

Missouri Public Service Commission  
Case No. EO-2024-0020  
Sierra Club Exhibit SC-1

**SC-1**

**Public Company Responses to Data Requests**

---

Ameren Response to Sierra Club Request SC 1-3, Att. SC 1-3 m-n-o.xlsx  
Ameren Response to Sierra Club Request SC 1-5, Att. SC 1-5 Tax Credits.xlsx

Ameren Response to Sierra Club Request SC 3-1

Ameren Response to NRDC Request 1-18, Att. NRDC 1-18 Chp. 10 Capacity Position Winter.xlsx,  
"PRP - MISO RA View" Tab

Plant	Unit	Year	(M)	(N)	(O)
			WFOR	WEPOR	WEAF
Labadie	Labadie 1	2018	3.54	2.95	91.24
Labadie	Labadie 1	2019	0.66	25.82	71.05
Labadie	Labadie 1	2020	2.49	0.81	93.64
Labadie	Labadie 1	2021	2.88	2.31	88.86
Labadie	Labadie 1	2022	3.8	7.89	87.59
Labadie	Labadie 1	YTD OCT2023	4.17	1.45	93.16
Labadie	Labadie 2	2018	2.84	2.03	90.14
Labadie	Labadie 2	2019	3.29	25.89	65.97
Labadie	Labadie 2	2020	2.74	0.12	95.48
Labadie	Labadie 2	2021	4.95	2.35	92.46
Labadie	Labadie 2	2022	8.94	9.31	82.18
Labadie	Labadie 2	YTD OCT2023	2.54	0	96.63
Labadie	Labadie 3	2018	4.58	33.38	60.73
Labadie	Labadie 3	2019	1.09	0.68	94.38
Labadie	Labadie 3	2020	4.36	0.18	90.43
Labadie	Labadie 3	2021	8.07	5.39	85.7
Labadie	Labadie 3	2022	4.61	0.38	93.93
Labadie	Labadie 3	YTD OCT2023	6	1.83	89.33
Labadie	Labadie 4	2018	2.83	0.47	92.42
Labadie	Labadie 4	2019	5.81	1.19	86.75
Labadie	Labadie 4	2020	9.56	0	86.02
Labadie	Labadie 4	2021	7.23	7.5	84.89
Labadie	Labadie 4	2022	6.77	2.52	88.03
Labadie	Labadie 4	YTD OCT2023	10.19	8.72	79
Meramec	Meramec 3	2018	38.5	29.93	60.56
Meramec	Meramec 3	2019	80.3	82.3	39.35
Meramec	Meramec 3	2020	86.59	0	69.96
Meramec	Meramec 3	2021	50.12	11.67	75.42
Meramec	Meramec 3	2022	52.71	0	91.47
Meramec	Meramec 4	2018	14.3	42.99	56.17
Meramec	Meramec 4	2019	13	12.65	67.92
Meramec	Meramec 4	2020	44.52	39.8	76.84
Meramec	Meramec 4	2021	17.54	61.28	58.49
Meramec	Meramec 4	2022	3.58	83.08	65.79
Rush Island	Rush Island 1	2018	7.6	24.68	68.75
Rush Island	Rush Island 1	2019	8.51	0	90.82
Rush Island	Rush Island 1	2020	5.39	8.52	85.24
Rush Island	Rush Island 1	2021	2.77	8.6	83.5
Rush Island	Rush Island 1	2022	4.49	0	91.09
Rush Island	Rush Island 1	YTD OCT2023	4.95	0	94.39
Rush Island	Rush Island 2	2018	1.32	5.29	91.86
Rush Island	Rush Island 2	2019	9.06	0	88.91
Rush Island	Rush Island 2	2020	3.1	6.57	88.91
Rush Island	Rush Island 2	2021	5.7	0	87.19
Rush Island	Rush Island 2	2022	5.99	0	93.12

Rush Island	Rush Island 2	YTD OCT2023	17.33	0	97.28
Sioux	Sioux 1	2018	17.53	0.55	81.59
Sioux	Sioux 1	2019	10.82	0.06	85.24
Sioux	Sioux 1	2020	10.03	32.44	69.34
Sioux	Sioux 1	2021	13.83	11.28	70.52
Sioux	Sioux 1	2022	10.05	17.47	74.74
Sioux	Sioux 1	YTD OCT2023	17.92	0	78.98
Sioux	Sioux 2	2018	4.33	0.44	92.59
Sioux	Sioux 2	2019	46.14	0.22	55.4
Sioux	Sioux 2	2020	6.49	11.9	86.43
Sioux	Sioux 2	2021	2.43	21.69	76.85
Sioux	Sioux 2	2022	5.41	0	88.34
Sioux	Sioux 2	YTD OCT2023	9.37	0	83.77

Ameren Missouri  
Case Name: EO-2024-0020  
Docket No(s): 2023 IRP

Response to Discovery Request: SIERRA-SIERRA 1-5  
Date of Response: 12/11/2023  
Witness: N/A

Question:Please provide all cost forecasts, in Excel format where possible, of new supply-side resource builds, including capital and O&M costs, and the source for the costs provided, any calculations or processing of those sources' costs used prior to modeling, the supporting analyses and/or documentation for any adjustments made to the primary sources of these forecasts, and federal tax credit assumptions applied in each year for each relevant resource for:

- a. Solar PV
- b. Battery Storage
- c. Wind
- d. Gas CC
- e. Gas CT
- f. Any other new supply-side resources modeled

Response:

**Prepared By: S. Hande Berk**  
**Title: Manager, Electric Resource Planning**  
**Date: 11/21/2023**

NREL 2022 ATB, EIA, Roland Berger, Lazard and EPRI data have been used along with Ameren Missouri subject matter experts' input. All cost information for solar, battery and pumped storage, wind, gas CC with and without CCS, gas CT and nuclear SMR have been provided in tables in Chapter 6 of the 2023 IRP filing-File No. EO-2024-0020. All calculations and assumptions are also provided in the workpapers; please see file:

IRP 2023\22.040 Supply-Side Analysis\Cost Assumptions\_Confidential.xlsx

Source files from the sources mentioned above are also provided in folder:  
IRP 2023\22.040 Supply-Side Analysis\External Data

No variable O&M cost is assumed for solar, wind and battery storage resources. For the remaining resources, variable O&M in the file mentioned above includes \$/MWh cost; for total variable O&M from dispatch model, please see Powersimm files for the resource in question in folder:

IRP 2023\22.060 Integrated Resource Plan\1-Integration\RevReq\Powersimm

Please see attached file SC 1-5 Tax Credits.xlsx for the federal tax credit assumptions.



Ameren Missouri  
Case Name: EO-2024-0020  
Docket No(s): 2023 IRP

Response to Discovery Request: SIERRA 3-SIERRA 3-1  
Date of Response: 2/1/2024  
Witness: N/A

- Question: 3.1. Refer to Chapter 5, page 2 regarding the Mercury and Air Toxics Standards (MATS) rule. a. Please describe what controls or strategies could be used for compliance with the proposed MATS rule, and provide the capital and annual operating costs of these controls and/or strategies--specifying the associated costs for each coal unit.
- b. Please provide the most recent estimates of capital and annual operating costs of baghouses (i.e. fabric filters) at each Labadie unit and Sioux unit.
- c. Please provide the most recent estimates of capital and annual operating costs of new electrostatic precipitators (ESPs) at each Labadie unit and Sioux unit.
- d. Please provide the most recent estimates of capital and operating costs of any other potential particulate matter (PM) controls at each Labadie unit and Sioux unit.
- e. Please provide any supporting analyses used by the Company to determine means of compliance with the proposed MATS rule.
- f. Does the IRP modeling assume that no new PM controls will be installed on any coal unit in any scenario? i. If not, please explain any exceptions.

Response:

**Prepared By: Craig Giesmann**  
**Title: Director, Environmental Services**  
**Date: January 30, 2024**

- a. We will not know what strategies can be used for compliance until the PM limits are set. The Company is still expecting to use site averaging for Labadie. While a WFGD is not a primary PM control device, the Company expects the Sioux WFGDs to control PM for most scenarios in the proposed MATS amendment. Detailed analyses and cost projections have not and will not be created until rules have been promulgated by the Agency.
- b. The Company doesn't have recent cost estimates for baghouses at its Labadie and Sioux units.
- c. The Company doesn't have recent cost estimates for new ESPs at its Labadie and Sioux units.
- d. The Company doesn't have cost estimates for any other PM controls at its Labadie and Sioux units.
- e. The Company has not yet performed any in-depth analyses to determine the means of compliance with the proposed MATS rule primarily since the final PM limits have not

yet been published.

f. The IRP doesn't assume any new PM controls installed.

Ameren Missouri  
Case Name: EO-2024-0020  
Docket No(s): 2023 IRP

Response to Discovery Request: NRDC-NRDC 1.18  
Date of Response: 12/19/2023  
Witness: N/A

Question: Please refer to Chapter 10 Strategy Selection, Figure 10.10 at page 29 and Figure 10.11 at page 30. Please provide the supporting workbook, with all formulas and links intact, used to develop Figure 10.10 and Figure 10.11.

Response:

**Prepared By: S. Hande Berk**  
**Title: Manager, Electric Resource Planning**  
**Date: 12/14/2023**

Please see file attached:  
NRDC 1.18 Chp 10 Capacity Position-Winter.xlsx







### Winter Capacity Position - MISO RA View (MW)

