Exhibit No. 100

Staff – Exhibit 100
Data Request 64 Response
File No. EO-2020-0227

Evergy Missouri Metro
Case Name: 2020 Evergy MO Metro 2nd Prudence Review of MEEIA Cycle 2
Case Number: EO-2020-0227

Response to Leubbert J. Interrogatories - MPSC_20200918
Date of Response: 9/30/2020

Question:0064

List the annual peak load date and time for Evergy Metro and Evergy Missouri West. Did Evergy call demand response events during those hours listed? If so, how did Evergy determine that an event should be called at that time? If not, why didn't Evergy attempt to call an event during those hours listed? Provide a comparison of the annual system peak load and the system peak load during called events in 2018 and 2019. Requested by J Luebbert, J.Luebbert@psc.mo.gov

Response:

List annual peak load date/time and comparison of system peak load and events called in 2018/19.
In the tables below of this response are the (1) annual peak load date and time for Evergy Metro and Evergy Missouri West in 2018 and 2019, (2) along with the IRP forecasted peaks for the year, (3) a listing of all the demand response events in 2018 and 2019 followed by (4) the 2018 and 2019 loads during the DR event hours.

How were events determined to be called?
In 2018 and 2019, weekly recurring event call meetings were held on Mondays during June through September. These meetings included personnel from Energy Solutions, Power Marketing, DERMS team and Customer Solutions.

Events are called utilizing professional judgement of the team based on the data available, including temperature/weather, system load forecasts, SPP information including day ahead pricing, reliability alerts and wind production forecasts, time available left in the season, comparison to IRP season forecasts and other factors. Given the absence of perfect or near perfect forecasts or prescribed formula(s), it is extremely difficult to predict the exact time and date of an Evergy annual system peak.

The supporting data below regarding West and Metro jurisdictions for each 2018 and 2019 indicate that in 1 of 4 instances Evergy (Evergy Metro in 2019) did call an event at the hour the annual system peak occurred. The result here is that Evergy reduced the peak by the amount curtailed on the day of the event (7/19/19).

When comparing system peaks to event call days for Evergy MO West, there is more analysis needed. If you add back the curtailed amount 65 MW in 2018 and 72 MW in 2019 from all

assets called (DRI – evaluated MW plus all thermostats evaluated MW available including Cycle 2 and prior), the day of event calls (6/28/18 & 7/18/19) is 2-8 MW above of the system peak measured on 7/12/18 on 8/19/19, respectively. This indicates the calling of events actually forced the peak to be on a day/hour different than the event called.

In Evergy MO Metro in 2018, if you take the same exercise and add back the MW from all assets called of 47 MW to the day of the event (6/28/18), the value is 10 MW above the system peak day of 7/12/18. Again, demonstrating an event call forced the peak day/hour to be an alternate day in the summer.

This data demonstrates Evergy's success in calling events on or near the annual system peaks, which reflects the DR program's overall primary objective of mitigating the annual peak.

(1) Annual System Peak Loads

	Date	Hour	MW	(2) IRP Annual System Peak Forecast
Evergy Metro	7/12/2018	1700	3,518	3,507
Evergy MO West	7/12/2018	1800	1,929	1,875
Evergy Metro	7/19/2019	1700	3,441	3,510
Evergy MO West	8/19/2019	1800	1,855	1,912

(3) 2018 Demand Response Events

	Date	Start Time	End Time	Event Length (hours)
Residential and Business Thermostats				
	6/28/2018	4:00 PM	6:00 PM	2
	8/6/2018	4:00 PM	6:00 PM	2
Demand Response Incentive				
	6/28/2018	3:00 PM	6:00 PM	3
	8/6/2018	4:00 PM	7:00 PM	3

2019 Demand Response Events

	Date	Start Time	End Time	Event Length (hours)
Residential and Business Thermostats				
	7/18/2019	4:00 PM	6:00 PM	2
	7/19/2019	4:00 PM	6:00 PM	2
	8/6/2019	4:00 PM	6:00 PM	2
	8/7/2019	2:00 PM	4:00 PM	2
	8/12/2019	4:00 PM	6:00 PM	2
Demand Response Incentive				
	7/18/2019	2:00 PM	5:00 PM	3

(4) Evergy Loads During Event hours

Date	Start Time	End Time	Metro Load	MO West Load
6/28/2018	3:00 PM	4:00 PM	3,465	1,865
	4:00 PM	5:00 PM	3,470	1,846
	5:00 PM	6:00 PM	3,481	1,866
8/6/2018	4:00 PM	5:00 PM	3,147	1,709
	5:00 PM	6:00 PM	3,183	1,726
	6:00 PM	7:00 PM	3,169	1,733
7/18/2019	2:00 PM	3:00 PM	3,269	1,744
	3:00 PM	4:00 PM	3,342	1,791
	4:00 PM	5:00 PM	3,349	1,775
	5:00 PM	6:00 PM	3,365	1,805
7/19/2019	4:00 PM	5:00 PM	**3,441**(a)	1,831
	5:00 PM	6:00 PM	3,420	1,827
8/6/2019	4:00 PM	5:00 PM	3,142	1,678
	5:00 PM	6:00 PM	3,122	1,689
8/7/2019	2:00 PM	3:00 PM	2,308	1,272
	3:00 PM	4:00 PM	2,482	1,357
8/12/2019	4:00 PM	5:00 PM	3,291	1,784
	5:00 PM	6:00 PM	3,292	1,802

(a) Evergy Metro 2019 System Peak

Response by: Randy Spale

Attachment: Q0064_Verification.pdf