# Exhibit AA-D-36 Ameren Responses to Data Requests

	Data Request	Format
1.	Sierra_2-SC_0002_20-Att-SC 0002.20 Attach	
	FirstYrSavingsUpdates_2016-06-15.xlsx	Excel*
2.	Ameren Response to Data Request No. SC 2.21	PDF
3.	Ameren Response to Data Request No. SC 2.25	PDF
4.	Sierra_2-SC_0002_27-Att-MPSC 0002.27 Attach Load analys	sis
	for TOU.xlsx	Excel*
5.	Sierra_2-SC_0002_44-Att-SC 0002.44 Attach	
	AMMO_SYSTEM_LOAD.xlsx	Excel*
6.	Sierra_2-SC_0002_45-Att-SC 0002.45 Attach	
	AMMO_SYSTEM_LOAD.xlsx	Excel*
7.	Ameren Response to Data Request No. SC 2.47	PDF
8.	Ameren Response to Data Request No. SC 3.8	PDF
9.	Ameren Response to Data Request No. SC 3.9	PDF
*All	Excel files submitted separately to MPSC via EFIS	

Data Request No.: SC 0002.21

2.21 Refer to Direct Testimony of Steven Wills, page 43, Table 7.

a. Would the proposed EV Savers rate be available to non-EV owners?

b. How were the on-peak hours for this rate determined? Provide any workpapers

used to determine these on-peak hours, in native format with all formulae intact.

c. How were the on-peak and off-peak energy charges determined? Provide any

workpapers used to determine these charges, in native format with all formulae

intact.

d. Explain the basis for the substantial difference between on-peak and off-peak

energy charges during non-summer months.

#### **RESPONSE**

Prepared By: Steven M. Wills
Title: Director, Rates & Analysis
Date: November 8, 2019

- 1. Yes
- 2. The hours were selected to encourage EV charging to occur during overnight hours when load on the distribution system tends to be lower. The assessment of these lower load hours was informed by review of the load data in the file "Load Analysis for TOU.xlsm", which is attached to the response to data request Sierra Club 2.27.
- 3. Please see the narrative description of how the energy charges were determined in my direct testimony at pages 44-50, as well as the workpaper provided with the direct testimony of Steven M. Wills titled "Residential Research – 2 Period (EV) TOU Rate & Bills Calcs – Actual Rate Design.xlsx".

4. The EV Savers rate is designed with the goal of shifting EV charging load to the overnight hours to times when the loads on the distribution system tend to be lower. As EV adoption increases, the shifting of charging to these hours may help avoid localized situations where the additional EV charging taxes distribution circuits and even in certain circumstances causes increased distribution investment. Because some distribution circuits are winter peaking, providing an incentive to shift charging load to overnight hours in all seasons can help manage distribution loads in a way that may ultimately avoid investment on those winter peaking circuits as well. In order to be effective in causing customers to shift the timing of their EV charging, the pricing differential must be sufficient to make it worthwhile to the customer to take the action necessary to shift their charging times.

Data Request No.: SC 0002.25

2.25 Refer to Direct Testimony of Steven Wills, page 50, lines 8-14. Please identify the

Company's current expected timeline for identifying and implementing a sub-metering

solution that will allow customers to apply the EV Savers Rate exclusively to their EV

load.

## **RESPONSE**

## **Prepared By: Patrick Justis**

## Title: Manager, Efficient Electrification Development

## Date: 11/14/19

Ameren Missouri does not have a specific timeline on identifying and implementing sub-metering capability, as we are not yet aware of any market-ready approaches to this currently. Based on what I have seen in terms of research and development in this area, I expect (but have no clear evidence) that devices that would be universally compatible with the J1772 plug standard (the type of plug that all non-Tesla EVs use to charge) and have the capability to provide relatively accurate usage data through either customer-owned Wi-Fi signal or AMI meters may be available in the next 2-3 years. We may also see charging stations that have this capability in that time frame as well.

Ameren Missouri will not be developing such technologies, but is certainly leaning forward in watching for options as they become available for implementation. Through engagement with peer utilities, EV technology vendors, and a variety of industry associations and general marketplace interactions, we learn about these technologies and look forward to being able to implement them with our customers to maximize the value of efficient electrification.

Data Request No.: SC 0002.47

Has Ameren conducted a study of customer electricity usage and income levels? If so,

please provide the study and the workpapers used to develop the study.

# **RESPONSE**

Prepared By: Steven M. Wills

**Title: Director, Rates & Analysis** 

Date: November 19, 2019

No such studies have been performed.

Data Request No.: SC 003.8

Refer to Direct Testimony of Steven Wills, page 27, Table 3. Please specify the categories of costs, by FERC account, that were designed to be recovered through the demand charge under the three-part rate.

### **RESPONSE**

**Prepared By: Steven M. Wills** 

Title: Director, Rates & Analysis

**Date:** November 19, 2019

The information is not available in the form requested due to the complexity of allocations included in the class cost of service analysis. Please see the class cost of service study workpaper filed with the direct testimony of Thomas Hickman, titled "MO ECCOS\_2018 Final.xlsx". The distribution demand costs subject to inclusion in the demand charge of the theoretical three part rate shown in table 3 are derived from costs that are classified by FERC account in this workbook. The value on cell AT80 of the "Unbundled" tab is the total of distribution demand costs from which the demand charge was calculated.

Data Request No.: SC 003.9

Refer to Direct Testimony of Steven Wills, page 61, Table 11 regarding the design of the three-part rate.

a. Please describe how the demand charge window was set to 6 am to 10 pm.

b. Please provide all data used to determine that the 6 am to 10 pm window was appropriate for setting the demand charge.

c. Please explain whether the Company proposes to recover line transformer costs through the customer charge or through the demand charge.

d. Please provide the number of substations and circuits in the Company's service territory.

e. For each substation in the Company's territory for which data are available, please provide the most recent three years of data containing the substation's peak load date and hour, and the kVA peak load for that substation. If the data requested are not available, please provide the data that most closely matches that requested. Please provide the requested data in Excel format.

f. For each circuit in the Company's territory for which data are available, please provide the most recent three years of data containing the circuit's peak load date and hour, and the kVA peak load for that substation. If the data requested are not available, please provide the data that most closely matches that requested. Please provide the requested data in Excel format.

#### **RESPONSE**

Prepared By: Steven M. Wills
Title: Director, Rates & Analysis
Date: November 20, 2019

Subject to the Company's objection, please see response.

- 1. The demand charge window was set to 6 am to 10 pm in order to encourage customer behavior that reduces demand placed on the distribution system during the hours when system and residential class loads tend to be high. Because different transformers, circuits and substations may experience peak loadings during different hours or on different days, the goal was to capture any hours within those covered by the demand charge where such usage can be on the high end of the spectrum and therefore where specific transformers, circuits or substations may be experiencing peak load conditions.
- 2. See the file "Load Analysis for TOU.xlsm", which is attached to DR Sierra Club 2.27.
- 3. I am advised by counsel that, while rates charged for service may be designed to reflect certain costs, they do not specifically recover those costs. With that caveat, the demand charge is designed to reflect the distribution demand-related costs from the class cost of service study, plus the portion of the customer-related costs from that study that are not covered by the proposed \$11 customer charge. The line transformers were allocated in the minimum distribution system study 52.2% to the customer function and 47.8% to distribution demand. When covering customer-related distribution costs in the demand charge, no specific costs were contemplated as the ones that were remaining in the customer charge versus those moving to the demand charge.
- 4. # of circuits 2,864 # of substations – 872
- 5. The requested data is not readily available in an accessible format
- 6. The requested data is not readily available in an accessible format