Exhibit No. 6

Liberty – Exhibit 6
Karen S. Hall
Direct Testimony (EO-2022-0040)
File Nos. EO-2022-0040 & EO-2022-0193

Exhibit No.: ____
Issues: Revenue Requirement, Securitized Utility Tariff Charge, Adjustment and Reconciliation
Witness: Karen S. Hall
Type of Exhibit: Direct Testimony
Sponsoring Party: The Empire District Electric Company
Case No.: ER-2022-0040
Date Testimony Prepared: January 2022

Before the Public Service Commission
of the State of Missouri

Direct Testimony

of

Karen S. Hall

on behalf of

The Empire District Electric Company

January 2022

Liberty™

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FOR THE DIRECT TESTIMONY OF KAREN S. HALL
THE EMPIRE DISTRICT ELECTRIC COMPANY
BEFORE THE MISSOURI PUBLIC SERVICE COMMISSION
CASE NO. ER-2022-0040

DIRECT TESTIMONY OF KAREN S. HALL
THE EMPIRE DISTRICT ELECTRIC COMPANY
BEFORE THE MISSOURI PUBLIC SERVICE COMMISSION
CASE NO. ER-2022-0040

I. INTRODUCTION

Q. Please state your name and business address.

A. My name is Karen S. Hall, and my business address is 15 Buttrick Road, Londonderry, New Hampshire, 03053.

Q. By whom are you employed and in what capacity?

A. I am employed as Senior Manager, Rates and Regulatory by Liberty Utilities Service Corp. In this capacity, I provide regulatory services to The Empire District Electric Company ("Liberty" or "Company") and other utilities owned by Liberty Utilities Co.

Q. On whose behalf are you testifying in this proceeding?

A. I am testifying on behalf of Liberty.

Q. Please describe your educational and professional background.

A. I hold a B.S. in Business Administration from the University of South Carolina, Aiken, as well as an Associate Degree in Public Service and an Associate Degree in Arts from Greenville Technical College in South Carolina. I am currently enrolled at the University of Missouri where I'm pursuing a Master's Degree in Public Affairs. After more than a decade providing legal and operational support in private law firms, I joined Duke Energy in 2015 as a member of the Carolinas state regulatory legal team where I supported rate cases, annual fuel filings, and other regulatory matters. In 2018, I joined Duke Energy's Grid Solutions organization where I led the regulatory support for the company's recovery of its advanced metering infrastructure investment and provided regulatory support to Duke Energy's grid improvement initiatives as well as to the customer service and customer experience organizations. In early 2020, I transitioned to Duke Energy's Rate Design and Strategic Solutions team and was promoted to Rates and Regulatory Strategy Manager. In that role, I was responsible for managing the implementation of key rate designs and strategic solutions across the Duke Energy enterprise. In November 2020 I joined Liberty in my current role.

Q. Have you previously testified before the Missouri Public Service Commission ("Commission") or any other regulatory agency?

A. I have not testified before this Commission; however, I have submitted testimony before the California Public Utilities Commission, the New Brunswick Energy & Utilities Board, and the New York Department of Public Service.

Q. What is the purpose of your testimony in this proceeding?

A. My testimony supports the Company's request to securitize the qualified extraordinary costs the Company incurred during Winter Storm Uri. Specifically, my testimony describes the calculation of revenues Liberty seeks to recover from customers in order to issue and service securitized utility bonds. The Company proposes a new rate, the Securitized Utility Tariff Charge ("SUTC"), that will allow Liberty to recover securitized costs from customers. I explain how the SUTC will be trued-up to actual revenues and costs at least annually to account for uncertainties in the Company's electric sales. In my testimony, I demonstrate that securitization of the Storm Uri costs creates benefits for customers when compared to recovery of the costs through customary ratemaking treatment, as required in RSMo. §393.1700 (the "Securitization Statute").

Q. Are you sponsoring any schedules with your testimony?

A. Yes. I am sponsoring the following schedules:

- Direct Schedule KSH-1 (Estimated Upfront and Ongoing Costs);
- Direct Schedule KSH-2 (Total Retail Revenue Requirement for Securitized Utility Tariff Charge);
- Direct Schedule KSH-3 (Benefits Comparison);
- Direct Schedule KSH-4 (Allocation of Securitized Utility Tariff Charge); and
- Direct Schedule KSH-5 (Proposed Securitized Utility Tariff Charge).

Q. How is the remainder of your testimony organized?

A. I begin by discussing the calculation of the revenue requirement for the securitization bonds. I discuss the estimated upfront and ongoing financing costs associated with the bonds that will be passed along to customers. I provide an analysis of the net present value of securitization to customers compared to customary ratemaking treatment, and I demonstrate that securitization results in quantifiable savings to customers. I discuss how the securitized costs will be recovered from customers, and I introduce Liberty's proposed SUTC and discuss the Company's proposal to true-up this rate at least annually.

II. <u>REVENUE REQUIREMENT</u>

Q. What is the purpose of this section of your testimony?

A. In this section of my testimony, I discuss the calculation of the revenue requirement for the securitization bonds, which is the amount of revenue that Liberty must recover from its customers to pay the bonds, financing costs, and other requirement amounts and charges payable under the bonds.

Q. What is included in the revenue requirement?

A. The revenue requirement is the sum of categories of cost that must be recovered to service the bonds, the first being the payment that will be made on the bonds and the second being ongoing costs to administer the bonds. I calculated the monthly revenue requirement required to cover the bonds until the first true-up, which will occur at least annually to correct any overcollections or undercollections, and more frequently to correct for any forecasted undercollection, to ensure the expected recovery of amounts sufficient to timely provide all payments of debt service and other required amounts and charges in connection with the securitized utility tariff bonds[1].

Q. What determines the total value of the bonds that will be issued?

A. Proceeds from the bonds must be large enough to offset the qualifying extraordinary costs that Liberty incurred on behalf of its customers for service during Winter Storm Uri as well as the costs of issuing the bonds themselves. Therefore, the total issuance is equal to the sum of the two categories of costs, the storm costs with the carrying charges and deferred legal costs, plus the upfront financing costs to issue the bonds.

Q. Please describe the storm costs, carrying charges and deferred legal costs.

A. Through December 31, 2021, Liberty has incurred $193.4 million in extraordinary expenses for service arising out of Winter Storm Uri on behalf of its customers. The costs and the circumstances around this anomalous weather event are further described in the Direct Testimony of Company witnesses Aaron Doll and John Olsen. Since Liberty incurred the costs, it has applied a carrying charge based on its Weighted Average Cost of Capital ("WACC"), which the Commission set at 6.77% in Case No. ER-2019-0374. As of December 31, 2021, the carrying charges total approximately $11 million. Additionally, Liberty deferred approximately $141,000 in legal expenses associated with Winter Storm Uri. As of December 31, 2021, the total of the incurred Winter Storm Uri costs, carrying costs and deferred legal costs is approximately $208.1

[1] *See* RSMo § 393.1700.2(3)(g).

million. If approved by the Commission, the Company will update these costs through the date of the bond issuance.

Q. What is included in the upfront financing costs?

A. The upfront financing costs total approximately $3.6 million and include estimated fees to the Company's legal and structuring advisors, consultants, underwriting fees, auditing fees, and others as well rating and filing fees necessary to secure the bonds. Additional discussion regarding the upfront costs are provided in the Direct Testimony of Company Witness Matthew DeCourcey and in Witness Katrina Niehaus's testimony. An itemization of the estimated upfront financing costs is also included in Schedule KSH-1, attached hereto.

Liberty has not included an estimate for the Commission's advisor and legal counsel fees since these can vary widely depending on the third parties hired. I am aware of a wide range in estimates, including $50,000 for the Commission's costs in Texas for an AEP Texas securitization in September 2019 to $2.95 million by the Florida Commission for a Duke Florida securitization in June 2016.

Q. Will the Commission review the final amount of the upfront financing costs?

A. Yes, through the issuance advice letter process discussed by Witness Niehaus. Furthermore, if the actual upfront financing costs are less than the upfront costs included in the principal amount securitized, the periodic billing requirement, defined below, for the first annual true-up adjustment must be reduced by the amount of such unused funds (together with interest, if any, earned on the investment of such funds). If the actual upfront financing costs are more than the upfront financing costs included in the principal amount securitized, Liberty may request recovery of the remaining upfront financing costs through a surcharge to Liberty's rates for distribution service.

I anticipate the bonds will be issued in a single issuance or series, but Liberty is requesting authority to be able to issue the bonds in one or more series subject to market conditions in order to ensure the issuance of the bonds results in the lowest securitized utility tariff charges consistent with market conditions at the time the bonds are priced and the conditions of a financing order issued by this Commission.

Q. Please summarize the total issuance of the bonds.

A. The sum of these categories is about $208.1 million as shown in Table 1:

Table 1. Bond Issuance Amounts

Storm Uri costs	$193,402,198
Carrying costs	$10,957,635
Deferred legal costs	$141,106
Upfront costs	$3,638,534
Total	$208,139,472

Q. What is the interest rate and term of the bonds?

A. While the final interest rate will depend upon market conditions at the time of the offering, Witness Niehaus currently estimates the bonds will have a weighted average coupon rate of 2.47% and a term of 13 years. [2]

Q. What will be the monthly payment on the bonds?

A. The final monthly payment on the bonds will depend on market conditions at the time of issuance, the actual upfront financing costs and the Commission's advisor and legal costs. However, based on current estimates, the monthly payment would be approximately $1.6 million. My calculations are shown in Schedules KSH-1 and KSH-2.

[2] Direct Testimony of Katrina T. Niehaus, Figure KN-3.

Q. Please explain the estimated ongoing costs.

A. As witnesses DeCourcey and Niehaus explain in their Direct Testimonies, the ongoing costs include fees associated with the U.S. Securities and Exchange Commission ("SEC") review process, indenture trustee fees, and rating agency surveillance fees. Additionally, Liberty has estimated ongoing fees for auditing/accounting, legal, printing and others. Liberty also estimates an ongoing return on the Capital Account discussed by Witness Niehaus at its average WACC. An itemization of these estimated fees is shown in Schedule KSH-1, and the combined amount of these estimated fees is expected be $298,473 per year, or $24,873 per month.

Q. Please summarize the revenue requirement.

A. The estimated monthly revenue requirement for securitization is approximately $1.6 million per month, which is the sum of the estimated bond repayment, estimated ongoing costs, each of which are shown in Table 2 and described in Schedule KSH-2:

Table 2. Estimated Revenue Requirement ($/month)

Bond payment	$1,561,243
Ongoing costs	$24,873
Revenue requirement	$1,586,115

This is the amount that Liberty will need to recover from its customers, in the aggregate, each month over the life of the bonds.

Q. Will Liberty update these costs prior to the issuance of the bonds?

A. Yes. As discussed by Company witness Doll, the costs the Company incurred during Winter Storm Uri are known with certainty, but other costs, such as some of the upfront financing costs, are estimates, while other costs, such as the carrying charges, vary over time. Liberty will therefore update the costs immediately before the bonds are issued.

III. BENEFITS OF SECURITIZATION

Q. What is the purpose of this section of your testimony?

A. In this section, I compare the costs to customers of securitizing Liberty's qualifying extraordinary costs arising out of Winter Storm Uri to those the customers would customarily bear if these costs were recovered without securitization through customary ratemaking treatment. I conclude that securitization creates significant quantifiable savings for customers.

Q. Why have you conducted this comparison?

A. Section 2.2(f) of the Securitization Statute requires a comparison of costs customers would pay if securitized utility tariff bonds were issued, and the costs customers would pay if the qualified extraordinary costs were recovered using the customary method of financing. My comparison demonstrates that the Company's proposal to use securitization to finance the recovery of the costs arising from Winter Storm Uri fulfill this requirement.

Q. If the costs in question were not securitized, how would the Company recover them?

A. One way would be through the Fuel Adjustment Charge ("FAC"), which the Company uses to recover fuel and related costs it incurs on behalf of its customers. Typically, the FAC is used to recover costs over a six-month period, for the previous six-month period. In this instance, because the costs the Company incurred during Winter Storm Uri were so large, the Company removed these costs from the FAC filing and sought recovery of them in its rate case.

In its direct testimony in Liberty's pending rate case, as of May 2021, the Company sought recovery of $181,682,727 in Storm Uri costs, which results in an incremental increase in revenue of $29,883,338 from Winter Storm Uri, representing an increase of 4.54% in total base operating revenue.[3,4] Those numbers do not include additional costs incurred or adjustments for SPP resettlements through the end of December 2021.

Q. If the Company can recover the extraordinary costs over time, why is it proposing to securitize them?

A. Because securitization is considerably less expensive, and results in a lower overall cost to customers.

Q. How?

A. Securitization affords access to financing at much lower rates to customers. As I explained previously, the Company currently estimates that the interest rate on the bonds that will be issued is 2.47%. If the Company were to carry the cost and amortize it over time, it would carry the balance as a regulatory asset and apply a carrying charge equal to its WACC. Using the Company's WACC of 7.06% proposed in the current rate case, customers' costs would be much higher, even when out-of-pocket financing costs are considered.

Q. Have you estimated how much Liberty's customers will save from securitizing the costs?

A. Yes. As I explain above and detailed in Schedule KSH 2, the revenue requirement for the securitized bonds and the associated estimated costs is about $1.6 million per month. Over the course of the scheduled thirteen-year period, customers would pay a total of about $247 million. For comparison, I also calculated the monthly cost that

[3] Direct Testimony of Charlotte Emery, ER-2021-0312, page 21 at line 2.
[4] Direct Testimony of Charlotte Emery, ER-2021-0312, page 5 at line 13.

would accrue to customers if the Company amortized its costs from Storm Uri (the actual costs plus carrying costs since) over a period of equal length with a carrying charge equal to the WACC. Note that for the comparison I eliminated the upfront financing costs and the ongoing financing costs. Under that scenario, the Company would need to recover approximately $2 million per month from customers, with such payments totaling approximately $313 million over the thirteen-year period. The benefits to customers are thus approximately $65.6 million. My calculations are included in Schedule KSH-3.

Table 3. Summary of Securitization Benefits

	Securitization	**Amortization 13 Years**
Total payments	$247,434,015	$313,064,702
Securitization benefit	-----	$65,630,688

Q. Have you developed any other comparisons?

A. Yes. The Securitization Statute requires a comparison of costs on a Net Present Value ("NPV") basis. To meet this requirement, I have included a comparison of the total value of the payments made by customers to securitize the Storm Uri costs, expressed on an NPV basis using Liberty's proposed WACC as a discount rate, to the total value of payments they would make, expressed on the same basis, if Liberty amortized the costs itself. My results are included in Schedule KSH-3 and are shown in Table 4.

Table 4. Summary of Securitization Benefits on an NPV Basis

	Securitization	**Amortization 13 Years**
NPV of total payments discounted at WACC	$161,629,490	$204,500,939
NPV Securitized Benefit	-----	$42,871,448

Q. What do you conclude from this comparison?

A. I conclude that the total amount Liberty's customers will need to pay to offset the qualified extraordinary costs that the Company incurred will be lower, on a nominal and NPV basis, if the costs are securitized.

IV. SECURITIZED METHOD OF STORM COST RECOVERY

Q. How would the qualified extraordinary costs be recovered from customers once costs have been securitized ("Securitized Cost Recovery")?

A. As explained more fully in the Direct Testimony of Witness Niehaus, in a Securitized Cost Recovery, the utility seeks to accelerate the recovery of qualified extraordinary costs and associated financing costs by issuing bonds and receiving one lump sum of cash upon issuance. The Company is requesting Commission approval to securitize costs arising out of Winter Storm Uri with bonds and recover these costs from customers via a non-bypassable SUTC. This charge will ensure the recovery of revenues is sufficient to provide for the payment of the bond principal, interest, financing costs, and other fees, costs, and charges related to the securitized utility tariff bonds. A Commission-approved SUTC would be assessed to all current and future retail customers of Liberty.

Q. Please explain a non-bypassable SUTC.

A. Pursuant to the Securitization Statute, a non-bypassable charge shall be paid by all existing or future retail customers receiving electrical service from an electrical corporation or its successors or assignees under Commission-approved rate schedules (except for customers receiving electrical service under special contracts as of August 28, 2021), even if a customer elects to purchase electricity from an alternative electricity supplier following a fundamental change in regulation of public utilities in Missouri.

Q. Will Liberty collect the SUTC?

A. Yes. Liberty, as servicer, will collect the SUTC and remit the funds to a collection account. This is more fully described in the testimony of Witness Niehaus.[5]

V. SECURITIZED UTILITY TARIFF CHARGE

Q. What is the purpose of this section of your testimony?

A. In this section of my testimony, I explain the SUTC that the Company proposes to use to recover the costs of the securitization bonds.

Q. Please summarize the calculation of the SUTC.

A. To calculate the SUTC, I allocated the revenue requirement to each of the Company's rate classes based on the results of the Class Cost of Service ("CCOS") study presented by Company witness Tim Lyons in Liberty's ongoing rate case in Case No. ER-2021-0312. I then used the billing determinants Witness Lyons uses to calculate Liberty's proposed distribution rates to calculate a separate SUTC for each class.

Q. How much are the SUTCs you calculate designed to recover?

A. As I explain above, the revenue requirement for the bonds is about $1.6 million per month; however, to minimize the impact of seasonal variations in usage, I have calculated the SUTCs on an annual basis. Thus, they are designed to recover twelve times the monthly revenue requirement, or about $19 million.

[5] Direct Testimony of Katrina T. Niehaus, page 9 at line 23.

Q. How did you determine how much revenue will be recovered from customer classes?

A. Based on the class revenue targets from witness Lyons' rate design which, as he explains in his Direct Testimony filed in Case No.: ER-2021-0312, was established by the Class Cost of Service Study. Specifically, I calculated the percentage of the Company's total distribution revenue requirement that would be contributed by each of Liberty's rate classes and used the result to determine how much of the cost of the securitization bonds should be recovered from each class.

Q. What was the next step in your calculation?

A. Using the determinants witness Lyons used in his study, I calculated the SUTC for each class. The results are shown in Table 4 and detailed in Schedule KSH-4.

Table 5. Calculation of SUTCs by Class

Class	**Allocation**	**Revenue Target**	**Class Usage**	**SUTC**
	%	*$*	*kWh*	*$/kWh*
Residential	44.38%	$8,446,124	1,672,672,383	$0.00505
Commercial	8.93%	$1,700,368	314,902,557	$0.00540
Small Heating	2.01%	$382,997	79,755,494	$0.00480
General Power	18.30%	$3,482,371	837,326,668	$0.00416
Transmission	1.13%	$214,289	69,477,754	$0.00308
Total Electric Building	7.69%	$1,463,808	340,335,347	$0.00430
Feed Mill	0.02%	$2,935	452,711	$0.00648
Large Power	16.21%	$3,084,578	874,735,928	$0.00353
Misc. Service	0%	$592	136,106	$0.00435
Street Lighting	0.62%	$118,709	17,854,334	$0.00665
Private Lighting	0.70%	$133,675	12,566,733	$0.01064
Special Lighting	0.02%	$2,939	405,972	$0.00724
Total/Average	100%	$19,033,386	4,220,621,987	$0.00451

Q. Is the Company seeking approval of a tariff at this time?

A. No. If the Commission approves the Company's request to securitize the costs arising from Winter Storm Uri, the Company will update its calculation for costs immediately before the bonds are issued, and it will seek approval of the final tariff at that time. However, I've attached the current draft tariff, based on the estimated costs, as Schedule KSH-5.

Q. If approved, how will SUTC appear on customer bills?

A. The SUTC will appear as a separate line item on a customer's bill and it will include both the rate and the amount charged on each bill.

VI. <u>SUTC TRUE-UP AND ADJUSTMENT</u>

Q. What is the purpose of this section of your testimony?

A. In this section of my testimony I summarize the true-up of the SUTC the Company will conduct at least annually during the life of the securitization bonds.

Q. Please summarize the formula based true-up mechanism.

A. The true-up adjustment will, at least annually, adjust the SUTC for any overcollections or undercollections to ensure the expected recovery of amounts are sufficient to timely provide all payments of debt service and other required amounts and charges in connection with the securitized utility tariff bonds.

Q. Will Liberty complete any other reviews of the SUTC?

A. Yes. In addition to the reviews at least annually, Liberty may request a true-up at any time during the term of the securitized utility tariff bonds to correct any undercollection. Further, Liberty must be able to make a mandatory interim true-up adjustment semi-annually (or quarterly beginning 12 months prior to the final scheduled payment date of the last tranche of the securitized utility tariff bonds) to ensure that the amount of the SUTC matches any funding requirements approved by the Commission.

Q. Please describe the reconciliation process as required by RSMo 363.1700.2(2)(f) between securitized utility tariff bonds and final securitized costs incurred by Liberty.

A. As this is a securitization for the recovery of qualified extraordinary costs arising out of Winter Storm Uri, I do not anticipate having to do a reconciliation because at the time the bonds will be issued, all qualified extraordinary costs arising out of Winter Storm Uri will be known and approved by the Commission for recovery.

Q. Please explain what happens to the SUTC once the bonds and any related financing costs have been repaid in full.

A. Once the bonds and financing costs have been repaid Liberty will no longer bill customers for the SUTC.

VII. <u>CONCLUSION</u>

Q. Does this conclude your testimony?

A. Yes.

VERIFICATION

I, Karen S. Hall, under penalty of perjury, on this 19th day of January, 2022, declare that the foregoing is true and correct to the best of my knowledge and belief.

/s/ Karen S. Hall

Direct Testimony of Karen S. Hall
The Empire District Electric Company
Before the Missouri Public Service Commission
Case. No. ER-2022-0040

Schedule KSH-1

Line No.			
1	**Storm Uri costs (incl. carrying costs)**	**$**	**204,500,939**
2			
3	Summary of Estimated Upfront Costs for Securitization		
4			
5	Legal fees	$	1,900,000
6	Underwriting	$	840,000
7	Auditor fee	$	200,000
8	Structuring advisor (incl. discount)	$	255,000
9	Misc	$	50,000
10	Consultant fees	$	135,200
11	Commission advisor		Unknown
13	Fixed fees	$	3,380,200
14			
15			
16	SEC Filing Fee		0.00927%
17	Bond rating fees (incl. S&P and Moody's @ 0.0575% each)		0.1150%
18	Filing fees total percentage		0.1243%
19	Total rating and filing fees	$	258,334
20			
22	**Total upfront costs**	**$**	**3,638,534**
23			
24	**Estimated bond issuance amount**	**$**	**208,139,472**
25			
26	Summary of Estimated Ongoing Costs per year		
27			
28	Administration	$	50,000
29	Trustee fee	$	5,000
30	Auditing/accounting fees	$	75,000
31	Legal fees	$	35,000
32	Rating agency surveillance fees	$	40,000
33	Return on Capital Account for Credit enhancement (calculated at proposed WACC from ER-2021-0312)	$	73,473
34	Printing fees	$	10,000
35	Miscellaneous	$	10,000
36	**Ongoing Costs Per Year**	**$**	**298,473**
37			
38	**Ongoing Costs Per Month**	**$**	**24,873**

Direct Testimony of Karen S. Hall
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Case. No. ER-2022-0040

Schedule KSH-2

Line No.				
1	Storm Uri Costs	$ 193,402,198		
2	Carrying costs as of December 31, 2021 @ 6.77% WACC from ER-2019-0374	$ 10,957,635		
3	Deferred legal costs as of December 31, 2021	$ 141,106		
5	Total Storm Recovery costs	$ 204,500,939		$ 204,359,833
6				$ 1,309,332.88
7	Upfront Financing Costs	$ 3,638,534		
8	Total Cost to be Financed with Securitized Utility Tariff Bonds	$ 208,139,472	$ 7,518,685.93	
9				8.368868528
10	Interest rate	2.47%		
11	Term (years)	13		
12	**Monthly bond payment**	**$ 1,561,243**		
13				
14	Ongoing costs (annual)	$ 298,473		
15	Ongoing costs (monthly)	$ 24,873		
16				
17	**Monthly Revenue Requirement**	**$ 1,586,115**	$ 19,033,386	

Schedule KSH-3

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Line			Amortization:
1		**Securitization**	**13 Years**
2	Storm Uri costs (incl. carrying)	$204,500,939	$204,500,939
3	Upfront financing costs	$3,638,534	0
4	Total	$208,139,472	$204,500,939
5			
6	Carrying cost	2.47%	7.06%
7	Term (years)	13	13
8	Monthly payment	($1,561,243)	($2,006,825)
9			
10	Ongoing costs (monthly)	($24,873)	0
11			
12	Monthly revenue requirement	($1,586,115)	($2,006,825)
13			
14	Total payments	($247,434,015)	($313,064,702)
15	**Securitization benefit**		**$65,630,688**
16			
17	WACC (proposed in ER-2021-0312)	7.06%	7.06%
18	NPV payments discounted @ WACC	($161,629,490)	($204,500,939)
19	**NPV securitization benefit**		**$42,871,448**
20			

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Schedule KSH-4

Allocation and Customer Rates Under Securitization

$1,586,115 Monthly revenue requirement
$19,033,386 Annual revenue requirement

	Residential	Commercial	Small Heating	General Power	Transmission	Total Electric Building	Feed Mill	Large Power	Misc. Service	Street Lighting	Private Lighting	Special Lighting	
	RG	**CB**	**SH**	**GP**	**TS**	**TEB**	**PFM**	**LP**	**MS**	**SPL**	**PL**	**LS**	**Total**
Rate design revenue target	$314,277,199	$63,270,070	$14,251,189	$129,577,749	$7,973,615	$54,467,748	$109,226	$114,776,031	$22,039	$4,417,117	$4,973,992	$109,357	$708,225,332
Allocation	44.38%	8.93%	2.01%	18.30%	1.13%	7.69%	0.02%	16.21%	0.00%	0.62%	0.70%	0.02%	100.00%
Bond revenue targets	$8,446,124	$1,700,368	$382,997	$3,482,371	$214,289	$1,463,808	$2,935	$3,084,578	$592	$118,709	$133,675	$2,939	$19,033,386
Usage	1,672,672,383	314,902,557	79,755,494	837,326,668	69,477,754	340,335,347	452,711	874,735,928	136,106	17,854,334	12,566,733	405,972	4,220,621,987
SAR	**$0.00505**	**$0.00540**	**$0.00480**	**$0.00416**	**$0.00308**	**$0.00430**	**$0.00648**	**$0.00353**	**$0.00435**	**$0.00665**	**$0.01064**	**$0.00724**	

$5.05

Class	Allocation %	Revenue Target $	Usage kWh	SAR $/kWh
Residential	44.38%	$8,446,124	1,672,672,383	$0.00505
Commercial	8.93%	$1,700,368	314,902,557	$0.00540
Small Heating	2.01%	$382,997	79,755,494	$0.00480
General Power	18.30%	$3,482,371	837,326,668	$0.00416
Transmission	1.13%	$214,289	69,477,754	$0.00308
Total Electric Building	7.69%	$1,463,808	340,335,347	$0.00430
Feed Mill	0.02%	$2,935	452,711	$0.00648
Large Power	16.21%	$3,084,578	874,735,928	$0.00353
Misc. Service	0.00%	$592	136,106	$0.00435
Street Lighting	0.62%	$118,709	17,854,334	$0.00665
Private Lighting	0.70%	$133,675	12,566,733	$0.01064
Special Lighting	0.02%	$2,939	405,972	$0.00724
Total/Average	100.00%	$19,033,386	4,220,621,987	$0.00451

Revenue target and determinants data from Lyons Direct, Schedule TSL-9, ER-2021-0312
https://www.efis.psc.mo.gov/mpsc/commoncomponents/view_itemno_details.asp?caseno=ER-2021-0312&attach_id=202102089

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SECURITIZED UTILITY TARIFF CHARGE
RIDER SUTC

DEFINITIONS:

For the purposes of this schedule the following terms shall have the following meanings:

COMPANY - Liberty and its successors and assigns that provide [transmission or distribution service directly to customers taking service at facilities, premises, or loads located within the Service Area.]

FINANCING ORDER - the Financing Order issued by the Missouri Public Service Commission (Commission) in Case No. [ ] under the Missouri Electricity Bill Reduction Act, RSMo Section 393.1700 of providing for the issuance by the Special Purpose Entity (SPE) of Securitized Utility Tariff Bonds to securitize the amount of Securitized Utility Tariff Costs and financing costs (Financing Costs) determined by the Commission in such order.

SERVICE AREA - the Company's [service area, the service area previously served by Liberty Central Company, as it existed on the date of approval of the Financing Order in Case No. [ ].

SERVICER - on the effective date of this tariff, the Company shall act as Servicer. However, the SPE may select another party to function as Servicer or the Company may resign as Servicer in accordance with terms of the Servicing Agreement and Financing Order issued in Case No. [ ]. A Servicer selected under these conditions shall assume the obligations of the Company as Servicer under this schedule. As used in this schedule, the term Servicer includes any successor Servicer.

SPECIAL PURPOSE ENTITY (SPE) - the owner of Securitized Utility Tariff Property, on behalf of whom the SUTCs are collected.

SECURITIZED UTILITY TARIFF CHARGE (SUTC) - a non-bypassable charge computed on the basis of [individual end-use retail customer consumption,] except for customers receiving electrical service under special contracts as of August 28, 2021, even if a retail customer elects to purchase electricity from an alternative electricity supplier following a fundamental change in regulation of public utilities in Missouri.

APPLICABILITY:

This schedule, along with Rider SUTC, sets out the rates, terms and conditions under which SUTCs shall be billed and collected by the Company, any successor Servicer(s), and other entity on behalf of the owner of Securitized Utility Tariff Property pursuant to the terms of the Financing Order. This schedule is applicable to [energy consumption and demands of retail customers taking transmission and distribution service from the Company and to facilities, premises and loads of such retail customers.]

Individual end-use customers are responsible for paying SUTCs billed to them in accordance with the terms of this schedule. Payment is to be made to the entity that bills the customer in accordance with the terms of the Servicing Agreement and the Financing Order, which entity may be the Company, a successor Servicer or other entity which, under the terms of the Financing Order or the Securitization Statute, may be obligated to pay or collect the SUTCs. Another entity which, under the terms of the Financing Order or the Securitization Statute, is obligated to pay or collect the SUTCs will pay the SUTCs to the Servicer. The Servicer will remit collections to the SPE in accordance with the terms of the Servicing Agreement.]

TERM:

This schedule shall remain in effect until SUTCs have been collected and remitted to the SPE which are sufficient in amount to satisfy all obligations of the SPE in regard to paying principal and interest on the Securitized Utility Tariff Bonds together with all other financing costs as provided in the Securitization Statute. However, in no event shall the

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SUTCs provided for in this schedule be collected for service rendered after 15 years from issuance of the Securitized Utility Tariff Bonds. SUTCs for service rendered during the 15-year period following issuance of the Securitized Utility Tariff Bonds pursuant to the Financing Order, but not collected during that 15-year period, may be collected after the 15-year period. This schedule is irrevocable and non-bypassable for the full term during which it applies.

RATE CLASSES:

For the purposes of billing SUTCs, each retail end-use customer shall be designated as a customer in one of the following 12 customer classes. A new customer shall be assigned to the appropriate customer class based on anticipated usage characteristics.

Residential
Commercial
Small Heating
General Power
Transmission
Total Electric Building
Feed Mill
Large Power
Misc. Service
Street Lighting
Private Lighting
Special Lighting

PERIODIC BILLING REQUIREMENT ALLOCATION FACTORS:

The following Periodic Billing Requirement Allocation Factors (PBRAF) to be used in the calculation of the SUTC Rates are calculated using the methods approved by the Commission in the Financing Order. The PBRAFs shall be the percentage of cost responsibility for each Securitized Utility Tariff Charge customer class.

Securitized Utility Tariff Charge Class	PBRAF
Residential	44.38%
Commercial	8.93%
Small Heating	2.01%
General Power	18.30%
Transmission	1.13%
Total Electric Building	7.69%
Feed Mill	0.02%
Large Power	16.21%
Misc. Service	0%
Street Lighting	0.62%
Private Lighting	0.70%
Special Lighting	0.02%

DETERMINATION OF SECURITIZED UTILITY TARIFF CHARGE {SUTC) RATES:

SUTC Rates will be adjusted no less frequently than annually in order to ensure that the expected collection of SUTCs is adequate to pay when due, pursuant to the expected amortization schedule, principal and interest on the Securitized Utility Tariff Bonds and pay on a timely basis other Financing Costs. The SUTC Rates shall be computed by multiplying the PBRAFs times the Periodic Billing Requirement (PBR) for the projected period in which the

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adjusted SUTC Rates are expected to be in effect (SUTC Period), and dividing such amount by the billing units of the SUTC customer class, as shown in the following formula:

$SUTC_c$ = $[(PBR * PBRAF_c) + P_c] / FBU_c$

where,

$SUTC_c$ = Securitized Utility Tariff Charge Rate applicable to a SUTC rate class during the SRC Period;

PBR = Periodic Billing Requirement for the SUTC Period;

$PBRAF_c$ = The Periodic Billing Requirement Allocation Factor for such class in effect at such time;

P_c = Prior period over-funder-recovery for such class;

FBU_c = Forecasted Billing Units (i.e., class-specific energy or demand billing units) currently forecast for a class for the SUTC period.

TRUE-UP ADJUSTMENT PROCEDURE:

Not less than 60 days prior to the first billing cycle for the Company's [month] billing month, and no less frequently than annually, the Servicer shall file a revised Rider SUTC setting forth the upcoming SUTC period's SUTC Rates, complete with all supporting materials. The adjusted SUTC Rates will become effective on the first billing cycle of the Company's [month] billing month. The Commission will have 30 days after the date of the true-up filing in which to confirm the accuracy of the of the Servicer's adjustment. Any necessary corrections to the adjusted SUTC Rates, due to mathematical errors in the calculation of such rates shall be refiled.

In addition, optional interim true-up adjustments may be made more frequently by the Servicer at any time during the term of the Securitized Utility Tariff Bonds to correct any undercollection or overcollection, as provided for in the Financing Order, in order to assure timely payment of the Securitized Utility Tariff Bonds based on rating agency and bondholder considerations. Further, the Servicer must make mandatory interim true-up adjustments semi-annually (or quarterly beginning 12 months prior to the final scheduled payment date of the last tranche of the Securitized Utility Tariff Bonds) if the Servicer forecasts that Securitized Utility Tariff Charge collections will be insufficient to make all scheduled payments of principal, interest and other amounts in respect of the Securitized Utility Tariff Bonds on a timely basis during the current or next succeeding payment period and/or or to replenish any draws upon the capital subaccount. In the event an interim true-up (whether mandatory or optional) is necessary, the interim true-up adjustment must use the methodology utilized in the most recent annual true-up and be filed not less than 60 days prior to the following month's first billing cycle for implementation. Filing with and review by the Commission will be accomplished for the interim true-up adjustment in the manner as for the annual true-up adjustment set forth above. In no event will a mandatory interim true-up adjustment occur more frequently than every six months provided, however, that mandatory interim true-up adjustments beginning 12 months prior to the final scheduled payment date of the last tranche of the Securitized Utility Tariff Bonds shall occur quarterly.

The true-up shall be conducted in the following manner. The Servicer shall:

(a) allocate the upcoming period's Periodic Billing Requirement based on the PBRAFs approved in the Financing Order;

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(b) calculate undercollections or overcollections from the preceding period in each class by subtracting the previous period's Securitized Utility Tariff Charge revenues collected from each class from the Periodic Billing Requirement determined for that class for the same period;

(c) sum the amounts allocated to each customer class in steps (a) and (b) above to determine an adjusted Periodic Billing Requirement for each customer class;

(d) divide the Periodic Billing Requirement for each customer class by the maximum of the forecasted billing units or the threshold billing units for that class, to determine the threshold rate;

(e) multiply the threshold rate by the forecasted billing units for each class to determine the expected collections under the threshold rate;

(f) allocate the difference in the adjusted Periodic Billing Requirement and the expected collections calculated in step (e) among the Securitized Utility Tariff Charge customer classes using the PBRAFs approved in this Financing Order;

(g) add the amount allocated to each class in step (f) above to the expected collection amount by class calculated in step (e) above to determine the final Periodic Billing Requirement for each class; and

(h) divide the final Periodic Billing Requirement for each class by the forecasted billing units to determine the Securitized Utility Tariff Charge rate by class for the upcoming period. The final Periodic Billing Requirement class percentage of the total Periodic Billing Requirement equals the adjusted PBRAFs.

OTHER TERMS AND CONDITIONS:

If the customer or other entity which, under the terms of the Financing Order or the Act, may be obligated to pay or collect the SUTCs, pays only a portion of its bill, a pro-rata share amount of Securitized Utility Tariff Charge revenues shall be deemed to be collected. In the event of any such shortfall, the amount paid will be allocated to the securitized utility tariff charges in the same proportion that such charges bear to the total bill. The first dollars collected would be attributed to past due balances, if any. If cash collections are not sufficient to pay a customer's current bill once those balances are paid in full then the cash would be prorated between the different components of the bill.

The Company shall cause to be prepared and included on each electric bill a statement stating, in effect, that the Securitized Utility Tariff Property and the Securitized Utility Tariff Charges are owned by the SPE and not the Company. On each customer's bill, the securitized utility tariff charge shall be a separate line item and include both the rate and the amount of the charge.

AVAILABILITY:

This schedule is applicable to billed energy consumption and demands of retail customers taking service from the Company during the term that this schedule is in effect, and to the facilities, premises, and loads of all other retail customers obligated to pay Rider SUTC Charges as provided in Schedule SUTC, Section 6.1.1.6.3. Terms defined in Schedule SUTC that are used herein shall have the same meaning as set forth in Schedule SUTC.

RATE CLASSES:

For purposes of billing Securitized Utility Tariff Charge Rates (SUTC Rates), each retail customer will be designated as a customer belonging to one of 12 classes as identified by Schedule SUTC.

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SECURITIZED UTILITY TARIFF CHARGE RATES:

Securitized Utility Tariff Charge Customer Class	SUTC Rates	
Residential	$0.00505	per kWh
Commercial	$0.00540	per kWh
Small Heating	$0.00480	per kWh
General Power	$0.00416	per kWh
Transmission	$0.00308	per kWh
Total Electric Building	$0.00430	per kWh
Feed Mill	$0.00648	per kWh
Large Power	$0.00353	per kWh
Misc. Service	$0.00435	per kWh
Street Lighting	$0.00665	per kWh
Private Lighting	$0.01064	per kWh
Special Lighting	$0.00724	per kWh

The SUTC Rates are multiplied by the kWh or kW, as applicable, read, estimated or determined during the billing month and will be applied to bills rendered on and after the effective date.

SECURITIZED UTILITY TARIFF CHARGE TRUE-UP:[1]

The Securitized Utility Tariff Charge Rates shall be determined in accordance with and are subject to the provisions set forth in the Financing Order and Schedule SUTC. Not less than 30 days prior to the first billing cycle for the Company's [month] billing month and no less frequently than annually thereafter, the Company or successor Servicer will file a revision to Rider SUTC setting forth the adjusted SUTC Rates to be effective for the upcoming period. If made as a result of the annual true-up adjustment in Schedule SUTC, the adjusted SUTC Rates will become effective on the first billing cycle of the Company's [month] billing month. In accordance with Schedule SUTC, an interim true-up is mandatory semi-annually (or quarterly beginning 12 months prior the final scheduled payment date of the last tranche of the Securitized Utility Tariff Bonds) if the Servicer forecasts that Securitized Utility Tariff Charge collections will be insufficient to make all scheduled payments of principal, interest and other amounts in respect of the Securitized Utility Tariff Bonds on a timely basis during the current or next succeeding payment period and/or or to replenish any draws upon the capital subaccount. Optional interim true-ups may also be made at any time as described in Schedule SUTC. If an interim true-up adjustment is made pursuant to Schedule SUTC, the Adjusted SUTC Rates will be become effective on the first billing cycle of the Company's billing month that is not less than 30 days following the making of the interim true-up adjustment filing.

[1] NTD: To be updated as necessary.