

Exhibit No. 102

Exhibit No.:
Issue(s): IRP
Witness: Brad J. Fortson
Sponsoring Party: MoPSC Staff
Type of Exhibit: Rebuttal Testimony
Case No.: EA-2022-0245
Date Testimony Prepared: December 21, 2022

MISSOURI PUBLIC SERVICE COMMISSION

INDUSTRY ANALYSIS DIVISION

ENERGY RESOURCES DEPARTMENT

REBUTTAL TESTIMONY

OF

BRAD J. FORTSON

**UNION ELECTRIC COMPANY,
d/b/a Ameren Missouri**

CASE NO. EA-2022-0245

*Jefferson City, Missouri
December 2022*

1 Q. Does the Company rely heavily on its 2020 triennial compliance filing, and its
2 subsequent Updated Preferred Resource Plan filing, in an attempt to justify the need for
3 Boomtown?

4 A. Yes, in part. As stated in Ameren Missouri witness Mr. Ajay K. Arora's direct
5 testimony in this case, "[Boomtown] will support the Company's critical need to transition its
6 generation fleet to clean energy resources, with significantly greater reliance on renewable
7 energy resources and less reliance on the Company's aging coal-fired generation fleet. The
8 criticality of this transition was most recently outlined in, and is supported by, the documents
9 submitted with the Company's June 22, 2022, Notice of Change in Preferred Resource Plan..."

10 Q. Does the Company rely on any other reasons in its attempt to justify the need
11 for Boomtown?

12 A. Yes. Other reasons are stated by Ameren Missouri for the need of Boomtown
13 and responses to those perceived needs are addressed in Staff witness Mr. J Luebbert,
14 Mr. Shawn Lange, and Mr. Michael Stahlman's rebuttal testimonies.

15 **Updated Preferred Resource Plan**

16 Q. Please describe Ameren Missouri's Updated Preferred Resource Plan.

17 A. On September 27, 2020, Ameren Missouri filed its 2020 triennial
18 compliance filing in Case No. EO-2021-0021 in accordance with 20 CSR 4240-22. Ameren
19 Missouri's 2020 triennial compliance filing contained its preferred resource plan as required by
20 20 CSR 4240-22.070(1). The preferred resource plan included 5,400 MW of wind and
21 solar generation by 2040, the retirement of all of Ameren Missouri's coal-fired generation
22 by 2042, and the achievement of net-zero CO2 emissions by 2050. On June 22, 2022, Ameren
23 Missouri submitted its Updated Preferred Resource Plan in Case No. EO-2022-0362 in

1 accordance with 20 CSR 4240-22.080(12). Ameren Missouri stated this conclusion was
2 reached as a result of several key events and changes such as:

- 3 • Rush Island NSR Litigation – An appellate court decision resulted in a
4 subsequent decision by Ameren Missouri to retire the coal units at Rush
5 Island Energy Center within the next few years rather than install
6 expensive pollution control technology.
- 7 • Illinois Energy Legislation – Legislation passed by the Illinois General
8 Assembly to transition away from carbon-emitting electric generation
9 shortens the operating life of simple cycle gas combustion turbine
10 generators ("CTGs") owned by Ameren Missouri and operated in
11 Illinois.
- 12 • Winter Capacity Needs – In the wake of Winter Storm Uri, Ameren
13 Missouri has placed additional focus on winter reliability. The
14 Midcontinent Independent System Operator ("MISO") has also filed a
15 proposal with the Federal Energy Regulatory Commission ("FERC") to
16 include consideration of seasonal capacity needs and capabilities as part
17 of proposed resource adequacy reforms.
- 18 • Enhanced Reliability Focus – In addition to considering winter
19 capacity needs, Ameren Missouri has engaged Astrapé Consulting to
20 evaluate long-term reliability implications of the Company's resource
21 decisions through rigorous reliability modeling and has incorporated
22 insights from this analysis into the development of its revised Preferred
23 Resource Plan.

24 The Updated Preferred Resource Plan reflects the following key changes from the
25 2020 triennial compliance filing's preferred resource plan:

- 26 • Acceleration of the retirement of Rush Island Energy Center from 2039
27 to 2025.¹

¹At the time of preparation of this notification, final resolution of the retirement date for the Rush Island Energy

- 1 • Retirement of Venice Energy Center by the end of 2029.
- 2 • Delay in the retirement of Sioux Energy Center by two years from 2028
- 3 to 2030.
- 4 • Addition of 1,200 MW of natural gas-fired combined cycle ("NGCC")
- 5 generation in 2031, with plans to switch to hydrogen fuel and/or
- 6 blend hydrogen fuel with natural gas and install carbon capture
- 7 technology by 2040.
- 8 • Changes in the timing of wind and solar additions, still resulting in total
- 9 renewable generation additions of 5,400 MW.²
- 10 • Addition of 800 MW of battery storage resources.
- 11 • Retirement of the remaining Illinois CTGs by the end of 2039 – Goose
- 12 Creek, Raccoon Creek, Pinckneyville, and Kinmundy Energy Centers.
- 13 • Increase from 800 MW to 1,200 MW of clean dispatchable resources
- 14 in 2043.

15 Q. Did Staff raise any concerns with Ameren Missouri's 2020 triennial
16 compliance filing?

17 A. Yes. One of the concerns Staff raised was the risk potentially borne by ratepayers
18 from Ameren Missouri's unprecedented shift toward new renewable wind and solar generation.
19 Staff's concern was one of a general nature. However Staff recommended that Ameren
20 Missouri provide detailed analysis comparing ratepayer risks and shareholder risks for
21 additional generation resources which are not required to meet federal, state, or
22 MISO requirements.

Center had not been reached. Changes in the retirement date are expected to have no material impact on other resource decisions represented in the updated Preferred Resource Plan.

² Includes 700 MW of wind generation resources added in 2020 and 2021.

1 **Ameren Additional Analysis of Ratepayer and Shareholder risk**

2 Q. Did Ameren Missouri provide the analysis recommended by Staff?

3 A. Yes. On August 18, 2021, the Commission issued its *Order Regarding*
4 *2020 Integrated Resource Plan* (“Order”). In its Order, the Commission ordered Ameren
5 Missouri to provide the detailed analysis requested by Staff as part of its next IRP annual
6 update. However, Ameren Missouri requested additional time to complete and provide the
7 analysis. In its *Order Extending Time for Ameren Missouri to Provide Additional Analysis*,
8 the Commission allowed Ameren Missouri until December 15, 2021, to provide the analysis.
9 On December 15, 2021, Ameren Missouri filed the analysis in Case No. EO-2021-0021.

10 Q. What approach did Ameren Missouri use in its analysis?

11 A. Ameren Missouri included discussion of certain risks and the potential
12 mitigation provided by the planned renewable transition from its preferred resource plan
13 submitted as part of its 2020 triennial compliance filing, which primarily draws from discussion
14 previously included in the 2020 triennial compliance filing.

15 Q. Did Ameren Missouri’s additional analysis alleviate Staff’s concern from the
16 2020 triennial compliance filing?

17 A. No. Ameren Missouri’s additional analysis mostly reiterated discussion from
18 its 2020 triennial compliance filing and attempted to further support its planned renewable
19 transition and the risks of not implementing that plan.

20 Q. Is there anything that raised further concern for Staff from Ameren Missouri’s
21 additional analysis?

22 A. There are a number of things that raised further concern from Ameren Missouri’s
23 additional analysis. They are summarized as follows:

- 1 • Ameren Missouri states, “The risk mitigation provided by the planned
2 sustained transition could not be provided by a plan that reflects
3 deployment of new renewable only when new capacity is expected to
4 be needed, which the IRP preferred plan estimates would not occur
5 until more than 15 years from now.” Staff does not recall the 2020
6 triennial compliance filing explicitly stating that the renewable
7 transition was needed even though new capacity was not needed for
8 **15 years**. Stating the obvious, that will be a very large amount of
9 additional costs that ratepayers will pay through base rates prior to there
10 even being a need for additional capacity. Not to mention, that the
11 additional renewable capacity will not cause any decrease in the output
12 from already existing facilities.
- 13 • Ameren Missouri states, “... it is important to note that analyses of the
14 kind presented here must be considered as a snapshot in time and are
15 intended to be representative of a reasonable approach to assessing risk.
16 It is possible, and perhaps likely, that changing conditions could
17 significantly alter the results and conclusions presented here. This is the
18 nature of all planning, including IRP. As a result, it may be necessary to
19 revisit this assessment at appropriate times.” As Ameren Missouri itself
20 acknowledges, the 2020 triennial compliance filing should be
21 considered as a snapshot in time and that it is even likely that changing
22 conditions could significantly alter the results and conclusions presented
23 therein. Based on Ameren’s own assessment here, it does not seem
24 appropriate for Ameren to rely on its preferred resource plan as the main
25 reason why a new facility should be built.
- 26 • Ameren Missouri uses the words “expected,” “likely,” “may,” and
27 “potential” often throughout its additional analysis filing, just as it often
28 does in its triennial compliance filings. Staff points this out since it
29 further the fact that Ameren Missouri’s preferred resource plan, or any
30 plan for that matter, is based on generic assumptions (solely made by

1 Ameren) which, as stated above, Ameren Missouri itself acknowledges
2 will likely change. It is also important to note that the build or
3 acquisition of any renewable resource has a real cost to ratepayers, with
4 only a perceived, or yet to be determined, benefit that may never be
5 realized. Conversely, that same renewable build or acquisition provides
6 shareholders with a real benefit: a return of and on the investment.

7 Q. The above discussion is based on Ameren Missouri's 2020 triennial compliance
8 filing. Is any of it still relevant now that Ameren Missouri has since filed its Updated Preferred
9 Resource Plan?

10 A. Yes. Ameren Missouri's Updated Preferred Resource Plan builds off of its
11 preferred resource plan from the 2020 triennial compliance filing and further proves again
12 what Ameren Missouri previously acknowledged: that preferred resource plans often, if not
13 always, change.

14 **Integrated Resource Analysis**

15 Q. You have mentioned a few times now the preferred resource plan changing. Of
16 what significance is that?

17 A. Speaking from firsthand experience, during the time I have been involved in the
18 integrated resource planning ("IRP") process for all Missouri electric utilities, I do not recall a
19 triennial compliance filing where the preferred resource plan has not changed from the prior
20 triennial compliance filing. In fact, for certain electric utilities, we often see preferred resource
21 plans change annually. This is important to note since, for example, in Ameren Missouri
22 witness Mr. Arora's direct testimony³ in this Certificate of Convenience and Necessity ("CCN")
23 proceeding, Boomtown is needed as **part** of Ameren Missouri's renewable transition plan. I

³ Ajay K. Arora direct testimony, pg. 27, Case No. EA-2022-0245

1 emphasize “part,” since it is my understanding that Boomtown alone does not meet a real
2 capacity need for Ameren Missouri. Instead, “...assuming each renewable energy project by
3 2030 has an average size of 200 MW, the Company needs approximately 14 new renewable
4 energy projects to replace the retirement of three retiring coal-fired energy centers as well as
5 the gas-fired generation. By 2040, the Company may need up to an additional 16 new projects
6 to replace all 5,400 MW of existing coal-fired generation capacity and 1,800 MW of gas-fired
7 generation capacity that will retire between now and then.”⁴ Assuming the Commission
8 approves Boomtown, and also assuming Ameren Missouri’s preferred resource plan changes at
9 least every three years as it historically has, if in any of those preferred resource plan changes
10 determines any or all of those 30 projects are no longer needed due to any number of reasons,
11 Boomtown will be in base rates being recovered by ratepayers for a renewable facility that is
12 not meeting a capacity need and providing limited, if any, benefits to those ratepayers.

13 Q. As a part of Ameren Missouri’s Updated Preferred Resource Plan, was there any
14 non-renewable resources included?

15 A. Yes, the addition of a 1,200 MW natural gas-fired combined cycle plant in 2031
16 was included.

17 Q. Is there any other dispatchable⁵ resources included in the Company’s Updated
18 Preferred Resource Plan prior to the inclusion of this 1,200 MW natural gas-fired combined
19 cycle plant in 2031?

⁴ Ibid

⁵ A dispatchable source of electricity refers to an electrical power system, such as a power plant, that can be turned on or off; in other words they can adjust their power output supplied to the electrical grid on demand.

1 A. No. All new additional resources prior to the addition of the combined cycle
2 plant in 2031 are non-dispatchable⁶ resources.

3 Q. The Updated Preferred Resource Plan still shows a need for a natural gas-fired
4 combined cycle plant during the 20-year planning horizon even with the addition of 5,400 MW
5 of renewable generation?

6 A. Yes. Even after the planned addition of 3,500 MW of renewables being added
7 by 2031, and another 1,900 MW added from 2031 and beyond, the addition of a 1,200 MW
8 natural gas-fired combined cycle plant is still expected to be needed in 2031.

9 Q. Is the need for the natural gas-fired combined cycle plant new to an Ameren
10 Missouri preferred resource plan?

11 A. No. As far back as Ameren Missouri's preferred resource plan in Case No.
12 EO-2011-0271, filed on February 23, 2011, there has been a projected need for a natural
13 gas-fired combined cycle plant around 2031. In this case, Case No. EO-2011-0271, there was
14 a projected need for a 600 MW natural gas-fired combined cycle plant in 2029. However, in its
15 Updated Preferred Resource Plan, there is now a projected need for a 1,200 MW natural
16 gas-fired combined cycle plant in 2031.

17 Q. So there has been a known projected need for a natural gas-fired combined cycle
18 plant since 2011?

19 A. Yes, since at least 2011. But now, the size of that plant has not only doubled, it
20 is now in combination with 5,400 MW of projected need from renewable resources as well.

⁶ Solar and wind power are non-dispatchable sources, since you cannot get electricity from them when their inputs are unavailable.

1 Q. Has Ameren Missouri modeled a plan that either only includes a natural
2 gas-fired combined cycle plant at an earlier date, for example, prior to 2031, or a plan that
3 includes a natural gas-fired combined cycle plant prior to 2031 with renewable additions after
4 since it has continuously planned to need a natural gas-fired combined cycle plant?

5 A. Not to my knowledge.

6 Q. In this proceeding, Case No. EA-2022-0245, the Company seems to be putting
7 a great deal of emphasis on its IRP process to justify the Boomtown project. Should the results
8 of the IRP be construed as justification for the necessity of an individual project?

9 A. No. The IRP is a modeling exercise partially formalized by the
10 Commission's Chapter 22 rules. The rule provides loose guidelines and objectives, but
11 the process should not be the sole or primary basis for the "necessity" of a given
12 project. The Commission's Chapter 22 rules acknowledge this within the policy objectives
13 of the rule by stating:

14 (1) **The commission's policy goal in promulgating this**
15 **chapter is to set minimum standards to govern the scope and**
16 **objectives of the resource planning process** that is required of electric
17 utilities subject to its jurisdiction in order to ensure that the public interest
18 is adequately served. **Compliance with these rules shall not be**
19 **construed to result in commission approval of the utility's resource**
20 **plans, resource acquisition strategies, or investment decisions.**^[1]
21 **[Emphasis added.]**

22 The results of the IRP are based upon assumptions made by employees of the subject
23 utility. As an investor-owned utility, Ameren Missouri is financially incentivized to build rate
24 base in order to increase returns to shareholders. The IRP results typically align with the
25 business plan of the subject utility. While the IRP does include certain "touch-points" for

^[1] 4 CSR 4240-22.010.

1 stakeholders to communicate with the subject utility, there is very little, if any, recourse for
2 disputing the assumptions utilized, the results of the IRP analyses, and the selected preferred
3 resource plans. This is further supported by the fact that the proposed joint resolutions for most
4 IRP compliance filings is to attempt to address issues raised by specific parties in future filings.
5 During periods of time when the IRP indicates that major decisions for additional generating
6 resources are several years in the future, this type of resolution is a reasonable approach given
7 the fact that nearly all parties acknowledge that circumstances will almost certainly change by
8 the time the next triennial compliance filing is expected. However, recently Missouri electric
9 utilities are increasingly relying upon the results of the IRP analyses to justify near-term
10 investments and the added emphasis on additional renewable generation resources in the near
11 term based upon ratepayer needs that do not present themselves until years into the future.

12 Q. Does this mean that information derived from the IRP process is unusable from
13 a regulatory perspective?

14 A. No, but the clear delineation lies in the details surrounding a given IRP analysis
15 and the details of a given project subject to the CCN application. IRPs are based on
16 generalizations and typically do not account for locational specifics and systematic condition
17 changes that would be expected from the addition of a specific generating asset. Because IRPs
18 are looking at potential generation and retirements that may not occur for decades, the use of
19 these generalities is reasonable for the purpose of modeling the impacts of long term planning.
20 The analyses are based upon projections, estimates, and assumptions, most of which are
21 unlikely to be accurate during the course of the useful lives of assets.

22 Q. Why is discussion regarding the IRP process, the underlying assumptions, and
23 the financial incentives of the utility relevant to the discussion of CCN cases?

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Brad J. Fortson

1 A. The most significant reason that these facts are especially relevant is the recent
2 practice of Missouri electric utilities' reliance on the results of the IRP analyses to justify large
3 rate base additions prior to demonstrating that the additions are necessary to continue to serve
4 their respective ratepayers physical electric needs.

5 Q. Does this conclude your rebuttal testimony?

6 A. Yes.

Brad J. Fortson

Education and Employment Background

I am the Regulatory Compliance Manager of the Energy Resources Department, Industry Analysis Division of the Missouri Public Service Commission. Prior to my current position, I was employed at the Missouri Public Service Commission as a Regulatory Economist from December 2012 through March 2015 and August 2015 through February 2019.

I received an Associate of Applied Science degree in Computer Science in May 2003, Bachelor of Science degree in Business Administration in May 2009, and Master of Business Administration degree with an emphasis in Management in May 2012, all from Lincoln University, Jefferson City, Missouri.

Prior to first joining the Commission, I worked in various accounting positions within four state agencies of the State of Missouri. I was employed as an Account Clerk II for the Inmate Finance Section of the Missouri Department of Corrections; as an Account Clerk II for the Accounts Payable Section of the Missouri Department of Health and Senior Services; as a Contributions Specialist for the Employer Accounts Section of the Missouri Department of Labor and Industrial Relations; and as an Accountant I for the Payroll Section of the Missouri Office of Administration. From April 1 through July 31, 2015, I worked for the Missouri Office of Public Counsel before joining the Commission once again.

Brad J. Fortson

Case Participation History

Case Number	Company	Issue	Exhibit
HR-2014-0066	Veolia Energy Kansas City	Revenue by Class and Rate Design	Staff Report
GR-2014-0086	Summit Natural Gas of Missouri, Inc.	Large Volume Service Revenue	Staff Report
ER-2014-0258	Union Electric Company d/b/a Ameren Missouri	Revenue by Class and Rate Design	Staff Report
ER-2014-0258	Union Electric Company d/b/a Ameren Missouri	Revenue by Class and Rate Design	Staff Report, Rebuttal & Surrebuttal Testimony
ER-2014-0351	The Empire District Electric Company	Revenue by Class and Rate Design	Staff Report & Rebuttal Testimony
ER-2014-0351	The Empire District Electric Company	Revenue by Class and Rate Design	Rebuttal Testimony
EO-2015-0240	Kansas City Power & Light Company	Custom Program Incentive Level	Direct Testimony
EO-2015-0241	KCP&L Greater Missouri Operations Company	Custom Program Incentive Level	Direct Testimony
ER-2016-0023	The Empire District Electric Company	DSM Programs and MEEIA Filings	Staff Report
ER-2016-0023	The Empire District Electric Company	DSM Programs and MEEIA Filings	Staff Report, Rebuttal & Surrebuttal Testimony
EM-2016-0213	The Empire District Electric Company (merger case)	DSM Programs and MEEIA Filings	Rebuttal & Surrebuttal Testimony
ER-2016-0156	KCP&L Greater Missouri Operations Company	MEEIA summary and LED street lighting	Staff Report
EO-2016-0183	Kansas City Power & Light Company	MEEIA prudence review	Staff Report
EO-2016-0223	The Empire District Electric Company	Triennial compliance filing	Staff Report
ER-2016-0285	Kansas City Power & Light Company	LED street lighting	Staff Report
ER-2016-0179	Union Electric Company d/b/a Ameren Missouri	LED street lighting	Staff Report
ER-2016-0285	Kansas City Power & Light Company	Response to Commissioner questions	Staff Report
ER-2016-0179	Union Electric Company d/b/a Ameren Missouri	Response to Commissioner questions	Staff Report
EO-2017-0209	Kansas City Power & Light Company	MEEIA prudence review	Staff Report
EO-2017-0210	KCP&L Greater Missouri Operations Company	MEEIA prudence review	Staff Report
EO-2015-0055	Union Electric Company d/b/a Ameren Missouri	Flex pay pilot program	Rebuttal Testimony
GR-2018-0013	Liberty Utilities (Midstates Natural Gas) Corp. d/b/a Liberty Utilities	Red Tag Program and Energy Efficiency Program Funding	Staff Report, Rebuttal & Surrebuttal Testimony
ER-2018-0145	Kansas City Power & Light Company	LED street lighting, TOU rates	Rebuttal Testimony
ER-2018-0146	KCP&L Greater Missouri Operations Company	LED street lighting, TOU rates	Rebuttal Testimony
EO-2018-0211	Union Electric Company d/b/a Ameren Missouri	Program Design	Rebuttal Report & Surrebuttal Testimony
EO-2019-0132	Kansas City Power & Light Company	Program Design	Rebuttal Report & Surrebuttal Testimony
EO-2019-0376	Union Electric Company d/b/a Ameren Missouri	MEEIA prudence review	Direct Testimony
ER-2019-0374	The Empire District Electric Company	Hedging policy and EE/LI programs	Supplemental Testimony
EO-2020-0280	Evergy Metro	IRP Annual Update	Staff Report
EO-2020-0281	Evergy Missouri West	IRP Annual Update	Staff Report
ER-2020-0311	The Empire District Electric Company	Fuel Adjustment Clause	Rebuttal Testimony
EO-2020-0227	Evergy Metro and Evergy Missouri West	MEEIA prudence review	Direct Testimony
EO-2020-0262	Evergy Metro and Evergy Missouri West	FAC prudence review	Direct & Rebuttal Testimony
EO-2021-0021	Union Electric Company d/b/a Ameren Missouri	Triennial compliance filing	Staff Report
EO-2021-0035	Evergy Metro	Triennial compliance filing	Staff Report
EO-2021-0036	Evergy Missouri West	Triennial compliance filing	Staff Report
EO-2021-0416	Evergy Missouri West	MEEIA prudence review	Staff Report
EO-2021-0417	Evergy Metro	MEEIA prudence review	Staff Report
EO-2022-0061	Evergy Missouri West	Application for Special Rate	Rebuttal Testimony
EO-2022-0064	Evergy Missouri Metro	FAC prudence review	Direct Testimony
EO-2022-0065	Evergy Missouri West	FAC prudence review	Direct Testimony
EO-2022-0040	The Empire District Electric Company	Securitization	Rebuttal Testimony
EF-2022-0155	Evergy Missouri West	Securitization	Rebuttal & Surrebuttal Testimony
ER-2022-0129	Evergy Missouri Metro	FAC	Direct & Surrebuttal Testimony
ER-2022-0130	Evergy Missouri West	FAC	Direct & Surrebuttal Testimony