01/16	06/15/16	14,885	(21,982)
06/01/16	06/16/16	10,329	(15,625)
06/01/16	06/17/16	11,097	(10,122)
06/01/16	06/18/16	23,381	(1,167)
06/01/16	06/19/16	16,101	(2,390)
06/01/16	06/20/16	11,223	(12,175)
06/01/16	06/21/16	20,456	(38,905)
06/01/16	06/22/16	14,993	(55,196)
06/01/16	06/23/16	36,274	0
06/01/16	06/24/16	72,981	0
06/01/16	06/25/16	61,644	0
06/01/16	06/26/16	57,195	(6,469)
06/01/16	06/27/16	57,593	(3,051)
06/01/16	06/28/16	104,532	0
06/01/16	06/29/16	91,649	0
06/01/16	06/30/16	76,674	0
07/01/16	07/01/16	57,784	(19,429)
07/01/16	07/02/16	59,503	(34,675)
07/01/16	07/03/16	56,360	(29,892)
07/01/16	07/04/16	60,614	(675)
07/01/16	07/05/16	51,224	(31,182)
07/01/16	07/06/16	55,213	(18,569)
07/01/16	07/07/16	54,736	(6,234)
07/01/16	07/08/16	67,161	0
07/01/16	07/09/16	86,464	0
07/01/16	07/10/16	94,491	0
07/01/16	07/11/16	69,905	0
07/01/16	07/12/16	66,129	0

9/1/2015	304,544	(748,806)	714,527	(721,491)
10/1/2015	567,064	(812,784)	714,527	(721,491)
11/1/2015	234,895	(1,093,280)	714,527	(721,491)
12/1/2015	730,150	(1,490,831)	714,527	(721,491)
1/1/2016	940,695	(774,514)	714,527	(721,491)
2/1/2016	0	(966,022)	714,527	(721,491)
3/1/2016	162,120	(1,141,740)	714,527	(721,491)
4/1/2016	323,271	(805,277)	714,527	(721,491)
5/1/2016	475,689	(348,158)	714,527	(721,491)
6/1/2016	962,785	(522,471)	714,527	(721,491)
7/1/2016	2,062,940	(282,615)	714,527	(721,491)
8/1/2016	2,296,369	(331,515)	714,527	(721,491)
9/1/2016	2,420,458	(287,172)	655,669	(557,898)
10/1/2016	10,809	(2,486,731)	655,669	(557,898)
11/1/2016	406,889	(460,193)	655,669	(557,898)
12/1/2016	0	(944,800)	655,669	(557,898)
1/1/2017	94,344	(628,014)	655,669	(557,898)
2/1/2017	273,496	(423,244)	655,669	(557,898)
3/1/2017	262,822	(335,251)	655,669	(557,898)
4/1/2017	831,891	(679,945)	655,669	(557,898)
5/1/2017	2,606,315	(616,387)	655,669	(557,898)
6/1/2017	2,168,453	(564,828)	655,669	(557,898)
7/1/2017	1,450,003	(529,220)	655,669	(557,898)
8/1/2017	446,433	(394,018)	655,669	(557,898)
9/1/2017	700,562	(464,060)	655,669	(557,898)
10/1/2017	451,115	(330,563)	655,669	(557,898)
11/1/2017	430,816	(313,619)	655,669	(557,898)
12/1/2017	461,585	(642,302)	655,669	(557,898)
1/1/2018	805,797	(713,684)	655,669	(557,898)
2/1/2018	69,219	(518,243)	655,669	(557,898)
3/1/2018	754,637	(431,693)	655,669	(557,898)
4/1/2018	522,841	(402,560)	655,669	(557,898)
5/1/2018	512,258	(880,006)	655,669	(557,898)
6/1/2018	547,102	(316,736)	655,669	(557,898)
7/1/2018	654,187	(655,036)	655,669	(557,898)
8/1/2018	794,007	(572,990)	655,669	(557,898)
9/1/2018	290,558	(215,666)	655,669	(557,898)
10/1/2018	536,664	(514,233)	655,669	(557,898)
11/1/2018	510,492	(550,442)	655,669	(557,898)
12/1/2018	236,991	(231,709)	655,669	(557,898)
1/1/2019	365,510	(409,322)	655,669	(557,898)
2/1/2019	364,329	(236,813)	655,669	(557,898)
3/1/2019	345,151	(545,343)	655,669	(557,898)

07/01/16	07/13/16	63,640	0
07/01/16	07/14/16	68,095	0
07/01/16	07/15/16	60,368	0
07/01/16	07/16/16	78,472	0
07/01/16	07/17/16	57,187	(1,489)
07/01/16	07/18/16	59,082	(5,622)
07/01/16	07/19/16	81,534	0
07/01/16	07/20/16	79,023	0
07/01/16	07/21/16	123,887	0
07/01/16	07/22/16	66,371	(2,438)
07/01/16	07/23/16	58,524	(17,886)
07/01/16	07/24/16	54,223	(3,298)
07/01/16	07/25/16	58,834	(30,430)
07/01/16	07/26/16	59,546	(5,629)
07/01/16	07/27/16	76,895	0
07/01/16	07/28/16	67,892	0
07/01/16	07/29/16	55,214	(39,822)
07/01/16	07/30/16	56,212	(30,913)
07/01/16	07/31/16	58,357	(4,432)
08/01/16	08/01/16	59,734	(21,081)
08/01/16	08/02/16	103,483	0
08/01/16	08/03/16	134,191	0
08/01/16	08/04/16	107,422	0
08/01/16	08/05/16	69,321	0
08/01/16	08/06/16	59,297	(14,267)
08/01/16	08/07/16	57,293	(10,868)
08/01/16	08/08/16	57,195	(59,291)
08/01/16	08/09/16	52,790	(59,907)
08/01/16	08/10/16	71,005	(7,366)
08/01/16	08/11/16	80,962	(2,474)
08/01/16	08/12/16	70,058	0
08/01/16	08/13/16	108,459	0
08/01/16	08/14/16	82,307	0
08/01/16	08/15/16	84,309	0
08/01/16	08/16/16	57,805	0
08/01/16	08/17/16	56,337	(30,106)
08/01/16	08/18/16	62,126	0
08/01/16	08/19/16	69,135	0
08/01/16	08/20/16	57,028	(6,865)
08/01/16	08/21/16	71,562	0
08/01/16	08/22/16	72,613	0
08/01/16	08/23/16	58,003	(17,261)
08/01/16	08/24/16	55,485	(73,811)
08/01/16	08/25/16	54,175	(25,706)
08/01/16	08/26/16	49,394	0
08/01/16	08/27/16	104,916	0
08/01/16	08/28/16	89,321	0
08/01/16	08/29/16	98,920	0
08/01/16	08/30/16	77,989	0
08/01/16	08/31/16	63,734	(2,512)
09/01/16	09/01/16	65,708	(8,424)
09/01/16	09/02/16	75,833	0
09/01/16	09/03/16	92,316	0

09/01/16	09/04/16	119,514	0
09/01/16	09/05/16	59,933	(11,166)
09/01/16	09/06/16	58,604	(31,961)
09/01/16	09/07/16	76,008	(35,681)
09/01/16	09/08/16	65,143	(33,925)
09/01/16	09/09/16	76,439	(3,417)
09/01/16	09/10/16	104,073	0
09/01/16	09/11/16	133,631	0
09/01/16	09/12/16	94,210	(2,109)
09/01/16	09/13/16	69,144	(9,852)
09/01/16	09/14/16	69,059	(7,765)
09/01/16	09/15/16	84,527	(4,996)
09/01/16	09/16/16	96,514	(3,598)
09/01/16	09/17/16	73,165	(6,308)
09/01/16	09/18/16	71,996	(23,473)
09/01/16	09/19/16	71,228	(38,787)
09/01/16	09/20/16	70,777	(3,687)
09/01/16	09/21/16	94,958	0
09/01/16	09/22/16	84,928	(992)
09/01/16	09/23/16	91,030	(2,916)
09/01/16	09/24/16	61,124	(13,716)
09/01/16	09/25/16	73,771	(39,243)
09/01/16	09/26/16	75,683	0
09/01/16	09/27/16	95,590	(252)
09/01/16	09/28/16	63,187	(4,904)
09/01/16	09/29/16	81,613	0
09/01/16	09/30/16	70,752	0
10/01/16	10/01/16	0	(108,886)
10/01/16	10/02/16	0	(120,887)
10/01/16	10/03/16	0	(133,705)
10/01/16	10/04/16	0	(166,609)
10/01/16	10/05/16	0	(203,718)
10/01/16	10/06/16	0	(182,004)
10/01/16	10/07/16	0	(140,224)
10/01/16	10/08/16	0	(62,328)
10/01/16	10/09/16	0	(23,758)
10/01/16	10/10/16	0	(57,362)
10/01/16	10/11/16	0	(60,915)
10/01/16	10/12/16	0	(95,473)
10/01/16	10/13/16	0	(91,775)
10/01/16	10/14/16	0	(79,600)
10/01/16	10/15/16	0	(98,415)
10/01/16	10/16/16	0	(90,411)
10/01/16	10/17/16	0	(98,051)
10/01/16	10/18/16	0	(108,863)
10/01/16	10/19/16	0	(110,766)
10/01/16	10/20/16	0	(31,741)
10/01/16	10/21/16	0	(26,679)
10/01/16	10/22/16	0	(34,224)
10/01/16	10/23/16	0	(37,741)
10/01/16	10/24/16	0	(95,335)
10/01/16	10/25/16	0	(71,334)
10/01/16	10/26/16	0	(19,062)

10/01/16	10/27/16	0	(31,950)
10/01/16	10/28/16	0	(53,292)
10/01/16	10/29/16	0	(23,854)
10/01/16	10/30/16	0	(12,673)
10/01/16	10/31/16	10,809	(15,096)
11/01/16	11/01/16	13,482	(97)
11/01/16	11/02/16	5,956	(29,464)
11/01/16	11/03/16	0	(31,943)
11/01/16	11/04/16	67,644	0
11/01/16	11/05/16	32,220	(435)
11/01/16	11/06/16	47,385	0
11/01/16	11/07/16	33,628	0
11/01/16	11/08/16	15,185	0
11/01/16	11/09/16	12,112	(1,140)
11/01/16	11/10/16	16,024	(460)
11/01/16	11/11/16	0	(18,230)
11/01/16	11/12/16	0	(6,166)
11/01/16	11/13/16	0	(12,322)
11/01/16	11/14/16	0	(30,027)
11/01/16	11/15/16	6,146	(1,075)
11/01/16	11/16/16	8,067	(2,733)
11/01/16	11/17/16	5,253	(18,955)
11/01/16	11/18/16	1,760	(44,708)
11/01/16	11/19/16	2,112	(34,683)
11/01/16	11/20/16	4,600	(30,407)
11/01/16	11/21/16	3,202	(38,693)
11/01/16	11/22/16	5,127	(14,809)
11/01/16	11/23/16	7,523	(13,039)
11/01/16	11/24/16	24,350	(5,236)
11/01/16	11/25/16	28,533	0
11/01/16	11/26/16	25,253	(6,156)
11/01/16	11/27/16	14,358	(17,314)
11/01/16	11/28/16	2,436	(38,544)
11/01/16	11/29/16	6,155	(49,612)
11/01/16	11/30/16	18,378	(13,945)
12/01/16	12/01/16	0	(39,875)
12/01/16	12/02/16	0	(23,663)
12/01/16	12/03/16	0	(17,820)
12/01/16	12/04/16	0	(17,356)
12/01/16	12/05/16	0	(40,570)
12/01/16	12/06/16	0	(30,852)
12/01/16	12/07/16	0	(20,593)
12/01/16	12/08/16	0	(48,886)
12/01/16	12/09/16	0	(51,875)
12/01/16	12/10/16	0	(31,076)
12/01/16	12/11/16	0	(30,027)
12/01/16	12/12/16	0	(45,699)
12/01/16	12/13/16	0	(48,902)
12/01/16	12/14/16	0	(35,627)
12/01/16	12/15/16	0	(43,144)
12/01/16	12/16/16	0	(12,805)
12/01/16	12/17/16	0	(20,558)
12/01/16	12/18/16	0	(23,757)

12/01/16	12/19/16	0	(36,430)
12/01/16	12/20/16	0	(26,656)
12/01/16	12/21/16	0	(7,659)
12/01/16	12/22/16	0	(22,781)
12/01/16	12/23/16	0	(18,740)
12/01/16	12/24/16	0	(40,167)
12/01/16	12/25/16	0	(29,504)
12/01/16	12/26/16	0	(4,629)
12/01/16	12/27/16	0	(34,905)
12/01/16	12/28/16	0	(44,205)
12/01/16	12/29/16	0	(38,474)
12/01/16	12/30/16	0	(29,703)
12/01/16	12/31/16	0	(27,862)
01/01/17	01/01/17	0	(26,177)
01/01/17	01/02/17	0	(30,878)
01/01/17	01/03/17	0	(30,755)
01/01/17	01/04/17	0	(33,774)
01/01/17	01/05/17	0	(29,520)
01/01/17	01/06/17	0	(46,964)
01/01/17	01/07/17	0	(68,443)
01/01/17	01/08/17	0	(18,745)
01/01/17	01/09/17	14,457	(14,987)
01/01/17	01/10/17	6,860	(22,935)
01/01/17	01/11/17	0	(21,629)
01/01/17	01/12/17	22,360	(857)
01/01/17	01/13/17	0	(1,823)
01/01/17	01/14/17	0	(17,496)
01/01/17	01/15/17	0	(10,628)
01/01/17	01/16/17	0	(45,686)
01/01/17	01/17/17	0	(41,470)
01/01/17	01/18/17	0	(32,580)
01/01/17	01/19/17	10,791	(17,121)
01/01/17	01/20/17	29,811	0
01/01/17	01/21/17	0	(4,377)
01/01/17	01/22/17	0	(6,431)
01/01/17	01/23/17	0	(5,687)
01/01/17	01/24/17	0	(6,081)
01/01/17	01/25/17	0	(4,023)
01/01/17	01/26/17	0	(17,023)
01/01/17	01/27/17	0	(23,493)
01/01/17	01/28/17	0	(18,501)
01/01/17	01/29/17	0	(18,109)
01/01/17	01/30/17	0	(11,704)
01/01/17	01/31/17	10,065	(117)
02/01/17	02/01/17	0	(5,989)
02/01/17	02/02/17	0	(14,476)
02/01/17	02/03/17	0	(13,082)
02/01/17	02/04/17	0	(16,618)
02/01/17	02/05/17	0	(31,217)
02/01/17	02/06/17	0	(41,473)
02/01/17	02/07/17	0	(17,281)
02/01/17	02/08/17	0	(19,093)
02/01/17	02/09/17	0	(5,094)

02/01/17	02/10/17	43,491	(199)
02/01/17	02/11/17	36,963	0
02/01/17	02/12/17	30,694	0
02/01/17	02/13/17	34,561	0
02/01/17	02/14/17	4,974	(1,397)
02/01/17	02/15/17	0	(27,675)
02/01/17	02/16/17	0	(24,239)
02/01/17	02/17/17	0	(11,980)
02/01/17	02/18/17	0	(23,940)
02/01/17	02/19/17	0	(22,462)
02/01/17	02/20/17	0	(39,247)
02/01/17	02/21/17	0	(42,351)
02/01/17	02/22/17	21,028	(868)
02/01/17	02/23/17	32,001	(414)
02/01/17	02/24/17	26,974	(6,644)
02/01/17	02/25/17	22,082	(2,313)
02/01/17	02/26/17	16,727	(21,056)
02/01/17	02/27/17	0	(34,015)
02/01/17	02/28/17	4,001	(121)
03/01/17	03/01/17	33,462	(5,123)
03/01/17	03/02/17	7,724	(26,090)
03/01/17	03/03/17	4,563	(4,552)
03/01/17	03/04/17	17,589	(3,074)
03/01/17	03/05/17	4,070	0
03/01/17	03/06/17	14,163	(8,415)
03/01/17	03/07/17	0	(17,034)
03/01/17	03/08/17	0	(9,277)
03/01/17	03/09/17	0	(12,270)
03/01/17	03/10/17	18,717	0
03/01/17	03/11/17	18,355	(2,575)
03/01/17	03/12/17	21,667	(6,101)
03/01/17	03/13/17	0	(14,670)
03/01/17	03/14/17	0	(26,125)
03/01/17	03/15/17	0	(10,839)
03/01/17	03/16/17	2,468	(211)
03/01/17	03/17/17	1,309	(1,755)
03/01/17	03/18/17	32,266	0
03/01/17	03/19/17	20,500	(1,620)
03/01/17	03/20/17	3,198	0
03/01/17	03/21/17	0	(17,904)
03/01/17	03/22/17	0	(6,608)
03/01/17	03/23/17	0	(15,521)
03/01/17	03/24/17	0	(11,260)
03/01/17	03/25/17	0	(2,359)
03/01/17	03/26/17	0	(16,352)
03/01/17	03/27/17	0	(21,744)
03/01/17	03/28/17	0	(16,201)
03/01/17	03/29/17	25,916	(14,290)
03/01/17	03/30/17	36,855	(14,412)
03/01/17	03/31/17	0	(48,869)
04/01/17	04/01/17	0	(19,422)
04/01/17	04/02/17	0	(29,962)
04/01/17	04/03/17	0	(38,887)

04/01/17	04/04/17	0	(18,173)
04/01/17	04/05/17	71,129	(2,878)
04/01/17	04/06/17	61,573	(9,171)
04/01/17	04/07/17	4,284	(23,322)
04/01/17	04/08/17	56,332	0
04/01/17	04/09/17	22,195	(6,442)
04/01/17	04/10/17	0	(10,720)
04/01/17	04/11/17	0	(28,933)
04/01/17	04/12/17	0	(15,958)
04/01/17	04/13/17	10,683	(13,888)
04/01/17	04/14/17	4,062	(32,189)
04/01/17	04/15/17	0	(61,819)
04/01/17	04/16/17	0	(86,027)
04/01/17	04/17/17	0	(94,836)
04/01/17	04/18/17	56,174	(803)
04/01/17	04/19/17	59,401	0
04/01/17	04/20/17	38,215	(12,676)
04/01/17	04/21/17	60,250	(10,663)
04/01/17	04/22/17	49,759	0
04/01/17	04/23/17	97,119	0
04/01/17	04/24/17	84,951	0
04/01/17	04/25/17	49,800	0
04/01/17	04/26/17	0	(5,128)
04/01/17	04/27/17	26,455	(38,909)
04/01/17	04/28/17	28,393	(62,594)
04/01/17	04/29/17	25,471	(48,343)
04/01/17	04/30/17	25,645	(8,202)
05/01/17	05/01/17	52,433	(33,494)
05/01/17	05/02/17	54,109	(58,675)
05/01/17	05/03/17	132,415	(143)
05/01/17	05/04/17	130,859	0
05/01/17	05/05/17	125,328	0
05/01/17	05/06/17	94,488	0
05/01/17	05/07/17	92,732	(3,507)
05/01/17	05/08/17	63,399	(32,876)
05/01/17	05/09/17	60,644	(54,120)
05/01/17	05/10/17	65,145	(43,338)
05/01/17	05/11/17	60,903	(13,089)
05/01/17	05/12/17	68,733	0
05/01/17	05/13/17	92,993	0
05/01/17	05/14/17	96,927	0
05/01/17	05/15/17	64,465	(23,445)
05/01/17	05/16/17	61,320	(66,753)
05/01/17	05/17/17	60,908	(49,605)
05/01/17	05/18/17	61,706	(63,389)
05/01/17	05/19/17	60,165	(36,581)
05/01/17	05/20/17	90,990	0
05/01/17	05/21/17	137,787	0
05/01/17	05/22/17	142,965	0
05/01/17	05/23/17	71,487	0
05/01/17	05/24/17	106,686	0
05/01/17	05/25/17	67,605	(34,822)
05/01/17	05/26/17	65,883	(21,622)

05/01/17	05/27/17	64,452	(13,635)
05/01/17	05/28/17	63,738	(18,383)
05/01/17	05/29/17	105,580	0
05/01/17	05/30/17	125,845	0
05/01/17	05/31/17	63,625	(48,910)
06/01/17	06/01/17	59,072	(26,806)
06/01/17	06/02/17	98,931	0
06/01/17	06/03/17	117,312	0
06/01/17	06/04/17	79,974	0
06/01/17	06/05/17	65,976	(32,197)
06/01/17	06/06/17	64,017	(41,014)
06/01/17	06/07/17	62,861	(66,468)
06/01/17	06/08/17	62,681	(48,162)
06/01/17	06/09/17	73,538	0
06/01/17	06/10/17	62,045	(16,740)
06/01/17	06/11/17	64,813	(41,691)
06/01/17	06/12/17	56,862	(33,373)
06/01/17	06/13/17	61,694	(51,733)
06/01/17	06/14/17	61,665	(68,558)
06/01/17	06/15/17	61,441	(14,225)
06/01/17	06/16/17	76,306	(2,251)
06/01/17	06/17/17	117,080	0
06/01/17	06/18/17	90,672	0
06/01/17	06/19/17	68,325	0
06/01/17	06/20/17	58,494	(27,623)
06/01/17	06/21/17	60,449	(23,438)
06/01/17	06/22/17	60,447	(57,613)
06/01/17	06/23/17	61,488	(11,325)
06/01/17	06/24/17	61,764	(1,611)
06/01/17	06/25/17	83,351	0
06/01/17	06/26/17	84,145	0
06/01/17	06/27/17	90,095	0
06/01/17	06/28/17	67,852	0
06/01/17	06/29/17	50,891	0
06/01/17	06/30/17	84,212	0
07/01/17	07/01/17	73,833	(958)
07/01/17	07/02/17	82,476	0
07/01/17	07/03/17	86,239	0
07/01/17	07/04/17	63,544	0
07/01/17	07/05/17	30,180	(39,392)
07/01/17	07/06/17	37,913	(27,919)
07/01/17	07/07/17	25,786	(26,004)
07/01/17	07/08/17	60,097	(11,676)
07/01/17	07/09/17	86,542	0
07/01/17	07/10/17	59,167	(4,059)
07/01/17	07/11/17	74,023	(55,120)
07/01/17	07/12/17	66,194	(22,142)
07/01/17	07/13/17	51,462	(12,291)
07/01/17	07/14/17	50,880	(17,934)
07/01/17	07/15/17	51,433	(16,708)
07/01/17	07/16/17	40,327	(23,734)
07/01/17	07/17/17	31,276	(17,655)
07/01/17	07/18/17	33,488	(21,623)

07/01/17	07/19/17	17,867	(12,369)
07/01/17	07/20/17	39,331	(13,606)
07/01/17	07/21/17	44,049	(10,722)
07/01/17	07/22/17	61,771	0
07/01/17	07/23/17	91,092	0
07/01/17	07/24/17	75,113	0
07/01/17	07/25/17	67,650	0
07/01/17	07/26/17	30,719	(25,357)
07/01/17	07/27/17	9,037	(17,811)
07/01/17	07/28/17	0	(68,924)
07/01/17	07/29/17	0	(20,402)
07/01/17	07/30/17	5,019	(26,719)
07/01/17	07/31/17	3,495	(36,095)
08/01/17	08/01/17	9,503	0
08/01/17	08/02/17	41,786	0
08/01/17	08/03/17	30,745	(10,023)
08/01/17	08/04/17	44,549	0
08/01/17	08/05/17	30,001	(753)
08/01/17	08/06/17	39,033	0
08/01/17	08/07/17	32,921	0
08/01/17	08/08/17	8,658	(8,966)
08/01/17	08/09/17	25,693	(6,055)
08/01/17	08/10/17	2,930	(43,198)
08/01/17	08/11/17	118	(41,727)
08/01/17	08/12/17	0	(30,359)
08/01/17	08/13/17	0	(31,979)
08/01/17	08/14/17	0	(34,241)
08/01/17	08/15/17	5,603	(20,639)
08/01/17	08/16/17	5,093	(2,255)
08/01/17	08/17/17	0	(19,475)
08/01/17	08/18/17	1,539	(10,492)
08/01/17	08/19/17	0	(9,367)
08/01/17	08/20/17	0	(12,076)
08/01/17	08/21/17	0	(43,629)
08/01/17	08/22/17	7,380	(7,427)
08/01/17	08/23/17	23,851	(9,976)
08/01/17	08/24/17	38,878	(4,825)
08/01/17	08/25/17	39,414	0
08/01/17	08/26/17	7,113	(3,395)
08/01/17	08/27/17	18,743	(9,102)
08/01/17	08/28/17	0	(2,156)
08/01/17	08/29/17	7,742	(9,845)
08/01/17	08/30/17	11,350	(11,115)
08/01/17	08/31/17	13,790	(10,943)
09/01/17	09/01/17	20,954	(5,751)
09/01/17	09/02/17	0	(21,263)
09/01/17	09/03/17	0	(24,273)
09/01/17	09/04/17	0	(43,862)
09/01/17	09/05/17	21,160	(43,531)
09/01/17	09/06/17	32,420	0
09/01/17	09/07/17	451	(5,076)
09/01/17	09/08/17	20,804	(39,521)
09/01/17	09/09/17	45,383	(9,645)

09/01/17	09/10/17	42,313	(16,592)
09/01/17	09/11/17	33,761	(18,765)
09/01/17	09/12/17	11,389	(35,141)
09/01/17	09/13/17	16,816	(46,126)
09/01/17	09/14/17	10,287	(14,648)
09/01/17	09/15/17	34,723	(4,410)
09/01/17	09/16/17	20,862	(14,129)
09/01/17	09/17/17	24,063	(13,655)
09/01/17	09/18/17	20,514	(12,633)
09/01/17	09/19/17	282	(38,887)
09/01/17	09/20/17	21,960	(2,548)
09/01/17	09/21/17	30,056	(8,547)
09/01/17	09/22/17	49,636	(579)
09/01/17	09/23/17	39,565	0
09/01/17	09/24/17	52,459	0
09/01/17	09/25/17	33,369	0
09/01/17	09/26/17	51,547	0
09/01/17	09/27/17	38,609	(645)
09/01/17	09/28/17	22,227	(4,066)
09/01/17	09/29/17	4,952	(18,164)
09/01/17	09/30/17	0	(21,603)
10/01/17	10/01/17	0	(28,053)
10/01/17	10/02/17	0	(23,097)
10/01/17	10/03/17	0	(37,027)
10/01/17	10/04/17	0	(18,588)
10/01/17	10/05/17	15,995	(1,603)
10/01/17	10/06/17	0	(32,705)
10/01/17	10/07/17	0	(10,726)
10/01/17	10/08/17	0	(4,825)
10/01/17	10/09/17	0	(21,228)
10/01/17	10/10/17	0	(8,455)
10/01/17	10/11/17	21,037	(7,283)
10/01/17	10/12/17	0	(10,531)
10/01/17	10/13/17	9,168	(7,725)
10/01/17	10/14/17	5,485	(30,051)
10/01/17	10/15/17	6,197	(15,741)
10/01/17	10/16/17	54,801	(3,334)
10/01/17	10/17/17	42,748	(3,232)
10/01/17	10/18/17	14,657	(792)
10/01/17	10/19/17	32,318	0
10/01/17	10/20/17	34,788	0
10/01/17	10/21/17	25,495	0
10/01/17	10/22/17	48,647	0
10/01/17	10/23/17	64,940	0
10/01/17	10/24/17	37,199	0
10/01/17	10/25/17	19,188	(7,059)
10/01/17	10/26/17	13,126	(400)
10/01/17	10/27/17	0	(11,095)
10/01/17	10/28/17	0	(11,847)
10/01/17	10/29/17	0	(15,363)
10/01/17	10/30/17	5,326	(5,575)
10/01/17	10/31/17	0	(14,228)
11/01/17	11/01/17	0	(8,457)

11/01/17	11/02/17	0	(56,210)
11/01/17	11/03/17	0	(28,379)
11/01/17	11/04/17	0	(4,696)
11/01/17	11/05/17	0	(33,289)
11/01/17	11/06/17	0	(64,379)
11/01/17	11/07/17	0	(50,279)
11/01/17	11/08/17	46,260	(1,462)
11/01/17	11/09/17	79,918	0
11/01/17	11/10/17	105,697	0
11/01/17	11/11/17	25,141	(5,998)
11/01/17	11/12/17	24,079	0
11/01/17	11/13/17	15,951	(3,083)
11/01/17	11/14/17	13,646	(4,252)
11/01/17	11/15/17	0	(13,726)
11/01/17	11/16/17	0	(10,485)
11/01/17	11/17/17	8,710	0
11/01/17	11/18/17	4,029	(14,539)
11/01/17	11/19/17	23,365	(1,669)
11/01/17	11/20/17	21,436	(817)
11/01/17	11/21/17	19,653	(1,526)
11/01/17	11/22/17	17,865	(1,759)
11/01/17	11/23/17	6,395	(4,725)
11/01/17	11/24/17	18,671	(3,682)
11/01/17	11/25/17	0	(207)
11/01/17	11/26/17	0	0
11/01/17	11/27/17	0	0
11/01/17	11/28/17	0	0
11/01/17	11/29/17	0	0
11/01/17	11/30/17	0	0
12/01/17	12/01/17	0	(9,121)
12/01/17	12/02/17	0	(19,030)
12/01/17	12/03/17	0	(38,128)
12/01/17	12/04/17	0	(43,432)
12/01/17	12/05/17	0	(59,267)
12/01/17	12/06/17	0	(83,842)
12/01/17	12/07/17	0	(57,715)
12/01/17	12/08/17	0	(47,333)
12/01/17	12/09/17	0	(46,354)
12/01/17	12/10/17	0	(52,839)
12/01/17	12/11/17	0	(4,990)
12/01/17	12/12/17	18,287	(135)
12/01/17	12/13/17	23,841	(4,184)
12/01/17	12/14/17	33,785	(2,828)
12/01/17	12/15/17	43,563	(98)
12/01/17	12/16/17	44,689	0
12/01/17	12/17/17	43,829	(809)
12/01/17	12/18/17	48,930	(109)
12/01/17	12/19/17	20,772	(25,471)
12/01/17	12/20/17	0	0
12/01/17	12/21/17	0	(9,230)
12/01/17	12/22/17	8,818	(5,164)
12/01/17	12/23/17	62,269	0
12/01/17	12/24/17	24,250	0

12/01/17	12/25/17	22,270	0
12/01/17	12/26/17	0	0
12/01/17	12/27/17	0	(25,574)
12/01/17	12/28/17	0	(4,365)
12/01/17	12/29/17	45,424	0
12/01/17	12/30/17	20,858	(26,097)
12/01/17	12/31/17	0	(76,187)
01/01/18	01/01/18	0	(154,591)
01/01/18	01/02/18	0	(163,610)
01/01/18	01/03/18	0	(35,084)
01/01/18	01/04/18	11,163	(10,178)
01/01/18	01/05/18	0	(5,742)
01/01/18	01/06/18	0	(27,021)
01/01/18	01/07/18	0	(14,139)
01/01/18	01/08/18	11,421	(209)
01/01/18	01/09/18	0	0
01/01/18	01/10/18	77,354	0
01/01/18	01/11/18	111,973	0
01/01/18	01/12/18	51,860	(6,761)
01/01/18	01/13/18	46,243	0
01/01/18	01/14/18	59,221	(1,649)
01/01/18	01/15/18	63,009	(12,067)
01/01/18	01/16/18	0	(183,978)
01/01/18	01/17/18	0	(69,158)
01/01/18	01/18/18	39,065	(2,268)
01/01/18	01/19/18	58,149	0
01/01/18	01/20/18	32,681	0
01/01/18	01/21/18	32,019	(1,344)
01/01/18	01/22/18	64,515	(841)
01/01/18	01/23/18	38,562	(6,823)
01/01/18	01/24/18	29,002	(82)
01/01/18	01/25/18	31,076	(1,354)
01/01/18	01/26/18	30,707	0
01/01/18	01/27/18	17,777	(3,214)
01/01/18	01/28/18	0	(5,930)
01/01/18	01/29/18	0	(6,634)
01/01/18	01/30/18	0	(1,007)
01/01/18	01/31/18	0	0
02/01/18	02/01/18	0	0
02/01/18	02/02/18	4,885	(1,528)
02/01/18	02/03/18	0	0
02/01/18	02/04/18	0	0
02/01/18	02/05/18	0	0
02/01/18	02/06/18	0	(4,536)
02/01/18	02/07/18	0	(26,852)
02/01/18	02/08/18	8,360	(358)
02/01/18	02/09/18	18,945	0
02/01/18	02/10/18	0	(4,733)
02/01/18	02/11/18	0	(10,768)
02/01/18	02/12/18	17,490	(4,363)
02/01/18	02/13/18	4,805	(2,905)
02/01/18	02/14/18	0	0
02/01/18	02/15/18	0	(1,805)

02/01/18	02/16/18	0	(9,099)
02/01/18	02/17/18	0	(52,812)
02/01/18	02/18/18	0	(32,817)
02/01/18	02/19/18	0	(93,530)
02/01/18	02/20/18	0	(88,794)
02/01/18	02/21/18	0	(37,354)
02/01/18	02/22/18	0	(5,303)
02/01/18	02/23/18	14,734	(528)
02/01/18	02/24/18	0	(13,176)
02/01/18	02/25/18	0	(60,928)
02/01/18	02/26/18	0	(26,952)
02/01/18	02/27/18	0	(9,943)
02/01/18	02/28/18	0	(29,159)
03/01/18	03/01/18	10,145	(11,404)
03/01/18	03/02/18	30,629	(442)
03/01/18	03/03/18	48,174	0
03/01/18	03/04/18	37,106	(6,754)
03/01/18	03/05/18	2,607	(695)
03/01/18	03/06/18	18,274	(23,020)
03/01/18	03/07/18	0	(7,441)
03/01/18	03/08/18	0	(12,622)
03/01/18	03/09/18	0	(7,591)
03/01/18	03/10/18	0	(19,235)
03/01/18	03/11/18	0	(21,257)
03/01/18	03/12/18	0	(39,617)
03/01/18	03/13/18	0	(26,595)
03/01/18	03/14/18	0	(15,048)
03/01/18	03/15/18	0	(15,406)
03/01/18	03/16/18	0	(21,793)
03/01/18	03/17/18	0	(52,985)
03/01/18	03/18/18	0	(31,603)
03/01/18	03/19/18	0	(37,311)
03/01/18	03/20/18	0	(31,319)
03/01/18	03/21/18	7,290	(21,410)
03/01/18	03/22/18	97,031	(1,741)
03/01/18	03/23/18	68,094	0
03/01/18	03/24/18	44,464	(751)
03/01/18	03/25/18	42,517	(3,381)
03/01/18	03/26/18	16,659	(14,587)
03/01/18	03/27/18	32,193	(7,685)
03/01/18	03/28/18	49,876	0
03/01/18	03/29/18	76,799	0
03/01/18	03/30/18	84,672	0
03/01/18	03/31/18	88,107	0
04/01/18	04/01/18	76,575	(7,553)
04/01/18	04/02/18	15,705	(17,515)
04/01/18	04/03/18	7,207	(18,378)
04/01/18	04/04/18	11,150	(20,032)
04/01/18	04/05/18	27,048	(1,150)
04/01/18	04/06/18	38,651	0
04/01/18	04/07/18	0	(22,738)
04/01/18	04/08/18	0	(22,793)
04/01/18	04/09/18	0	(9,730)

04/01/18	04/10/18	21,756	(1,495)
04/01/18	04/11/18	41,492	0
04/01/18	04/12/18	32,573	0
04/01/18	04/13/18	19,343	0
04/01/18	04/14/18	0	(11,455)
04/01/18	04/15/18	0	(28,285)
04/01/18	04/16/18	0	(38,003)
04/01/18	04/17/18	0	(71,176)
04/01/18	04/18/18	0	(48,418)
04/01/18	04/19/18	0	(42,157)
04/01/18	04/20/18	27,695	(1,417)
04/01/18	04/21/18	45,441	0
04/01/18	04/22/18	60,413	(2,951)
04/01/18	04/23/18	57,744	(5,474)
04/01/18	04/24/18	7,728	0
04/01/18	04/25/18	12,939	(16,293)
04/01/18	04/26/18	4,589	0
04/01/18	04/27/18	0	0
04/01/18	04/28/18	1,886	0
04/01/18	04/29/18	12,906	(7,306)
04/01/18	04/30/18	0	(8,241)
05/01/18	05/01/18	0	(59,404)
05/01/18	05/02/18	0	(86,012)
05/01/18	05/03/18	0	(78,784)
05/01/18	05/04/18	4,807	(13,438)
05/01/18	05/05/18	12,817	(1,976)
05/01/18	05/06/18	9,333	(28,359)
05/01/18	05/07/18	0	(30,141)
05/01/18	05/08/18	17,112	(8,395)
05/01/18	05/09/18	6,893	(5,935)
05/01/18	05/10/18	16,977	(11,628)
05/01/18	05/11/18	25,575	(2,630)
05/01/18	05/12/18	61,057	0
05/01/18	05/13/18	27,653	(6,633)
05/01/18	05/14/18	7,985	(30,461)
05/01/18	05/15/18	0	(24,802)
05/01/18	05/16/18	0	(55,980)
05/01/18	05/17/18	2,671	(48,729)
05/01/18	05/18/18	3,456	(27,131)
05/01/18	05/19/18	18,756	(43,428)
05/01/18	05/20/18	12,546	(54,757)
05/01/18	05/21/18	11,669	(35,824)
05/01/18	05/22/18	28,644	(23,776)
05/01/18	05/23/18	1,252	(20,499)
05/01/18	05/24/18	5,890	(37,851)
05/01/18	05/25/18	32,231	(28,220)
05/01/18	05/26/18	54,325	(23,030)
05/01/18	05/27/18	41,500	(1,782)
05/01/18	05/28/18	22,629	(33,036)
05/01/18	05/29/18	17,511	(30,155)
05/01/18	05/30/18	20,254	(20,225)
05/01/18	05/31/18	48,715	(6,985)
06/01/18	06/01/18	24,777	(8,735)

06/01/18	06/02/18	31,049	(3,838)
06/01/18	06/03/18	40,268	(3,923)
06/01/18	06/04/18	61,534	(7,779)
06/01/18	06/05/18	65,137	0
06/01/18	06/06/18	39,564	0
06/01/18	06/07/18	8,561	(1,344)
06/01/18	06/08/18	24,283	(1,736)
06/01/18	06/09/18	17,846	0
06/01/18	06/10/18	30,119	0
06/01/18	06/11/18	28,663	(1,661)
06/01/18	06/12/18	35,581	(1,994)
06/01/18	06/13/18	0	0
06/01/18	06/14/18	0	0
06/01/18	06/15/18	0	(1,507)
06/01/18	06/16/18	0	(4,250)
06/01/18	06/17/18	0	(14,643)
06/01/18	06/18/18	0	(57,210)
06/01/18	06/19/18	37,155	0
06/01/18	06/20/18	17,855	(17,098)
06/01/18	06/21/18	0	(39,810)
06/01/18	06/22/18	0	(34,951)
06/01/18	06/23/18	0	(38,470)
06/01/18	06/24/18	0	(37,575)
06/01/18	06/25/18	0	(11,547)
06/01/18	06/26/18	3,784	(9,825)
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06/01/18	06/29/18	25,080	(5,391)
06/01/18	06/30/18	0	(13,449)
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07/01/18	07/02/18	12,477	(33,728)
07/01/18	07/03/18	28,651	(33,864)
07/01/18	07/04/18	26,701	(1,337)
07/01/18	07/05/18	23,453	(3,737)
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07/01/18	07/20/18	16,699	(19,041)
07/01/18	07/21/18	27,552	(13,447)
07/01/18	07/22/18	13,096	(43,140)
07/01/18	07/23/18	10,774	(48,088)
07/01/18	07/24/18	14,784	(41,928)

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08/01/18	08/10/18	35,551	(14,430)
08/01/18	08/11/18	47,913	(12,438)
08/01/18	08/12/18	43,814	(9,309)
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08/01/18	08/15/18	17,474	(27,623)
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09/01/18	09/14/18	0	(6)
09/01/18	09/15/18	0	(12,218)

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10/01/18	10/04/18	0	(53,528)
10/01/18	10/05/18	0	(46,568)
10/01/18	10/06/18	0	(10,061)
10/01/18	10/07/18	0	(23,606)
10/01/18	10/08/18	0	(55,806)
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10/01/18	10/28/18	14,253	(18,710)
10/01/18	10/29/18	8,701	(12,403)
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03/01/19	03/10/19	0	(26,791)
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03/01/19	03/12/19	52,206	0
03/01/19	03/13/19	44,368	0
03/01/19	03/14/19	24,810	(6,669)
03/01/19	03/15/19	0	(34,165)
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03/01/19	03/18/19	0	(11,386)
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03/01/19	03/20/19	14,023	(7,697)
03/01/19	03/21/19	9,310	(1,015)
03/01/19	03/22/19	30,401	(2,588)
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03/01/19	03/24/19	13,497	(5,092)
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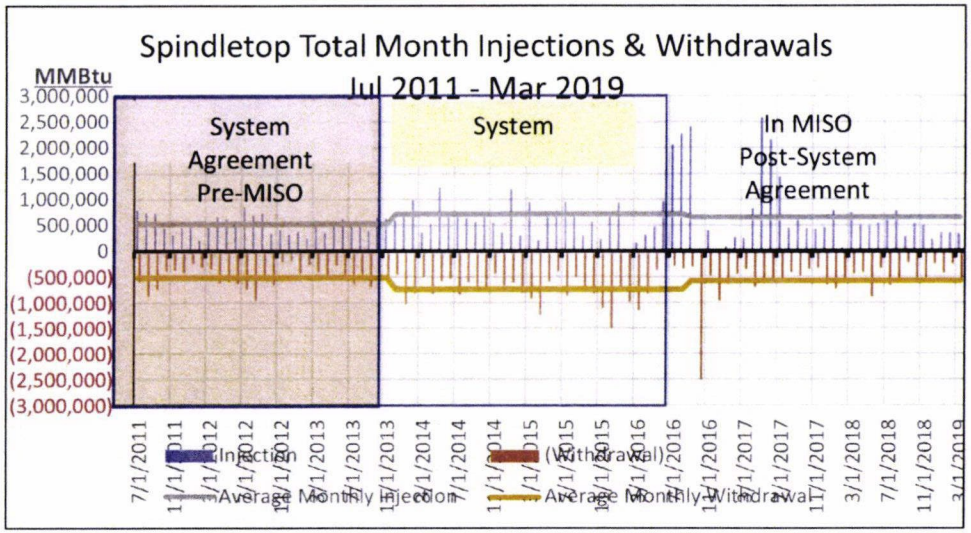
Spindletop Total Month Injections & Withdrawals
Jul 2011 - Mar 2019
MMBtu
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2,500,000
2,000,000
1,500,000
1,000,000
500,000
0
(500,000)
(1,000,000)
(1,500,000)
(2,000,000)
(2,500,000)
(3,000,000)
System Agreement Pre-MISO
System
In MISO Post-System Agreement
7/1/2011
11/1/2011
1/1/2012
3/1/2012
5/1/2012
7/1/2012
9/1/2012
11/1/2012
1/1/2013
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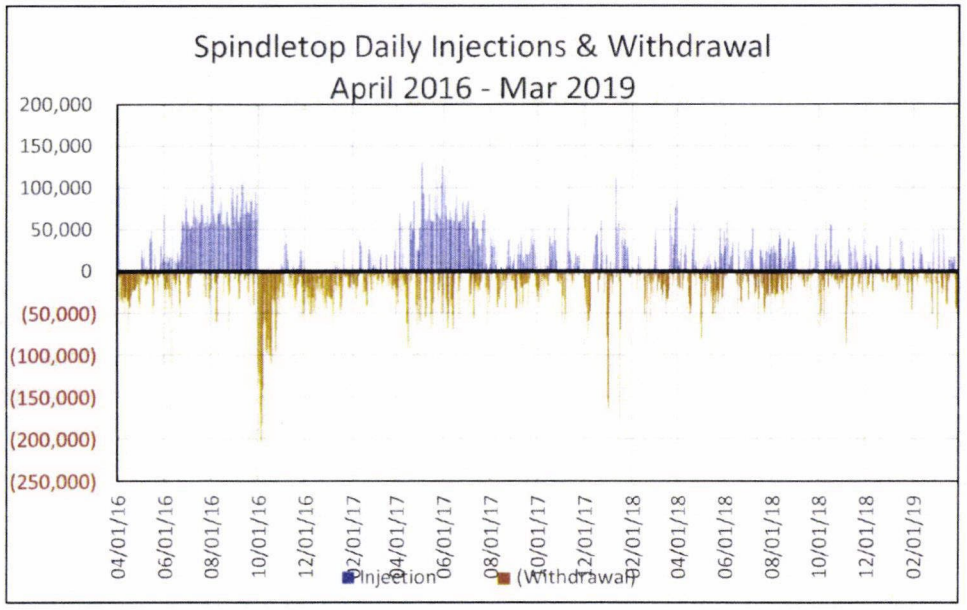
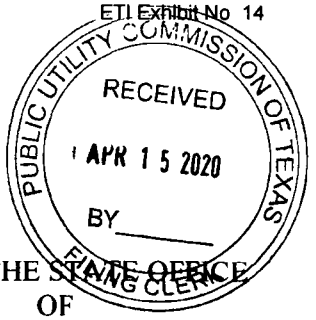
1/1/2018
3/1/2018
5/1/2018
7/1/2018
9/1/2018
11/1/2018
1/1/2019
3/1/2019
Injection
(Withdrawal)
Average Monthly Injection
Average Monthly Withdrawal


Spindletop Daily Injections & Withdrawal
April 2016 - Mar 2019
200,000
150,000
100,000
50,000
0
(50,000)
(100,000)
(150,000)
(200,000)
(250,000)
04/01/16
06/01/16
08/01/16
10/01/16
12/01/16
02/01/17
04/01/17
06/01/17
08/01/17
10/01/17
12/01/17
02/01/18
04/01/18
06/01/18
08/01/18
10/01/18
12/01/18
02/01/19
Injection
(Withdrawal)

SOAH Docket No. 473-20-0259
PUC Docket No. 49916
ETI Exhibit No. 14



SOAH DOCKET NO. 473-20-0259
PUC DOCKET NO. 49916

APPLICATION OF ENTERGY TEXAS, INC. FOR AUTHORITY TO RECONCILE FUEL AND PURCHASED POWER COSTS	§ § § §	BEFORE THE STATE OFFICE OF ADMINISTRATIVE HEARINGS

REBUTTAL TESTIMONY

OF

SCOTT M. CELINO

ON BEHALF OF

ENTERGY TEXAS, INC.

APRIL 2020

90

ENTERGY TEXAS, INC.
REBUTTAL TESTIMONY OF SCOTT M CELINO
SOAH DOCKET NO. 473-20-0259
PUC DOCKET NO. 49916

TABLE OF CONTENTS

I. INTRODUCTION AND PURPOSE

Q1. PLEASE STATE YOUR NAME, BUSINESS ADDRESS, AND OCCUPATION.

A. My name is Scott M. Celino. My business address is 639 Loyola Avenue, New Orleans, Louisiana 70113. I am employed by Entergy Services, LLC ("ESL"), the service company affiliate of Entergy Texas, Inc. ("ETI" or the "Company"), as Manager in the Fuel & Special Riders Department.

Q2. ARE YOU THE SAME SCOTT M. CELINO WHO SUBMITTED DIRECT TESTIMONY IN THIS DOCKET?

A. Yes, I am.

Q3. WHAT IS THE PURPOSE OF YOUR REBUTTAL TESTIMONY?

A. The purpose of my rebuttal testimony is to respond to Mr. Norwood's recommendation that the Commission order ETI to address in a future proceeding the allocation of a $33.2 million FERC-ordered refund that was credited to eligible fuel expense in December 2018.

II. RESPONSE TO MR. NORWOOD

Q4. WHAT IS THE FERC-ORDERED REFUND CREDIT REFERRED TO BY MR. NORWOOD?

A. ETI received a refund from Entergy Arkansas, LLC in the amount of $33.2 million pursuant to FERC's Order in Docket No. EL09-61. The Company booked this

refund as a credit to eligible fuel expense in the month of December 2018, the month it was received.

Q5. DO YOU AGREE WITH MR. NORWOOD'S RECOMMENDATION TO ADDRESS THE ALLOCATION OF THAT CREDIT TO CUSTOMER CLASSES IN A FUTURE PROCEEDING?

A. No, I do not.

Q6. PLEASE EXPLAIN.

A. It appears that Mr. Norwood agrees it was appropriate to credit the refund amount to fuel expense because he recommends the allocation of that credit to customers occur in a future fuel proceeding. However, I disagree with Mr. Norwood's claim that the allocation of the credit among rate classes should be on a basis other than usage during the month in which the credit was booked to eligible fuel expense. My disagreement with Mr. Norwood's recommendation is two-fold.

First, there have been a number of fairly recent instances where ETI received FERC-ordered credits that related to prior periods. Specifically, I am referring to true-ups of annual Rough Production Cost Equalization ("RPCE") Bandwidth calculations that were credited to fuel expense.[1] In each instance, while the true-up pertained to a prior period, the allocation of the true-up credit among

[1] *E.g., Application of Entergy Texas, Inc. to Implement an Interim Fuel Refund Net of Bandwidth Payments (Issues Severed from Docket No. 42730)*, Docket No. 43998, Order (Mar. 10, 2015) (ETI credited fuel expense $48.6 million in May 2014 for a true-up related to the RCPE Bandwidth calculation for the 2005 test period).

rate classes was based on usage during the month in which the true-up credit was booked to eligible fuel expense. I see no compelling reason to pursue a different approach in this case, and Mr. Norwood has not provided any.

Q7. WHAT IS YOUR SECOND BASIS OF DISAGREEMENT WITH MR. NORWOOD?

A. I disagree that an attempt to address any inherent intergenerational inequities in the timing of the refund payment will be productive. While Mr. Norwood makes no specific recommendation regarding how the FERC-ordered refund should be allocated to customer classes, he notes that the refund pertains to the period 2000 – 2009 and states "it will be important for the credit to be allocated to Texas retail rate classes in a manner that equitably reflects the actual overcharges that led to the refund, not simply their usage in December of 2018."[2] That testimony suggests to me that Mr. Norwood is looking to allocate the credit in some manner that takes into consideration usage over the period 2000 – 2009. Beyond the fact that developing such an allocation would be administratively burdensome, such an approach would do no better in addressing intergenerational inequities than the Company's proposal because customers who existed on ETI's system for a decade that is more than 10 years past are not the same as those existing today, and vice versa. There is simply no perfect solution to that issue. Accordingly, my view is that it is unnecessary to expend the resources of the Commission, its Staff, and

[2] Direct Testimony of Scott Norwood at p. 23.

parties in a future proceeding to try and develop a different approach than what has been done in the recent past with RPCE Bandwidth true-up credits. Moreover, such a future proceeding could create even greater intergenerational inequities, as it will be even further removed from the 2000-2009 time period at issue.

III. CONCLUSION

Q8. DOES THIS CONCLUDE YOUR REBUTTAL TESTIMONY?

A. Yes.

SOAH Docket No 473-20-0259
PUC Docket No 49916
ETI Exhibit No. 15

SOAH DOCKET NO. 473-20-0259
PUC DOCKET NO. 49916

APPLICATION OF ENTERGY TEXAS, INC. FOR AUTHORITY TO RECONCILE FUEL AND PURCHASED POWER COSTS	§ § § §	BEFORE THE STATE OFFICE OF ADMINISTRATIVE HEARINGS

REBUTTAL TESTIMONY

OF

CHRISTOPHER K. BURKE

ON BEHALF OF

ENTERGY TEXAS, INC.

APRIL 2020

ENTERGY TEXAS, INC.
REBUTTAL TESTIMONY OF CHRISTOPHER K. BURKE
SOAH DOCKET NO. 473-20-0259
PUC DOCKET NO. 49916

TABLE OF CONTENTS

EXHIBITS