Staff Concerns

Staff Concern 1 – Resolved: (20 CSR 4240-22.050): Staff has a number of concerns as it relates to the IRP and a MEEIA application. The Company's avoided capacity, energy, and T&D costs, assumed supply-side deferral, budget and savings levels, third-party aggregation assumptions, program design, etc.

Resolution: Ameren Missouri currently has a MEEIA Cycle 4 application in front of the Commission and Staff believes the MEEIA Cycle 4 docket is the most appropriate case to address its MEEIA related concerns.

Staff Concern 2 – Resolved: (20 CSR 4240-22.070): Staff is concerned about the risk potentially borne by ratepayers from Ameren Missouri's shift toward new renewable wind and solar generation. This is potentially exacerbated with the inclusion of an 800 MW CT by the end of 2027 and a 1,200 MW CC in 2033.

Resolution: Staff is hopeful that the language agreed to and included in the *Stipulation and Agreement* in Case No. EA-2023-0286, filed on February 23, 2024, corrected on March 5, 2024, and approved by the Commission on March 21, 2024, will help alleviate its concerns.

Natural Resources Defense Council (NRDC) Alleged Deficiencies

NRDC Deficiency 1 - Resolved: (20 CSR 4240-22.010(2)(B)): Ameren should engage stakeholders in a collaborative effort to evaluate capacity expansion and production cost models.

Resolution: Ameren Missouri will evaluate EnCompass, PLEXOS and Aurora against the criteria provided in the NRDC comments.

NRDC Deficiency 2 - Resolved: (20 CSR 4240-22.040(1)): Ameren should increase the base cost for combined cycle resources by at least 10% and align probabilities for the high and low project costs with appropriate AACE cost estimates.

Resolution: Ameren Missouri explained that declining costs were not used for the combined cycle resources.

NRDC Deficiency 3 - Unresolved: (20 CSR 4240-22.040(1) and 20 CSR 4240-22.040(4)): Ameren should evaluate the Grain Belt Express project alongside supply side resources included in this IRP filing and should work with project developers in a collaborative manner to ensure that all benefits from the project are reflected in the modeling.

NRDC Deficiency 4 - Unresolved: (20 CSR 240-22.060): Ameren should remove the color coding and arbitrary score weighting from the portfolio scorecard and provide a qualitative discussion along with reporting quantitative metrics for each resource plan.

Council for New Energy Economics (NEE) Alleged Deficiencies/Concerns

NEE Deficiency 1 - Resolved: Ameren does not adequately account for risk in its natural gas price forecasts.

Resolution: Ameren Missouri contended that it has accounted for the risks cited by NEE. Ameren Missouri will describe how it accounts for the risks cited by NEE in future annual updates and IRP filings.

NEE Deficiency 2 - Resolved: Ameren should move towards capacity expansion modeling, which provides greater flexibility and efficacy in evaluating potential resource plans.

Resolution: Ameren Missouri will evaluate EnCompass, PLEXOS and Aurora against the criteria provided in the NRDC comments.

NEE Deficiency 3 - Unresolved: Ameren's elimination of Grain Belt Express from its analysis of candidate resource options constitutes a supply-side deficiency.

NEE Concern 1 - Resolved: Ameren should pursue aggressive demand-side management strategies.

Resolution: Ameren Missouri has evaluated both MAP and RAP level demand-side management (DSM) resources in its IRP and has a current MEEIA application in front of the Commission to continue its DSM offerings to its customers.

Renew Missouri (RMO) Comments

RMO Comment 1 - Resolved: The Company's analysis for renewable energy projects does not take full advantage of the tax credits modeled.

Resolution: Ameren Missouri followed the tax credits as outlined in the IRA using large utility scale projects. However, during project implementation, Ameren Missouri will identify projects that can receive tax credit adders. For solar projects not already under development or construction, Ameren Missouri will investigate the use of funds from the Energy Infrastructure Reinvestment (EIR) program through EPA. The EIR program investigations will not be considered if program increases project risks, schedule or costs.

RMO Comment 2 - Unresolved: The Company should consider new wind resources with a higher capacity factor, especially if the Company continues to consider wind projects located in Kansas (as they have historically).

RMO Comment 3 - Resolved: Company should first pursue cost-effective wind and solar at scale, as well as the distributed energy resources, before seriously pursuing hydrogen as a generation resource.

Resolution: The Company has not made any commitments to use hydrogen for electric generation. Ameren Missouri is and will continue following how the technology advances.

RMO Comment 4 - Resolved: Ameren's IRP lacks any residential and commercial battery storage programs that could help the utility avoid or defer infrastructure investments, including new generation.

Resolution: Ameren Missouri will meet with Evergy and discuss their battery pilot program by the end of 2024.

RMO Comment 5 - Resolved: Ameren Missouri should evaluate virtual power plants (VPP) integrating remote control of storage, water-heaters and heat-pumps.

Resolution: Ameren Missouri will include a discussion of VPPs as part of its 2024 IRP Annual Update.

RMO Comment 6 - Resolved: All rate design options should be available to customers, Ameren Missouri should make TOU rates available to net-metered solar customers.

Resolution: Ameren Missouri will provide an analysis in its next rate case.

RMO Comment 7 - Unresolved: Ameren should continue modeling aggressive energy efficiency and demand response programs as part of the IRP process.

RMO Comment 8 - Resolved: Renew Missouri is worried low-income minority customers are not being effectively reached with Ameren's current marketing efforts.

Resolution: Ameren Missouri explained its outreach efforts, and provided the additional information requested by RMO, NAACP and Homes for All St. Louis. Ameren Missouri has an active case in front of the Commission to continue its energy efficiency programs, which includes programs targeting low-income communities.

RMO Comment 9 - Resolved: Renew Missouri is alarmed by the reductions in new renewable energy generation and simultaneous investments in new natural gas plants included in Ameren's Preferred Plan.

Resolution: Ameren Missouri explained that there are no reductions in the planned renewable generation in its IRP and Renew Missouri agrees. Ameren Missouri also explained that the resources in 2040 and 2043 are 'clean, dispatchable' resources, which were modeled using cost and operational characteristics of combined cycles. In its next triennial IRP, Ameren Missouri will compare the future costs and other attributes of new natural gas simple cycle and combined cycle plants with those of new utility-scale solar+storage and wind+storage projects. Further, Ameren Missouri will integrate an analysis of the EPA's new rules on baseload coal and gas into its potential generation mix.

RMO Comment 10 - Resolved: Renew Missouri also encourages the Company to creatively site and size additional energy storage facilities to obtain the maximum ITC bonus and adders available.

Resolution: Ameren Missouri followed the tax credits as outlined in the IRA using large utility scale projects. However, during project implementation, Ameren Missouri will identify projects that can receive tax credit adders, and where appropriate will co-locate new storage projects with new solar projects.

Missouri State Conference of the National Association for the Advancement of Colored People (NAACP) Comments

NAACP Comment 1 - Unresolved: Ameren Missouri should not overbuild its system.

NAACP Comment 2 - Resolved: Ameren Missouri's energy efficiency offerings are not reaching low-income minority communities.

Resolution: Ameren Missouri has an active case in front of the Commission to continue its energy efficiency programs, which includes programs targeting low-income communities. Ameren Missouri and NAACP agree to meet and identify opportunities for outreach to low-income customers for DSM programs.

Homes for All St. Louis (HFA) Alleged Deficiencies

HFA Deficiency 1 - Resolved: The Company failed to market its DSM programs to its low-income customers.

Resolution: Ameren Missouri explained its outreach efforts, and provided the additional information requested by RMO, NAACP and Homes for All St. Louis. Ameren Missouri has an active case in front of the Commission to continue its energy efficiency programs, which includes programs targeting low-income communities.

HFA Deficiency 2 - Resolved: The Company failed to address the regulatory risks of the disproportionate burden its services and programs represent to its low-income customers.

Resolution: While Ameren Missouri is sympathetic to the plight of its low-income customers, Ameren Missouri understands that R.S. Mo. § 393.130.2-3 prohibits offering its programs at a different, lower price to low-income customers based on their financial circumstances. *See in re Missouri Gas Energy*, 2001 WL 410297 (2001) ("Case law makes it clear that the classification of utility service is to be based upon the characteristics of the utility service provided, not on a circumstance of the customer. The statutes [R.S. Mo. § 393.130.2-3 and § 393.140(11)] forbid charging one residential customer one rate, and charging another residential customer a different rate."). If § 393.130 is ever modified and the Commission creates a special residential customer class based on household income (*see, e.g.,* Mo. Senate Bill 1408), then Ameren Missouri would consider offering a different subscription price for its programs to low-income customers.

HFA will send Ameren numerous suggestions of utility programs that have been used to address energy burden on low-income customers, including the Ohio Percentage Income Payment Plan; Evergy's Economic Relief Pilot Program; Evergy's Low-Income Weatherization Program; Evergy's Income-Eligible Multi-Family Program; Michigan's weatherization and community solar case study; Colorado's low-income community solar project; Connecticut's Two-Tier Rate Plan; as well as several summaries and evaluations of other programs utilized across the country to address energy burden. Ameren Missouri will assess whether or not any of these are feasible in

Missouri and will review their findings of the assessment with Homes for All. Ameren will commit to consider implementing at least one new pilot project specifically targeting the energy burden of multi-family rental customers in the St. Louis metropolitan area before the next triennial IRP, and to continue to dialog with Homes for All as the Company evaluates such pilot projects for inclusion.

HFA Deficiency 3 - Resolved: The Company failed to address the regulatory risks of the disparate impact its subscription-based programs have on Ameren's low-income customers.

Resolution: Same as resolution for HFA Deficiency 2.

HFA Deficiency 4 - Resolved: The Company has failed to quantify the probable environmental costs of its non-renewable power sources, especially its coal-fired power plants, and to incorporate those costs into its supply-side ranking and risk analysis.

Resolution: Ameren Missouri will include an analysis of its compliance with new and updated EPA regulations in its next preferred resource plan filing, whether that occurs via an Annual Update or Change in Preferred Resource Plan. This includes compliance with the final versions of the 111(d) rule on greenhouse gas emissions, new MATS standards for particulate matter, ELG and CCR requirements, and a final Regional Haze rule for Missouri if such rule is published in the Federal Register by August 1, 2024.

HFA Deficiency 5 - Resolved: The Plan places too great of reliance on nonrenewable forms of power.

Resolution: Ameren Missouri will continue to consider the balance between renewable and dispatchable generation resources.

HFA Deficiency 6 - Resolved: The Plan offers insufficient investment in renewable and energy efficiency projects in low-income minority communities in the City and County of St. Louis.

Resolution: Ameren Missouri provided additional information requested by HFA on how Ameren Missouri identifies communities for enrollment and how funds are spread into low-income communities. Ameren Missouri has an active case in front of the Commission to continue its energy efficiency programs, which includes programs targeting low-income communities. Ameren Missouri will commit to consider implementing at least one new pilot project specifically targeting the energy burden of multi-family rental customers in the St. Louis metropolitan area before the next triennial IRP, and to continue to dialog with Homes for All as Ameren evaluates such pilot projects for inclusion.

Sierra Club (SC) Alleged Deficiencies

SC Deficiency 1 - Resolved: The Company's resource selection approach must be more objective and auditable—including the use of a capacity expansion model.

Resolution: Ameren Missouri will evaluate EnCompass, PLEXOS and Aurora against the criteria provided in the NRDC comments.

SC Deficiency 2 - Resolved: The Company inadequately addressed the many regulatory risks and related costs of continued coal operations at Labadie.

Resolution: Ameren Missouri will include compliance with new EPA regulations in any update to its preferred resource plan. This includes compliance with the final version of the 111(d) rule on greenhouse gas emissions, new MATS standards for particulate matter, ELG and CCR requirements, and a final Regional Haze rule for Missouri if such rule is published in the Federal Register by August 1, 2024. Ameren Missouri will minimize the portions of its analysis–and its underlying modeling– that shall be designated as confidential.

SC Deficiency 3 - Unresolved: The Company should not massively overbuild its system.

SC Deficiency 4 - Unresolved: The Company's own analysis justifies retiring Sioux in 2028.

SC Deficiency 5 - Unresolved: Reliability should not be used to justify keeping the plant online because Sioux is unreliable and costly.

SC Deficiency 6 - Unresolved: The NGCC replacing Sioux was not modeled properly and should not be the default resource option.

SC Deficiency 7 - Unresolved: The costs of clean energy resources are overstated.

SC Deficiency 8 - Unresolved: The Company should also consider PPAs.

SC Deficiency 9 - Unresolved: The Company's assumed capital costs of CCS on new gas are too low.

SC Deficiency 10 - Unresolved: The Company's assumed carbon removal rate is too high.

SC Deficiency 11 - Unresolved: The Company should have considered the Grain Belt Express transmission line in its modeling.

SC Deficiency 12 - Resolved: The Company should work with stakeholders to implement distributed generation programs that have federal funding.

Resolution: Ameren Missouri will meet with EIERA, Sierra Club, the City of St. Louis, the Consumers Council of Missouri, OneSTL, and Renew Missouri during 2024 to discuss potential programs for distributed energy, including consideration of funding under the Solar for All program. Ameren Missouri will use best efforts to work successfully with EIERA and stakeholders to help assure that EIERA's solar programs are implemented to benefit low-income customers.

SC Deficiency 13 - Resolved: The Missouri Environmental Improvement and Energy Resources Authority ("EIERA") has applied for a Solar for All grant from U.S. EPA, and U.S. EPA will make award announcements in March 2024.

Resolution: Same as resolution to SC Deficiency 12.

<u>Grain Belt Express (GBX) Alleged Deficiencies/Concerns</u>

GBX Deficiency 1 - Unresolved: Ameren Missouri did not evaluate, identify, consider, or analyze all existing supply-side resources—namely, Grain Belt Express and associated renewable energy resources (20 CSR 4240-22.040)

GBX Deficiency 2 - Unresolved: Ameren Missouri did not consider siting and permitting costs, and costs associated with generator interconnections and system upgrades associated with MISO generation (20 CSR 4240-22.060)

GBX Deficiency 3 - Unresolved: In its 2023 IRP, Ameren Missouri did not recognize GBX as an advanced transmission system technology (20 CSR 4240-22.045 and 20 CSR 4240-22.070)

GBX Concern 1 - Unresolved: Exclusion of Grain Belt Express and its associated renewable generation results in overreliance on near term investment in natural gas facilities.

GBX Concern 2 - Unresolved: Ameren failed to address the risk associated with reliance upon natural gas units, particularly combined cycle units.

GBX Concern 3 - Resolved: Ameren's plan for renewable generator replacement at retiring dispatchable energy sites is not realistic.

Resolution: Parties agree that Ameren Missouri plans to investigate the possibility of expanding some renewable resources beyond the retiring energy center sites and into adjacent land to take advantage of the existing transmission interconnection at these sites. Such investigation will include reasonable assumptions regarding the cost and timing of constructing transmission facilities needed for such expansion.