

BEFORE THE  
ARKANSAS PUBLIC SERVICE COMMISSION

IN THE MATTER OF ENTERGY	)	
ARKANSAS, INC.'S APPLICATION FOR	)	
AN ORDER FINDING THE DEPLOYMENT	)	
OF ADVANCED METERING	)	DOCKET NO. 16-060-U
INFRASTRUCTURE TO BE IN THE	)	
PUBLIC INTEREST AND EXEMPTION	)	
FROM CERTAIN APPLICABLE RULES	)	

APPLICATION

COMES ENTERGY ARKANSAS, INC. (“EAI” or the “Company”), and for its Application for an Order Finding the Deployment of Advanced Metering Infrastructure to be in the Public Interest and Exemption from Certain Applicable Rules (the “Application”), respectfully states:

1. The Company is a corporation organized and operating under the laws of the State of Arkansas, and is a public utility as defined by Ark. Code Ann. §23-1-101 *et seq.* The Company's principal office is located at the Simmons First National Bank Building, 425 West Capitol Avenue, Little Rock, Arkansas 72201. A copy of the Company's Agreement of Consolidation of Merger (Articles of Incorporation) is on file with the APSC and is incorporated by reference herein.

2. The Company is engaged in the business of generating, transmitting, and distributing electrical power and energy in Arkansas. As of March 31, 2016, the Company provided retail electrical service subject to the jurisdiction of the Commission to over 701,800 customers. Of these customers, 589,933 were residential; 92,531 were commercial; 18,634 were industrial; and 705 were public agencies, institutions, or others.

3. The Company owns a complete electric system, a more specific description of which, including the costs thereof, is already on file with the Commission in various certification dockets and in annual reports filed by the Company with the Commission. The Company's books and records are kept in accordance with the Federal Energy Regulatory Commission Uniform System of Accounts, pursuant to the rules of the Commission.

4. EAI proposes to deploy enhancements to this electric system by replacing existing meters with advanced meters that enable two-way data communication; designing and building a secure and reliable communications network to support such communications; and implementing support systems including a Meter Data Management System ("MDMS"). These components will be integrated into the Company's information technology ("IT") system. The Company also plans to update its legacy Outage Management System ("OMS") and implement a new Distribution Management System ("DMS"), which will enhance overall system performance and be capable of utilizing the additional data

provided by the Advanced Metering Infrastructure (“AMI”) deployment (collectively, the “AMI deployment”).

### JURISDICTION AND RELIEF REQUESTED

5. This Application is filed pursuant to Ark. Code Ann. § 23-4-101, *et seq.*, and Sections 2, 3, 4, and 7 of the Arkansas Public Service Commission’s (“APSC” or the “Commission”) Rules of Practice and Procedure (“RPP”). Insofar as the Commission were to find it applicable and to the extent EAI’s proposal were determined to constitute the acquisition of an operating unit or system, EAI further seeks Commission approval and a public interest finding pursuant to Ark. Code Ann. § 23-3-102 for the deployment of the infrastructure described herein. EAI also will work with the APSC General Staff (“Staff”) and other parties to identify rules that may need to be addressed as a result of the Company’s AMI deployment.

6. EAI seeks a Commission order finding that its AMI deployment, including the removal and retirement of existing meters and installation of new advanced meters and supporting systems and equipment, throughout its service territories in Arkansas, is in the public interest.<sup>1</sup> AMI will serve as the foundation of EAI’s modernized power grid and will deliver reliability, customer service and empowerment improvements to EAI’s customers, while providing significant benefits to all of its stakeholders. Many electric utilities around the country have

---

<sup>1</sup> EAI also provides retail electric service to a handful of customers in Tennessee and expects that those customers will be provided advanced meters pursuant to the same rates and terms as the Company’s customers in Arkansas.

deployed AMI, and EAI has chosen to participate in a multi-company initiative to leverage industry experience with AMI to inform the Company's implementation. Approximately 45 percent of electric meters in the United States are advanced meters. As described herein and throughout the testimonies of the Company's witnesses, this case is primarily about the manner in which AMI will benefit customers in a variety of ways, including improved outage restoration, enhanced customer service, and by providing customers with tools to better manage their energy usage, which can result in lower bills. Company witness Jay A. Lewis also provides a cost benefit analysis showing that EAI's AMI deployment is expected to produce a nominal net benefit to customers of \$431 million, or \$232 million on a net present value basis, which constitutes additional evidence of the benefits of AMI.

7. Company witness Oscar D. Washington addresses the Company's on-going efforts to protect customer information and sponsors the Company's applicable policies. Moreover, EAI's AMI deployment includes a customer education plan and budget, also sponsored by Mr. Washington.

8. As described by EAI witness Barbara L. Casey, EAI seeks to defer all incremental 2016 and 2017 educational and 2017 IT operations and maintenance ("O&M") costs incurred by the Company that are associated with the AMI deployment, as those costs were not included in the EAI Rate Schedule No. 44, Formula Rate Plan Rider ("Rider FRP") 2016 filing for the 2017 Projected Year. Additionally, as described by Mr. Lewis, EAI further seeks confirmation from the

Commission that EAI will be allowed to continue to include in rate base the remaining book value of its existing meters, which will be retired as part of the AMI deployment, and to depreciate those assets using current depreciation rates.

9. Finally, AMI deployment will also render at least one provision of the Commission's Special Rules Electric ("SRE") inapplicable for a period of time, and thus, the Company, in conjunction with a public interest finding and approval, is seeking an order authorizing a temporary waiver of SRE 7.08(B) and approval of corresponding exemption schedules as discussed by Mr. Washington and Ms. Casey, respectively.

#### AMI

10. AMI is the first step towards incorporating advanced technology into EAI's operations to create value through enhanced reliability, operational efficiencies and new products and services, all while providing reliable, safe and low-cost energy and meeting customers' changing expectations. AMI is a broad term that encompasses a range of related technologies and processes that represent a significant change in how the Company will interact with customers. Mr. Griffith provides a more detailed discussion of the AMI EAI is proposing to deploy and its technical capabilities. He also discusses the Company's three-year meter deployment process, which is expected to begin in 2019.

11. The Company's AMI will be designed and built to deliver a number of functionalities and operational applications immediately upon deployment and to support additional applications that may be implemented over time. Applications that will be available immediately upon deployment and meter activation include the following: automated remote meter reading (with recording and processing interval consumption data in 15-minute intervals for residential customers, and verified data being made available to customers daily); two-way communications; remote enabled service connection, disconnection, and reconnection; remote configuration and firmware upgrades; automated meter health and status communication; web-based customer data accessibility through a web portal; customer usage goal-setting thresholds and alerts; outage management support including restoration verification; theft and tamper notifications to the Company; event and load profiling; power quality reporting; asset mapping and predictive asset management; more accessible information for load forecasting and load research; support for pre-pay programs; and ability to incorporate distributed energy resources.

12. The Company's AMI will also enable other functionalities and programs that EAI could implement in the future, which would provide future customer benefits, including features such as the following: customer-customized advanced usage analytics and energy savings tips; dynamic pricing programs; more expansive demand response programs; potential control and dispatch of distributed energy resources; streetlight monitoring and control applications;

voltage optimization and control; enablement of distribution automation; and enablement of distributed intelligence. These potential, future capabilities can be built upon AMI (although they may require additional investments or approvals), but none of them would be possible without the communications and information technology improvements that will be part of EAI's AMI deployment.

13. AMI is the foundation for an advanced power grid that will deliver significant benefits to all of EAI's stakeholders and to its customers in particular. The advanced meters, for which EAI has proposed a 15-year depreciable life, will communicate more accurate outage locations, thereby enabling quicker and more accurate detection of problems, improved outage communications with customers, and overall faster outage restoration. AMI also will provide customers with more control over their energy usage by offering them more detailed and timely information on their accounts and energy saving tools. AMI is the first step towards incorporating advanced technology into EAI's operations to create value through enhanced reliability, operational efficiencies and new products and services all while providing reliable, safe and low-cost energy and meeting customers' changing expectations.

## CUSTOMER BENEFITS AND PUBLIC INTEREST

14. As described in greater detail by Mr. Washington, AMI will benefit EAI's customers in many ways, including by empowering them to manage their bills more effectively with the expanded information available from AMI. Widespread access to mobile devices, smart phones, tablets, advanced thermostats, and other devices has increased customer expectations regarding the availability of information, and customers' desire to better understand and control functionalities with respect to their utility costs. In line with such expectations, EAI will provide detailed usage information via a web portal available to residential, commercial, and industrial customers where they can view and track their daily energy usage data more effectively.

15. A comprehensive educational plan will coincide with the AMI ramp-up and deployment. The multi-phased customer education plan will educate customers about the capabilities of advanced meters, EAI's plans to implement them, and the manner in which customers can access and take advantage of the benefits enabled by AMI. The Company's AMI customer education plan and budget, which are separate and distinct from EAI's energy efficiency customer education efforts, are attached to Mr. Washington's direct testimony as EAI Direct Exhibit ODW-1. AMI will provide new capabilities for EAI's customers to gain a deeper understanding of their energy usage, which will enable them to make more informed decisions to better manage their usage. These capabilities and new

customer-focused tools are reasonably expected to result in better service and to lower electric bills.

16. AMI also will significantly enhance the Company's operations, and EAI has quantified three types of operational benefits: elimination of nearly all monthly field visits to a customer's location for routine meter reading; significant reduction in the number of field visits for activities such as service reconnection or disconnection and meter re-reads; and reductions in future write-offs because of the reduced amount of time it takes to disconnect customers for non-payment.

17. In addition to these quantified operational benefits, EAI has quantified benefits related to reductions in consumption and peak capacity. With respect to residential and commercial customers, reductions in consumption and peak capacity needs are expected due to the planned customer education component of the deployment and the increased availability of detailed usage information to help customers make more informed energy usage decisions. Moreover, EAI has quantified benefits related to reductions in unaccounted for energy and avoided costs related to maintaining and replacing existing meter reading equipment.

18. The Company also has identified other non-quantified benefits of its AMI deployment. Examples include faster outage identification and restoration with improved overall systems reliability, enhanced customer service quality, safer field operations, and enhanced ability to offer new products and services to meet

evolving customer needs and expectations. Moreover, other non-quantified benefits related to customers' experiences include improved billing accuracy, potentially fewer billing issues, and enhanced ability to address customer needs, e.g., faster service reconnection.

19. Mr. Griffith describes the Company's plan to update its existing OMS and to implement a new DMS that will be implemented as part of EAI's AMI deployment to enhance overall performance. With the new information and connectivity available through AMI, an integrated OMS and DMS will enhance the Company's ability to more quickly and accurately identify the location and scope of outages, and to provide more accurate outage and restoration information and notifications to customers.

20. Mr. Lewis explains that when the quantified benefits described above are netted against the estimated AMI life cycle costs, there are net quantified benefits for EAI's customers. Mr. Lewis estimates that net quantified benefits of the AMI deployment will have a nominal net benefit of \$431 million, and \$232 million on a net present value basis. Overall, and considering the non-quantified benefits as well, EAI's AMI deployment will deliver significant benefits to all of the Company's stakeholders and to customers in particular.

### TIMING

21. Complete AMI deployment is expected to take approximately five years. The first phase, design, which has already begun, encompasses the vendor selection process for the desired solution and a detailed design and plan for implementation, including a customer education plan. The second phase, the system build phase, includes validating the system functionality and beginning customer education. The third and final phase, meter and network deployment, is the point when the communication network is completed and meters are deployed. EAI expects to begin deployment of the communications network in 2018, and meters in 2019.

### COST RECOVERY AND ACCOUNTING TREATMENT REQUESTS

22. If the AMI deployment is found to be consistent with the public interest, and, to the extent necessary, were otherwise to be approved by the Commission as an EAI operating unit or system, EAI proposes to include the costs of its AMI deployment and the quantified deployment benefits in Rider FRP. Although deployment of advanced meters is not anticipated to begin until 2019, certain communications and IT infrastructure is expected to be in place by the end of 2018. Thus, EAI seeks to include those deployment costs in its 2017 Rider FRP filing for its 2018 Projected Year costs. Further, in order to have certainty around including EAI's projected 2018 AMI-related costs into its 2017 Rider FRP filing, EAI seeks an order from the Commission no later than prior to the hearing on its 2017 Rider FRP filing, which shall occur at least 50 days before the date on which

rates determined by the Rider FRP will go into effect in 2018.<sup>2</sup> EAI believes that an order after that date would make it difficult to adjust the Rider FRP rate in accordance with the Commission's order in this docket.

23. Additionally, the Company is seeking, as described in greater detail by Ms. Casey, a Commission order authorizing deferral of the 2016 and 2017 customer education and 2017 IT O&M costs to a regulatory asset for subsequent recovery through Rider FRP.<sup>3</sup> Such an order would allow these expenses to be recorded on the Company's balance sheet as a regulatory asset until they are included in rates. EAI proposes that the total amount be included in the July 2017 Rider FRP filing as part of the total AMI costs for the 2018 Projected Year.

24. EAI is not currently proposing changes in fees for reconnect and premise visits in EAI Rate Schedule No. 29, Charges Related to Customer Activity. As Mr. Washington elaborates, EAI proposes to continue these fees at current levels, at least until AMI deployment is complete.

25. With respect to recovery of the remaining undepreciated book value of existing meters to be retired through AMI deployment, the Company requests confirmation that it will be allowed to continue including the remaining book value of the existing meters in rate base and depreciate those assets using current

---

<sup>2</sup> See Ark. Code Ann. §23-4-1205 (g)(1).

<sup>3</sup> This request does not fall within the scope of Attachment C, General Section, Item L of Rider FRP.

depreciation rates. Mr. Lewis describes the book value and annual depreciation rate of the existing meters.

### WAIVERS/EXEMPTIONS

26. APSC RPP 2.05 provides that the Commission may grant an exemption from any of its rules if the exemption is found to be in the public interest and for good cause shown.<sup>4</sup> AMI deployment will render at least one provision of the Commission's SREs inapplicable for a period of time. Specifically, pursuant to EAI Policy Schedule No. 12, EAI performs both selective and periodic meter tests consistent with SRE 7.08(B). As addressed in more detail by Mr. Washington, the AMI deployment will replace EAI's existing electric meters, so conducting tests of existing meters during AMI deployment is unnecessary. Thus, in conjunction with a public interest finding, the Company seeks an order authorizing a temporary waiver of SRE 7.08(B), approval of an additional exemption schedule (Exemption Schedule No. 3, Schedule of Exemptions from Special Rules Electric), and approval of a revised policy schedule (Policy Schedule No. 12, Meter Testing Program) as discussed by Mr. Washington and Ms. Casey.

27. EAI will work with Staff and other parties to address any other Commission rules or provisions that may be affected by the AMI deployment.

---

<sup>4</sup> RPP 2.05(a).

## WITNESSES

28. Submitted for filing in support of this Application are the testimonies of the following Company witnesses who explain the Company's proposals in detail:

- Richard C. Riley, President and Chief Executive Officer of EAI, introduces the witnesses who are submitting testimony on behalf of the Company; provides an overview of the AMI project, including customer benefits and associated issues and an explanation of why the Company has chosen to make this investment now; and explains the Company's proposed cost recovery method for the AMI deployment and the timing for an Order approving the project.
- Oscar D. Washington, Vice President, Customer Service for EAI, describes the customer service and operational benefits and improvements, including workforce changes, resulting from the Company's implementation of AMI. In addition, he sponsors EAI's Customer Education Plan for AMI. He also supports a requested exemption to the APSC General Service Rules and describes how some of the anticipated operational improvements resulting from EAI's AMI deployment impact certain other rules. Finally, he describes EAI's customer information and data privacy policy and matters relating to energy efficiency.
- Rodney W. Griffith, Director, AMI Implementation for Entergy Services, Inc. ("ESI"), describes the technical aspects of EAI's AMI

deployment, including the proposed design and build of a secure and reliable communications network that will support two-way data communication, and the implementation of supporting systems, including an MDMS. He also describes the Company's plan to update its legacy OMS and to implement a new DMS to enhance overall system performance. He explains how EAI intends to integrate those systems with the legacy IT systems via an Enterprise Service Bus. In addition, he describes the process used to identify, evaluate, and select vendors for the advanced meters, communications system, MDMS, and system integration. He describes the expected deployment schedule, data and cyber security safeguards, and the deployment and on-going costs associated with the Company's AMI deployment.

- Jay A. Lewis, Vice President, Regulatory Policy for ESI, sponsors testimony that presents and supports the analysis that demonstrates that EAI's AMI deployment will produce net benefits for EAI's customers. He also explains why EAI believes it is appropriate to offer customers the option to opt out of having an AMI meter installed on their residence. Finally, he makes specific accounting proposals related to the useful life for the proposed AMI meters and related AMI infrastructure as well as addresses the unrecovered costs of the existing meters that will be retired from service and replaced with advanced meters.

- Dr. Ahmad Faruqui, Principal with The Brattle Group, provides an external viewpoint that supports the reasonableness of the methodology and assumptions used by EAI to quantify certain non-operational benefits associated with the Company's planned AMI deployment, including those arising from reductions in what is called "unaccounted for energy" ("UFE"). The focus of Dr. Faruqui's testimony is on the expected impacts of new, more detailed information and enhanced tools that will be made available to customers. He also reviews and comments on EAI's recommendation to allow residential customers the option to opt out of receiving an advanced meter.
- Barbara L. Casey, Manager of Regulatory Filings for ESI, describes the Company's recommendation to utilize Rider FRP to recover the costs of EAI's investment in AMI and other AMI-related costs and to reflect the estimated operational benefits in rates; she also provides an estimate of the annual revenue requirement effect of including these amounts in Rider FRP and provides proposed changes to EAI's Schedule of Exemptions and Policy Schedules.

SERVICE LIST

29. EAI requests that the following individuals be included on the service list in this proceeding:

Laura R. Landreaux, Vice President  
Regulatory Affairs - Arkansas  
Entergy Arkansas, Inc.  
P.O. Box 551  
Little Rock, Arkansas 72203  
Telephone: (501) 377-5876

Kimberly Bennett  
Senior Counsel  
Entergy Services, Inc.  
425 W. Capitol Ave., Ste. 28E  
Little Rock, AR 72201  
Telephone: (501) 377-5715

WHEREFORE, EAI requests that the Commission:

1. Find that its proposed AMI deployment, including the removal and retirement of existing meters, installation of new advanced meters and supporting systems and equipment, and education plan, is in the public interest;
2. Approve and find consistent with the public interest EAI's acquisition and deployment of AMI pursuant to Ark. Code Ann. § 23-3-102, to the extent the Commission were to determine EAI's proposal constitutes the acquisition of an operating unit or system;
3. Grant EAI a temporary waiver of SRE 7.08(B), approve EAI Exemption Schedule No. 3, Schedule of Exemptions from Special Rules Electric,

and approve revisions to Policy Schedule No. 12, Meter Testing Program;

4. Issue an order authorizing EAI to defer all incremental 2016 and 2017 customer education and 2017 IT O&M costs incurred by the Company that are associated with the AMI deployment and authorizing EAI to include these costs in the calculation of the 2018 Rider FRP rate adjustment;
5. Confirm that EAI will be allowed to continue to include the remaining book value of its existing meters, which will be retired upon advanced meter deployment, in rate base and depreciate those assets using current depreciation rates;
6. Issue its Order in this proceeding no later than prior to the hearing on EAI's 2017 Rider FRP filing, which shall occur at least 50 days before the date on which rates determined by the Rider FRP will go into effect in 2018; and
7. Grant all other appropriate relief.

Respectfully submitted,

ENTERGY ARKANSAS, INC.

By /s/ Kimberly Bennett

Kimberly K. Bennett (Bar No. 95185)  
Senior Counsel

Tucker Raney (Bar No. 78106)  
Assistant General Counsel

Matthew R. Suffern (Bar No. 201002)  
Assistant General Counsel

Entergy Services, Inc.  
P. O. Box 551  
Little Rock, AR 72203  
Telephone: (501) 377-5715

Jana K. Law (Bar No. 2011142)  
Roberts Law Firm, P.A.  
20 Rahling Circle  
Little Rock, Arkansas 72223  
Telephone: (501) 821-5575  
janalaw@robertslawfirm.us

ATTORNEYS FOR ENTERGY ARKANSAS, INC.

CERTIFICATE OF SERVICE

I, Kimberly Bennett, do hereby certify that a copy of the foregoing has been served upon all parties of record by forwarding the same by electronic mail and/or first class mail, postage prepaid, this 19<sup>th</sup> day of September, 2016.

/s/ Kimberly Bennett  
Kimberly Bennett