

GRAND RAPIDS  
PUBLIC UTILITIES

*Service is Our Nature*

500 SE Fourth Street • Grand Rapids, Minnesota 55744

## **ELECTRIC DEPARTMENT MONTHLY REPORT December 2021 Commission Meeting**

### **Safety**

- There were no OSHA recordable accidents last month.

### **Demand Threshold and Power Usage for past month**

- The attached graph shows the system load with demand threshold for the past month.

### **Reliability Last Month**

- The attached eReliability report shows that we had 6 outages during the month.

### **Projects Performed Last Month**

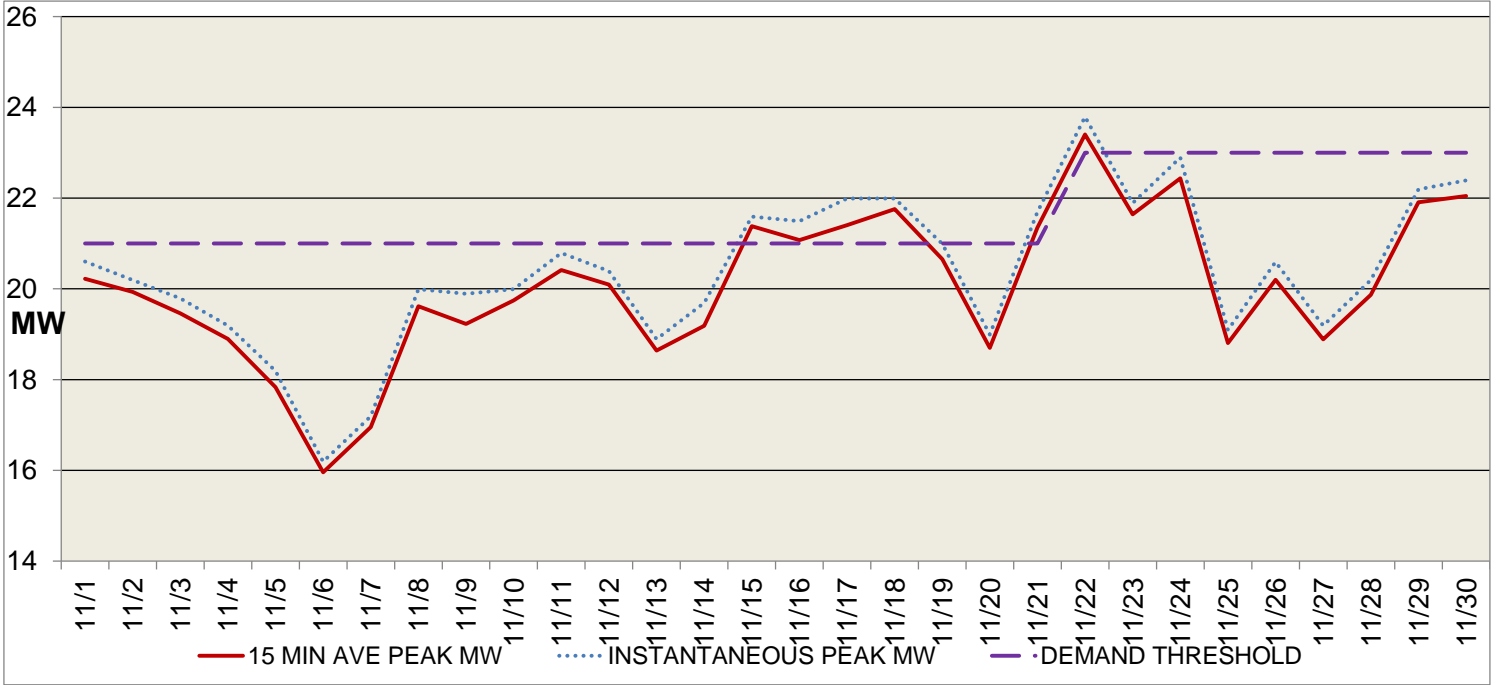
- Distributed Energy Resource discussion group with MMUA
- 2022 Budget work
- Outage Management System integration

### **Projects Scheduled for This Month**

- Policies, procedures – Electric Department Rules, metering procedures
- Automated Metering Infrastructure – worked through various issues with gateways and meters
- Solar plus Battery Storage project
  - Working through delays due to equipment delivery issues
  - Battery delivery tentatively planned for December 17th
  - First test energy, power onto GRPU grid – January 14th
  - Anti-islanding test – January 14th
  - Solar and battery testing – mid to late January
  - System commissioning – end of January
  - Test and commission battery in one financial quarter – tax and financial implications
  - GRPU interface – Power BI – working through direct access to solar and battery data including reporting information

GRAND RAPIDS PUBLIC UTILITIES COMMISSION				
NOVEMBER 2021 LOAD MANAGEMENT SYSTEM REPORT				
Nov-21	INST PK MW	15 MIN AVE PK MW	MW DEMAND THRESHOLD	CONTROLLED DAYS
Minimum	16.19	15.96	21.00	
Maximum	23.79	23.40	23.00	
Average	20.40	20.06	21.60	
Total				3

Savings due to active load management system for month of November 2021 estimated at \$22,920



**GRAND RAPIDS PUBLIC UTILITIES COMMISSION**  
**DAILY POWER USAGE**

Nov-21	INST PK MW	15 MIN AVE PK MW	MW DEMAND THRESHOLD	CONTROLLED DAYS
11/1	20.60	20.22	21.00	-0.8
11/2	20.19	19.93	21.00	-1.1
11/3	19.79	19.46	21.00	-1.5
11/4	19.19	18.90	21.00	-2.1
11/5	18.19	17.83	21.00	-3.2
11/6	16.19	15.96	21.00	-5.0
11/7	17.19	16.95	21.00	-4.0
11/8	19.99	19.62	21.00	-1.4
11/9	19.89	19.23	21.00	-1.8
11/10	19.99	19.75	21.00	-1.3
11/11	20.79	20.41	21.00	-0.6
11/12	20.39	20.09	21.00	-0.9
11/13	18.89	18.64	21.00	-2.4
11/14	19.69	19.19	21.00	-1.8
11/15	21.59	21.38	21.00	0.4
11/16	21.49	21.07	21.00	0.1
11/17	21.99	21.40	21.00	0.4
11/18	21.99	21.76	21.00	0.8
11/19	20.99	20.65	21.00	-0.3
11/20	18.99	18.70	21.00	-2.3
11/21	21.69	21.35	21.00	0.4
11/22	23.79	23.40	23.00	0.4
11/23	21.89	21.64	23.00	-1.4
11/24	22.89	22.44	23.00	-0.6
11/25	19.09	18.81	23.00	-4.2
11/26	20.59	20.20	23.00	-2.8
11/27	19.19	18.89	23.00	-4.1
11/28	20.19	19.87	23.00	-3.1
11/29	22.19	21.91	23.00	-1.1
11/30	22.39	22.05	23.00	-1.0
Minimum	16.19	15.96	21.00	
Maximum	23.79	23.40	23.00	
Average	20.40	20.06	21.60	
Total				3
		Peak Demand Day		Controlled Day

# Monthly Report - Grand Rapids Public Utilities Commission

# Grand Rapids Public Utilities Commission

<b>Year</b> 2021	<b>Minimum duration</b> 	<b>Substation</b> -----
<b>Month</b> 11 - November	<b>Maximum duration</b> 	<b>Circuit</b> -----
<b>Annual Report?</b> <input type="radio"/> Yes <input checked="" type="radio"/> No	<b>Top-level Cause</b> -----	<b>Remove Major Events?</b> -----

## IEEE 1366 Statistics

Metric	Nov 2021	Nov 2020
SAIDI	1.874	5.301
SAIFI	0.0269	0.0624
CAIDI	69.643	84.991
ASAI	99.9955%	99.9873%
Momentary Interruptions	0	0
Sustained Interruptions	6	4

## Circuit Ranking - Worst Performing

## Ranked by Outage Count

Circuit	Substation	Number of Outages
ES06	East Substation	2
Feeder 320	Main Substation	2
ES07	East Substation	1

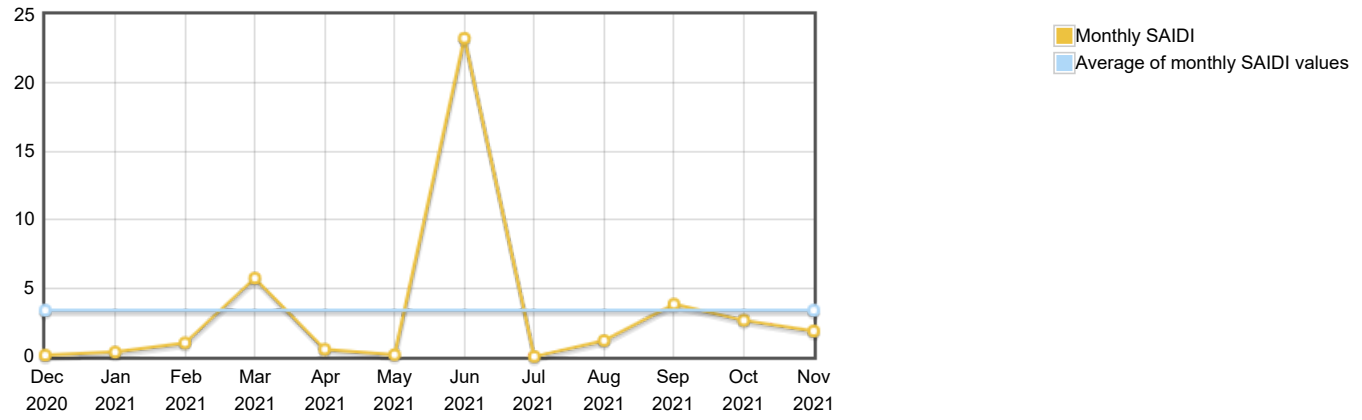
## Ranked by Customer Interruptions

Circuit	Substation	Customer Interruptions
Feeder 320	Main Substation	194
ES06	East Substation	6
ES07	East Substation	1

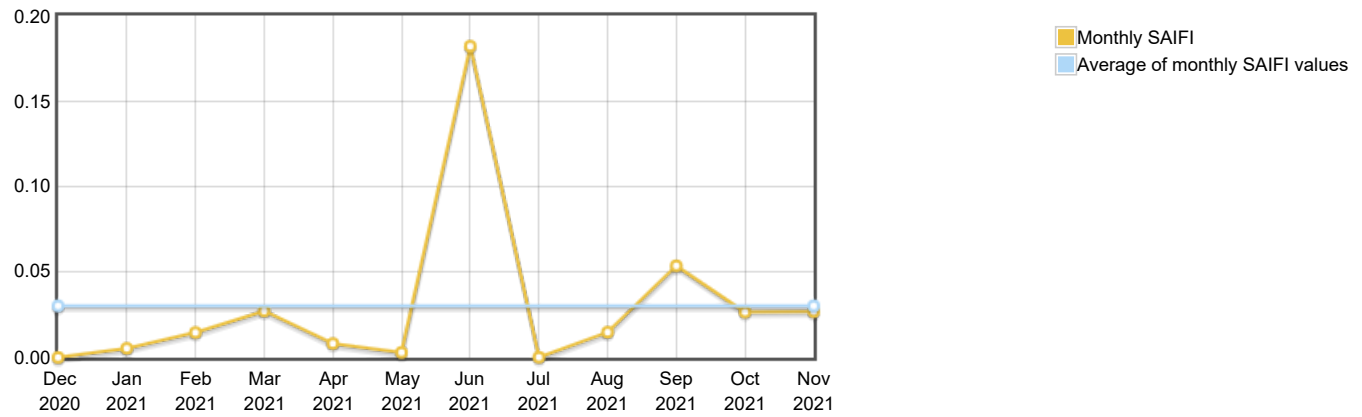
## Ranked by Customer Minutes of Duration

Circuit	Substation	Customer Minutes of Duration
Feeder 320	Main Substation	13,468
ES06	East Substation	420
ES08	East Substation	120

Historical Monthly SAIDI Chart



Historical Monthly SAIFI Chart



Causes Ranked by Count



Cause	Count
Tree	3
Unknown	2
Squirrel	1

Causes Ranked by Duration



Cause	Duration
Tree	11,640
Squirrel	2,068
Unknown	360

Top 6 Outages for the Month

Address	Customers Interrupted	Duration	Customer Minutes of Interruption	Cause	Start Date
7th ST & 7th AVE SW WO# 184236	190	60	11,400	Tree	11/19/2021
405 SW 4th ST WO# 183744	4	517	2,068	Squirrel	11/15/2021
1320 E HWY 169	5	60	300	Unknown	11/21/2021
101 NE 7th ST WO# 183742	1	120	120	Tree	11/12/2021
322 NE 10th AVE WO# 183740	1	120	120	Tree	11/11/2021
2207 NE 27th AVE WO# 182972	1	60	60	Unknown	11/11/2021

Total Customers Affected for the Month: **202**

Average Customers Affected per Outage: **33.666667**

