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Exhibit No. 1

Ameren – Exhibit 1 Warren Wood Direct Testimony File No. ER-2022-0337

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MISSOURI PUBLIC SERVICE COMMISSION

FILE NO. ER-2022-0337

DIRECT TESTIMONY

OF

WARREN WOOD

ON

BEHALF OF

UNION ELECTRIC COMPANY

D/B/A AMEREN MISSOURI

St. Louis, Missouri

August, 2022

TABLE OF CONTENTS

I.	INTRODUCTION	. 1
II.	SUMMARY OF AMEREN MISSOURI'S FILING	3
III.	SMART ENERGY PLAN	. 7
IV.	CUSTOMER IMPACT	16
V.	WITNESS RESPONSIBILITIES	23

DIRECT TESTIMONY

OF

WARREN WOOD

FILE NO. ER-2022-0337

1		I. INTRODUCTION	
2	Q.	Please state your name and business address.	
3	А.	My name is Warren Wood and my business address is One Ameren Plaza,	
4	1901 Choute	au Avenue, St. Louis, Missouri 63103.	
5	Q.	By whom are you employed and in what capacity?	
6	А.	I am employed by Union Electric Company d/b/a Ameren Missouri	
7	("Ameren Missouri" or "Company") as Vice President, Legislative and Regulatory Affairs		
8	Q.	Please describe your duties and responsibilities as Vice President,	
9	Legislative a	and Regulatory Affairs.	
10	А.	I oversee state legislative and regulatory policy development and	
11	compliance f	for the Company.	
12	Q.	Please describe your qualifications.	
13	А.	In December 1987, I received a Bachelor of Science degree in Civil	
14	Engineering	with honors from the University of Missouri at Columbia, Missouri. Upon	
15	graduation, I accepted employment with Black & Veatch and worked in the Energy and		
16	Environmental Divisions for a little over ten years.		
17	While at Black & Veatch, I designed a wide range of power generation and water		
18	treatment fac	cilities, acted as an engineering liaison between the design office and joint	
19	venture partn	er offices, developed specifications, drafted engineering drawings, designed	

mechanical equipment supports, and wrote customer computer programs to assist in
 solving many types of engineering problems. My work while at Black & Veatch focused
 on new and retrofit work on coal, combustion turbine, and nuclear power plant projects.

I worked for Questec Engineering in Columbia, Missouri in 1997 and 1998. While
at Questec, I was a project manager in charge of site development and completion of
numerous engineering projects for industrial, commercial, and residential customers.

7 I worked for the Missouri Public Service Commission ("Commission") for a little 8 over eight years. Initially, I was hired as a Regulatory Engineer in the Procurement 9 Analysis Department of the Commission. While working in the Procurement Analysis 10 Department, I investigated the natural gas purchasing practices of Missouri's natural gas 11 utilities and filed testimony in the procurement analysis and actual cost adjustment audit 12 cases. Later, I was employed as the Natural Gas Department Manager, promoted to the 13 newly created Energy Department Manager position, and was later promoted to Utility 14 Operations Division Director. As the Natural Gas Department Manager, I oversaw regular 15 tariff filings at the Commission of the natural gas utilities in the state, the Commission's 16 activities in interstate natural gas pipeline cases at the Federal Energy Regulatory 17 Commission, and the activities of the Commission's natural gas safety section. As the 18 Energy Department Manager, I oversaw the activities of the natural gas department 19 sections listed above in addition to the activities of the engineering and economic analysis 20 sections, which dealt primarily with electric utilities in the state. As the Utility Operations 21 Division Director, I oversaw the day-to-day activities of the Operations Division, regularly 22 participated in Commission policy development efforts, participated in discussions and

gave presentations to stakeholder groups and legislative committees, conducted
 roundtables, and facilitated rulemaking workshops.

While at the Commission and now with Ameren Missouri, I have filed testimony in multiple cases. I was employed by the Missouri Public Utility Alliance in 2007 and later employed as President of the Missouri Energy Development Association ("MEDA"). I left MEDA in 2010 to work for Ameren Missouri as Vice President, Legislative and Regulatory Affairs. I have held this position since 2010.

8

Q. What is the purpose of your direct testimony in this proceeding?

A. The purpose of my testimony is to provide a summary of the Company's filing to increase its rates for electric service, outline the main drivers of the filing and why an increase is necessary to establish just and reasonable rates, to report on the progress Ameren Missouri is making in implementing its Smart Energy Plan ("SEP"), our efforts to assist customers facing financial challenges, and to discuss the status of an important Company initiative to support customer affordability.

15

II. SUMMARY OF AMEREN MISSOURI'S FILING

Q. Can you summarize Ameren Missouri's filing and the main drivers of
this case?

A. As is set forth in detail in the direct testimony of Company witness Mitchell Lansford, the Company has filed tariffs that reflect an increase of approximately \$316 million or around 11.6% in its overall revenue requirement. This amount reflects significant capital investments in our system as part of our SEP, changes in net base energy costs, changes in depreciation rates, and an increase in the cost of capital to reflect current and expected economic conditions.

1 Ameren Missouri's SEP investments are designed to maintain and improve the 2 reliability and resiliency of our system and to also provide customers additional 3 convenience, choice, and control over the way they use energy and, ultimately, in how that 4 energy usage impacts their total electric bill. These investments have been successful in 5 addressing numerous aging grid assets and specific reliability concerns in certain areas of 6 our system, for the benefit of all of the Company's customers. Specifically on individual 7 circuits where distribution automation switches and associated circuit upgrades were 8 installed, over 25,000 extended customer outages were avoided across four different storm 9 events from July 2021 through December 2021. Additionally, in two storm events so far in 10 2022, an additional 14,000 extended customer outages have been avoided as a result of 11 these upgrades.

12 The Company's combined Net Base Energy Costs and Renewable Energy Standard 13 Rate Adjustment Mechanism costs have increased around \$25 million, due to changes in 14 forecasted operations at the Rush Island generating facility partially offset by higher energy 15 market prices applicable to the Company's off-system sales revenues.

In addition, consistent with our Change in Preferred Resource Plan filed in June of 2022,¹ this revenue requirement also sets depreciation rates for our Sioux coal generation facility using its extended retirement date of 2030 (from 2028) so that the depreciation rates align with the change in planned retirement date. Specifics related to the calculated retirement rate analyses can be found in the direct testimony and depreciation study sponsored by Company witness John Spanos.

¹ File No. EO-2022-0362.

1 As is true for many in the current economic environment, Ameren Missouri's cost 2 of capital is increasing. Cost of equity is addressed in the direct testimony of Company 3 witness Ann Bulkley, who recommends a higher range than she had in the Company's 4 previous case due to changes in economic conditions. Witness. Bulkley's recommended 5 range is from 9.9% to 11.25%. Ameren Missouri is requesting that it's cost of equity be set 6 in the lower part of the recommended range, at 10.2%. The Company's cost of debt and 7 overall weighted average cost of capital recommendation (7.186%) are set forth in 8 Company witness Darryl Sagel's direct testimony.

9

Q. What is the Company proposing in this case with respect to rate design. 10 tariff issues, and customer programs?

11 A. As the Commission is aware, modernization of our residential rate offerings 12 was a major theme in our 2019 electric general rate proceeding.² In that case, we introduced 13 innovative new time of use ("TOU") rate offerings for residential customers, along with a 14 robust plan to provide customers with education and information regarding TOU rates. The 15 Company has developed digital tools that are enabled by our deployment of Automated 16 Metering Infrastructure ("AMI") to empower customers to take more control of their 17 energy usage and bills. Customers have more information at their fingertips and can compare the impacts of various rate options on their households. The greater level of choice 18 19 and control we are providing to customers with our TOU rate options is reflected in this 20 filing as well, with a continuation of our TOU rate plans to encourage customers to make 21 changes to their usage that provide benefits to the system, including helping to integrate 22 the higher level of renewable generation reflected in our Integrated Resource Plan ("IRP").

² File No. ER-2019-0335.

1 Company witness Steven Wills further discusses this dynamic in his direct testimony and 2 provides an update on the TOU rollout and on the adoption of TOU rates by the Company's 3 residential customers.

4 As witness Wills explains, Ameren Missouri also requests a two-way tracker 5 related to revenue changes that may arise from residential customer rate switching. This 6 tracker helps ensure that customers' adoption of new rates that better reflect cost and match 7 their lifestyle does not undermine the Company's opportunity to collect the revenue 8 requirement established by the Commission between rate filings. This tracker is an 9 important policy tool to align the incentives of the Company with its customers to help 10 them find the most attractive rate, and its approval is a critical element in a successful long-11 term transition to modern rate designs.

12

13

Q.

Is the Company addressing, as it committed to do in File No. EO-2022-0215, the prudence of its decisions respecting the Rush Island Energy Center?

14 A. Yes. The Company is providing direct testimony related to the planned 15 closure of the Rush Island Energy Center to explain how its "decisions resulting in the present circumstances were prudent."³ The direct testimony of Company witness Mark 16 17 Birk contains a description of the events involved that led to the decision to retire Rush 18 Island. Two external witnesses for the Company, Karl Moor and Jeff Holmstead, testify as 19 to what was known or should have been known by the Company at that time and why the 20 Company's decisions were reasonable at that time. Witness Moor testifies from the point 21 of view of someone who has experience making the very types of decisions that Ameren

³ File No. EO-2022-0215, Staff's Initial Investigation Report, April 15, 2022, ¶22.

О.

Missouri was faced with making while witness Holmstead provides the prospective of a
 former environmental regulator.

3

III. SMART ENERGY PLAN

Earlier you mentioned that Ameren Missouri was making progress on

4

5

its SEP. Can you describe that undertaking?

6 A. The SEP stems from Senate Bill 564 ("SB 564"), which became law in 7 August of 2018. This law allows Ameren Missouri to use Plant-in-Service Accounting 8 ("PISA") to offset a portion of the negative lag associated with utility capital investments. 9 At the same time, the law requires the Company to limit the growth of its rates to a compound annual growth rate of two and eighty-five hundredths percent.⁴ The negative 10 11 lag inherent in capital investments created a disincentive to invest in the Company's system 12 at the level that electric utilities needed to in order to address infrastructure which has aged 13 beyond its expected engineered life, experiencing performance issues, or is in such a 14 condition that elevates the risk of future performance issues as well as accelerating 15 modernization of the grid for the benefit of its customers. Reducing that disincentive has 16 allowed Ameren Missouri to increase investment in its distribution system and other plant 17 with the goal of maintaining and improving system reliability, resiliency, and security.

In the Spring of 2022, the Missouri legislature amended this statute and extended the use of PISA through 2028, with the Commission having the option to extend it further (through 2033) upon a request by the utility.⁵ Governor Michael Parson signed the legislation amending the statute in late June of this year.

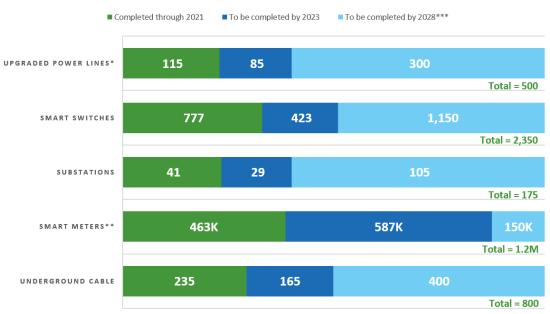
 ⁴ Section 393.1655.4. All rates, base and under riders, are included in the 2.85% compound annual growth rate limitation except those arising from Commission-approved demand-side management programs.
 ⁵ Senate Bill 745, effective August 28, 2022 (2022 Regular Missouri Legislative Session).

1Q.Can you provide some examples of investments that are part of the2Company's SEP?

3	A. These investments span the entirety of the Company's operations. As the
4	Commission is aware, Ameren Missouri and other participating utilities file a five-year
5	capital investment plan each February. Ameren Missouri's latest plans can be found in File
6	No. EO-2019-0044. Focusing on the distribution portion of the Company's business,
7	Ameren Missouri has tailored its investments to target several long-term goals, including:
8	• the installation of over 2,350 smart switches to improve system reliability,
9	• the upgrading of at least 500 power line miles and the use of stronger composite
10	poles to harden the system and to provide greater protection during bad weather,
11	• the upgrading of at least 800 miles of aged and deteriorating underground cable
12	with new cable in protective conduit,
13	• the construction of 175 new or upgraded substations to address aging infrastructure
14	and serve communities, and
15	• the installation of approximately 1.2 million smart meters to provide our customers
16	with more information and options.
17	Ameren Missouri believes it has made important strides in providing our customers
18	with a stronger, smarter, and more resilient and secure electric grid. Company witness Ryan
19	Arnold addresses the Company's distribution system investments in his direct testimony.

- 1 Figure 1 below illustrates the types of distribution investments the Company has
- 2 completed and those planned to be installed in the future.

Figure 1



SMART ENERGY PLAN LONG-TERM GOALS

* This refers to Ameren Missouri's subtransmission circuits.

** Does not include gas modules. All installations by 2024.

*** Long-term targets are estimates and contingent on funding levels.

3 These investments support the quality of service that we provide for our customers.

- 4 A few examples of the system improvements that have occurred since Ameren Missouri
- 5 implemented the SEP are set forth below:

North St. Louis County (System Hardening)



2 Ameren Missouri upgraded seven miles of aged overhead line that was in poor 3 condition and experiencing performance issues. The upgrades included new wood and 4 composite poles, modern standoff insulators, overhead conductors and static protection 5 wire. This investment will provide a strong circuit with fewer potential points of failure. 6 Over 1,400 families and businesses in North St. Louis will see fewer outages, including 7 those with the potential for large community impact like the St. Louis Lambert 8 International Airport, Federal Aviation Administration offices, the City of Bridgeton, and 9 St. Louis County Public Works.

10

Ralls County (Grid Resiliency)



Ameren Missouri upgraded an over 50-year-old and deteriorating substation with a transformer and smart switches on either side of the town which can serve all customers in the area in case there is a power supply outage on either side of town. This upgrade allows

- 1 for greater resiliency and will minimize outage times for the approximate 300 customers
- 2 in Center, Missouri.
- 3

St. Louis County (Smart Grid)



- Crews installed over 30 smart switches along with associated upgrades such as new, larger poles, in the cities of Eureka and Wildwood. This will reduce the frequency and duration of outages for the more than 12,500 customers in an area that has experienced frequent outages. In addition, these types of grid enhancements can reduce outage time up to 40%, meaning that even when there are outages, the duration of the outage will be almost half as long.
- 10

Downtown St. Louis (Underground Revitalization)



Our downtown underground electric system includes cables and conduits that are more than 100 years old and offer limited operational flexibility. Ameren Missouri has completed work to install 1,200 feet of new duct bank including three new manholes. This new conduit provides diverse circuit paths to customers in the area, minimizes the frequency and duration of outages, and prevents a potential catastrophic system event due to aged components prone to failure.

7

Randolph County (Grid Resiliency)



8 The Company upgraded a substation in Moberly and added a second transformer 9 to provide additional capacity to accommodate higher demand on the system in the area. 10 Additionally, line capacity was increased to alleviate load from a neighboring substation 11 and also to increase system flexibility and reliability for the around 3,800 residential and 12 business customers in the area.

Southeast Missouri (Grid Resiliency/System Hardening)

Since the passage of Senate Bill 564, one of Ameren Missouri's focus areas for
investments are those that will improve service reliability. The benefits are not, of course,
limited to the year the improvement is installed but rather continue throughout the life of
the investment.



2	As an example, the installation of a new storm hardened subtransmission line in
3	2020 performed as expected and demonstrates how these investments shorten storm outage
4	times for customers after a storm. On December 10, 2021, an EF-3 tornado directly hit this
5	line. The composite poles prevented a cascading collapse and failure of the line and allowed
6	crews to restore power to \sim 1,600 customers within less than 25 hours, half the time it would
7	have taken had the line not been hardened with stronger poles and wind deflecting T2 wire.
8	Approximately 400 additional customers in the area were restored faster due to the
9	Company's ability to reroute power through this line, illustrating how this investment can
10	reduce the time customers are without power by half.

Q. What are other examples of investments being made to improve service for customers?

A. Installation of an AMI system provides several service enhancements that
benefit customers. As the Commission is aware, Ameren Missouri has been installing AMI
meters at customer locations since July of 2020.

1



On June 30, 2022, Ameren Missouri crossed the halfway point of our commitment,
exactly two years to the day since we installed our first AMI meter. The Company is on
track to have all AMI meters installed by the end of 2025.

5 The AMI meters do much more than our previous meters were capable of doing 6 and will, especially over time, provide customers with many benefits. AMI meters enable 7 quicker restoration after outages and faster connection when moving or starting service. 8 They enable residential customers options to choose a rate that fits their lifestyle. The roll 9 out of AMI meters allows for broader participation and benefits from those options. Finally, 10 a significant benefit to all customers whether they enroll in a TOU rate or not, smart meters 11 allow for customers to understand and control their energy costs by providing customers 12 with more precise energy usage information to allow them to shift their energy usage and 13 potentially save on their bills. To date, we have enrolled more than 350,000 residential 14 customers on TOU rates.

Finally, it should be noted that of the SEP work contracted out externally, approximately 56% of the suppliers were Missouri-based companies. This effort resulted in over \$75 million dollars being spent with diverse venders and suppliers. This helps to 6

- 1 keep Ameren Missouri's investment in our state, helps with Missouri's overall employment
- 2 levels, and keeps the economic multiplier benefit of this spend within Missouri.
- Q. Is Ameren Missouri's Economic Development Incentive ("EDI") Rider
 a component of the Smart Energy Plan?
- 5 A. Yes, an important one.
 - Q. Please explain how the Company's EDI works.

A. The Company's EDI program is working as hoped by providing a powerful economic development tool that encourages investment and job creation in our service territory, while safeguarding other customers and benefitting the entire state of Missouri and its communities.

11 Q. How has the Company's EDI encouraged investment and job creation 12 so far?

A. Since the EDI program launched in 2019, Ameren Missouri has worked alongside state and local partners to help win an expected 4,500 new jobs and \$2.7 billion in capital investment in Missouri.⁶ The EDI program has helped drive jobs and investment in rural, urban, and suburban communities across Missouri. The improvements to and extension of the EDI program through Senate Bill 745 earlier this year will allow the Company to continue supporting growth and investment in Missouri and the communities we serve.

 $^{^{\}rm 6}$ These figures include customer who have already submitted EDI applications as well as those that have already indicated their plans to do so.

1	Q. Please provide examples of where the EDI program drove jobs and		
2	investment in rural, urban, and suburban Missouri communities.		
3	A. A rural example is Westerns Smokehouse, an agri-business food processing		
4	company in Kirksville, which has completed multiple expansions at their meat processing		
5	facility, bringing over 50 new jobs to the area. An example in an urban area is Deli Star,		
6	which established its new headquarters in downtown St. Louis - bringing 475 jobs and		
7	nearly \$100 million in capital investment. A suburban example is Gateway Studios in		
8	Chesterfield, which built a large entertainment production services and rehearsal facility,		
9	adding over 100 jobs and \$100 million in capital investment.		
10	IV. CUSTOMER IMPACT		
11	Q. Electric bills can be difficult for low-income customers in the best of		
12	circumstances. Does Ameren Missouri consider that impact when it requests a change		
13	in rates?		
14	A. Yes. We are aware of current economic conditions and know that we have		
15	customers facing very real financial challenges. Our best solution to this problem is to		
16	invest in a way that provides benefits for our customers and to assist certain customers in		
17			
	a variety of ways.		
18	a variety of ways. At the time of our previous rate review, many of our efforts were directed towards		
18 19			
	At the time of our previous rate review, many of our efforts were directed towards		
19	At the time of our previous rate review, many of our efforts were directed towards dealing with immediate customer needs during a pandemic. While COVID-19 is not gone		

on our updated Energy Assistance webpage,⁷ the menu of assistance options addresses past
due bills as well as ongoing/future assistance. Overall, in 2021, 107,099 households
received pledges through one or more programs for a total of \$27.7 million. From January
1, 2022 through June 30, 2022, 56,684 households received pledges totaling \$21.6 million.
Specifically, Ameren Missouri provides customers with the following assistance options:

6 Clean Slate: Ameren Missouri created the shareholder-funded Clean Slate Program 7 to help eligible customers clear past-due balances and get a "clean slate." Recognizing that 8 there are families struggling and in need of assistance who don't qualify for many of the 9 existing federal and state assistance programs, the Clean Slate Program helps to fill that 10 gap. We continue to expand the program in a way that helps customers. In 2021, customers 11 were required to pay 25% of past due balance to participate in the Program, and assistance 12 was limited to \$1,000 per household. In 2022, the threshold for participation was reduced 13 to require only 10% of past due balance to be paid and we removed the limit on assistance 14 to address past due balances. In 2021, the Company pledged \$1 million in assistance. In 15 2022, we have pledged \$250,000 for gas/combo customers and \$1.2 million in assistance 16 for electric customers. On July 13, 2022, Ameren Missouri announced that it had added 17 another \$1 million to its Clean Slate fund. The funding for this assistance is not included 18 in the Company's revenue requirement request. To date, 7,560 customers have received 19 assistance under Clean Slate.

20

21

Low-Income Home Energy Assistance Program ("LIHEAP"): LIHEAP is a federally funded program assisting income-eligible households with paying their utility

⁷ https://www.ameren.com/missouri/residential/energy-assistance.

1 bills through either the Energy Assistance ("EA") or Emergency Crisis Intervention 2 Program ("ECIP") sub-programs. EA provides a one-time payment for heating or cooling 3 costs. ECIP assists with sudden, unexpected crises; winter ECIP is available May through 4 November; summer ECIP is available June through September. As of November 2021, important updates to the LIHEAP Programs meant that customers no longer had to be in 5 6 threat of disconnection to qualify, EA became a year-round program, and the amount of 7 available EA funds increased. Specifically, an additional \$200 million in LIHEAP funding 8 helped approximately 17,000 customers in February of 2022, through supplemental 9 payments. 10 Keeping Cool: Keeping Cool provides up to five bill credits of \$25 from May 11 through September to senior citizens, those with children under the age of 5, or customers 12 who have a documented chronic medical condition. The income guidelines for the Program 13 are now up to 300% of the Federal Poverty Level. Thus far in 2022, 1,673 customers have 14 received Keeping Cool bill credits totaling \$59,600. 15 Keeping Current: Keeping Current allows customers to reduce prior arrearages 16 through prompt payment of predictable monthly energy bills and runs year-round. The 17 income guidelines for the Program are also now up to 300% of the Federal Poverty Level. 18 The combined funding for Keeping Cool and Keeping Current is now \$4 million annually, 19 split equally between customers and the Company. In 2021, 2,609 participated in Keeping 20 Current, and to date in 2022, 1,101 customers have participated.

21 <u>Weatherization Assistance</u>: This program provides weatherization home 22 improvements (such as caulking, water heater jackets, weather stripping, and insulation) to

qualifying income-eligible homeowners and renters within Ameren Missouri's service
 territory. Elderly and disabled persons are given preference.

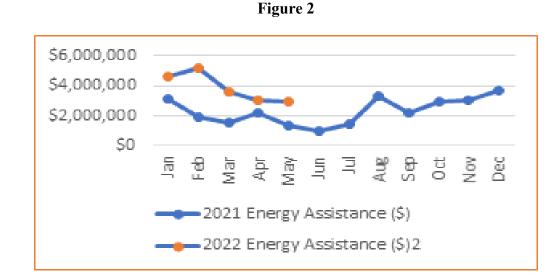
<u>Missouri SAFHR</u>: Missouri's State Assistance for Housing Relief ("SAFHR") program, which is linked directly from Ameren Missouri's EA webpage, provides rent and utility bill assistance for eligible Missouri residents and up to \$50,000 in assistance for homeowners who have been impacted by the COVID-19 pandemic. From September 1, 2021 through July 21, 2022, over 20,000 click throughs from Ameren Missouri's EA homepage to one of the linked SAFHR webpages have occurred.

9 <u>Critical Needs Program</u>: Consistent with commitments made by Ameren Missouri 10 in a settlement agreement in File No. ER-2021-0240, in 2022, Ameren Missouri and other 11 signatories have been meeting to develop a three-year pilot Critical Needs Program with 12 the goals of streamlining and expediting the processes to help critical needs customers stay 13 connected to utility services and training customer "navigators" who work with hospitals, 14 public and private assistance agencies, etc. Funding for this pilot will be up to \$500,000 15 annually, split evenly between customers and the Company.

16 <u>Rehousing Pilot Program</u>: Also consistent with commitments made by Ameren 17 Missouri in the settlement agreement in File No. ER-2021-0240, Ameren Missouri and 18 other signatories have been meeting in 2022 to develop a Rehousing Pilot Program, 19 targeting formerly homeless populations through possible bad debt forgiveness associated 20 with rehousing. Funding for this pilot will be up to \$500,000 annually, split evenly between 21 customers and the Company.

To date, for all energy assistance programs, we've deployed roughly two times the funding as compared to the amount available during the same time period in 2021. This is

- 1 consistent with the trend from 2020 to 2021. Overall, as illustrated in Figure 2 below, the
- 2 level of assistance available to our customers with the most need has increased as compared



3 to that available in 2021.

4

Q. In Ameren Missouri's previous rate review, you discussed the Company's Customer Affordability initiative. Is that still a priority?

7 A. It is. Ameren Missouri continues to devote significant effort towards finding 8 ways to control its costs with the ultimate goal of keeping rates affordable for our 9 customers. Ameren Missouri has filed this rate review because its prudently incurred costs 10 to serve customers have increased since its rates were last set. Just as costs for our 11 customers have gone up, so have ours. At the same time, the Company believes it must 12 work to keep rates affordable, consistent with delivering safe and adequate service while 13 also transitioning to more renewable power as set forth in Ameren Missouri's IRP. To help 14 us achieve that balance, we continue to focus on controlling costs where we can and to 15 ensure, during this time of major system investment, we don't forget to focus on customer 16 affordability.

Q. Can you provide an example of where this effort is achieving its desired result?

3 A. Yes. The largest single operations and maintenance cost reduction achieved, 4 around \$5 million annually, is a result of the progress being made on installation of smart 5 meters for our customers. By the end of 2021, we had saved around \$11 million in meter 6 reading fees. These savings (through 2021) are already reflected in customer rates. As more 7 meters are installed, these savings increase. By the end of 2022, we anticipate a total 8 reduction of \$16 million. By the time all AMI meters are installed, the O&M savings from 9 meter reads will be around \$26 million. The Company's request in this case reflects all 10 2022 expected savings.

11 Beyond the savings on meter reading, the meters themselves reduce costs. They 12 improve outage detection and notification and allow the Company to respond with more 13 precision to outages. They allow us to provide information about the status of any outage 14 to the customer. The enhanced data collection of alarms, flags and events provide 15 notification to the Company of unsafe conditions. We believe these capabilities will lead 16 to a reduction in costs. As an immediate example, the remote disconnection/reconnection 17 capabilities allowed the Company to reduce its fees for customers with an AMI meter to 18 reconnect to the system from \$30 to \$5 due to the avoidance of the need to roll a truck for 19 each disconnect/reconnect service call.

The installation of these meters also allows customers to have more insight into their electric use, both in overall levels and usage patterns. The meters have allowed Ameren Missouri to offer a suite of time of use rates, increasing customer choice among the rates and, ultimately, providing more control over customer bills.

Q. Where else does the Company expect to see savings from its Customer Affordability efforts?

3 A. We are optimizing preventative maintenance strategies on large pumps and 4 motors at the Callaway Energy Center, with the goal of saving several hundred thousand 5 dollars each year. We are treating in-service wood poles during the annual infrastructure 6 inspections, which extends the useful file of the pole and saves around \$700 thousand 7 annually. We are also implementing more herbicide treatments on vegetation around our 8 system and increasing the use of mechanization to improve efficiency and productivity. 9 This is expected to save \$1.3 million annually. Our Power Operations group is supporting 10 our Customer Affordability initiative by using synergies to reduce the number of resources 11 required to support the energy centers. They continue to evaluate an operating model which 12 can reduce operating costs by using a more experienced and/or highly trained staff to 13 support multiple locations.

An annual Cost Measurement Savings Report which summarizes the Company's efforts in these areas is provided to Staff annually, as agreed to in the Company's 2019 rate review.⁸ The Company recognizes that cost control must be a continual effort, and that it will take time to achieve our desired result, but we believe this effort is the best way to ensure the Company can invest as it needs and still provide affordable service for our customers.

⁸ File No. ER-2019-0335, Corrected Non-Unanimous Stipulation and Agreement, p. 15, par. 40, filed February 20, 2020.

1	Q.	Does thi	s rate request fall within the rate c	ap contained within SB 564?
2	А.	This req	uest, even if granted in full, would	leave Ameren Missouri rates
3	below the referenced cap. Witness Bowden provides details in his direct testimony, bu			ls in his direct testimony, but
4	relative to the baseline rate, which is the rate that took effect in April of 2017, offset by			ect in April of 2017, offset by
5	one half of th	e 2018 rat	e decrease associated with the feder	al corporate tax rate reduction,
6	Ameren Missouri's proposed rates represent a compound annual growth rate of 2.3% since			nual growth rate of 2.3% since
7	April of 2017.9 Given the cap allows for a 2.85% compound annual growth rate in the level			annual growth rate in the level
8	of rates, the Company will still be well within the cap if the full request were to be			
9	authorized by the Commission.			
10	V. WITNESS RESPONSIBILITIES			
11	Q. Please introduce the witnesses who will be providing direct testimony			e providing direct testimony
12	in this proceeding.			
13	A. Certainly. The following witnesses provide testimony to support this rate			
14	review:			
	Witness		Title and Company	Testimony Subject
	Warren Woo	od	Vice President, Regulatory & Legislative Affairs	Filing Overview

vv iuness	The und company	resulting subject
Warren Wood	Vice President, Regulatory & Legislative Affairs Ameren Missouri	Filing Overview
Mitchell Lansford	Director, Regulatory Accounting Ameren Missouri	Revenue Requirement, including Lead-Lag Study
Laura Moore	Controller Ameren Missouri	Demand Planning and EEI Dues
Darryl Sagel	Vice President and Treasurer Ameren Missouri and Ameren Services Company	Capital Structure; Cost of Debt, and Overall Rate of Return

⁹Calculation is based on FAC and RESRAM rates in effect as of the date of this filing and presumes the full requested revenue requirement is granted.

Witness	Title and Company	Testimony Subject
Ryan Arnold	Vice President Division Operations Ameren Missouri	Smart Energy Plan Distribution Investment
Mark Peters	Manager Load Forecasting & Market Analysis Ameren Services Company	Production Cost Modeling
Andrew M. Meyer	Senior Director Energy Management & Trading Ameren Missouri	Fuel Adjustment Clause; Rush Island Operations; Coal Inventory; High Prairie Conservation Mitigation
Mark Birk	President Ameren Missouri	Rush Island Timeline and Decisions
Matt Michels	Director Corporate Analysis Ameren Services Company	Analysis in Support of Closure of Rush Island
Steven Wills	Director Regulatory Ameren Missouri	Customer Charge, TOU Rate Tracker, TOU Update
Tom Hickman	Regulatory Consultant Ameren Missouri	Class Cost of Service Study
Nick Bowden	Regulatory Consultant Ameren Missouri	Normalized Billing Units; Economic Development Rider; S.B. 564 Caps
Michael Harding	Manager, Rates & Analysis Ameren Missouri	Tariff changes, Revenues, Class Allocations
Ann Bulkley	The Brattle Group	Return on Equity
John Reed	Chairman and Chief Executive Officer	Affiliate Transactions
	Concentric Energy Advisors, Inc. and CE Capital Advisors, Inc.	
John Spanos	President Gannett Fleming Valuation and Rate Consultants, LLC	Depreciation Study
Karl Moor	Consultant	Rush Island Prudence

Witness	Title and Company	Testimony Subject
Jeff Holmstead	Environment, Lands, and Resources group	Rush Island Prudence
	Bracewell, LLP	

Q. Does this conclude your direct testimony?

2 A. Yes, it does.

BEFORE THE PUBLIC SERVICE COMMISSION OF THE STATE OF MISSOURI

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In the Matter of Union Electric Company d/b/a Ameren Missouri's Tariffs to Adjust) Its Revenues for Electric Service.

Case No. ER-2022-0337

AFFIDAVIT OF WARREN WOOD

STATE OF MISSOURI)) ss **CITY OF ST. LOUIS**)

Warren Wood, being first duly sworn states:

My name is Warren Wood, and on my oath declare that I am of sound mind and lawful

age; that I have prepared the foregoing Direct Testimony; and further, under the penalty of perjury, that the same is true and correct to the best of my knowledge and belief.

en Wood

Sworn to me this 1st day of August 2022.