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August 29, 2022

Ms. Lynn M. Retz
Executive Director
Kansas Corporation Commission
1500 SW Arrowhead Road
Topeka, KS 66604

Re: KEPCo Comments on the Evergy Kansas Central and Evergy Metro 2022 Annual Update
Docket No. 19-KCPE-096-CPL

Dear Ms. Retz:

Please find the attached confidential and redacted versions of Comments of Kansas Electric Power Cooperative, Inc. on the Evergy Kansas Central and Every Metro 2022 Annual Update for filing in the above-referenced docket. The confidential version contains information designated by Evergy as confidential in response to KEPCo discovery requests. Evergy has claimed confidentiality on the basis of "[c]ontract negotiations (see Response to KEPCo 3-03) and "[m]arket analyses or other market-specific information relating to services offered in competition with others" (see Response to KEPCo 3-04).

Based on Evergy's confidential designation, KEPCo is filing the confidential version of its Report pursuant to K.S.A. 66-1220a and K.A.R. 82-1-221 and requests confidential treatment as provided therein.

If you have any questions or require additional information, don't hesitate to contact me.

Sincerely,

Susan B. Cunningham

Susan B. Cunningham
General Counsel

Attachments

PUBLIC VERSION

BEFORE THE STATE CORPORATION COMMISSION
OF THE STATE OF KANSAS

In the Matter of the Capital Plan Compliance Docket for Kansas City Power & Light Co. and Westar Energy, Inc. Pursuant to the Commission's Order In Docket No. 18-KCPE-095-MER	)))))	Docket No. 19-KCPE-096-CPL

COMMENTS OF KANSAS ELECTRIC POWER COOPERATIVE, INC. ON THE EVERGY KANSAS CENTRAL AND EVERGY METRO 2022 ANNUAL UPDATE

COMES NOW Kansas Electric Power Cooperative, Inc. ("KEPCo") and submits these comments on the *Evergy Kansas Central and Evergy Metro 2022 Annual Update* filed on June 10, 2022 ("2022 Annual Update"), by Evergy Metro, Inc. d/b/a Evergy Kansas Metro ("Evergy Kansas Metro"), and Evergy Kansas Central, Inc. and its subsidiary, Evergy Kansas South, Inc. (collectively, "Evergy KC") (together, Evergy Kansas Metro and Evergy KC are referred to as "Evergy"). KEPCo was granted intervention in this proceeding by the Commission on September 15, 2020.[1]

I. Introduction

1. KEPCo is engaged in the business of a generation and transmission cooperative electric supplier providing power and energy to 16 member distribution cooperatives ("Members") in the state of Kansas pursuant to all-requirements wholesale electric power agreements. KEPCo's Members collectively serve over 75,000 retail consumer-members in the eastern two-thirds of Kansas, which equates to nearly 200,000 Kansans.

[1] Order Granting Intervention to Kansas Electric Power Cooperative, Inc., Docket No. 19-KCPE-096-CPL (Sept. 15, 2020).

2. Pursuant to the February 6, 2020, Order Adopting Integrated Resource Plan and Capital Plan Framework ("IRP Framework Order"), stakeholders are permitted to submit comments on each annual update filed between triennial compliance filings.[2] Additionally, in accordance with the IRP Framework Order, on December 16, 2021, the parties submitted a Joint Filing that summarized parties' identified deficiencies and concerns in Evergy's 2021 triennial compliance filing ("2021 IRP"), as well as proposed resolutions to several of these deficiencies and concerns.[3] A number of the proposed resolutions, however, were premised on Evergy correcting the identified deficiencies in its 2022 or 2023 Annual Updates. Since these deficiencies were not resolved at the time of the Joint Filing, the signing parties agreed to the following:

> As many of the proposed resolutions contemplate further discussions between the parties and Evergy's agreement to address the deficiencies and concerns in its 2022 Annual Update or 2023 Annual Update, the Signatories reserve the right to make comments regarding the implementation of these resolved resolutions in the 2022 or 2023 Annual Update (as applicable), and the Signatories request that the Commission revisit these proceedings once Evergy has submitted the 2022 and 2023 Annual Update and parties have an opportunity to provide comments and seek to resolve any deficiencies which remain outstanding, by use of a formal hearing or other mechanism.[4]

3. Evergy's 2022 Annual Update includes areas of incremental improvement to the 2021 IRP; however, both the 2021 IRP and the 2022 Annual Update are deficient due to Evergy's failure to apply a consistent, transparent, and objective methodology in its evaluation of Alternative Resource Portfolios ("ARPs"). Evergy's reliance on hand-selected retirement dates and capacity additions in its ARPs produces an incomplete presentation of data that is skewed in

[2] IRP Framework Order, Att. A at 10.

[3] Joint Filing, Docket No. 19-KCPE-096-CPL (filed Dec. 16, 2021) ("Joint Filing").

[4] *Id.* at ¶ 3.

favor of Evergy's intent to retire its existing generating units and replace them with new resources.[5] This skewed presentation of data has persisted in the 2022 Annual Update, and has not been cured by Evergy's adoption of the Plexos capacity expansion modeling tool because: (a) Evergy has only applied this tool selectively for ARPs presented in the 2022 Annual Update, and (b) Evergy has not used this tool to backtest ARPs that were ruled out in its 2021 IRP and has only applied Plexos to backtest its preferred portfolio and to test additional early retirement dates for thermal generating units. The data that Evergy has provided in two new ARPs (CDAAG and CDAAH) shows that an objective and consistent methodology could not only remedy some of the deficiencies caused by Evergy's hand-selection of ARP retirement dates and capacity additions, but could further demonstrate that fewer retirements and replacements may, in fact, provide the least-cost portfolio.

4. Evergy's firm outside retirement date for generating units as of the end of their depreciable lives also imposes a limitation that is premised on the unsupported and unreasonable assumption that all units must retire by the financial accounting or "book life" end date. By imposing this limitation, Evergy has created an artificial restraint on portfolio options that, in effect, causes modeling of later retirements to incur higher replacement costs of relatively more expensive combustion turbines, whereas earlier retirements are replaced by lower-cost, solar and wind additions.[6] Thus, for this reason too, it is unclear whether early retirements would actually result in a lower-cost portfolio.

[5] Report of Kansas Electric Power Cooperative, Inc. on the Evergy Kansas Central and Evergy Metro 2021 Integrated Resource Plan at ¶ 9, Docket No. 19-KCPE-096-CPL (filed Oct. 25, 2022) (raising concerns with Evergy's "objectivity in how it constructed the 2021 IRP analysis" given the "preconceived plan for Evergy to expand its planned capital investments by retiring coal generating units and replacing those units with renewable resources") ("KEPCo Report on 2021 IRP").

[6] This issue is explained more fully *infra* at Section II(A)(2).

5. There are several other items that were agreed upon and memorialized in the Joint Filing to resolve deficiencies in the 2021 IRP that Evergy has either not satisfied or not addressed at all in the 2022 Annual Update: (a) Evergy has not adequately detailed unit-specific offramps or points of commitment for its planned acquisitions or retirements under the preferred portfolio, and has spoken only in general terms as to the existence of external risks and points of commitment, providing little insight into how Evergy would make necessary adjustments to its preferred portfolio should circumstances change;[7] (b) Evergy continues to rely on a single scenario for demand side management ("DSM") savings, despite committing to develop "multiple levels of savings" in the Joint Filing,[8] and the savings that Evergy has projected in its currently pending application for DSM programs in Kansas are considerably lower than those modeled in the IRP;[9] and (c) Evergy has not explained how it incorporated the operations and maintenance ("O&M") cost reductions proposed in the Sustainability Transformation Plan ("STP") or 2022 Capital Plan into its 2021 IRP or 2022 Annual Update. Due to these unresolved deficiencies, the Commission should find that the 2021 IRP and the 2022 Annual Update do not comply with the IRP Framework Order, as they do not "identif[y] the portfolio of resources that meets customer requirements at the lowest reasonable cost given an uncertain future," and do not "provide an optimal portfolio that is flexible and robust."[10]

[7] 2022 Annual Update at 89-99.

[8] Joint Filing at ¶¶ 30, 38, 46, 68.

[9] Application of Evergy Kansas Metro, Inc., Evergy Kansas South, Inc., and Evergy Kansas Central, Inc. for Approval of Demand-Side Management Program Portfolio and Recovery Mechanism, Docket No. 22-EKME-254-TAR (filed Dec. 17, 2021) ("DSM Application").

[10] IRP Framework Order, Att. A at 2 (emphasis removed).

6. The assumptions and analysis in Evergy's IRPs are central to Evergy's plans for increased capital spending for resource acquisitions.[11] In its most recent Capital Investment Plan filed earlier this year, Evergy reports that it is planning to spend an additional $1.215 billion more than it proposed in its STP in Docket No. 21-EKME-088-GIE, with capital spending of $5.255 billion for Evergy KC in years 2022 to 2026, $782 million of which is attributable to "Generating Facilities: New Renewables."[12] The primary driver of these increased costs is "increased levels of company-owned renewables, at higher prices per MW than originally planned."[13] Thus, Evergy's estimated costs for its preferred resource portfolio are already proving to have underestimated the projected costs of its retire-and-replace strategy. Additionally, it is unclear whether Evergy has achieved the O&M reductions that it has previously represented in the STP and 2022 Capital Plan as being achievable to justify its increased capital expenditures. If the deficiencies within Evergy's IRP analysis are not resolved, Evergy will continue to rely on its incomplete and skewed analysis as justification for ever-increasing capital spending plans, which are fueled by its costly retire-and-replace portfolio strategy. Notably, Evergy committed in the Joint Filing to improving transparency into its capital spending by agreeing to "identify the data points in the Capital Investment Plan that correspond to data points within the IRP" as part of its 2022 Annual Update.[14] Evergy has not

[11] Evergy has identified one of the primary drivers of increased capital spending as "the Integrated Resource Plan (IRP) for changes in assumed plant retirement dates." Evergy Kansas Central Capital Investment Plan Update at 5, Docket No. 19-KCPE-096-CPL (filed Feb. 28, 2022) ("Evergy KC 2022 Capital Plan").

[12] Staff Report and Recommendation at 5, Docket No. 19-KCPE-096-CPL (issued Jul. 8, 2022) ("Evergy's projected capital expenditures for years 2022 to 2026 total $6.782 billion for Evergy Kansas Central and Evergy Kansas Metro combined. This is approximately 21.82% larger than the total of $5.567 billion projected for the years 2020 to 2024 for both utilities, as part of the STP."); Evergy KC 2022 Capital Plan at 1.

[13] Evergy KC 2022 Capital Plan at 5.

[14] Joint Filing at ¶ 48.

complied with this commitment, and there remains an absence of transparency into the connection between the data provided in Evergy's Capital Investment Plan and its IRP reports.[15] In its response to comments on the 2022 Capital Plan, Evergy attributes its failure to provide this specific information to timing differences between the 2022 Annual Update and 2022 Capital Plan.[16] But that is inconsistent with the commitments made by Evergy in the Joint Filing, and in any event, Evergy should provide the data and reconcile for any timing differences that may have caused the cost data to change during the interim period, which, in this instance, was a difference of less than 3.5 months.

7. KEPCo is concerned that these increased costs will continue to have an outsized impact on the most vulnerable Kansas customers, raising the energy burden on these customers, while potentially diminishing system reliability.[17] All this, at a time when living costs are already rising at the highest pace seen in decades.[18] Affordability and reliability should remain at the forefront when the Commission considers whether Evergy's IRP analysis achieves the desired objectives. Given the current inflationary environment, Evergy's increasing capital costs

[15] Evergy states that it "has qualitatively described changes from the prior year IRP and/or the latest Capital Investment Plan and continue[sic] in Section 5:.[sic]" 2022 Annual Update at 105. However, there is no reference at all to the Capital Investment Plan in Section 5. There is limited discussion of the Capital Investment Plan in Section 6.1, but not specific data points or estimated expenditures.

[16] Response of Evergy Kansas Central, Inc., Evergy Kansas South, Inc., and Evergy Metro, Inc. to Comments Regarding Capital Plan at ¶ 48, Docket No. 19-KCPE-096-CPL (filed Aug. 26, 2022) ("Evergy 2022 Capital Plan Response").

[17] KEPCo Report on 2021 IRP at ¶¶ 4-5.

[18] U.S. Bureau of Labor Statistics, TED: The Economics Daily, CONSUMER PRICES UP 9.1 PERCENT OVER THE YEAR ENDED JUNE 2022, LARGEST INCREASE IN 40 YEARS (Jul. 18, 2022) available at https://www.bls.gov/opub/ted/2022/consumer-prices-up-9-1-percent-over-the-year-ended-june-2022-largest-increase-in-40-years.htm#:~:text=SUBSCRIBE-,Consumer%20prices%20up%209.1%20percent%20over%20the%20year%20ended%20June,largest%20increase%20in%2040%20years&text=Over%20the%2012%20months%20ended,Urban%20Consumers%20increased%209.1%20percent.

will make it even harder for those low-income customers of rural cooperatives such as KEPCo and its Members to "make difficult choices between energy use and other life necessities."[19]

8. The Commission should find that Evergy has not satisfied the terms of the Joint Filing and, further, that each of the 2021 IRP and the 2022 Annual Update are deficient. To remedy these deficiencies, the Commission should direct Evergy to apply Plexos to ARPs CDAAG and CDAAH and new ARPs that contain later retirement dates for Jeffrey Energy Center ("JEC") Units 2 and 3 that extend beyond 2039, that Evergy provide the resulting NPVRRs to the Commission and all parties, and permit parties to submit supplemental comments 30 days thereafter. The Commission should further require Evergy to:

a. re-evaluate the retirement options studied in its 2021 IRP by applying Plexos;

b. construct additional ARPs that model retirement dates that extend beyond the depreciable lives of generating units;

c. provide a detailed and unit-specific discussion of offramps, contingencies, and points of commitment, as outlined by KEPCo in Attachment A;

d. adjust its DSM RAP- scenario to conform to the savings amounts projected in Docket No. 22-EKME-254-TAR, and incorporate multiple levels of DSM savings in its evaluation of each unit retirement scenario; and

e. fully explain how it has modeled O&M cost reductions as represented in the STP and 2022 Capital Plan in its 2021 IRP and 2022 Annual Update, as distinguished from savings Evergy has attributed to the merger of its predecessors.

[19] KEPCo Report on 2021 IRP at ¶ 4.

II. Analysis

A. Evergy's Hand-Selected ARPs in both the 2021 IRP and the 2022 Annual Update Have Resulted in a Deficient Analysis that Does Not Achieve the Objectives of the IRP Framework Order.

1. Evergy's Application of Plexos Only to New ARPs Created For Purposes of the 2022 Annual Update Fails to Cure Identified Deficiencies in the 2021 IRP.

9. In KEPCo's report on deficiencies in the 2021 IRP, KEPCo raised concerns with Evergy's methodology and, most importantly, Evergy's manual selection of retirement dates and construction of ARPs, which appeared to be "driven entirely by a desire to retire thermal generating units."[20] KEPCo is concerned that such a methodology "does not provide a full or robust analysis that would lead to the optimal least-cost portfolio."[21]

10. In response to KEPCo's concerns, to reach a temporary resolution on the 2021 IRP, Evergy agreed that it would utilize Plexos in the 2022 Annual Update and "subsequent IRP filings," and that this capability would "be used to test the economics of alternative retirement dates for units ***as compared to the current Preferred Portfolio retirement dates***."[22] Therefore, to cure the deficiencies in Evergy's 2021 IRP, Evergy should have backtested the retirement dates that it improperly ruled out in the 2021 IRP to arrive at its preferred portfolio in order to validate that its preferred portfolio plan is, indeed, the least-cost plan and not merely the product of a biased and skewed analysis due to Evergy's manual construction of ARPs. Evergy has not done this, however, and instead, the only alternative retirement dates that Evergy has tested in its

[20] KEPCo Report on 2021 IRP at 7; Joint Filing at ¶ 39(i).

[21] Joint Filing at ¶ 39(i).

[22] *Id.* at ¶ 40 (emphasis added).

2022 Annual Update are variations of the current preferred portfolio by adding *additional early retirement dates* for thermal generating units.[23]

11. Evergy's limited application of Plexos to only these new ARPs does not cure the deficiencies in the 2021 IRP. Since Evergy's selection of the preferred portfolio (and the retirement dates included therein) is the product of its deficient 2021 IRP analysis, the robustness of new ARPs in the 2022 Annual Update has not been demonstrated, because Evergy has never demonstrated that its selection of the preferred portfolio was reasonable in the first instance. Thus, the entire 2022 Annual Update analytical process is built on a foundation based on Evergy's selection of the preferred portfolio in the 2021 IRP.[24]

12. Indeed, Evergy's decision to study only additional early retirements in the 2022 Annual Update confirms that it has no intention of evaluating the least cost portfolio option or backtesting the ARPs that it ruled out in its 2021 IRP to validate those results. Consequently, Evergy's analysis in the 2022 Annual Update appears driven by a hardcoded plan to retire its thermal generating capacity as quickly as possible, and then replacement with capital-intensive acquisitions of new generating capacity. KEPCo understands that the objectives of the IRP analysis are to identify a portfolio that: (a) meets customer requirements at the lowest reasonable cost given an uncertain future, and (b) provides an optimal portfolio that is flexible and robust; and KEPCo is concerned that neither the 2021 IRP or 2022 Annual Update give effect to these objectives.[25] The IRP Framework Order provides no other objective for the interim annual

[23] 2022 Annual Update at 49 (The fifth bullet of Evergy's "high-level process" describes the new early retirement dates it has modeled for various thermal generating units and are the only alternative retirement dates tested using Plexos).

[24] *Id.* (The first bullet explains how Evergy started with the preferred portfolio selected in the 2021 IRP, and then created all new ARPs as variations from this plan).

[25] IRP Framework Order, Att. A at 2.

updates that Evergy is to produce between triennial updates,[26] which means that the objectives remain the same—to determine whether the preferred portfolio continues to meet the above-stated objectives. The objective of the IRP process is not to determine which of Evergy's thermal generating units can be retired the soonest, though consideration of early retirements is one component of a broader, comprehensive analysis that would meet the stated objectives.

13. By applying Plexos only to variations of the preferred portfolio that include early retirement of additional thermal generating units without backtesting the retirement dates in ARPs that Evergy ruled out previously in its 2021 IRP, Evergy has failed to remedy the deficiencies in its 2021 IRP and, moreover, the 2022 Annual Update does not comply with the objectives of the IRP Framework Order. As a result, both the 2021 IRP and the 2022 Annual Update are deficient. Evergy has not demonstrated that its preferred portfolio meets the objectives of the IRP Framework Order. As explained below in Section II(A)(3), new information provided in the 2022 Annual Update shows the least-cost portfolio option may be the one with *no early retirements* of Evergy's JEC thermal generating units.

14. Accordingly, the Commission should require Evergy to perform a comprehensive analysis that objectively utilizes Plexos to study a full range of resource portfolio options—as originally intended and as Evergy represented it would do in the Joint Filing—and not merely those that contain early retirements of thermal units in support of Evergy's retire-and-replace strategy. Specifically, the Commission should require Evergy to backtest the ARP retirement scenarios that it ruled out in the 2021 IRP by applying Plexos to model capacity additions to the following 2021 IRP ARP retirement dates, with adjustments to DSM savings as discussed *infra* at Section II(C): EAAGA, EBBGS, ECCGS, EDDGS, EEEGS, EFFFI, EGGGS, EGMES,

[26] *Id.* at 6 (IRP Process § 10).

EHHGS, EHGS, EJJGS, EKKFS, ELLGT, EMNFU, ENOFD, ENPFG, ENQFZ, EORFE, EOSFZ, EPTFZ, EQUFH.

2. Evergy Has Not Tested Retirement Dates Beyond the "Book Life" of its Thermal Generating Units in the 2021 IRP or the 2022 Annual Update.

15. The Joint Filing memorializes KEPCo's concerns with the 2021 IRP stemming from Evergy's "narrow focus on generation retirements" that "does not properly consider reliability or cost-effective alternatives," and specifically, "Evergy's 2021 IRP analysis and manual selection of retirement dates for its thermal generating units appears driven entirely by a desire to retire thermal generating units."[27] Evergy agreed to resolve this deficiency by using capacity expansion modeling software (i.e., Plexos) that would be "used to test the economics of alternative retirement dates for units as compared to the current Preferred Portfolio retirement dates."[28] But Evergy's testing of only other early retirements does not resolve the above deficiency, and the 2022 Annual Update perpetuates the same deficiency that was present in the 2021 IRP.

16. By including outside retirement dates for nearly all of the thermal generating units that Evergy studied in the 2021 IRP[29] at the end of their book lives, Evergy has constructed ARPs that rely on the assumption that these units *must be retired* within the relevant 20-year time period. As a result, the capacity supplied by these units must be replaced with new capacity at some point in the 20-year IRP timeframe, and the variations tested in Evergy's ARPs merely

[27] Joint Filing at ¶¶ 39 and 39(i) (emphasis added). As discussed in KEPCo's Report on the 2021 IRP, the basis for these concerns was that Evergy failed to consider that "its thermal generating units may continue to provide cost-effective service to customers after they are fully depreciated or nearly so." KEPCo Report on 2021 IRP at ¶ 14.

[28] Joint Filing at ¶ 40.

[29] Evergy also studied early retirement of Hawthorne Unit 5, which has a depreciable life that extends beyond the relevant 20-year window, in 2055. 2021 IRP at 71.

shift the timing of these retirements, and tests whether to add new capacity (primarily renewables) at earlier intervals, or to construct new combustion turbines in 2039[30] when a sizable amount of Evergy's thermal generating fleet is scheduled to reach the end of its book life.[31] Evergy has not demonstrated the reasonableness of this assumption and the contrary may be true as many thermal generating units are capable of reliably and cost-effectively providing service beyond book life. Casting further doubt on the reasonableness of this assumption, Evergy has recently submitted comments stating that "superior maintenance practices as seen with Evergy's coal assets" give reason to believe that service lives of well-maintained generating units may be extended.[32] This also disregards the possibility that these units could be candidates for seasonal cycling, which, if feasible, would reduce, if not eliminate, the need for replacement capacity additions.

17. By narrowing the analysis to retirement windows only between now and the end of a unit's book life, Evergy has constructed the IRP to favor early retirements of units, which are replaced at earlier intervals by incremental additions of lower-cost solar and wind resources, as compared to later retirements, which are replaced by larger and more expensive combustion turbines. The difference in cost between new combustion turbines on the one hand, and new solar and wind resources on the other, is substantial. Indeed the levelized cost of electricity modeled by Evergy for a combustion turbine addition (~$130/MWh) is more than two times

[30] As Evergy has stated previously, "In later years of the planning horizon, natural gas-fired combustion turbines were added in years where capacity was short as 'placeholder' capacity to provide valid financial and operational parameters for calculating NPVRR." Evergy Response to CURB Data Request 12 at (a) (Aug. 30, 2021), provided as Attachment B.

[31] JEC Units 1, 2, and 3, and Iatan Station Unit 1 all reach the end of their depreciable lives in 2039, having a total capacity of 2,803 MW. 2021 IRP at 71 (Figure 26); KEPCo Report on 2021 IRP, Att. F at 1 (providing representative capacities of each unit as follows: Iatan 1 – 616 MW, JEC Unit 1 – 728 MW, JEC Unit 2 – 730 MW, JEC Unit 3 – 728 MW).

[32] Evergy 2022 Capital Plan Response at ¶ 41.

higher than solar (~$60/MWh), and more than *three times* higher than wind (~$35/MWh).[33] This shifts the focus of the IRP away from the important threshold questions of whether early retirement of a unit is cost-effective and, instead, whether it is more cost-effective to construct combustion turbines or wind and solar resources as replacement capacity. For instance, under the baseline ARPs, EAAGA and EAAGS in the 2021 IRP,[34] where each generating unit is retired at the end of its book life, both ARPs have modeled 2796 MW of combustion turbine additions in 2040 alone.[35]

18. Moreover, the retirement of such a large tranche of the thermal generating fleet in 2039 seems unlikely for reliability and logistical reasons. More likely, retirements would be staggered. Evergy's IRP should provide an apples-to-apples comparative analysis that tests whether additions of other resource types for these later retirements would affect their cost competitiveness, including replacement by: (a) additional solar and wind capacity at incremental intervals, (b) some other form of carbon-free baseload generation that is available at that time, or (c) later additions of combustion turbines to coincide with staggered retirements. But Evergy does not offer this apples-to-apples analysis, and its analysis does not consider the flexibility in resource types that is afforded by staggering unit retirements beyond their book lives. Instead, Evergy has included ARPs in its analysis that only test *earlier* retirements as compared to a baseline case of retiring *all of these units* in 2039.[36]

[33] 2021 IRP at 64 (Table 22). Evergy's modeled combustion turbine additions utilize the "Combustion Turbine, Industrial" technology. *Id.* at 69 (Table 27).

[34] *See id.* at 70 (stating that ARPs EAAGA and EAAGS "represents the initial Evergy ARPs that assumes the generating units modeled are retired at the current book life").

[35] *Id.* at 74.

[36] *Id.*

19. Thus, by structuring its ARPs with firm outside retirement dates for its thermal generating units based on book lives, Evergy has conducted its 2021 and 2022 Annual Updates under an unsupported and unreasonable assumption that these units must be retired no later than the end of their book lives and, typically, that these units must be replaced with expensive combustion turbines if retirement occurs in 2039. This approach is unreasonable and removes from the analysis a number of potential portfolios with retirement dates that extend beyond a unit's depreciable life, which could very well provide the lowest-cost option and, indeed, a more flexible and robust one as well. Accordingly, the Commission should require Evergy to construct new ARPs that test retirement dates for thermal generating units beyond a unit's depreciable life and that provides a realistic timeline of retirements that is not governed by depreciation schedules. Specifically, Evergy should be required to test variations and different combinations of retirement dates for each of JEC Units 1, 2, and 3, and Iatan Unit 1 that is later than 2039, with replacement capacity additions modeled by Plexos.

3. Evergy Has Selectively Applied Plexos in the 2022 Annual Update and Manually Overbuilt Capacity in Two ARPs CDAAG and CDAAH.

20. Although Evergy has applied Plexos to the 2022 Annual Update, it has only done so selectively to model early retirements of thermal generating units *in addition to those* already contemplated in Evergy's 2021 IRP preferred portfolio. It is concerning that Evergy has not applied Plexos to model capacity expansion for two new ARPs that, if Plexos were correctly applied, may demonstrate that fewer early retirements provide one of, if not the, lowest-cost portfolios. By selectively using Plexos, Evergy has manually constructed ARP capacity additions, and in the case of the CDAAG and CDAAH ARPs, has manually input excessive capacity additions that have resulted in significantly higher NPVRRs.

a. Evergy Applied Plexos Only to New ARPs Representing its Most Recent Preferred Portfolio and to Test Additional Early Retirements.

21. As part of its 2022 Annual Update, Evergy created 13 new ARPs but applied Plexos to only five of them.[37] For CCBAA, the first of these five ARPs, Evergy applies Plexos to the most recent preferred portfolio as presented in the Predetermination Petition.[38] Each of the remaining four ARPs are a modest variation of CCBAA that provide additional early retirement dates for various thermal generating units, as follows: CCBAB (JEC Unit 2), CCBAC (Hawthorn Unit 5), CCBAD (La Cygne Unit 2), and CCBAE (Iatan Unit 1).

b. A Comparison of ARPs Representing Evergy's Most Recent Preferred Portfolio Demonstrate the Benefits of Plexos as a Backtest of Evergy's Hand-Selected ARPs From the 2021 IRP.

22. Evergy did not apply Plexos to the other eight new ARPs included in the 2022 Annual Update.[39] Three of these ARPs (AAAAA, BBAAA, and CBAAA) do not model any alternative retirement dates different from the 2021 IRP preferred portfolio. AAAAA is a proxy for the 2021 IRP preferred portfolio (ERVFL), and serves as the baseline.[40] BBAAA and CBAAA are subsequent iterations of AAAAA that incorporate the changes from the Predetermination Petition, with CBAAA being Evergy's preferred portfolio prior to the 2022 Annual Update.[41] Since no alternative retirement dates are modeled in these ARPs, they provide

[37] Evergy Response to KEPCo Data Request 3-02 (Aug. 8, 2022) ("KEPCo Data Request 3-02 Response"), provided as Attachment C.

[38] These changes include fewer solar procurements in 2023 and 2024, and the conversion of Lawrence Unit 5 from coal to gas. 2022 Annual Update at 53; Petition of Evergy Kansas Central, Inc. and Evergy Kansas South, Inc. For Determination of Ratemaking Principles and Treatment at ¶ 16, Docket No. 22-EKCE-141-PRE (filed Sept. 20, 2021) ("Predetermination Petition").

[39] Evergy has stated that "Capacity expansion was used in" the five identified ARPs described in Section II(A)(3)(a). KEPCo Data Request 3-02 Response. For the remaining ARPs tested in the 2022 Annual Update, Evergy states that "All other plans tested discrete decisions." *Id.*

[40] 2022 Annual Update at 49.

[41] *Id.* In the 2022 Annual Update, Evergy has selected the new ARP, CDAAA, as its new and current preferred portfolio. *Id.* at 84.

a useful comparison between the optimized NPVRR that results from application of an objective capacity expansion modeling tool, such as Plexos, as opposed to hand-selection of capacity additions by Evergy. For example, CBAAA represents Evergy's most recent preferred portfolio, and Evergy first applied Plexos to this ARP to derive a new ARP: CCBAA.[42] In this instance, applying Plexos as a backtest against Evergy's hand-selected capacity additions from the 2021 IRP resulted in 506 MW fewer capacity additions,[43] and caused a corresponding $227 million reduction in NPVRR.[44] This substantial difference in both capacity additions and NPVRR readily demonstrates the potential gap between utilizing an objective capacity modeling tool such as Plexos over Evergy's hand-selected capacity additions.

c. Evergy's Decision Not to Apply Plexos to ARPs CDAAG and CDAAH Has Resulted In Substantially Overbuilt Capacity and Increased NPVRRs.

23. Of the remaining five ARPs for which Evergy did not do Plexos modeling, CDAAA, CDAAG, and CDAAH are significant, since each of these ARPs model later retirement dates of JEC Units 2 and 3 but contain excessive capacity additions due to Evergy's decision not to apply Plexos. As Evergy explained previously, in the ARPs Evergy constructed (without the use of Plexos) in the 2021 IRP: "For each year in an ARP, if the reserve margin falls below the 12% minimum and the capacity shortfall is greater than -100 MW, resource additions

[42] This first application of Plexos occurred at the fourth step of Evergy's annual update procedure. *Id.* at 49.

[43] The total capacity additions modeled in CCBAA are 6,247 MW (determined by Plexos), whereas the total capacity additions modeled in CBAAA are 6,753 MW (hand selected by Evergy). *Id.* at 53. For purposes of these calculations, the 338 MW represented as "Lawrence 5 NG" has been excluded since this is a conversion of an existing unit, *see supra* n.38, and in any event, appears in both CBAAA and CCBAA.

[44] The NPVRRs of these two ARPs are $57,688 (CBAAA) and $57,461 (CCBAA). 2022 Annual Update at 64. All NPVRRs referenced in these comments are stated in millions of dollars, the same as they are presented in the 2022 Annual Update.

are input to bring the reserve margin into compliance."[45] For each of these three ARPs, however, Evergy departs from that rule, and as explained below, has input capacity additions that exceed the reserve margin requirements on a yearly basis. Evergy has not explained the basis for this change in practice. Since NPVRRs are time-value based, earlier overbuilds of capacity result in higher NPVRRs.

24. Evergy created CDAAA as a variation of CCBAB (which tested retirement of JEC Unit 2 in 2030), with the only difference being to defer retirement of JEC Unit 2 until 2039 as opposed to 2030.[46] Yet despite this nine-year extended operating life of JEC Unit 2, Evergy did not apply Plexos to model corresponding reductions in capacity additions. As a result, CDAAA contains the same capacity additions that were modeled by Plexos in the scenario where JEC Unit 2 is retired in 2030 (i.e., CCBAB). Evergy's decision not to apply Plexos to account for this extended operating life causes an excessive overbuild of capacity into CDAAA and an increase in NPVRR.[47]

25. Evergy has attempted to rationalize the excess capacity in CDAAA based on its expectation that it will retire an additional thermal generating unit, but that it is unsure which one due to the contingent environmental retrofits associated with JEC Unit 2, among other contingencies.[48] This rationalization, however, does not justify overbuilding capacity into CDAAA, which does not call for early retirement of any of the units considered in CCBAB, CCBAE, CCBAD, or CCBAC. By selecting this flawed ARP as its preferred portfolio, Evergy has selected a portfolio that contemplates an overbuild of capacity without associated early

[45] Evergy Response to KCC Data Request 12 (Feb. 5, 2021), provided as Attachment D.

[46] 2022 Annual Update at 50.

[47] *Id.* at 70.

[48] *Id.* at 50.

retirements.

26. The problem is more severe in the cases of CDAAG and CDAAH, and the rationalization Evergy provided with respect to CDAAA does not apply in any sense to these two ARPs because these ARPs model continuing operation of both JEC Units 2 and 3 until 2039. These two ARPs were purpose-built in response to KEPCo's reported deficiencies on Evergy's failure to address the contingent nature of major capital expenses for SCR systems and baghouses for each of the JEC Units in the 2021 IRP.[49] Specifically, Evergy represented in the Joint Filing that it would:

> incorporate an analysis (e.g., different resource plans for comparison), which demonstrates the impact of delaying key assumed environmental retrofits for the Jeffrey Energy Center units by approximately 10 years versus the base assumption (e.g., 2040 vs. 2030), to account for the contingent nature of future environmental compliance requirements[.][50]

CDAAG and CDAAH test the difference in NPVRR attributable to these contingent environmental retrofits, by testing retirement dates for all three JEC Units of December 31, 2039, but only including the costs of environmental retrofits in CDAAG and not in CDAAH. The difference in NPVRR attributable to these retrofits is substantial, amounting to a total $514 million.[51] Thus, in a narrow sense, the two ARPs demonstrate the substantial difference in NPVRR that is attributable to the contingent nature of these retrofits, confirming the deficiencies in Evergy's 2021 IRP identified by KEPCo. Further, it shows the reasonableness of why Evergy's IRP analysis should account for the possibility that such retrofits would not be required.[52] However, the difference in NPVRR between CDAAG and CDAAH is of limited

[49] Joint Filing at ¶ 42.

[50] *Id.*

[51] 2022 Annual Update at 69.

[52] Indeed, Evergy now recognizes the significance of these retrofit costs elsewhere in the 2022 Annual Update, which is an improvement over the 2021 IRP, but this raises new questions as to why such

value as it only compares the difference in NPVRR between *these two ARPs*, which test *only* the difference in cost attributable to the contingent environmental retrofits. The critical deficiency in these two ARPs lies in Evergy's failure to adjust the capacity additions so that they are appropriately sized due to the extended nine-year operating life of 1448 MW provided by JEC Units 2 and 3,[53] and has resulted in overstated NPVRRs.

27. Evergy readily acknowledges that it did not apply Plexos to either CDAAG or CDAAH,[54] and states that instead, Evergy "used the resource plan for CDAAA and modified the retirement year of Jeffrey 3 to 2039."[55] Evergy has not provided the Commission or stakeholders with any explanation for mirroring the capacity additions from CDAAA in each of CDAAG or CDAAH.

28. For the same reason that CDAAA includes excess capacity additions so, too, do CDAAG and CDAAH, but the problem is made worse because CDAAG and CDAAH test later retirement dates for *twice* the capacity as CDAAA, since *both* JEC Units 2 and 3 would not be retired until December 31, 2039.[56] The result of Evergy's decision not to apply Plexos to these ARPs is that CDAAG and CDAAH have the highest total capacity additions of any ARPs modeled in the 2022 Annual Update, even though retirement of JEC Units 2 and 3 has been

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retrofits were not addressed at all by Evergy in the 2021 IRP. Moreover, due to the critical deficiencies resulting from the excessive capacity additions modeled in CDAAG and CDAAH, which greatly increases their respective NPVRRs, Evergy has not complied with the resolutions submitted in the Joint Filing and has only partially resolved the deficiencies from its 2021 IRP on this issue, because it has not produced ARPs that permit an apples-to-apples comparison with other ARP NPVRRs.

[53] *See supra*, n.31. JEC Unit 2 represents 730 MW of capacity, and JEC Unit 3 represents capacity of 728 MW.

[54] KEPCo Data Request 3-02 Response.

[55] *Id.*

[56] JEC Unit 2 represents capacity of 730 MW, whereas the combined capacity of JEC Units 2 and 3 is 1448 MW.

deferred to 2039. And even despite this overbuild of capacity, CDAAG and CDAAH each resulted in NPVRRs that are competitive with the other ARPs included in the 2022 Annual Update, as summarized in the below table:[57]

Rank (L-H)	ARP Plan*	NPVRR ($mm)	Delta	Total Capacity Additions	JEC Units 2/3 Retirements
1	CCBAB*	$57,291	$0	7,929 MW	Unit 2 – 2030 Unit 3 – 2030
2	CCBAE*	$57,379	$88	7,248 MW	Unit 2 – 2039 Unit 3 – 2030
3	**CDAAH**	**$57,417**	**$126**	**7,929 MW**	**Unit 2 – 2039** **Unit 3 – 2039** **(no retrofits)**
4	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
5	CBBAB	$57,451	$161	7,785 MW	Unit 2 – 2030 Unit 3 – 2030
6	CCBAA*	$57,461	$170	6,247 MW	Unit 2 – 2039 Unit 3 – 2030
7	CDAAA	$57,541	$250	7,929 MW	Unit 2 – 2039 Unit 3 – 2030
8	CCBAC*	$57,565	$274	7,778 MW	Unit 2 – 2039 Unit 3 – 2030
9	CBAAA	$57,688	$397	6,753 MW	Unit 2 – 2039 Unit 3 – 2030
10	BBAAA	$57,717	$426	7,059 MW	Unit 2 – 2039 Unit 3 – 2030
11	AAAAA	$57,808	$517	7,695 MW	Unit 2 – 2039 Unit 3 – 2030
12	**CDAAG**	**$57,931**	**$640**	**7,929 MW**	**Unit 2 – 2039** **Unit 3 – 2039** **(incl. retrofits)**

29. For obvious reasons, CDAAH has a lower NPVRR than CDAAG due to the

[57] The table is a modified version of Table 37 that appears on page 64 of the 2022 Annual Update. This version includes the NPVRRs of CDAAG and CDAAH (which were omitted from the original table), and adds additional columns providing the total capacity additions modeled in each ARP and the timing of JEC Units 2 and 3 retirements.

*ARPs indicated by an asterisk were subject to Plexos capacity expansion modeling.

exclusion of sizable retrofit costs. Additionally, other plans that model retirement of JEC Units 2 and/or 3 in 2030 benefit from avoiding these sizable retrotfit costs that, as demonstrated in the comparison between CDAAG and CDAAH represent a total NPVRR amount of $514 million. Regardless, the NPVRR values of CDAAG and CDAAH are overstated since the estimates include not only the operating costs of JEC Units 2 and 3 through 2039, but also the costs associated with potentially 1448 MW of excessive capacity additions prior to 2040. The primary cost benefit of retiring JEC Unit 2 under the lowest-cost plan above, CCBAB, is the avoidance of retrofit costs that amount to approximately $207 million. But if these retrofits are not required in the event that more stringent environmental regulations concerning regional haze or toxic air pollutants such as mercury are not required,[58] and if Evergy had properly used Plexos to model the capacity additions in this plan and not manually overbuilt capacity additions, it would seem that CDAAH would be the least-cost plan. This would mean no retirements of JEC Units prior to 2039 (or any of the other early retirement dates that Evergy has modeled).

30. It is also useful to compare CDAAG to a similar ARP from the 2021 IRP, EQUFW, as an example of how significant of an impact the choice of resource type for capacity additions has on NPVRR of an ARP.[59] EQUFW is similar to CDAAH and CDAAG in that it modeled the same retirements as the preferred plan, but deferred retirement of JEC Unit 3 until 2039 and included Evergy's hand-selected capacity additions.[60] In EQUFW, however, Evergy hand-selected capacity additions of *fifteen* combustion turbines in 2040, representing *3,495 MW*

[58] Evergy has explained in the 2022 Annual Update that these are the categories of environmental regulations that would necessitate installation of SCR systems and baghouses at JEC Units 2 and 3. *See* 2022 Annual Update at 41-43.

[59] *See supra*, Section II(A)(2).

[60] 2021 IRP at 80 (EQUFW modeled the same retirements as ERVFL (the preferred plan selected in the 2021 IRP), except that JEC Unit 3 would be retired on December 31, 2039).

of capacity, to replace the capacity lost by the retirement of JEC Units 1, 2, and 3, and Iatan 1 in 2039.[61] Such a high number of combustion turbines added in 2040 results in an NPVRR of $59,777, nearly $2 *billion* higher than CDAAG. And yet, even with the 3,495 MW of capacity added in 2040, EQUFW only included *total* capacity additions of 6,056 MW, which is 1,873 MW *fewer* capacity additions than CDAAG (7,929 MW).[62] This difference readily demonstrates how Evergy's choice not to use Plexos for CDAAG has resulted in a substantial overbuild of capacity additions. Moreover, this difference demonstrates that the choice of resource *type* that is selected to replace a retired unit appears to have a much greater impact on NPVRR, than the costs of continued operation of a unit, and highlights the need to use an objective methodology and mechanism for capacity additions to reasonably compare ARPs on an apples-to-apples basis.

31. Accordingly, Evergy has not presented ARPs that objectively or meaningfully test the difference in NPVRR of CDAAG and CDAAH against other portfolio options. Had Evergy utilized Plexos to model capacity expansion in CDAAG and CDAAH, and included only the appropriate level of capacity additions, the NPVRRs of these ARPs would be reduced, rendering these ARPs more cost-competitive. To the extent that these ARPs are reformed with retirement dates later than 2039 to address the issues described in Section II(A)(2), it is further possible that these reductions could cause one if not both of CDAAG and CDAAH to be lower-cost portfolios

[61] *Id.*

[62] It is further important to note that EQUFW contemplated retirements of both Lawrence Units 4 and 5, because it was modeled prior to Evergy's change in plan in the Predetermination Petition to convert Lawrence Unit 5 to gas. This means that EQUFW would necessitate *additional* capacity replacements over CDAAG of 338 MW (the amount of capacity that Evergy has attributed to this conversion in its 2022 Annual Update ARPs), and the CDAAG overbuild of capacity could be as much as 2,211 MW.

as compared to the other ARPs Evergy modeled in the 2022 Annual Update.[63]

32. KEPCo called this deficiency to Evergy's attention during the stakeholder meeting Evergy convened with the parties on June 29, 2022, and requested that Evergy apply Plexos to each of CDAAG and CDAAH. Evergy has not done so and has responded instead with a proposal to run additional ARPs using Plexos as part of the 2023 Annual Update.[64] This proposal does not cure the deficiencies in the 2021 IRP or the 2022 Annual Update for several reasons.

33. First, the new ARP scenarios that Evergy now proposes are scenarios that should have been included in the 2021 IRP to test the contingent nature of environmental retrofit costs. Instead, Evergy omitted all discussion of these costs from its 2021 IRP.

34. Second, Evergy has offered only to run Plexos on new ARPs that do not include retrofit costs (i.e., CDAAH), but not on scenarios that model later retirement of JEC Units 2 and 3 that do include retrofit costs (i.e., CDAAG), which, if not for the excessive overbuild of capacity, may also be cost-competitive.

35. Third, Evergy has only proposed to run additional early retirement scenarios and has not proposed to run any scenarios that include retirements that extend beyond the book lives of these units.

36. Fourth, it is a simple enough task to run the existing CDAAG and CDAAH through Plexos and provide the results to parties as it has already done for other ARPs in the 2022 Annual Update. The CDAAH and CDAAG ARPs were intended to remediate deficiencies

[63] It is further important to note that CDAAG, despite appearing as the highest-cost plan as compared to the other 2022 Annual Update new ARPs, is still lower cost than *any* of the ARPs modeled in the 2021 IRP, *including* the preferred plan. 2021 IRP at 134.

[64] KEPCo Data Request 3-02 Response.

inherent in Evergy's 2021 ARP analysis and waiting until the 2023 Annual Update to correct them would delay the issue another year. In order to achieve the objectives of the IRP Framework Order and properly evaluate portfolio options, Evergy's analysis must be sound. It appears that Evergy intends to proceed with its preferred portfolio, even though it is the product of a flawed analysis.

37. KEPCo requests that the Commission direct Evergy to apply Plexos to CDAAG and CDAAH to derive the appropriate level of capacity additions, and to produce the results and associated NPVRRs to all parties. Evergy should also be required to run additional ARP scenarios through Plexos testing retirement dates of JEC Units 2 and 3 after 2039 as described above in Section II(A)(2) to avoid the issue of simply replacing these units with expensive combustion turbine additions in 2040. KEPCo requests that once these results are provided, all parties should have the opportunity to submit supplemental comments within 30 days thereafter.

B. Evergy Has Not Provided a Meaningful Discussion of Offramps, Contingencies, and Discrete Points of Commitment on Key Resource Decisions as Required By the IRP Framework Order.

38. KEPCo, Staff of the Kansas Corporation Commission ("Staff"), and Citizens' Utility Ratepayer Board ("CURB") separately identified deficiencies in Evergy's discussion of offramps, contingencies, and discrete points of commitment in the 2021 IRP.[65] Evergy agreed to resolve these concerns by:

> work[ing] with parties to develop an outline for use in the 2022 Annual Update and future IRPs which more clearly describes discrete points of commitments on key resource decisions such as additions, retirements, and DSM as well as the potential impact of changes in critical uncertain factors on future resources decisions.[66]

These deficiencies continue. Evergy has not provided a meaningful discussion of offramps,

[65] Joint Filing at ¶¶ 7-8, 31-32, 43-44.

[66] *Id.* at 8.

contingencies, and points of commitment on key resource decisions in the 2022 Annual Update.

39. In Section 6.2 of the 2022 Annual Update, Evergy has included a discussion of "Monitoring Changing Conditions and Maintaining Flexibility."[67] Evergy represents that the discussion in this section satisfies its commitments on this topic and, more specifically, that: "[a]n outline has been developed to more clearly describe discrete point of commitments on key resource decisions can be found in Section 6.2."[68] However, not one "discrete point of commitment" is mentioned in this section, and Evergy states only that "[t]ypically, resource additions include a 'notice-to-proceed' (NTP) date which would be the 'point of commitment' for that resource."[69] Section 6.2 includes only a generalized discussion of topics. The only "key resource decision" from the preferred portfolio that Evergy has referenced in this section pertains to the JEC Units and these units' substantial contingent environmental retrofits.[70] Evergy acknowledges that these retrofits represent "a large source of uncertainty," but Evergy provides no discrete timelines, offramps, or points of commitment, and states only generally that it will "continue to monitor environmental regulations on an ongoing basis and incorporate any changes in expectations into IRP filings."[71] This is contrary to Evergy's representations in the Joint Filing, specifically its commitment to "evaluate contingency plans that specify off-ramps and points of commitment dependent upon whether the retrofits would be required in 2030 or 2040."[72] Evergy has not supplied any meaningful discussion of how it intends to address the

[67] 2022 Annual Update at 89-99.

[68] *Id.* at 104.

[69] *Id.* at 98.

[70] *Id.* at 93-94.

[71] *Id.* at 93.

[72] Joint Filing at ¶ 42.

issues presented by its contingent environmental retrofits.

40. Other topics included in this section only outline in general terms external risks (e.g., interconnection queue delays, Southwest Power Pool ("SPP") resource adequacy reforms, CO_2 credit prices, load growth, and natural gas prices) and stages of project development and retirements. Evergy does not explain how or when it will adjust its preferred portfolio near- or long-term key resource decisions based on these external risks. Nor has Evergy provided thresholds, such as rises in natural gas price above a certain level, or interconnection queue delays that extend beyond a certain time, that would cause it to restudy its portfolio, make adjustments, or described what those adjustments might be. In short, providing a general description of the existence of external risks and points of commitment does not provide meaningful information regarding how those risks and points of commitment *impact the key resource decisions* in Evergy's preferred portfolio.

41. For instance, Evergy specifically comments that SPP's continued evaluations of loss-of-load-expectation methodologies are "likely to result in an increase in the 12% reserve margin which is currently in place."[73] But Evergy does not offer any discussion of how such an increase will impact any of its key resource decisions. This risk is not theoretical. On June 15, 2022, SPP published a 2022 SPP Resource Adequacy Report, which estimated a decrease in the Planning Reserve Margin ("PRM") within SPP's balancing area from 22% for the 2022 summer season to 13.6% in the 2027 summer season, and further noted that Load Responsible Entities were relying more heavily on purchased deliverable capacity to meet their PRM obligations.[74] On July 26, 2022, the SPP Board of Directors voted in favor of an SPP Staff proposal to increase

[73] 2022 Annual Update at 92-93.

[74] Southwest Power Pool, 2022 SPP Resource Adequacy Report at 3 (Jun. 15, 2022) available at https://www.spp.org/documents/67297/2022%20spp%20june%20resource%20adequacy%20report.pdf.

the PRM from 12% to 15% to be effective during the 2023 summer season, and directed SPP Staff to prepare proposed revisions to the SPP Open Access Transmission Tariff PRM requirements to implement this change.[75] Further increases to PRM requirements could be adopted by SPP in the future, raising additional questions regarding Evergy's focus on early retirements of thermal generating units at a time when PRM requirements are increasing not only for Evergy, but across the SPP territory.

42. Also, notably absent is any discussion of offramps or contingencies regarding Evergy's DSM scenarios. Evergy specifically committed in the Joint Filing to "consider ways to factor in DSM into its discussion of off-ramps, contingencies, and points of commitment."[76] In the 2022 Annual Update, however, Evergy merely refers to the currently pending KEEIA filings, approvals, studies, and stakeholder processes as "the primary driver of ultimate DSM implementation."[77] Evergy does not explain how lower DSM savings would impact key resource decisions in its preferred portfolio, efforts it would take to increase DSM adoption if programs are underutilized, or points of commitment regarding DSM.

43. Earlier this year, in May, as it was developing the 2022 Annual Update, Evergy circulated a proposed outline of topics for this section, and solicited input from stakeholders, as required by its Joint Filing commitments. KEPCo provided a revised outline that included, *inter alia*, the need for Evergy to identify unit-specific resource decisions in each of the major categories of topics, in addition to each of the considerations regarding DSM as described above.

[75] Southwest Power Pool, Board of Directors and Members Committee Meeting; Summary of Motions and Action Items for July 26, 2022 Meeting at Item (3) (Aug. 2, 2022) ("Approved Staff's recommendation to increase to the Planning Reserve Margin from 12% to 15% effective for the 2023 summer season and direct SPP Staff to prepare a Revision Request to implement this policy.") available at https://www.spp.org/documents/67635/bod_mc%20minutes%202022%2007%2026.pdf.

[76] Joint Filing at ¶ 46.

[77] 2022 Annual Update at 99.

A copy of this outline, in redline, has been provided as Attachment A.

44. Since Evergy does not provide any details of actions it would take regarding offramps, contingencies, or points of commitment in Section 6.2, the Commission may decide to require Evergy to revise Section 6.2 to conform to each of the items included in the outline KEPCo provided to Evergy, and to include discrete timelines, thresholds, and contingency plans with respect to offramps and points of commitment for each key resource decision. Key resource decisions should include the retirement or addition of a *specific* generating unit(s).

C. Evergy Has Not Modeled Achievable DSM Levels in the 2021 IRP or the 2022 Annual Update.

45. KEPCo previously reported that Evergy's 2021 IRP was deficient in that Evergy "modeled only one DSM scenario in nearly all of the Evergy KC ARPs, which does not provide a flexible and robust analysis of various scenarios."[78] Evergy agreed to resolve this deficiency by stating it would "continue to work with stakeholders to develop inputs for multiple levels of savings that will be evaluated in the future IRP updates and triennial filings."[79] Evergy has made no adjustments to its DSM scenarios in the 2022 Annual Update, and has stated that "the results of the DSM application docket will be incorporated in the next triennial filing."[80] This proposal does not resolve the deficiency from the 2021 IRP.

46. First, the projected DSM savings included in Evergy's DSM Application are significantly lower than those modeled in the RAP- scenario that Evergy input into nearly all of its Joint Planning and Evergy KC ARP scenarios in the 2021 IRP, with only 2 exceptions,[81] and

[78] Joint Filing at ¶ 18.

[79] *Id.* at ¶ 19.

[80] 2022 Annual Update at 105.

[81] 2021 IRP at 74-80, 84-85. The exceptions are ERVDL and CLJHV, which modeled no additional DSM savings at all. *Id.* at 79, 108.

is included in all of the ARPs in the 2022 Annual Update.[82] Under the RAP- scenario, Evergy has modeled DSM savings of 246 MW between 2023 and 2026, at an average rate of 61.5 MW per year.[83] This is in addition to the 98 MW of DSM savings that Evergy modeled for 2022, without any approved new DSM programs active in its Kansas territory.[84] Evergy estimated that it would achieve these DSM savings at costs that averaged $48,474 million per year, or $788 per MW.[85] In its recent DSM Application, however, filed on December 17, 2021, Evergy projected an "[a]verage annual budget of $33 million" for all of its proposed DSM programs,[86] a reduction in total spend of 31.9%.

47. Evergy has since acknowledged that "The DSM levels filed in Evergy's 22-EKME-254-TAR docket do reflect a lower savings level than the 2021 and 2022 IRP filing" and further, that the "DSM levels provided in its 2022 annual update were not modified from its 2021 IRP preferred plan" to reflect these reductions.[87] Thus, Evergy has not made any adjustments to account for this reduction in projected DSM savings, nor has it removed the 98 MW of DSM savings that never materialized in 2022 since no new programs were approved. The reduction of estimated DSM savings projected in Evergy's DSM Application further suggests that Evergy's future DSM savings beyond 2026 are overestimated, but Evergy has made no adjustments to those amounts either.

48. Second, including multiple levels of DSM savings avoids any need to delay

[82] 2022 Annual Update at 53-55.

[83] *See, e.g.*, *id.* at 85 (Column DSM (Annual MW)).

[84] *Id.*

[85] *See* KS DSM Potentials Summary – 2021 IRP Worksheet, Tab "Spends", excerpt provided as Attachment E. Evergy estimated Evergy KC spend in the amounts of $47,405 million, $44,477 million, $50,232 million, and $51,782 million for years 2023-2026, respectively. *Id.*

[86] DSM Application at 5.

[87] Evergy Response to KEPCo Data Request 3-04 (Aug. 8, 2022), provided as Attachment F.

correction of the deficiencies from the 2021 IRP because providing multiple levels of savings provides a range of savings, including levels that are not tied to the outcome of Evergy's pending DSM Application in Docket No. 22-EKME-254-TAR, and this multi-level method properly tests scenarios where DSM levels are higher or lower than those projected under Evergy's proposed programs.

49. Accordingly, the DSM savings modeled in the single DSM scenario that is prevalent in nearly all of Evergy's 2021 and 2022 Annual Update ARPs is premised on overestimated levels of DSM savings. Evergy should be required to reduce the projected DSM savings and re-evaluate the impact of these reductions to not only its ARPs tested in the 2022 Annual Update, but also those that Evergy should be ordered to re-test utilizing Plexos as referenced *supra* in Section II(A)(1). Evergy should also create new DSM scenarios that model multiple levels of DSM savings for each of the retirement scenarios modeled under the aforementioned ARPs.

D. Evergy Has Not Explained How O&M Reductions Identified in the STP or 2022 Capital Plan Have Been Incorporated Into IRP Modeling Assumptions.

50. In its most recent Capital Investment Plan, filed earlier this year, Evergy has planned to spend an additional $1.215 billion more than it proposed in the STP in Docket No. 21-EKME-088-GIE, with capital spending of $5.255 billion for Evergy KC in years 2022 to 2026.[88] Evergy also represented in the STP that it had identified $330 million in annual, sustainable non-fuel O&M cost reductions by 2024 from 2018 levels, a 25% reduction from the projected 2024 range midpoint.[89] However, as discussed in KEPCo's report on the 2021 IRP, it

[88] *See supra*, n.12.

[89] Evergy's Notice of Filing Report to the Commission, App. I, STP Report at 3, Docket No. 20-EKME-514-GIE (Aug. 13, 2020).

was "unclear whether these anticipated reductions in O&M were included in any of the 2021 IRP modelling or retirements of Evergy's thermal generating units."[90] To resolve this identified deficiency, Evergy committed to "provide an explanation in the 2022 Annual Update of how O&M reductions identified in the STP have been incorporated into IRP modeling assumptions."[91]

51. Evergy did not provide this explanation in the 2022 Annual Update. The only explanation provided is the following conclusory statement: "IRP modelling also includes updated [O&M] cost forecasts for each unit. These forecasts are based on current expectations for long-term O&M costs and factor in recent and planned cost reduction efforts at each site."[92]

52. Due to this notable absence, in KEPCo Data Request 3-03, KEPCo requested that Evergy provide supporting O&M data and to specifically identify "each such cost reduction, including the generating unit, amount of the reduction, and Evergy's analysis supporting the reduction," and to further identify, with specificity, which of these reductions were identified by Evergy in the STP or in its 2022 Capital Investment Plan.[93] Evergy did not provide a response to this data request until August 23, 2022,[94] and in its response, Evergy has provided only the

[90] Joint Filing at ¶ 47.

[91] *Id.* at ¶ 48.

[92] 2022 Annual Update at 37. Evergy stated elsewhere in the 2022 Annual Update that "the Company has provided an explanation of how O&M reductions identified in the [STP] have been incorporated into IRP modeling assumptions in Section 4.3," however, the above statement is all that appears in Section 4.3 on this topic. *Id.* at 106.

[93] Evergy Response to KEPCo Data Request 3-03 (Aug. 8, 2022) ("KEPCo Data Request 3-03 Response"), provided as Attachment G.

[94] The original deadline for this response was August 8, 2022. The Commission granted KEPCo's motion to extend the deadline for comments on the 2022 Annual Update from August 22, 2022 to August 29, 2022 based on Evergy's representations that it would not be able to provide this information until August 19, 2022. Motion of Kansas Electric Power Cooperative, Inc. for Extension of Time to File Comments on the Evergy Kansas Central and Evergy Metro 2022 Integrated Resource Plan Annual Update at ¶ 4, Docket No. 19-KCPE-096-CPL (filed Aug. 12, 2022); Order Granting KEPCo's

O&M costs that were included in its modeling assumptions but has not identified: (a) any specific cost reductions or the amount of such reductions, (b) which reductions are those referenced in its STP or 2022 Capital Investment Plan, or (c) analysis supporting the reductions. Thus, Evergy has not provided transparency into how the O&M data that it has provided aligns with its representations regarding O&M reductions made previously. Additionally, the information provided by Evergy raises questions regarding Evergy's modeling of O&M costs.

54. Second, Evergy states in its response to KEPCo Data Request 3-03 that

55. Further complicating this issue is that Evergy previously attributed substantial operational savings to the merger of its predecessor entities that was the subject of Docket No.

Motion for Extention to File Comments on Evergy's 2022 Annual Update at ¶¶ 4-5, Docket No. 19-KCPE-096-CPL (issued Aug. 18, 2022).

[95] *See* Evergy Response to KEPCo Data Request 3-03 (Aug. 23, 2022) ("KEPCo Data Request 3-03 Response"),

[96] KEPCo Data Request 3-03 Response at (d).

[97]

18-KCPE-095-MER. In a presentation dated December 4, 2018 titled "KCC Integration Success Update," Evergy represented that it would achieve "Merger Efficiencies" for non-fuel O&M costs of $571.6 million between 2018 and 2022.[98] As recently as this past Friday, August 26, 2022, Evergy has represented that approximately $848 million of savings are attributable to the merger.[99] Due to these sizable efficiencies that Evergy has attributed to the merger, it is unclear whether O&M reductions that may be present in this data are attributable to the merger, or to Evergy's additional capital spending from the STP or 2022 Capital Plan, and raises issues of double-counting.

56. As a result, the information that Evergy has provided does not satisfy its commitments made in the Joint Filing, and Evergy should be required to fully explain how it has modeled O&M cost reductions as represented in the STP and 2022 Capital Plan in its 2021 IRP and 2022 Annual Update, and distinguish those savings from those Evergy attributes to the merger.

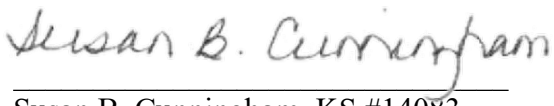
WHEREFORE, KEPCo prays that the Commission find that Evergy's 2022 Annual Update is deficient and not consistent with the IRP Framework Order, that Evergy has not cured the deficiencies in the 2021 IRP, and further require Evergy to: (1) apply Plexos to ARPs CDAAG and CDAAH and new ARPs that contain later retirement dates for JEC Units 2 and 3 that extend beyond 2039, that Evergy provide the resulting NPVRRs to the Commission and all parties, and permit parties to submit supplemental comments 30 days thereafter; (2) re-evaluate the retirement options studied in its 2021 IRP by applying Plexos; (3) construct additional ARPs that model retirement dates that extend beyond the depreciable lives of generating units with

[98] KCC Integration Success Update at 5, Docket No. 19-KCPE-053-CPL (filed Nov. 30, 2018).

[99] Evergy 2022 Capital Plan Response at ¶ 15.

capacity expansion modeled by Plexos; (4) provide a detailed and unit-specific discussion of offramps, contingencies, and points of commitment, as outlined by KEPCo in Attachment A; and (5) adjust its DSM RAP- scenario to conform to the savings amounts projected in Docket No. 22-EKME-254-TAR, and incorporate multiple levels of DSM savings in its evaluation of each unit retirement scenario; and (6) fully explain how it has modeled O&M cost reductions as represented in the STP and 2022 Capital Plan in its 2021 IRP and 2022 Annual Update, as distinguished from savings attributed to the merger.

Respectfully submitted,



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August 29, 2022

VERIFICATION
(K.S.A. 53-601)

STATE OF KANSAS)
) ss:
COUNTY OF SHAWNEE)

I, Susan B. Cunningham, verify under penalty of perjury that I have caused the foregoing Comments of Kansas Electric Power Cooperative, Inc. on the Evergy Kansas Central and Evergy Metro 2022 Annual Update to be prepared on behalf of Kansas Electric Power Cooperative, Inc.; that I have read and reviewed the Comments; and that the contents thereof are true and correct to the best of my information, knowledge, and belief.

Susan B. Cunningham

Executed on this 29th day of August, 2022

CERTIFICATE OF SERVICE

I, the undersigned, hereby certify that a true and correct copy of the above and foregoing was electronically served or placed in the United States mail, postage prepaid, this 29th day of August, 2022, addressed to the following:

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