



Piqua Power System

2020 A Year In Review

PIQUA POWER SYSTEM
201 HEMM AVENUE

Piqua Power System



Staff Changes

Departures



Kindric Link
Journeyman Lineworker
Resigned 3/27/20

Arrival



201 HEMM AVENUE
Jordan Feaser
Apprentice Lineworker
Hired 10/12/20

Retirement



Bob Bowman
Assistant Power System Director
Retired 12/31/2020

Joe Huelskamp Earns Journeyman Certification

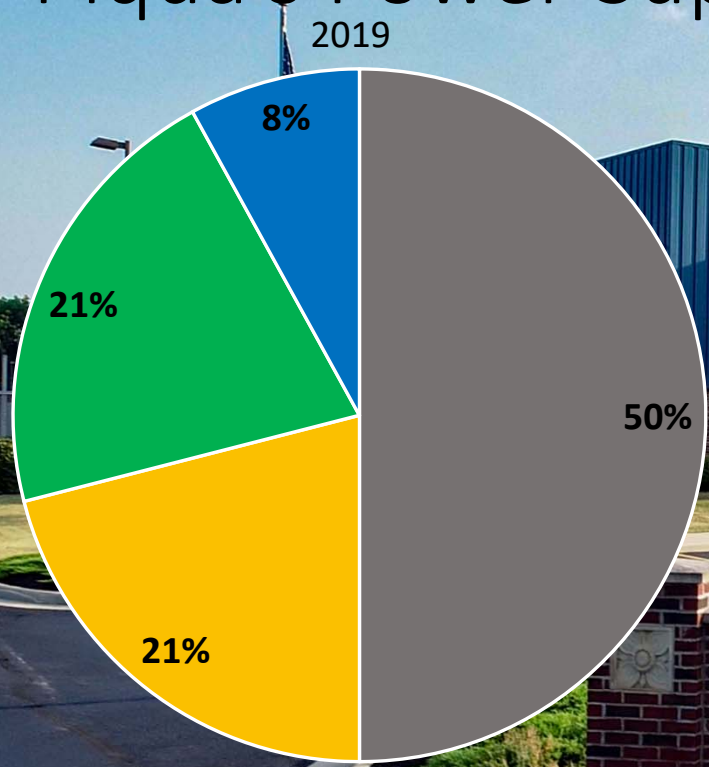


Ed Krieger Elected to APPA Board of Directors

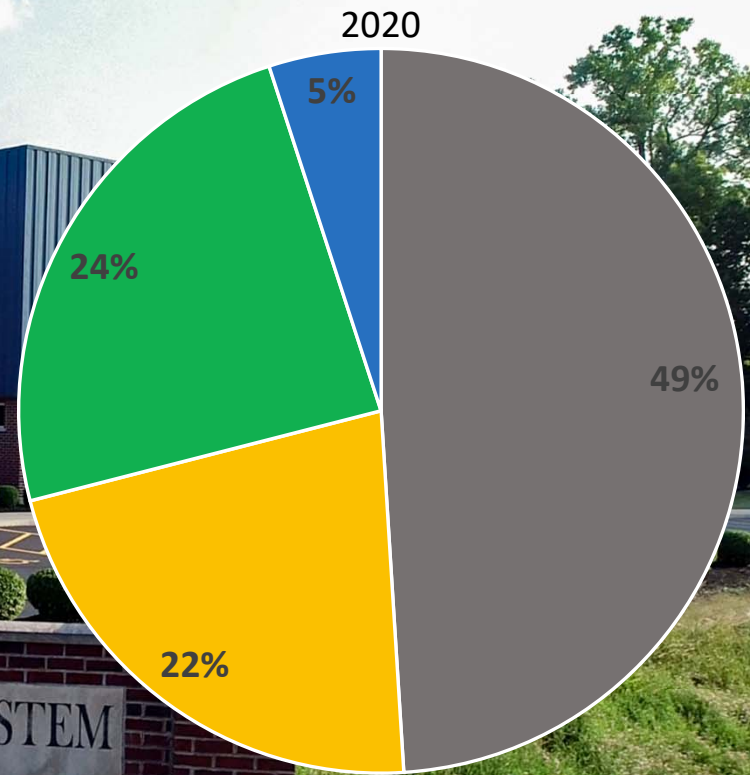
Region 2 – Representing Indiana, Illinois, Michigan, Ohio & Wisconsin



Piqua's Power Supply



\$66.66/MWH

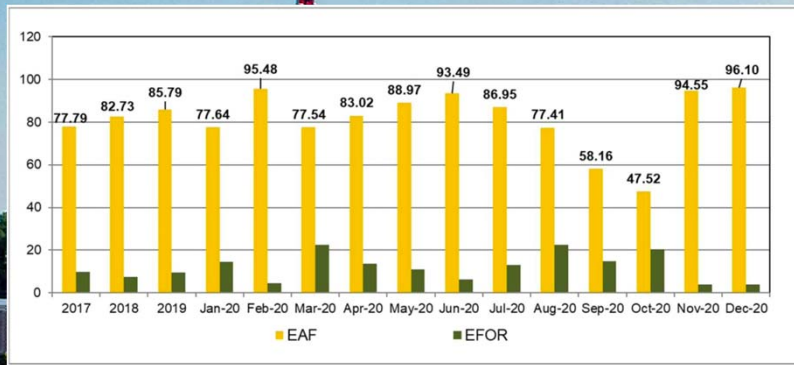


\$73.31/MWH

- Clean Coal
- Natural Gas
- Renewable
- Market

PIQUA POWER SYSTEM
201 HEMM AVENUE

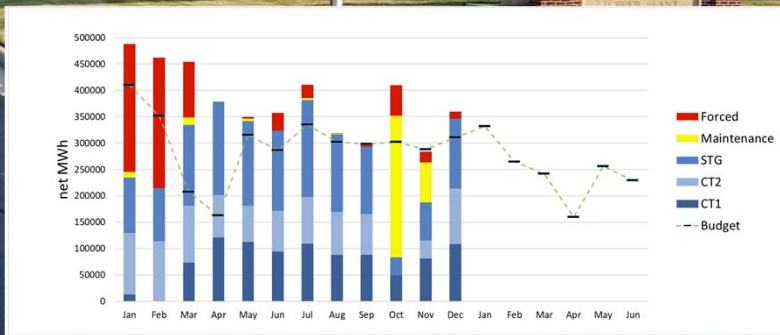
Prairie State Energy Campus



PSGC	
Calendar Year 2020	
(as of November 30, 2020)	
Total Net MWh	10,151,383
Equivalent Forced Outage Rate	13.16%
Coal Burned (Tons)	5,592,078



AMP Fremont Energy Center



Phase I Hydro



Phase II Hydro



AMP Solar Phase II



Staunton Solar Field



Manier Solar Field

Piqua Combustion Turbines

Customer Savings - \$990,915



#8 Combustion Turbine



#9 Combustion Turbine



PIQUA POWER SYSTEM
201 HEMM AVENUE

Sub #4 69kV Breaker Project

HITACHI
Inspire the Next



69-103

69-101



69-107

Upgraded Sub #4 Relays, Controls, Panel, RTU



Convert Lock Nine Park to Underground



Removal of Retired Electric Facilities Along Conservancy Levee



New 13-1-2/13-1-4 Circuit Tie



New Service to KHN



Upgrade Service to IDC Spring Expansion



IDC Spring

New Service to Wood Street Lofts



New Service to Marathon



Garbry Ridge Cottages Phase II




Garbry Ridge
ASSISTED • LIVING



Extended Service on Innovation Parkway



New Service to NKTELCO Huts



Looney Rd.

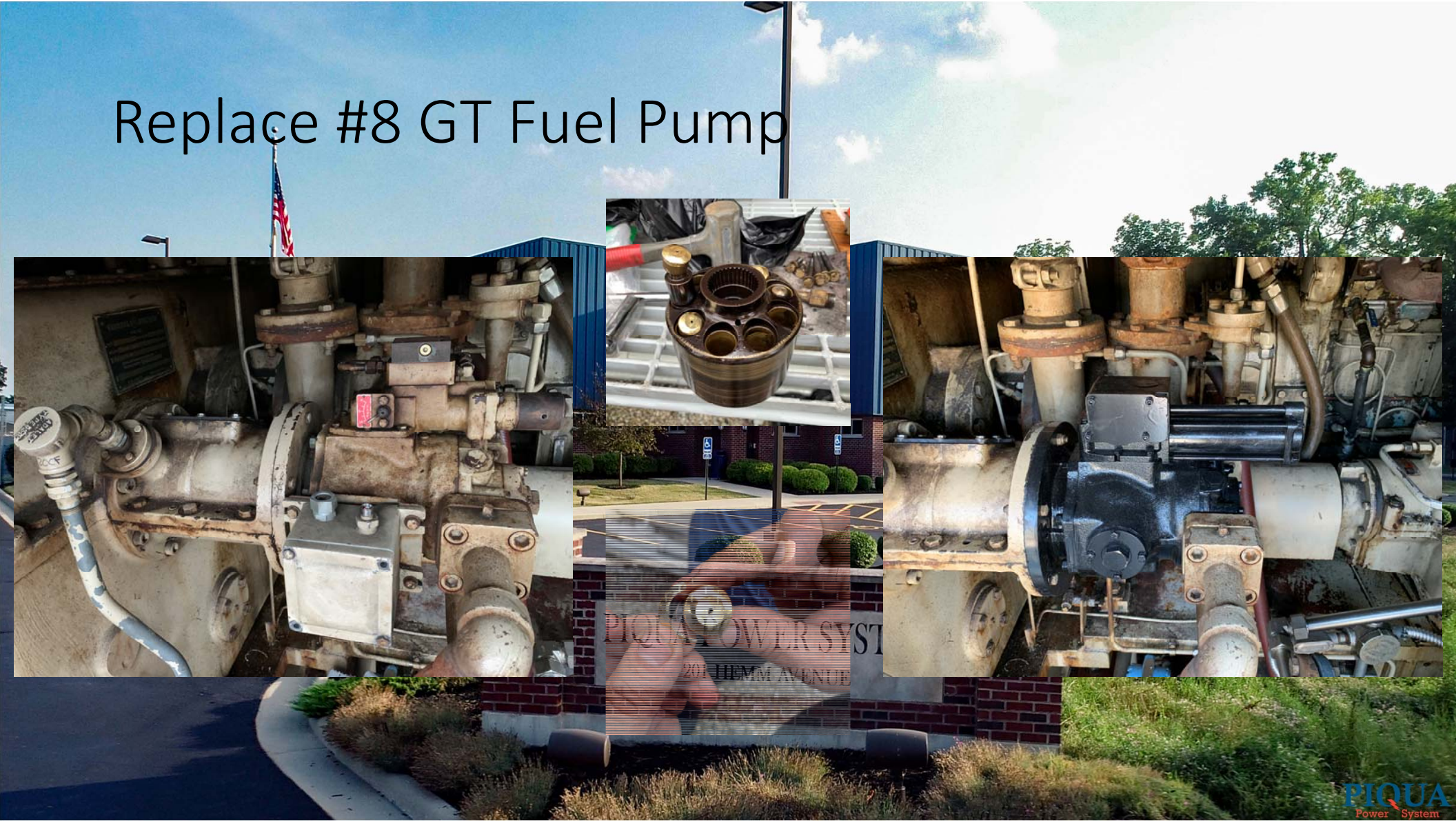
JAP
201 LILY AVENUE

RM Davis Parkway

Replace #8 GT Transformer Bushings



Replace #8 GT Fuel Pump



Replace #8 GT Enclosure Doors



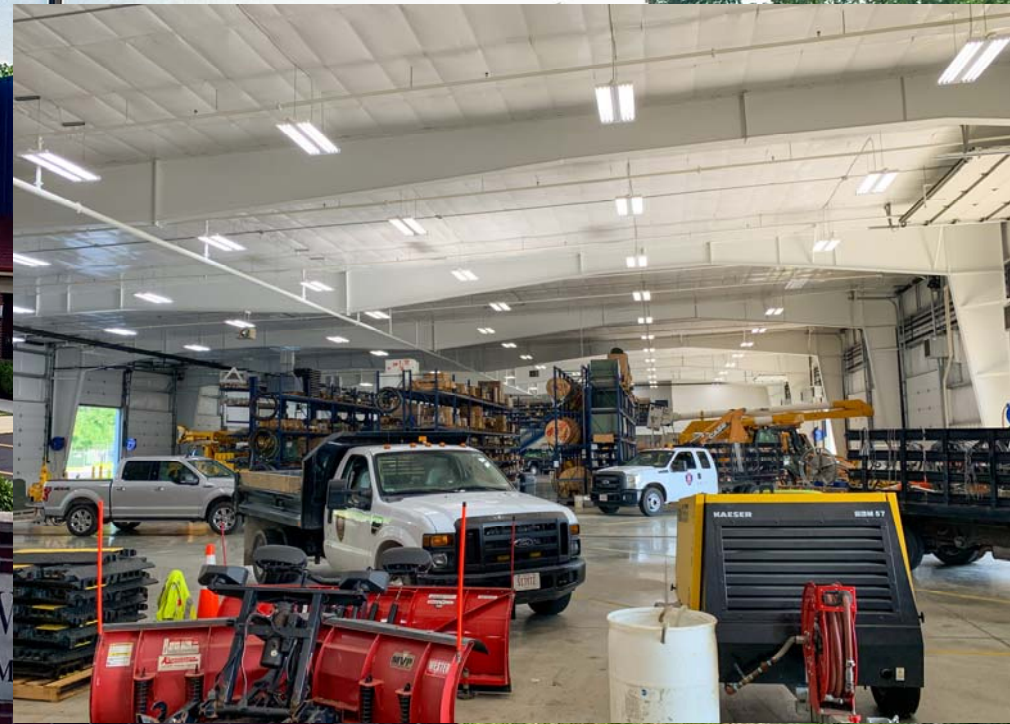
Repair Power Plant Roof Drains



201 HEMM AVENUE
New Downspouts Around #1, #2 & #3 Boilers



Replace Warehouse Lighting



Replace Warehouse Boilers



Cybersecurity Assessment



January 2021

Hometown Connections Helps Piqua OH Identify Cybersecurity Priorities, Budget Needs

Municipal Utility Uses Low-Cost Assessment To Identify Cybersecurity Deficiencies, Priorities, Budget Needs

The City of Piqua, Ohio, is dedicated to providing the highest level of service to its nearly 11,000 electric customers, applying regularly for the designation of Reliable Public Power Provider (RP₃) by the American Public Power Association. Being recognized by the RP₃ program demonstrates a utility's commitment to excellence in reliability, safety, workforce development, and system improvement. To ensure best practice compliance within the cybersecurity portion of the RP₃ application submitted in September 2020, the Piqua Power System hired the team from Hometown Connections, Inc., to perform a cybersecurity assessment.



Currently, 274 of the nation's more than 2,000 municipal utilities hold an RP₃ designation. Piqua Power System is applying to renew its RP₃ status for another three-year period, aiming to earn once again the Diamond Level designation, which is the program's highest level of distinction. While there were physical and cybersecurity questions included in the early RP₃ applications, the program expanded the cybersecurity portion in 2015 to make clear the urgent nature of cyber threats to municipal utilities large and small.

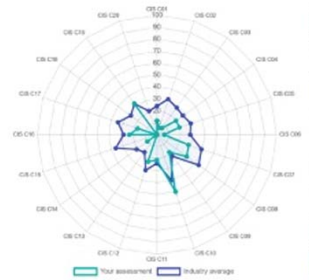
Ransomware Is Clear And Present Danger For All

It's well documented that ransomware attacks on municipal governments are on the rise and can cost tens

Cybersecurity Snapshot Is Step One

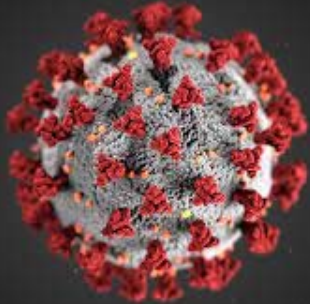
As the services organization dedicated to enhancing the performance of community-owned utilities, Hometown Connections is supporting smaller systems lacking the resources to close their cybersecurity gaps. Its low-cost **Cybersecurity Assessment** identifies shortcomings in cyber defenses and helps utilities develop strategies to resolve them. Through an alliance network organized by Hometown Connections, qualified personnel at American Municipal Power (AMP) and other joint action agencies conduct the assessments to provide:

- **Program Evaluation**
 - Comparison of the client's current technology architecture, policies, and controls with the industry standard guidelines.
- **Network Vulnerability Assessment**
 - Using vulnerability scanning tools to look for weaknesses in information systems on the client's network.
- **Phishing & Incident Response**
 - Using email security awareness tools to simulate phishing attacks and provide awareness training to staff.
 - Performing an incident response tabletop exercise.
- **Detailed Recommendations on how to:**
 - Address deficiencies
 - Prioritize action items
 - Budget for security improvements
- **Report and Presentation**
 - For governing board and utility/city staff



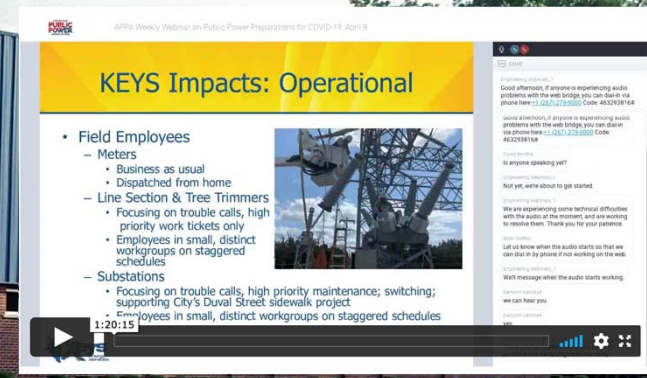
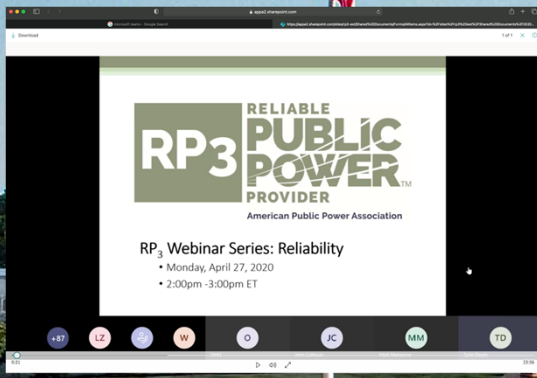
Remote Access During COVID-19

- Staff and Lineworkers split into two groups, alternated every week between work onsite and from home



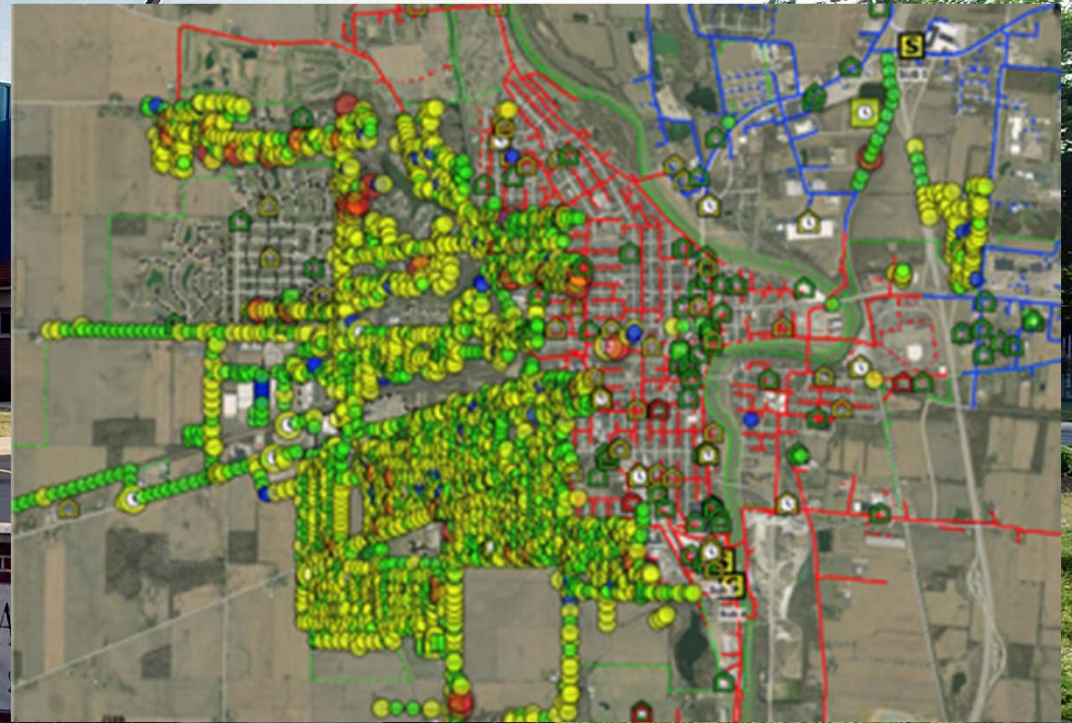
TeamViewer

All Employees Continued Meetings & Training During Pandemic



Distribution Inspection Program

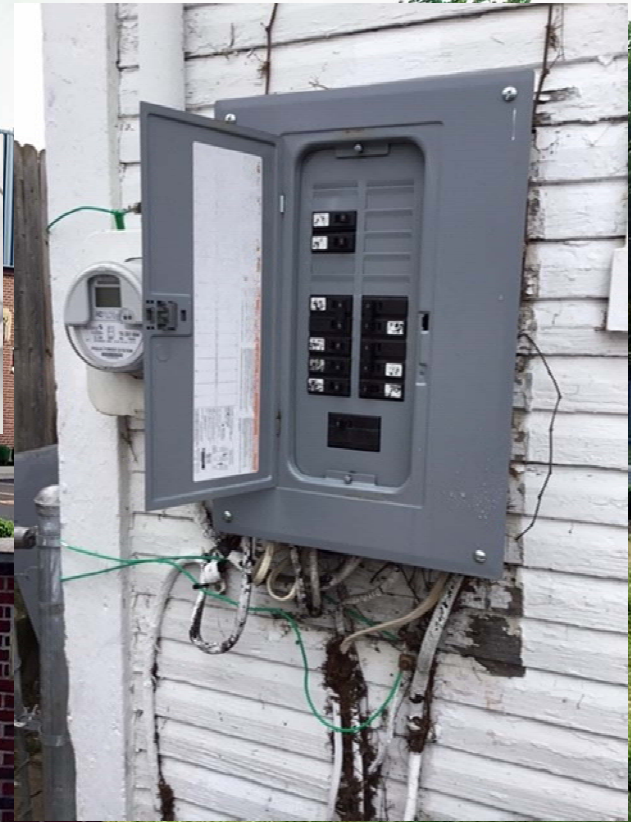
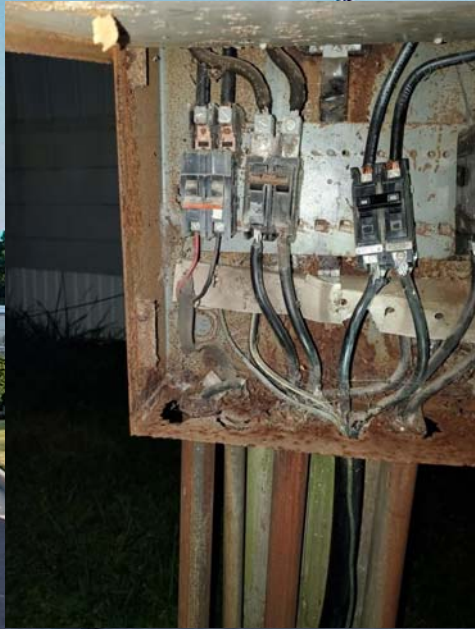
❖ 33 Condemned Poles Replaced



Eliminate Hazardous Conditions

2020 Services Repaired: 33

Program to Date: 537



Purchase 60' MH Bucket Truck



Mutual Aid 2020

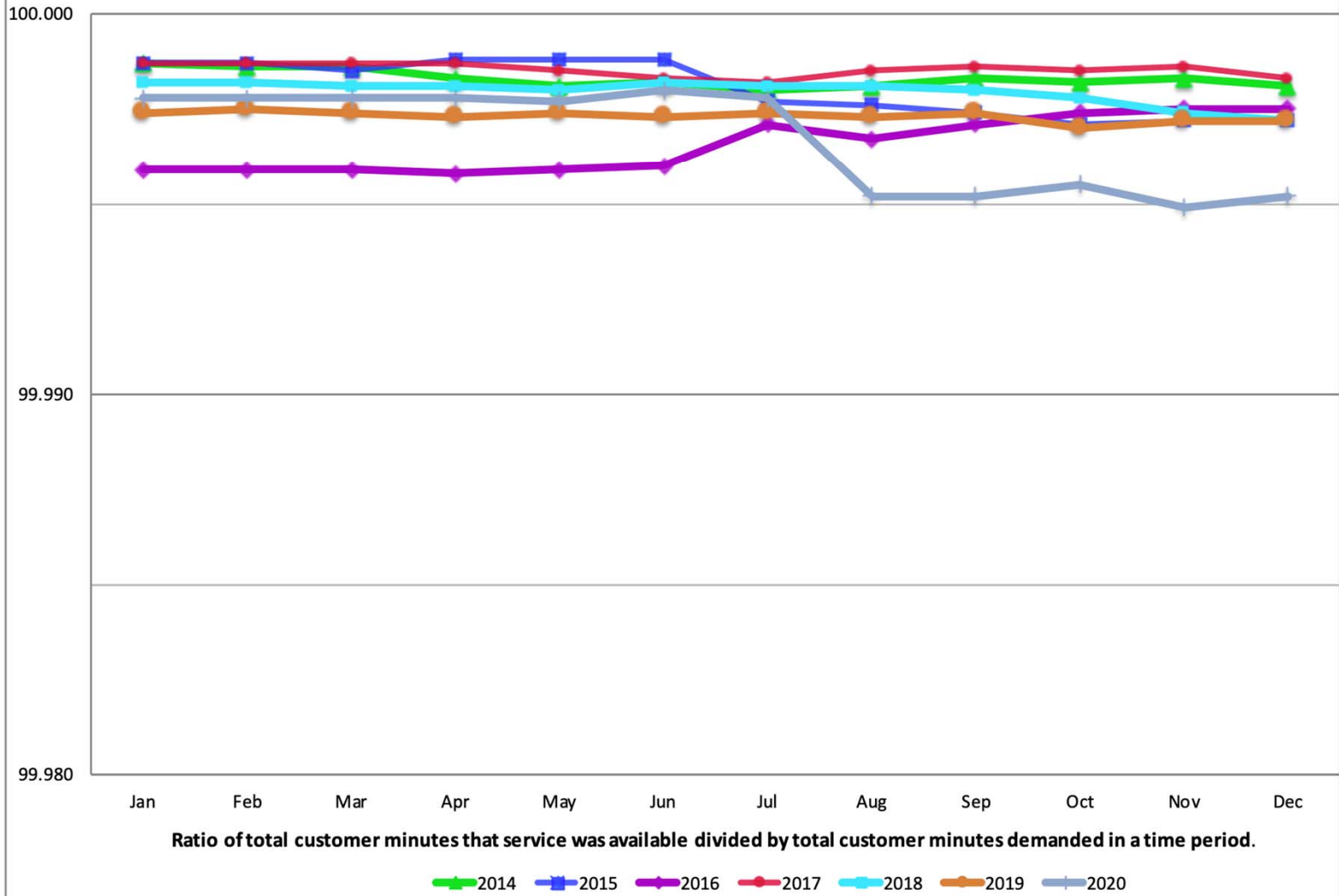
• 1/12/20 – DP&L

• 8/10/20 – Ohio City

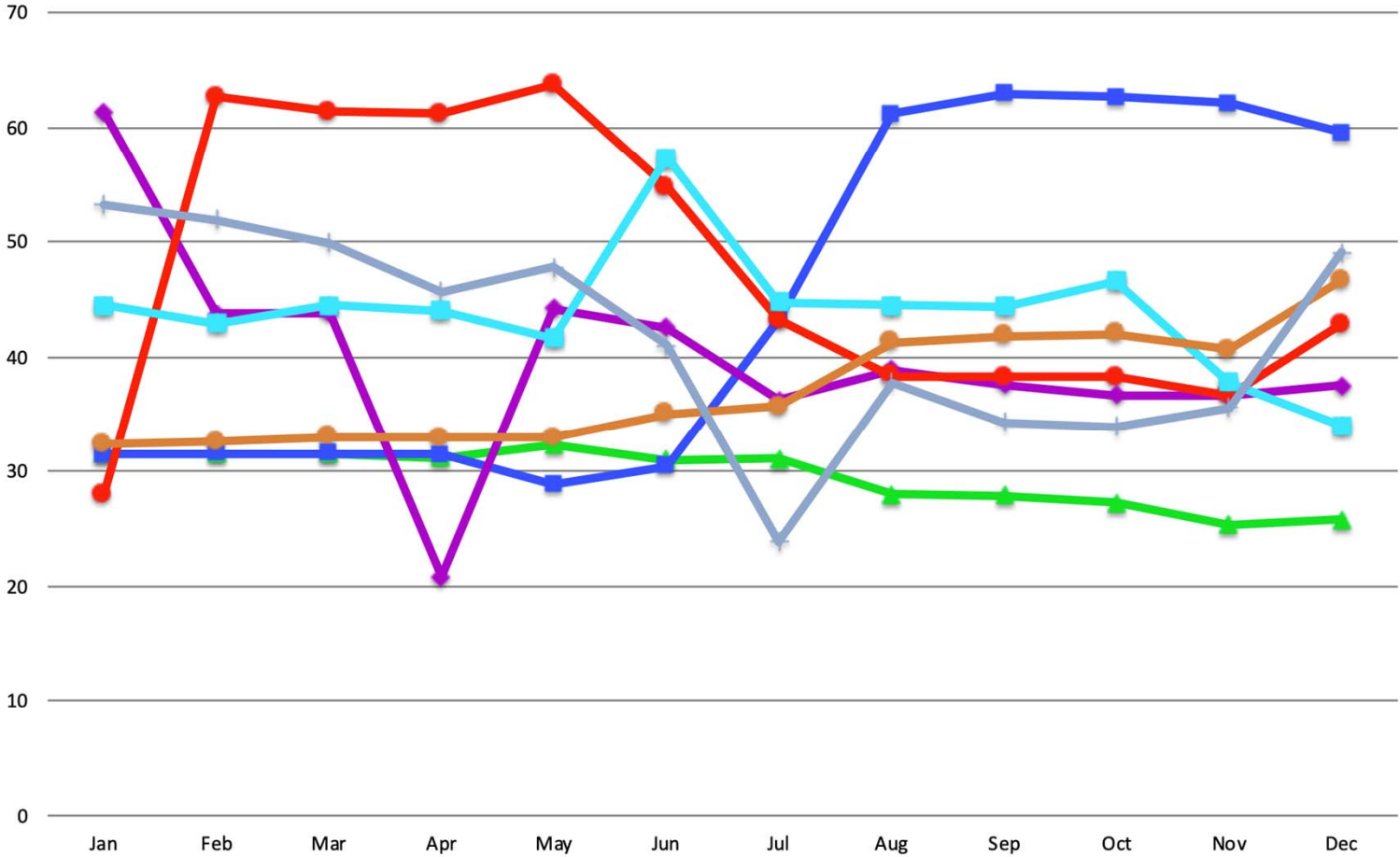
• 10/21/20 – DP&L



ASAI (Average Service Availability Index - %)



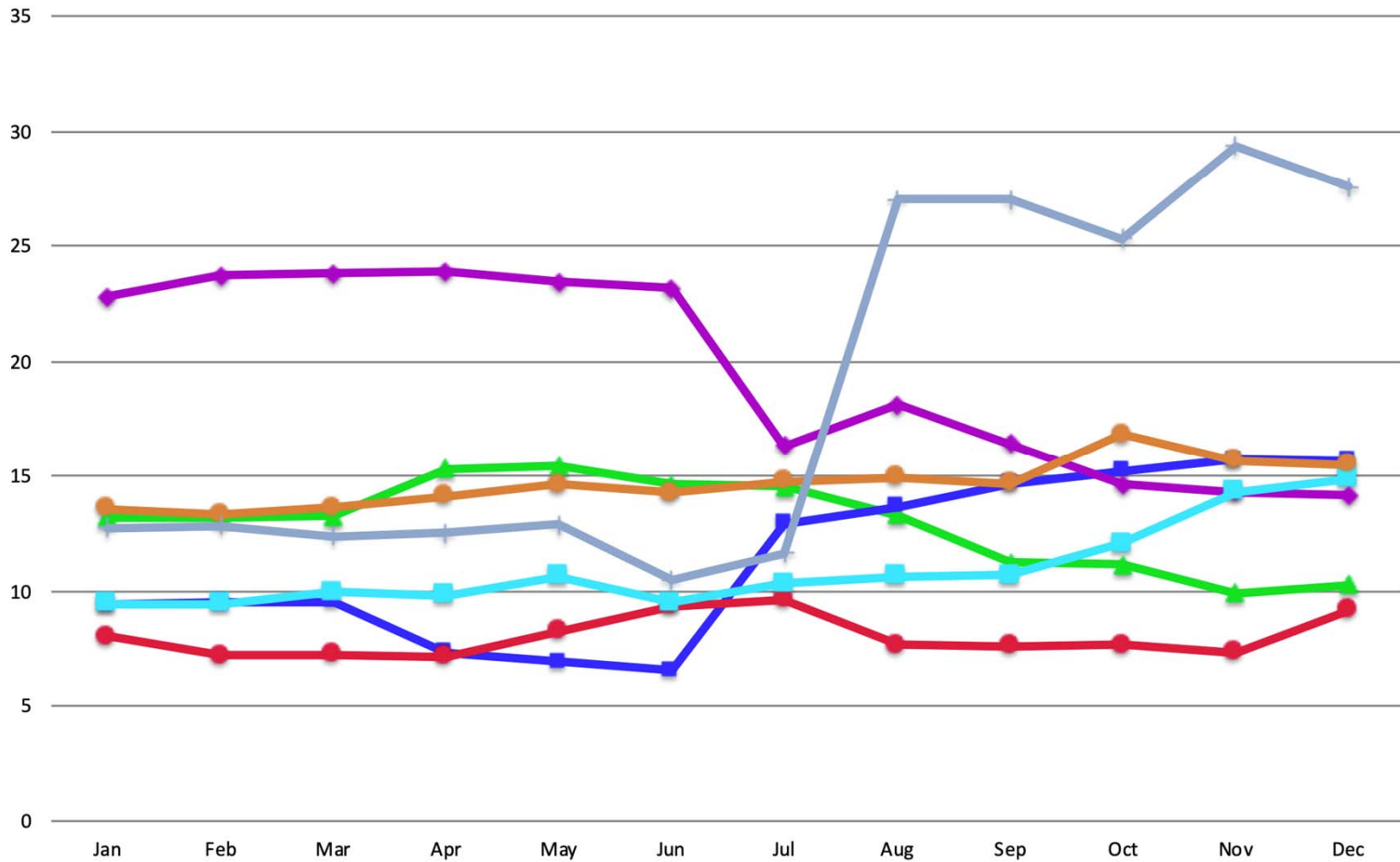
CAIDI (Customer Average Interruption Duration Index - Minutes)



The average duration of a customer outage, is calculated by dividing the sum of the customer minutes off by the number of customers who experienced long interruptions.

2014 2015 2016 2017 2018 2019 2020

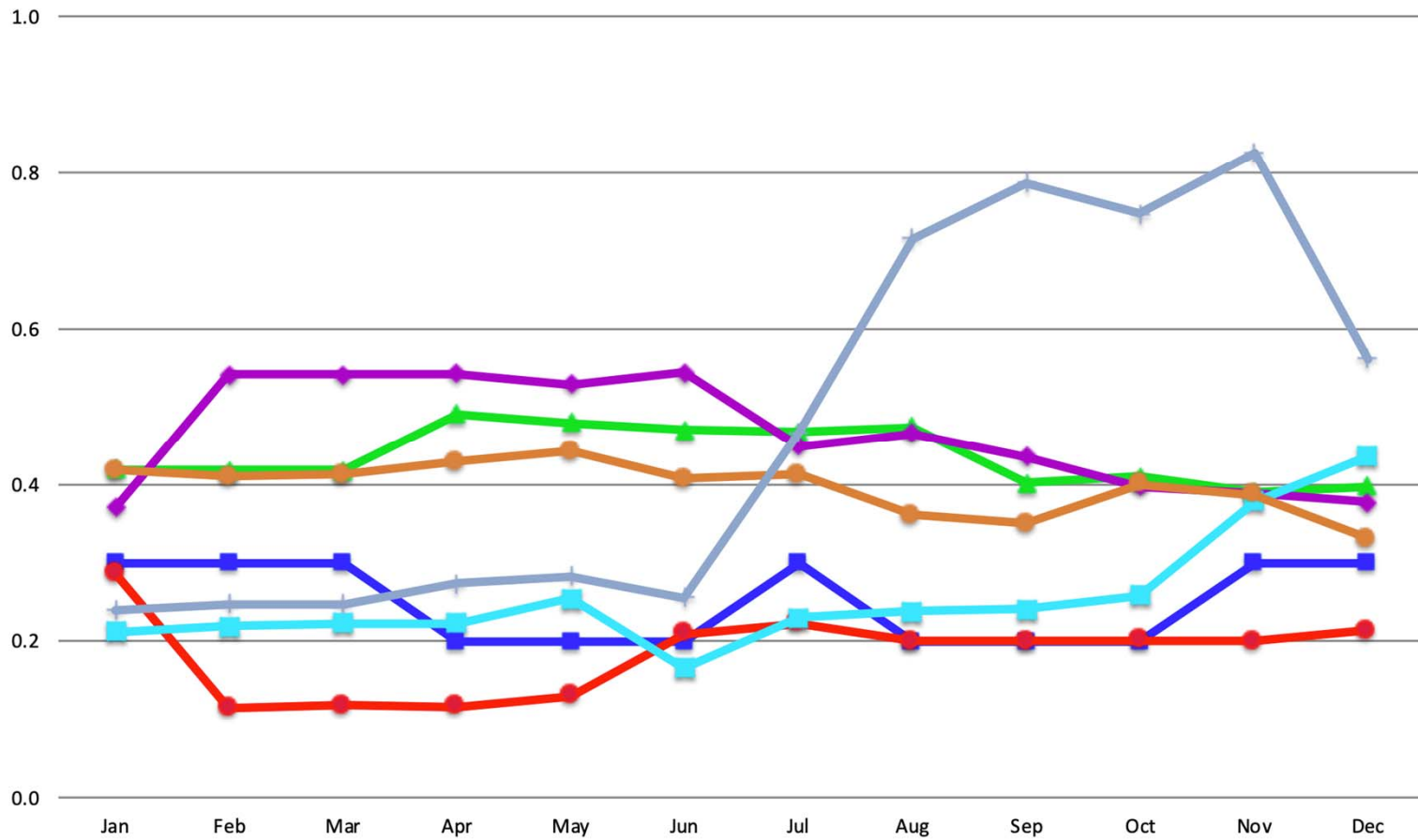
SAIDI (System Average Interruption Duration Index - Minutes)



The average interruption duration for all customers served, and is calculated by dividing the sum of the customer minutes off by the average no. of customers served.

◆ 2014
 ■ 2015
 ◆ 2016
 ● 2017
 ■ 2018
 ● 2019
 ■ 2020

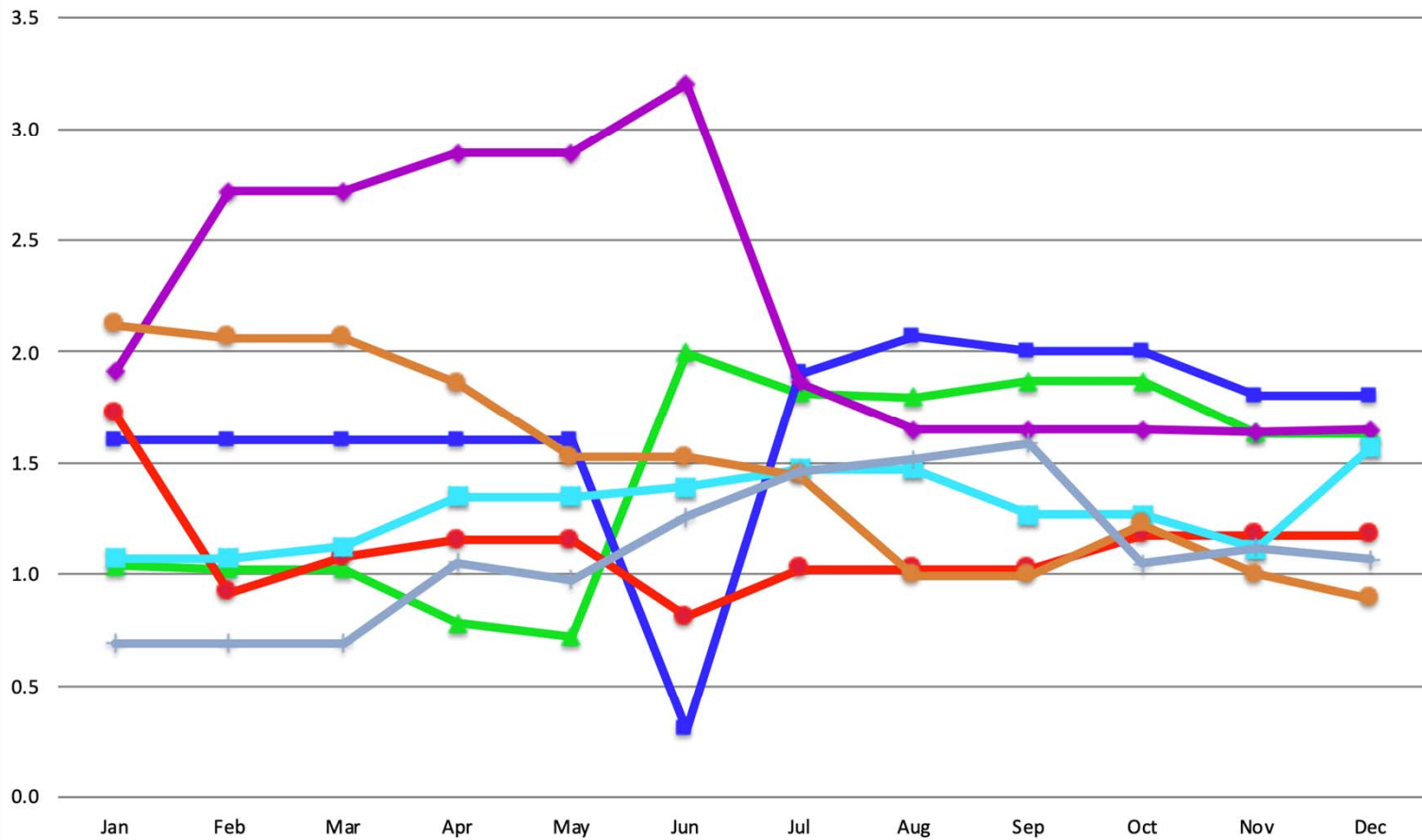
SAIFI Long (System Average Interruption Frequency Index - Long Interruptions per Customer)



The number of times a customer is interrupted (>1 minute), averaged over all customers. Divide total customer interruptions by an average of total customers served.

2014 2015 2016 2017 2018 2019 2020

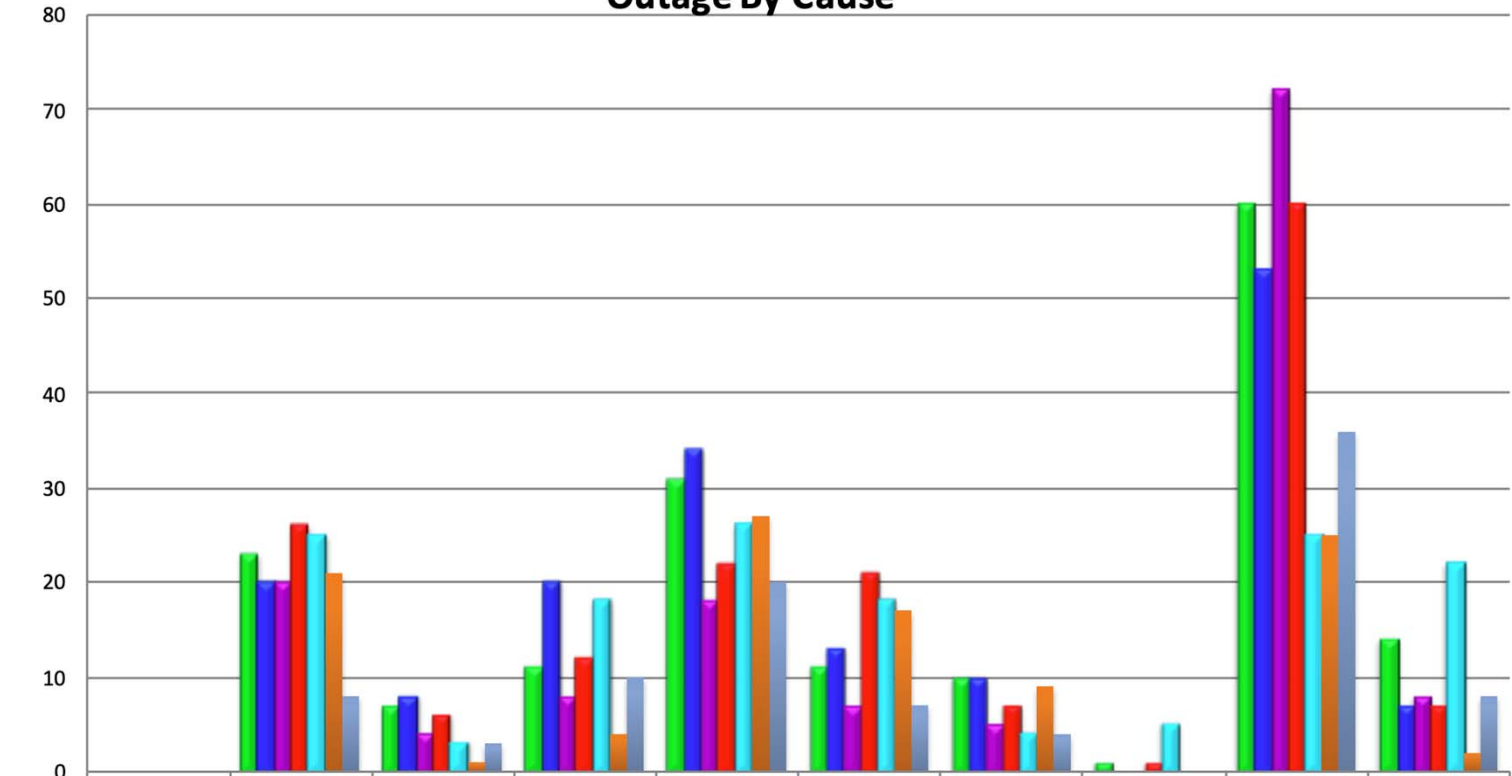
SAIFI Short (System Average Interruption Frequency Index - Short Interruptions per Customer)



The number of times a customer is interrupted (<1 minute), averaged over all customers. Divide total short customer interruptions by the average number of all customers served.

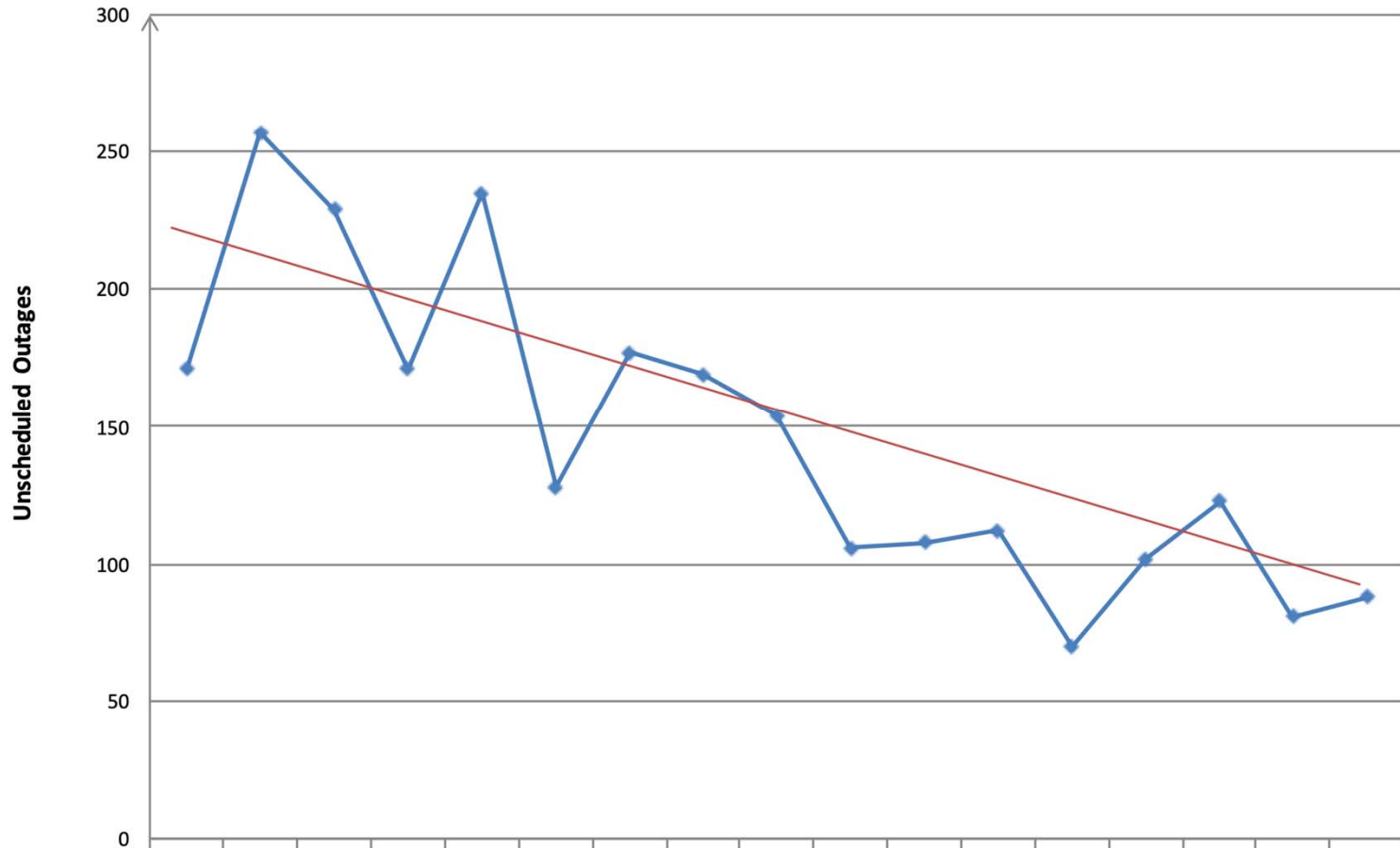
2014 2015 2016 2017 2018 2019 2020

Outage By Cause













	Supply to City	OH Equip Failure	URD Equip Failure	Weather	Animals	Trees	Foreign Interf.	Human	Scheduled	Unknown
2014	0	23	7	11	31	11	10	1	60	14
2015	0	20	8	20	34	13	10	0	53	7
2016	0	20	4	8	18	7	5	0	72	8
2017	0	26	6	12	22	21	7	1	60	7
2018	0	25	3	18	26	18	4	5	25	22
2019	0	21	1	4	27	17	9	0	25	2
2020	0	8	3	10	20	7	4	0	36	8

City of Piqua Total Number of Unscheduled Outages by Year



	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Year	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
# of Outages	171	257	229	171	235	128	177	169	154	106	108	112	70	102	123	81	88

Piqua Power System – Top 10 Customers

Rank	Customer		Total Revenue	Total Annual KWH	Annual Peak KWH
1	Plastic Recycling Tech Inc		\$1,069,789.36	14,337,400	2590.00
2	Jackson Tube		\$911,628.22	8,429,400	3948.00
3	Hobart Brothers Piqua FMO		\$903,053.26	10,812,900	2404.50
4	Evenflo Company Inc		\$893,152.76	11,834,255	2120.84
5	Crayex Corp		\$830,640.48	11,902,560	1772.20
6	Hartzell Propeller		\$797,214.32	9,886,308	1884.48
7	Piqua Materials		\$788,004.79	7,713,972	2760.66
8	City of Piqua		\$651,368.71	8,334,753	1789.96
9	Polysource		\$620,094.23	8,307,600	1540.00
10	Hartzell Industries Hartzell Hardwoods		\$535,576.12	6,333,280	1460.80