ACTUAL Residential Energy Use & Rate Comparison

Comparing 2022 to 2021

The average amount billed to each residential customer decreased slightly by 0.3% year-over-year due to the average customer decreasing their electricity usage, more than offsetting the increase in charges per kWh.

In 2022, the total number of cooling degree days was 35% above the normal or baseline standard leading to higher than normal electric usage during the hot summer season, however, these were also the circumstances in 2021.

What is a Degree Day?

Cold winter weather or summer heat can increase the cost of your utility bills. We can determine the weather impact by using a unit of measure called a degree day. A higher number of degree days will require more energy for cooling or heating your home or business.

2 Types of Degree Days -

Cooling and heating. Each compares the current day's average temperature to a baseline standard of 65°F to determine the energy demands of cooling or heating your home or business. Days with an average temperature of 65°F have no cooling or heating degree days.

Hot Days - are measured in cooling degree days. On a day with a mean temperature of 80°F, 15 cooling degree days would be recorded (80-65=15).

January to December	2022	2021
Number of residential customers - **1.5% increase above 2021**	13,047	12,848
Total residential kWh's of energy used - **-0.7% decrease below 2021**	89,722,198 kWh	90,350,367 kWh
Average kWh's of energy used per customer per month - **-1.7% decrease below 2021**	573 kWh	583 kWh
Total residential amount billed - **0.7% increase above 2021**	$12,577,536	$12,488,753
Residential cents per kWh - **1.4% increase above 2021**	14.0 cents	13.8 cents
Annual Cooling Degree Days	35.1 % above normal	29.4 % above normal
Annual Heating Degree Days	1.8 % below normal	8.3 % below normal

Cold Days - are measured in heating degree days. For a day with a mean temperature of 40°F, 25 heating degree days would be recorded (65-40=25).

Adding cooling or heating degree days together for a whole month (or year), provides a way to compare a previous month's (or previous year's) heating and cooling demands to that of the current month (or current year).

HAPPY EARTH DAY & WAWL SPRING HOME SHOW

April 25-28, 2023 | April 29 & 30, 2023

Celebrate Earth Day with compliments from the GHBLP. Residential customers visiting our Service Center or the WAWL Spring Home Show are eligible for a FREE Redbud or Crabapple tree! First come, first served!

April 25 - April 28, 2023
Pick up your tree at our
Service Center - 1700 Eaton Drive
T-F 7:30am to 5:00pm
Join us at the
WAWL Spring Home Show
Saturday, April 29, 2023 - 1pm to 5pm
Sunday, April 30, 2023 - 11am to 3pm
D Baker & Son Lumber - 720 Pennoyer

Your Board of Directors:

Michael Westbrook, Chairperson
Gerald Witherell, Vice Chairperson
Todd Crum, Director
Andrea Hendrick, Director
Kurt Knoth, Director

Grand Haven Board of Light & Power
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PLUGGED IN

What it Takes to Achieve Award-Winning Reliability

March 2023

What it Takes to Achieve Award-Winning Reliability

Utility reliability isn't just about responding quickly to outages. It depends on a well-maintained system. To see how the Grand Haven BLP compares to other utilities, we need first to understand the industry standards for gauging a utility's reliability. Then, we'll learn how leaning on well-tended infrastructure helps the Grand Haven BLP stand above others in the industry.

Reliability

Like most power companies and utilities, the Grand Haven BLP uses standard reliability metrics to measure the reliability of their power. SAIDI (System Average Interruption Duration Index), one such metric, measures the total time a customer's power is interrupted per year while SAIFI (System Average Interruption Frequency Index) measures the number of times a customer's power is interrupted per year. Both are important metrics, but neither provides a complete picture.

Utilities will use a third key metric that combines SAIDI and SAIFI called CAIDI (Customer Average Interruption Duration Index), which most accurately reflects the overall reliability of a utility. CAIDI determines the average outage duration of the average interruption. This is a great metric to see how quickly the utility restores power to impacted customers.

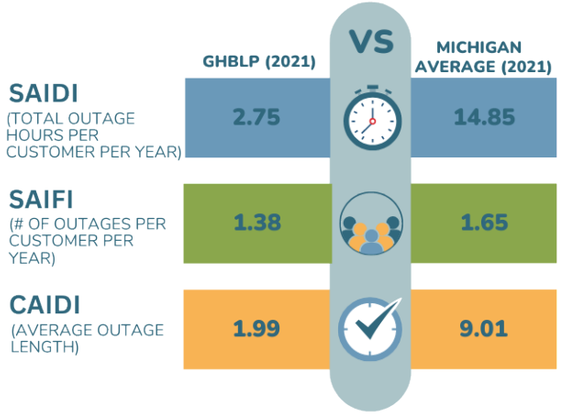
The BLP reports strong SAIDI, SAIFI, and CAIDI numbers due to their investment in reliable infrastructure, commitment to maintaining that infrastructure, tree trimming and vegetation management, and having a qualified and competent, local workforce that responds quickly to restore the system when an outage occurs.

In 2020, the BLP installed advanced meters at all customer locations. Advanced meter infrastructure (AMI) keeps bills accurate, response times short, and customers informed. After the AMI registers an outage, it sends an alert to the BLP's outage management system.

Before AMI, the BLP would learn about outages through customer notifications primarily via phone. Our new Outage Management System (OMS) integrates with AMI to produce automated reports that were once previously compiled from estimates and secondhand accounts. The combination of AMI and OMS greatly improves the accuracy of this data and our ability to detect and respond to power outages.

"Before AMI and OMS, customer reporting would be the BLP's only resource to approximate the number of people affected and the estimated time the outage occurred," said Rob Shelley, GHBLP distribution and engineering manager.

Today, AMI posts outages automatically in the GHBLP's OMS, giving system operators and customers real-time updates. AMI alerts dispatchers about an outage before they get called. The software can also pinpoint the exact problem, making it easier for the BLP to address and dispatch the necessary personnel to repair the problem.



How Grand Haven Compares

The Grand Haven BLP reports better reliability metrics than many other utilities in Michigan.

Several factors contribute to the BLP's consistently favorable reliability metrics. Municipally owned and operated electric utilities are more dense than comparative utilities. It's easier to respond quickly to a problem in such a system than in a remote rural utility. The Grand Haven BLP's service is focused on the greater Grand Haven community—compared to a larger power company that may have a much larger footprint.

Grand Haven residents can expect outages to be found and fixed as promptly as possible, whereas customers living under a larger company's jurisdiction often have to wait longer for the technician to arrive.

A Diamond-level Distinction

Not only does the BLP provide higher reliability than large power companies in Michigan, it also performs well in comparison to many other municipal electric utilities nationwide. The American Public Power Association's Reliable Public Power Provider program, also known as RP3, gave the GHBLP a diamond-level RP3 designation—their highest distinction in 2021-2024.

A diamond-level rating doesn't just depend on reliability metrics. For example, if RP3 only measured Florida's rate of outages, their proclivity to hurricanes would make it impossible for them to receive a high rating. RP3 takes into account reliability, safety, workforce development, and system improvement as a holistic approach.

"An electric utility is like a car—if you're not doing regular maintenance on it, it'll break down like any other machine," said Shelley.

Tree Trimming & Inspections

The BLP's proactive approach to consistent maintenance helps them stand apart from other utilities and earn such distinctions. The BLP's greatest reliability return on investment comes from regular tree trimming. Downed trees cause more outages than anything else. Preventative vegetation management and tree trimming around Grand Haven keeps our system operations reliable.

Another way to prevent future problems is by replacing poles before they rot. In 2020, the BLP took that principle further by contracting Osmose Utilities Services to conduct a system-wide wood pole integrity inspection. With every pole inspected and cataloged, the BLP prioritized and scheduled pole replacements—ensuring the most problematic issues were addressed in a more timely manner.

Beyond tree trimming and pole replacement, the BLP distinguishes itself through sound capital improvement and engineering plans, commitment to safety, and a local 24-hour on-call system operations center.

Shelley believes success comes from continual investment in the system and strict adherence to best business practices. He continued, "At the end of the day, it comes down to doing the right thing for our customers."

Reliability You Can Count On

The Grand Haven BLP maintains a very high standard for reliable service – planning strategically for the investments and activities that will reduce outages and ensure timely response when outages do occur. The Grand Haven BLP genuinely cares for its customers and the community and this spurs them to consistently provide the highest level of service.