Exhibit No.: ______________
Issue(s): Carrying Costs/Net Present Value Analysis
Witness/Type of Exhibit: Murray/Rebuttal
Sponsoring Party: Public Counsel
Case No.: EO-2022-0040 and EO-2022-0193

REBUTTAL TESTIMONY

OF

DAVID MURRAY

Submitted on Behalf of the Office of the Public Counsel

EMPIRE DISTRICT ELECTRIC COMPANY

CASE NOS. EO-2022-0040 AND EO-2022-0193

** **
Denotes Confidential information that has been redacted

May 13, 2022

PUBLIC

BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF MISSOURI

In the Matter of the Petition of The Empire District Electric Company d/b/a Liberty to Obtain a Financial Order the Authorizes the Issuance of Securitized Utility Tariff Bonds for Qualified Extraordinary Costs	)	<u>Case No. EO-2022-0040</u>
In the Matter of the Petition of The Empire District Electric Company d/b/a Liberty to Obtain a Financing Order that Authorizes the Issuance of Securitized Utility Tariff Bonds for Energy Transition Costs Related to the Asbury Plant	)	<u>Case No. EO-2022-0193</u>

<u>AFFIDAVIT OF DAVID MURRAY</u>

STATE OF MISSOURI)
) **ss**
COUNTY OF COLE)

David Murray, of lawful age and being first duly sworn, deposes and states:

1. My name is David Murray. I am a Utility Regulatory Manager for the Office of the Public Counsel.

2. Attached hereto and made a part hereof for all purposes is my rebuttal testimony.

3. I hereby swear and affirm that my statements contained in the attached testimony are true and correct to the best of my knowledge and belief.

David Murray
Utility Regulatory Manager

Subscribed and sworn to me this 13th day of May 2022.

NOTARY PUBLIC NOTARY SEAL STATE OF MISSOURI
TIFFANY HILDEBRAND
My Commission Expires
August 8, 2023
Cole County
Commission #15637121

My Commission expires August 8, 2023.

Tiffany Hildebrand
Notary Public

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OF

DAVID MURRAY

EMPIRE DISTRICT ELECTRIC COMPANY

FILE NOS. EO-2022-0040 and EO-2022-0193

Q. Please state your name and business address.

A. My name is David Murray and my business address is P.O. Box 2230, Jefferson City, Missouri 65102.

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

A. I am employed by the Missouri Office of the Public Counsel ("OPC") as a Utility Regulatory Manager.

Q. On whose behalf are you testifying?

A. I am testifying on behalf of the OPC.

Q. What are you addressing in your rebuttal testimony?

A. In response to the positions The Empire District Electric Company ("Empire") presented in its direct case, I address: (1) a fair and reasonable cost of capital to compensate Empire for financing of extraordinary costs related to Winter Storm Uri ("Storm Uri"), (2) the rate of return ("ROR") to apply to the undepreciated value of the Asbury asset from May 2022 through December 2022 (the estimated issuance date of the securitized bonds), (3) the discount rate Empire used to estimate the net present value ("NPV") of ratepayers' costs through securitization of Storm Uri costs as compared to ratepayers' costs through the "customary method of financing."[1] and (4) the discount rate Empire used to estimate the NPV of ratepayers' costs through securitization of energy transitions costs (i.e. Asbury) as

[1] Section 393.1700.2.(2)(e).

compared to ratepayers' costs through the "traditional method of financing and recovering the undepreciated investment of facilities,"[2]

Q. Which Empire witnesses testified on these topics?

A. Karen S. Hall in Case No. EO-2022-0040 (Storm Uri) and Charlotte T. Emery in Case No. EO-2022-0193 (Asbury).

Q. What is your expertise on these topics?

A. Please see Schedule DM-R-1 for my qualifications as well as a summary of the cases in which I have sponsored testimony on ROR and other financial issues.

SUMMARY

Q. Summarily, what are your opinions on the four topics you listed?

A. Empire's carrying costs for financing Storm Uri should be compounded monthly by the average monthly cost of short-term debt for the period February 2021 through the date the securitized bonds are issued. Empire should not be allowed carrying costs as it relates to Asbury undepreciated assets. The determination of whether securitization would result in a positive NPV to customers depends on the Commission's determination of "traditional" and "customary" methods of financing. If the Commission views this as allowing a higher ROR, inclusive of a return on common equity ("ROE"), then securitization will be less costly to ratepayers. However, if the Commission decided to allow a ROR for Storm Uri costs based on a debt rate, then the answer is less definitive. If the Commission decided to not allow a ROR on the remaining Asbury balance, then securitization is more costly to ratepayers.

[2] Section 393.1700.2.(1)(f).

REASONABLE COST OF CAPITAL TO DETERMINE CARRYING COSTS

STORM URI

Q. What rate of compensation does Ms. Hall recommend Empire be allowed for funding of Storm Uri costs?

A. Ms. Hall recommends that Empire be compensated based on Empire's authorized rate of return ("ROR") of 6.77% in Empire's 2019 rate case, Case No. ER-2019-0374.[3]

Q. Do you agree with Empire's use of its last authorized ROR to determine carrying costs?

A. No. In my testimony in Empire's 2021 rate case, I discussed the fact that LUCo was required to provide Empire and its subsidiary, The Empire District Gas Company, significant amounts of capital to finance excess costs related to Storm Uri. LUCo raised this capital by issuing commercial paper (a form of short-term debt) and loaning these proceeds to Empire through affiliate money pool borrowings. Based on the terms of the Commission-approved money pool agreement, these borrowings are to be charged an interest rate based on the cost of Liberty Utilities Company's ("LUCo") commercial paper.[4] I decided to exclude short-term debt in my recommended capital structure for Empire's 2021 rate case because I recognized most of these short-term borrowings could be attributed to excess commodity costs related to Storm-Uri. This is logical considering the fact that this is typically how working capital (e.g. inventories, receivables, pre-paid expenses, etc.) is financed. These expenditures are not capital improvements or replacements to existing plant and equipment, rather they are operating costs. It is inconsistent with financing principles to expect a profit on expenditures related to funding costs of goods sold, such as the purchase of energy.

[3] Hall Direct, Schedule KSH-2.
[4] Case No. AO-2018-0179.

Q. Is any other utility seeking to securitize Storm Uri costs in Missouri?

A. Yes. Evergy Missouri West is.

Q. What rate did Evergy Missouri West use for funding Storm Uri costs?

A. It is requesting compensation at the ROR it considered implied from the settlement in its 2018 rate case, Case No. ER-2018-0146. Mr. Klote specifies 7.358% as the weighted average ROR, which he equates to Evergy Missouri West's weighted average cost of capital ("WACC").[5]

Q. What is Evergy Missouri West's rationale for being compensated at a rate it believes is consistent with its WACC?

A. Evergy Missouri West witness, Ronald Klote, posits that applying Evergy Missouri West's WACC is consistent with the ratemaking treatment specified in statutes governing plant-in-service accounting ("PISA"). Mr. Klote asserts that if Evergy Missouri West were to recover its extraordinary fuel and purchased power costs through its fuel adjustment clause ("FAC") mechanism, then Evergy Missouri West's rates would exceed the compound annual growth rate ("CAGR") cap of 3% established under Section 393.1655.3. RSMo. Subsection five of that same statute says on its face that if a utility's rates would exceed a 3% increase due to additional costs incurred pursuant to Section 386.266 RSMo (the FAC statute), then recovery of the costs that would increase those rates by more than 3% can be deferred pursuant to Section 393.1400.2.(3), RSMo. This statute specifies that these deferrals shall include carrying costs at the electric utility's WACC.

Q. Has this Commission addressed whether Evergy Missouri West can recover the extraordinary fuel and purchased power costs it incurred due to Storm Uri through its fuel adjustment clause?

A. Not as a contested issue, but it did not require those costs to flow through Evergy Missouri West's FAC in Case No. ER-2022-0005. In a contested proceeding the Commission

[5] Case No. EF-2022-0155, Klote Direct, p. 10, lns. 1-5.

ordered Evergy Missouri West's affiliate, Evergy Missouri Metro, to flow its extraordinary revenues from Storm Uri through its FAC in Case No. ER-2022-0025. On page eight of its March 13, 2022, *Report and Order* where it did so the Commission said,

> Commission Rule 20 CSR 4240-20.090(8)(A)2.A.(XI), provides that extraordinary costs are not to be passed through the FAC if those extraordinary costs are due to an insured loss, subject to a reduction due to litigation, or for any other reason. The first two reasons for excluding extraordinary costs are logical; costs for an insured loss will be recovered from the insurer and costs that could be reduced because of litigation are uncertain. The basis for the exclusion of extraordinary costs for any other reason is less clear, but the ***Commission is given the ability to allow for the exclusion of extraordinary costs from passing through the FAC if there is a good reason to do so***. (Emphasis added).

Q. Is Evergy Missouri West's requested recovery of Storm Uri costs based on the PISA statute?

A. No.

Q. Does it matter if it is not?

A. Yes. If this Commission were to allow Evergy Missouri West to securitize some or all of its extraordinary Storm Uri costs, Evergy Missouri West will only carry them over a short period—likely less than two years, a timeframe well below the twenty years specified in the PISA statute. As I will explain in Evergy Missouri West's securitization case (and as Evergy Missouri West itself has admitted), it is consistent with Evergy Missouri West's actual financing activities to finance such costs with short-term debt.[6]

Q. Is Section 393.1655, RSMo, available to Empire?

A. Not in my opinion because Empire had less than 200,000 Missouri retail customers in 2018.

[6] Case No. ER-2022-0130, Evergy Missouri West's response to Staff Data Request No. 114.

Q. What is your support for basing Empire's Storm Uri carrying costs on a short-term debt rate?

A. First, Empire projects that it will carry these costs until 60 days after the Commission issues an order approving this Application (less than two years).[7] Further, the circumstances here are similar to those when determining a fair and reasonable allowance for funds used during construction ("AFUDC") rate. It is customary financial practice to use short-term debt as bridge financing while constructing plant. After construction of the plant is completed, if the amount of short-term debt outstanding is significant, the company will refinance the short-term debt with long-term capital. However, the integrity of the AFUDC rate depends on whether a company is capitalized as a standalone company based on arms-length transactions. Assuming prudent and customary financing practices, then short-term costs will be captured in the cost of service to ratepayers because it was used to determine the carrying/capitalization costs added to plant when placed into service. If this customary ratemaking principle changed and the carrying/capitalization rate allowed is consistent with a company's authorized ROR (presumably similar to WACC), then short-term debt would need to be reflected in the company's authorized ROR. The capitalization of Storm Uri costs—which are fuel and purchased power expenses—is no different.

Q. Will Empire's cost to issue securitized debt likely by higher based on recent increases in interest rates?

A. Yes. Empire filed its application in January 2022, despite the fact that it had filed a 60-day notice of anticipated filing on August 28, 2021. Interest rates for debt for even the safest debt ratings ('AAA'-rated corporate debt) have increased since the Fall of 2021 and the beginning of 2022. For example, Evergy Missouri West filed its Application a couple of months later than Empire on March 11, 2022. At the time Evergy Missouri West filed its Application, it estimated an interest rate of 3.43% on its proposed 15-year securitized debt. It is likely that even this rate may be lower than that which either company could achieve

[7] Ducey Direct, p. 10, lns. 14-16.

based on current interest rate levels. The following chart shows the change in yields on 'AAA'-rated corporate debt since August 28, 2021:

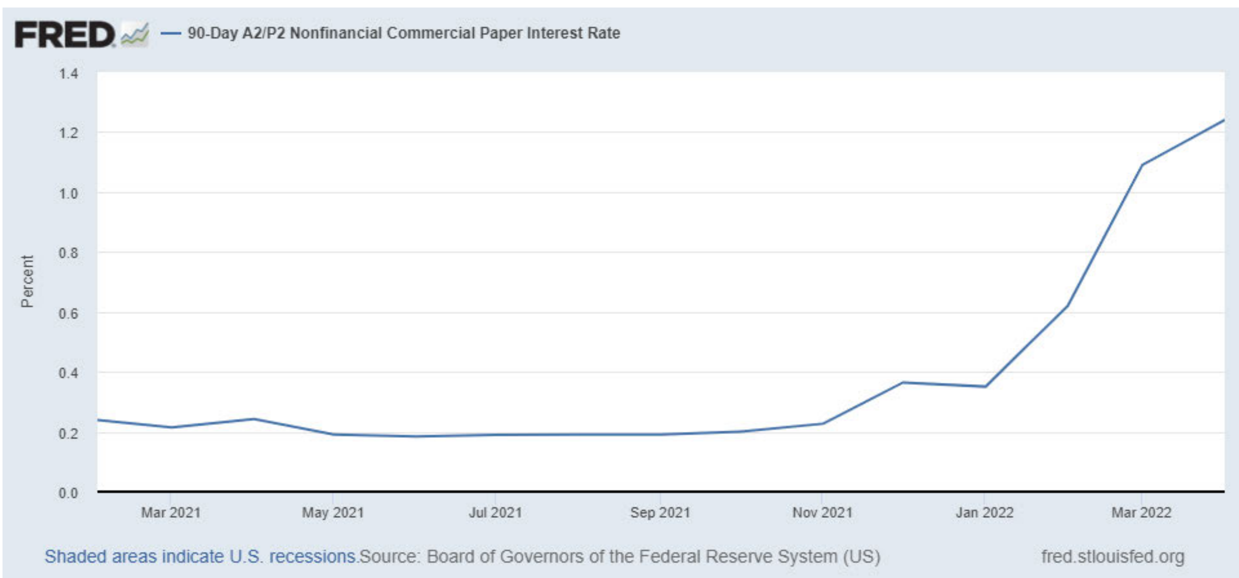
As can be seen above, 'AAA' rates have increased by approximately 1.6% to 1.7% since the Fall of 2021.

Q. Did you include short-term debt in the capital structure you recommended the Commission use for Empire in Empire's pending general rate case, Case No. ER-2021-0312?

A. No. (see Murray Direct, p. 11-12; Rebuttal, p. 7-11 (specifically, lns. 9-11 of; p. 8, ln. 25 – p. 9, ln. 3, p. 11, lns. 1-12), p. 19, lns. 14-18, and p. 20, lns. 4-14).

Q. What rate should Empire be allowed for compensation of carrying costs associated with funding Storm Uri related energy costs?

A. I recommend the use of LUCo's average short-term debt rate for each month, starting with the financing of Storm Uri costs (February 2021) until the securitized bonds are issued (estimated to occur 60 days after Commission order approving this Application). Based on information Empire provided in Case No. ER-2021-0312, the average monthly short-term interest rate for each month during February 2021 through June 2021 was 0.35%, 0.32%, 0.27%, 0.24% and 0.25%, respectively.[8] At the time I drafted this testimony, I did not have information for LUCo's cost of short-term debt after June 2021. However, because LUCo's commercial paper is rated A2/P2, the following graph shows the market cost of commercial paper through the April 2022. The cost of short-term debt is directly impacted by the Federal Reserve's recent increases to the Fed Funds rate.



ASBURY

Q. Is Empire also seeking to recover carrying costs for Asbury?

A. Yes.

Q. At what rate?

A. A rate consistent with its authorized ROR of 6.77% from Case No. ER-2019-0374.

[8] Case No. ER-2021-0312, Empire's Response to Staff Data Request No. 0072.

Q. In Empire's current rate case, Case No. ER-2021-0312, did OPC and Staff disagree with allowing a return on Asbury's undepreciated asset balance?

A. Yes. OPC witness John Riley testified in opposition to Empire's request. Mr. Riley recommended no return on Asbury's undepreciated asset balance. Staff witness Mark L. Oligschlaeger also recommended not allowing a return on Asbury's undepreciated asset balance.[9]

Q. Does OPC hold the same position as it relates to any requested recovery of carrying costs?

A. Yes. The principle of not allowing a ROR for purposes of setting general rates is the same as the principle of not allowing a ROR to be used to increase the stranded value assigned to Asbury.

NET PRESENT VALUE DISCOUNT RATE

Q. Does the securitization statute define net present value ("NPV")?

A. No.

Q. Under traditional corporate finance, what is the purpose of a NPV analysis?

A. It is typically used in the capital budgeting process to determine if an investment is expected to create value for the corporation's shareholders. If an investment/project creates a positive NPV, then this investment/project may be approved for funding.

Q. Does a NPV determination anticipate cash inflows and outflows?

A. Yes. A NPV determination anticipates the initial investment and potential costs to maintain the investment as cash outflows and revenues from sales as cash inflows. These cash outflows and inflows are netted over the expected period of the investment and are discounted by a discount rate back to the present to determine the NPV.

[9] Case No. ER-2021-0312, Staff Cost of Service Report, p. 134, ln. 26 – p. 138, ln. 3.

Q. What is the discount rate?

A. The discount rate in the context of NPV analysis is the rate used to discount estimated future cash flows to the present. The determination of a reasonable discount rate is defined by the risk of the cash flows, the interval of the cash flows, and the term of the cash flows. Discount rates used typically vary from as low as a risk-free United States Treasury yield to as high as the cost of equity. The discount rate should be commensurate with the risk and term of the investment.

Q. How should NPV be determined for purposes of § 393.1700, RSMo?

A. Because NPV is generally a capital budgeting analysis concept, but Section 393.1700 uses it in the context of assessing whether customers may pay less in present value terms for securitization as compared to "traditional" or "customary" methods, I believe the primary issue the Commission must decide is whether the extra upfront and ongoing costs associated with securitization results in an effective cost less than that which would have occurred without securitization. To put it simply, if the Commission would not have allowed any return on the asset, then securitization would unquestionably be more costly to ratepayers. However, if the Commission would have allowed a lower return, such as that consistent with an investment grade long-term corporate debt yield, then the effective interest rate achieved through securitization should be lower than this yield for it to be the more economical decision for ratepayers.

Q. Did you use a similar period as Empire for purposes of analyzing NPV scenarios?

A. Yes. Because Empire provided an estimate for a cost of securitized debt with a tenor of 13 years, I used this same period for analyzing various scenarios. A NPV comparison should use a discount rate as consistent as possible with the tenor and risk of the cash flows.

Q. Based on Empire's estimate of upfront financing costs of $3,638,534 and the present value of ongoing financing costs of $3,315,952, what is the breakeven spread for traditional corporate debt compared to the proposed securitized debt?

A. The upfront and ongoing financing costs cause the effective cost on the proposed securitization to be 90 basis points higher than the estimated interest rate. The all-in annual effective cost of the securitized bonds is 3.36% compared to the interest cost of 2.47%.[10] Therefore, the securitization requires a yield advantage of approximately 90 basis points for securitization to result in a cost savings to customers.

Q. How does Ms. Hall approach her NPV analysis to conclude that customers will pay less under securitization as compared to "customary" financing?

A. Ms. Hall assumes that, absent securitization, the Commission would allow Empire to recover its requested weighted ROR of 7.06% in Case No. ER-2021-0312 (premised on a requested 10% ROE and 3.76% cost of debt applied to its requested capital structure). She compares the monthly payments under this scenario to the monthly payments for the lower cost to securitize. In order to compare the NPV of these estimated payments and the financing costs associated with securitization, she applies a 7.06% discount rate to both scenarios.

Q. Do you agree with Ms. Hall's use of Empire's weighted ROR to discount the expected cash flows required to pay the debt service on securitized debt?

A. No. The purpose of securitizing the Storm Uri costs is to isolate these costs from the rest of Empire's obligations. This is the essence of the requirement to create a special purpose entity ("SPE") that is assigned all rights, interest and title to the assets through a "true sale" of these assets – the assets in this situation being the right to receive a stream of payments from Empire's ratepayers for purposes of servicing the securitized bond. The risk of these cash flows is defined specifically by the required return on the securitized debt, which is 2.47%.

[10] *See* Mr. Murray's workpapers.

Q. How does the use of the proper discount rate impact the NPV estimate?

A. Using the 2.47% rate on the securitized debt as the appropriate discount rate results in a NPV of debt service and other ongoing costs of $211.45 million.[11] Comparing this NPV to Ms. Hall's NPV estimate of $204.5 million under traditional corporate financing methods implies ratepayers would pay less if Empire did not pursue securitization.[12]

Q. Do you agree with the discount rate Ms. Hall used to discount the assumed customer payments under traditional ratemaking principles?

A. No. She assumes that the Company's recommended ROR in Case No. ER-2021-0312 is equal to its current weighted average cost of capital ("WACC"). As the Commission is aware from my ROR testimony in general rate cases, in my opinion the authorized ROE charged to ratepayers is higher than the COE to the utility company. I have consistently provided corroborating information from the investment community to support my opinions, and specifically did so in Empire's 2021 rate case, Case No. ER-2021-0312.[13] Therefore, under traditional ratemaking, ratepayers provide funds (through the payment of bills) to utilities based on a ROR that is higher than the Company's WACC. I have no reason to believe this practice will suddenly change. However, because the discount rate is lower than the ROR charged to ratepayers, this causes the present value of expected cash flows provided by ratepayers under traditional ratemaking to be higher than that shown in Ms. Hall's Schedule KSH-3. For example, if I used the ** ______________________ ______________________ __ ______________________ ______________________ ** which implies a higher cost to ratepayers if Empire is allowed to earn a ROR on Storm Uri costs consistent with past ROR authorizations.

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[11] *See* Mr. Murray's workpapers.
[12] Hall Direct, Schedule KSH-3.
[13] Case No. ER-2021-0312, Murray Direct, p. 24, lns. 17-19, p. 27, lns. 1-2; Murray Rebuttal, p. 34, lns. 1-10.
[14] See Schedule DM-R-2.

Q. Is it reasonable to presume that this Commission would allow Empire a weighted ROR, inclusive of a ROE, on Storm Uri costs consistent with RORs it has authorized in the past?

A. I don't believe so. I do not know what the Commission would authorize, but I would not recommend allowing a return to shareholders for purposes of funding cost of goods sold. At most, I would recommend a debt cost consistent with the length of the period in which Empire carried this cost on behalf of its ratepayers.

Q. What is the "customary method" of financing extraordinary costs such as those caused by Storm Uri?

A. It is consistent with sound financing principles to match the expected tenor of debt financing with the tenor of the asset, which under regulatory ratemaking, may be defined by the regulator's decision. I consider Spire Missouri's recent issuance of 3-year variable rate mortgage debt to finance its extraordinary Storm Uri costs as an example of a fair and reasonable approach to finance these excess costs.[15] While financing of gas costs is normally limited to a cycle of less than a year, in the event the recovery is extended over a year, a cost of debt consistent with the recovery period would be reasonable.

Q. If Empire issued traditional corporate debt with a tenor of 13 years, how much would this debt cost?

A. I don't have access to enough detailed market information to provide a precise estimate for this unique tenor. However, the current yield on BBB-rated utility bonds with approximately a 20-year tenor is around 4.75%.

Q. Would Empire have to incur upfront financing costs if it issued traditional corporate debt?

A. Yes. Based on Empire's issuance costs for debt it issued directly to third-party debt investors, its issuance costs were approximately 1.5% of the principal amount issued. This

[15] https://d18rn0p25nwr6d.cloudfront net/CIK-0001126956/6e2de2ce-53aa-41fd-adb8-6584110659b2.pdf

compares to the approximate 1.8% of upfront issuance costs Empire estimates for securitization.

Q. What is the present value of customer payments of traditional corporate debt?

A. Using the cost of debt of 4.75% as the discount rate, the present value is $207,568,453, which is the principal amount financed (inclusive of issuance costs). This is $3,886,971 less costly to ratepayers than securitization.

Q. Should the discount rate used depend on the certainty of the cash flows provided from the ratepayer to the company?

A. Yes. Obviously securitization provides for a considerable amount of certainty of the payment of debt service, hence the very high credit rating. The certainty of recovery of the Storm-Uri costs through other mechanisms, such as traditional ratemaking or through a FAC, would be less certain because it is blended with the Company's other obligations.

Q. If ratepayers were charged a carrying cost rate consistent with its authorized ROR on Storm Uri costs, would securitization be less costly to ratepayers?

A. Yes.

Q. How does Ms. Emery's approach to her NPV analysis lead her to conclude that customers will pay less under securitization as compared to "traditional" financing?

A. Ms. Emery assumes that, absent securitization, ratepayers would be charged the 6.77% ROR authorized in Case No. ER-2019-0374. She compares the monthly payments under this scenario to the monthly payments for the lower cost to securitize. In order to compare the NPV of these estimated payments and the financing costs associated with securitization, she applies a 6.77% discount rate to both scenarios.

Q. Do you agree with Ms. Emery's use of Empire's ROR to discount the expected cash flows required to pay the debt service on securitized debt related to Asbury?

A. No. The purpose of securitizing potential Asbury asset balances is to isolate recovery of such asset balances from Empire's revenue requirement. This is the essence of the requirement to create a special purpose entity ("SPE") that is assigned all rights, interest and title to the assets through a "true sale" of these assets. The assets in this situation being the right to receive a stream of payments from Empire's ratepayers for purposes of paying the debt service required on the securitized bond. The risk of these cash flows is defined specifically by the required return on the securitized debt. Using Empire's estimate of a 2.47% rate on the securitized debt as the appropriate discount rate results in a NPV of debt service and other ongoing costs of $141.169 million. Comparing this NPV to Ms. Emery's NPV estimate of $141.733 million under traditional corporate financing methods implies ratepayers would only achieve a slight savings as compared to Ms. Emery's "traditional method of financing" scenario.

Q. Do you agree with Ms. Emery's estimate of ratepayers required payments under the "traditional method of financing" scenario?

A. No. Ms. Emery assumes that the Commission would allow Empire a ROR consistent with its last authorized ROR of 6.77% on the remaining Asbury balance. This is contrary to OPC's and Staff's recommendation in the general rate case to not authorize a return on any remaining balance associated with Asbury.

Q. Does the statute define "traditional method of financing?"

A. No.

Q. Do you agree with the discount rate Ms. Emery used to discount the assumed customer payments under traditional ratemaking principles?

A. No. I believe this discount rate should be lower. As the Commission is aware from my ROR testimony in general rate cases, in my opinion the authorized ROE charged to ratepayers is higher than the COE to the utility company. I have consistently provided corroborating information from the investment community to support my conclusion. Therefore, under traditional ratemaking, ratepayers provide cash flows to utilities based on a ROR that is higher than the current discount rate. I have no reason to believe this practice will suddenly change. However, because the discount rate is lower than the ROR charged to ratepayers, this means the present value of expected cash flows provided by ratepayers under traditional ratemaking is higher than that shown in Ms. Emery's Schedule CTE-3. For example, if I used the same 4.34% discount rate as I used in the Storm Uri analysis, this would result in a NPV estimate of approximately $162.9 million, which is implies a higher cost to ratepayers if Empire is allowed to earn a ROR on Asbury stranded assets consistent with past ROR authorizations.

Q. Does this conclude your rebuttal testimony?

A. Yes.