Exhibit No. 4

Evergy Missouri Metro & West – Exhibit 4
Brian A. File
Rebuttal Testimony
File No. EO-2020-0262
December 4, 2020

EXHIBIT NO.
4

Exhibit No.:
Issue: Demand Response Programs
Witness: Brian A. File
Type of Exhibit: Rebuttal Testimony
Sponsoring Party: Evergy Missouri Metro and Evergy Missouri West
Case No.: EO-2020-0262 (Lead - Consolidated)
EO-2020-0263 (Consolidated)
Date Testimony Prepared: December 4, 2020

MISSOURI PUBLIC SERVICE COMMISSION

CASE NOS.: EO-2020-0262 (Lead - Consolidated)
EO-2020-0263 (Consolidated)

REBUTTAL TESTIMONY

OF

BRIAN A. FILE

ON BEHALF OF

EVERGY MISSOURI METRO
and EVERGY MISSOURI WEST

Kansas City, Missouri
December 2020

REBUTTAL TESTIMONY

OF

BRIAN A. FILE

Case Nos. EO-2020-0262 (Lead - Consolidated)
EO-2020-0263 (Consolidated)

Q: Please state your name and business address.

A: My name is Brian A. File. My business address is 1200 Main, Kansas City, Missouri 64105.

Q: By whom and in what capacity are you employed?

A: I am employed by Evergy Metro, Inc. and serve as Director, Demand-Side Management for Evergy Metro, Inc. d/b/a Evergy Missouri Metro ("Evergy Missouri Metro") and Evergy Missouri West, Inc. d/b/a Evergy Missouri West ("Evergy Missouri West").

Q: Who are you testifying for?

A: I am testifying on behalf of Evergy Missouri Metro and Evergy Missouri West (collectively, "Evergy" or "the Company").

Q: What are your responsibilities?

A: My responsibilities include leading the demand-side management group (including energy efficiency and demand response) at Evergy for all jurisdictions. This function includes the Commission approved MEEIA programs. Additionally, I have responsibility for a team focused on customer renewable energy programs and customer facing rates implementation (e.g. Time of Use).

Q: Please describe your education, experience and employment history.

A: I earned a Bachelor of Science degree in Chemical Engineering from the University of Kansas and a Master of Business Administration from the University of Missouri-Kansas City. Prior to Evergy, I worked in the petrochemical industry with Chevron Phillips Chemical Company in marketing and technical field sales roles. I have been employed at Evergy (and formerly KCP&L) since 2007 in roles varying from product management, key account relationships and economic development. I have held responsibility over the demand-side management team since 2013.

Q: Have you previously testified in a proceeding at the Missouri Public Service Commission ("MPSC" or "Commission")?

A: Yes.

Q: What is the purpose of your rebuttal testimony?

A: The purpose of my rebuttal testimony is to address pp. 19-22 of the direct testimony of OPC witness Lena Mantle where OPC alleges that the Company was imprudent by not calling on its demand response programs.

Q: Please respond to OPC witness Lena Mantle's testimony starting on page 19 regarding the number of demand response events called by Evergy?

A: Witness Mantle repeats the bare allegations and the adjustment amounts asserted by Staff in the MEEIA Cycle 2 audit proceeding, Case Number EO-2020-0227/0228 regarding the number of demand response events called by Evergy.

Q: Does witness Mantle's testimony provide OPC's preferred number of demand response events or how such events should be called?

A: No. Witness Mantle's position is simply that more demand response events should have been called to lower energy costs in the form of arbitraging locational marginal prices and reduced Schedule 11 SPP fees.

Q: Is this what Evergy's demand response programs are designed to achieve?

A: No. Evergy's demand response programs are designed for the purpose of reducing annual system peak load and that is how Evergy managed these programs for that purpose. The Commission approved tariffs, Evergy MO Metro tariff sheet 2.09; Evergy MO West tariff sheet 15.09, reflect this purpose, stating that the DRI "program is designed reduce customer load during peak periods to help defer future generation capacity additions and provide for improvements in energy supply." In order call substantially more events, key factors would need to be adjusted in program design.

Q: Would the goal of arbitraging LMP prices and reducing Schedule 11 SPP fees require a significant increase in the number of demand response events called?

A: Yes. The number of events required to satisfy Staff and OPC's new demand response purpose would be significantly more than how these programs were designed and approved by the Commission. See attached **Schedule BAF-1** which illustrates the top ten daily peak distribution for each of the summer months of the 2019 calendar year for each jurisdiction. In order to make sure the monthly peak is mitigated events would likely need to be called more than five times per month

on average or 20 per year. The programs were designed for 10 events maximum (DRI) and 15 events maximum (thermostat).

Q: Was Evergy successful is achieving the desired objectives that informed and guided the design of these demand response programs?

A: Yes. Participation in the thermostat program was well above targets and met maximums in the Missouri Metro territory during the Cycle 2 period. Per their EM&V PY 2019 Report, Guidehouse (the third-party evaluator) stated that "together, the thermostat programs and the DRI program deliver strong demand reductions and demonstrate the value they provide as a flexible capacity resource". In the Evergy Metro territory, the Business Programmable Thermostat, and Residential Programmable Thermostat programs achieved 86% and 104% of the MEEIA Cycle 2 energy savings targets, respectively. Similarly, the Business Programmable Thermostat and Residential Programmable Thermostat programs achieved 155% and 164% of the MEEIA Cycle 2 demand savings targets, respectively. In the Evergy Missouri West territory, the Business Programmable Thermostat and Residential Programmable Thermostat programs achieved 151% and 83% of the MEEIA Cycle 2 energy savings targets, respectively. Likewise, the Business Programmable Thermostat, and Residential Programmable Thermostat programs achieved 322% and 143% of the MEEIA Cycle 2 demand savings targets, respectively. The benefit cost tests for these programs also yielded favorable results and improvement over time as recapped below:

Table 1
Programmable Thermostat Cost Tests

	KCP&L/Metro					
	MEEIA 2 PTD		PY 2019		PY 2018	
Program	TRC	UCT	TRC	UCT	TRC	UCT
Business Programmable Thermostat	1.57	2.21	1.43	2.02	0.35	0.35
Residential Programmable Thermostat	1.92	2.92	1.89	2.71	0.34	0.30

	GMOPS/MO West					
	MEEIA 2 PTD		PY 2019		PY 2018	
Program	TRC	UCT	TRC	UCT	TRC	UCT
Business Programmable Thermostat	1.60	2.36	1.54	2.15	1.18	1.63
Residential Programmable Thermostat	1.96	3.08	1.88	2.65	1.64	2.13

Additionally, these results compare favorably to Ameren Missouri PY2019 in which residential demand response results were 1.11 for both the total resource cost ("TRC") and UCT tests.

Q: Do you agree with OPC's contention (p. 21, Mantle Direct) that the Commission should find the Company imprudent for not utilizing its demand-response programs to reduce energy costs charged to its customers and its SPP Schedule 11 Fees?

No. The potential benefits derived from reduction in SPP fees and day-ahead market pricing opportunities are minimal compared to the value of the long-term reduction of system annual peaks. Evergy's demand response programs were designed to maximize reducing the annual system peak demand because that is where the greatest value is derived. Additional SPP benefits would only be realized if Evergy successfully predicted the peak day of not one, but two or more months. Staff's original disallowance is based on hitting all four demand response

season monthly peaks (Jun-Sept). Calling more events does not automatically mean that additional SPP benefits will be realized.

In fact, reducing the focus on the annual system peak and increasing the focus on SPP fees could reduce the total overall benefit achieved if the annual system peak was missed.

Q: Please continue.

A: It is not a reasonable assumption that Evergy can predict monthly peaks with sufficient accuracy to arbitrage DA LMP prices, nor are reductions in SPP fees easy to achieve. In fact, no matter how many events are called in a month, unless an event is called on the peak day of the month, no additional SPP fees would be avoided because SPP fees are based on a single monthly peak value. Predicting the day of the annual system peak is somewhat challenging, but attainable. Predicting the peak for any other month, however, is considerably harder, even harder is accurately predicting the peak day for multiple months. The primary driver for this is, of course, the uncertainty of weather. Weather forecasts are not 100% accurate for day ahead weather let alone for the next month or the whole summer.

For example, if you have an unseasonably warm day in the first few days of June, should you call an event or should you wait? June is likely to get warmer later in the month, but it might not. However, it is easy in hindsight to know which day is the peak day, which is how Staff did its analysis of SPP fees. When Staff performed its calculation of SPP fees, it did not base it "on the circumstances and information known at the time the decision was made, i.e.,

without the benefit of hindsight"[1]. Staff did not make its own prediction of daily peaks based on the information the Company had at the time. Staff used hindsight knowledge of what days the monthly peaks occurred to perform their calculations.

Q: Are LMP prices only determined by the weather?

A: No. LMP prices can be affected by any number of external events like transmission congestion or generation outages. Calling events solely for the purpose of arbitraging DA LMP market prices has many risks and is not consistent with sound business decision-making as described in John Carlson's rebuttal testimony. Additionally, the relative value (as discussed below) as a trade-off for that risk is quite small.

Q: Is OPC's assertion that calling more events would be at zero or very minimal incremental costs accurate? Please explain.

A: While potentially a small impact to the MEEIA budget for incremental event calls, both Staff and OPC ignore significant and substantial impact to customers, peak load reduction potential and overall program effectiveness for calling superfluous events "because you can."

I'll explain the impact to customers. Signing up for a demand response program like the programmable thermostat program means that you are allowing a utility to make changes to your air conditioning load during typically the hottest days of the summer. This requires a significant amount of trust (as well as financial incentives) to manage through the inconvenience. If a customer were to start having their air conditioning adjusted regularly during the hottest times of

[1] Staff Report, p. 4, line 27 .

the day, like 20 times a summer or even every day as suggested by OPC, the entirety of the program would change.

First, the customer will likely require a different compensation and second, the potential participant pool will decrease significantly as the number of customers willing to cede that much control of their equipment would likely be a small percentage of the population. Just think about your own personal situation, would you allow the utility to change your temperature every day all summer even if you were getting a free thermostat and $25? My educated guess is that most people would answer "no". There is a threshold of trust and interactivity with that level of control and calling 20 - 50 events would surpass it by far.

Second, there will be negative impacts to peak load reduction efforts by calling an increased number of events. Building on the above customer points, there is a known correlation with the number of events called and the number of customers that will opt-out. In this case, opt-out means an individual customer changes the temperature setting during a demand response event to a "more comfortable" setting thereby stopping the peak load reduction. The total amount of participation (length of time in events) was lower by 6% in PY2016 when 8 events were called as compared to PY2017 and PY2018 when 3 and 2 events, respectively were called. While this is a small sample set, the trend is important to note: The more events called leads to a diminishing return in event performance as more customers "opt-out" of the event. While this might seem harmless, the degradation is such that the impact to the most important time (the system annual peak usually in July/August) will be diminished. As I'll explain

later, reducing the impact that system annual peak is the primary and large majority of the value of demand response that will be impacted from an increased number of demand response events under the existing program design.

Q: But couldn't Evergy have tried to maximize the benefits by implementing the MEEIA programs in new way outside of how those programs were designed?

A: It is possible that Evergy, in a quest to obtain a relatively insignificant amount of potential benefit, could have operated its MEEIA programs incongruently with those programs' design or purpose. However, like the potential benefits of such change-up, operating those programs outside of their design and intended purpose would also have downsides in terms of customer participation and expectations as just described. Seeking short-term and relatively minor benefits would cause a net-loss for the long-term benefit of the MEEIA programs.

Q: Please discuss the value of demand response event frequency.

A: First and foremost, the demand response program participant capacity (or the amount of load or kW all assets can reduce when called) is available to use for local or regional system reliability requirements. Evergy coordinates with the internal system operators with insight from SPP communications about generation/load balances to be "on-call" for any potential system reliability events. In fact, for the regional system, SPP has "alert levels" that are monitored to help guide if a situation is tenuous enough to warrant a reliability event call. These reliability calls would likely not have a direct financial benefit to customers, but all would likely argue are highly valuable.

Second, the Company, Staff and OPC agreed[2] and the Commission approved to focus the earnings opportunity matrix (or success metrics) on kW reduction for system annual peak derived from energy efficiency and demand response. Reducing the system annual peak is the primary objective and where the value lies in terms of customer benefit and utility measurement. The value associated with the peak reduction is guided by the avoided capacity ($/kW-year) cost set with approval of the (MEEIA Cycle 2; EO-2015-0240/0241) case. Avoided cost is meant to best represent what the Company would have done or had to do in the absence of the program accomplishment. While Staff and OPC seem to have ongoing issues with the specific dollars per kW-year value used for avoided capacity cost, the fact remains that in MEEIA Cycle 2 the value for avoided cost was set with parties in the Stipulation and approved by the Commission as well as utilized in third party Evaluation, Measurement & Verification at $107.27/kW-year. Additionally, in MEEIA Cycle 3 for Evergy, the Commission ordered what avoided cost to utilize. So, there is absolutely no reason to re-litigate the application or methodology for determining avoided cost in the context of MEEIA Cycle 2. It is the largest value associated with demand reduction and the prescribed success metric for the program.

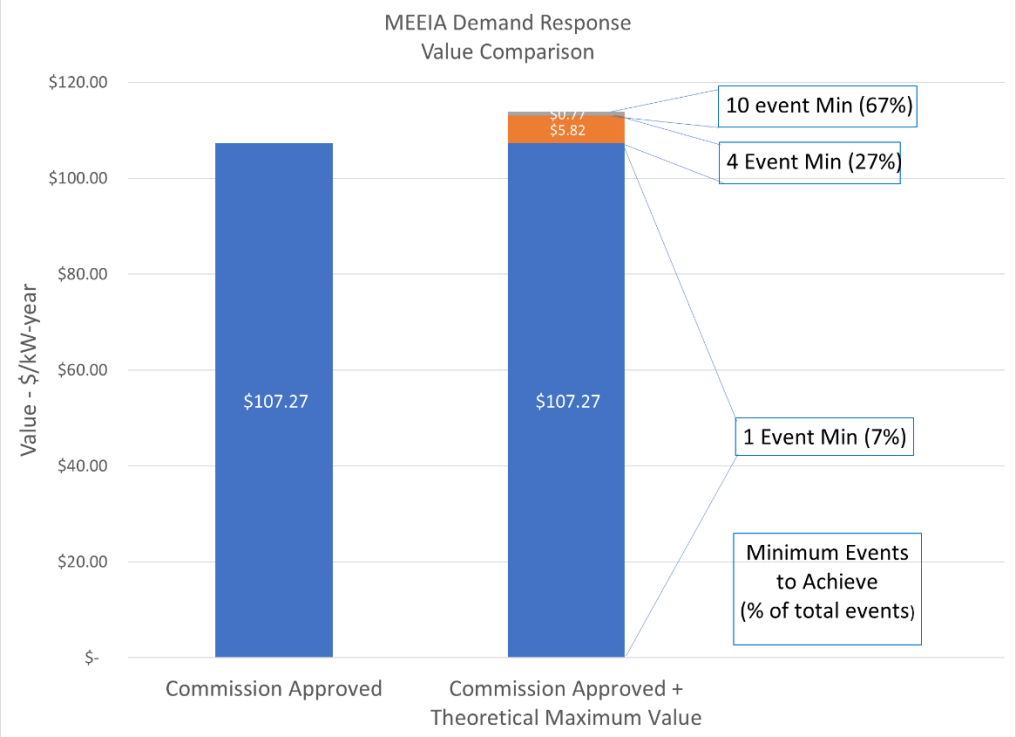
Q: Please elaborate on the system annual peak reduction compared to the other value streams claimed by Staff and OPC?

A: In the MEEIA prudence case, Staff attempted to quantify the value of SPP fee reduction if Evergy was able to reduce the monthly peaks. If Evergy was to perform perfectly as analyzed in hindsight by Staff, the value of the reduction

[2] *Non-Unanimous Stipulation & Agreement*, Docket Nos. EO-2015-0240/0241, dated November 23, 2015.

would be a theoretical hindsight maximum of $5.82/kW-year. The assumption is that Evergy would hit one monthly peak already based on the need to hit system annual peak and the three other months of the season hitting the monthly peak perfectly. This is a dubious theoretical maximum that almost certainly would not be achieved in reality, but we use the number in this case for illustrative purposes. Next, if we look at the value of the day ahead locational marginal price (DA-LMP) mitigation by calling events, in the MEEIA prudence case Staff provided a value of a potential arbitrary ability to obtain day ahead arbitrage (without contemplating the downside risk as explained by Witness Carlson in rebuttal testimony). This value could be converted to a hindsight theoretical maximum value of $0.77/kW-year. Again, the Company has shown that Staff's analysis of DA LMP value creation is fraught with hindsight bias, but in this case, we'll also use it as an illustrative value of theoretical maximum to prove the point. Figure 3 below shows the comparison of the Commission approved value of demand response (avoided capacity cost) with the value of the 2 other streams described by Staff and OPC, SPP Schedule 11 fees and DA LMP pricing.

Figure 1



Even to achieve theoretical hindsight maximum values used by Staff, the Company would be spending 90% of the event calls to achieve less than 6% of the value. When charted, this is the very definition of the law of diminishing returns. And it's worth reminding the Commission that to achieve these theoretical maximums of value and perfect event calling, Evergy would need a perfect forecast and a differently designed program with different customer parameters to achieve these values. Both of which did not exist in the prudency review period. No reasonable or effective businessperson would spend time chasing this minimal value but would instead focus time and resources on the most valuable efforts for customers, the Company and the community as Evergy did and continues to do.

Q: Does OPC ever suggest that the MEEIA programs in question were designed to call a high frequency of events?

A: No.

Q: What is Evergy position on "reasonableness" given the allegations of imprudence in this case?

A: Evergy acted reasonably. In the proceeding authorizing Evergy's MEEIA Cycle 2 programs[3], the Commission explicitly found that the "Amended MEEIA Plan meets the requirements of MEEIA and the Commission's rules and is *just and reasonable*." The "reasonableness" conclusion of the Commission was specifically based on a finding that the *design* of the MEEIA Cycle 2 programs were cost-effective and "expected to provide benefits to all customers." *Id. at* 13. Evergy implemented its MEEIA Cycle 2 programs within the design parameters of those programs.

OPC's position that Evergy acted imprudently by implementing the MEEIA Cycle 2 programs within the parameters of those programs' design, but not to the satisfaction of Staff or OPC, is an attack on the Commission's findings that the design of the MEEIA Cycle 2 programs were reasonable. "The Company's proposed Custom Rebate Program in the Amended MEEIA Plan is designed to both increase net benefits and lower program costs." Id. at 8.

Evergy's position is simple: A reasonable person would have operated the MEEIA programs as designed and approved-by Commission, within the budget

[3] *In the Matter of Kansas City Power & Light Company's Filing for Approval of Demand-Side Programs and for Authority to Establish a Demand-Side Programs Investment Mechanism* and *In the Matter of KCP&L Greater Missouri Operations Company's Filing for Approval of Demand-Side Programs and for Authority to Establish a Demand-Side Programs Investment Mechanism*, File Nos. EO-2015-0240 and EO-2015-0241 (consolidated).

set by the Commission, achieving cost-effectiveness as defined by the Commission. This is what Evergy did. OPC and Staff's position is that reasonableness required Evergy to scrap the underlying purpose of the MEEIA Cycle 2 programs of reducing system-wide annual peak to chase marginal ancillary objectives by betting on the weather.

Q: Do you agree that customers are "penalized twice" as asserted by OPC (p. 20, Mantle Direct), once for paying for thermostats that are never called and second by paying more for energy during peak periods.

A: No. First the thermostats are called on to reduce system peak as designed. In 2019, the program was called 5 times and resulted in over $7 Million[4] of benefits due to peak reduction. As explained above, there was also no additional amounts paid for energy in peak periods as the Company operated the programs as they were designed. MEEIA programs were approved by the Commission because they create benefits to all customers. To re-iterate, all customers benefited in the reduction of peak capacity from the efforts of the thermostat program in Cycle 2.

Q: Do you agree with Ms. Mantle that this issue is right for either the MEEIA or FAC proceeding?

A: Witness Mantle seems to understand that when the recommended disallowance involves energy costs that flow through the FAC then it is the FAC prudence review that is the appropriate proceeding to analyze those costs. This is why the Company attempted to remove these FAC adjustments from the MEEIA prudency case (an attempt which OPC resisted). Evergy agrees that when a disallowance is recommended for capital expenditure for MEEIA programs that would be subject

[4] Guidehouse PY2019 EM&V (Evergy Metro and Evergy West thermostat program total benefits).

to the DSIM, then the MEEIA proceeding is appropriate proceeding to discuss those costs. However, in this case, the recommended disallowances are for energy costs that flow through the FAC, so the FAC prudency case is the appropriate proceeding to hear these issues.

Q: Does this conclude your testimony?

A: Yes, it does.

BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF MISSOURI

In the Matter of the Third Prudence Review of Costs Subject to the Commission-Approved Fuel Adjustment Clause of Evergy Missouri West Inc., d/b/a Evergy Missouri West	))))	File No. EO-2020-0262
In the Matter of the Third Prudence Review of Costs Subject to the Commission-Approved Fuel Adjustment Clause of Evergy Metro, Inc., d/b/a Evergy Missouri Metro	))))	File No. EO-2020-0263

AFFIDAVIT OF BRIAN A. FILE

STATE OF MISSOURI)
) ss
COUNTY OF JACKSON)

Brian A. File, being first duly sworn on his oath, states:

1. My name is Brian A. File. I work in Kansas City, Missouri, and I am employed by Evergy Metro, Inc. and serve as Director, Demand-Side Management for Evergy Metro, Inc. d/b/a Evergy Missouri Metro ("Evergy Missouri Metro) and Evergy Missouri West, Inc. d/b/a Evergy Missouri West ("Evergy Missouri West").

2. Attached hereto and made a part hereof for all purposes is my Rebuttal Testimony on behalf of Evergy Missouri Metro and Evergy Missouri West consisting of seventeen (17) pages, having been prepared in written form for introduction into evidence in the above-captioned docket.

3. I have knowledge of the matters set forth therein. I hereby swear and affirm that my answers contained in the attached testimony to the questions therein propounded, including any attachments thereto, are true and accurate to the best of my knowledge, information and belief.

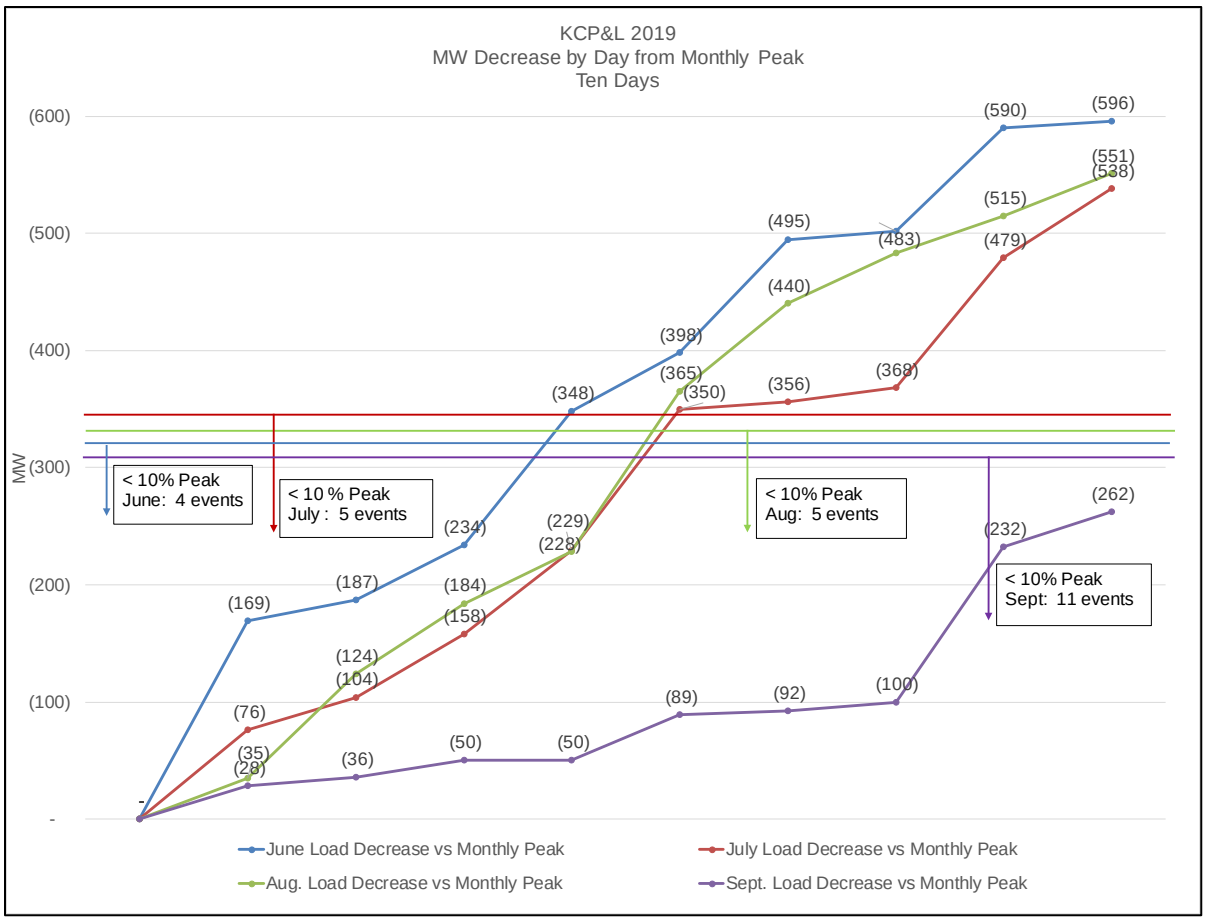
Brian A. File

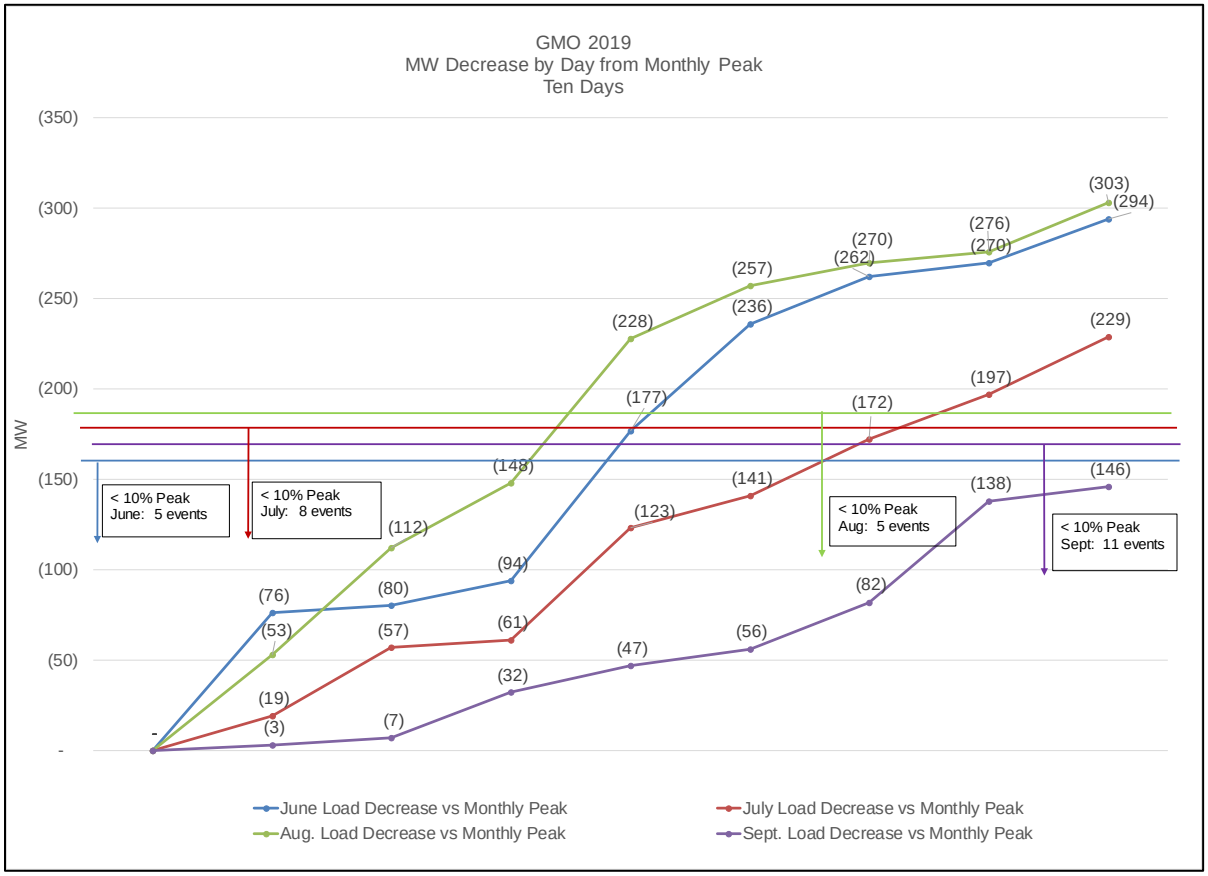
Subscribed and sworn before me this 4th day of December 2020.

Notary Public

My commission expires: 4/26/2021

ANTHONY R WESTENKIRCHNER
Notary Public, Notary Seal
State of Missouri
Platte County
Commission # 17279952
My Commission Expires April 26, 2021


KCP&L 2019
MW Decrease by Day from Monthly Peak
Ten Days
MW
(600)
(500)
(400)
(300)
(200)
(100)
-
< 10% Peak
June: 4 events
< 10 % Peak
July : 5 events
< 10% Peak
Aug: 5 events
< 10% Peak
Sept: 11 events
June Load Decrease vs Monthly Peak
July Load Decrease vs Monthly Peak
Aug. Load Decrease vs Monthly Peak
Sept. Load Decrease vs Monthly Peak


GMO 2019
MW Decrease by Day from Monthly Peak
Ten Days
MW
(350)
(300)
(250)
(200)
(150)
(100)
(50)
-
< 10% Peak
June: 5 events
< 10% Peak
July: 8 events
< 10% Peak
Aug: 5 events
< 10% Peak
Sept: 11 events
June Load Decrease vs Monthly Peak
July Load Decrease vs Monthly Peak
Aug. Load Decrease vs Monthly Peak
Sept. Load Decrease vs Monthly Peak

When describing the difficulty of calling events to mitigate monthly SPP Schedule 11 and 1-A fees, a graph of 2019 daily system peaks can illustrate how many events might need to be called each month. These Missouri Metro (KCP&L) and Missouri West (GMO) system load graphs compare daily peak loads to monthly peak loads. The four bars in the middle of the graph represent 10% of the monthly peak load (MW) for June, July, August and September. The four lines cutting across the graph are daily peaks loads for the same months. The graph demonstrates that a significant number of days hit within a threshold of 10% of the monthly peak load. In other words, these graphs show: 1) there is relatively minor deviation to peak load on a day-to-day basis, 2) monthly peak load is not reached in a predictable, linear way and 3) a substantial variation exists between jurisdictions and between months in order to find the exact event call to mitigate monthly peaks.