Exhibit No.:	
Issue(s):	Flex Pay Pilot Program
Witness:	William (Bill) R. Davis
Type of Exhibit:	Surrebuttal Testimony
Sponsoring Party:	Union Electric Company
File No.:	EO-2015-0055
Date Testimony Prepared:	March 9, 2018

MISSOURI PUBLIC SERVICE COMMISSION

FILE NO. EO-2015-0055

SURREBUTTAL TESTIMONY

OF

WILLIAM (Bill) R. DAVIS

ON

BEHALF OF

UNION ELECTRIC COMPANY

d/b/a Ameren Missouri

St. Louis, Missouri
March, 2018

APPENDIX A

TABLE OF CONTENTS

SURREBUTTAL TESTIMONY

OF

WILLIAM (BILL) R. DAVIS

FILE NO. EO-2015-0055

I. INTRODUCTION

Q. Please state your name and business address.

A. My name is William (Bill) R. Davis and my business address is One Ameren Plaza, 1901 Chouteau Avenue, St. Louis, Missouri 63103.

Q. Are you the same Bill Davis who filed direct testimony in this proceeding?

A. Yes, I am.

II. PURPOSE OF TESTIMONY

Q. What is the purpose of your surrebuttal testimony?

A. My surrebuttal testimony responds to rebuttal testimonies submitted by the Staff of the Missouri Public Service Commission ("Staff" and "Commission," respectively), the Missouri Department of Economic Development – Division of Energy ("DE"), and the Office of the Public Counsel ("OPC"). In response, this testimony: (a) provides additional clarity on several aspects of the voluntary Flex Pay energy efficiency pilot program ("Flex Pay Pilot" or "Pilot") proposed in this docket; (b) explains why and how the Flex Pay program is a demand-side program under the Missouri Energy Efficiency Investment Act ("MEEIA"); (c) responds to certain conditions proposed by Staff and DE should the Pilot be approved; and (d) explains why certain additional variances suggested by Staff witness Tammy Huber are not required.

Q. What are your key points in response to the other parties' rebuttal testimonies?

A. The design of the Flex Pay program is to achieve energy savings by creating behavioral changes on the part of participants that will reduce their consumption of electricity. It also includes several key design elements for customer protection. Prepay programs have proven to save energy and also provide customers with a superior experience. Participation in the Pilot is strictly voluntary. The Flex Pay program is expected to be cost-effective and running the Pilot will provide important experience to assess its long-term viability without making a costly commitment for full scale deployment up front. Data indicates that the program is not only likely to cost effectively save energy, but is also likely to result in superior service compared to traditional service and that it does not constitute "deprivation of service."

Q. How is your surrebuttal testimony organized?

A. My surrebuttal testimony is organized into the following sections, with the following topics addressed in each:

- FLEX PAY AS AN ENERGY EFFICIENCY PROGRAM – Explains how the program is an energy efficiency program.
- LOW INCOME CUSTOMER ISSUES – Explains how the program design is consistent with NASUCA[1] guidelines and how "low income" is defined for purposes of the pilot.
- FLEX PAY AS A MEEIA PROGRAM – Explains how the program is a demand-side program under MEEIA.
- OTHER MISCELLANEOUS POINTS MADE IN REBUTTAL – Responds to various topics raised by the other parties.

[1] National Association of State Utility Consumer Advocates.

- RESPONSE TO PROPOSED CONDITIONS – Responds to conditions proposed by the Staff and DE.
- VARIANCES – Responds to the additional variances that Staff believes may be applicable to the Pilot.

III. FLEX PAY AS AN ENERGY EFFICIENCY PROGRAM

Q. Much of the rebuttal testimony describes the Flex Pay program as a "prepaid" energy program. Is this characterization accurate?

A. The Flex Pay program is a prepaid energy program, but the suggestion (made explicitly or implicitly by the other parties) that a program involving prepayment for electricity cannot be a demand-side management ("DSM") program is incorrect. Virtually any DSM program that results in customers consuming less energy, saves customers money, and makes customers' overall electric bills more affordable, will have the tendency to also reduce bad debts and to increase customer satisfaction. That is undoubtedly true of prepay programs, but unlike a typical billing program like auto-pay or budget billing, a properly designed prepay program should also induce changes in customer behavior that cause those customers to consume less energy on their side of the meter. Programs that induce customers to reduce consumption on their side of the meter are, by definition, DSM programs, including under MEEIA, as I discuss further below. This includes a properly designed prepay program.

Q. Please elaborate.

A. As I stated in my direct testimony, the Flex Pay program is designed as a voluntary behavioral energy efficiency program that will provide participating customers with education and information through ongoing communications, as well as tangible interactions with electric service payments, to help customers make informed energy usage decisions.

Customers will be able to add money to their accounts 24/7, have 24-hour access to monitor their usage through a mobile app, website, and voice automated phone calls, and will have the ability to set and adjust their alert preferences – including low balance thresholds – so that they can manage their usage accordingly. As discussed in more detail below, there is substantial evidence that such programs do in fact result in energy savings. Having said that, it is true that there is not broad-based experience with operating such programs as energy efficiency programs. Consequently, we have proposed this *Pilot* so we can better study, for Ameren Missouri customers, how the interaction between customer education, customer notifications, and customer control encourage more efficient energy usage, and to what extent it is more efficient. The fact that most prepay programs have not been operated as DSM programs, and there is not broad-based experience across the Country with such programs, is precisely why we need to implement a pilot, and why that pilot needs to be a DSM pilot.

Q. What experience does exist in terms of use of a prepay program as part of a demand-side management portfolio?

A. I addressed investor-owned utility ("IOU") experience of which I was aware at the time at pages 19-21 of my direct testimony. There is also a non-IOU program (the Salt River Project ("SRP")) that operates a prepay program as part of its demand-side portfolio, and I have recently become aware of another IOU prepay program pilot included in Consumer Energy's (Michigan) DSM portfolio. Ameren Missouri witness Jay Zarnikau, Ph. D also addresses these programs. Several additional utilities have documented energy savings from prepay programs, although those programs were not operated as DSM programs.

Q. So you don't disagree with Dr. Marke's statements to the effect that there are not many other jurisdictions where prepay programs have been approved as energy efficiency programs?

A. In general I don't disagree, since there are only two IOU DSM prepay programs plus the SRP DSM program. However, his statement misses the point and is irrelevant to the question of whether the Flex Pay program, a pilot for which is proposed in this docket, can and should be approved as such. The fact that we only have limited experience from three prepay programs *operated as part of a DSM portfolio* is a strong argument *for* approving this pilot so we can gain more experience from a program operated as such. This will allow us to focus on the energy savings aspect of the program and apply traditional DSM evaluation, measurement, and verification principles to it, while also gaining primary data about the operation of such a program in Ameren Missouri's service territory with Ameren Missouri customers.

Q. Were there opponents to operating the APS program as a DSM program?

A. Yes. As here, the Staff of the Arizona commission opposed operating the prepay program as a DSM program, also claiming it should not be considered as a DSM program. However, the Arizona commission disagreed with its Staff and approved the program under APS's demand-side management portfolio:

> We disagree with Staff and believe that Pre-Pay Option should be approved. We find that inclusion of the Pre-Payment Option within the Residential Demand Response Pilot Program should be contingent upon it meeting the following criteria.
>
> - It includes adequate and appropriate energy conservation education and feedback;
> - It is offered and implemented for customers for whom pre-payment is a reasonable and an appropriate option, with adequate safeguards for low income and elderly customers;
> - It maintains disconnection protections with respect to extreme weather events and customers with life threatening medical concerns (i.e., those on medical rates);

> - It accurately analyzes the effects of pre-payment for the population of APS residential customers and in certain customer segments and sub-groups; and
> - Its results are reviewed by Commission Staff, and any Company proposals for full implementation are reviewed and approved by the Commission prior to implementation.
>
> IT IS FURTHER ORDERED that the Pre-Payment Option shall include adequate and appropriate energy conservation education and feedback on customer energy usage to ensure that the Pre-Payment Option is not just pre-payment but is truly focused on (a) helping customers better understand and gain awareness of their energy consumption, and (b) providing information on options to reduce their energy use and energy costs. Interested stakeholders shall be given a reasonable opportunity to review and comment on the educational information and feedback approaches to be provided to customers prior to Arizona Public Service Company's implementation of the pre-payment pilot.[2]

The Michigan Staff supported Consumer Energy's prepay DSM program. So we have two states, one rejecting some of the kinds of arguments that are being made here, that have already approved an energy efficiency pilot that incorporates prepaid energy. And I would submit that the program design of the Flex Pay Pilot is keeping within the parameters the Arizona commission placed on APS' program.

Q. What information do you have that prepay programs in fact induce customers to save energy?

A. In addition to the approximately 7.5% energy savings determined by Navigant when it evaluated APS' prepay energy efficiency program, SRP's M-Power[3] program, which has been operated since 1993, has seen energy savings of between 11% and 12.8%, while a very

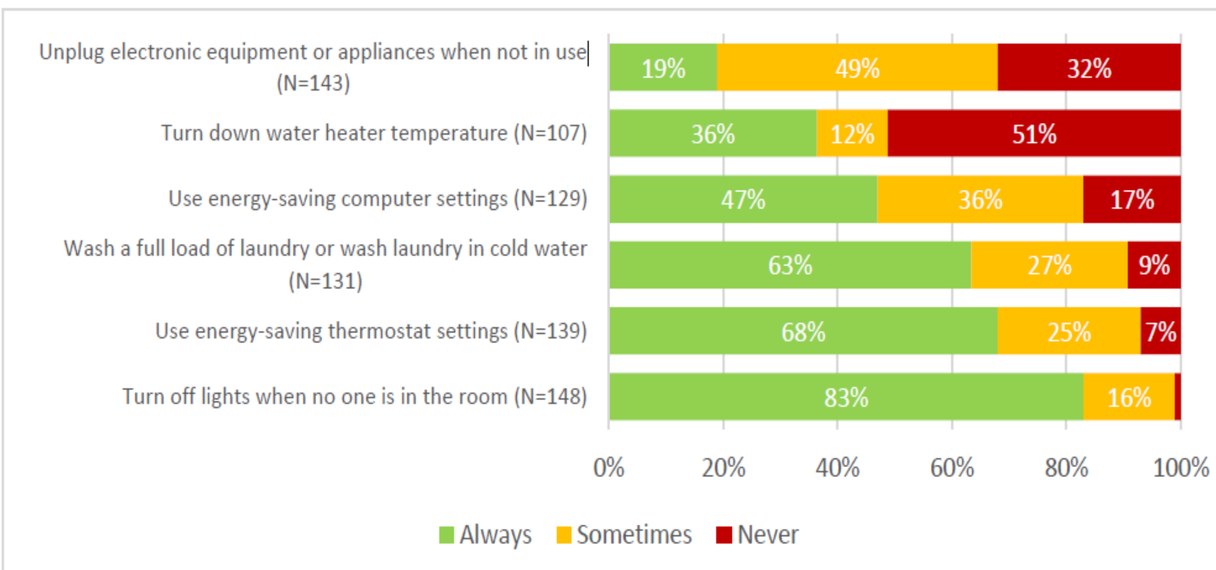
---

[2] Arizona Corporation Commission *Order*, Docket No. E-01345A-10-0075, Decision No. 72214, issued March 3, 2011, p. 8 and pp. 11-12.

[3] SRP's M-Power program won the National Energy Resources Organization (NERO) first place award for energy efficiency. NERO is a non-profit organization that recognizes organizations active in the promotion of energy efficiency. M-Power is the nation's largest pre-pay electricity program with about 155,000 customers enrolled. *Paying Upfront: A Review of Salt River Project's M-Power Prepaid Program*, 5-4, EPRI, Palo Alto, CA: 2010. 1020260.

recent Duke Energy Carolinas evaluation of its prepaid program showed savings of 8.5%.[4] As Dr. Zarnikau discusses in his surrebuttal testimony, there is also information available from two cooperative programs in the northwestern part of the Country, and from a program run by Oklahoma Electric Cooperative, for which savings are reported to be between 5.5% and 14%, as well as other results discussed by Dr. Zarnikau. In January, Consumers Energy filed results of a Cadmus survey on its prepay program[5] to assess customer perceptions about the pilot. About half (48%) surveyed indicated they expected the program to help them control their energy usage.[6] Figure 1 below shows the frequency of energy saving behaviors since participating in the Consumers Energy Pilot:

Figure 1: Frequency of Energy-Saving Behaviors since Participating in the Pilot Program



[4] *Duke Energy Carolina's Prepaid Advantage Pilot Learnings Report*, Aug. 15, 2017.

[5] 1,525 participants were surveyed by Cadmus; 171 responded (11%). Consumers Energy Company's Annual Report Addendum, Case No U-18060, Jan. 31, 2018.

[6] Consumers Energy Company's Annual Report Addendum, Case No U-18060, Jan. 31, 2018.

As also indicated in my direct testimony, these kind of savings levels compare quite favorably to many other energy efficiency measures that are commonly included in DSM programs. If properly designed, prepay programs operated as part of a DSM portfolio save as much or more than other DSM programs. Consequently, I see no reason why they should not be considered a DSM program.

Q. OPC, Staff, and DED presented an article by ACEEE in support of their contention that a prepay program would not qualify under MEEIA. What was the conclusion of that article?

A. If anything, the conclusion of the article supports a pilot. Below, the article's conclusion clarifies the need to purposefully include energy savings tactics and highlights the lack of knowledge running the program with energy savings as the primary objective. The proposed Flex Pay program does just that and is consistent with those recommendations:

> … ACEEE believes that any prepayment plans that are included in energy efficiency portfolios should be combined with energy efficiency components to help customers reduce their bills. These components should include energy efficiency information and behavioral feedback at a minimum, but potentially also targeted energy efficiency materials and services. To date it is largely unknown whether existing prepayment plans specifically include the provision of these energy efficiency components.[7]

Q. Why do you think it is common for some to have a negative initial reaction to prepay?

A. I believe the conventional wisdom around how prepaid energy programs have been operated when first introduced has led to this type of reaction. Initially, prepaid energy programs for utility services were designed for those who had trouble paying bills.

[7] http://aceee.org/blog/2017/02/should-utility-prepay-plans-be

Q. How does operating a prepay program under a DSM portfolio help alleviate that initial negative reaction?

A. *Why* the program is operating and *what* the program is trying to accomplish will very much influence the customer experience. Operating a prepay program for the purpose of reducing customer energy costs will produce a superior experience for customers as the focus of the program is centered on helping customers get the most for their dollar. Including it under the DSM portfolio also introduces a layer of evaluation not typically seen for billing programs.

IV. LOW INCOME CUSTOMER ISSUES

Q. OPC cited an article where Mr. Ralph Cavanagh, a co-director of the Natural Resources Defense Council's energy program, warned against prepaid service for low-income and vulnerable households. How do you respond?

A. First, I would note that the first sentence of what Dr. Marke attributes as a quote from Mr. Cavanagh does not appear in the article cited by Dr. Marke in his testimony.[8] Second, while I can't go so far as to say that Mr. Cavanagh would support our proposal (nor can Dr. Marke say he would not), it is noteworthy that one of Mr. Cavanagh's reported concerns expressed in the article was that technology used for an energy efficiency approach should not be "hijacked" for the purposes of bill collection. The article also stated that Mr. Cavanagh pointed to the criteria developed by NASUCA as a way to aid in preventing the "hijacking" with which he was concerned. Arguably, if a program is consistent with those criteria, one might conclude that he would not necessarily be opposed to such a program being operated as a DSM program. In

[8] Garthwaite. J. (2014) Prepay plans for electricity offer alternative to the usual monthly power bill. *National Geographic*, https://news.nationalgeographic.com/news/energy/2014/06/140604-pre-paid-electricity-billing-planshelp-or-hurt-consumers/

fact, it seems that the best way to prevent such "hijacking" is to incorporate prepay programs into DSM portfolios to facilitate oversight that can ensure the focus remains on energy savings.

Q. Please compare the NASUCA guidelines to the Flex Pay program.

A. Below is a table comparing the NASUCA criteria to the terms of the Flex Pay program.[9]

Table 1 – NASUCA Criteria and How the Flex Pay Program Addresses Them

NASUCA Criteria	**Flex Pay**
(1) All regulatory consumer protections and programs regarding disconnection limitations or prohibitions, advance notice of disconnection, premise visits, availability of payment plans or deferred payment agreements, availability of bill payment assistance or arrearage forgiveness, and billing disputes are maintained or enhanced	Disconnection limitations or prohibitions: The Company has not asked for any lessening of the limitations and prohibitions against disconnection. In fact, low income customers will not be disconnected under the Pilot. Advance notice of disconnection: While Ameren Missouri asked to be relieved from the requirements for physical delivery of disconnection notices, it has only done so because of the multiple, increased number of notices customers will receive via their preferred electronic means. Premise visits: While Ameren Missouri has asked to be relieved from requirements to physically be present at the premises at disconnection, it has only done so because of the multiple, increased number of notices to the customer, enhanced contact and payment options, and heightened capacity to reconnect service with no reconnections fees. Availability of payment plans or deferred payment agreements: 25% of all payments will go towards the payment of any arrearages, and if the customer is moved back to traditional billing, the typical payment agreement will again be available. Availability of bill payment assistance or arrearage forgiveness: Customers will continue to have the same access to energy assistance payments that they would have if they were not on the program. Low income customers will also receive a $0.25 incentive for each day the account balance is above zero. Billing disputes: The only variances the Company has requested with regard to bill disputes involve timing, and that is by necessity. For example, it is not practical

[9] NASUCA Resolution 2011-3, https://nasuca.org/urging-states-to-require-consumer-protections-as-a-condition-for-approval-of-prepaid-residential-gas-and-electric-service-2011-03/

NASUCA Criteria	**Flex Pay**
	to have a bill delinquent date when service is dependent upon a positive balance. Additionally, although disputes may not be able to be registered 24 hours before disconnection despite the numerous (and added) anticipatory disconnection notices that will be provided, the opportunity for reconnection will be greatly enhanced, mitigating the time off the system that the customer would have under typical disconnection circumstances.
(2) In the event that billing credits of a customer receiving prepaid residential electric or natural gas service are exhausted, the customer shall be given a reasonable disconnection grace period, after which the customer shall revert to traditional, credit- based service, subject to all rules and customer protections applicable to such service	While there is not a strict "grace period," there are numerous other factors built into the Flex Pay program for the customer's benefit: • Low income customers will not be disconnected under the Pilot, but instead shifted back to traditional payment after an 8-day grace period. • All customers will receive notices 2 days before, 1 day before, and the day of an anticipated zero balance, with an additional final notice occurring at 8 am the date of disconnection (which will not occur until after 11 am, granting an additional 3 hours for correction). • No disconnections will occur during non-business hours, including on weekends, when Company personnel are unavailable.
(3) Prepayment households include no one who is (a) income-eligible to participate in the federal Low Income Home Energy Assistance Program (LIHEAP); or (b) protected under state law from disconnection for health or safety reasons;	LIHEAP-eligible customers and energy assistance customers will have access to the Flex Pay Pilot just as post-pay customers do, and energy assistance payments will be accepted just as they are for post-pay customers. Low income has been defined as at or below 200% of the federal poverty level. However, these customers will *not* be disconnected under this program. The Flex Pay Pilot will *not* be available to customers who are identified as using electric dependent medical equipment at the service address.
(4) Prepaid service is only marketed as a purely voluntary service and is not marketed to customers facing imminent disconnection for non-payment;	The Flex Pay Pilot is being offered on a strictly voluntarily basis and Ameren Missouri will market the program in a nondiscriminatory manner.
(5) Utilities offering prepaid service also offer effective bill payment assistance and arrearage management programs for all customers, including customers with arrearages who choose prepayment service;	Again, Flex Pay Pilot customers will have access to available energy assistance, low income customers will receive credits for every day there is a positive balance in their accounts, arrearages will be offset by 25% of each payment made to the account, and all customers may choose to revert to traditional billing at any time.

NASUCA Criteria	**Flex Pay**
(6) Rates for prepaid service are lower than rates for comparable credit-based service, reflecting the lower costs associated with reduced cash working capital requirements, uncollectibles amounts and shareholder risk affecting a utility's return on equity;	Because this is a Pilot program, this has not been implemented. However, Ameren Missouri will monitor whether this is a possibility should the Pilot be expanded to a permanent program.
(7) Utilities demonstrate the cost effectiveness of any proposed prepaid service offerings through a cost versus benefit analysis and reveal how costs will be allocated among various classes of customers	Again, this is a Pilot program so as discussed later in my testimony, demonstrating cost-effectiveness should be considered at a full-program level. The Pilot concept is intended to provide data that will help us more effectively determine long-term cost-effectiveness.
(8) Prepayment customers are not subjected to any security deposits or to additional fees of any kind, including but not limited to initiation fees or extra fees assessed at any time customers purchase credits;	Flex Pay Pilot customers will not have any deposits to pay for entering the program. In fact, customers with existing deposits will have that deposit rolled into their accounts for the starting balance. Additionally, Pilot customers receive payment activity fee waivers – two per month – that traditionally billed customers do not enjoy.
(9) Utilities ensure there are readily available means for prepayment customers to purchase service credits on a 24-hour a day, seven-day a week basis;	Flex Pay Pilot customers will have 24-hour access to a variety payment options, many of which do not incur any fees.
(10) Prepayment customers can return to credit-based service at no higher cost than the cost at which new customers can obtain service	Flex Pay Pilot customers can return to traditional billing at any time with no additional fees. The customer may need to provide is a deposit equivalent to the deposit balance that would have been attributed to their account had they not switched to Flex Pay (which may be paid in installments if necessary).
(11) Payments to prepaid accounts are promptly posted to a customer's account so as to prevent disconnection or other action adverse to the customer under circumstances in which the customer has in fact made payment; and	Customer payments are posted to the supplier's platform in real-time and if power has been disconnected, it should be reconnected within the hour, regardless of whether Ameren Missouri's offices are open.
(12) Adequate financial mechanisms are developed and in place within the state to guarantee that funds prepaid by customers are returned to the customers who prepaid them if and when a company becomes insolvent, goes out of business or is otherwise unable to provide the services for which the funds were prepaid;	Ameren Missouri did not address this because its solvency is not at issue.

It is apparent that the Flex Pay program is in all material respects consistent with the NASUCA recommendations.

Q. Mr. Fortson supports his testimony on deprivation with a LIHEAP clearinghouse report stating prepayment programs are targeted at low- and moderate-low income households. What is your response?

A. Mr. Fortson's citation to the report does not provide the full story. In fact, the particular quote he provided suggesting that low income customers are targeted for prepay service was under the heading, "NCLC and others oppose prepaid service on the following grounds…"[10] In other words, the section he relied upon is not the position of the Report's authors but instead, is simply a recognition that some ("NCLC and others") oppose prepay programs on certain grounds. The report itself makes it clear that its authors are neither advocating for or against prepaid programs: "This report is an overview of prepaid utility service, detailing its history and current status, along with *providing perspectives from those who favor it and those who oppose it*."[11] In addition, the report notes that using the NASCUA guidelines is a means to mitigate low income concerns.[12]

Q. Does this report provide additional information that rebuts Mr. Fortson's claim?

A. Yes. SRP has the largest prepay program in the Country[13] and, as earlier noted, it is an energy efficiency program. According to this report, SRP's program has 141,800 program

[10] The National Consumer Law Center (NCLC) is a nonprofit organization headquartered in Boston, Massachusetts, specializing in consumer issues on behalf of low-income people. The NCLC primarily researches consumer law in America and writes books for consumer lawyers and other low income legal advocates. It does not take cases for or represent individual consumers.
[11] *Prepaid Utility Service, Low-Income Customers and LIHEAP*, LIHEAP Clearinghouse, Mar. 2014, p. 1 (emphasis added).
[12] *Id.*, pp. 9-10.
[13] Salt River Project (SRP), Arizona's second largest electric utility and the third largest municipally owned utility in the United States, operates the SRP M-Power prepayment meter program initiated in 1993, the largest program of its kind in the United States.

participants.[14] Only 20,000 of them (less than 15%) are low income.[15] This hardly supports the notion that such projects are "targeted" to low income customers. In any event, as earlier discussed our proposed program includes protections and is consistent with the NASUCA criteria.

Q. Regardless of Dr. Marke's apparent views about the proposed Pilot's appropriateness for low income customers, Dr. Marke was also not clear regarding which customers would qualify as low income.[16] Please clarify which customers would qualify as low income for the Flex Pay Pilot.

A. Certainly. MOPSC Schedule No. 6, Sheet No. 218 of the tariff sheets submitted with the application and my direct testimony in this case notes that eligible low income customers include "customers who are eligible for the low-income exemption under Rider EEIC." MOPSC Schedule No. 6, Sheet 91.2 within the Company's approved Rider EEIC tariff defines "Low-Income" customers as residential customers who are eligible pursuant to Section 393.1075.6 RSMo, and further clarifies that this means:

> …customers eligible under this definition will be exempt from Rider EEIC charges for 12 billing months following assistance received from either Missouri Energy Assistance (a.k.a. Low Income Home Energy Assistance Program or LIHEAP), Winter Energy Crisis Intervention Program, Summer Energy Crisis Intervention Program, the Company's Keeping Current Low Income Pilot Program, and/or the Company's Keeping Cool Low Income Pilot Program.

[14] *Id*., p. 3.
[15] *Id*., p. 4.
[16] Marke Rebuttal, p. 16.

Finally, as noted in Appendix A of the variance request accompanying the Company's application in this case, LIHEAP defines "low income" as at or below 200% of the federal poverty level.[17]

Q. Why are you limiting the low income participation to those who are exempt from the Rider EEIC charges?

A. Limiting low income participation in this manner provides a consistent and cost-effective manner for identifying low income participants. First, Rider EEIC is based, as I explained above, on qualification for multiple assistance programs, including the federal Low Income Home Energy Assistance Program ("LIHEAP"). If a customer has qualified for any of these assistance measures in the last 12 months, they know they will also qualify for Flex Pay's low income protections. This also alleviates the need to either in-house, or through out-sourcing, conduct an examination of customers' personal finances to determine whether they qualify under other criteria. This keeps costs lower and maintains consistency between how we have defined low income customers throughout the operation of our MEEIA programs.

Q. In their respective testimonies, Ms. Huber and Mr. Hyman also expressed concerns about how LIHEAP and other energy assistance opportunities will work with the pilot. Please elaborate further on how that will work.

A. First let me reiterate what I just said: a post-pay customer who qualifies for low income assistance will continue to qualify if they become a Flex Pay customer. The Missouri LIHEAP has two components: Energy Assistance/Regular Heating ("EA") and Energy Crisis Assistance Program ("ECIP"). Both of these payment types can be provided to prepay customers under current Missouri LIHEAP rules. The EA benefit amount is based upon household size,

[17] Since 4 CSR 240-13.055 defines "low income" as less than 150% of the federal poverty level, the Company asked for a waiver of the rule to make sure it aligns with the LIHEAP definition of 200% and lower.

income and the type of fuel used for home heating. This provides customers with a one-time formula-based payment for heating bills from November through March. In the case of EA, the agency will make a LIHEAP pledge on the customer's account, which will stop any notices for a $0 balance, meaning the low income customer would not be returned to traditional post-pay for non-payment. The account would continue to use energy and incur a negative dollar balance, but because of the pending EA pledge, there will be no $0 balance notices. Once the actual EA payment is received, 25% of it will be applied to the arrearage portion of the customer's account and the remaining 75% will be applied as a credit. When a customer has arrearages on their prepayment account, the Community Action Agencies will gross up the EA payment to factor in the 25% portion going to arrears.

The ECIP is available to households in a verifiable energy crisis during the following months: Winter ECIP from November through May with a maximum assistance of $800 and Summer ECIP from June through September with a maximum assistance of $300. Missouri LIHEAP defines a crisis to include: "Pre-paid electric customer indicates their pre-paid usage is about to run out."[18] In an ECIP situation, the agencies currently work with Ameren Missouri to determine the customer's need by looking at amount past due, amount needed to establish a payment agreement, opportunity for payment agreement, etc. Consistent with current practice, ECIP payment amounts under Flex Pay will be customized to the individual customer's situation. As with EA payments, the first 25% will be applied to the arrearage portion of the customer's account and the remaining 75% will be applied as a credit. When a customer has arrearages on their prepayment account, the Community Action Agencies will gross up the ECIP payment to factor in the 25% portion going to arrears.

[18] Missouri LIHEAP Policies and Procedures 2018 Manual, p.57, https://**dss.mo.gov**/fsd/energy-assistance/pdf/**liheap**-manual-2018.pdf.

Q. Do you have any other basis for stating that participation in Flex Pay will not change the low income assistance available to customers?

A. Yes. An informal survey of the 19 CAAs serving Missouri, for which we received 11 responses, confirmed that ten of them currently provide LIHEAP funds to prepay customers. This indicates that low income assistance and prepay programs work together. In addition, as noted, the LIHEAP rules contemplate LIHEAP assistance to prepay customers. Of course, when the Pilot is approved, we will work with the Community Action Agencies that provide assistance for Ameren Missouri customers to determine any information they may need so that they can pledge the appropriate payment amount.

Q. Have you consulted any Community Action Agencies in Ameren Missouri's service territory?

A. Yes. We met with both the Community Action Agency of St. Louis County ("CAASTLC") on July 11, 2017 and the Urban League on July 14, 2018. We provided a presentation on the proposed Flex Pay Pilot and had discussions with several staff members to get their impressions of the program and opinions about low income participation and future collaboration. We also accepted a CAASTLC recommendation to bring in some of its clients and host a meeting at its location. Nine out of the 15 clients CAASTLC invited to participate attended. The two-hour meeting was facilitated by CAASTLC as an informal focus group to encourage dialogue and gain insights on customer perceptions about the prepay program. A staff member from North East Community Action (NECA) Corporation also attended the meeting to learn information about the program. The interactions were positive and Ameren Missouri is committed to continue to collaborate with these agencies to make sure the program's implementation works for these Agencies.

Q. Ms. Huber also expressed concerns regarding the fees customers may incur in making payments. Can you address those concerns?

A. The participants always have opportunities to make payments without incurring *any* fees depending on their method or frequency of payments. For instance, a customer can make unlimited payments directly from her/his checking account without incurring any fees. If the customer pays with cash or with a credit card, they will still incur no fees so long as they only do this two times per month.

I understand and anticipate that the number of payments per month could increase, and it is entirely conceivable that the average number of cash or credit card payments per month could be more than three.[19] We will be able to track what payment channels are being used, and we will even be able to report the amount of payment fees incurred. However, we have to balance how many fee waivers we offer (particularly since there are other ways to prepay without incurring any fees at all) against increasing the costs of the program.

V. FLEX PAY AS A MEEIA PROGRAM

Q. Several parties to this proceeding have raised questions regarding whether the Flex Pay Pilot can qualify as a MEEIA program. What are their primary objections?

A. Largely the arguments fall into two categories:

1. The MEEIA statute requires energy efficiency programs to be cost-effective and, they say, the Pilot is not cost-effective; and

[19] Today, traditional pay customers whose preferred payment method involves fees are already paying a fee once monthly. Since the Flex Pay Pilot will waive two monthly fees, if we consider the actual customer cost for a weekly (four-times–per-month) payment scenario, the customers would increase their monthly cost by either $1.10 or $2.35. The Pilot design minimizes the overall burden of fees and still maintains customer choice for using their preferred payment method.

2. MEEIA rule 4 CSR 240-20.092(1)(M) specifically excludes "deprivation of service" from the definition of demand-side program and, they say, prepaid programs constitute "deprivation."

Q. With respect to the others' cost-effectiveness argument, are you implying that the statute does not require that a MEEIA program be cost-effective?

A. No. While I am not an attorney, my understanding is that the statute requires DSM programs under MEEIA to pass a cost-effectiveness test, but is silent when it comes to *how* one defines the program that must pass a cost-effectiveness test when, as in this instance, the program has a study and exploration phase; i.e., is being started as a pilot. Now, I also acknowledge that a "program pilot" is included in the definition of "approved demand-side program" in the Commission's regulations.[20] However, that regulation does not address whether the cost-effectiveness is limited just to the pilot phase of the program, or if the pilot phase can be approved if preliminary estimates show that the *program itself* – once it reaches its permanent phase – is expected to be cost-effective.

Q. Does it make sense that if the pilot phase of a DSM program can't itself pass a cost-effectiveness test if viewed in isolation, the pilot can never be operated under MEEIA?

A. No, it does not, because pilots are generally so small in scale they would rarely meet a cost-effectiveness test on their own. This would mean there would be no, or very few, pilots under MEEIA. Yet we know that the MEEIA rules contemplate the inclusion of pilots in a MEEIA DSM portfolio. *See, e.g.,* 4 CSR 240.20.094(4)(G), which provides:

[20] 4 CSR 240-20.093(1)(B). Also, because this is a rule and not the statute itself, if there were a technical issue regarding its application, it is my understanding the Commission can approve the program under the statute and waive the rule.

> Designation of Program Pilots. For demand-side programs designed to operate on a limited basis for evaluation purposes before full implementation (program pilot), the utility shall provide as much of the information as possible required under subsections (2) (C) through (F)[[21]] of this rule as is practical and shall include explicit questions that the program pilot will address, the means and methods by which the utility proposes to address the questions the pilot is designed to address, a provisional cost-effectiveness evaluation if the program is subject to a cost-effectiveness test under section 393.1075.4, RSMo, the proposed geographic area, and duration for the program pilot.

Q. Are there particular aspects of the pilot program provision of the MEEIA rules that provide an indication that the program during the pilot phase need not pass a cost-effectiveness test?

A. I believe there are, and that is in addition to the fact that it would not make sense if that phase had to pass the test for the reasons I gave above. First, the rule speaks to a period "before full implementation," the point being that a pilot program is not itself the program, but is a phase of a larger program – a fully implemented one. Second, for the pilot phase only a "provisional," cost-effectiveness test result must be provided. "Provisional" means "arranged or established for the time being, pending permanent arrangement or establishment."[22] "For the time being" (during the pilot phase), the Flex Pay *Pilot's* cost-effectiveness result (i.e., the TRC) is below 1.0, but that does not mean a Flex Pay *program* is not cost-effective. In fact, as my direct testimony indicates, it is expected to be cost-effective as a full program.

Q. Are there other particular rules that support the notion that the long-term viability of a program is relevant for determining cost effectiveness?

A. Yes. 4 CSR 240.20.094(6)(B) provides that, in the event an approved program is determined to not be cost–effective the utility should consider, among other things, whether the

[21] This citation appears to be a typo, and from the context of the rule, it is clear that the rule intends to reference *(4)*(C) through (F).
[22] Webster's New World College Dictionary (4th ed).

long-term prospects indicate that continued pursuit of a demand-side program will result in long-term cost-effectiveness. This is strongly suggestive of the conclusion that whether a program is "cost effective" depends on the time period over which the Commission asks the question and the stage of implementation a particular program may be in. It certainly does not support the conclusion that simply because a pilot phase of a program (viewed in isolation) does not have a TRC of greater than 1.0 the pilot cannot be operated within MEEIA.

Q. But doesn't Mr. Fortson testify that it is difficult to reasonably estimate the TRC for a fully implemented Flex Pay program?

A. While Mr. Fortson questions the uncertainty of the cost effectiveness results, he did not point out specific inputs or assumptions that he believed were unreasonable.[23] In addition, no other party has provided specific evidence refuting the Company's cost effectiveness modeling. In designing the Flex Pay program, we sought information from program implementers, various Ameren departments (i.e. metering and contact center), managers of other utility prepay programs, Community Action Agencies, and Prepay Energy Working Group ("PEWG") members, along with various studies and other documentation. Finally, running a pilot helps gather operational experience that can be analyzed to improve initial cost effectiveness assumptions and/or to uncover design improvements leading to improved cost effectiveness.

Q. Several parties mentioned a 2016 decision by the Kansas Corporation Commission ("KCC") regarding a Westar Energy, Inc. and Kansas Gas and Electric

[23] The model containing the cost effectiveness calculations was provided to the parties shortly after my direct testimony was filed.

Company ("Westar") prepaid energy program.[24] Specifically, parties noted that Westar was unable to show that the program was cost effective. Is the Commission order on Westar's program relevant in this proceeding?

A. No, the Westar matter does not provide any useful information regarding the Flex Pay program. The KCC's order clearly states that the program was to be dissolved because Westar failed to provide a previously ordered quantitative analysis of the cost effectiveness of the program.

In contrast, Ameren Missouri has already provided a provisional cost effectiveness analysis for a fully implemented program and has included a full evaluation as part of the scope of the Pilot. Additionally, we have included several key learning objectives to help assess the cost effectiveness of both the pilot phase and a fully implemented program.

Q. Have there been other utility cost effectiveness analyses run on a prepay program?

A. Yes. Duke Energy Carolinas proposed a Prepaid Advantage Energy Efficiency Pilot Program in January 2018. The filing includes an estimation that the program is expected to have a TRC of 1.19.

Q. Dr. Marke testified that he hasn't reviewed the cost effectiveness model but he believes the TRC is inaccurate and skewed towards a positive ratio. How do you respond?

A. First, in response to DR MPSC 27, a calculation error was corrected that resulted in the full scale TRC for a fully implemented program changing from 1.41 to 1.13. However, as stated earlier in my testimony, with regard to the components of the program compiled for the

[24] Kansas Corporation Commission, Docket No. 14-WSEE-148-TAR, *Order Denying Motion to Convert Prepay Pilot Program into a Permanent Program*, Dec. 15, 2016.

TRC, a thorough investigation and research effort was conducted in order to accurately account for all reasonable associated costs and benefits. OPC asserts that the cost effectiveness model excludes customer payment processing fees; this is incorrect – the model includes two transaction fees for each customer each month. Based on our research, we expect many of the participants will never incur payment processing fees because of the no-cost channels available, while other participants may incur more than two payment processing fees per month. Consequently, assuming an average of two transaction fees is reasonable for the provisional cost effectiveness testing.

Q. In discussing the cost effectiveness of the pilot, OPC states that the inclusion of "non-energy costs" would certainly prove the program to not be cost effective. Do you agree?

A. Not at all. First, Dr. Marke has provided no documentation to support either the inclusion or amount of "non-energy costs" or the reasonableness of those estimations in light of the Flex Pay program as a voluntary program, or otherwise. The MEEIA rules define "non-energy benefits," and those benefits generally cover the types of categories that Dr. Marke characterized as "non-energy costs." However, the rules further state that "Non-Energy Benefits may be included in the total resource cost test (TRC) *only if they result in avoided utility costs that may be calculated with a reasonable degree of confidence*. Non-energy benefits may always be considered in the societal cost test," (emphasis added). The types of "non-energy costs" that Dr. Marke lists, even if they were quantifiable, would not qualify to be included in the TRC. In contrast, the Company's model has included in the TRC quantifiable non-energy benefits that comport with the MEEIA rules.

Q. With respect to the second argument against including the Pilot in the Company's MEEIA portfolio, Mr. Fortson, Mr. Hyman, and Dr. Marke have all cited the rule prohibiting deprivation of service. How do you respond?

A. I understand that the rule excludes from the definition of a DSM program a program that constitutes "deprivation of service." However, the term "deprivation of service" itself is not defined. In my opinion, deprivation of service would mean to unfairly withhold service or not allow the customer to obtain the same services offered to other customers. Mr. Fortson offered a definition, with which I don't necessarily disagree, that is, "deprivation of service" would be when the customer is deprived of the basic necessity of electricity to a point of it potentially being detrimental to that customer. Given how the Flex Pay program is structured – including that it is completely voluntary, incorporates inherent protections, and provides the ability to even regain service much more quickly than after a standard disconnection – I do not believe the prepayment of energy in the context of this Pilot can be considered a "deprivation of service."

In an effort to get more information about what "deprivation" actually is, I located an article from Esource that states:

> There is a common misconception that most prepay energy savings come from "deprivation rather than conservation" because of frequent or long-lasting disconnections. However, studies from the NRECA, APS, and the Oklahoma Electric Cooperative have shown that most prepay customers have never had a disconnect, that disconnects almost always last fewer than four hours, and that disconnects result in a negligible 0.01 percent savings compared to 5 to 15 percent savings from prepay in general.[25]

In other words, merely participating in a prepaid energy program does not mean a customer is being deprived of service. In fact, many customers are never disconnected, and those

[25] ESource: *Does Prepay Change Behavior and Drive Conservation?* Beth Fitzgerald, Ryan Austin (Feb. 4, 2016).

who are can be reconnected quickly with a payment that returns their account to a positive balance. Dr. Zarnikau addresses some of these issues in greater detail in his surrebuttal testimony.

Q. But isn't it true that if a customer runs out of credit on their account the electricity will be immediately shut-off, "depriving" them of electricity?

A. In the case of the Flex Pay Pilot, no. As I previously stated, low income customers will not be disconnected at all – they will simply be shifted back to traditional pay if no payment is made after the 8-day grace period. Non-low income customers may be disconnected (after numerous notices and only during approved times) but can be reconnected very quickly at any time. Customers can also return to traditional payment at any time without prejudice.

Q. **Doesn't the fact that customers may be disconnected more times under prepaid service prove that it results in "deprivation?"**

A. In the situation of widespread use of prepaid electric service, it may not be unusual to see an increase in the *number* of disconnections. The number of disconnections, however, is not what's important; the important measurement is *how long* those disconnections last. Traditional billing typically has much longer disconnection periods than the Flex Pay Pilot anticipates, yet it is not considered a deprivation of service. Dr. Zarnikau also addresses this issue in greater detail.

Q. Are there other reasons the Pilot does not constitute "deprivation of service"?

A. Yes. "Deprivation" implies against someone's will or a negative customer experience. As earlier noted, customers do not have to participate in Flex Pay at all. Second, while critics of prepayment hold steadfast to claims that the arrangement is punitive on certain segments of society, such as low income groups, the data from implementations show the customer experiences with prepaid energy to be positive, as time and again customers using the program provide strong positive feedback about it. In the 6 month interim report provided to the Arizona Commission on December 18, 2012, Arizona Public Service had 1,162 customers enrolled in their prepay pilot. Their report stated that customer feedback received-to-date had indicated that the participants were pleased with the program, and the advance payment process was assisting the customers with both budget and energy consumption control.[26]

In the Prepaid Advantage Pilot Program Report filed with the Carolina Commission in August 2017 it states, "The Company [Duke Energy] believes that the Pilot has been successful."[27] In March 2016, all participating customers were surveyed regarding their experience with the prepaid program. 52 customers provided responses, and a summarized quantitative analysis of their responses is provided below:

- 80% reporting a positive effect on overall satisfaction with Duke Energy. 11.7% reported a negative effect.
- 50% giving the program a perfect 10 customer satisfaction score. 71% scored it 8 or higher. 3.8% scored the program less than a 5.
- 59% of participants who believe they used less energy. 8% believe they use more energy.
- .06 the average number of disconnections per customer while on the program.[28]

In yet another report, out of 112 customers who were surveyed, 92% of customers on prepay service responded "very satisfied" or "somewhat satisfied" to the question, "How satisfied

[26] APS HEI Pilot Assessment and Status Report, Docket No, E-0 1345A-10-0075, filed Dec. 2012.
[27] Duke Energy Carolinas Prepaid Advantage Pilot Learnings Report, Docket No. 2015-136-E filed Aug. 15, 2017.
[28] *Id.*

are you with your prepay service?"[29] As a result, the report authors further reasoned that, given the large percentage of respondents with income levels less than $25K or in $25K-$50K range, the high levels of satisfaction may help address the perception of the appropriateness of voluntary prepay service for lower income consumers. [30]

According to Black & Veatch, "because customers see the dollar effect of their energy use each day, prepay is one of the few energy efficiency (EE) initiatives with a visible correlation to the bill. Unlike a typical monthly bill, prepay customers have a clear understanding of how much their energy cost them the previous day, and have an opportunity to respond proactively in order to curb costs and stay within their budget for the month. This 'near real time' view of energy costs – along with the flexibility to make payments timed to their budget requirements – provides customers with transparency and opportunities to better predict and manage their energy costs…By providing feedback and education tied directly to the bill, prepay creates a regular dialog between the utility and the customer that is both useful and actionable."[31]

Q. Does it make sense to operate the pilot phase of the program outside MEEIA before allowing full scale deployment?

A. No, it does not. As presented earlier, Flex Pay has phases – pilot and, if the pilot is successful – full implementation. The MEEIA rules contemplate operating the pilot phase under MEEIA. It would be incongruous for the Commission to require the energy savings potential of a pilot program designed specifically to encourage energy efficient behavior to be evaluated *outside* MEEIA before it can be approved under MEEIA as a full scale program. Following that approach defeats the purpose of allowing pilots under MEEIA in the first place.

[29] Energy Conservation Impact Study, a project for the Northwest Energy Efficiency Alliance, prepared by DEFG & Michael Ozog, Dec. 2013.
[30] *Id.*
[31] *Prepay Energy as a Gateway for Customer Engagement*, March 24, 2017, Paul Rice, Principal, Black & Veatch.

Q. Dr. Marke notes that he specifically referenced prepaid energy as an example of deprivation of service during the recent MEEIA rulemaking, implying that all prepaid programs necessarily constitute "deprivation of service."[32] How do you respond?

A. First, there was no material discussion regarding what the term "deprivation of service" means, so there was no real debate at the time. The Commission certainly made no ruling nor said anything during the rulemaking process, including in its *Order of Rulemaking*, that defines the phrase or otherwise indicates what it means. Second, there could be prepay programs that do constitute "deprivation of service." These would include involuntary programs, programs without adequate notice, programs that do not adhere to weather moratoriums, etc.

Q. Why did you not object to OPC's "deprivation of service" language in the rulemaking proceeding?

A. Simply put, I had no objection to excluding true "deprivation of service" as an energy efficiency offering; i.e., programs that lack the many consumer protection features the Flex Pay Pilot has. Additionally, although I disagreed with Dr. Marke's characterization of prepaid energy programs as an offering that inherently leads to deprivation of service, I saw no need to object at that time because no material evidence was being presented about prepay as an energy efficiency program. If there had been, I would have presented evidence regarding how prepay programs could be designed in a manner such that they do not constitute deprivation of service. Furthermore, during Commission proceedings, there are often discrete positions that I may agree or disagree with to varying degrees, but I do not feel compelled to address every single one of them point by point. I choose to speak up when I believe it is necessary based on

[32] File No. EX-2016-0334.

the depth and significance of the topic given the circumstances of those conversations and my perception of future opportunities for further debate on those topics.

Q. Assume for a moment that the Commission were to decide that "deprivation of service" means *any time* a customer is disconnected. How can the Pilot be operated as a MEEIA program in that case?

A. For the reasons just discussed, I do not believe that is – or should be – the Commission's intention or conclusion. But if it were, it's my understanding the Commission can grant a variance from its rules. This "deprivation" concept is not in the MEEIA statute, but is only a recently-included addition to the MEEIA rules. I ask the Commission to waive that part of the definition of demand-side program if the Commission determines it applies.

Q. During the rulemaking and in his rebuttal testimony, Dr. Marke references the case of Marvin Schur as an example of the negatives of prepaid energy service in an attempt to suggest that the Flex Pay Pilot constitutes deprivation of service. Does the example involving Mr. Schur have anything to do with the Pilot proposed in this case?

A. Absolutely not. First, let me be clear that what happened to Mr. Schur was a tragedy and my testimony regarding Dr. Marke's example is in no way meant to minimize what happened to Mr. Schur. However, the reference in regard to prepaid energy programs is so misleading that I feel compelled to provide additional details.

First, and very importantly, Mr. Schur was not on prepaid energy service. The fact that OPC's article references Mr. Schur "saving up" to pay his electric bill makes that fact very plain. A similarly situated customer under the Flex Pay Pilot would have been able to use as little as $1 to restore power, then any arrearages would roll into the Pilot's built-in arrearage recovery plan. Moreover, a customer in that position could return to traditional pay at any time without being placed at a disadvantage for having tried it. The facts of Mr. Schur's situation were that, as a *traditional pay* customer and due to his non-payment, Mr. Schur had been put on a "limiter"[33] by his local municipal power provider. At the time, it was the municipal utility's policy to install a limiter on the house and keep it there for 10 days. If within 10 days the homeowner hasn't brought the account current, power is shut off completely. In this case, the limiter was installed on January 13th and Mr. Schur was found dead on the 17th, well before the 10-day period had run out. The limiter shut power to the residence off shortly after installation and was never reset. Mr. Schur could have reset the limiter himself, yet the reports are uncertain whether he had been told about this or whether he was able to do it.[34] Moreover, at the time there were no mandatory weather-related moratoriums for disconnections in place. In Mr. Schur's town, temperatures[35] were low enough that had Mr. Schur lived in Missouri, Missouri's Cold Weather rule would have been in effect and no disconnections of *any* customers would have been allowed for the entire month, either under the terms of the Flex Pay Pilot, or traditional service in this instance. Furthermore, while the reference by Dr. Marke leaves the impression that Mr. Schur was also a "low income customer" it was later reported that Mr. Schur bequeathed $600,000 to the local hospital.[36]

In short, there are protections in place both on and off the Flex Pay Pilot to mitigate the risk of a tragedy like this from occurring in Missouri. Still, there is no way under any electrical service model to completely eliminate all risk. I should also note that through our participation in

[33] A "limiter" restricts the amount of electricity to the home. The device not only limits power to the home, but it will blow out like a fuse if consumption levels rise past a set level. Then, power cannot be restored to the home until the device is reset either by the customer or the utility.
[34] CNN. Feb. 4, 2009 http://www.cnn.com/2009/US/02/04/freezing.death.folo/index.html.
[35] US Climate Data Bay City, MI, Jan. 2009 https://www.usclimatedata.com/climate/bay-city/michigan/united-states/usmi1206/2009/1.
[36] Fox News AP Feb. 5, 2009, http://www.foxnews.com/story/2009/02/05/michigan-man-3-who-froze-to-death-over-1g-in-unpaid-bills-leaves-600g-to.html.

the Prepay Energy Working Group, which carefully tracks the operation of all prepay programs across the country, it is apparent that there have been no instances of the type Dr. Marke implies might happen by using Mr. Schur as an example arising from prepayment disconnections. This is in despite of the fact that prepay energy programs have been around for decades.

Q. Is Mr. Hyman's linkage of prepaid energy to deprivation consistent with this position in other cases before the Commission?

A. No, it is not. For instance, there has been a lot of discussion of inclining block rates lately. Inclining block rates are meant to drive reduced energy consumption by increasing the price for increasing amounts of energy usage which can easily lead to faster disconnections than do other rate designs. According to the logic presented by other parties in this case, inclining block rates would likely be a "deprivation" program. In fact, the analysis I have personally conducted and presented in a prior rate case[37] shows that customers who receive LIHEAP assistance have higher than average electric usage, which virtually guarantees those customers would hit disconnection status under inclining block rates *faster* than the current rate design. The same logic applies to time-of-use rates which result in increased charges during times of extreme weather. In other words, seemingly greater risks may apply, particularly for disadvantaged customers, under inclining block rates and time-of-use rates then for the Flex Pay Pilot.

Q. Let's assume that you had a customer who had a $1,000 arrearage. Please contrast a typical billing agreement with Flex Pay payment flexibility.

A. A typical payment agreement for Ameren Missouri would require a 20% upfront payment and last for 6 months. A $1,000 arrearage would mean an upfront payment of $200,

[37] Davis Rebuttal, ER-2012-0166, p. 12, l. 4-20.

plus a monthly installment of $133 for six months, both in addition to each month's electric bill. In contrast, the proposed pilot would require a payment as little as $1 with 25% of that payment and future payments earmarked for arrearages. Assuming monthly usage on Flex Pay of $200 (which is twice the amount of an average customer), a customer would pay $250 per month, consisting of a $50 dollar payment towards the arrearage and $200 for the electricity consumed, which would equate to a payment term more than three times as long (20 months). Flex Pay would therefore reduce the monthly payment burden for that customer from $333 to $250 (and also avoid the $200 upfront payment) and reduce the likelihood of deprivation compared to traditional service.

Q. If it is so easy to get service restored under the Flex Pay Pilot, would that tend to result in deprivation?

A. No, if anything it would mean a customer would have *more* time with service on than under traditional pay.

Q. Based on the discussion above, do you believe Ms. Huber's concern about not having limits on the amount of arrearages that can be brought onto the program is valid?

A. No, if anything the design elements around arrearages inherent in Flex Pay are positive for customers.

VI. OTHER MISCELLANEOUS POINTS MADE IN REBUTTAL

Q. Instead of the Flex Pay Pilot, could the Company just run a program that focuses on providing customers with information that supports behavioral change as suggested by DE?

A. We are already running a program supporting behavioral change. DE and OPC recognized in testimony that we provide the Home Energy Report as an approved behavioral program under MEEIA. Mature home energy report programs may result in energy savings of between 1% to 2% per year. In addition, Ameren Missouri has a billing alerts program for all customers where customers can set budgets for the month, usage thresholds, and/or get a weekly update that shows the amount of electricity billed so far in the billing cycle and a projection of the bill at the end of the billing month. A comparison of consumption behavior between customers not subscribed to billing alerts and customers subscribed to billing alerts that give the weekly dollar used and projected monthly bill showed that there are no energy savings for customers who enroll for billing alerts.

Q. If a typical behavioral program can only save 1% to 2% and Ameren Missouri's billing alerts are not resulting in energy savings, does that indicate there are significant savings associated with the package of behavioral elements in the Flex Pay Pilot?

A. Yes. As I previously explained, the Pilot will provide participating customers with education and information through ongoing communications, as well as tangible interactions with electric service payments, to help customers make informed energy usage decisions. To achieve the 5% to 14% energy savings that have been documented for prepay programs, it is apparent that the prepayment aspect of the program is integral because the individual experience with the other behavioral elements (i.e. behavioral feedback or ongoing bill alerts) have not approached those levels of savings.

Q. Dr. Marke testified that customers can prepay for service already. Is the fact that a customer can technically prepay today relevant to whether the Commission should approve the proposed Pilot?

A. No. Prepaying for service with Ameren Missouri's current systems does not get a customer anywhere near the experience provided by Flex Pay and thus does not induce the energy savings such a program can provide. For instance, even if a customer prepaid for energy service, there is no practical way to monitor how much money is available on the account on an ongoing daily basis. The only way I can think of a customer getting an update on their daily account balance would be to read her/his meter on a daily basis, then build a custom billing spreadsheet to estimate a daily balance.

In contrast, Flex Pay is putting it all together for customers by linking their own behaviors, energy efficiency tips, and the cost of electricity to help customers make more energy-conscious decisions. There seems to be a general trend that giving customer access to more information about their consumption is a good thing; but information is just information. Because the purpose of Flex Pay is to save energy, it operates in a manner designed to create clear links to behaviors. I do not understand why we would back away from a pilot for a program that creates such strong transparency between the cost of electricity and the amount of consumption.

Q. Dr. Marke suggested that Ameren Missouri should obtain approval from an Institutional Review Board ("IRB") before implementing the Flex Pay Pilot. He stated that, "An IRB approval is required for any research involving human subjects by institutions, groups, or individuals whose research receives support, directly or indirectly, from the United States federal government."[38] How do you respond?

A. My initial response is that Dr. Marke's attempt to analogize human research studies at universities and at places like the National Institutes of Health to a prepay program

[38] Marke Direct Testimony, p. 21.

misses the mark as badly as his attempt to use Mr. Schur's tragic death (which did not involve a prepay program) to criticize the Company's proposal in this case. Taken to its logical conclusion, any program (under MEEIA or not) where a utility is changing rules or policies in a manner that is designed to change or encourage certain behavior by customers would have to be first vetted and approved by an IRB before the Commission could even consider it, including use of inclining block rates, etc.

Q. What about Dr. Marke's claim about the need for "additional inquiry" on the IRB issue he has injected into this case?

A. Dr. Marke went on to note on the same page that, "Additional inquiry may be required to see whether or not Ameren Missouri would be legally required to have IRB approval in addition to Commission approval." So we did look into this further, and determined that IRB approval is not necessary. Please note that I am not an attorney (and neither is Dr. Marke), so I am relying on counsel's advice here.

Q. Please explain.

A. There are any number of IRBs in the state of Missouri, and Dr. Marke does not point to one that he believes would apply to a utility's tariff provisions, much less Ameren Missouri in particular. Rather, IRBs are generally seen at specific colleges and universities or other research institutes that receive certain federal funds.

Upon my attorney's inspection of the statutes upon which the regulations were based, 42 USC 289(a), it is apparent that the IRB system is setup to monitor programs in which the federal government is a financial participant (e.g. grants, contracts, cooperatives). The statute specifically states:

> The Secretary shall by regulation require that each entity which applies or a grant, contract, or cooperative agreement under this chapter for any project or program

> which involves the conduct of biomedical or behavioral research involving human subjects submit in or with its application for such grant, contract, or cooperative agreement assurances satisfactory to the Secretary that it has established (in accordance with regulations which the Secretary shall prescribe) a board (to be known as an "Institutional Review Board") to review biomedical and behavioral research involving human subjects conducted at or supported by such entity in order to protect the rights of the human subjects of such research.

Since the federal government is not contributing to the funding of the Pilot, an IRB is not applicable.

Beyond just the letter of the law, however, Dr. Marke himself touches on the history of why IRBs were created in the first place – past egregious abuses of human test subjects. While Dr. Marke may not personally approve of the Flex Pay Pilot, it cannot legitimately be compared to past human rights abuses.

Q. Have other prepay programs been subject to an IRB review?

A. None that I am aware of. In addition, the Smart Grid Investment Grant, which provided federal funding to utilities under the American Reinvestment and Recovery Act adopted by Congress in 2009, directly supported the piloting of prepayment programs.[39] I am not aware of any of those pilots being subject to an IRB.

Q. Mr. Fortson and Dr. Marke expressed concerns about the program period of the Pilot compared to the MEEIA 2 implementation period. Is this a concern?

A. No. As I explained in my direct testimony, we already have provisions in the MEEIA 2 tariffs for long lead time projects that cover the timeframe associated with the Pilot, even though that timeframe extends beyond the "end" of MEEIA Cycle 2. While I realize that the Pilot will not launch until near the end of MEEIA 2, the lengthy start-up associated with the Pilot lends itself to the current timeline. We should not let arbitrary and artificial regulatory timelines

[39] Smart Grid Investment Grant Final Report p. 30, DOE, Dec. 2016.

drive when we offer programs to customers because the approval and tracking of programs is largely invisible to customers. Finally, as I explain later in my testimony in response to proposed conditions, we will be tracking all of the costs and program impacts separately.

Q. Dr. Marke criticized the use of MEEIA Cycle 2 R&D funding to support the Flex Pay Pilot. How do you respond?

A. First, my direct testimony stated that the Company is not expecting to exceed the Commission approved budget for MEEIA Cycle 2 (or the 20% variance allowed by the MEEIA rules) and therefore could fund the Pilot without requesting a budget increase. I mentioned that the R&D funds could be directed towards the Pilot as an option, but that was not my outright recommendation.

Q. Both Staff and DE raised questions about how the fixed charges will be prorated on a daily basis. Please clarify how this pro-ration will work.

A. As provided in response to MPSC005, fixed monthly charges are prorated by dividing the total charge by 30.4 (average number of days in a month). The prorated daily charge is deducted from the balance each day. Prorating these amounts can result in small differences and will be trued up monthly with Ameren Missouri's CSS billing system.

Q. Staff questioned how the block rates will be applied on a daily basis. Please explain how this will work.

A. Even though customers will be charged on a daily basis, behind the scenes customers will still be following their billing cycle and billing parameters that apply to traditional service. This means that when it comes to block billing, a cumulative total for the billing month will still be used and charged as if the customer is on traditional service. For example, in the case where a customer crosses the winter block of 750 kWh on day 15 of her/his billing month, the usage up to day 15 will be based on the first block pricing and the usage after day 15 will based on the second block pricing, while day 15 will be split between blocks based on actual usage. In short, the blocks will be charged the same as they are billed under traditional service except the daily charges are accumulated during the billing month. We will also be able to communicate to customers what rate applies on any given day.

Q. In her testimony, Ms. Kliethermes expressed concern about the lack of explanation regarding how the estimated days remaining will incorporate seasonal rate changes and recommends that we specify the 'days remaining' as an estimate. Do you agree with the concern?

A. First, I agree that the "days remaining" is an estimate and it will be presented to customers as such. Regardless of rate changes, any "days remaining" presented will be an estimate because it relies on weather and customer behavior that are unforeseen at the time of creating such an estimate. Customers will also receive notification that the seasonal rate changes are occurring and will have an impact on their daily charges. The estimates are a tool, not unlike budget billing or alert programs which may provide estimates of usage for traditional pay customers. With that said, a Flex Pay customer's daily updates are based on actual usage. Ameren Missouri will send the actual meter reads to its implementation contractor daily. The implementer will use those meter readings, adjusting for any payments made, to calculate actual credit amounts remaining each day, including the point at which a customer’s account balance may have reached zero. Participating customers will receive introductory training during pilot enrollment to ensure they understand the daily information provided. I also believe the overall customer experience is well balanced due to the ongoing notifications about account balances, and the grace periods inherent in the disconnection process (e.g. starting disconnects after 11am the day after actual usage results in a $0 balance and only on non-holiday weekdays).

Q. You mentioned that the Flex Pay Pilot contractor's system will be reconciled to Ameren's billing system. Please explain what that means.

A. Ameren Missouri's billing system is the system of record tied with its accounting systems. This means that the prepay contractor’s system must be consistent with our internal applications. While the prepay contractor's system will be calibrated to Ameren's billing system, fixed costs will be prorated into daily payments which may result in small rounding differences. Therefore, periodically, the contractor's system will be reconciled with Ameren's billing system to ensure customers are not over-paying or under-paying. All reconciliations will be performed on a customer-by-customer basis and any differences will be applied to the accounts in the prepay contractor's system. Past experience from the potential contractors indicates the reconciled amounts at the customer level will be very small, possibly a few cents over a month.

Q. Part of the Flex Pay Pilot involves the calculation of a monthly throughput disincentive. Ms. Kliethermes' testimony discussed using the participant's historical usage as a baseline for estimating the monthly throughput disincentive. Do you believe this is feasible?

A. Yes, to the extent that the data is available for at least 12 months. However, to simplify matters, I suggest it would be better to estimate the savings based on actual usage for those customers by month. For instance, with a deemed savings of 10%, we can take the actual usage for the participants for a month and use the following formulas: 1) "current month usage absent the pilot" equals "current month usage" divided by 0.9; and 2) deemed savings equals "current month usage absent the pilot" minus "current month usage." So if you assume the current month usage is reported as 900: 900/0.9=1000 then 1000–900=100 (where 100 equals the deemed savings amount for that month). This method incorporates the intent of Ms. Kliethermes' suggestion that we estimate the throughput disincentive based on the usage of the participants, and also gets around historical data needs associated with a baseline.

Q. Ms. Kliethermes proposed to exclude the Flex Pay Pilot from the annualizations that applies to other energy efficiency measures. Do you accept this recommendation?

A. Yes, this recommendation is reasonable based on the limited knowledge of persistence and is also consistent with how we treat the Home Energy Report program.

Q. Do the questions or concerns raised by others about the Pilot support the need for a pilot?

A. Absolutely. There have been good, detailed questions about program design and operations that a pilot will be instrumental in answering.

Q. Can the Company run a pilot in a responsible manner?

A. Absolutely. From the testimony, it is clear that parties are worried about customer experiences and negative consequences. All of the data that I previously shared indicates that customers generally enjoy such programs. In addition, with some additional conditions that I address later, I believe that we can adequately monitor the Pilot and report out on what is or what isn’t working.

Q. Has anyone questioned the learning objectives of the proposed pilot?

A. Not at all.

VII. RESPONSE TO PROPOSED CONDITIONS

Q. Did Staff and DE recommend certain conditions if the Commission were to approve the proposed Flex Pay Pilot?

A. Yes. There were several conditions recommended which I will briefly list below and then follow with responses.

Staff's Recommended Conditions:

1. Staff requests that the Customer Experience Department of the Commission be involved during the creation process including the marketing, selection, and customer alert and notification initiation process
2. Staff recommends the Company be required to track each participant, the number of disconnections occurring in the flex pay pilot and that the Company reporting requirements be defined for every customer.
3. Staff requests that status reports be required and updated to include information on the success of the pilot program and the number of participants enrolled. Status reports must also include a review of the disconnection reports, a review of the arrearages and bad debt and an explanation of all best practices or lessons learned that can be applied to analyze the costs and benefits of the program.
4. Staff recommends that the Commission order Ameren Missouri to record any and all Flex Pay Pilot program costs, both capital and expense, using special accounting codes to distinguish such costs from other incurred costs that are included in Ameren Missouri's base rates.

DE's Recommended Conditions:

1. The Commission should deny the requested waivers related to contacting customers prior to disconnection.
2. The Company should be required to follow all provisions of the Hot and Cold Weather Rules.
3. Customers should be informed that they will be required to reestablish a deposit when they leave the program or the pilot ends. If some customers are required to provide a deposit for resuming traditional service, then the Company should be required to follow all pertinent repayment limitation and flexibility provisions in 4 23 CSR 240-13.030 (Deposits and Guarantees of Payment).
4. The Commission should determine how the monthly customer charge would be applied to the balances of participants. Ameren Missouri's application and testimony do not specify how the customer charge would be incurred by participants.
5. The Commission should require the Company to screen prospective participants to ensure that they do not need electricity to survive, up to and including individually contacting all customers that express interest. Examples of customers that should not be included in the program include customers that have a medical need dependent on electric service (even if such need is not already known or registered) and customers with household members that would be adversely impacted by a loss of service.
6. The Company should not be allowed to charge any payment processing fees for participating customers for four (rather than two) payments per month.

7. Customer participation in the pre-pay program should not affect customer eligibility for participation in any billing assistance, energy efficiency, or weatherization program in the event that a customer leaves or is removed from the pre-pay program.
8. Low-income customers should not be pressured into joining the program, e.g., through encouragement to do so when communicating with the Company or Community Action Agencies regarding billing assistance and weatherization.

Q. Staff's first condition was about involving the Commission's Customer Experience Department in certain aspects of the Pilot's creation. Do you agree with this recommendation?

A. Yes. The Company is willing to be transparent with the Customer Experience Department regarding the creation and implementation of the Pilot, including the communications with customers on the program. As far as selection of participants, while we do not yet have a selected evaluator, I anticipate the evaluator will provide significant input into participant selection to ensure proper analyses can be conducted.

Q. Staff's second condition was about tracking the experience of each participant. Is this a reasonable condition?

A. Yes. While it may seem relatively easy to track 1,000 participants, the reality is that we will be tracking many more participants because of participant churn in the program. Regardless, tracking individual experiences is a reasonable condition and will be necessary to provide the relevant inputs into a comprehensive evaluation of the Pilot.

Q. Staff's third condition was about the need for status reports and the recommended content. Is this condition practical?

A. Yes, and to implement it I propose we produce such a report every four months after the Pilot is launched.

Q. **Staff's final condition was about tracking all of the costs for the Pilot separately. Can this be done?**

A. Absolutely. It is standard practice for us to track costs at this level of granularity and doing so will be necessary to produce a proper evaluation of the Pilot.

Q. DE's first condition was that the Commission deny the Company's requested variances related to contacting customers prior to disconnection. Is that a reasonable condition?

A. No. The Company has proposed a *voluntary* pilot that requires a customer to provide sufficient contact information, and part of the Pilot's learning objectives is to assess the effectiveness of these communication channels. Furthermore, there are other features of the program that help mitigate concerns the DE may have in this area. For instance, as explained in the response to Data Request MPSC 0041, if we receive feedback that the communication channels are not active (e.g., an email or text bounce back) then a Company representative will directly follow up with the customer. If contact is not made and no payment is received on the day of disconnection, that participant will be removed from the Pilot and returned to traditional pay.

Q. DE's second condition was that the Company should follow all Hot and Cold Weather Rules. Is that an agreeable condition?

A. Not entirely. The Company wishes to respect the spirit of the Hot and Cold Weather Rules and the Pilot's design does so; as such we will not disconnect participants of the Pilot during hot or cold weather moratoriums. However, the Company did request several variances from the Hot and Cold Weather Rules that relate to *how* the program operates. Most of the requested variances are related to timelines of notifications for disconnection while a couple relate to payment agreements. The Pilot has a built-in payment agreement feature which is consistent with the spirit of the Hot and Cold Weather Rules. Therefore, this condition is quite similar to DE's first condition as DE's preference is to not allow remote disconnection under any circumstance. Not allowing remote disconnection, however, could undermine an important element of any prepay program, including one designed to induce customers to save more energy. During the cold and hot weather moratoriums, however, disconnection moratoriums will certainly be honored.

Q. DE's third condition was about notifying customers that a deposit may be required if a customer drops from the pilot and moves back to traditional service. Is that a reasonable condition?

A. Yes, and this will be part of the normal terms and conditions of participation. To be clear, the Company's intent is to restore a customer back to the situation they were in before choosing to participate in the Pilot. The repayment limitations and flexibility provisions in the Commission's rules would still apply to those who would be required to submit a deposit.

Q. DE's fourth condition was about determining how the monthly customer charge would be applied. Is that condition realistic?

A. Yes, and I provided further details about how charges would be applied earlier in this testimony.

Q. DE's fifth condition was about requiring the Company to screen prospective participants. Is that a reasonable condition?

A. It depends. I want to reiterate that the Pilot is voluntary and not for everyone. It would be unreasonable to request each prospective participant to undergo a 50-question survey before being able to sign-up. However, we will only be taking signups over the phone which means all prospective participants will be talking to a live agent who will be required to cover aspects of the program before a customer is switched to the Pilot. This condition of DE's fits well with the condition Staff proposed to include the Commission's Customer Experience Department for these types of program aspects.

Q. DE's sixth condition was about waiving four payment processing fees instead of the Company's proposal of waiving two payment processing fees. Is that condition reasonable?

A. Not at this time. Again, I want to reiterate that a participant could make unlimited payments online using a direct payment from a checking account without any payment processing fees. However, credit card and cash payments incur a payment processing fee which is a pass-through cost for the Company (charged by the provider not the Company) reflecting cost causation. With that said, we can certainly consider DE's recommendation for future program design based on our experience in this pilot.

Q. DE's seventh condition was about participation in the Pilot affecting a participant's access to billing assistance or other programs. Is this a reasonable condition?

A. This condition isn’t necessary because the Company's program does not affect a participant's access to billing assistance and other programs, as I've already explained. Earlier in this testimony I provided more details about how the LIHEAP (and other energy assistance funds) will be applied to pilot participants' accounts. This condition also seems to be geared towards a customer who leaves the Pilot. Once a participant leaves the Pilot, it will be as if they were never on the program without any prejudice, so again, customers will have full access to LIHEAP and other energy assistance programs.

Q. **DE's last condition was about not pressuring low-income customers into the pilot. Is that a reasonable condition?**

A. The Company has no intention of pressuring *anyone* into the Pilot. From the most basic standpoint, the Company is interested in the Pilot succeeding and getting the wrong people into the program by pressuring them will not make it successful. As I mentioned previously, each participant will need to sign-up for the Pilot over the phone with a live agent. The conversations about enrollment will be scripted with the intent to be objective and informative about the program without pressuring customers to sign up. Flex Pay won't appeal to everyone; however, the benefits will resonate with many customers who are more comfortable with mobile-optimized services or who want to stay informed and have more control over how they pay for their energy use.

VIII. VARIANCES

Q. Were additional Commission rule variances identified in rebuttal testimony as being required for the pilot?

A. Yes, on page 7 of Staff witness Ms. Hubers' Rebuttal Testimony, she identifies the following additional rule variances as necessary to implement the Flex Pay pilot:

- 4 CSR 240-13.020(2)
- 4 CSR 240.-13020(6)
- 4 CSR 240-13.020(7)
- 4 CSR 240-13.030(6)
- 4 CSR 240-13.055(9)(B)

- 4 CSR 240-3.180

Q. Has the Company submitted those additional Commission rules in a variance request as part of this surrebuttal testimony?

A. Not at this time. Based on how we actually implement the Commission's rules, we believe we presented a thorough listing of the applicable rules from which we would need a variance. While I am not an attorney, my staff and I did consult extensively with our attorneys to determine which rules, based on how they are implemented, needed to be varied for the program to operate. Below, I describe how those determinations were made.

- 4 CSR 240-13.020(2)

  This particular rule required that, "[e]ach billing statement rendered by a utility shall be computed on the actual usage during the billing period…" However, as we've described in our program materials, we will neither have rendered billing statements nor established billing periods. Since the rule appeared to apply to the *content* of the bill, not the actual rendering of the bill itself, we did not believe that the rule applied, and accordingly, that a variance was not necessary.

- 4 CSR 240-13.020(6)

  This rule provides that "[a] utility may bill its customers on a cyclical basis if the individual customer receives each bill on or about the same day of each billing period," and then discusses when a new schedule for billing can be implemented. Since the rule specifically says that utilities *may* bill its customers in this manner, we read the provision as discretionary and, since the Flex Pay program will *not* bill customers in this manner, that no variance was needed.

- 4 CSR 240-13.055(9)(B)

This rule applies to situations where the Company must reconnect customers during the cold weather rule period. In particular, this rule addresses reconnection when the Company "receives an initial payment and the customer enters into a payment agreement, both of which are in compliance with section (10) of this rule." Since the Company requested a variance of 4 CSR 240-13.055(10), which is a necessary condition of Section (9)(B), we did not believe that variance of this provision was necessary.

- 4 CSR 240-3.180

This rule requires the reporting of discontinuances, for both customers receiving and not receiving energy assistance, during the cold weather period. The Company saw no need to waive this provision since customers in the Flex Pay Pilot will still be reported with all other customers. The Company may add an addendum to identify Pilot participants in particular, but we had not planned to exclude these customers from the overall reporting requirement.

While we believe these rules clearly do not apply to the Flex Pay Pilot, we are willing to request additional variances that the Commission deems necessary for the program's implementation.

IX. CONCLUSION

Q. Can you please summarize why the Commission should approve the Flex Pay Pilot?

A. The design of the Flex Pay program is to achieve energy savings by creating behavioral changes on the part of participants that will reduce their consumption of electricity. It also includes several key design elements for customer protection. Prepay programs have proven to save energy and also provide customers with a superior experience. Participation in the Pilot is strictly voluntary. The Flex Pay program is expected to be cost effective and running the Pilot will provide important experience to assess the long-term viability without making a costly commitment for full scale deployment up front. Data indicates that the program is not only likely to cost effectively save energy, but is also likely to result in superior service compared to traditional service and that it does not constitute "deprivation of service."

Q. Does this conclude your surrebuttal testimony?

A. Yes, it does.

BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF MISSOURI

In the Matter of Union Electric Company d/b/a Ameren Missouri's 2nd Filing to Implement Regulatory Changes in Furtherance of Energy Efficiency as Allowed by MEEIA.	))))	File No. EO-2015-0055

AFFIDAVIT OF WILLIAM R. DAVIS

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

William R. Davis, being first duly sworn on his oath, states:

1. My name is William R. Davis. I work in the City of St. Louis, Missouri, and I am employed by Union Electric Company d/b/a Ameren Missouri as Director Energy Efficiency & Renewables.

2. Attached hereto and made a part hereof for all purposes is my Surrebuttal Testimony on behalf of Union Electric Company d/b/a Ameren Missouri consisting of 50 pages and Schedule(s) N/A, all of which have been prepared in written form for introduction into evidence in the above-referenced docket.

3. I hereby swear and affirm that my answers contained in the attached testimony to the questions therein propounded are true and correct.

William R Davis
William R. Davis

Subscribed and sworn to before me this 9th day of March, 2018.

Cathleen A. Denny
Notary Public

My commission expires