

January 25, 2024

Presentation on Important Recent Utility Developments

FROM:

David Nickel, Citizens' Utility Ratepayer Board, (785) 271-3200

TO:

Senate Utilities Committee

Good afternoon, Chairman Fagg and members of the Senate Utilities Committee. My name is David Nickel. I am the Consumer Counsel for the Citizens' Utility Ratepayer Board (CURB). CURB is the advocate for residential and small commercial ratepayers before the Kansas Corporation Commission (KCC or Commission) and the Kansas Legislature.

Thank you for this opportunity to present to the Senate Utility Committee two important utility developments that have occurred in the first half of Fiscal Year 2024. These developments could help to reduce utility bills for customers in the Evergy Kansas Central and Evergy Kansas Metro (together, Evergy) territories. The first development is the KCC's approval of Evergy's demand-side management (DSM) program portfolio, which includes energy efficiency (also referred to as EE) and demand response programs. The second development is the KCC's approval of Time-of-Use (TOU) rates as part of Evergy's most recent rate case. In both of these matters, robust customer education is essential to program success. CURB seeks to be involved in the customer education process.

#### Energy Efficiency and Demand Response.

What is energy efficiency? Why is it important? If one were to ask these questions to a knowledgeable consumer, the consumer might respond that energy efficiency saves them money by enabling them to use less energy for the same level of service. The consumer might also point out that energy efficiency could reduce energy costs for all consumers, bolster the economy, and be good for the environment. These statements are all true, but don't provide a complete picture.

Energy efficiency is a means of reducing energy use while enjoying the previous level of comfort, convenience and/or productivity. Demand response programs are designed to encourage consumers to modify their level and pattern of electricity usage, particularly around peak times of electricity usage. These programs are considered to be "least-cost" resources, inasmuch as not using electricity is less costly for the energy ratepayer than building generation resources to be able to meet increased demand.

The importance of cost-effective DSM efforts stems from the benefits it bestows. For example, when cost-effective, DSM programs can lower overall utility costs. In addition, cost-effective DSM efforts may allow the economy to grow, raising revenues, while business and industrial consumers use less energy. Moreover, these energy savings can be spent in the general economy, which could create jobs. DSM benefits the environment when less energy is needed from fossil-fuel based energy-generation plants.

For the general ratepayer, DSM programs can reduce their individual energy bills. In addition, if enough consumers employ DSM efforts into their energy routine, there can be substantial energy and capacity (power) savings system wide. Not surprisingly, most states have some form of DSM programs. Kansas has not had any meaningful DSM programs for quite some time. In fact, the American Council for an Energy Efficient Economy (known as ACEEE) ranked Kansas 49<sup>th</sup> out of 50 states on energy efficiency. That ranking will hopefully improve with the KCC's recent approval of Evergy's DSM programs.

In these regards, Evergy filed an application with the KCC on December 17, 2021, for approval of a portfolio of DSM programs in KCC Docket No. 22-EKME-254-TAR. Several parties, including CURB, intervened in this docket. Evergy's proposed portfolio consisted of nine programs: four aimed at residential customers, four aimed at business customers, and one pilot incubator program that covers both classes of customers.

The Evergy DSM application was subject to extensive discovery among the parties and several days of attempted settlement negotiations. At the end of these negotiations, nearly all of the parties, which included CURB, KCC staff and various environment-interested parties, had arrived at a settlement on the types of programs to be offered to Kansas ratepayers and the scope of these programs. There remained before the KCC various issues, including questions regarding the budget to be approved for the energy efficiency programs and questions concerning Evergy's recovery of lost revenue and lost earnings opportunities. Evergy's application and the settlement were the subject of very intense hearings before the KCC. Ultimately the KCC approved a settlement which had the following projected energy and power savings:

	<b>KCC Approval</b>
Energy Savings (MWh)	243,822
Power Savings (MW)	246

The KCC's approval was subject to various modifications, however. These modifications were principally aimed at improving the evaluation, measurement and verification of energy and power savings of the Evergy programs. Evergy has accepted these modifications and intends to go forward with the DSM programs.

As for Evergy's proposed four residential DSM programs: (1) The Whole Home Efficiency Program is designed to provide financial incentives and rebates to use towards EE measures and replacements. Specific programs include home assessments and repair kits, on-bill financing for appliances, and rebates on EE products. (2). Under the Home Energy Education Program, Evergy intends to provide home energy education reports which evaluate customers' homes and provide feedback on how to integrate EE and demand response measures to reduce energy usage. There is an emphasis on low-income households with modified materials and resources for access to these programs. (3) The Home Demand Response Program has measures that are designed to reduce load on the grid during peak usage periods. Evergy would provide residential customers with smart thermostats and water heater controllers and rebates for the same that allow Evergy to curtail energy usage during peak times. (4) Through the Hard-to-Reach (HTR) Homes Program, Evergy intends to provide additional EE and demand response benefits and program incentives to rural customers and subsidized housing.

Evergy proposed four business programs that are similar to the residential programs, with some changes specific to business needs. Business education programs include online tools and events to inform business customers about energy savings opportunities. Additionally, Evergy will offer Building Operator Certification courses to train business employees on DSM analysis and implementation within their own buildings. Under the Pilot Incubator Program, Evergy proposed to gather ideas and suggestions from customers and stakeholders in order to modify existing DSM programs or to create new DSM programs to bring before the KCC. It should be noted that the scope, budget and some aspects of Evergy's proposed programs were altered through the settlement process.

It is also important to note that under the Kansas Energy Efficiency Investment Act (KEEIA), Evergy was not required to propose DSM programs or to go forward with them as directed by the KCC. Essentially, KEEIA dictates that DSM programs will not go forward in Kansas unless both the KCC *and* the utility agree. KEEIA effectively allows the KCC and the pertinent utility a veto over any DSM proposal. This is important because, under KEEIA, DSM programs cannot be forced upon a utility. No party believed that the Evergy programs were absolutely perfect and not capable of improvement. However, the collaborative process between Evergy and all interested parties to improve Evergy's DSM programs going forward, which was established under the settlement agreement, will hopefully result in meaningful improvements over time. The KCC's decision in this case is merely a beginning, not an end.

### Time-of Use Rates.

In their most recent rate case (23-EKCE-775-RTS), Evergy Kansas Central and Evergy Kansas Metro sought approval of optional TOU rates. TOU rates fall under the broader category of time-variable pricing. Until 2019, Evergy did not have time-variable pricing, and at that point, Evergy only introduced a pilot program for optional TOU rates. The TOU rates included in Evergy's most recent rate case make optional TOU rates permanent (rather than pilot) and, as shown below, provide meaningful pricing differences as to when electricity is used.

Electricity is priced by the kilowatt-hour (kWh). One kWh is equal to using one kilowatt (kW) of electricity for one hour. If you left your hair dryer running on high for about 30 minutes,

you'd use about one kWh. Generally, under a TOU rate schedule, the per-kWh rate for electricity is lowest when both the cost of generating electricity and system-wide electricity demand are low (i.e., during the middle of the night). Meanwhile, when the cost of generation and demand for electricity are high (i.e., during the afternoon of a hot summer weekday), the per-kWh rate is much higher.

Most consumers have become accustomed to electric utility billings that are broken down into two primary elements (with the exception of riders): (1) a customer charge which is a standard charge that does not change, regardless of usage during the billing period, and (2) a volumetric charge which is simply determined on how much electricity is used by the consumer during the billing period. Under historic billing practices, bills were determined by analog meters showing merely how much energy was consumed by a household during the entire billing cycle. Thus, utilities did not change the volumetric charge based upon when the consumer used electricity. Thus, until recently, residential and small commercial customers did not have any economic incentive to monitor when they use their electricity.

However, with the advent of advanced metering infrastructure (AMI), which can show when electricity is being consumed by a household, time-varying rates became possible. In fact, among various states, TOU rates have recently become more common. A TOU rate means that the price that a consumer pays for electricity changes during the day, from lower rates when electricity is not in peak demand and higher rates when electric usage is in peak demand. The TOU rate structure is a significant change from historic billing practices, which could lead to high utility bills to the unwary consumer.

**Yet, if electric consumers desire to take steps to reduce energy costs, TOU rates may be a valuable tool. Indeed, TOU rates are intended to encourage customers to shift electricity use to different (lower cost) times of day.** They can save the customer money - or potentially cost them more, depending on what time of day they use electricity. If consumers' behavior can be changed to use less electricity during peak hours, then the system cost of electricity may be reduced, leading to reduced costs for all consumers. So, for the individual consumer, the use of electricity at low cost time can result in individual savings, and from the ratepayers in general, TOU rates can result in energy savings system wide.

It is important that Evergy chose to make their TOU rates optional in Kansas, versus mandatory. Some researchers have found that when pricing options are forced upon consumers, the consumers respond with lower customer satisfaction. From a practical perspective, TOU rates will have higher implementation rates if consumers are generally satisfied with how TOU rates affect them, than otherwise. In short, the efficacy of employing TOU rates could be compromised if customers are forced to adopt rates that negatively affect them.

Evergy's initial residential TOU rate schedule features three time periods of rate differentiation (on-peak, off-peak, and super off-peak). Starting April 1, 2024, Evergy will also offer 2-period Residential TOU rates (on-peak and off-peak during summer; off-peak and super off-peak during winter).

For purposes of these tariffs, summer is the four monthly billing periods of June–September and winter is the eight monthly billing periods of October–May.

**Residential TOU, 3-Period**

On-Peak: 4pm–8pm M–F, excluding holidays  
 Super Off-Peak: midnight–6am, daily  
 Off-Peak: All other hours

**Residential TOU, 2-Period**

*(available starting April 1)*

Summer

On-Peak: 4pm–8pm M–F, excluding holidays  
 Off-Peak: All other hours

Winter

Super Off-Peak: midnight–6am, daily  
 Off-Peak: All other hours

**Evergy Kansas Central TOU Rate Comparison**

<b>Residential Service</b>	<b>Residential TOU, 3-Period</b>	<b>Residential TOU, 2-Period</b>
<u>Summer</u>	<u>Summer</u>	<u>Summer</u>
first 900 kWh: \$0.08288	On-Peak: \$0.23790	On-Peak: \$0.2418
additional: \$0.09143	Off-Peak: \$0.06797	Off-Peak: \$0.0605
	Super Off-Peak: \$0.03399	
<u>Winter</u>	<u>Winter</u>	<u>Winter</u>
first 900 kWh: \$0.08288	On-Peak: \$0.21152	Off-Peak: \$0.0836
additional: \$0.06775	Off-Peak: \$0.06043	
	Super Off-Peak: \$0.03022	Super Off-Peak: \$0.0418

**Evergy Kansas Metro TOU Rate Comparison**

<b>Residential Service</b>	<b>Residential TOU, 3-Period</b>	<b>Residential TOU 2-Period</b>
Summer: \$0.10021	<u>Summer</u>	<u>Summer</u>
	On-Peak: \$0.26838	On-Peak: \$0.2725
	Off-Peak: \$0.07668	Off-Peak: \$0.0681
	Super Off-Peak: \$0.03834	
Winter: \$0.07735	<u>Winter</u>	<u>Winter</u>
	On-Peak: \$0.20151	Off-Peak: \$0.0793
	Off-Peak: \$0.05758	
	Super Off-Peak: \$0.02879	Super Off-Peak: \$0.0397

As illustrated in the charts above, the On-Peak kWh rates are between two to three times the standard residential rates, meanwhile, the Super Off-Peak rates are between one-half to one-third of the standard rate. Under the three-period plan, the Off-Peak and Super Off-Peak rates are substantially less than the On-Peak prices. Under the simplified two-period TOU plan, there is no On-Peak period during winter and no Super Off-Peak period during summer.

#### Need for Ratepayer Education.

The success of Evergy's DSM programs and TOU rate structure will depend upon a robust education program. It is not an easy task. Some of the pertinent literature warns that educating typical residential consumers on new, more complicated rate structures is much harder than working with early adopters, since early adopters are inclined to want to learn about the new technology, while the average consumer spends little time with their utility bills.

Among utility stakeholders, there is a common understanding that a widespread lack of product awareness exists among average consumers, partly because it is difficult to understand utility billings. This issue will only be exacerbated by the complexity of TOU rates. Moreover, if the average consumer is unaware of the existence of DSM programs, they will not likely take advantage of them. Customer education is intended to increase product adoption, consumer engagement, and retention. Clearly, if Evergy's DSM programs and TOU rates achieve enough participation to be successful, educational strategies are a must.

To keep the length of this paper brief, the many benefits of a good education program for DSM and TOU rates will not be explored in depth. However, among the many such benefits, customer satisfaction and reduced support costs stand out. If utility customers are not satisfied with their choices on TOU rates and energy efficiency measures, these programs will not be successful. CURB wants to help ensure that these programs are successful.

Therefore, CURB hopes to work with the utilities and KCC to provide robust education on these programs. In CURB's view, working together to reach mutual goals is a good strategy. Customer education is important to CURB's mission to advocate for residential and small commercial ratepayers.

Thank you for this opportunity to present these new and potential energy savings opportunities for Evergy's retail customers.