December 19, 2022

Scott Miller
General Manager
City Utilities of Springfield
301 E. Central
Springfield, MO 65802

RE: Sierra Club Comments on CU's 2022 Integrated Resources Plan

Dear Mr. Miller,

The Sierra Club appreciates this opportunity to comment on Springfield City Utilities' (CU) overview of its 2022 Integrated Resources Plan (IRP). These comments reflect initial questions, concerns, and recommendations based on our review of CU's overview document and appendix. We provide these comments with the hope and intention that they will be of assistance to CU as it plans for affordable, reliable, and clean power for the City of Springfield.

I. Summary of Findings & Recommendations

We provide a summary of our findings and recommendations below.

- **The 2022 IRP does not incorporate Inflation Reduction Act (IRA) programs that could benefit ratepayers.**
    - CU's IRP's modeling should incorporate the impacts of expanded tax credits, specifically related to new resources, distributed energy resources, and electrification in its forecasts for load, demand-side resources, and resource costs. These tax credits are available to CU for the first time and could substantially decrease costs for ratepayers.
    - CU should conduct updated retirement analyses for its coal plants. This analysis should reflect refreshed request for proposal (RFP) bids for replacement resources that incorporate IRA savings. The analyses should also reflect the short-term availability of the IRA's energy infrastructure reinvestment (EIR) program that can provide a critical opportunity to decrease CU's long-term exposure to the impacts of coal-fired generation.

- **The 2022 IRP does not adequately address local health and economic impacts or long-term climate plans.**
    - The resources and assumptions modeled in the IRP should be consistent with CU's long-term planning and policy goals. Otherwise, CU risks making long-term planning decisions that could result in stranded assets.
    - The IRP should incorporate local economic development and public health impacts into its resource considerations. For example, the local public health benefits of solar PV, which more than equal the resource's levelized costs by displacing polluting coal and gas emissions, should be reflected in the IRP.
    - The IRP's local capacity requirement should be removed unless it can be justified by reliability analysis. The Southern Power Pool (SPP) is designed to provide robust, networked support, and CU's reliance on local generation could saddle ratepayers with unnecessary costs.
- **The 2022 IRP's inputs and projections do not align with best practices or up-to-date materials.**
    - The IRP should provide comprehensive information on the contribution of demand-side energy efficiency, demand response, and electric vehicle resources. CU's IRP and Appendix do not provide adequate information on the potential contribution of energy efficiency or demand response resources.
    - The IRP's consideration of transmission congestion should incorporate the expected completion of the Morgan-Brookline and Wolf Creek-Blackberry transmission projects.
    - The IRP should use existing SPP guidance for planning reserve margins and resource capacity accreditation. The IRP's use of a high winter reserve margin based on a sensitivity analysis is premature and could result in redundant generation.
    - The IRP should include updated gas forecasts that reflect current market conditions. The "High Gas" scenario, which is more consistent with U.S. Energy Information Administration (EIA) projections, procures over 800 megawatts of additional wind compared to the "Base" scenario.
    - The IRP should rely on publicly available, high-quality resource cost projections, such as those from the National Renewable Energy Laboratory's Annual Technology Baseline.
    - The IRP should value the benefit of zero-fuel, zero-emissions resources to mitigate fuel price cost volatility for ratepayers. Additional zero-fuel, zero-emissions technologies like wind, solar, energy efficiency, and storage can reduce the risks of volatile gas prices to both CU and ratepayers, who are still paying off gas costs from Winter Storm Uri.
- **The IRP's Recommended Actions Will Not Deliver Savings for Ratepayers.**

- The IRP should incorporate a refreshed all-source request for proposals to integrate IRA benefits and move forward with identifying and developing cost-effective renewable projects. These projects will provide economic benefits in the short term and are preferable to waiting on uncertain future benefits.
- CU should move forward with the 2027 date for the retirement of Unit 1 of the John Twitty Energy Center (JTEC). CU should move expeditiously to remove this expensive legacy unit from uneconomic operation.
- CU should assess the economic benefit of retiring JTEC Unit 2 while supportive IRA programming is available as part of the IRP. This unit presents substantial long-term risk to CU and ratepayers, and actions that CU can take to reduce exposure to that risk are in CU's and ratepayers' interests.

- **The 2022 IRP's process was not accessible to ratepayers, the public, or stakeholders.**
  - CU should adopt an IRP stakeholder process that provides more data to the public, additional opportunities for the public to provide input, and additional time for CU to integrate of input into the final plan. This will enable additional oversight and input and allow stakeholders to identify potential improvements to the IRP. A more open process will also bring mutual trust into the energy planning process.

Based on these findings, the Sierra Club recommends that CU take near-term action to begin deployment of low-cost, zero-emissions solar and wind resources. We recommend CU do so through an approach that prioritizes early and consistent transition rather than waiting for a hypothetical optimal scenario. In addition, we recommend that CU continue to make expeditious preparations for the retirement of its coal fleet.

The comments below provide our findings and recommendations in full. We are grateful for CU's efforts to integrate critical public feedback and input into its resource planning practices and look forward to continued collaboration.

II. CU should ensure that its IRP maximizes the benefits of the Inflation Reduction Act for ratepayers.

The 2022 IRA is a landmark piece of federal legislation that offers a once-in-a-generation opportunity to transition the electric grid to a more equitable, modern, and sustainable system.[1] It unlocks $370 billion in energy investments to drive clean energy deployments, system resiliency

[1] *What Utility Regulators Need to Know about the Inflation Reduction Act*, Rocky Mountain Institute (2022). Available at: https://rmi.org/insight/what-utility-regulators-need-know-about-ira/

and reliability enhancements, distribution and transmission upgrades, and more. Initial estimates for Missouri specifically project $6.6 billion in investments in large-scale renewable energy projects and storage. This will boost the existing 55,397 jobs in Missouri's clean energy industries and 270,100 jobs in Missouri's related industries. The IRA will also boost demand-side programs, which are projected to save Missouri households $677 per year.[2]

Springfield workers and ratepayers are only able to access those benefits, however, if the benefits are integrated into CU's energy plans. By failing to consider the implications and opportunities for IRA funding in its IRP, CU is missing out on an opportunity to deliver a sustainable, reliable, and modernized electric grid at the lowest cost possible to ratepayers. CU should review the IRA provisions and measures to identify and evaluate funding opportunities that will deliver ratepayer savings, promote public interests, and allow CU to meet its greenhouse gas reduction goals faster and at lowest cost. At a minimum, CU should integrate into its IRP consideration of the following IRA programs that could drive benefits for Springfield ratepayers (this list is not comprehensive):

- **Credits for clean energy deployment**: The IRA extends and expands tax credit programs like the Investment Tax Credit (ITC) and Production Tax Credit (PTC) for clean energy technologies (now including standalone energy storage). This provides the certainty utilities need to update their economic analyses and accelerate their timelines to incorporate renewable energy adoption rates. Importantly, the IRA has introduced refundability and transferability to these tax credits, which unlock benefits that were not available to public entities like CU in the past.[3]
- **Infrastructure revitalization and expedited fossil plant retirements**: Under the Energy Infrastructure Reinvestment (EIR) program, the U.S. Department of Energy can

[2] White House, (2022) STATE FACT SHEETS: How the Inflation Reduction Act Lowers Energy Costs, Creates Jobs, and Tackles Climate Change Across America. Retrieved at: https://www.whitehouse.gov/briefing-room/statements-releases/2022/08/17/state-fact-sheets-how-the-inflation-reduction-act-lowers-energy-costs-create-jobs-and-tackles-climate-change-across-america/.

[3] Pomerleau, S. (2022) Refundability and transferability of the clean energy tax credits in the Inflation Reduction Act. *The Niskanen Center.* Retrieved at: https://www.niskanencenter.org/refundability-and-transferability-clean-energy-tax-credits-inflation-reduction-act/.

extend loans from a $250 billion funding pool to finance projects that "retool, repower, repurpose, or replace energy infrastructure that has ceased operation, or enable operating energy infrastructure to [reduce greenhouse gas emissions]" while reinvesting in energy communities.[4] While CU may already have access to low-cost bond financing, the EIR will expand the pool of available financing for projects that replace legacy fossil infrastructure with modern, renewable energy.[5] CU should explore opportunities for EIR program funding to cost-effectively retire its coal-burning units.

- **Transmission**: The IRA offers support through several programs for additional transmission investment, including: loans to transmission developers; grants to state, local, and tribal entities; and funding to convene stakeholders and build consensus for inter-regional transmission. High-quality, national decarbonization studies[6] and CU's 2022 IRP both highlight the need for transmission to enable an affordable, de-carbonized energy future, and these IRA programs represent an initial step toward additional transmission investment.
- **Electrification:** The IRA provides $50 billion in funding for consumer incentives for low-carbon buildings and energy efficiency. If implemented correctly, distributed energy resources, efficiency, and electrification should reduce energy burdens, decrease pollution, and improve public health outcomes. CU should work to publicize these programs to its customers who may not otherwise know about the opportunities available to them for rooftop solar, electrification, and energy efficiency programs. CU should also consider coordinating with the Missouri Division of Energy to ensure efficient implementation of the rebate programs.

While the IRA covers a wide array of programs, some of the programs have a limited window during which funds are available, often limited to the next 10 years or less. (The EIR, for

[4] U.S. Department of Energy (2022) Energy Infrastructure Reinvestment. Retrieved at: https://www.energy.gov/lpo/energy-infrastructure-reinvestment.

[5] O'Boyle, M. (2022) Inflation Reduction Act Benefits: Billions In Just Transition Funding For Coal Communities. *Forbes*. Retrieved at: https://www.forbes.com/sites/energyinnovation/2022/08/24/inflation-reduction-act-benefits-billions-in-just-transition-funding-for-coal-communities/?sh=4add91216ebd.

[6] Princeton Net-Zero America Report (2021). Retrieved at: https://netzeroamerica.princeton.edu/?explorer=year&state=national&table=2020&limit=200.

example, is scheduled to end in September 2026.) Given the long lead times associated with project development, program approval, and funding disbursal, any delay in acting to maximize IRA impact could reduce the availability of funding. CU should take the following near-term actions to integrate the IRA into resource analysis, planning, and procurement:

- Update modeling and procurement cost assumptions to reflect transferability and refundability of tax incentive payments.
- Issue an all-source request for proposals to incorporate price impacts of the IRA and adjust short-term resource price forecasts in modeling accordingly.
- Conduct refreshed retirement analyses for JTEC Units 1 and 2. Ensure that retirement analyses reflect the EIR Program.
- Update load forecasts to reflect increased uptake of electric vehicles, electrified end-uses, and distributed energy resources.
- As a member of the SPP, advocate for proactive transmission planning that takes advantage of relevant IRA programs.[7]

III. The CU IRP does not incorporate consideration of local climate goals or the local health and economic impacts of its resource planning.

Resource planning decisions that flow from IRPs have widespread impacts on the local community beyond what is reflected in monthly electric bills. Specifically, resource planning impacts local environmental health and economic development. This is reflected in CU's mission, which is to "advance the quality of life in our community through innovation, engagement, and stewardship."[8] To ensure that CU's IRP advances the quality of life of Springfield ratepayers, the IRP should consider a wider array of local impacts beyond those that can be captured by pure economic modeling.

CU should consider the public health and economic development impacts of its generation choices in its resource planning. Legacy options for power generation negatively impact the

[7] Electricity Transmission Provisions in the Inflation Reduction Act of 2022, *Congressional Research Service,* August 23, 2022 (loan and other transmission programs under the IRA). Retrieved at: https://crsreports.congress.gov/product/pdf/IN/IN11981.

[8] 2022 CU IRP, p. 1.

local communities in two main ways: local air pollution causes detrimental health impacts in the community, and reliance on non-local conventional fuels like coal or gas send ratepayers dollars outside of the community. In Springfield, for example, operation of the JTEC units sends $50 million in ratepayer dollars out of state to pay for coal fuel each year.[9] If this money was instead directed to zero-fuel, zero-emissions technologies like energy efficiency, wind, and solar, more of it would stay locally, and contribute to the growth of Springfield's and Missouri's clean energy economy.

U.S. Environmental Protection Agency research shows that every kilowatt-hour of solar-powered generation provides up to 6 cents in public health benefits—surpassing the total cost of investing in solar[10]—by reducing local pollution from coal- and gas-fired units.[11] This is just one example of a benefit not reflected in the 2022 CU IRP and therefore not incorporated into CU's resource planning decisions.

The IRP should incorporate public health benefits in resource procurement and energy efficiency cost-benefit decisions, and it should encourage local development through procurement of local, zero-fuel renewable energy technologies.

The IRP should integrate consideration of CU's goal of net-zero emissions by 2050. The 2022 IRP represents CU's first planning document the utility has published since it announced a target of net-zero carbon emissions by 2050 and made an interim commitment to a 70 percent reduction in emissions by 2035.[12] While the IRP indicates that CU plans to achieve the 2035 commitment, CU plans are not consistent with achieving zero carbon emissions by 2050. For

[9] Data from U.S. EIA Forms 860 and 923.

[10] Bolinger, M., Seel, J., Warner, C., & Robson, D. (2022) Utility-Scale Solar, 2022 Edition. *Lawrence Berkeley National Laboratory.* Retrieved at: https://emp.lbl.gov/sites/default/files/utility_scale_solar_2022_edition_slides.pdf.

[11] Seidman, N., Shenot, J., & Lazar, J. (2021) Health benefits by the Kilowatt-Hour: Using EPA Data to Analyze the Cost-Effectiveness of Efficiency and Renewables. *Regulatory Assistance Project.* Retrieved at: https://www.raponline.org/wp-content/uploads/2021/09/rap-seidman-shenot-lazar-health-benefits-by-kilowatt-hour-2021-september.pdf. EPA values do not consider climate benefits.

[12] 2022 CU IRP, p .2.

example, the IRP contemplates continued operation of coal-fired JTEC Unit 2—the largest single unit in CU's portfolio—through 2051 and past the net-zero deadline.

CU's 2022 IRP should integrate a net-zero vision into its long-term planning, either through additional interim targets or explicit modeling through 2050. To maximize CU's options as it transitions toward net-zero emissions, CU should prioritize procurement of zero-emissions resources and updating its retirement analysis for its coal-fired units.

CU's local capacity requirement is not justified by reliability modeling and constrains available economic pathways for Springfield. The 2022 CU IRP contains a new goal of "maintaining adequate local generation to serve at least 50 percent of its peak load" to bolster reliability.[13] While reliability is a cornerstone of an effective grid, CU's IRP does not contain any reliability modeling that justifies this goal. It is not clear from the IRP when or how often this requirement would avoid a loss of service. At the same time, a strict local capacity requirement could constrain CU's resource options in the IRP, resulting in higher costs for all ratepayers. CU should conduct detailed reliability or production cost modeling as part of the IRP to justify this requirement. The Southern Power Pool (SPP) is designed to provide robust, networked support, and CU's reliance on local generation could saddle ratepayers with unnecessary costs. If the requirement is not justified, CU should ease restrictions to procuring low-cost generation for the benefit of Springfield ratepayers.

IV. CU's IRP inputs and projections do not align with best practices.

The IRP and its complex modeling analyses do much to shape the ultimate resource decisions made by CU. If the IRP's inputs or projections do not reasonably represent real-world conditions, however, IRP modeling is less helpful for projecting a cost-effective path and may recommend investment decisions that are not in the best interest of ratepayers. We offer these suggestions for improving the IRP inputs.

The 2022 IRP should provide additional information on plans to maximize the contribution of energy efficiency, demand response, and electric vehicle resources. CU's 2022 IRP states that one of its significant changes from the previous IRP is the addition of "Electric Vehicle (EV) and Demand Response load impacts." These transformative energy resources can provide

[13] 2022 CU IRP, p. 2.

substantial savings to both individual households and the grid as a whole. In some cases, however, the IRP and the Appendix do not provide sufficient information to understand how CU is integrating demand-side resources into its broader portfolio.[14]

Neither the IRP nor the Appendix discuss the role of energy efficiency resources or technologies in future resource plans. Utilities across the country set regular goals for the incremental savings they aim to achieve each year. These demand-side savings can provide value not only for the households that implement energy efficiency, but also for ratepayers overall.[15] Based on CU's IRP, CU has no such savings target, and the IRP does not discuss the role of incremental energy efficiency investment in meeting its customers' energy needs. This represents a lost opportunity for ratepayers. The CU IRP should include a consideration of energy efficiency programs and contemplate an expansion of these programs to include cost-effective energy efficiency deployment for ratepayers.

For demand-response-specific technologies and programs, the 2022 IRP Overview and Appendix provide high-level results of a demand response potential study conducted by ICF Resources, LLC. It is unfortunately difficult to assess the results of this study without understanding its inputs and methodology. The Appendix indicates, for example, that "peak shaving programs were allowed to be selected by the model based on cost-effectiveness of each program," but the Appendix does not indicate the total potential of these programs or the projected costs associated with them.[16] Demand-side technologies including energy efficiency are among the most cost-effective resources available to utilities,[17] but it is difficult to assess whether CU is optimizing the contribution of these resources for ratepayers. CU should include its demand response study in full with its IRP.

[14] 2022 CU IRP, p. 2 and 2022 CU IRP Appendix, p. 3-4, 9-11.

[15] American Council for an Energy-Efficient Economy (2020). The 2020 Utility Energy Efficiency Scorecard. Retrieved at: https://www.aceee.org/research-report/u2004.

[16] CU 2022 IRP Appendix, p. 11.

[17] American Council for an Energy-Efficient Economy (2020). Energy Efficiency as a Resource. Retrieved at: https://www.aceee.org/topic/ee-as-a-utility-resource.

CU's IRP and the Appendix provide insight into CU's projections on the emergence of electric vehicles in its service territory.[18] The Appendix shows that time-of-use tariffs and smart charging can shape the contribution of electric vehicles to the grid. Such measures can, in turn, provide manifold benefits to the grid, including deferring or avoiding grid infrastructure upgrades, enabling improved integration of intermittent renewable energy generation, reducing carbon emissions, improving energy security, and providing savings for consumers.[19] However, the CU action plans provided by the 2022 IRP do not explicitly identify anticipated actions to develop electric-vehicle-specific programming for capturing these benefits. CU should include in its IRP specific plans to develop time-of-use tariffs and managed charging programs to maximize the benefit of electric vehicle demand response on its system.

The 2022 IRP should reflect ongoing activities to address transmission constraints and detail CU's plan for managing transmission in the future. The 2022 IRP appropriately identifies the transmission congestion facing CU and highlights the need for additional transmission to cost-effectively serve Springfield ratepayers. This is consistent with high-quality, national-scale modeling, which has found that intra- and inter-regional transmission is key to a cost-effective, low-carbon energy system.[20] However, the 2022 IRP does not appear to reflect recent progress on transmission projects that could at least partially alleviate some congestion concerns in Springfield. The Morgan transformer upgrade, Morgan-Brookline uprate project, and Wolf Creek-Blackberry projects that CU's 2019 IRP projected would "significantly benefit transmission in and around the Springfield area"[21] appear to be continuing on schedule, for example, but it is not clear whether the 2022 IRP reflects those benefits.

[18] Rocky Mountain Institute (2016). Electric Vehicles as Distributes Energy Resources. Available at https://rmi.org/wp-content/uploads/2017/04/RMI_Electric_Vehicles_as_DERs_Final_V2.pdf

[19] *Ibid.*

[20] Brown, P., & Botterud, A. (2021). The Value of Inter-Regional Coordination and Transmission in Decarbonizing the US Electricity System. *Joule*. Retrieved at: https://www.cell.com/joule/fulltext/S2542-4351(20)30557-2*; and*
Princeton Net-Zero America Report.

[21] 2019 CU IRP.

If the IRP does not already integrate the benefit of these transmission projects, it should. In addition, it should integrate transmission scenario analyses, including a high-deployment scenario, to reflect the potential acceleration of transmission development due to IRA programs and ongoing Federal Energy Regulatory Commission rulemaking (including ongoing rulemaking on inter-regional transmission capacity).[22] As a member of SPP, CU should continue to advocate for short- and long-term transmission construction to achieve multiple value streams such as reliability, economic benefit, and integrating changing resource mixes.

The 2022 IRP should use current SPP guidance for its planning reserve margins and resource capacity accreditation. CU's 2022 IRP modeling requires that the system procure enough capacity to meet a 15 percent planning reserve margin (PRM) in the summer beginning in 2023, and a 29 percent PRM in the winter, based on a study commissioned (but apparently not yet completed) by an SPP committee.[23] Although the 15 percent summer PRM is substantiated by an official SPP decision,[24] SPP has made no recommendation on the winter reserve margin. Similarly, SPP staff did not recommend that members use the 29 percent winter PRM in its ongoing planning.[25] CU's use of a winter reserve margin that is nearly double the recommended amount will drive higher costs for ratepayers as CU procures redundant capacity.

CU should revise its gas forecast to reflect current market conditions. Figure 1 shows CU's gas price forecasts compared to the base forecast from the U.S. EIA's Annual Energy Outlook (AEO), which is a high-quality, industry-standard projection for resource planning. In the near term from 2022 to 2026, CU's "Base" projection is on average 13 percent lower than the AEO

[22] Day Pitney, LLP (2021). FERC Issues Notice of Proposed Rulemaking on Regional Transmission Planning, Cost Allocation, and Related Matters. Retrieved at: https://www.daypitney.com/insights/publications/2022/05/02-fed-energy-regulatory-commission-issues-notice/.

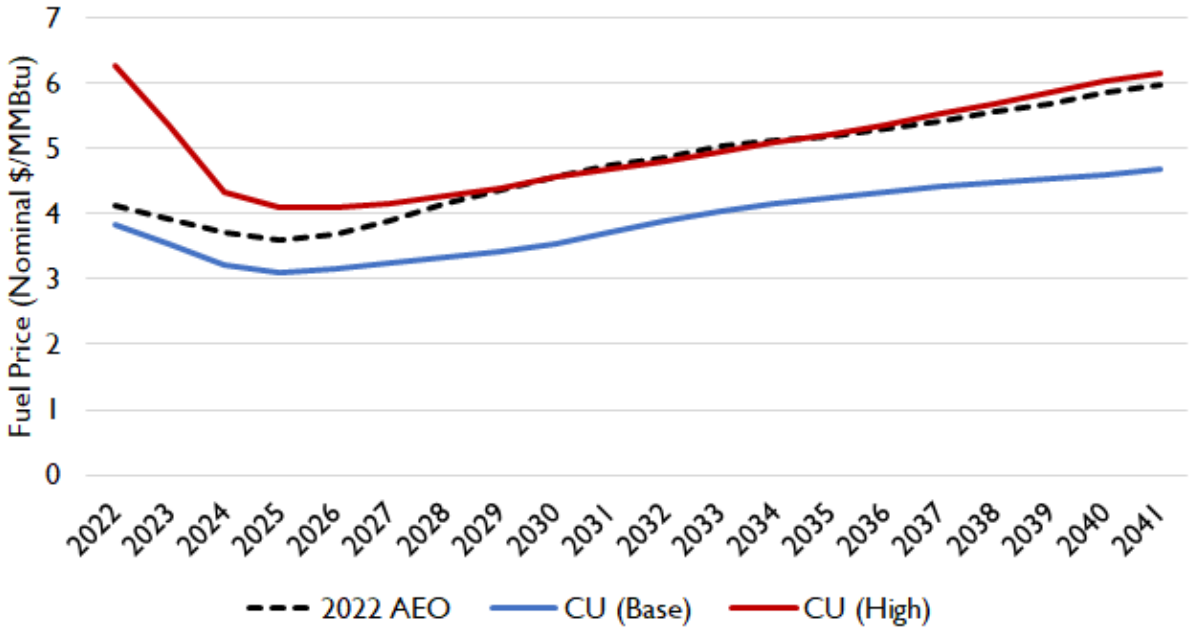
[23] CU 2022 IRP, p. 6.

[24] Southwest Power Pool. *SPP Update.* 2022. Available at: https://psc.mo.gov/CMSInternetData/Agenda%20Presentations/2022%20Presentations/8-31-2022%20SPP%20Update.pdf.

[25] Southwest Power Pool, Inc. (2022). SPP Staff Recommendation. Presented to the June 28-29, 2022 meeting of the SPP Supply Adequacy Working Group. P. 2.

source. In the long term, from 2026 onwards, projections diverge even further as the CU "Base" forecast trends, on average, 20 percent lower than the AEO source.

Figure 1. CU Gas Price Projections versus 2022 Annual Energy Outlook



However, differences between CU projections and AEO forecasts could be due to the use of out-of-date data for the CU forecasts. The NYMEX forecast used in CU's "Base" case, for instance, appears to predate the onset of geopolitical conflicts that have impacted the commodity price of gas.[26]

By contrast, CU's "High" gas price projection tracks closely with the 2022 AEO, especially after 2028. Notably, the IRP's "High Gas Price" scenario contemplates procurement of an additional ~800 megawatts in wind power purchase agreements. This result shows the impact of gas pricing on the relative economic benefit of renewable resources and the importance of accurate gas price forecasting. The 2022 CU IRP should provide transparency on the vintage of its gas forecast data, use publicly accessible, high-quality forecasts such as the AEO where possible, and update its projections to reflect contemporary gas market dynamics.

[26] CU 2022 IRP, p. 9.

Accurate and up-to-date gas price forecasts are important because reliance on an unreasonably low gas price forecast will send the wrong price signal to the IRP model; mainly, that new and existing gas resources are cheaper and lower cost than they actually are. This could result in CU selecting to build, or to keep online, gas resources rather than transitioning to lower-cost renewables. We can see this in CU's modeling where the "High Gas" scenario, which is more consistent with U.S. Energy Information Administration (EIA) projections, procures over 800 megawatts of additional wind compared to the "Base" scenario.

The 2022 IRP should use trusted, industry-standard resource cost projections. While the CU 2022 IRP Appendix provides costs and sources for candidate gas-fired resources, the IRP and Appendix do not show the source or methodology for the solar, wind, and storage power purchase agreement projections. Given that CU procures these power purchase agreements in every capacity expansion scenario contemplated in its IRP, these price projections have a large impact on recommended actions for CU. Without source or methodological information, customers and stakeholders are not able to assess the robustness of CU's estimates or provide alternatives or revisions. Where possible, CU should use, or at least benchmark its costs against, publicly available, high-quality cost projections, such as the National Renewable Energy Laboratory's Annual Technology Baseline. The Annual Technology Baseline provides an excellent foundation for resource planning while maintaining transparency for ratepayers and stakeholders.

The CU 2022 IRP should reflect the fuel price risk benefits of zero-fuel, zero-emissions resources. CU's IRP omits discussion on how inflation and supply shortages impact gas prices or how renewable energy can mitigate the impacts of fuel price spikes associated with market dynamics, geopolitical conflict, and extreme weather events. Customers are still—over a year later—in the process of paying the utility for the costs of the Winter Storm Uri fuel price spikes.[27] In a world with rising inflation, supply shortages caused by conflicts in Ukraine, and extreme weather events like Uri, gas price volatility now poses an unacceptable risk to ratepayers. Zero-fuel, zero-emissions resources can act as a hedge against fuel price spikes by

[27] Springfield Daily Citizen (March 2022). "City Utilities customers halfway to paying for Winter Storm Uri," Retrieved at: https://sgfcitizen.org/energy/city-utilities-customers-halfway-to-paying-for-winter-storm-uri/.

decreasing CU's reliance on fossil-powered electric generation. CU's IRP should acknowledge how these factors can impact natural gas prices and model how renewable energy can lower the costs and risks that ratepayers will ultimately bear.

V. The IRP's recommended actions will not deliver savings for ratepayers.

Analysis and modeling for resource planning can be helpful in determining the best path forward for a utility, but these tools and analytics are only beneficial to ratepayers if they result in prudent resource investment and retirement decisions. Sierra Club provides the following recommendations relating to the resource investment and retirement decisions contemplated in the 2022 IRP.

CU should integrate all-source procurement in concert with its resource planning, and act on available projects in the short term. Under all-source procurement, utilities can outline criteria and system needs and open their RFPs to a wide market of energy resources that can meet the requested needs.[28] Using a more open RFP process expands the field for competition, which subsequently lowers total costs.[29] CU should maximize all-source procurement processes to select resources on merit; the process will yield cheaper, lower-carbon electricity and a resource mix more aligned with public policy goals. All-source RFPs also allow for precise price discovery for a wide variety of resources, and they allow CU and stakeholders to define resource plans with a more concrete understanding of the availability and price of resources in the short-term.

As CU notes in its IRP, it is currently facing multiple intersecting challenges related to resource procurement: supply chain disruptions are delaying project timelines and even resulting in project cancelation; transmission congestion is impeding identification of economic projects; and generation interconnection backlogs are further causing project delays. However, these challenges underscore, rather than undermine, the importance of near-term procurement

[28] Energy Innovation (2020) *Making the Most of the Power Plant Market: Best Practices for All-Source Electric Generation Procurement*. Retrieved at: https://energyinnovation.org/wp-content/uploads/2020/04/All-Source-Utility-Electricity-Generation-Procurement-Best-Practices.pdf

[29] Rocky Mountain Institute (2021). *How to Build Clean Energy Portfolios*, Retrieved at: https://rmi.org/wp-content/uploads/dlm_uploads/2021/03/rmi_how_to_build_ceps_market_snapshots.pdf.

decisions. These challenges present risks that any given project may face delays or cancellation through the development process. As a result, prudent resource procurement would counsel identifying multiple projects that meet CU's needs and moving forward in parallel to account for potential challenges along the way. To ensure procurement and development of the resources identified by its plan on a reasonable timeline, CU should solicit and develop projects when and where they are available, rather than delay issuing a request for proposals or introduce a delay between RFP and project development as contemplated in the 2022 IRP. This approach would entail issuing an all-source RFP in the short term and developing projects that deliver economic benefits and are in line with updated IRP modeling recommendations.

CU's IRP contemplates delaying procurement of renewable resources pending future price declines projected by CU. However, this approach trades established economic benefits in the short term for hypothetical ones in the long term. Ameren Missouri Chief Renewable Development Officer Ajay Arora described Ameren Missouri's approach to potential renewable price declines to the Missouri Public Service Commission in July 2022:

> Although Ameren Missouri hopes that renewable technology costs will ultimately decline, the last year served as a reminder that these continued cost declines are far from a guarantee. It is tempting to point to possible declining cost curve forecasts for wind and solar and recommend the Company wait until such declines materialize before proceeding with renewable development. But it is critical to remember that forecasted declines are not certain. Waiting for costs to decline is also a risky approach, because if those declines do not materialize customers could be exposed to higher costs for less ideal sites later.[30]

Mr. Arora makes a compelling case for acting on savings in the short term, rather than waiting for potential savings that may not materialize. CU's IRP should take the same approach and prioritize short-term procurement for modern, zero-fuel, zero-emissions resources.

[30] Direct Testimony of Ameren Missouri Witness Ajay K. Arora (2022, July). Missouri Public Service Commission, File No: EA-2022-0245, p. 21-22. Retrieved at: https://efis.psc.mo.gov/mpsc/commoncomponents/view_itemno_details.asp?caseno=EA-2022-0245&attach_id=2023000931.

The CU IRP should move forward with a 2027 retirement for JTEC Unit 1. CU's proposal in the 2022 IRP to shift retirement of JTEC Unit 1 to 2030 would unnecessarily maintain an expensive legacy coal unit instead of transitioning to cost-effective, zero-fuel alternative resources. It also reverses CU's prudent previous decision to retire the unit in 2027. In 2019, the CU IRP identified several reasons for moving forward with a 2027 retirement of JTEC Unit 1, noting its age, operating costs, emissions, and increasing pressure on coal-fired resources.[31] Each of these justifications remains true today, and with the continued development of the Wolf Creek-Blackberry line, the unit will soon "no longer be required for system reliability."[32] As discussed above, project development challenges mean CU should be proactive and allow more time for planning. Delaying in case future price declines materialize is not a prudent course of action. Therefore, CU should move forward with plans targeting a 2027 retirement date for JTEC Unit 1 and limit substantial capital investments in the plant. Should future development challenges require a delay in retirement, CU can adjust its plans at that time. Prematurely delaying the retirement of this uneconomical coal unit does not deliver value for ratepayers. It is worth noting that the retirement of JTEC Unit 1 will create an "energy community" under the IRA such that any clean energy resource, including battery storage, built in that census tract or an adjoining one will receive an extra 10 percent tax credit.

The CU IRP should include a retirement analysis for JTEC Unit 2. The 2022 IRP does not appear to contemplate retirement for JTEC Unit 2, which represents the largest unit by capacity in CU's fleet and is currently planned to retire at the end of its operating life in 2051. Unit 2's continued operation through this period entails significant risk for CU and its ratepayers, including:

- **Economic Risk:** In competition with gas and renewables, coal units have become increasingly uneconomic and are increasingly transitioning to retirement.[33] Coal's relatively uneconomic position is likely to accelerate as additional zero-fuel resources come online.

[31] CU 2019 IRP, p. 71.

[32] *Ibid.*

[33] U.S. EIA (2022). "Nearly a quarter of the operating U.S. coal fleet scheduled to retire by 2029." *Today in Energy.* Retrieved at: https://www.eia.gov/todayinenergy/detail.php?id=54559.

- **Fuel Supply and Price Risk:** Decreasing long-term supply and demand for thermal coal in the United States could create volatility in fuel prices or make it difficult to secure firm fuel delivery.
- **Regulatory Risk:** Additional regulations on carbon dioxide, other air pollutants, or coal ash could further increase capital and operating costs.
- **Insurance Risk:** Major insurers have announced intentions to cease insuring coal-fired power plants, which could create additional risk for CU.[34]
- **Transition Risk:** Continued operation of this unit is incompatible with CU's carbon emissions targets; maintaining use of this unit could create the risk of stranded assets and what the U.S. Commodities Futures Trading Council dubs a "disorderly" capital transition.[35]

These risks are present today and are likely to accelerate in the coming years. Given the relatively young age and high undepreciated asset value of JTEC Unit 2, retiring and removing this unit from rate base would entail a difficult choice between stranded asset value and high costs of accelerated depreciation for CU and its ratepayers. However, the economic prognosis for this plant is likely to further deteriorate in future years. And it is the ongoing costs to operate and maintain the plant that CU should be comparing to the cost of alternatives, not the sunk costs that have already been incurred. CU should act in the best interests of its customers by conducting a clear-eyed retirement analysis, using all available resources, including securitization. The IRA's EIR program, which is essentially a federal securitization program, provides a time-limited opportunity to secure economic and financial assistance for transitioning this asset, and CU should take steps today to seize this opportunity while the EIR is still available.

[34] Marcacci, S. (2019). "The Global Insurance Industry's $6 Billion Existential Threat: Coal Power." *Forbes*. Retrieved at: https://www.forbes.com/sites/energyinnovation/2019/05/22/the-global-insurance-industrys-6-billion-existential-threat-coal-power/?sh=6d00fc2463c1.

[35] U.S. Commodities Futures Trading Commission (2020). Managing Climate Risk in the US Financial System. Retrieved at: https://www.cftc.gov/sites/default/files/2020-09/9-9-20%20Report%20of%20the%20Subcommittee%20on%20Climate-Related%20Market%20Risk%20-%20Managing%20Climate%20Risk%20in%20the%20U.S.%20Financial%20System%20for%20posting.pdf.

VI. The 2022 IRP's public comment process was not accessible or transparent to ratepayers, the public, or stakeholders.

CU's 2022 IRP does not provide transparency to its ratepayers or stakeholders. While we appreciate CU publishing an IRP overview for public comment, the 15-page overview document is just a fraction of the length of CU's 85-page 2019 IRP. The document does not provide sufficient detail to clarify key details and planning methodology; nor does it provide enough detail to determine whether CU's planning decisions are consistent with the public interest. While the overview document notes that supporting data is available, that information was provided on CU's website just moments before the public hearing. Neither the IRP document nor CU's online portal outline the stakeholder process for the 2022 IRP beyond a single "Public Feedback" meeting. Further, the "Public Feedback" meeting was not posted on the CU website or social media until less than one week before the scheduled event. Stakeholders had no information on what feedback would be requested at this meeting or how it would be integrated into CU's plans. Indeed, at the public hearing, members of the public who participated virtually were not allowed to speak at all. In short, ratepayers and members of the public did not have clear opportunities to provide input into their utility's resource plans, nor did they have information or time sufficient to provide meaningful comment.

Peer public utilities, by contrast, provide clear documentation of their assumptions with clear opportunities for input and a roadmap to the development of the final resources plan. Omaha Public Power District, for example, held a 6-part "Pathways to Decarbonization" workshop series with interim releases of detailed assumptions and updates over the course of Q2–Q4 2021, all of which informed the utility's draft 2021 IRP. That IRP had its own well-defined public comment process.[36] CU should adopt a similar approach to Omaha Public Power District, providing detailed assumptions and methodological choices early in the process, with a transparent stakeholder process and multiple opportunities and fora to provide comment. The IRP process should be structured with enough time to integrate public input into the development of the final plan. Similarly, in 2019, City Water Light and Power in Springfield, Illinois issued its

[36] Omaha Public Power District (2022). 2021 Integrated Resource Plan. Retrieved at: https://www.oppdcommunityconnect.com/irp.

full 84-page IRP, which was also developed by The Energy Authority, for public comment and held multiple public meetings prior to its final adoption.[37]

Thank you for this opportunity to comment on Springfield City Utilities' 2022 IRP, and for your consideration of our recommendations above. We recognize the volume of work and attention that goes into preparing this document and recognize the desire of CU staff to plan for the future in the best interests of CU ratepayers. We look forward to further collaboration.

Sincerely,

Gretchen Waddell Barwick
Chapter Director
Sierra Club, Missouri Chapter
314-644-1011
gretchen.waddellbarwick@sierraclub.org

Jenn DeRose
Beyond Coal Campaign Representative
Sierra Club
314-780-6082
jenn.derose@sierraclub.org

Tyler Fitch
Senior Associate
Synapse Energy Economics
617-453-3890
tfitch@synapse-energy.com

Alex Lawton
Associate
Synapse Energy Economics
617-453-3705
alawton@synapse-energy.com

Jon Tabernero
Associate
Synapse Energy Economics
617-500-8722
jtabernero@synapse-energy.com

[37] City Water, Light, and Power (2022). Integrated Resource Plan. Retrieved at: https://www.cwlp.com/IRP.aspx.