

GRAND RAPIDS
PUBLIC UTILITIES

Service is Our Nature

500 SE Fourth Street • Grand Rapids, Minnesota 55744

ELECTRIC DEPARTMENT MONTHLY REPORT October 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 8 outages during the month.

Projects Performed Last Month

- New, existing service work
- Grand Rapids Riverfest
- Outage Management System
 - Will be used to track outage and other calls from customers
 - Internal and external facing outage map
 - Connected to automated metering infrastructure, meters report outages automatically and populates outage map
 - Currently configuring software, making connections to customer information system, GIS, automated metering infrastructure system, Cooperative Response System (call center)

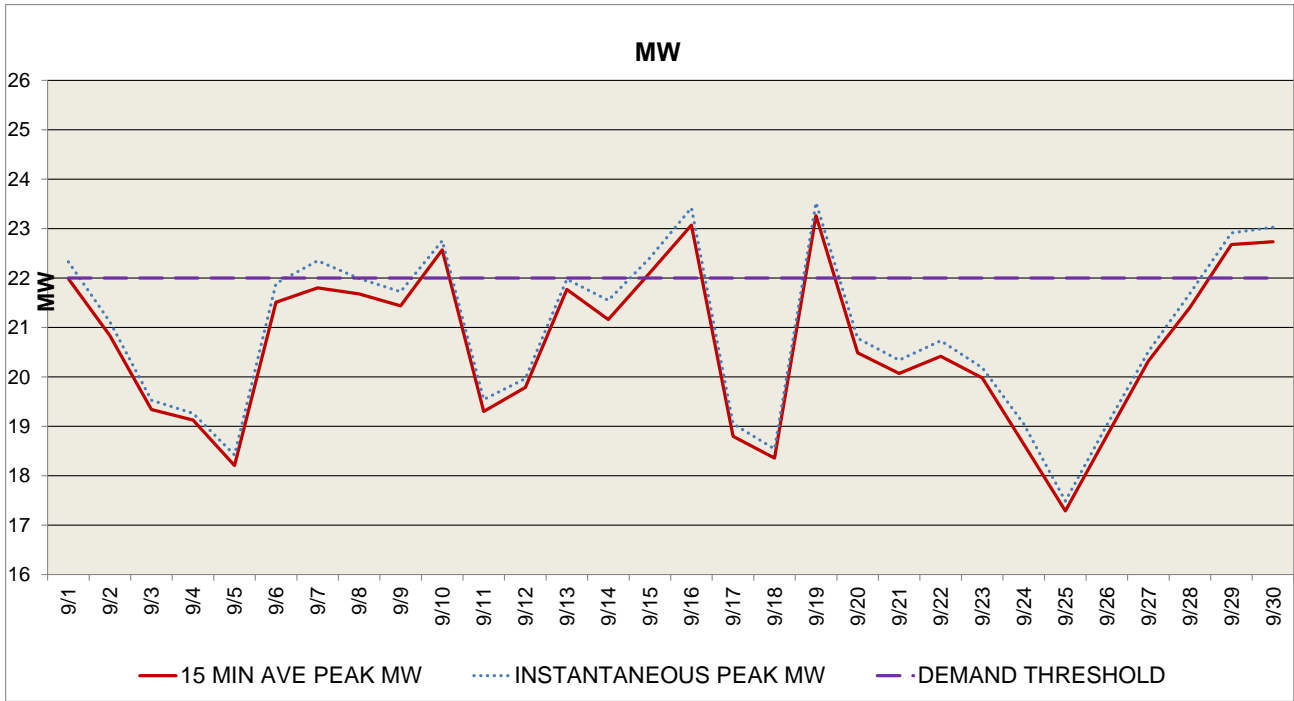
Projects Scheduled for This Month

- Policies, procedures
- Capital projects – new electric reclosers, gateway modems
- Solar plus Battery Storage project
 - New high voltage switch installed for connection to GRPU grid
 - Working with MN Power on demand response system coordination
 - 15% complete with solar module installation, 75% of modules delivered
 - Testing to start later in October
 - Battery delivery delayed by 3-4 weeks, expected commissioning early to mid-November



GRAND RAPIDS PUBLIC UTILITIES COMMISSION				
SEPTEMBER 2021 LOAD MANAGEMENT SYSTEM REPORT				
Sep-21	INST PK MW	15 MIN AVE PK MW	MW DEMAND THRESHOLD	CONTROLLED DAYS
Minimum	17.49	17.29	22.00	
Maximum	23.52	23.26	22.00	
Average	20.90	20.63	22.00	
Total				3

Savings due to active load management system for month of September 2021 estimated at \$9550



GRAND RAPIDS PUBLIC UTILITIES COMMISSION
DAILY POWER USAGE

Sep-21	INST PK MW	15 MIN AVE PK MW	MW DEMAND THRESHOLD	CONTROLLED DAYS
9/1	22.33	21.99	22.00	0.0
9/2	21.11	20.83	22.00	-1.2
9/3	19.53	19.34	22.00	-2.7
9/4	19.26	19.13	22.00	-2.9
9/5	18.42	18.21	22.00	-3.8
9/6	21.89	21.51	22.00	-0.5
9/7	22.35	21.80	22.00	-0.2
9/8	21.99	21.68	22.00	-0.3
9/9	21.72	21.44	22.00	-0.6
9/10	22.76	22.57	22.00	0.6
9/11	19.54	19.30	22.00	-2.7
9/12	19.97	19.79	22.00	-2.2
9/13	21.98	21.77	22.00	-0.2
9/14	21.55	21.16	22.00	-0.8
9/15	22.41	22.11	22.00	0.1
9/16	23.42	23.07	22.00	1.1
9/17	19.05	18.80	22.00	-3.2
9/18	18.54	18.36	22.00	-3.6
9/19	23.52	23.26	22.00	1.3
9/20	20.78	20.48	22.00	-1.5
9/21	20.34	20.07	22.00	-1.9
9/22	20.73	20.42	22.00	-1.6
9/23	20.19	19.98	22.00	-2.0
9/24	19.05	18.64	22.00	-3.4
9/25	17.49	17.29	22.00	-4.7
9/26	19.02	18.81	22.00	-3.2
9/27	20.51	20.32	22.00	-1.7
9/28	21.69	21.41	22.00	-0.6
9/29	22.91	22.68	22.00	0.7
9/30	23.03	22.74	22.00	0.7
Minimum	17.49	17.29	22.00	
Maximum	23.52	23.26	22.00	
Average	20.90	20.63	22.00	
Total				3
		Peak Demand Day		Controlled Day

Monthly Report - Grand Rapids Public Utilities Commission

Grand Rapids Public Utilities Commission

Year 2021	Minimum duration 	Substation -----
Month 09 - September	Maximum duration 	Circuit -----
Annual Report? <input type="radio"/> Yes <input checked="" type="radio"/> No	Top-level Cause -----	Remove Major Events? -----

IEEE 1366 Statistics

Metric	Sep 2021	Sep 2020
SAIDI	3.838	38.109
SAIFI	0.0537	0.488
CAIDI	71.473	78.167
ASAI	99.9908%	99.9087%
Momentary Interruptions	0	0
Sustained Interruptions	8	11

Circuit Ranking - Worst Performing

Ranked by Outage Count

Circuit	Substation	Number of Outages
Feeder 320	Main Substation	3
Feeder 328	Main Substation	3
Feeder 327	Main Substation	1

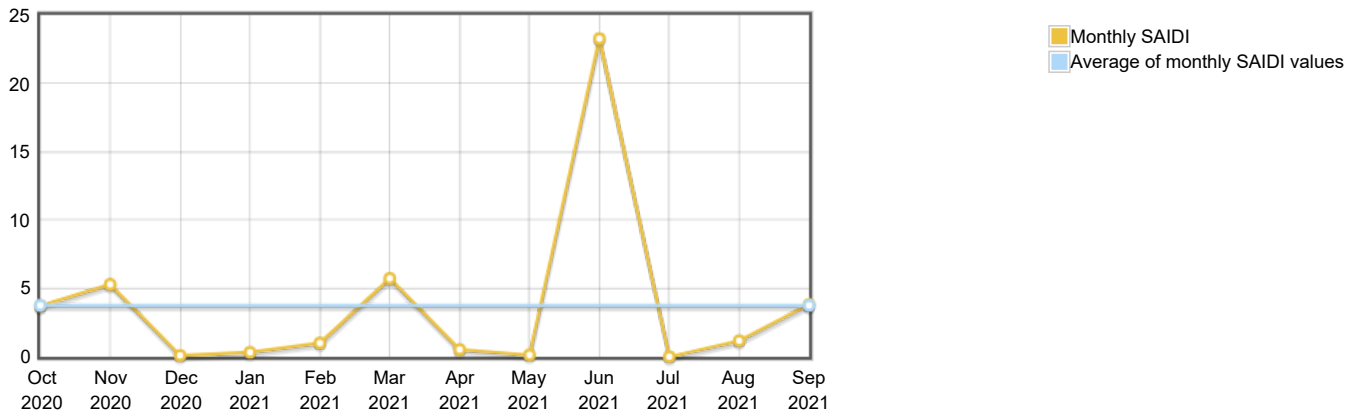
Ranked by Customer Interruptions

Circuit	Substation	Customer Interruptions
Feeder 328	Main Substation	350
Feeder 320	Main Substation	50
Feeder 327	Main Substation	2

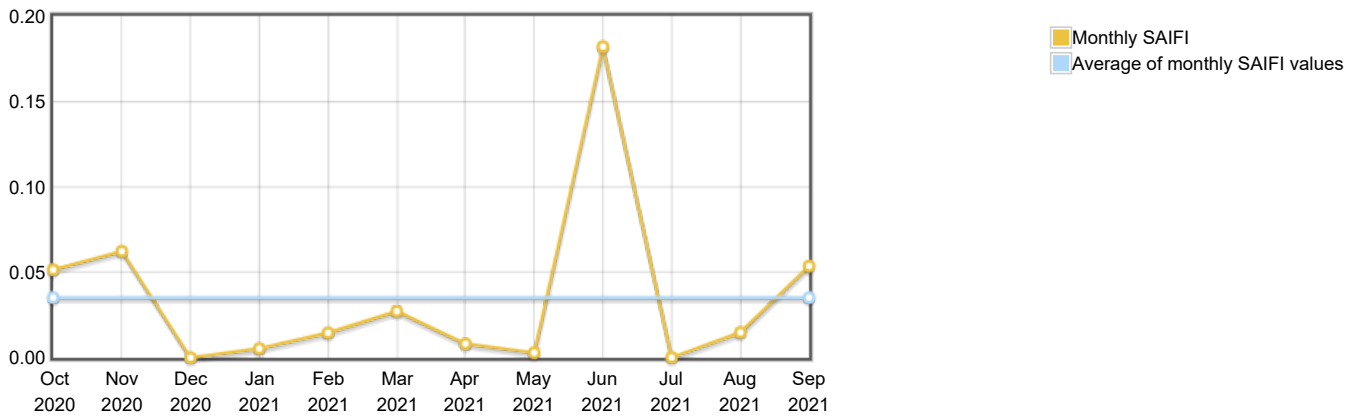
Ranked by Customer Minutes of Duration

Circuit	Substation	Customer Minutes of Duration
Feeder 328	Main Substation	24,390
Feeder 320	Main Substation	4,290
Feeder 327	Main Substation	64

Historical Monthly SAIDI Chart



Historical Monthly SAIFI Chart



Causes Ranked by Count



Cause	Count
Squirrel	3
Electrical Failure	3
Unknown	1

Causes Ranked by Duration



Cause	Duration
Squirrel	20,628
Unknown	4,992
Electrical Failure	3,124

Top 8 Outages for the Month

Address	Customers Interrupted	Duration	Customer Minutes of Interruption	Cause	Start Date
RIVER RD LCP ANEX WO# 182239	242	69	16,698	Squirrel	09/06/2021
DAVIS RD WO# 182244	78	64	4,992	Bad arrestor	09/16/2021
ALLEY 10th & 11th AVE SW WO# 181889	43	90	3,870	Squirrel	09/03/2021
RIVER RD LCP AREA WO# 182463	30	90	2,700	Bad arrestor	09/20/2021
14 SE 4th ST WO# 182957	6	60	360	Damaged wire	09/26/2021
2821 ALICE ST WO# 182241	2	32	64	Bad wire	09/14/2021
2168 MISHAWAKA RD WO# 182466	1	60	60	Squirrel	09/26/2021
3 IRENE RD WO# 182464	1	60	60	Fire	09/25/2021

Total Customers Affected for the Month: **403**

Average Customers Affected per Outage: **50.375**

