

# Exhibit No. 453

Sierra Club – Exhibit 453  
Devi Click  
Surrebuttal Testimony  
File Nos. ER-2022-0129 & ER-2022-0130

Exhibit No:  
Issues: Revenue Requirement  
Witness: Devi Glick  
Type of Exhibit: Surrebuttal Testimony  
Sponsoring Party: Sierra Club  
Case No: ER-2022-0129, ER-2022-0130  
Date Testimony Prepared: August 16, 2022

**BEFORE THE PUBLIC SERVICE COMMISSION  
OF THE STATE OF MISSOURI**

**FILE NO. ER-2022-0129**

**FILE NO. ER-2022-0130**

**REVENUE REQUIREMENT  
SURREBUTTAL TESTIMONY  
OF  
DEVI GLICK  
ON BEHALF OF SIERRA CLUB**

**PUBLIC VERSION**

**AUGUST 16, 2022**

**BEFORE THE  
MISSOURI PUBLIC SERVICE COMMISSION**

**In the Matter of Evergy Missouri Metro, Inc d/b/a** )  
**Evergy Missouri Metro's Request for Authority to** )  
**Implement a General Rate Increase for Electric Service** ) **CASE NO. ER-2022-0129**  
)  
)  
)

**In the Matter of Evergy Missouri West, Inc d/b/a** )  
**Evergy Missouri West's Request for Authority to** )  
**Implement a General Rate Increase for Electric Service** ) **CASE NO. ER-2022-0130**

**AFFIDAVIT**

Pursuant to Missouri Public Service Commission requirements I, Devi Glick, hereby state:

1. My name is Devi Glick, and I am a Senior Principal at Synapse Energy Economics, Inc. My business address is 485 Massachusetts Avenue, Suite 3, Cambridge, Massachusetts 02139.
2. Attached hereto and made part hereof for all purposes is my Surrebuttal Testimony on behalf of Sierra Club, which has been prepared in written form for introduction into evidence in the above-referenced dockets.
3. I hereby swear and affirm that based upon my personal knowledge, the facts stated in the Surrebuttal Testimony are true. In addition, my judgement is based on my professional experience, and the opinions and conclusions stated in the testimony are true, valid, and accurate.

Under penalty of perjury, I declare that the preceding to be true and correct to the best of my knowledge and belief.

Date: August 16, 2022



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Devi Glick

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1 **1. INTRODUCTION AND PURPOSE OF TESTIMONY**

2 **Q Please state your name and occupation.**

3 **A** My name is Devi Glick. I am a Senior Principal at Synapse Energy Economics,  
4 Inc. My business address is 485 Massachusetts Avenue, Suite 3, Cambridge,  
5 Massachusetts 02139.

6 **Q Are you the same Devi Glick who provided direct testimony in this docket?**

7 **A** Yes.

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

9 **A** The purpose of my surrebuttal testimony is to respond to the rebuttal testimony of  
10 Kayla Messamore on behalf of Evergy Missouri Metro and Evergy Missouri West  
11 (together, “Evergy” or the “Company”). Specifically, I address Witness  
12 Messamore’s claims that my analysis does not properly consider replacement  
13 capacity needs and capacity costs.<sup>1</sup> I also review and evaluate Evergy Missouri  
14 West and Evergy Missouri Metro’s 2022 Integrated Resource Plan (“IRP”)  
15 Annual Update that the Company filed in June 2022.<sup>2</sup> Finally, I reiterate the  
16 conclusions from my direct testimony, as Evergy has not rebutted my analysis.

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<sup>1</sup> Rebuttal Testimony of Kayla Messamore, pages 11–12.

<sup>2</sup> Evergy Missouri West 2022 IRP Annual Update, available at [https://www.efis.psc.mo.gov/mpsc/commoncomponents/view\\_itemno\\_details.asp?caseno=EO-2022-0202&attach\\_id=2022023480](https://www.efis.psc.mo.gov/mpsc/commoncomponents/view_itemno_details.asp?caseno=EO-2022-0202&attach_id=2022023480); Evergy Missouri Metro’s 2022 IRP Annual Update, available at

1 **2. RESPONSE TO REBUTTAL TESTIMONY OF EVERGY WITNESS KAYLA MESSAMORE**

2 **Q. Witness Messamore claims that your analysis (1) ignores the fact that Evergy**  
3 **needs sufficient capacity to serve customers and meet reserve margin**  
4 **requirements, and (2) does not include an assessment of the costs for**  
5 **replacement capacity.<sup>3</sup> How do you respond to these claims?**

6 A. Witness Messamore’s claims are false and mis-represent my analysis and  
7 findings. As witness Messamore acknowledges later in her rebuttal testimony,<sup>4</sup> I  
8 did include a capacity value in the analysis presented in my direct testimony.  
9 Specifically, I value capacity based on what the Company currently pays to  
10 purchase firm capacity. And my analysis values the full quantity of firm capacity  
11 of the coal units I assume retire.

12 It’s understandable that Witness Messamore might disagree with how I have  
13 valued capacity but claiming that I didn’t include it because she disagrees with the  
14 value is misleading and wrong.

15 **Q. How did you value the capacity needed to meet system needs after the**  
16 **retirement of the Company’s coal resources?**

17 A I valued capacity using the same methodology that the Company itself stated it  
18 used to value the capacity provided by its generation resources. Specifically,  
19 when asked how the Company values, in monetary terms, the capacity provided  
20 by its generation resources, the Company responded, “As no capacity market

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[https://www.efis.psc.mo.gov/mpsc/commoncomponents/view\\_itemno\\_details.asp?caseno=EO-2022-0201&attach\\_id=2022023479](https://www.efis.psc.mo.gov/mpsc/commoncomponents/view_itemno_details.asp?caseno=EO-2022-0201&attach_id=2022023479).

<sup>3</sup> Rebuttal Testimony of Kayla Messamore, pages 11-12.

<sup>4</sup> *Id.*, page 12.

1 exists in SPP, Evergy estimates capacity values based on recent bilateral capacity  
2 agreements.”<sup>5</sup> The Company then provided a selection of those agreements. \*\*

3 [REDACTED]  
4 [REDACTED] \*\* 6

5 Note that, in my submitted analysis workbooks, I also examined and included  
6 both higher- and lower-valued contracts as sensitivities.<sup>7</sup> The highest value I  
7 reviewed was \*\* [REDACTED]

8 [REDACTED] .<sup>8</sup> [REDACTED]  
9 [REDACTED] \*\* 9

10 Although varying the capacity value did affect the specific economics of plants I  
11 examined in my analysis, the overall takeaways did not change: the coal units  
12 with the shakiest economic footing remain the shakiest, and Evergy has failed to  
13 perform adequate analysis to justify keeping them online through their currently  
14 planned retirement dates. The potential for marginal performance warrants a full  
15 retirement study of Evergy’s coal fleet where the units are allowed to retire

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<sup>5</sup> Evergy CONFIDENTIAL Response to Sierra Club Data Request 1-21(a). On August 10, 2022, Evergy confirmed that this sentence is not confidential.

<sup>6</sup> Evergy Response to Sierra Club Data Request 1-21, for Metro and West, CONFIDENTIAL Attachments.

<sup>7</sup> CONFIDENTIAL Evergy MO Economic Analysis\_06072022 Workbook (submitted with Direct Testimony of Devi Glick).

<sup>8</sup> Evergy Response to Sierra Club Data Request 1-21, for Metro and West, CONFIDENTIAL Attachments.

<sup>9</sup> Evergy Response to Sierra Club Data Request 1-08, CONFIDENTIAL Attachment “2021 Evergy Metro Integrated Resource Plan”, appendix 8F, page 44.

1 economically instead of the approach Evergy took in its IRP where it hand  
2 selected a limited number of potential retirement dates.

3 **Q. How does Witness Messamore suggest you should have valued capacity?**

4 **A** Witness Messamore suggests that an indicative value of long-term capacity \*\*

5 [REDACTED]

6 [REDACTED] \*\* 10

7 \*\* [REDACTED]

8 [REDACTED]

9 [REDACTED] 11 [REDACTED]

10 [REDACTED]

11 [REDACTED]

12 [REDACTED] \*\*

13 **Q Do you have any other points to make about the reasonableness of your**  
14 **capacity value approach?**

15 **A** Yes. Between now and 2041, Evergy Missouri Metro and Evergy Missouri West  
16 are projected to have between 286 MW and 198 MW of excess capacity.<sup>12</sup> This  
17 means that the Company could retire at least 198 MW of capacity and would still  
18 be able to meet its reserve margin for the entire planning period without any  
19 additions. Nonetheless, in my analysis I assumed that the full capacity of its coal  
20 plants was replaced, not just the MW needed to meet its projected load. This

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<sup>10</sup> Evergy CONFIDENTIAL Response to Sierra Club Data Request 5-1.

<sup>11</sup> Evergy Response to Sierra Club Data Request 1-08, CONFIDENTIAL Attachment  
“2021 Evergy Metro Integrated Resource Plan”, appendix 8F, page 44.

<sup>12</sup> Evergy Missouri Metro and Evergy Missouri West 2022 IRP Annual Update, Appendix  
B capacity balance spreadsheets.



1 means my analysis is overly conservative because I have included the costs and  
2 value of between 198 and 268 more MW of capacity than the Company actually  
3 needs to meet its reserve margin.

4 **3. EVERGY WEST AND EVERGY METRO'S 2022 IRP ANNUAL UPDATE**

5 **Q On what resource planning analysis did Evergy rely as the basis of the**  
6 **capital and O&M spending that it requests for its coal units in this rate case?**

7 **A** The Company relied on the analysis from its 2021 triennial IRP.<sup>13</sup> As I discussed  
8 in my direct testimony, this analysis has many deficiencies; most critically, the  
9 Company did not use optimized capacity expansion modeling to analytically test  
10 the fundamental economics of retaining vs. retiring its coal units that exhibit  
11 marginal economic value, at best. Using capacity expansion modeling is an  
12 industry-standard approach for determining a lowest-cost supply resource plan.  
13 Instead, the Company hard coded in its expected retirement dates for its coal  
14 units. Evergy is now asking for recovery of the capital costs and operations and  
15 maintenance (O&M) costs associated with maintaining these coal units, despite  
16 providing no evidence that continuing to operate its coal fleet is the lowest cost  
17 option for Missouri ratepayers.

18 **Q How is Evergy West and Evergy Metro's 2022 IRP Annual Update different**  
19 **from the Company's 2021 triennial IRP with regard to the Companies' coal-**  
20 **fired units?**

21 **A** Evergy made several changes in developing its 2022 IRP Annual Update that  
22 have the potential to improve the Company's IRP process in the future but

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<sup>13</sup> Rebuttal Testimony of Kayla Messamore, page 12.

1 critically were not used here. First, the Company switched from Strategist to the  
2 PLEXOS production cost and capacity expansion software and used the new  
3 model to evaluate the costs of the Alternative Resource Plans it presents in the  
4 update.<sup>14</sup> Second, the Company tested several scenarios with updated coal-plant  
5 retirement dates. Unfortunately, the Company failed to execute on and follow-  
6 through on these potential improvements in preparing its 2022 IRP Annual  
7 Update, leaving its most recent modeling riddled with many of the same flaws as  
8 the 2021 triennial IRP.

9 **Q Please elaborate on your concerns with the Company’s modeling updates,**  
10 **specifically the use of capacity expansion modeling.**

11 **A** Evergy’s switch to a modeling tool that can perform capacity expansion modeling  
12 is a good thing, and it is something that I and others advocated for throughout the  
13 IRP process and in my direct testimony filed in the current rate case. But as  
14 Witness Messamore points out, there is nothing magical about PLEXOS.<sup>15</sup> And I  
15 agree: any tool can be mis-used, underutilized, or misapplied. Just switching to a  
16 better tool is not enough; the Company also needs to utilize the full functionality  
17 of the new tool. The primary value of capacity expansion modeling is in  
18 identifying a least-cost resource mix that meets system needs. And here  
19 unfortunately Evergy did not use the capacity expansion capabilities of the model  
20 to develop its portfolios. Instead, the Company programmed its pre-designed  
21 portfolios into the model to evaluate their costs and allowed the model to make  
22 very limited choices regarding replacement resources.

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<sup>14</sup> Evergy Metro 2022 IRP Annual Update, page 5.

<sup>15</sup> Rebuttal Testimony of Kayla Messamore, page 13.

1 Specifically, for the 2022 IRP Annual Update, Evergy constrained the PLEXOS  
2 model and didn't allow it to select portfolios or retirement dates. Instead, the  
3 model was allowed to evaluate the cost of a portfolio it had pre-selected and make  
4 limited choices about replacement resources. In other words, Evergy conducted an  
5 exercise in choosing portfolios first, then evaluating them afterward. Evergy used  
6 capacity expansion modeling to “supplement individual Alternative Resource  
7 Plans which were used to test discrete decisions (similar to past IRPs).”<sup>16</sup> Just as  
8 in its 2021 triennial IRP, Evergy did not allow its model to solve for the least-cost  
9 resource portfolio, or to find the optimal year to retire each coal unit. Instead, coal  
10 retirement dates were an input assumption, without regard for the economic  
11 impact of their retention. This style of modeling is insufficient to determine  
12 whether continued operation (including incurring necessary capital expenses) of  
13 these coal plants is the least-cost option for ratepayers, or to identify optimal  
14 retirement dates for its coal plants. Evergy's basis for not performing full capacity  
15 expansion modeling is even weaker than in the past because its modeling tool is  
16 fully capable of completing such analysis.

17 **Q Describe the change in retirement dates that the Company tested and explain**  
18 **what the results do and do not show.**

19 **A** The Company modeled several scenarios where it accelerated retirement dates for  
20 individual coal units, using 2030 (Jeffrey Unit 2, Hawthorn Unit 5, La Cygne Unit  
21 2, and Iatan Unit 1),<sup>17</sup> and 2029 (La Cygne Unit 2).<sup>18</sup> But as discussed above,  
22 neither of these accelerated dates were selected based on the optimization  
23 software; they were all hard-coded in. And no earlier retirement dates were tested.

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<sup>16</sup> Evergy Missouri Metro 2022 IRP Annual Update, page 45.

<sup>17</sup> *Id.*, page 46.

<sup>18</sup> *Id.*, page 48.

1 This means the Company did not demonstrate that an earlier retirement date was  
2 not optimal.

3 Further, the modeling results showed that Jeffrey Unit 2 would be the most  
4 economic coal unit to retire due to anticipated environmental compliance costs.<sup>19</sup>  
5 Yet Evergy still refused to add any early plant retirements to its preferred plan in  
6 its IRP. So Evergy limited the modeling process, and then ignored the results of  
7 its modeling that deviated from its 2021 IRP plan.

8 **Q Witness Messamore takes issue with your recommendation that the**  
9 **Company should be required to conduct a full retirement analysis of its coal**  
10 **fleet using optimized capacity expansion software, stating that the Sierra**  
11 **Club should be aware that Evergy is utilizing capacity expansion modeling**  
12 **for its 2022 IRP Annual Update. Why should the Company still be required**  
13 **to do so?**

14 **A** The Company developed its rate case based on modeling that the Company  
15 conducted before it switched to the PLEXOS model. The Company's 2022 IRP  
16 Annual Update modeling did not improve that failing because Evergy again chose  
17 to rely on hand-selected portfolios with very limited retirement dates studied and  
18 limited ability for the model to select replacement resources. The modeling  
19 underlying this rate case does not rely on capacity expansion modeling or evaluate  
20 an optimized retirement date for any of the Company's coal plants.

21 In its most recent modeling for the 2022 IRP Annual Update, Evergy identified  
22 the coal unit it can most economically retire and built its Preferred plan "based on  
23 the assumption that such a retirement would ultimately occur."<sup>20</sup> The Company

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<sup>19</sup> *Id.*, page 47.

<sup>20</sup> *Id.*, page 12.

1 also identified multiple reasons why developing such specifics may be  
2 advantageous—chief among them, expected environmental compliance costs. It is  
3 therefore reasonable to request that Evergy update its application based on  
4 capacity expansion modeling and consideration of earlier coal retirement dates  
5 and allow the Commission to consider the economic advantages to ratepayers of  
6 early retirement for the Company’s coal fleet. Without such updated modeling,  
7 the capital costs and O&M costs associated with continued operation of La Cygne  
8 Units 1 and 2 and Iatan 1, and Jeffrey Units 1–3 should be disallowed as I  
9 outlined in my direct testimony.<sup>21</sup>

10 **Q What additional environmental costs does the Company expect its coal fleet**  
11 **to face in the coming years?**

12 **A** The Company expects many of its coal plants could require future environmental  
13 compliance projects. Specifically, the Company expects additional future costs  
14 associated with at least some of the following units and rules:

- 15 1. Hawthorn 5 is expected to continue to experience various environmental  
16 pressures given its location within the Kansas City Metro area.<sup>22</sup>
- 17 2. Good Neighbor Ozone Transport Rule: The U.S. Environmental  
18 Protection Agency (“EPA”) recently published a proposed Interstate  
19 Transport Federal Implementation Plan for the 2015 ozone National  
20 Ambient Air Quality Standards (“NAAQS”). The proposed Federal  
21 Implementation Plan includes reductions to the state ozone season NO<sub>x</sub>

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<sup>21</sup> Direct Testimony of Devi Glick, pages 4-5.

<sup>22</sup> Evergy Missouri Metro 2022 IRP Annual Update, page 47.

- 1 allowance allocations for Missouri beginning in 2023 with additional  
2 reductions each year through 2026.<sup>23</sup>
- 3 3. Ozone NAAQS for Kansas City area: The EPA announced its intention to  
4 reconsider its 2020 final action retaining the level of the 2015 ozone  
5 NAAQS. Lowering of the ozone standard could impact the Kansas City  
6 area’s current nonattainment designation. A future nonattainment  
7 designation for the area could result in regulations requiring additional  
8 nitrogen oxides (NO<sub>x</sub>) reduction technologies.<sup>24</sup>
- 9 4. Effluent limitation guidelines (ELG): On July 26, 2021, EPA initiated a  
10 supplemental rulemaking to strengthen certain discharge limits in the ELG  
11 regulation. EPA intends to issue a proposed rule for public comment in the  
12 fall of 2022. Evergy Metro is currently in compliance with this regulation,  
13 but future strengthening of the rule could require additional reduction  
14 technologies, on coal- and oil-fired units.<sup>25</sup>
- 15 5. Coal combustion residuals (CCR): In January 2022, EPA published  
16 proposed determinations for facilities that filed closure extensions for  
17 unlined or clay-lined CCR units.<sup>26</sup>
- 18 6. Regional Haze: Both Kansas and Missouri have proposed regional haze  
19 state plans that do not require emissions reductions from Evergy’s coal  
20 units.<sup>27</sup> EPA could approve those plans or instead impose additional NO<sub>x</sub>,  
21 SO<sub>2</sub>, or particulate matter emissions reductions on sources in these states,  
22 including Evergy’s coal units.<sup>28</sup>

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<sup>23</sup> *Id*, page 30.  
<sup>24</sup> *Id*, page 28.  
<sup>25</sup> *Id*, page 33.  
<sup>26</sup> *Id*, page 35.  
<sup>27</sup> *Id*, pages 30-32.  
<sup>28</sup> *Id*, page 32.

1 Evergy provided a full list of expected environmental compliance projects and  
 2 their estimated date range in Table 1 below.

3 **Table 1: Evergy’s Environmental retrofit project timeline**

Milestone Description	2022 IRP Date Range
Hawthorn 5 - Intake Modification	2021 - 2024
Hawthorn 5 - Groundwater Monitoring Program	2021 - 2024
Hawthorn 5 - Outfall 008 Weir Box	2022
Hawthorn 5 - Outfall 009 Weir Box	2022
Iatan 1 - Landfill Phase 1B Cover	2021 - 2022
Iatan 1 - Landfill Phase 2 Cover	2022 - 2023
Iatan 1 - Intake Modification	2021 - 2023
Iatan 2 - Landfill Phase 1B Cover	2021 - 2022
Iatan 2 - Landfill Phase 2 Cover	2022 - 2023
La Cygne 1 - Upper AQC Cover, Dewatering, Grading, Install	2021 - 2034
La Cygne 1 - Lower AQC Cover, Dewatering, Grading, Install	2021 - 2034
La Cygne 1 - Landfill Cover	2021 - 2034
La Cygne 2 - Upper AQC Cover, Dewatering, Grading, Install	2021 - 2034
La Cygne 2 - Lower AQCD Cover, Dewatering, Grading, Install	2021 - 2034
La Cygne 2 - Landfill Cover	2021 - 2034

4  
 5 *Source: Evergy Missouri Metro 2022 IRP Annual Update, Table 39, Page 87.*

6 **Q Are there other reasons why the Company should be required to conduct**  
 7 **updated modeling as part of this rate case?**

8 **A** Yes. The Inflation Reduction Act (“IRA”)—which includes new and expanded  
 9 technology-neutral clean energy tax credits—recently passed the U.S. Congress  
 10 and is expected to be signed into law. The provisions of the bill will have a large  
 11 impact on utility planning in the United States and will require utilities to update  
 12 their modeling and cost assumptions to accurately incorporate future renewable  
 13 costs.

1 Under the IRA, all zero-emitting resources, including wind, solar, and battery  
2 storage, will be eligible for a 30 percent investment tax credit (“ITC”) or  
3 production tax credit (“PTC”) of 2.5 cents per kWh through at least 2032 if the  
4 project developer meets prevailing wage requirements. These are also adders  
5 available to expand the level of tax credits, depending on project location and the  
6 use of components manufactured in the United States. This is a dramatic change.  
7 When Evergy performed its modeling, it assumed the wind tax credits had already  
8 expired and solar tax credits would expire by the end of the year. The Company  
9 also did not model any standalone battery storage, which didn’t qualify for a tax  
10 credit previously but now will be eligible for a 30 percent ITC under the IRA.<sup>29</sup>

11 The IRA is just one recent example in a trend of decreasing costs for renewables  
12 and increasing costs and price volatility for existing fossil regulation. Specifically,  
13 fossil resources are facing increased regulation, which will likely result in  
14 additional capital and operations costs. At the same time, price volatility in the  
15 coal and gas market is driving near-term price spikes and long-term uncertainty—  
16 all while renewables costs are projected to decline again with the passage of the  
17 IRA. Continuing to invest in coal plants is counter to the clear prevailing trends.

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<sup>29</sup> See. H.R. 5376 – 117 Congress (2021-2022): The Inflation Reduction Act of 2022  
(2021),  
[https://www.democrats.senate.gov/imo/media/doc/inflation\\_reduction\\_act\\_of\\_2022.pdf](https://www.democrats.senate.gov/imo/media/doc/inflation_reduction_act_of_2022.pdf)  
; Proposed Tax Preference for Domestic Content in Energy Infrastructure,  
Congressional Research Service, (August 5, 2022) available at  
<https://crsreports.congress.gov/product/pdf/IN/IN11983>.



1 **Q Please summarize the key clean-energy results from the 2022 IRP Annual**  
2 **Update.**

3 **A** In the next few years (2022–2025 time period), the 2022 IRP Annual Update has  
4 the Company adding less solar PV but more wind than in its 2021 triennial IRP.<sup>30</sup>  
5 Between 2029 and 2035, the model maxes out solar additions in every year in the  
6 2022 IRP Annual Update,<sup>31</sup> although the amount added in each year is lower than  
7 in the 2021 triennial IRP. The 2022 IRP Annual Update also indicates that Evergy  
8 plans to evaluate energy storage and hybrid options in more detail in its 2023 IRP  
9 Annual Update.<sup>32</sup> This is something the Company did not do seriously in its 2021  
10 triennial IRP or the 2022 IRP Annual Update.

11 **Q Explain why there are fewer annual renewable additions after 2026 in the**  
12 **2022 IRP Annual Update than in the 2021 triennial IRP and why those**  
13 **additions are often exactly 450 MW.**

14 **A** Evergy’s 2021 triennial IRP included 500 MW of renewable energy additions in  
15 2026 and in each year from 2028 to 2032. In the 2022 IRP Annual Update, those  
16 renewable energy additions are exactly 450 MW in each of those years except  
17 2028. The Update also shows 450 MW of annual solar additions from 2033–2035,  
18 as shown in Table 2 below.

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<sup>30</sup> Every Missouri Metro 2022 IRP Annual Update, pages 7-9.

<sup>31</sup> *Id.*, page 108.

<sup>32</sup> *Id.*, page 12.

1  
2

**Table 2: Annual additions by year in Evergy's 2021 IRP and 2022 IRP Annual Update**

Year	2021 triennial IRP	2022 IRP Annual Update
2026	500 MW Wind	450 MW Wind
2027	-	-
2028	500 MW Solar	300 MW Solar
2029	500 MW Solar	450 MW Solar
2030	500 MW Solar	450 MW Solar
2031	500 MW Solar	450 MW Solar
2032	500 MW Solar	450 MW Solar
2033	-	450 MW Solar
2034	-	450 MW Solar
2035	-	450 MW Solar

3

*Source: 2022 Evergy Metro IRP Annual Update, Public Version, pages 7-9.*

4 While the 2022 IRP Annual Update includes more renewable additions overall,  
5 the fact that so many of the years build exactly 450 MW is concerning because  
6 Evergy states that it imposed a 450 MW limit on annual renewable builds in its  
7 capacity expansion modeling. This means two things: first, the annual decrease in  
8 renewable builds to 450 MW in 2026, 2029, 2030, 2031, and 2032 is purely due  
9 to a subjective modeling input, not due to underlying project economics or  
10 benefits accruable to Evergy ratepayers. Second, when a capacity expansion  
11 model builds exactly up to an annual build limit multiple years in a row, that is  
12 often a signal that it would be economic to build even more renewable capacity in  
13 those years. Limiting a capacity expansion model's capability to build economic  
14 resources undermines the primary utility of capacity expansion models, which is  
15 to find the least-cost resource portfolio that meets system constraints.

16 Evergy states that the 450 MW limit it used in its 2022 IRP Annual Update is  
17 based on its experience executing renewable projects to date.<sup>33</sup> That may be the  
18 case but continuing to limit resource builds through the late 2030s based upon

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<sup>33</sup> *Id.*, page 108.

1 experience gained only through the early 2020's is hardly prudent. Doing so  
2 assumes that developer appetite for projects will not change. More importantly, it  
3 also assumes that Evergy will not get any better at executing projects—a dismal  
4 resignation that the Company will not have what it takes to deliver a least-cost  
5 resource portfolio.

6 **Q Witness Messamore states that your analyses “do nothing” to support your**  
7 **recommended disallowance.<sup>34</sup> How do you respond?**

8 **A** It is my understanding that Evergy, as regulated utility, has the burden of proof to  
9 demonstrate the prudence of every dollar it requests for inclusion in its revenue  
10 requirement. As I stated in my direct testimony, Evergy is requesting significant  
11 spending at its coal plants, and it has not demonstrated that continued investment  
12 in its coal fleet is the prudent and least-cost option to provide reliable power to its  
13 ratepayers. Evergy's rebuttal testimony simply mischaracterized my testimony  
14 and hand waived away my detailed concerns without providing evidence that my  
15 analysis is incorrect. To justify its coal fleet spending, Evergy must have some  
16 evidence of the value of these plants. Evergy has relied on its IRP modeling to  
17 support its application. The Company's IRP modeling did not test whether, or  
18 demonstrate that, continuing to operate its coal fleet was the least-cost solution for  
19 ratepayers. As such, my recommended disallowance is appropriate.

20 **Q Does this conclude your testimony?**

21 **A** Yes.

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<sup>34</sup> Rebuttal Testimony of Kayla Messamore, page 12.