Exhibit No.: _____
Issue(s): Stranded Asset: Asbury Power Plant/
Securitized Utility Tariff Charge
Witness/Type of Exhibit: Marke/Rebuttal
Sponsoring Party: Public Counsel
Case No.: EO-2022-0040 and EO-2022-0193

REBUTTAL TESTIMONY

OF

GEOFF MARKE

Submitted on Behalf of the Office of the Public Counsel

EMPIRE DISTRICT ELECTRIC COMPANY

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

*** ***
Denotes Highly 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	)))))	Case No. EO-2022-0040
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	))))))	Case No. EO-2022-0193

AFFIDAVIT OF GEOFF MARKE

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

Geoff Marke, of lawful age and being first duly sworn, deposes and states:

1. My name is Geoff Marke. I am a Chief Economist 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.

Geoff Marke
Chief Economist

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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REBUTTAL TESTIMONY

OF

GEOFF MARKE

THE EMPIRE DISTRICT ELECTRIC COMPANY

d/b/a

LIBERTY

CASE NO. EO-2022-0040 & EO-2022-0193

I. INTRODUCTION

Q. Please state your name, title, and business address

A. Geoff Marke, PhD, Chief Economist, Office of the Public Counsel (OPC or Public Counsel), P.O. Box 2230, Jefferson City, Missouri 65102.

Q. What are your qualifications and experience?

A. I have been in my present position with OPC since 2014 where I am responsible for economic analysis and policy research in electric, gas, water, and sewer utility operations.

Q. Have you testified previously before the Missouri Public Service Commission?

A. Yes. A listing of the Commission cases in which I have previously filed testimony and/or comments is attached in Schedule GM-1.

Q. What is the purpose of your rebuttal testimony?

A. The purpose of this testimony is to respond to the direct testimony of Empire District Electric Company ("Empire" or "Company") witnesses Frank C. Graves and Karen S. Hall regarding the securitization of the Company's stranded asset: the Asbury Power Plant and the Securitized Utility Tariff Charge respectively.

Q. What is your position?

A. I recommend the Commission reject Empire's proposal to include any costs related to the Asbury Power Plant in its securitization application. Simply put, these costs have not only already been collected from ratepayers, but have actually been over collected. Specifically, the remaining balance on Empire's Air Quality Control System ("AQCS") investment in Asbury following its last operational date in December 2019 represent costs collected by

ratepayers that should have been borne by shareholders. The two-part rationale for my position follows as such:

1. The sum of Asbury's accumulated depreciation, favorable tax treatment, and payments collected to date through the Asbury regulatory asset offset Empire's claimed unrecovered plant balance to the tune of $32,593,521.53. When Empire's estimated $25,378,724 decommissioning costs are considered this would result in $7,214,797 in overpaid costs related to Asbury that should be flown back to customers. The accounting and depreciation balances are discussed in greater detail in the OPC testimony of John Riley and John Robinett. Importantly, this recommendation is before we consider costs collected to date for the AQCS.

2. Empire's ratepayers have overpaid for Asbury as it pertains to costs related to its 2014 AQCS investment. As such, I recommend that the Commission either A.) Offset the negative balance against the outstanding Storm Uri request or B.) Direct the overpaid costs into a regulatory liability to be reconciled in Empire's next general rate case.

My testimony will provide a response to Empire's direct testimony and is divided into the following sections: 1) The stranded Asbury Power Plant (or how we got here); 2) Resource Modeling (premised on shifting risk to ratepayers, momentarily creating excess capacity, and the unintended consequences of those actions); 3) The regulatory compact (and issues of fairness); and finally 4) The Securitized Utility Tariff Charge.

These recommendations are generally consistent with previous recommendations I made in Case Nos. ER-2019-0301, ER-2021-0321 as well as filings in previous IRP and Empire wind related dockets in which the Commission did not consider the stranding of Asbury ripe for consideration.

II. STRANDED ASSET: ASBURY POWER PLANT

Q. What is a stranded asset? [1]

A. A "stranded asset" is a term that has different meanings depending on the context. Assets become stranded if their expected cash flow is less than their remaining book value—in other words, if the asset is expected to generate less revenues than it will cost from a point in time until the end of its useful life. Regulation-based stranded assets differ from market-based stranded assets. The latter simply compares the book value of an asset relative to some future market value of the asset. For example, if an oil reserve has $1 billion book value but sliding demand due to carbon taxes or other environmental regulations reduces its market value to $400 million, the result is $600 million in stranded assets. By contrast, regulation-based assets are assets that are subject to cost-of-service or other rate-of-return regulation. Government regulators have explicitly approved this type of asset to earn a return over a defined period at some point in the past if the asset is deemed "used" and "useful."[2] A regulated supply-side asset is meant to provide service throughout its life to the captive customers who are paying for its use. That is, absent government-sanctioned intervention or a categorical loss in load (*i.e.*, "a death spiral"), a regulated asset should not become stranded.

[1] Economist Robert Michaels made a compelling argument in a 1994 essay that, in "220 years of speculating on the nature of competition since Adam Smith, economists got along fine without ever developing such a concept as "stranded costs." The idea is a new invention. No other business has had such a "right" in its arsenal to shield itself from the effects of dynamic competition. See, Michaels, R. (1994), "Unused and Useless: The Strange Economics of Stranded Investment," *The Electricity Journal*, October, pp. 12-22.

[2] To ensure affordability and full utilization of the asset, the cost recovery generally is amortized throughout its expected "useful life." The asset costs are allocated to all customers on a pro-rata basis, and are generally recovered on a volumetric basis. As the number of customers change, the volumetric charge is adjusted so that the utility only recovers the value of the asset (including associated potential profit).

Q. What is an example of a government-sanctioned intervention that could strand a regulated asset?

A Deregulation is the most obvious recent historical example. At the turn of the century, many states passed laws to deregulate their vertically integrated electric utilities and create a competitive generation market. In theory, under deregulation, electricity prices would more closely align with economic, not accounting, costs. In vertically-integrated regulated states (like Missouri) electricity prices are based on utilities' actual expenditures, and utilities have little reason to control costs, because cost reductions ultimately are passed on to consumers. Additionally, regulators allow utilities to earn a specified rate of return on capital expenditures to "incentivize" investment in capital-intensive facilities. That is, utilities have a perverse incentive to increase their capital investments, i.e., rate base. In contrast, in a competitive market, asset owners reap more benefits for lower costs and, thus, are incentivized to minimize their costs, as cost-recovery is not guaranteed.[3]

Another historical example of a stranded asset is the significant cost overruns associated with mismanaged nuclear power plants that never became "used and useful." Whether or not these stranded investment costs were recovered from captive ratepayers varied depending on the circumstances and the government regulator. Some utilities had to write off their uneconomic assets, while others did not.

A final example scenario where an asset may be a stranded investment is where there is an aggressive government-sanctioned compliance policy that makes the asset uneconomic. Examples of such policies are renewable portfolio standards ("RPS"), carbon pricing schemes (see Regional Greenhouse Gas Initiative "RGG" states), and carbon-emission reduction standards (see California and its historical natural gas distribution investment or the now defunct U.S. Clean Power Plan "CPP").

[3] Deregulation or "industry restructuring" is different from the wholesale markets, which each of our investor-owned electric utilities in Missouri participate in. In a wholesale market, utilities buy and sell power among themselves or from independent merchant generators at prices that reflect conditions of supply and demand.

Q. Have Missouri electric utilities been subjected to any events beyond their control that could strand their investments?

A. No. Missouri did not deregulate the generation assets of its regulated utilities. It is a vertically integrated state (distribution, transmission, and generation are owned by the same entity).

Moreover, Section 393.135, RSMo, is in place. It prevents the cost recovery of investment in any existing or new facility of an electric corporation before it is "fully operational and used for service." This voter-driven initiative was spurred, in part, from the large capital overruns of nuclear power plants across the United States in the 1970s, including Union Electric Company's Callaway nuclear plant.

Missouri does have a RPS, but a 1% retail rate impact cap tempers any excessive costs associated with this mandate, and that standard has not stranded any asset.

Finally, Missouri electric utilities do not experience any carbon pricing penalty and are not subject to any enforceable state-level emission reduction targets.

There are no events beyond its management's control that could be said to have induced Empire to strand its investment in the Asbury power plant.

Q. Then why is Asbury a stranded asset?

A. Current Empire management chose to retire Asbury fifteen years before the end of its useful life. It chose to build 600 MW of nameplate wind capacity to replace the 200 MW of firm capacity of Asbury, thereby increasing Empire's excess capacity when it was not needed to serve its load and when it expected no load growth. There remains a significant remaining book value that Empire has not yet recovered for its environmental capital investments in Asbury that it made before Empire's management chose to last operate Asbury on December 12, 2019, due to lack of fuel and to retire Asbury on its books as of March 1, 2020.

Q. Has the OPC previously raised the issue of stranded cost rate impacts due to Empire retiring Asbury?

A. Yes. We filed testimony in Case Nos. ER-2019-0374 and ER-2021-0312; however, the Commission did not address the stranded asset issue in either case. As such, this is OPC's third opportunity. That Empire was contemplating prematurely retiring Asbury was raised first by Empire witnesses in Case No. EO-2018-0047 as part of Empire's "Customer Savings Plan" where Empire sought regulatory guidance for building up to 800 MW of wind generation and retiring Asbury; however, the non-unanimous stipulation and agreement all parties except the City of Joplin and the OPC executed included Empire's agreement to defer deciding when it would retire Asbury.

The issue of Asbury's premature retirement was not part of any prefiled testimony in Case No. EA-2019-0010 (Empire's 2nd wind case); however all parties, except OPC,[4] entered into a last-minute non-unanimous stipulation and agreement in that case which included three separate provisions related to an Asbury retirement.[5,6] Despite that agreement, the Commission ruled in its Report and Order that:

> In this case, the sale or retirement of Asbury is not certain. In fact, from the evidence presented, it is not known whether the removal of Asbury from Empire's generation fleet, if it occurs, will be accomplished through a sale or a closure. Thus, the effect on rates from the undepreciated plant value, the capital costs, depreciation expense, property taxes, operations and maintenance expense, fuel costs, SPP revenues and any deferred income tax effects are completely unknown. Further, there has not been sufficient evidence provided to show that this sale or retirement would be "extraordinary" under the definition as set out in the USOA. Further, because these events have not yet occurred, when they do occur, the signatories could present this

[4] The City of Joplin was not an intervening party in that case.

[5] Filed Friday, April 5th before the evidentiary hearing on Monday, April 8th.

[6] The regulatory asset contemplated in that non-unanimous stipulation and agreement included an undepreciated balance of the Asbury facility estimated at approximately $200 million.

> to the Commission as a formal request for an accounting authority order where the facts can be reviewed with more certainty, less speculation, and under the appropriate burden of proof.
>
> Empire and the other signatories to the *Non-Unanimous Stipulation and Agreement* have not shown that conditions related to possible Asbury closure or sale are reasonable or necessary. The Commission finds it would be premature to set out any conditions related to the possible sale or closure of Asbury. Additionally, the parties have not proven that this possible sale or closure will produce an extraordinary circumstance such that the Commission should take the unusual step of conditioning the grant of a certificate of convenience and necessity on this particular accounting treatment. The Commission will not impose the conditions set out in Paragraph 17 of the *Non-Unanimous Stipulation and Agreement*.[7]

Empire was required to file its new triennial IRP before the Commission took evidence in its main evidentiary hearing in Empire's Wind CCN case; however, Empire asked for and received an extension to file that IRP until the end of June, after the Commission decided Empire's Wind CCN case. On June 28th, 2019 Empire filed its triennial IRP which included the retirement of Asbury as part of its preferred modeled plan.

Pre-Acquisition Treatment of Asbury

Q. When was Asbury commissioned?

A. The Asbury Power Plant Unit 1 was originally commissioned in 1970 with an accredited capacity of 213 MW.

Q. What did Empire do in 2015 to extend its useful life?

A. To comply with federal air quality regulations in order to continue to run Asbury beyond 2015, in 2015 Empire installed a state-of-the-art Air Quality Control System ("AQCS") to remove

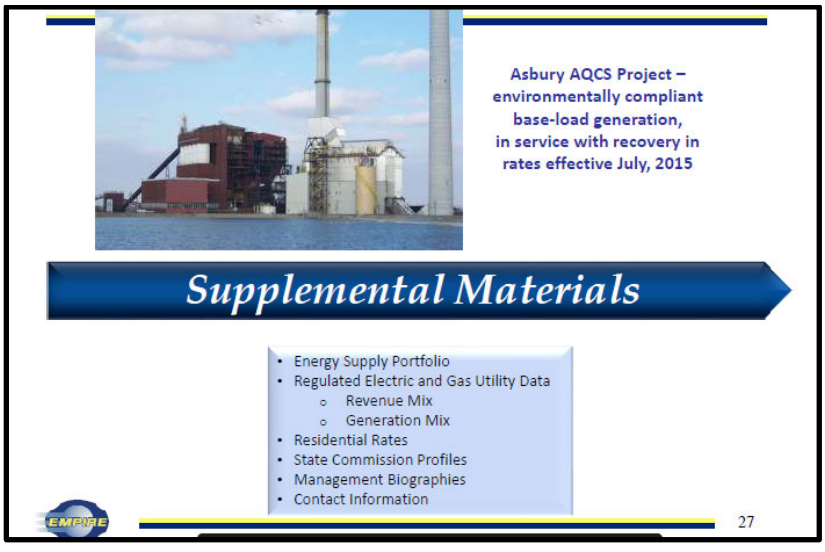
[7] EA-2019-0010 Report and Order p. 48.

sulfur dioxide, particulate, mercury, and other pollutants. Asbury was also retrofitted with a Selective Catalytic Reduction ("SCR") located upstream of the AQCS and a Distributed Control System ("DCS"). The facility *also* switched to Powder River Basin ("PBR") coal at a ratio of approximately 90% with approximately 10% local (Illinois) coal.[8] Asbury was also able to burn up to approximately 2% rubber tire derived fuel ("TDF") but let its contract expire in March of 2018. These collective upgrades extended the useful life of the plant more than twenty years and made the coal unit one of the cleanest in Missouri.[9]

Q. Were these upgrade decisions prudent?

A. I believe so. No party challenged the cost recovery of these investments when they went into rates in Empire's rate case, Case No. ER-2016-0023. Figure 1 includes a snippet from The Empire District Electric Company 2015 Annual Investor Update on February 26, 2016 highlighting the environmental compliance modification and recovery in rates.

Figure 1: 2016 Empire Investor highlight Asbury AQCS Project [10]



[8] For reference, Ameren Missouri's Labadie and Rush Island Power Plants did not elect to invest in scrubbers but instead relied on PBR coal to meet environmental compliance standards.

[9] A more detailed look at the history of Asbury investments can be found in the Direct Testimony of OPC witness John Robinett in this case.

[10] The Empire District Electric Company: Annual 2015 Investor Update (2016). http://www.snl.com/Cache/1500083524.PDF?Y=&O=PDF&D=&fid=1500083524&T=&iid=3005475.

Algonquin Acquisition

Q. Were you involved in both Empire's last general rate case before Algonquin Power & Utilities Corp. acquired it and the acquisition case where Algonquin Power & Utilities Corp. obtained Commission authorization to close its indirect acquisition of Empire?

A. Yes.

Q. Did you object to Algonquin Power & Utilities Corp. acquiring Empire?

A. Yes, initially. I initially recommended that the Commission reject APUC's acquisition of Empire. My rebuttal testimony opened with the following statements:

> As it stands, Empire ratepayers and regulators operate under the assurance of a known, stable local utility with over one-hundred years of operating experience. Approval of this acquisition would represent an increase in orders of magnitude at the level of organizational and affiliate complexity as well as a heightened risk of diluted managerial and fiduciary responsibility. There are no proposed standards from which to judge success, no cost-savings benchmarks to strive towards, and no proposed ring fence provisions to ensure captive ratepayers will not be exposed to increased harm. Instead, there are only aspirational, vague and often redundant claims of benefits generalized across four testimonies.[11]

Q. Did you testify in that case that Empire had no need for additional capacity post-acquisition due to the significant supply-side investments it had already made?

A. Yes. In my surrebuttal testimony I stated:

> For example, approval of the merger would not change the fact Empire has just added an additional 100MW in capacity in its Riverton 12 combined cycle unit. Moreover, according to Empire's recently filed triennial IRP, there will be no need

[11] EM-2016-0213 Rebuttal Testimony of Geoff Marke p. 3, 12-20.

for a MEEIA[12] and **no need for future capacity until 2029** as reprinted here in Table 1:

Table 1: Empire's Twenty-year Plan 5 (Preferred IRP Plan)[13]

Year	Common to All IRP Plans (Applies to Preferred Plan)	Plan 5 (Preferred Plan)
2016	By Mid-2016, Riverton 12 begins combined cycle operation (100 MW addition to the Empire system)	
2017		
2018		
2019		
2020		
2021		
2022		
2023	Energy Center Unit 1 assumed to retire for IRP purposes (82 MW loss)	
2024		
2025		
2026	Energy Center Unit 2 assumed to retire for IRP purposes (82 MW loss)	
2027		
2028	Meridian Way 105 MW Wind PPA expires (19 MW loss)	
2029		100 MW Combined Cycle, 100 MW Wind Resource
2030	Elk River 150 Wind PPA expires after 5-year extension (17 MW loss)	
2031		150 MW Wind Resource
2032		
2033	Riverton Units 10 and 11 assumed to retire for IRP purposes (33 MW loss)	
2034		
2035	Asbury Unit 1 assumed to retire for IRP purposes (194 MW loss)	200 MW Combined Cycle

[12] EO-2016-0223. The Empire District Electric Company Triennial Compliance Filing. Volume 7 Resource Acquisition Strategy Selection 7-8: "Empire's decision makers have selected Plan 5 as the Preferred Plan. Plan 5 contains no Missouri DSM portfolio and supply-side resources are not added until the latter part of the study period."

[13] EO-2016-0223. The Empire District Electric Company Triennial Compliance Filing. Volume 7 Resource Acquisition Strategy Selection 7-9.

> Even if Empire needed to build additional capacity (which they do not), there is no guarantee that renewable capacity would be the preferred generation, the prudent choice, or the least cost option. **It is OPC's position ratepayers should not have to pay for any additional capacity in the near future**. This is especially true considering ratepayers have experienced a compounded increase in rates of 62.23% over the past ten years.[14] (Emphasis not in original cited testimony).

Q. Did other OPC witnesses express concerns about the acquisition?

A. Yes. OPC's consultants stated a variety of concerns including, but not limited to, the timing of capital investments, uncertainty-surrounding costs associated with a new Customer Information System ("CIS"), and diluted local managerial control. Liberty President, David Pasieka's surrebuttal testimony offered the following general observations regarding the OPC's rebuttal testimonies:

> A conceptual theme that runs throughout the testimony filed by the OPC witnesses is OPC's belief that Empire will be more risky within Algonquin's corporate structure because it will no longer be a pure-play, vertically integrated electric utility, but rather will become an operating subsidiary within Algonquin's corporate structure.[15]

Q. Did OPC ultimately sign onto a settlement agreement in that case which recommended that the Commission authorize the acquisition?

A. Yes.

Q. If OPC agreed to the Commission authorizing Algonquin to acquire Empire, then why is it raising concerns now?

A. I thought there were reasonable ring-fencing provisions in place to address those. I now believe I was wrong.

[14] Case No. EM-2016-0213 Surrebuttal Testimony of Geoff Marke.

[15] Case No. EM-2016-0213 Surrebuttal Testimony of David Pasieka p. 6, 17-21.

Q. Are there any circumstances during that timeframe of which the Commission should be aware?

A. Yes. Context is important. At the time, it seemed highly likely that US Environmental Protection Agency's ("EPA") Clean Power Plan would take effect and be enforced, with greater restrictions on and federal oversight of carbon emissions. To be clear, Empire (that is, pre-acquisition Empire) was the utility best in position, in Missouri, to meet any new federal emissions standards because of its diverse fuel mix and significant environmental capital investments.

Q. Did the State of Missouri oppose the Clean Power Plan?

A. Yes. Missouri and 20 others states sued the EPA for exceeding its authority with the Clean Power Plan.[16]

Q. Did the Missouri Public Service Commission file comments with the EPA expressing concerns with the Clean Power Plan?

A. Yes. The Missouri Public Service Commission filed comments on December 1, 2014, that included the following comments on stranded assets:

> To meet the EPA interim goal, Missouri would need to develop a state compliance plan taking into account the time needed to finance, permit, construct or commission new generation. The MoPSC notes that the interim goal does not adequately take into account potential delays in timing due to right-of-way obtainment or construction of new pipelines, transmission or generation facilities, which may be needed to achieve the interim goal. Additionally, **accelerated construction to meet aggressive goals may ultimately result in unintended stranded resources**. . . .

And

> The EPA notes that timing flexibility, such as that provided with the interim goals, allows states to develop plans that will help states achieve a number of goals including

[16] Herndon-Dunn, R. (2016) Clean Power Plan stayed by SCOTUS. *The Missouri Times.* https://themissouritimes.com/26920/clean-power-plan-stayed-by-scotus/.

addressing concerns about stranded assets. Yet, in order to effectively meet a state's goals under the proposed timeline, it will be necessary to re-dispatch affected sources or add new generating capacity. **Accelerated construction to meet aggressive goals may ultimately result in unintended stranded resources**.[17] (Emphases added).

Q. Was it clear then how Missouri would comply with the Clean Power Plan?

A. No. There was a lot of uncertainty on the compliance end, but much less discussion on what would happen if the Clean Power Plan did not materialize. I did not believe that a utility would voluntarily accelerate construction of assets (not needed to meet load) to strand existing serviceable assets in place. I certainly did not believe that a utility would continue to seek recovery of its investment in and an earnings profit off of that self-imposed stranded asset.

Project Red Balloon[18] ***

Q. _____

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A. _____

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[17] Kenny, R. et. al (2014) Re: Missouri Public Service Commission's Comments on the Clean Power Plan Proposed Rule under Section 111(d) of the Clean Air Act, Docket ID:EPA-HQ-OAR-2013-0602. https://www.ieca-us.com/wp-content/uploads/MO-Public-Service-Commission_12.01.14.pdf; see also Sch. GM-2.

[18] See Sch. GM-3.

Q. _____

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[19] Ibid.
[20] Ibid.

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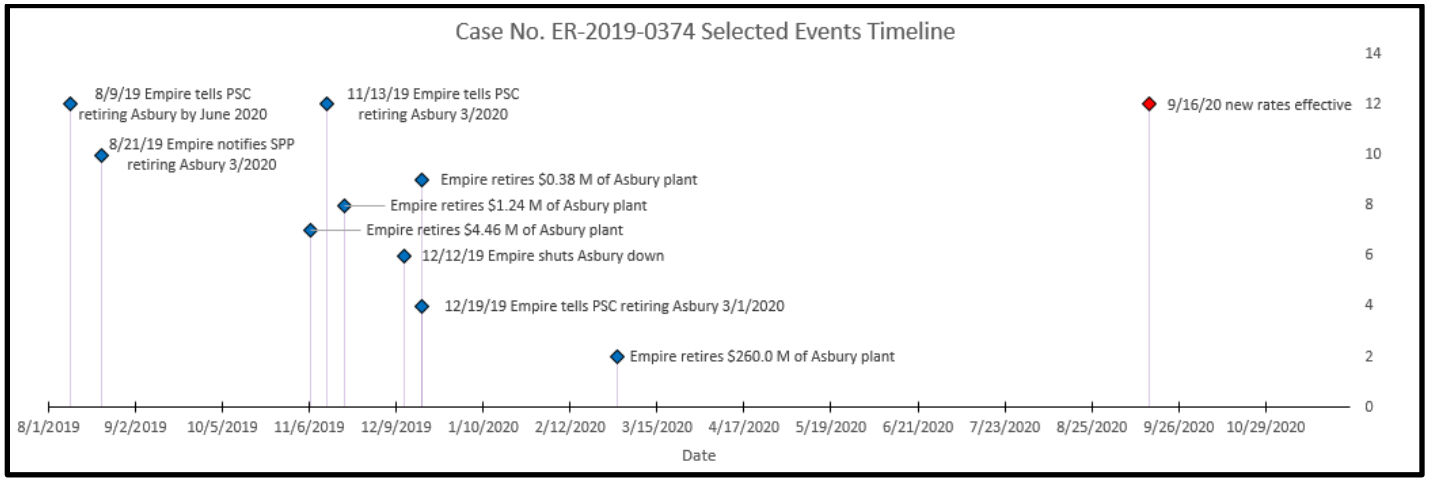
Q. When did Empire retire Asbury?

A. That is a bit of a loaded question. Figure 2 below provides a timeline of pertinent dates in which Empire either confirmed retirement, retired various pieces of the Asbury plant and when it ceased operating entirely. For my purposes, "retirement" would effectively be 12/12/19 when the Company shut the plant down and could no longer operate it.

Figure 2: Empire Asbury Retirement(s) Timeline



Q. Could Empire have sold Asbury?

A. Yes. That would certainly offset the financial penalty. Three problems quickly emerge for shareholders. First, Asbury would then be an asset that would be directly competing with the wind investments. Second, the wind farm that is set to be placed at Asbury would have incurred additional investment costs for SPP interconnection. Presently, those SPP interconnection investments should be small or nonexistent because the infrastructure is already largely in place at Asbury; however, these costs are still unknown at this time.

Q. Could Empire have operated Asbury seasonably during months of high demand; thus mitigating market exposure to its customers?

A. Yes. That is exactly the plan Xcel Energy has proposed in Minnesota.[21] However, Empire's SPP wind project interconnection challenge would remain.

Q. Could Empire have mothballed Asbury and waited to see if another solution presented itself in the future?

A. Yes. In that hypothetical scenario, I would have recommended that shareholders, not ratepayers, bear the financial responsibility of that unit not running. If the market, policy, or technology changes that

[21] Morehouse, C. (2020) Xcel Minnesota: Running coal seasonally will save customers millions, reduce emissions. *Utilitydive*. https://www.utilitydive.com/news/xcel-minnesota-running-coal-seasonally-will-save-customers-millions-reduc/569971/.

would necessitate Asbury running again (e.g., a Storm Uri), then ratepayers would resume that cost burden. That is, in the mothball scenario, the principles of "used" and "useful" would continue to apply.

Q. Could there have been other options?

A. I am sure there probably were. However, based on my discovery with the Company, Empire management did not even explore the options I articulated above.

Q. To be clear, are customers receiving the benefits of Empire's investments in Asbury for which they are paying?

A. No. Empire's investments in Asbury have not been used or useful for a number of years now.

Q. If the Commission does not include Empire's net investment in the Asbury AQCS in the amount it allows Empire to securitize will Algonquin shareholders still be financially better off than they were when Asbury was operational?

A. About ten times better off (and likely much more than that into the future). This is because Empire's rate base is many times bigger than it otherwise would be and the risk inherent in the wind farms with poor wind profiles are borne primarily by ratepayers.

Q. Has Algonquin made any representations on how the subsidiary utilities it owns treat their customers and the community they serve through planned investments?

A. Yes. In October 2019, Algonquin Power Utility Company ("APUC") made a failed bid to acquire the Jacksonville Electric Authority ("JEA"). Their initial "sales pitch" was made public through that process. In its JEA bid Algonquin stated:

> History is strewn with examples of first movers and early technology adopters that in the fullness of hindsight turn out to be cost transient undertakings: AMR vs. AMI, CFB's [sic] vs LED technology, investing in IGCC, new nuclear, coal gasification, etc. There is certainly a place for technology pioneers and first movers, but this is a model that is rarely applicable to the utility industry that has an obligation to serve its customers reliably, to make prudent investment decisions and provide its services at an affordable cost. **Jumping in with some new bet on some costly nascent**

> **"disruptive" concept** (like cloud electric trading technology) **is not what companies who care about their customers can practically do. Utilities cannot be failure pioneers when working with other people's money and when impacting their community's everyday quality of life.**[22] (Emphasis added).

Q. Does Algonquin accurately portray your experience with Empire as a subsidiary of Algonquin and its subsidiary Liberty Utilities?

A. No. In multiple cases now, I have been a vocal critic of the Company's decision to depart from the traditional cost-of-service model to place a bet, "with other people's money," on a captive retail customer-backed, merchant generation scheme by acquiring and adding an additional 600 MW or more of wind generation to its rate base. The lack of objective, empirical analysis, the needless 45% increase to Empire's rate base, and the shifting of risk to be borne by ratepayers is an enormous concern, and is a substantial cost moving forward. APUC/Liberty/Empire's actions to date look exactly like they have made Empire into a utility that has placed itself in a position to be a "failure pioneer" with other people's money. If Empire's "Customer Savings Plan" does not materialize as planned, then Empire's retail customers (not insulated shareholders or tax equity partners) will experience a negative impact on their everyday quality of life. I believe such an outcome is likely for a variety of reasons, including (but not limited to) Empire's refusal to update its models with accurate data, and its failure to account for the diminishing marginal utility of excessive wind generation coming onto the SPP market.

Q. Did Algonquin make any representations about stranded costs in conjunction in its response to the City of Jacksonville regarding its interest in acquiring JEA?

A. Yes, in passing, Algonquin stated:

> Load balancing and operating safety, effective cyber-security, least cost energy supply security, dynamic billing/metering, being socially responsible and helping out low income/special need customers, providing backstop safety-net supply, **and**

[22] See GM-4.

> **dealing with stranded costs are some of these issues that need holistic answers/approaches that are fair and responsible.** The "big thinkers" outside of the industry often underestimate these challenges and their importance in being a utility that actually benefits it's [sic] community.[23] (Emphasis added).

Q. Do you believe Empire is being fair and responsible with its self-imposed stranding of Asbury?

A. I have seen no evidence that APUC/Liberty/Empire intends to deal with the self-imposed stranding of the Asbury power plant (fifteen-years before the end of its planned life) in a manner that is fair and responsible to its customers. Instead, APUC/Liberty/Empire continue to want to earn a profit and recover the remaining balance on an asset that is no longer used or useful. Again, this action favors investors and penalizes Empire's captive customers.

Q. Did Algonquin make any other representations regarding its operations in Missouri in conjunction with its response to the City of Jacksonville regarding its interest in acquiring JEA?

A. Yes. Algonquin referenced its merchant wind generation investment bet and the premature retirement of Asbury as follows:

> One example of rhetoric made action is the Respondents Midwest "greening the fleet" initiative. This was one of the first such projects in the country that was not a simple "demo" project using tax dollars or rate surcharges to subsidize cost inefficient technology applications. **It was the real substitution of a perfectly usable mid-life 600mW[sic] coal plant and replacing that with 400mW [sic] of renewable (wind) generation**. While such a substitution may on the surface seem commonplace, to do so at a cost that resulted in a net savings to the customer was highly innovative. **The full levelized cost of the power generated from the new**

[23] Ibid.

wind turbine fleet was proven to be lower than the incremental variable operating costs of the mid-life coal fired generation plant.[24] (Emphasis added).

Q. Is Algonquin's characterization of its "greening the fleet" initiative at Empire accurate?

A. No. First, there is no real "substitution" here. If Empire had offered to substitute its 198 MW Asbury Coal Plant in exchange for "a return on and of" 600 MW of wind there *might* be a lopsided argument for an equitable substitution, but the Company wants it all (even if securitization is marginally better than what they asked for in the last rate case), but I want to address the claim that "the levelized cost of the power generated from the new wind turbine fleet was proven to be lower than the incremental variable operating costs of the mid-life coal fired generation plant."

The *cost* of the *energy*, does not necessarily say anything about the *value* of that energy over the lifetime of a generating plant. Value depends not solely on the cost of generating the energy being sold in a market; it also depends on the price for which that energy can be sold in that market. When prices vary continuously over time in increments as small as five minutes, and by location, it is not appropriate to look solely at the LCOE as the north star of supply-side generation economic feasibility metrics—at least not in the merchant generation business where revenue margins are the only thing that matters. Most price value derives from generating electricity when demand for electricity is highest, *i.e.*, when people most need electricity. That is, primarily during hot summer days when wind output is low or nonexistent.

Q. Could you illustrate your point by an analogy?

A. Yes. Let's say we wanted to look at the levelized cost of shelter ("LCOS"). That is, what's the cheapest shelter where the metric of importance is just keeping us dry when it rains. We could look at the all-in cost assumptions of homes, apartments, shacks, and tents. That

[24] Ibid.

analysis would show that tents have the lowest "LCOS" compared to the alternatives. What that analysis does not say is how well that tent will perform when it snows or over thirty years of wear-and-tear from the elements, or how comfortable it is or whether such a domicile can hold many people. The LCOS narrowly defines one attribute at the expense of glossing over other valued elements. The LCOE does much the same thing by omitting that energy prices fluctuate greatly and that having reliable, dispatchable generation during periods of huge price fluctuations can be a valuable resource. Look no further than this docket for evidence of that.

III. RESOURCE MODELING

Q. What economic models does Mr. Graves rely on for his argument that Empire's decisions to add an air quality control system to Asbury that it completed in 2015, then retire Asbury December 12, 2019, were prudent?

A. Various iterations of Empire's integrated resource plans ("IRP's") and the Company's Customer Savings Plan.

Q. What is your response to Mr. Graves's testimony on Empire's historical IRP modeling results?

A. Mr. Graves makes a compelling argument that Empire has not modeled its resource planning very well to date, but little to support his argument that shareholders, who saw a 45% increase to rate base from the ratepayer-backed wind farms, should also be allowed cost recovery on the AQCS investment that Empire made before it chose to strand Asbury. Empire's preferred plan selection within those various modeled scenarios from previous IRPs have not resulted in optimal outcomes for ratepayers to date. Empire's high cost of service and poor customer satisfaction scores are testaments to that. More to the point, regulatory approval at the time of investment does not form a basis for full cost recovery in

light of management actions that resulted in Empire choosing to strand (in Empire's words) "a perfectly usable mid-life coal plant."[25]

The regulatory system leaves entrepreneurial decisions and capital management in the hands of utility management, not regulators. I believe Empire's decision to invest in the AQCS and lock the Asbury unit into a path-dependent trajectory for the next twenty years was supported at the time by management's decision to both be more efficient and environmentally sound. Retrofitting Asbury and extending its useful life for twenty-five years was a management choice to not deviate from having a diverse portfolio of resources as a hedge against uncertainty (like erratic weather) for a comparatively small utility.

It was Empire's management who took the risk of doubling-down on its historic coal investment by retrofitting Asbury into one of the most efficient and environmentally sound coal plants in the country, and if Asbury were still operational, I would not be arguing for a partial disallowance of that investment.

It was also Empire's management (albeit a different set of managers) who assumed the risk by stranding an efficient baseload asset with fifteen years remaining life so that it could utilize Asbury's SPP interconnection lines for its intermittent North Fork Ridge Wind Farm. Empire's management is also taking the risk that it will be allowed to recover its remaining balance and earn a return in the form of its WACC on an asset that is no longer used and useful.

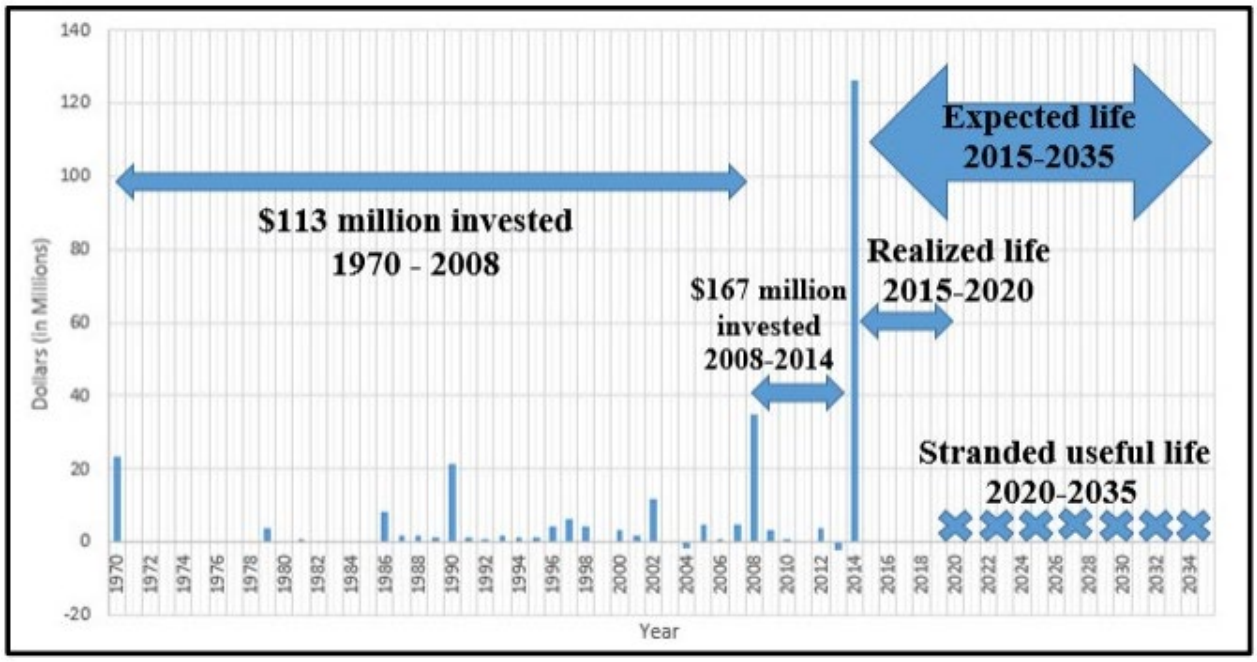
Empire's AQCS investment in Asbury is not a trivial amount,[26] to place Empire's investments in Asbury in perspective, consider that Empire invested a total of $113 million in Asbury from when it built Asbury (1970) to 2008. Now consider that in the years 2008 through 2015 Empire more than doubled that capital investment by retrofitting Asbury with an additional $167 million in environmental and efficiency investments that extended its

[25] See GM-4 p. 15

[26] Not a trivial amount from a historical perspective, but perhaps more trivial compared to the more than one billion dollars investment in Empire's three wind farms that "replaced" Asbury.

operational life through 2035. Figure 3 shows the dollars (in millions) invested over the course of Asbury's life with an emphasis placed on expected vs actual operation life from the ACQS investment.

Figure 3: Asbury Plant year-over-year capital investments in millions of dollars



To be clear, I am not arguing that all of Asbury's stranded investment be written down. I am arguing that just the remaining undepreciated balance on the ACQS (approximately 62% of total) should be borne by shareholders, and that Empire should no longer earn a profit off of its investment in a power plant that is no longer used and useful and, further, no longer exists.

Q. What is your response to Mr. Graves's testimony where he relies on Empire's 2019 IRP to justify the prudency of Empire stranding its investment in Asbury?

A. Mr. Graves omits two very important Company actions that influenced its 2019 IRP preferred plan outcome.

1. The Company's decision to gamble in the SPP market with its wind project—three wind farms—funded by ratepayer-backed capital that exceeds $1 billion in total; and that
2. Asbury was an extremely efficient unit; it only became less efficient as Liberty decided efficiency no longer mattered when trying to maximize profits from the unit in the SPP market, which directly impacted the unit's average capacity factor.

The 2019 IRP is premised on Empire suddenly having excess capacity when no additional capacity was needed and the Company was losing customers. Moreover, this excess capacity needs to be sold at a premium in the SPP market to realize the espoused benefits from another model from the Charles Rivers-informed Customer Savings Plan. The mental gymnastics in producing speculative "benefits" from prematurely stranding the refurbished and more environmentally sound Asbury unit only materialize if the newly acquired billion dollar plus wind investments are put forward. In part because the wind investments need the Asbury transmission interconnection and because supply now greatly exceeds demand.

When Mr. Graves speaks of "benefits" to customers based on the 2019 IRP modeling (i.e., retiring Asbury), he is talking about a modeled outcome based on certain assumptions that were highly contested. Importantly, these models and assumptions were not accurate then, and have proven to be wholly inaccurate since.

Stated differently, Empire had more than enough generation to meet its customers' load. Empire management elected to prematurely retire one of its large, reliable and efficient assets it just invested copious amount of money into to replace it with three separate investments that are ten times the cost of the remaining balance of the asset that it retired, assets that are much less reliable. It then faced a situation in where it had less reliable generation resources available and was exposed to volatile price swings in the SPP during Winter Storm Uri, which resulted in it incurring net fuel and purchased power costs that exceeded the remaining balance of the stranded Asbury asset. The Company now wants recovery for all three (Asbury, the wind investments, and fuel and purchased power costs

from Storm Uri) and has the nerve to take the position that this situation is unfair to shareholders as customers are getting all of the benefits from this arrangement based on modeling assumptions that were suspect to begin with and have utterly failed to be accurate to date. And nothing has changed about the risk exposure to Empire's ratepayers moving forward.

Q. Can a utility select a preferred plan using an IRP where the assumptions underlying that plan are wrong?

A. Yes. Empire has done this consistently. Empire's high cost of service and poor customer satisfaction scores are testaments to that.

Q. What if parties don't agree with a utility's IRP?

A. There is no real recourse in the IRP process. Stakeholders can voice their concerns and file recommendations, but the prudency of management's decisions are based on management's actions. IRPs are a modeling exercise that is constantly evolving. Any deficiencies or concerns voiced are historically corrected in the next filing. For example, carbon pricing has yet to occur for any of our utilities, but they continue to model scenarios with various cost assumptions (depending on the utility in question) as if various types of carbon pricing will happen. The end result is a complete overstatement of "benefits" on this one metric alone.

Q. Does that mean IRP serves no purpose?

A. I don't believe so, but Missouri is not a preapproval state and the IRP process is not Missouri's bright line test for prudent investments nor has anyone seriously argued that it should be until now. In fact, treating the IRP as such would enable utilities to game the regulatory process more than they already can. Consider that utilities routinely change direction in preferred plans, and the only recourse for stakeholders is to document historical grievances, wait until their next IRP filing or address it in a rate case (or this case, a securitization case) after the fact.

Q. Did OPC raise concerns about Empire's modeling assumptions for its wind projects and Empire's analysis of the economic viability of Asbury before Empire retired Asbury?

A. Yes, this was made clear in Case No. EA-2019-0010. Empire delayed its triennial filing until the Commission had opined on a CCN for the wind projects in that case, apparently in part, to avoid OPC's objections that it needed to update its modeling assumptions regarding its Customer Savings Plan. Unsurprisingly to me, Empire filed its new IRP nine days after the Commission issued its Report and Order in Case No. EA-2019-0010, creating a scenario where Asbury generation would actively hurt Empire ratepayers because ratepayers now were in the precarious position of being merchant generation investors (without the monetary reward) in three recently built wind farms.

I strongly recommend that the Commission refrain from buying into this rhetorical argument. Missouri is not a preapproval state. Commission affirmation that the IRP process serves as the bright line for prudency will result in an absurd outcome which utilities will exploit to no end as they effectively have absolute control over the IRP process.

Regulators and consumer advocates have neither the resources, nor responsibility, to create and guarantee utility investment plans, and cannot be expected to match the deep supply of outside consultants and resources available to utilities. That is why utility management is compensated as well as it is—to manage.

Q. What about Asbury's diminished capacity factor?

A. Simply put, Asbury was an extremely efficient unit until the Company decided that it wouldn't be by changing how it operated Asbury. The 2019 IRP's "benefits" created from stranding Asbury came as a result of the Company's decision to have the unit run differently than how it was designed to run. No modeling was done to consider seasonal dispatch, mothballing, or selling the unit. OPC witness John Robinett addresses the issue of efficiency and managerial actions in greater detail in his rebuttal testimony.

Q. What is your response to Mr. Graves's argument that disallowing any return of or profit on Empire's stranded investment in Asbury would unfairly punish investors?

A. When Algonquin first acquired Empire they effectively found themselves in a situation of lemons. That is, Empire was long on capacity with new capital investments made to secure the Company for the next twenty-five years. The new management then somehow managed to make lemonade out of its lemons by getting approval to have ratepayers back 600MW of wind farms in areas with poor wind profiles to the tune of over a billion dollars. The Company accomplished this feat, in part, through very untraditional schemes to finance a categorically large increase to rate base when no such investment was needed. This whole scenario, retiring Asbury, tax equity financing, etc… was assessed prior to Algonquin's acquisition of Empire and exercised many years before it was recommended by their outside evaluator, and now investors are seeing a windfall of rewards. Investors are also in a position for even further capital investment moving forward because of this management-created scenario to reduce the risk of investors by continuing to expose its already burdened customers with market volatility. Investors are doing extremely well even if the Commission were to fully disallow the remaining undepreciated balance of Asbury, a result that is above and beyond my recommendation.

V. THE REGULATORY COMPACT

Q. Does Mr. Graves rely on the regulatory compact as part of his argument in this case?

A. In part. His testimony implied as much throughout and he concluded his testimony with the following rationale for why investors should be prioritized over ratepayers above and beyond the 45% increase to rate base that investors will earn *additional* profits off of from Empire's ratepayer-backed market wind bet:

> Because of these economic findings, **and because of the traditional and well justified regulatory compact between a utility, its Commission, and its customers**, the proper treatment of Liberty's undepreciated investments and other

> energy transition costs at the Asbury coal plant is to allow Liberty to recover those past investment costs via a securitized utility tariff bond.[27] (emphasis added)

Q. What is the regulatory compact?

A. I view it as a theoretical agreement between the utilities and the state. The concept of a regulatory compact has long underpinned regulation of electric utilities: In exchange for a government-conferred monopoly over utility services, the company submits itself to government oversight, which—in theory at least—out to prevent the emergence of monopolistic prices and other anticompetitive inefficiencies.[28] Rather than try to prevent monopolies, the government allows them but then tries to mitigate anti-competitive behavior through regulation. With the basic premise that regulators make the monopoly as efficient as competition, the regulator is supposed to ensure that the public pays a fair price for service.[29]

Q. Mr. Graves argues that disallowing costs associated with Asbury's AQCS investment would violate the regulatory compact. What is your response?

A. The regulatory compact is a metaphor not a "legally binding" contract. In fact, according to Harvard Law School's Director of the Electricity Law Initiative at the Harvard Law School Environmental and Energy Law Program, Ari Peskoe:

> Framing utility regulation as a "compact" is a rhetorical device that has been invoked by industry to argue against competition and in favor of rate increases and cost recovery for investments that did not benefit ratepayers. While several PUCs have used the term "regulatory compact" as a shorthand description of regulation, no

[27] Case No. EO-2022-0193 Direct Testimony of Frank Graves p. 55, 14-18.

[28] This is not always regarded as successful. As former NARUC president Travis Kavulla stated, "[T]his is a monopoly industry laden with perverse incentives to over-invest in capital on the part of the utility. I'm very skeptical of the type of corporate behavior that results from a cost-of-service regulatory monopoly." https://www.greentechmedia.com/articles/read/the-republican-case-for-distributed-energy

[29] This concept is not universally shared. A compelling argument can be made that this is a misnomer implying contractual rights when it actually is a private entity consenting to additional oversight to engage in activities that as a member of the general public it could not otherwise perform. See also Hempling, Scott. What "Regulatory Compact"? https://energiahoy.com/2019/07/02/what-regulatory-compact/

court or PUC has concluded that a utility is legally entitled to relief, such as cost recovery, under a "regulatory compact." On the contrary, PUCs and courts have explicitly rejected such arguments.[30]

Q. What is your view of Empire's regulatory obligations with regard to its resource planning, specifically Asbury?

A. As an analogy, consider a hypothetical scenario involving an airline's contract with an airplane manufacturer articulated by writer Scott Alexander.

- The airline says they'll buy X planes over the next ten years;
- The manufacturer says they'll provide them at such-and-such a price.

At the moment of signing, both parties think it's a good idea. If they both knew it would stay a good idea, a contract would be unnecessary. But something might change. The air travel market might crash, and then the airline would regret having ordered more planes, and want to back out. The price of raw materials might go up, and then the manufacturer would regret offering such a low price, and want to back out themselves. But it would be unfair for the airline to make the airline manufacturer commit to a complicated course of action - building new factories, hiring lots of workers - and then change their mind, leaving them in a worse position than when they started. And it would be unfair for the manufacturer to make the airline commit to a complicated course of action - opening new routes, signing contracts with more airports - and then pull the rug out from under them and demand a higher price. So if you're committing to a mutual enterprise where both sides are going to make big irreversible changes to satisfy the other, you want a contract where

[30] Peskoe, A. (2016) "Utility Regulation Should not be Characterized as a "Regulatory Compact." Harvard Law School: Environmental Law Program Policy Initiative. http://eelp.law.harvard.edu/wp-content/uploads/Harvard-Environmental-Policy-Initiative-QER-Comment-There-Is-No-Regulatory-Compact.pdf

they both agree not to back out, and agree to suffer heavy social and financial sanctions if they do.[31]

Empire's management is the one that backed out of its regulatory obligations by reversing course and finding a way to increase rate base. Shareholders are made whole many times over from the wind investments alone.

Keep in mind, that Empire's wind investments increased rate base by over 45% for investors.

It is ratepayers that are overwhelmingly in a worse position being charged *three times* (each more expensive) for actual usable capacity.[32]

Q. Economically, who are those ratepayers?

A. Table 2 provides an updated listing by county of key economic data from the most recent American Community Survey.

[31] Alexander, S. (2021) There's A Time For Everyone. https://astralcodexten.substack.com/p/theres-a-time-for-everyone

[32] 1.) The Asbury costs pre-AQCS (as Asbury would have retired in 2020 without those investments); 2.) The AQCS costs (which extended the life of Asbury to 2035); and 3.) The wind investments. This is before one considers that ratepayers are also being asked to cover the Storm Uri fuel costs because Empire didn't have reliable generation on hand or a coordinated plan covering emergency curtailments. Which will most likely result in 4.) Additional capital costs to account for the unreliable generation.

Table 2. Select 2020 American Community Survey Economic Data of relevant service territory (italics denotes a number below the Missouri average).

Area	Mean Household Income	Median Household Income	Below Poverty Rate % Below $26,200 family of four in Missouri	Child Poverty Rate % Under 18
Empire MO Counties				
Barry	*$66,284*	*$45,811*	*18.2%*	*31.0%*
Barton	*$62,774*	*$44,510*	*20.7%*	*22.0%*
Cedar	*$62,300*	*$39,408*	*18.2%*	*23.4%*
Christian	$79,855	$64,442	10.0%	13.3%
Dade	*$67,067*	*$52,442*	*19.1%*	*34.3%*
Dallas	*$57,106*	*$40,404*	*19.4%*	*29.3%*
Greene	*$65,190*	*$47,053*	*15.3%*	14.9%
Hickory	*$42,290*	*$33,342*	*13.8%*	13.0%
Jasper	*$62,198*	*$49,155*	*17.7%*	*24.9%*
Lawrence	*$58,172*	*$44,060*	*17.0%*	*27.3%*
McDonald	*$57,288*	*$42,876*	*19.3%*	*32.0%*
Newton	$78,240	*$52,067*	*13.7%*	*18.3%*
Polk	*$62,041*	*$47,614*	*15.7%*	*18.3%*
St. Clair	*$52,360*	*$39,000*	*16.5%*	*17.7%*
Stone	*$69,336*	*$51,476*	12.3%	*18.9%*
Taney	*$60,007*	*$47,860*	*15.7%*	*24.2%*
Other				
US	$91,547	$64,994	12.8	17.5%
Missouri	$78,194	$57,290	13.0%	17.4%

Q. What is important to note from your Table 2 data?

A. Empire's customers have lower overall mean and median household incomes, and higher poverty rates relative to the United States and Missouri averages.[33] Although insufficient time prevented me from performing the analysis, based on the aforementioned data, it would not be out of the realm of reasonableness to surmise that Empire's southwest Missouri residential customers have one of, or possible the largest, energy burden of residential customers in the United States.[34]

Q. Are you aware of anything else that bears on the ability of Empire's already economically challenged customers to afford yet further increases to their electric bills?

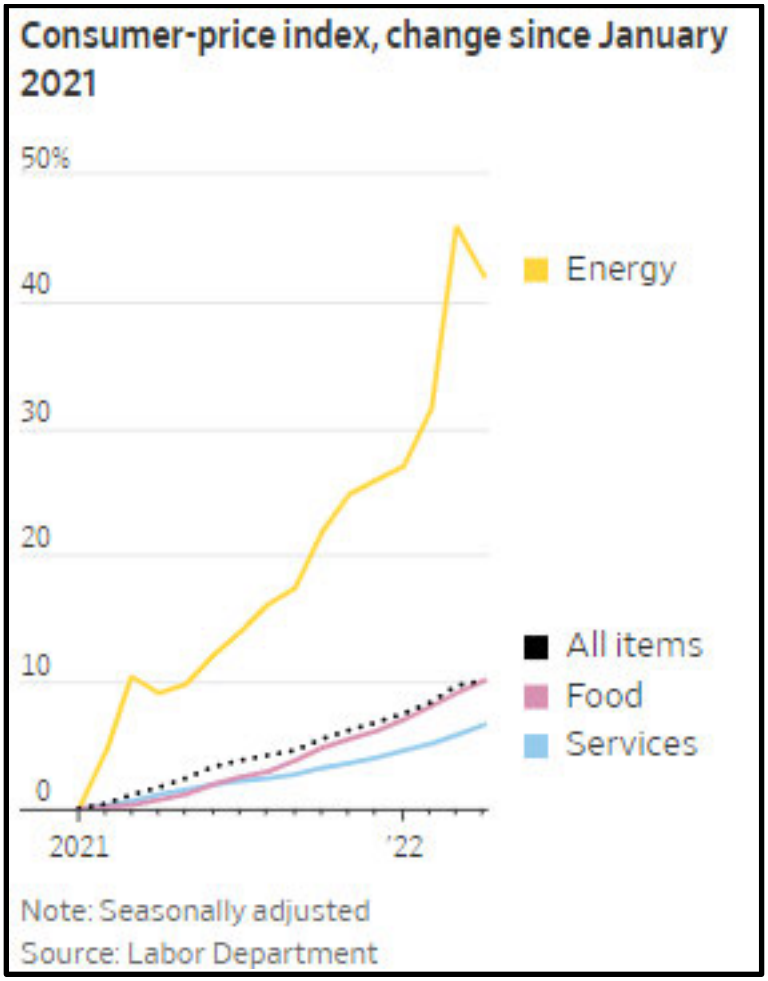
A. Yes. Inflation has surged in 2022 and is at a 40-year high. Furthermore, household spending is projected to rise a record 8% over the next year and overall inflation expected to rise by 3.9% three years from now, according to a New York Fed survey of consumers. [35] Figure 4 shows the Consumer Price Index changes since January of 2021.

[33] Christian County being the sole exception when compared to the Missouri average across the select data.

[34] A household's energy burden—the percentage of household income spent on energy bills—provides an indication of energy affordability

[35] Tanzi, A. (2022) Longer-Term Inflation Expectations Rise in New York Fed Survey. *Bloomberg*. https://www.bloomberg.com/news/articles/2022-05-09/longer-term-inflation-expectations-rise-in-new-york-fed-survey

Figure 4: Consumer Price Index changes since January of 2021 [36]



An overall decrease in the purchasing power of the dollar coupled with Empire's recently approved rate increase and now the requested increase for securitization costs will impact vulnerable households most of all.

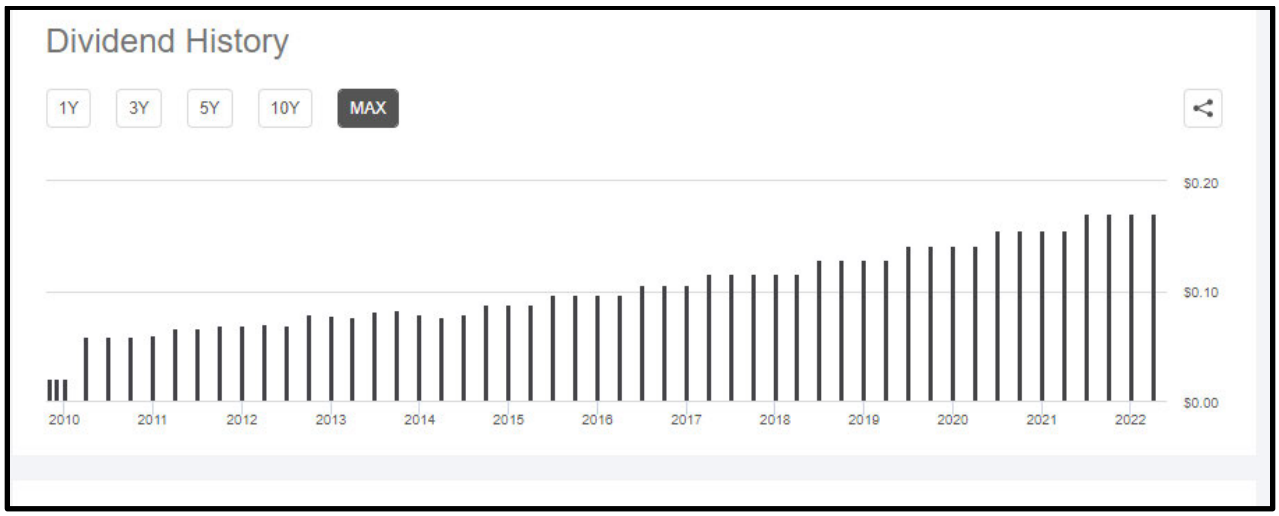
Q. What about Algonquin investors?

A. As referenced earlier, Algonquin's investors are about to begin recouping the financial benefit of a more than 45% increase to rate base from Empire's three wind investments.

[36] Guilford, Gwynn. (2022) Inflation Slipped in April, but Upward Pressures Remain. *Wall Street Journal*. https://www.wsj.com/articles/us-inflation-consumer-price-index-april-2022-11652218520 5/11/2022

Moreover, despite a global pandemic/recession and a forty-year high in inflation Algonquin's investors have experienced a categorical increase in dividend payouts and enjoyed a year-over-year increase in each of the past twelve years in common equity dividend payouts as shown in Figure 5.

Figure 5: AQN – Algonquin Power & Utilities Corp. Dividend History[37]



And the good news keeps coming, as today, Algonquin announced that they are raising dividends an additional 6% for their investors.[38]

Increasing its Missouri rate base by over 45% no doubt enabled Algonquin to make recent purchases including New York American Water and AEP's Kentucky Power. The latter acquisition includes more than $113 million in ratepayer benefits including:[39]

[37]Seeking Alpha (2022) AQN- Algonquin Power & Utilities Corp. Dividends: Dividend History https://seekingalpha.com/symbol/AQN/dividends/history

[38]Singh, Meghavi (2022) Algonquin Power & Utilities raises dividend by 6% to $0.1808/share. Seeking Alpha. https://seekingalpha.com/news/3838355-algonquin-power--utilities-raises-dividend-by-6-to-01808share?mailingid=27698563&messageid=2900&serial=27698563.1232&utm_campaign=rta-stock-news&utm_content=link-1&utm_medium=email&utm_source=seeking_alpha&utm_term=27698563.1232 5/13/2022.

[39] Unlike Kentucky ratepayers who are going to see a $113 million in cost savings, the acquisition of Empire District Electric in 2016 was based on the sole premise of "no net detriment to ratepayers", that is, no explicit cost savings. Stranding a generation investment fifteen years before the end of its useful life, hundreds of millions of dollars in excess fuel costs due to unreliable generation against a large winter storm and more than a billion dollars in wind

- Reduced transmission costs for Kentucky ratepayers by $30 million.
- Ensured Kentucky Power ratepayers do not pay for over $43 million in damage repairs resulting from Kentucky's 2021 winter storms.
- Secured $40 million in Fuel Adjustment Credits for Kentucky Power ratepayers. Kentucky Power's average residential customer will receive a monthly credit of $32.72 during the winter months and $1.40 during non-winter seasons.
- Required Kentucky Power to pay 50 percent of the carrying cost charges on the Big Sandy Decommissioning Rider, charges that cannot be collected directly or indirectly from ratepayers.[40]

Q. If the Commission does not include the remaining balance of the Asbury AQCS in the amount to be securitized, do you believe it would be fair to characterize that shareholders "got the rug pulled out from under them."

A. No. Shareholders have made out better than they could have imagined, even if the Commission does not include the AQCS amount for securitization. Because, unlike the securitization statute which replaces an undepreciated coal plant's balance dollar-for-dollar for reinvestment, shareholders got to replace a $150 million dollar coal plant with $1.2 billion dollars in wind investments.

Rate base will be five times greater these first ten years and then more thereafter (the remaining undepreciated balance from buying out the tax equity partner) for shareholders to increase profit more from an original scenario where no such opportunity existed before— regardless of how the wind farms actually perform. Leaving the remaining balance

investments in farms with poor wind profiles to play the SPP market when no such investment was needed calls into question whether that no net detriment to ratepayers has been realized.

[40] See also: Cassady, R (2022) Kentucky Power sale OK'd, with more than $113 million in ratepayer benefits approved. Appalachian News-Express https://news-expressky.com/news/kentucky-power-sale-ok-d-with-more-than-113-million-in-ratepayer-benefits-approved/article_5ea296ee-cd13-11ec-8fef-63863d282cce html

of the AQCS in the securitization proceeding and allowing the Company to earn its weighted average cost of capital ("WACC") on it would be categorically one-sided.

Q. If the Commission includes the remaining balance of the AQCS in the amount it authorizes Empire to securitize do you believe it would be fair to characterize that ratepayers "got the rug pulled out from under them."

A. Yes. Ratepayers would effectively be experiencing a perfect storm of awful outcomes.

First, they would be paying the remaining balance and WACC on an asset that is no longer used and useful.

Second, they would be paying many times over for its effective "replacement" generation (the three wind farms) that is less reliable than what they had or could otherwise have purchased.

Third, Empire's ratepayers are now being asked to pay hundreds of millions in fuel costs for Storm Uri. Costs that were exacerbated because the Company stranded its only fully owned dispatchable coal plant fifteen years before the end of its useful life.

And the parade of horrible outcomes continues as half of Empire's replacement generation capacity (specifically, the Neosho Wind Farm in Kansas) currently is not operational nor expected to be operational anytime soon as we approach peak summer conditions. Despite all the wind we've had recently, the turbines in Neosho County, haven't been turning. According to a KOAM News Now Report on April 11, 2022, District One Commissioner Paul Westhoff says it's been more than two weeks since they were last operating "What I was told is that their main transformer blew up, shorted out, whatever, and then their backup one did, and that's why they're down, so now they're waiting on another transformer."[41]

[41] See also, Warner, C. (20222) Neosho Ridge wind turbines no longer working, raising concerns with a county official. KOAM News Now. https://www koamnewsnow.com/neosho-ridge-wind-turbines-no-longer-working-raising-concerns-with-a-county-official/ April 11, 2022

Q. Do you have anything further to say on Empire's resource planning and the inclusion of Empire's stranded investment in its Asbury AQCS?

A. As glowing of a scenario as it is for investors, Empire's customers are not reaping the benefits of Empire's managerial decisions. The lack of reliable generation exacerbated by Empire's ratepayer-backed bet on the SPP market has already created hundreds of millions of dollars in outstanding fuel costs that necessitated passing securitization legislation to limit the financial impact on customers (who will pay the one week spike in fuel costs off over decades).

I ask the Commission to consider for a moment an excerpt from my rebuttal testimony in the first Empire wind project case, Case No. EO-2018-0092:

> Make no mistake of it, what Empire is requesting here is unprecedented. The Commission would be well advised to keep in mind the urgency (or scarcity) principle and have a healthy degree of skepticism when it comes to regulatory requests that apply an "act now, limited time only pressured sales pitch."[42] Because of past managerial decisions, Empire cannot afford to shift risk onto its ratepayers by locking them into a scenario where they would increasingly be exposed to the uncertainty of excessive costs on the SPP market with an excessive amount of generation capacity. The decision in front of the Commission is not to build a coal [plant] or wind farm. The coal plant is built. Nor does OPC believe this is merely a decision to retire Asbury and replace it with wind. Instead, what is at stake is a complete departure from how Empire has operated to date—namely, to provide safe and adequate service to meet its native load. Figures 1-3 provides a breakdown of the stated and unstated investment and operational decisions for the Commission's consideration.

[42] See also Cialdini, R.B. (2006) *Influence: The Psychology of Persuasion*. Harvard Business.

Figure 1: Graphical illustration of Asbury generation to serve load (current state)

Figure 2: Graphical illustration of Company's proposed application

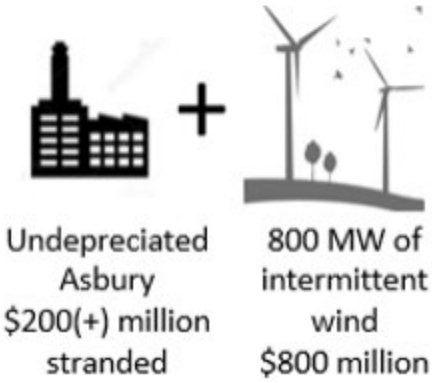


Figure 3: Graphical illustration of OPC's interpretation of Company's proposed application

The ratepayer "benefits" hoped to be obtained in this transaction are based on projecting assumptions far out into the future based on narrowly defined parameters. In contrast, the "benefits" to shareholders are guaranteed, at least in the short-term.

> OPC's greatest fear in this proposal is locking-in Empire's largely rural southwest Missouri ratepayers into volatile, excessive rates into the future.[43]

It is now more than 4 years and 3 months since I originally wrote this, and sixteen months before Empire filed its 2019 IRP, and I contend that my offered outcome has proven more accurate than Empire's 2019 preferred plan. We are now realizing Figure 3's outcome (from my 2019 testimony), only at slightly smaller scale and albeit with a different season (winter) of volatile market prices.

The fact that this outcome was realized in such a short amount of time is extremely troubling and sets up a future where ratepayers are no doubt going to be asked to shoulder even more capital costs that would have been unnecessary prior to this acquisition.

While it "may" seem unfair to Mr. Graves to only partially disallow some of Empire's undepreciated balance of Empire's stranded investment in Asbury, it is profoundly unfair to Empire's customers for Empire's shareholders to recover from them amounts for its excessive and "gamed" utility investments. Nobody persuaded Empire to make any of these investments. Anyone arguing that automatic full recovery is entitled to shareholders because of utility-backed and approved IRP and Customer Savings Plan models based on the Company's own select assumptions are over-relying on regulation to get the Company out of the compromising situation it alone created.

Q. Are you concerned with the precedent if the Commission dismisses your argument?

A. Yes. Given the anti-competitive nature of monopolies, regulators are the only protection the public has from unfair and overly burdensome utility prices. Captive consumers do indeed pay a regulatory premium for utility service. As a normal course of business, regulation allows the pass-through of high operating costs that competition would never allow. Further, inflated and obsolete assets are too often virtually guaranteed recovery plus a return.

[43] Case No. EO-2018-0092, Rebuttal Testimony of Geoff Marke p.3, 7 to p. 4, 11.

The combined orchestrated efforts by Empire over six proceedings (one merger/acquisition case, two wind cases, two rate cases and now a securitization docket) represents a windfall for investors and an onerous cost for its captive consumers. Such a situation creates a moral hazard in which one agent (the utility) decides how much risk to take, while another agent (consumers) bear the negative consequences of risky choices. The Commission weighed in on such a situation in its response to a PSC Staff alleged concern in Ameren Missouri's 2020 Integrated Resource Plan in Case No: EO-2021-0021. There the Commission stated:

> However, the Commission shares Staff's concern (Concern C) that adding large amounts of renewable generation that are not required to meet MISO resource adequacy requirements or Missouri statutory or rule requirements, including providing safe and adequate service, may place an undue level of risk on ratepayers based on the speculation that market revenues will exceed the overall cost of the assets. Ameren Missouri inherently benefits its shareholders by investing in renewable energy while seeking a return on those investments through future rates. However, that same investment may shift risk to ratepayers that market revenues from investments may not exceed the cost of the investments.[44]

Consider for a moment that this statement is being applied to a utility with approximately 1.2 million Missouri customers and contrast that with Empire's approximate 170 thousand Missouri customers. Simply put, the margin of error for horrific financial consequences is much, much greater for Empire if those early 2018 models continue to prove inaccurate. One year into this Savings Plan has already cost ratepayers hundreds of millions of dollars in fuel related costs from Storm Uri. I legitimately fear for what could follow.

[44] Case No: EO-2021-0021. Order Regarding 2020 Integrated Resource Plan, pg. 4.

Q. Would you summarize your testimony on including Empire's stranded investment in its Asbury AQCS in the amount the Commission authorizes Empire to securitize and on allowing Empire carrying costs based on its weighted average cost of capital?

A. The present day situation is as follows, Empire's customers are more exposed to SPP market volatility today than when Asbury was an available generating resource. This combined docket is evidence of that fact. Investors have realized financial gains that would not have seemed possible after Empire was acquired by Liberty through the approval of the "Customer Savings Plan" and a categorical increase to rate base.

The sum of Asbury's accumulated depreciation, favorable tax treatment, and payments collected to date through the Asbury regulatory asset should offset Empire's claimed unrecovered plant balance and estimated decommissioning costs. The remaining negative balance of $7,214,797 should be either be offset against Storm Uri costs or put into an account to be reconciled and flown back to customers in the next rate case.

Empire's ratepayers have overpaid for Asbury as it pertains to costs related to its 2014 AQCS investment whose remaining balance since its last operational use should be disallowed in recognition of the used and useful principle, matters of equity and fairness, and because the retirement was entirely the result of actions taken by Empire management from the excess capacity it momentarily created. As such, I recommend that the Commission either A.) Offset the AQCS balance against the outstanding Storm Uri request and/or the remaining decommissioning costs; and/or B.) Direct the AQCS costs into a regulatory liability to be reconciled in Empire's next general rate case.

Failure to order one or some combination of the aforementioned recommendations will result in some of the more financially strapped customers being more harmed than they otherwise already are. It would also set a terrible precedent surrounding how a utility can game its rate base valuation through selective IRP modeling effectively creating a moral hazard for its captive customers.

The state granting to a monopoly of exclusive franchises with captive customers has strings attached—economic regulation—to ensure safe and reliable service at just, reasonable and affordable rates, and it is incumbent on the Commission to say investors are getting enough and that Empire's ratepayers are paying enough. I continue to recommend the Commission order a disallowance on the remaining undepreciated balance of the AQCS and reject a WACC profit for Empire on the balance of stranded Asbury investment remaining thereafter.

VI. SECURITIZED UTILITY TARIFF CHARGE

Q. What is Empire witness Hall's recommendation on the class allocation of the securitization costs related to Storm Uri?

A. Ms. Hall states:

> 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.[45]

Q. Do you agree with her approach?

A. No. Rate design is not set by statute. These are fuel and purchased power costs that would have flowed through Empire's FAC based on usage had they not been extraordinary. As such, I recommend the kWh charge be uniformly based on usage across classes. Empire witness Hall's recommendation would be overly punitive to the private lighting class. Market rates are generally at the lowest when private lighting uses electricity. There is no compelling cost causative reason for this class to pay more. A uniform per kWh charge can be rationalized in this case based on the nature of the costs that Empire incurred.

[45] Case No. EO-2022-0040 Direct Testimony of Karen S. Hall p. 13, 3-8

Q. Does this conclude your testimony?

A. Yes.