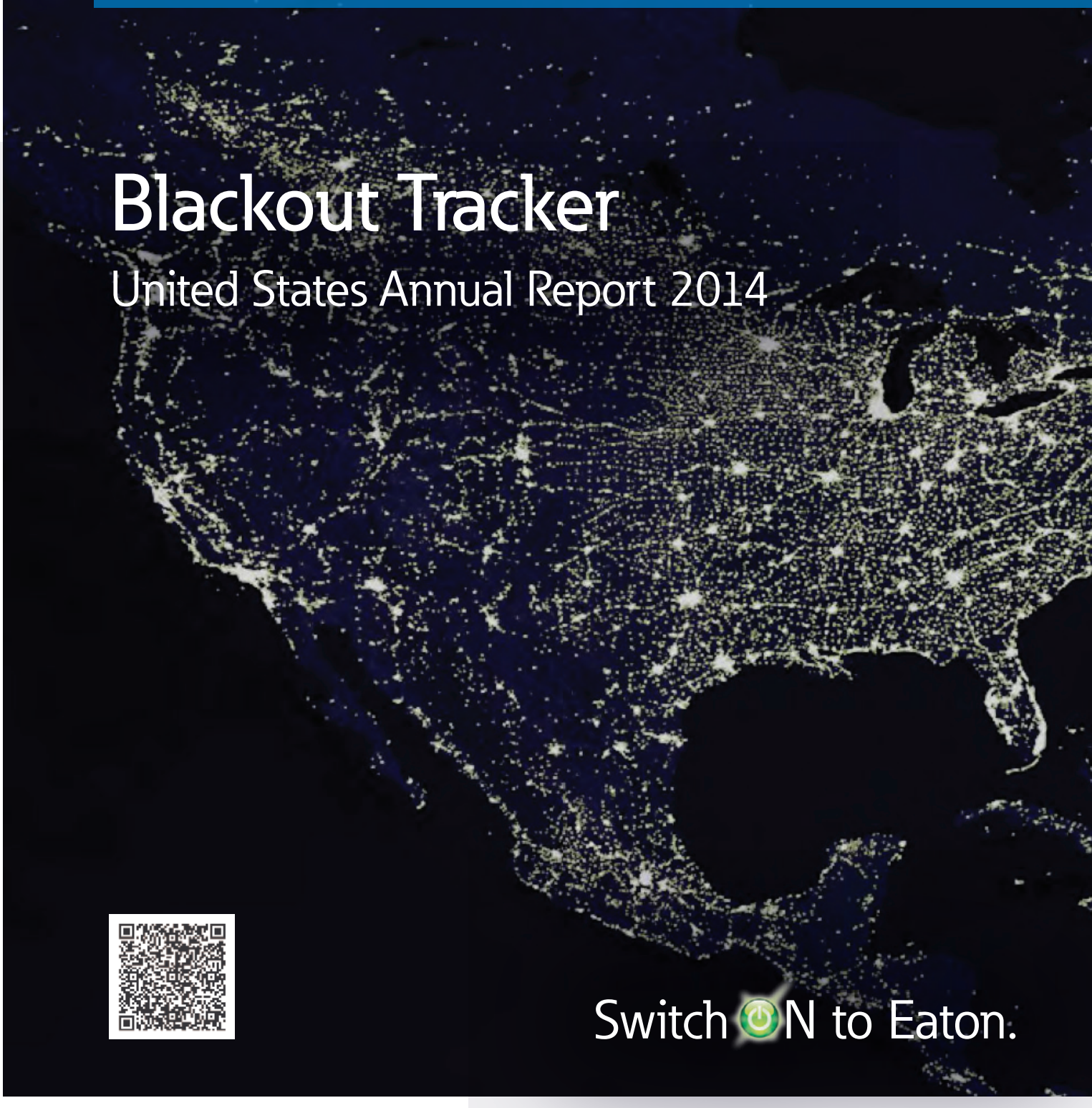
Power Outage Annual Report

Blackout Tracker

United States Annual Report 2014



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Introduction

Welcome to Eaton's Blackout Tracker Annual Report for 2014. This marks the seventh year that Eaton has been following the fallout from power outages across the nation — from minor blips that affected a single street or neighborhood to massive failures resulting from events such as hurricanes and ice storms. This year alone, we have compiled data on more than 3,600 blackouts that caused problems for people and businesses spanning all 50 states.

This annual report is based on reported power outages in the U.S., with sources of data including: news services, newspapers, websites (including those of newspapers and TV stations) and personal accounts. We at Eaton hope that you not only find this report insightful, but that it prompts you to take appropriate action to prepare for power outages that could affect you and your business.

The main body of the report follows this introduction and is organized into two sections:

1. Overview of national power outage data
2. Power outage data by state

In all, 3,634 outages were tabulated and used as the basis for the 2014 report. This represents an increase of more than 12 percent from the 3,236 outages we covered in 2013. The reported number of people affected by outages also grew by about 200,000 from 2013 to 2014. However, it is important to note that complete data is often unavailable on certain aspects of reported outages, including the number of people affected and the duration of the blackout.

The following chart outlines some overall data accumulated since 2008:

Year	Total number of outages	People affected
2008*	2,169	25.8 million
2009	2,840	13.5 million
2010	3,149	17.5 million
2011	3,071	41.8 million
2012	2,808	25.0 million
2013	3,236	14.0 million
2014	3,634	14.2 million

**Partial-year data. Data collection began on February 16, 2008.*

Downtime isn't for the faint of heart

With the ability to cause irreparable damage and irretrievable loss of revenue in a matter of minutes, downtime is, in a word, disastrous. Electrical power outages, surges and spikes are estimated to cost more than $150 billion in annual damages to the U.S. economy. The price tag varies not only by industry, but by the scale of business operations. For a medium-size business, the exact hourly cost may be lower, yet the impact on the business can be proportionally much larger. Nailing down the cost of each hour of downtime varies widely on a number of factors, such as the nature of the business, the size of the company, and the criticality of its IT systems related to revenue generating processes. For instance, a global financial services organization may lose millions of dollars for every hour of downtime, whereas a small firm might lose only a margin of productivity.

According to Dunn & Bradstreet, 59 percent of Fortune 500 companies experience a minimum of 1.6 hours of downtime per week. Assuming an average staff of 10,000 employees who are paid an average of $56 per hour (including benefits), the downtime loss in labor alone for a Fortune 500 firm would ring up at $896,000 per week — or more than $46 million annually.

Despite the enormous price tag attached to downtime, there's still good news: by investing in power backup solutions to protect critical systems, you can significantly slash the risks and consequences.

Eaton's Blackout Tracker: Your burning questions answered!

Ever wonder exactly how Eaton is able to acquire the hoards of data that encompass the Blackout Tracker Annual Report? Do we employ stealth outage statisticians to roam the 50 states, lying in wait for the lights to go out? Scour utility reports hunting for inconsistencies? Here, we answer some of your most burning questions about the Blackout Tracker!

Q: How do we populate the tracker with so much outage information?
A: The vast majority of outages are picked up through media reports, ranging from local newspapers to TV stations to private institution publications. We monitor a variety of Google Alerts on a daily basis then enter the results into a database that feeds the tracker.

Q: Do we capture every single outage?
A: Absolutely! Ok, well, maybe not every single one. We catch the major ones but unfortunately, not every outage is reported, so we undoubtedly miss a few. For example, many outages that occur within private buildings and institutions are never published, making them difficult for us to track. Perhaps we will consider deploying those stealth statisticians after all.

Q: What is the purpose of the tracker?
A: Our goal is to bring attention to the often unpredictable causes and timing of power outages. It is our hope that the data we compile will help drive awareness and ultimately, inspire citizens, businesses and organizations alike to take preventive measures to protect against costly and potentially devastating power failures. Knowledge is power.

Q: Who is responsible for compiling all of the data?
A: We could tell you, but then we'd have to … well, you know.

Q: Do we make outage data available to the public?
Sure. If your idea of a good time is to sift through the shadowy details of people who were left in the dark, we are more than happy to provide it in Microsoft Excel format. Please email requests to powerquality@eaton.com.

U.S. ranks on top — for blackouts!

Here's one title the United States would be happy to relinquish: the country suffers more blackouts than any other developed nation, according to federal databases at the Department of Energy (DOE) and the North American Electric Reliability Corp. (NERC).

With the number of U.S. power outages lasting more than an hour having steadily rising over the past decade, the country's electric grid currently loses power 285 percent more often than it did in 1984, when data collection on blackouts began. The upswing in downtime translates to a hefty price tag for American businesses —costing them as much as $150 billion per year, according to the DOE.

While weather-related disruptions are blamed for tallying the highest costs among outage types, experts blame the increasing number of blackouts on aging infrastructure and a lack of

investment in modernizing the grid. Gaps in the policies of federal and local commissioners make matters worse, as do new risks such as terrorism and climate change.

At the same time, demand for electricity is on the rise; usage has grown 10 percent over the last decade, despite the fact that there are more energy-efficient products and buildings. And with Americans relying more and more on digital devices, and summers getting even hotter, there is an ever-growing seasonal demand for air conditioning, which further impacts the problem.

The nation's $876 billion power grid, which was built after World War II with designs dating back to Thomas Edison, features some 7,000 power plants connected by power lines totaling more than 5 million miles. The system's 150 million customers are managed by 3,300 different utilities, according to the Edison Electric Institute.

The utility industry has long desired to update the aging infrastructure into a "smart grid," which would enable utilities to remotely monitor customers' use of electricity from a central location, as opposed to requiring on-site gauges. Some industry experts suggest that a smarter grid could slash the cost of outages by about $49 billion per year, while reducing carbon emissions by 12 to 18 percent by 2030. However, the Electric Power Research Institute estimates that such a makeover would cost a whopping $338 billion to $476 billion.

In 2009, the American Recovery and Reinvestment Act took a baby step toward modernizing the grid, investing $4.5 billion in the electric sector, which was supplemented by private funding to create a total of $8 billion. But clearly, there is still a very long — and expensive — road ahead to achieve increased reliability and resiliency for the U.S. power grid.

Who's keeping an eye on utility company reliability?

Would you be surprised to learn that there are no national requirements to ensure local utilities provide reliable electric service to customers? And although about half of U.S. states have set their own reliability standards — and even more require at least reliability tracking —there are some states that do neither.

A system of standards for reliability developed by the national Institute of Electrical and Electronics Engineers serves as the benchmark for many states, which track items such as the average length of time a customer is without power in a year, and how often the average customer loses power. While more than 20 states require their utility companies to meet a minimum standard for the length and frequency of power outages, and about 10 mandate that the information only be reported, there are about a dozen states that have no electric reliability requirements at all, despite the monopoly status enjoyed by electric providers.

In many individual states, public utility commissions are required to approve any rate changes yet do not have authority over reliability. Even those that do investigate service problems may not have the power to punish a utility, according to the National Association of Regulatory Utility Commissioners.

Allen Mosher, vice president of policy analysis for the American Public Power Association, said most municipal utilities aren't regulated by state utility commissions.

States that opt to monitor reliability more closely tend to be those that have fallen prey to significant problems in the past, such as the northeastern block that lost electricity for more than a week in 2003. Others, such as North Carolina, rely on an independent public safety staff to advocate for consumers in cases that come before the utilities commission.

In a 2011 report by the Galvin Electricity Initiative, it was recommended that power providers be required to publish reliability information, as well as report deaths or injuries caused by power outages or interactions with the distribution system. But the major roadblock to federal regulation,

according to experts, is that challenges to electrical systems vary largely depending on a region's particular climate and topography. Furthermore, stringent standards would require more providers to install expensive smart-grid technology that might be beyond their means.

At the same time, there is increasing state and regional pressure for utilities to reduce outages. And while the federal government doesn't punish poor performance, some believe that encouraging better performance could produce widespread and long-term benefits. For instance, the American Recovery and Reinvestment Act —passed to help stimulate the economy after the 2008 recession — provided smart-grid investment grants for 99 projects, more than half of which sought to increase the reliability of distribution systems.

Who should pay for power outages?

Regardless of whether blackouts strike a business or a home, they hit the bottom line hard. In 2014, an increasing number of entities harmed by power outages — from consumers to cities to utility companies —sought reimbursement, cashing in on damages caused when the lights went out.

For instance, after a power failure knocked out critical 911 services, Washington state utility regulators expected someone to pay. And pay big.

That someone was CenturyLink, which manages the state's 911 services. The Washington Utilities and Transportation Commission's staff recommended that the firm pay $2.9 million as a penalty for more than 11,000 violations of state law and commission rules resulting from the six-hour 911 outage on April 9. Most of the violations stemmed from the failure to re-route 911 calls and to promptly notify dispatch centers of the outage. CenturyLink, which blamed the blackout on one of the company's vendors — a third-party emergency call routing service — said it is "troubled by the punitive nature" of the fine.

In all, the glitch affected 81 call centers, which included coverage for all of Washington's 6.9 million residents, as well as parts of North Carolina, South Carolina, Pennsylvania, California, Minnesota and Florida. In one case, a woman said she made 37 calls about an intruder breaking into her home and ultimately had to drive him away herself wielding a knife.

In another incident, the city of Aspen cashed in after two companies blamed for an Aug. 4 power outage in the downtown area agreed to reimburse the city $17,324 in out-of-pocket expenses related to the blackout. LKP Engineering Inc. entered a no-contest plea to one count of unlawful damage to city electric department property and agreed to pay $12,993 to the city as restitution. A subcontractor, Odell Drilling Inc., entered the same plea and agreed to pay $4,331. Those amounts respectively equate to 75 percent and 25 percent of expenses the city incurred in the outage.

The two firms were working on a residential project when workers severed a main electric feeder line, causing widespread outages and affecting numerous businesses. The crew, which was working without a permit, called the city to report the issue at 11:30 a.m., yet power was not fully restored until 10 p.m. The cut came on what was expected to be a busy, summer season Friday night for local restaurants and bars. Attorneys representing those companies — who claim to have suffered thousands of dollars in lost business and damaged goods as a result of the outage— have also filed civil lawsuits against the two firms.

California utility shells out $12 million for role in 2011 blackout

A small California utility agreed to pay $12 million in penalties for its role in a September 2011 blackout that left much of Southern California, Yuma, Ariz., and northern Mexico in the dark for hours. The financial punishment for the Imperial Irrigation District was nearly four times the $3.25 million that the Arizona Public Service Co. agreed to pay for its role in the event, which was triggered when a Yuma-area APS employee missed a critical step while taking equipment offline for maintenance.

The consequences of the mishap were severe — California beaches had to close after millions of gallons of sewage spilled into the ocean; flights were grounded at San Diego's Lindbergh Field; and San Diego area schools, universities and community colleges remained closed the following day.

APS officials said on the day of the blackout that the outage should have been contained because of protections built into the power grid and procedures designed to prevent outages from cascading. But those systems failed, partly because of poor communication among the utilities, according to a report by the Federal Energy Regulatory Commission and North American Electric Reliability Corp.

Predicting blackouts: Location, location, location?

Can where you live predict the likelihood of your being left in the dark? Researchers at Johns Hopkins University believe so, following their analysis of the U.S. cities most likely to suffer from hurricane-related power outages in the future.

Relying on historical data and a range of potential future storm scenarios, researchers created a computer model to predict which cities will most likely see the greatest increase in power outage risk. While scientists are uncertain of exactly how climate change will affect hurricanes of the future, the team examined a range of impacts to make their predictions, including changes in frequency, intensity and location.

It is hoped that the information will help cities plan ahead to reinforce their systems, taking into account factors such as infrastructure improvements and emergency preparedness. The top 10 cities that researchers deemed most likely to see the greatest increase in power outage risk from hurricanes are:

10. New Orleans, La.
9. Miami, Fla.
8. Providence, R.I.
7. Tampa, Fla.
6. Orlando, Fla.
5. Hartford, Conn.
4. Virginia Beach, Va.
3. Jacksonville, Fla.
2. Philadelphia, Penn.
1. New York, N.Y.

As part of its blackout tracker coverage, Eaton will follow these 10 cities in the coming year, with our data reported in the 2015 Blackout Tracker Annual Report. For a historical snapshot, we took a peek at the number of weather-related outages that we have tracked for their respective states over the past 6 ½ years. While the information is not specific to hurricanes, it does shed some light on the prevalence of storm-related outages. Interestingly, although three separate Florida

cities were earmarked by researchers, the Sunshine State didn't even make Eaton's top 10 list — nor did Connecticut, Virginia or Rhode Island. In fact, only New York and Pennsylvania made it onto both lists.

The top 10 states Eaton tracked for weather outages between 2008 and 2014 are:

1. California, 525 outages
2. New York, 399 outages
3. Texas, 335 outages
4. Michigan, 328 outages
5. Pennsylvania, 294 outages
6. Ohio, 265 outages
7. Illinois, 251 outages
8. Washington, 226 outages
9. North Carolina, 225 outages (tie)
9. New Jersey, 225 outages (tie)

Detroit outage shines light on aging infrastructure

The major cable failure that was responsible for shutting down the entire public lighting grid in Detroit on Dec. 2 — as well as knocking out power to numerous public buildings — was traced to outdated infrastructure within the city's electrical system.

In addition to leaving approximately 100 businesses in the dark, the outage stranded several people in elevators and blackened traffic lights, causing massive gridlock. There were even reports of the doors to a firehouse being stuck closed. The Frank Murphy Hall of Justice courthouse and the city's famed Institute of Arts were among the buildings where occupants were evacuated.

Adding to the fiasco was a subsequent cable failure at the Public Lighting Department. When one cable ceased to work, electricians attempted to restore the power by rerouting to a different cable. Instead, a domino effect was created when that cable also failed, resulting in the entire system being shut down.

Although the power was restored in about seven hours, Detroit's mayor advised that "similar blackouts could continue to happen as the electrical grid is fully revamped." Not exactly the warning residents want to hear in a city that regularly experiences record low temperatures during the winter months.

While there is a plan in place for DTE Energy to take over the PLD, the system revamp encompasses four years and comes with a $200 million price tag. DTE Energy is said to be focusing on the parts of the system that in the past have failed first. In the meantime, Detroit residents may want to invest in a few extra winter blankets just in case.

Mr. Roboto: coming soon to a power line near you?

In the not-so-distant future, local utilities could be welcoming the likes of R2-D2 and C-3PO to the company ranks. If you thought that only futuristic movie robots were capable of performing daring deeds, think again. Michigan Tech researchers are developing a team of robots whose mission will be to autonomously rebuild electrical networks in the event of a power outage. From navigating a damaged cell tower site to restore service after a natural disaster, to coordinating with search-and-rescue robots and quickly recharging their power supplies, the prospect of robots in the power industry is no longer merely the musing behind a Sci-Fi flick.

Indeed, robots' ability to access places that are difficult or dangerous for humans has been a driving force behind their development. The Michigan Tech team is seeking to have its androids map out obstacles and string together power lines all on their own, not to mention carry their own batteries, recharge themselves and other robotic teammates, and even be outfitted with generators or solar cells. While these futuristic fixers are definitely on the horizon, utility workers probably don't need to worry about being replaced just yet: Michigan Tech's next step is to develop a full-size system capable of real-world scenarios, as opposed to the current scale model tests.

Power outages spark enhanced preparedness

Over the past two years, nearly one in four U.S. adults had to endure a power outage that lasted 12 hours or longer, according to a 2014 Harris Poll survey. The upside? Of those who were left in the dark for that length of time, 66 percent reported that the experience motivated them to better prepare for future emergency situations.

The Federal Emergency Management Agency (FEMA) encourages all families to make an emergency preparedness kit and have a family communications plan. Furthermore, the public can take preparedness up a notch by investing in backup power to keep their home's lights and appliances working no matter the circumstances.

Blackouts also prompted Illinois Department of Corrections officials to question whether the state's correctional facilities are adequately prepared for emergencies. After an August 20 storm caused a 92-minute power cut at Vandalia Correctional Center, one prisoner at the maximum-security facility attacked a guard and others became unruly. Earlier in the year, an outage caused a similar upheaval of inmates at Vienna Correctional Center, which followed a similar 2012 incident at East Moline Correction Center.

The department says all of the state's prison facilities have backup generators, except Vandalia and a halfway house in Peoria. While a corrections spokesman said portable generators, flashlights and lanterns could help in the event of a prolonged power outage, an American Federation of State spokesman noted that the prison failures highlight a lack of necessary funding.

Power surges blamed for PC damage in Napa quake

The 6.0 earthquake that struck Napa County, Calif., on August 24 had a devastating ripple effect: numerous power surges that caused widespread damage to computers in both homes and small businesses. The quake was violent enough to cause partial building collapses, move furniture and toss PCs from desks, cracking screens and damaging hard drives. It also disrupted power, and appeared to have sent large surges across the electric loads in homes and businesses, overwhelming surge protectors.

Local computer technicians said the quake exposed the limitations of surge protectors, which are designed to handle transient power spikes from occurrences such as lightning strikes or from home appliances shorting out, but are not designed to withstand power grid disruptions delivered by an earthquake.

While normal line voltage is 120 volts, an extended swell above 140 volts can damage many surge protectors and cause them to fail. That's why many computer pros recommend investing in an uninterruptible power system (UPS), which provides surge protection and battery backup. A UPS can also monitor the line voltage and when it goes outside the safe envelope and regulate the voltage or rapidly switch to its internal energy source, the battery.

From blackout to burglary

Do power cuts lead to crime? Deputies in Mohave County, Ariz., might say so, after arresting a woman who stole a generator when her electricity was cut. The 36-year-old was taken into custody after a stolen generator and other items taken from a neighbor were found in her yard.

Deputies who responded to the burglary call found cut locks on sheds and a motor home. They then spotted the generator on the woman's back porch, as well as a tag on her power service indicating it had been disconnected.

High cost, complexity impeding preferred backup for SMBs

While small and medium sized businesses (SMBs) recognize that off-site data management, backup and disaster recovery are imperative, new research from analyst IDC found that the cost and complexity of the cloud is hindering the ability for these firms to achieve the most desired solution.

A cross-industry survey of businesses with less than 1,000 employees found that the SMBs in France, Germany, Russia, the UK, Japan, Korea, Singapore and the U.S. are compelled to use off-site backup and disaster recovery, but lack the skills and experience to manage the process cost effectively.

Yet considering that nearly 80 percent of companies assessed the average cost of downtime to be at least $20,000 per hour, the findings suggests there is a huge demand for managed services and hosting among SMBs. While the use of data centers among the group is increasing, there is a widespread recognition that a service provider could run the operations more efficiently, according to the survey.

Terror on the power grid: a U.S. threat, and a Middle East reality

Potential threats regarding an attack to the U.S. power grid system made headlines in 2014 — but the danger became a reality for another country. On June 9, for the first time in history, a terrorist attack on the electric power grid blacked out the entire nation of Yemen.

Al-Qaida in the Arabian Peninsula (AQAP) used rocket-propelled grenade launchers and mortars to destroy transmission towers, plunging the country into blackout, yet the incident went largely unreported. With a population of 24 million, Yemen has been an important U.S. ally in the war on terrorism and has been the scene of some of the most significant episodes of that war. Meanwhile, the AQAP group based in Yemen is notorious for its aggressive terror operations against the United States.

More than half of Venezuela left in the dark

A June 27 power plant failure knocked out electricity across a big swath of Venezuela, affecting at least 14 of the South American country's 23 states. The incident, which lasted several hours, darkened the lights at a nationally televised presidential ceremony, forced a suspension of subway and train services around the country, and caused traffic snarls and darkened homes and offices in the capital of Caracas.

Officials said a power plant that supplies electricity to Venezuela's central and western regions failed in the early afternoon. While electricity was mostly restored in Caracas by nightfall, it remained out in other parts of the country. The outage disrupted a televised celebration of journalists that President Nicolas Maduro was holding in the governmental palace in Caracas.

Taming wildlife-related power outages

Interference from wildlife is one of the leading causes of service interruptions for utility customers, and often results in costly outages, reduction in reliability and harm to wildlife. To help combat these consequences, Eaton recently introduced a new ground terminal wildlife guard, part of an expanded product offering of the Wildlife Protection System from its Cooper Power Systems business. In addition to the existing terminal wildlife guards, the latest offering reduces service interruption from animal interference while maintaining the reliability and performance of distribution arresters.

Both line and ground terminal wildlife guards are designed to provide the highest level of protection with low maintenance costs. At the same time, they are engineered to reduce utility exposure and more readily ensure the safety of wildlife. Because the devices can reduce the time required for a lineman to identify fault locations in the field, the ground terminal wildlife guards also contribute to time and money savings for utility customers.

See pages 20-21 for information on this year's animal-related power outages.

The top 10 most significant U.S. blackouts of 2014

From the wrath of Mother Nature to aging utility infrastructure, power outages were responsible for wreaking havoc in the lives of millions of electricity customers across the nation in 2014. Here, we round up some of the most devastating events:

1. **Ice Age.** The ice storm that left Philadelphia in a deep freeze on Feb. 5 ranked second only to Superstorm Sandy on a list of weather-related power outage events. More than 750,000 customers were left in the dark, some for several days as they waited for power to be restored.

2. **Twistin' the night away.** Some 500,000 customers experienced a July 9 blackout after a tornado struck the New York area. A meteorologist for the National Weather Service office in Binghamton reported that the storms in and around Madison County "exhibited a lot of rotation," with tornado warnings being issued during the evening.

3. **Taking Raleigh by storm.** Heavy rain, wind and ice knocked out power for 463,000 North Carolinians on March 7. The bulk of the outages were in Orange, Alamance and Guilford counties, putting a heavy load on Duke Energy repair crews.

4. **Abominable snow fall**. A powerful Nor'easter blacked out 350,000 customers across New Hampshire, Massachusetts and New York on Nov. 26. Many areas saw a foot or more of snow, with the heavy, wet powder on trees and power lines blamed for the majority of outages.

5. **Everything's bigger in Texas.** A nasty weather front — deemed one of the Arlington area's "top 20" storms — left more than 250,000 customers without electricity on Oct. 2. The University of Texas Arlington had to cancel classes, while the utility reported that a large number of downed lines and power poles made the restoration process longer than normal.

6. **It stinks getting old.** Aging infrastructure was blamed for a power failure that plunged Detroit's public buildings, schools, fire stations and traffic signals into darkness on Dec. 2. The major cable failure, which caused parts of the city to go dark for up to seven hours, reflects a larger problem of aging electrical infrastructure around the country that has worried experts for years.

7. **Can we get a rain check, please?** That was the question being asked by some 200,000 Chicagoans who lost electricity on July 1 after being pounded by torrential rain and hurricane-like wind. The storm also created havoc at two of the nation's busiest airports.

8. **Getting the wind knocked out of them.** More than 400,000 Detroit homes and businesses were left without power Sept. 5 after severe storms swept through the state, bringing strong wind gusts and dumping heavy rain.

9. **Going to extremes.** Extreme weather raged across the mid-Atlantic region July 9, uprooting trees and tearing down power lines across Philadelphia, New York, the Ohio Valley and parts of New England. Approximately 174,000 customers were left in the dark.

10. **On the waiting list.** As if the winter wasn't hard enough for many, residents in one East St. Louis apartment building endured an entire week without power beginning Feb. 10. Housing authority officials said they were waiting for a part to come in to restore power to the government-operated project.

The top 10 most unusual U.S. blackouts of 2014

From naughty woodpeckers to a gnarly child custody exchange, a wide variety of unusual incidents were responsible for causing blackouts in 2014. If you thought that only storms and car crashes resulted in power outages, read on, as Eaton reveals the top 10 most unusual outages of the year:

1. **Baby you can drive my car.** An outage that left 4,800 Atlanta residents without power Dec. 13 began with a valet mix-up. A parking attendant at the Westin Peachtree Plaza hotel accidentally gave the keys to an Audi A7 to the wrong person. Instead of pointing out the mistake, the person took the car, then crashed moments later into a power pole.

2. **Gunning for power lines.** A shooting victim rammed his car into a power pole on July 20 in Kalamazoo, Mich., cutting electricity. The driver of the vehicle told officers that he crashed as he tried to get away from people who were shooting at his car. Police found several bullet holes in two cars and houses along the street, as well as 16 bullet casings.

3. **Feral fowl flounder.** In Lihue, Hawaii, a chicken knocked out power to nearly half the island when it got into co-op equipment at the Kapaa switchyard, tripping the circuit breakers. Some 13,000 customers lost electricity for more than an hour in the Sept. 28 mishap. While other critters — including rats and cats — have caused outages in the past, the incident involving a chicken was a first.

4. **Driving under the influence (of insufficient horsepower).** An attempt by a Bessemer City, N.C., resident to remove a rotting tree on June 26 turned into an outage after the man used an SUV attached to ropes to try to guide the tree into a creek. When the vehicle started to smoke and stall, the rope went slack and the tree fell into power lines, causing a 5-hour outage.

5. **Now that's a rotten egg.** An egging prank led to an outage, a wreck and gunshots being fired Sept. 25 in Dallas. The incident began when people in two vehicles threw eggs at a home. When the homeowner came out to confront them, one driver tried to run him down, then lost control, drove through a fence and crashed into a transformer. The assailants fired gunshots into the air as they left.

6. **In the line of fire.** A fire truck was blamed for a Feb. 24 outage that left 400 St. Petersburg, Fla., residents in the dark. The truck's ladder accidentally hooked on to some power lines and pulled them down, which sparked a big boom and an outage.

7. **Poor search results for Google.** It took almost a week for Google to acknowledge that one of its high-tech Loon balloons took a major wrong turn in May, crashing into power lines in Washington's Lower Yakima Valley. The device fell through commercial airspace, causing an outage.

8. **Smooth sailing — not!** Power on Florida's Marco Island was cut off after a sailboat came too close to the island's transmission line by the Jolley Bridge. Police blamed the sailboat's mast, saying it came within 6 feet of the service line and caused an electrical charge, leaving 18,000 customers in the dark for 40 minutes.

9. **Blame it on Woody.** A pair of naughty woodpeckers caused an April 9 outage when they got onto the main switch of a Dothan, Ala., substation, subsequently tripping a breaker. The Dothan Police Department said 26 traffic lights were disabled, as well as most of the city. The police department deployed crews to manage traffic and keep vehicles flowing during the 45-minute blackout.

10. **Talk about a parental power struggle.** On July 19, a man had just taken legal custody of his three children from their mother in Grants Pass, Ore. As he attempted to leave the area in his vehicle, the mother pursued in hers, ramming them numerous times during a high-speed chase before crashing into a power pole, sheering it and bringing down power lines.

Honorable mention: The most unusual outage that *almost* occurred happened in November in Longmont, Colo. A man was arrested after being stuck for three days in between walls at a Marshall's store. Police believe he was to trying to cut power to the building in order to keep the alarm from going off, but instead, he fell 20 feet from a vestibule on the store's roof and got stuck. Store employees eventually heard the man screaming and called for help.

There's no downplaying the significance of data center outages

While exact figures may vary, when it comes to assessing the cost of data center power outages, the news is anything but positive. A recent Ponemon Institute study of 41 U.S. data centers placed the price tag at more than $11,000 *per minute* for enterprises whose data center is core to the business, such as e-commerce companies.

Perhaps more daunting is the fact that data center outages aren't just costly, they're common, according to findings of the Ponemon study. Among the report's other key findings:

- 95 percent of respondents said they had experienced one or more unplanned outages in the past 24 months

- Complete blackouts occurred an average of once a year, while device-level outages occurred every two months

- The average length of data center downtime was 90 minutes, resulting in an average cost per incident of more than $1 million

Below, in chronological order, are six data center blackouts that occurred in the U.S. in 2014. While it is difficult to ascertain the exact financial impact of these outages, it is reasonable to expect that they were significant.

1. **State of Iowa**, Feb. 18 —Des Moines, Iowa. The outage at the Hoover Building data center halted the state's data servers, which in turn shut down email, websites and Internet services in the governor's office and all the state departments located around the Capitol. The blackout was attributed to the failure of an electrical suppression unit.
2. **Livestream**, May 16 — New York, N.Y. Live webcasting service Livestream endured a three-hour outage that took down its network after Internap, which stores Livestream's servers in a Google data hub, experienced a data center-wide power failure.
3. **University of Wisconsin**, June 18 — Madison, Wis. A failed switch knocked out the majority of IT services at the university, which also provides Internet services to educational customers throughout the state.
4. **University of Rochester**, July 19 — Rochester, N.Y. A data center outage occurred during planned maintenance, cutting both Internet and email services throughout campus.
5. **Yale University**, Oct. 9 — New Haven, Conn. Members of the Yale community were unable to access websites and email for more than nine hours after a power outage struck its primary data center. The technical difficulty came at an inconvenient time, as students preparing for midterms couldn't complete online assignments or use campus printers. Officials said the data center may have crashed due to a circuit breaker or computer failure.
6. **Maryland State Police**, Dec. 26 — Baltimore, Md. A fire in the generator room of the state police data center sparked an outage that interrupted troopers' access to central crime databases. The center was running on generator power during routine maintenance work when the fire activated sprinklers, which initiated a shutdown.

Outages take amusement park patrons to *unhappiest* place on Earth

Some amusement park thrill-seekers got a little more than they bargained for this summer, when unexpected blackouts left countless patrons stranded on rides — some of whom were forced to climb down from as high as 200 feet in the air! Below, in chronological order, are 10 outages that undoubtedly set off a roller coaster ride of emotions.

1. **June 21, Mason, Ohio** — Equipment issues inside Kings Island were blamed for an outage that caused major rides to shut down throughout the amusement park.
2. **June 27, Salem, N.H.** — Rides at Canobie Lake Park came to a halt when the area briefly lost power, affecting the entire park. Generators kicked on within minutes so that the rides could return to their starting positions and guests could get off.
3. **June 28, Johnstown, Penn.** — Dozens of Inclined Plane riders took a much shorter trip than expected when an outage that was isolated to the hillside tourist attraction stalled cars seconds after they left the terminals. The vehicles moved only a few feet before they stopped.
4. **July 13, Lake Buena Vista, Fla.** — Dozens of passengers were safely evacuated from Walt Disney World's monorail train after a power outage during bad weather halted the train at the central amusement complex.
5. **July 19, Gurnee, Ill.** — Park-goers were left stranded on rides when power was lost at Six Flags Great America amusement park. The park was planning to return to normal operations the following day after completing a safety check on all of its rides.
6. **August 1, Jackson, N.J.** — Riders of the 200-foot Nitro roller coaster at Six Flags got an unexpected thrill: The opportunity to walk down off the ride after a power outage blacked out the park. There was no word on what caused the cut.
7. **August 9, Galveston, Texas** — It was no pleasure for the visitors to the Galveston Island Historic Pleasure Pier that were left stranded on rides when the amusement park lost power.

8. **August 10, Zanesville, Ohio** — The Muskingum County Fair experienced a partial power outage at the fairgrounds, and some of the kids' rides were without power.
9. **August 12, North Wildwood, N.J.** —Riders were stuck on the Great Nor'easter inverted roller coaster and 13 other rides after a power outage hit Morey's Piers.
10. **Sept. 14, Jackson, N.J.** — Thirty people were strapped in their seats on the Bizarro ride at Six Flags amusement park when it suddenly stopped in its tracks — three stories in the air. A faulty transformer was suspected in the outage, which left patrons briefly stuck on a variety of rides, but no injuries were reported.

What you can do to protect your business

The most important thing you can do to safeguard your organization is to develop a solid power protection plan. If you don't know where to start, or need assistance honing in on the optimal solution, you can contact an Eaton sales partner who specializes in power protection and get the expert advice needed. From a small UPS for your PC or home entertainment system, like the ***Eaton 5S UPS***, to models for large data centers such as the ***Power Xpert 9395 UPS***, Eaton offers a complete range of battery backup products. Eaton sales partners also supply standby and portable generators, as well as surge protection devices.

Eaton 5S UPS

Overview of 2014 national power outage data

This section provides aggregate data for the U.S. and includes all the data found in the subsequent state section.

Outage summary

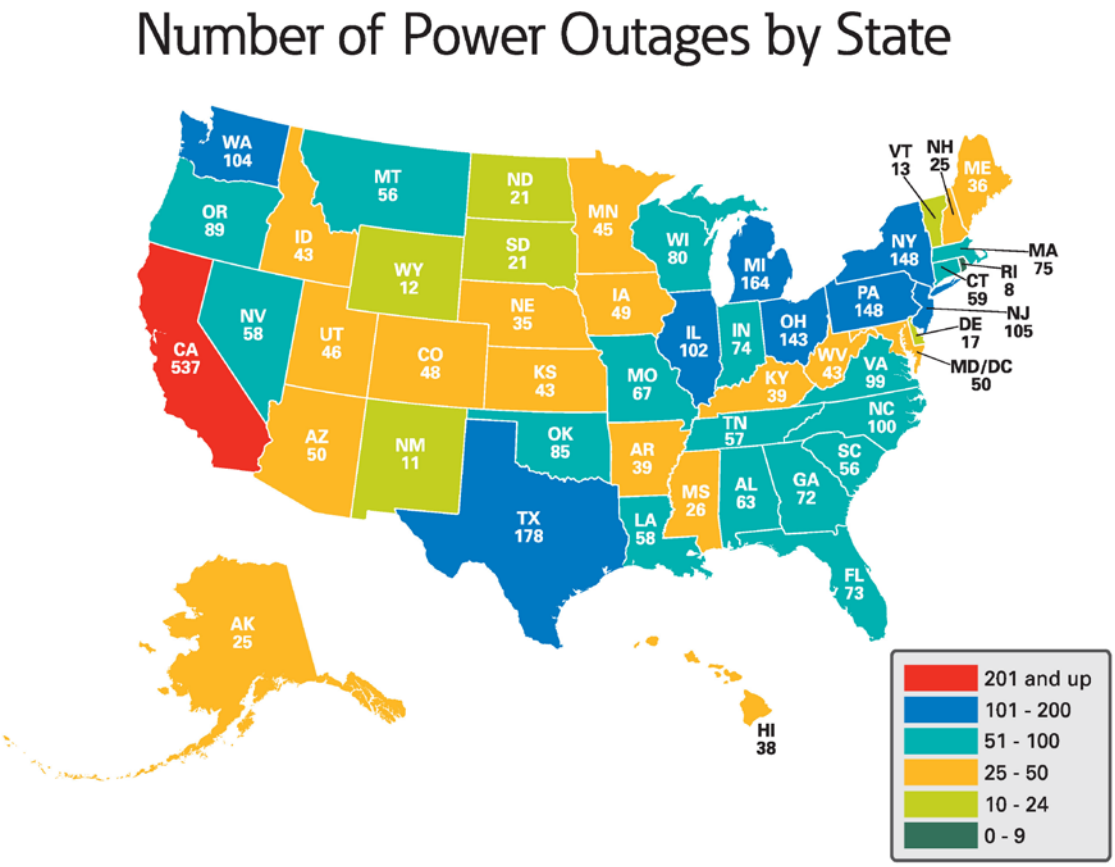
Total number of people affected by outages *(This is the sum of the number of people affected by reported power outages in the USA for 2014.)*	14,268,989
Total duration of outages *(This is the sum of the durations of the reported power outages.)*	151,366 minutes (approximately 2,522 hours or 105 days)
Total number of outages *(The sum of the number of reported power outages.)*	3,634
Average number of people affected per outage *(This number is determined by dividing the "Total number of people affected by outages" by the number of outages that reported the number of people affected. Not all reports of outages included number of people affected. The number of outages used for this calculation can be found in the note following this table.)*	3,996
Average duration of outage *(This number is determined by dividing the "Total duration of outages" by the number of outages that reported durations. Not all reports of outages included the duration. The number of outages used for this calculation can be found in the note following this table.)*	43 minutes

Notes: Total number of people affected (and average) is based on 2,404 (66%) of the total reported outages. Total duration of outages (and average) is based on 671 (18%) of the total reported outages. These are the number of outages that had reports that included data for number of people affected and duration, respectively.

Top ten states with most reported outages

2014	2013	2012
1. California (537)	1. California (464)	1. California (510)
2. Texas (178)	2. Texas (159)	2. New York (133)
3. Michigan (164)	3. Michigan (153)	3. Texas (131)
4. Pennsylvania (148)	4. Pennsylvania (144)	4. Michigan (125)
4. New York (148)	5. Ohio (136)	5. New Jersey (119)
5. Ohio (143)	6. New York (125)	6. Pennsylvania (109)
6. New Jersey (105)	7. Virginia (117)	7. Ohio (91)
7. Washington (104)	8. New Jersey (116)	8. Washington (90)
8. Illinois (102)	9. Washington (104)	9. Illinois (76) tie
9. North Carolina (100)	10. Massachusetts (98)	9. Virginia (76) tie

Number of reported power outages by state



Top states for outages caused by weather/falling trees

2014 (1081 total outages)	**2013** (966 total outages)	**2012** (953 total outages)	**2011** (1,229 total outages)
1. California (81)	1. California (65)	1. California (90)	1. California (81)
2. Texas (57)	2. Michigan (60)	2. New York (58)	2. Michigan (76)
3. Pennsylvania (52)	3. Texas (47)	3. Texas (52)	3. New York (75)
4. Michigan (49)	4. New York (41)	4. New Jersey (48)	4. Illinois (62)
5. Ohio (47)	4. Ohio (41)	5. Pennsylvania (44)	5. Pennsylvania (57)
6. New York (44)	4. Virginia (41)	6. Washington (38)	6. Texas (55)
7. North Carolina (41)	5. Pennsylvania (38)	7. Michigan (36)	7. Ohio (52)
8. Georgia (35)	6. Illinois (30)	8. Oregon (32)	8. Wisconsin (48)
9. Virginia (32)	6. New Jersey (30)	8. Virginia (32)	9. Virginia (37)
9. Wisconsin (32)	7. Missouri (27) Wisconsin (27) North Carolina (27)	9. North Carolina (29) Ohio (29)	10. New Jersey (37)

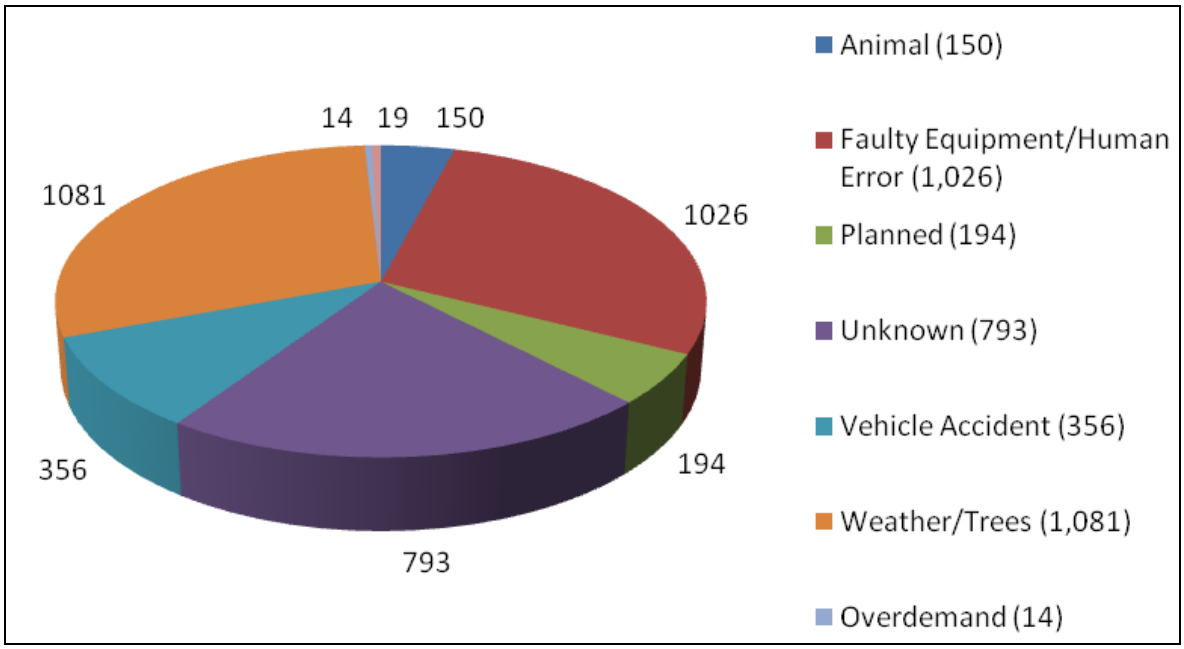
Top states for outages caused by vehicle accident

2014 (356 total outages)	**2013** (354 total outages)	**2012** (246 total outages)	**2011** (245 total outages)
1. California (55)	1. California (53)	1. California (46)	1. California (31)
2. Texas (20)	2. Texas (23)	2. Pennsylvania (14)	2. Oregon (15)
3. Virginia (17)	3. New York (21)	3. Missouri (9)	2. Texas (15)
4. Pennsylvania (14)	4. Pennsylvania (21)	3. North Carolina (9)	3. Pennsylvania (12)
5. Michigan (14)	5. Ohio (16)	3. New Jersey (9)	4. Illinois (11)
6. Ohio (13)	6. Virginia (16)	3. Ohio (9)	4. Washington (11)
7. Florida (12)	7. New Jersey (15)	3. Texas (9)	5. New Jersey (10)
8. Oregon (11)	8. Massachusetts (12)	3. Virginia (9)	5. New York (10)
9. Oklahoma (11) New Jersey (11) Indiana (11) New York (11)	9. Alabama (11) Arizona (11) North Carolina (11)	4. Arizona (7) Michigan (7) New York (7)	6. Maine (8) Ohio (8)

Top states for outages caused by faulty equipment/human error

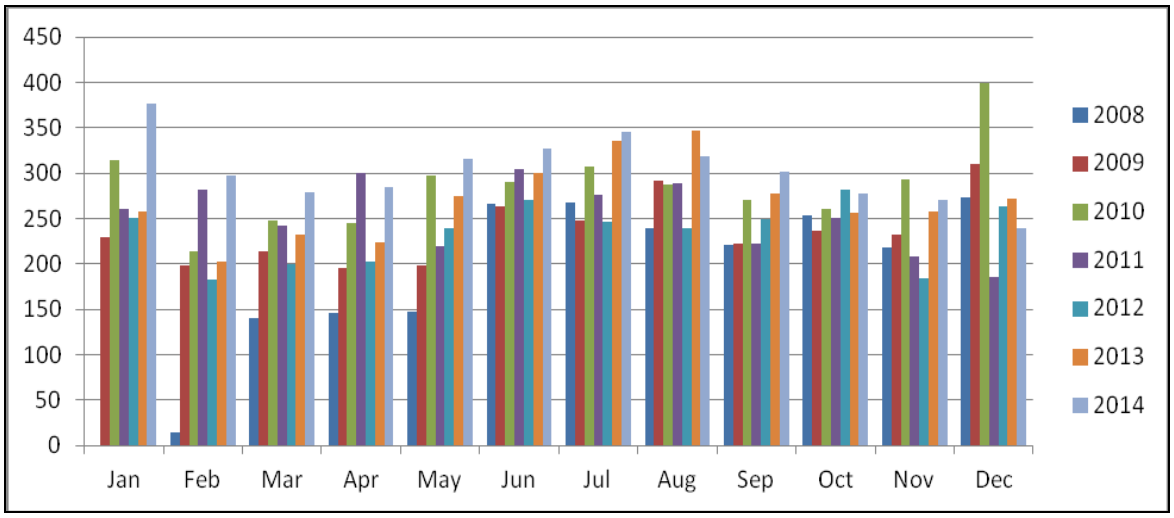
2014 (1,026 total outages)	2013 (921 total outages)	2012 (791 total outages)	2011 (767 total outages)
1. California (202)	1. California (159)	1. California (197)	1. California (141)
2. Michigan (51)	2. Pennsylvania (42)	2. Michigan (41)	2. New York (39)
3. New York (45)	3. New Jersey (41)	3. Texas (40)	3. Texas (38)
4. Pennsylvania (42)	4. Ohio (37)	4. Massachusetts (38)	4. New Jersey (35)
5. Texas (39)	5. Texas (36)	5. New Jersey (34)	5. Pennsylvania (28)
6. Ohio (38)	6. Massachusetts (35)	6. New York (30)	6. Michigan (26)
7. New Jersey (33)	7. Michigan (35)	7. Ohio (28)	7. Ohio (25)
8. Washington (32)	8. New York (32)	8. Pennsylvania (26)	8. Connecticut (24)
9. Massachusetts (28)	8. Washington (32)	9. Washington (25)	8. Illinois (24)
10. Illinois (26)	9. Virginia (30)	10. Wisconsin (21)	8. Massachusetts (24)

Reported power outages by cause

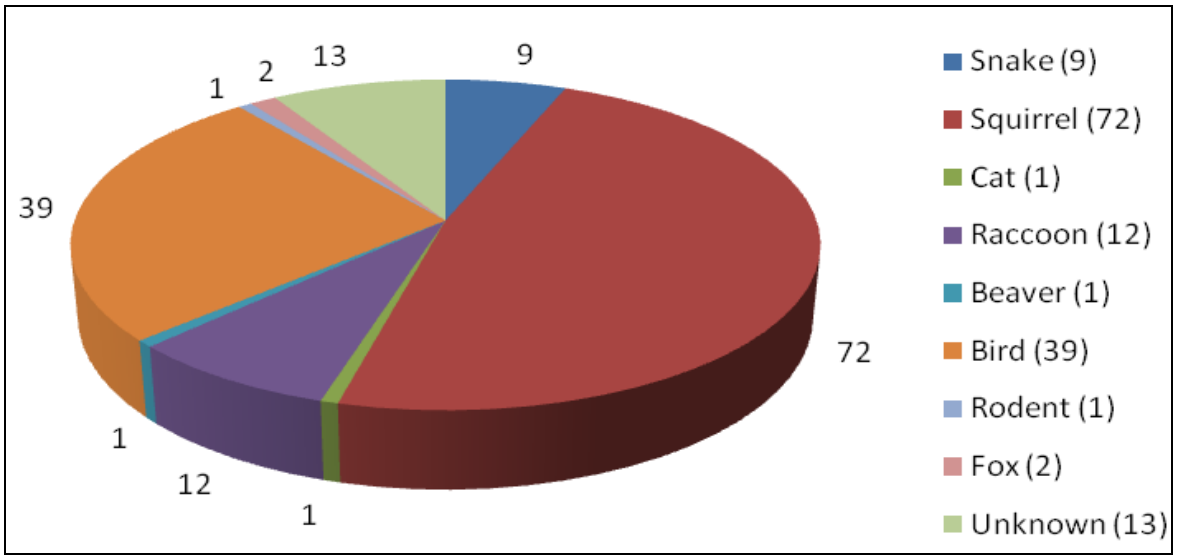


Note: Each power outage was grouped into one of eight possible causes. The number adjacent to the pie piece is the number of outages attributable to that cause.

Reported power outages by month



Reported power outages by animal type



Notes: Number following animal type in the legend indicates number of reported outages caused by that animal. The bird category includes the following types: Eagle, crow, woodpecker, raven, owl, goose, wild chicken, hawk, pigeon, parrot, vulture and starling.

Top states for outages caused by animals

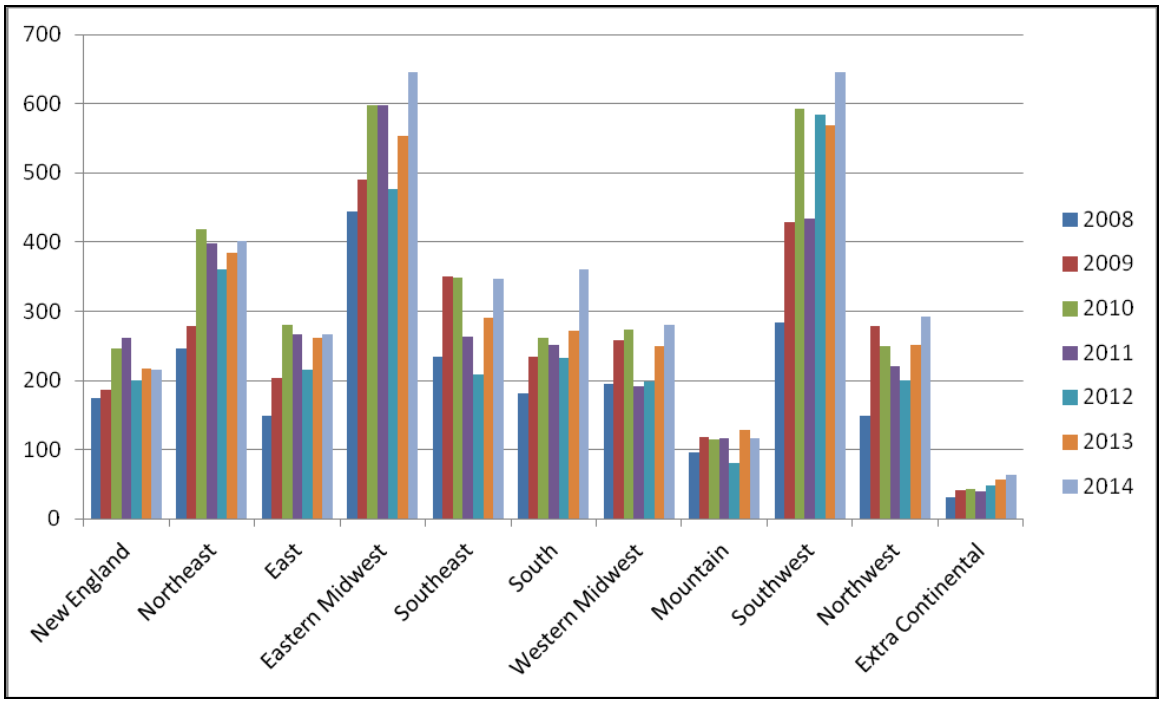
2014 (150 total outages)	**2013** (206 total outages)	**2012** (202 total outages)	**2011** (208 total outages)
1. California (13)	1. California (19)	1. California (28)	1. Ohio (14)
2. Texas (11)	2. Texas (14)	2. Michigan (13)	2. Illinois (12)
3. Ohio (9)	2. Virginia (14)	3. Arizona (10)	2. Massachusetts (12)
3. Oregon (9)	3. Ohio (11)	3. Missouri (10)	3. California (11)
4. Michigan (9)	4. Tennessee (10)	4. Indiana (9)	4. North Carolina (9)
5. Alaska (6)	5. Oregon (9)	4. New York (9)	5. Michigan (8)
6. Missouri (5)	5. North Carolina (9)	4. Ohio (9)	5. New Jersey (8)
7. Wisconsin (5)	6. Michigan (7)	4. Wisconsin (9)	5. Washington (8)
	7. Colorado, Indiana, Florida, Louisiana, South Carolina (6)	5. New Jersey (8)	5. Virginia (8)
		6. Texas (7)	6. New York (7)

More about power outages caused by animals

TE Connectivity estimates that approximately 7 percent of all power outages are caused by animals, keeping utility companies busy as beavers. (In 2014, wild life accounted for about 4 percent of the outages logged by the tracker.) Even worse, the average cost to utility companies for recovering from animal-related outages is between $15 million and $18 million annually. But by installing squirrel guards on the equipment most affected by animals, the Braintree Electric Department was able to reduce the number of blackouts caused by four-legged friends by approximately 80 percent.

Power outage data by state

Reported power outages by region



Regions:
New England: Connecticut, Massachusetts, Rhode Island, Vermont, New Hampshire, Maine
Northeast: New York, Pennsylvania, New Jersey
East: Virginia, North Carolina, Maryland (includes Washington DC), Delaware
Eastern Midwest: Wisconsin, Illinois, West Virginia, Ohio, Michigan, Kentucky, Indiana
Southeast: Tennessee, Georgia, Alabama, Mississippi, South Carolina, Florida
South: Texas, Louisiana, Arkansas, Oklahoma
Western Midwest: South Dakota, North Dakota, Nebraska, Minnesota, Missouri, Kansas, Iowa
Mountain: Colorado, Wyoming, Utah, New Mexico
Southwest: Nevada, California, Arizona
Northwest: Washington, Oregon, Idaho, Montana
Extra Continental: Alaska, Hawaii

State data overview

This section of the report provides an analysis of the power outages by state. There are four parts to each analysis.

1. The first part is an outage summary. The results are computed in the same manner as those in the outage summary found in the national power outage data in the previous part of this report. Only data pertaining to the particular state is used.
2. The second part of the analysis on each state is the outage fact. This is simply an interesting fact concerning a particular outage (or outages) in a state.
3. The third part of the analysis is a chart of the power outages by cause. This is the same type of chart that can be found in the national power outage data in the previous part of this report. Only data pertaining to the particular state is used.
4. The last part of each state section is the number of power outages by month. This is the same type of chart that can be found in the national power outage data in the previous part of this report. Only data pertaining to the particular state is used. From this chart it may be possible to determine particular times of the year when power outages are more common.
5. Data collection began February 16, 2008.

Alabama

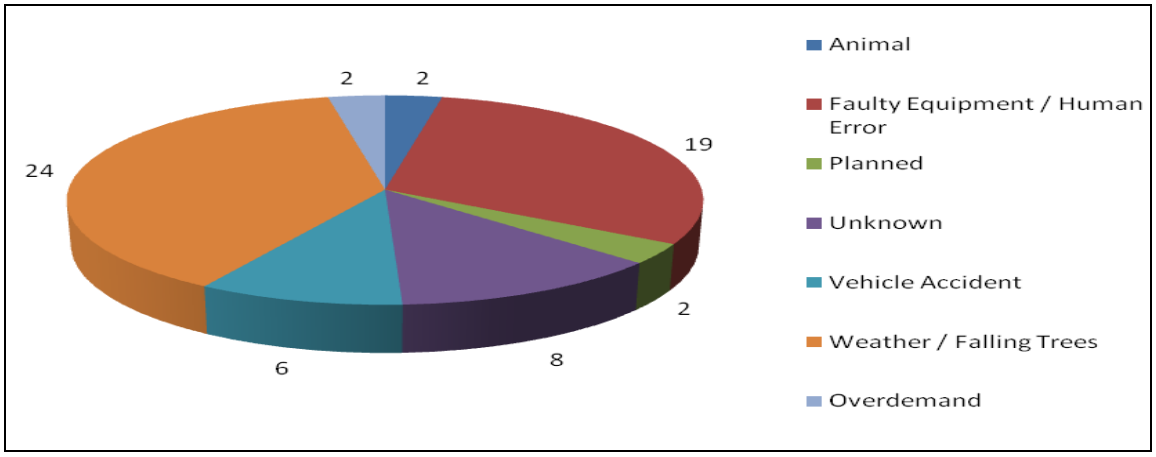
Outage summary

Total number of people affected by outages	203,988
Total duration of outages	1,375 minutes (nearly 23 hours)
Total number of outages	63
State ranking (number of outages)	19
Average number of people affected per outage	3,457
Average duration of outage	23 minutes

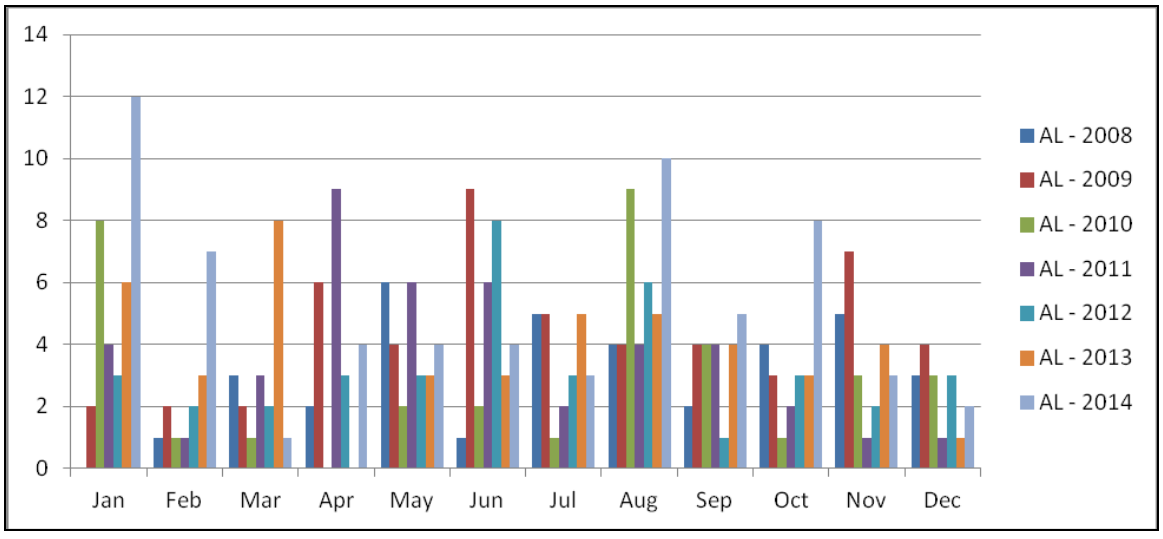
Note: Total number of people affected (and average) based on 25 (40%) of the total reported outages. Total duration of outages (and average) based on 11 (17%) of the total reported outages.

Outage fact: An equipment failure left 35,000 Huntsville customers in the dark on August 11. Thankfully, power was restored after 20 minutes.

Reported power outages by cause



Reported power outages by month



Alaska

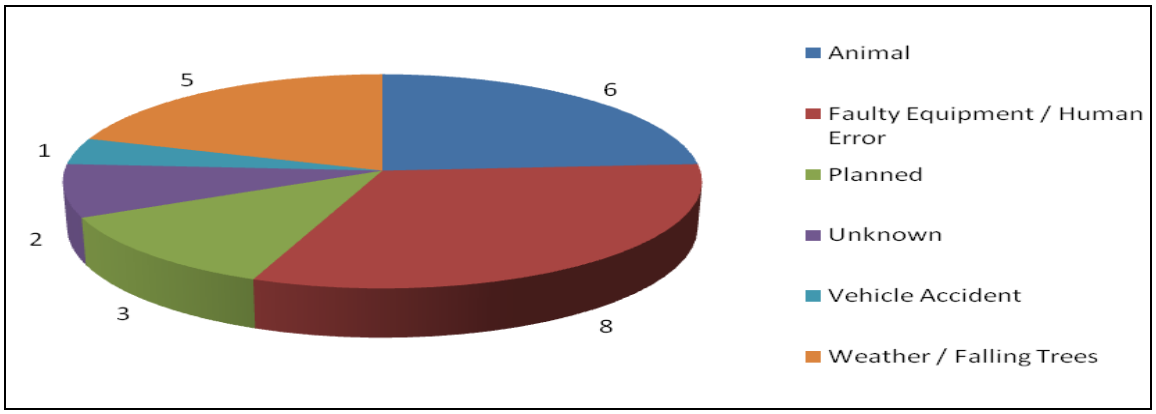
Outage summary

Total number of people affected by outages	91,728
Total duration of outages	1,606 minutes (nearly 27 hours)
Total number of outages	25
State ranking (number of outages)	35
Average number of people affected per outage	3,822
Average duration of outage	64 minutes

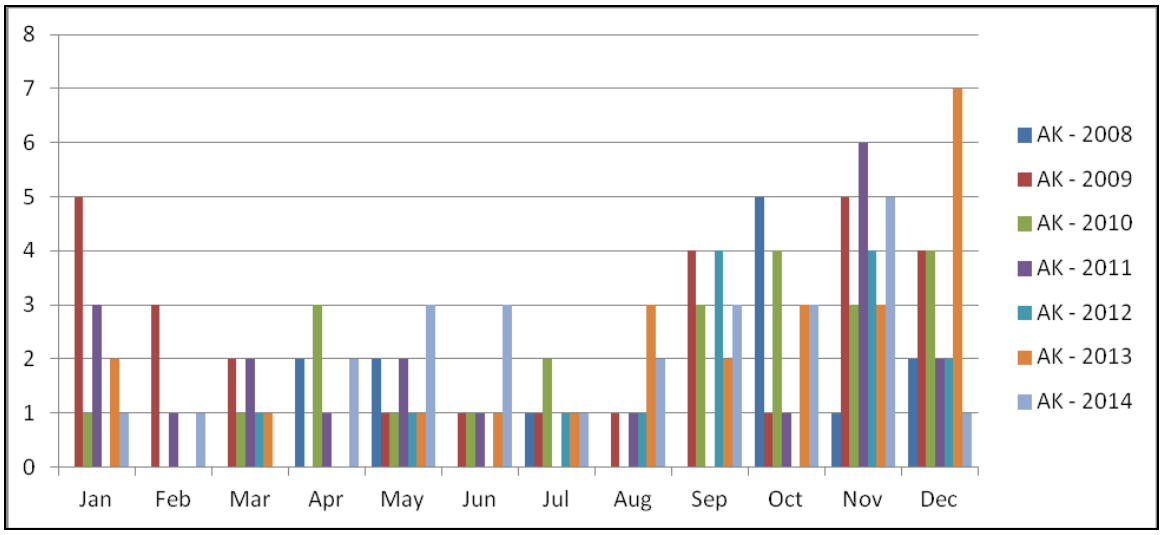
Note: Total number of people affected (and average) based on 14 (56%) of the total reported outages. Total duration of outages (and average) based on 12 (48%) of the total reported outages.

Outage fact: On June 13, a bald eagle dropped trash from a city landfill onto a Juneau power line, knocking out electricity to 10,020 customers.

Reported power outages by cause



Reported power outages by month



Arizona

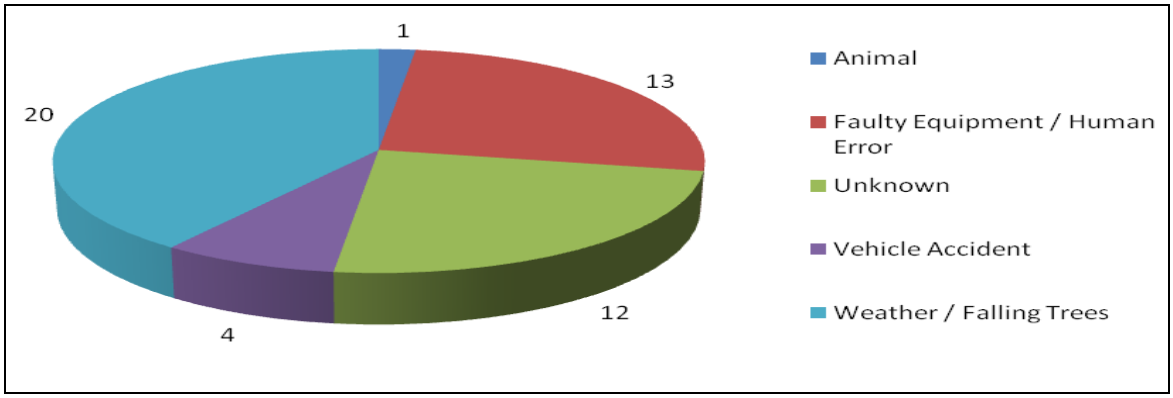
Outage summary

Total number of people affected by outages	256,325
Total duration of outages	1,333 minutes (more than 22 hours)
Total number of outages	50
State ranking (number of outages)	24
Average number of people affected per outage	5,231
Average duration of outage	27 minutes

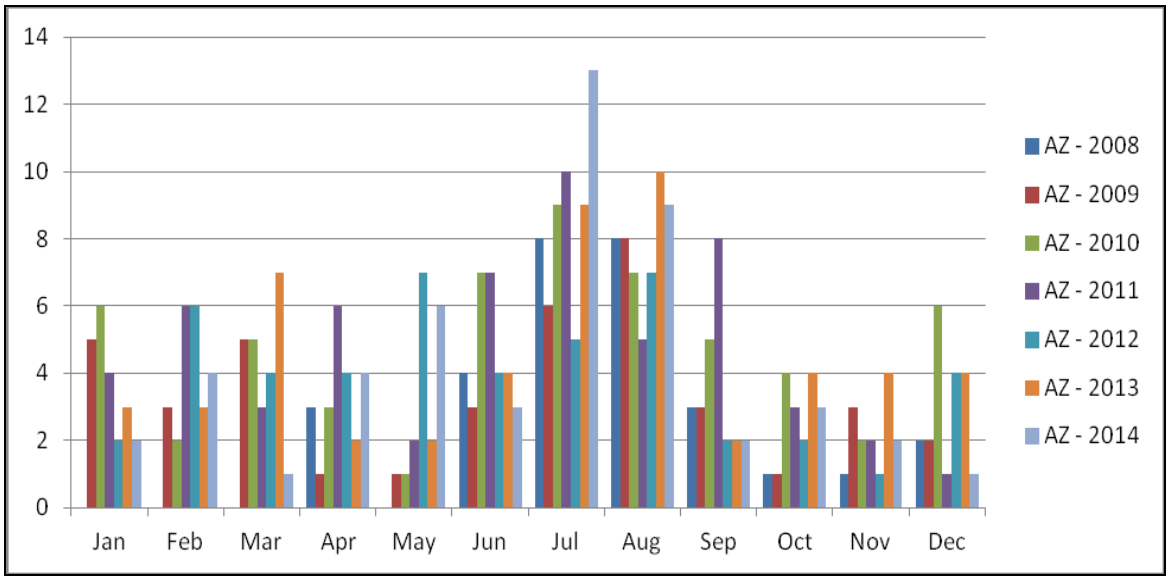
Note: Total number of people affected (and average) based on 34 (68%) of the total reported outages. Total duration of outages (and average) based on 11 (22%) of the total reported outages.

Outage fact: On July 29, an airborne umbrella caused an outage after a wind gust blew it into power lines, creating a short circuit and leaving 1,027 customers in the dark.

Reported power outages by cause



Reported power outages by month



Arkansas

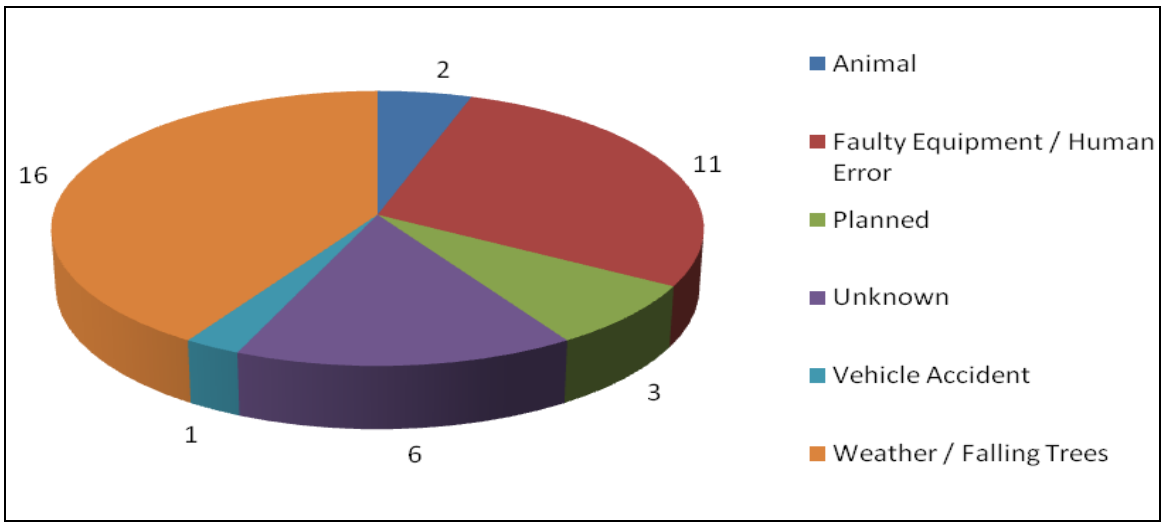
Outage summary

Total number of people affected by outages	74,686
Total duration of outages	812 minutes (13 1/2 hours)
Total number of outages	39
State ranking (number of outages)	30
Average number of people affected per outage	1,965
Average duration of outage	23 minutes

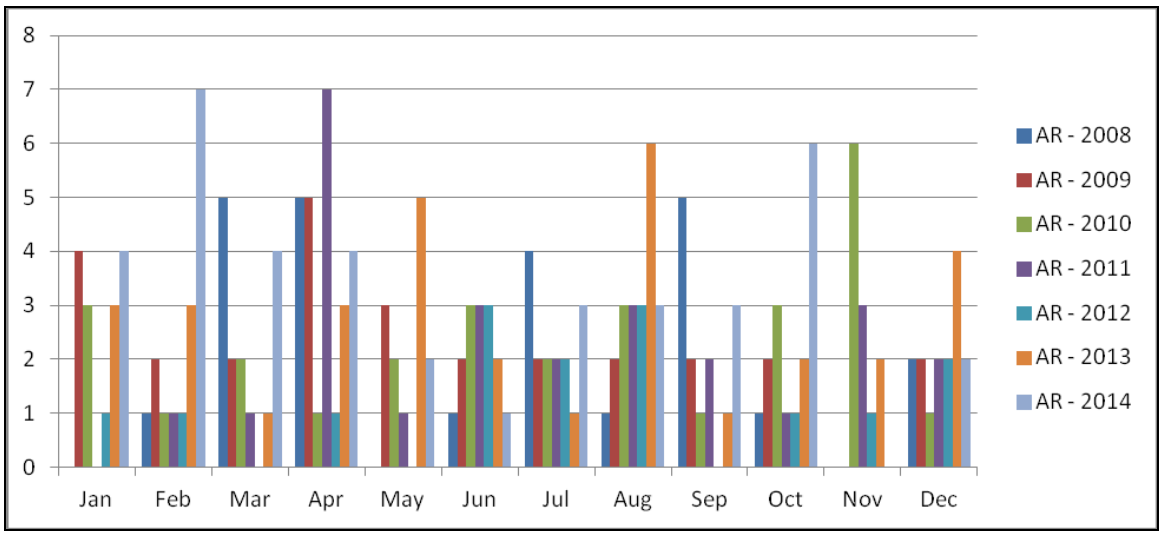
Note: Total number of people affected (and average) based on 22 (56%) of the total reported outages. Total duration of outages (and average) based on 6 (15%) of the total reported outages.

Outage fact: A squirrel got into a switch-gear in Siloam Springs on Sept. 11, cutting power to 1,800 people for an hour and a half.

Reported power outages by cause



Reported power outages by month



California

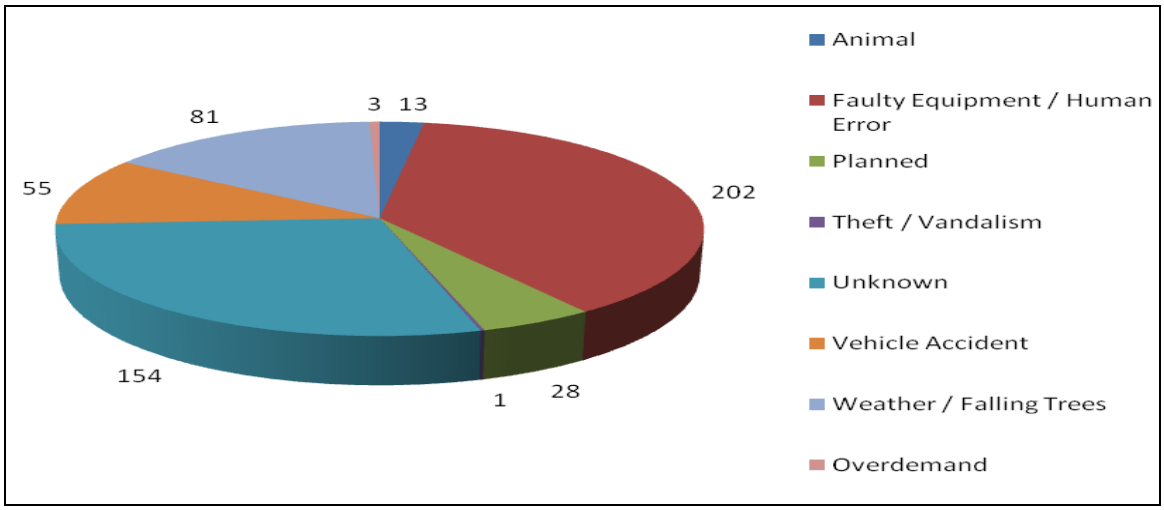
Outage summary

Total number of people affected by outages	1,169,248
Total duration of outages	25,864 minutes (nearly 18 days)
Total number of outages	537
State ranking (number of outages)	1
Average number of people affected per outage	2,219
Average duration of outage	49 minutes

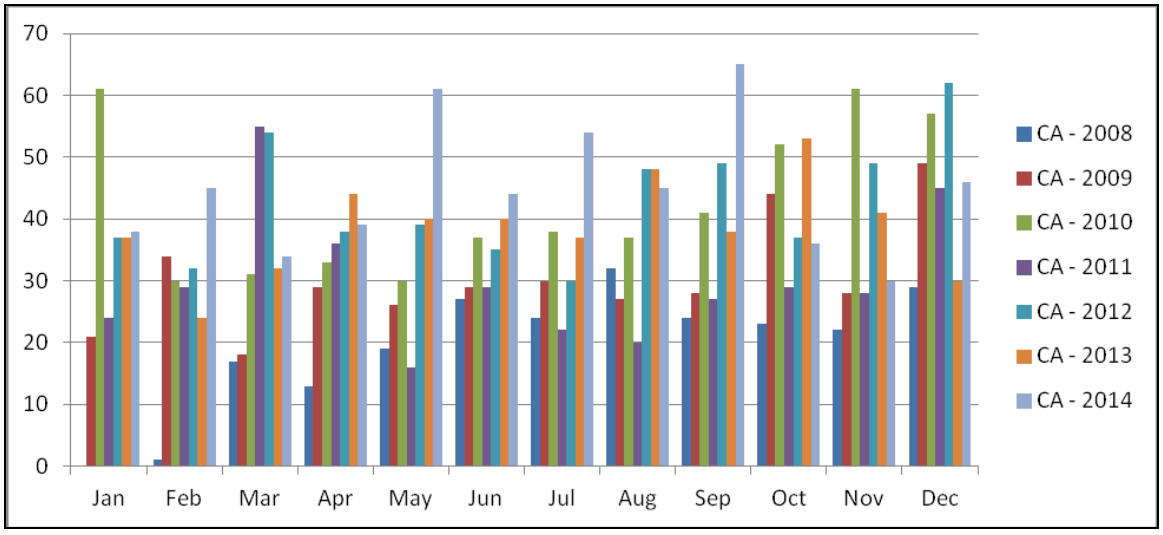
Note: Total number of people affected (and average) based on 360 (67%) of the total reported outages. Total duration of outages (and average) based on 69 (13%) of the total reported outages.

Outage fact: On May 14, electrical power was cut to more than 1,000 customers throughout San Diego's rural backcountry areas as part of a plan by San Diego Gas & Electric to reduce fire danger.

Reported power outages by cause



Reported power outages by month



Colorado

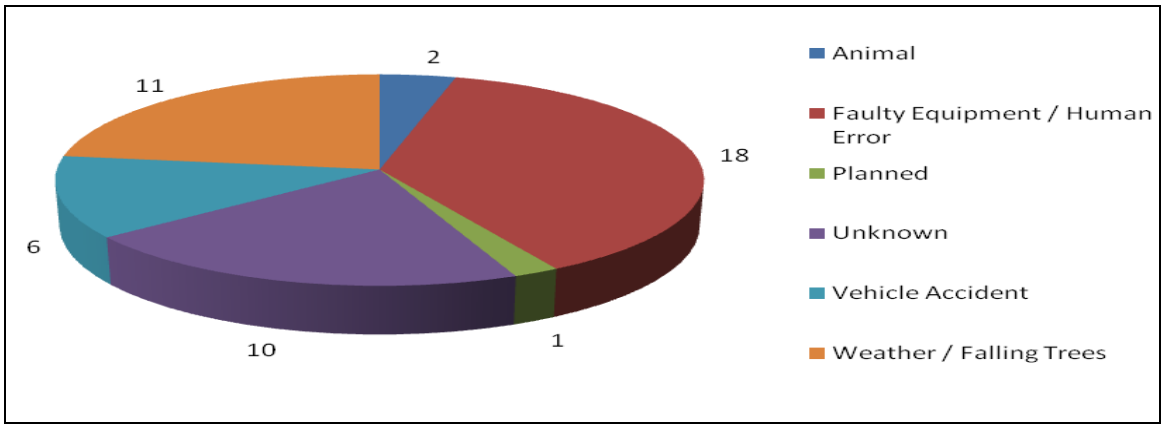
Outage summary

Total number of people affected by outages	167,689
Total duration of outages	1,355 minutes (nearly 23 hours)
Total number of outages	48
State ranking (number of outages)	26
Average number of people affected per outage	3,568
Average duration of outage	28 minutes

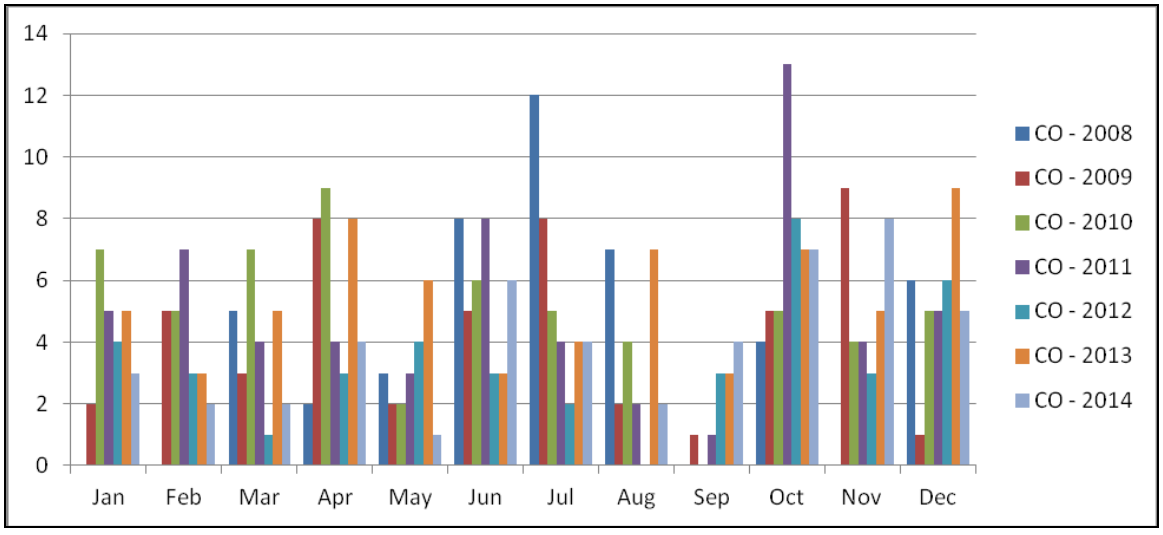
Note: Total number of people affected (and average) based on 29 (60%) of the total reported outages.
Total duration of outages (and average) based on 12 (25%) of the total reported outages.

Outage fact: The Durango-La Plata County Airport was among the 626 customers who lost power on Sept. 22 when a bird flew into a La Plata substation.

Reported power outages by cause



Reported power outages by month



Connecticut

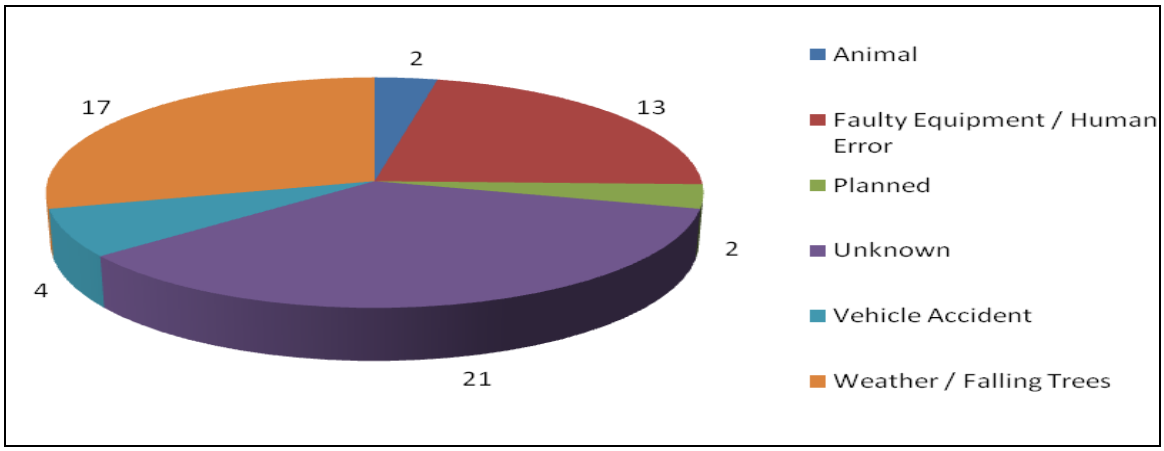
Outage summary

Total number of people affected by outages	68,843
Total duration of outages	3,460 minutes (nearly 58 hours)
Total number of outages	59
State ranking (number of outages)	20
Average number of people affected per outage	1,167
Average duration of outage	60 minutes

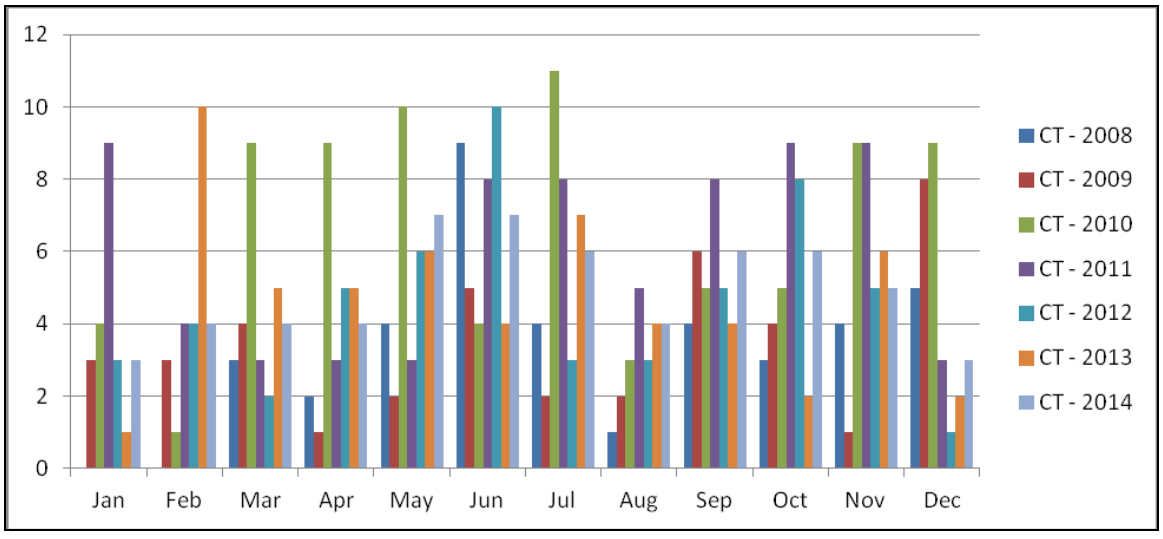
Note: Total number of people affected (and average) based on 41 (69%) of the total reported outages.
Total duration of outages (and average) based on 11 (19%) of the total reported outages.

Outage fact: A dislodged high voltage wire caused more than one third of the town of Seymour (2,569 customers) to lose power Dec. 16. Electricity was restored 90 minutes later.

Reported power outages by cause



Reported power outages by month



Delaware

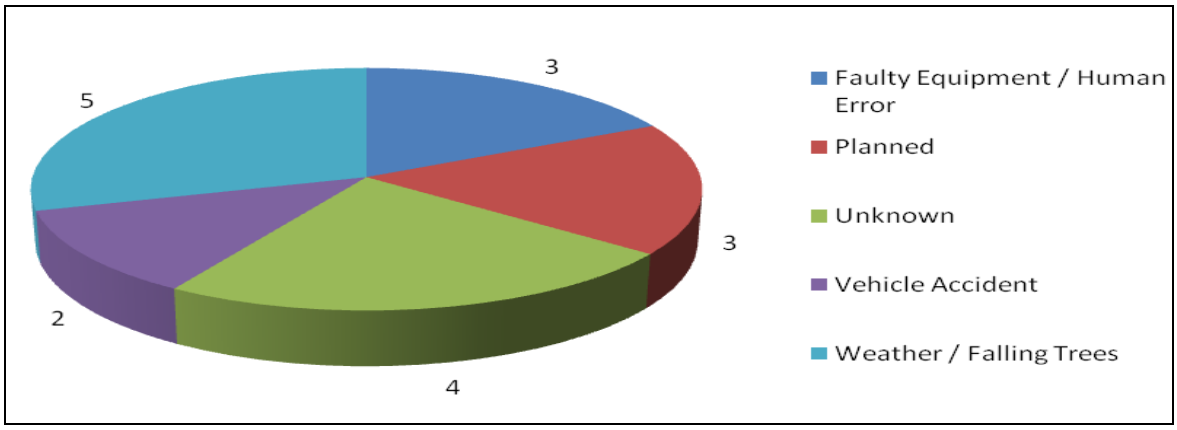
Outage summary

Total number of people affected by outages	55,092
Total duration of outages	660 minutes (11 hours)
Total number of outages	17
State ranking (number of outages)	37
Average number of people affected per outage	3,241
Average duration of outage	39 minutes

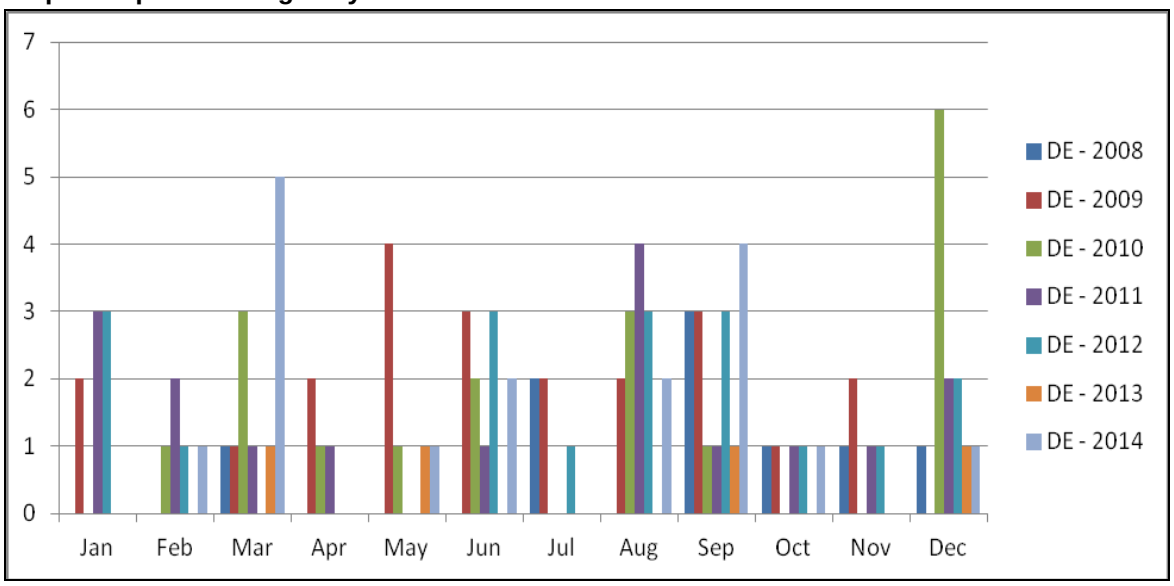
Note: Total number of people affected (and average) based on 13 (76%) of the total reported outages. Total duration of outages (and average) based on 4 (23%) of the total reported outages.

Outage fact: On Feb. 5, an ice storm left 7,000 New Castle County customers without power, forcing many schools and businesses to close.

Reported power outages by cause



Reported power outages by month



Florida

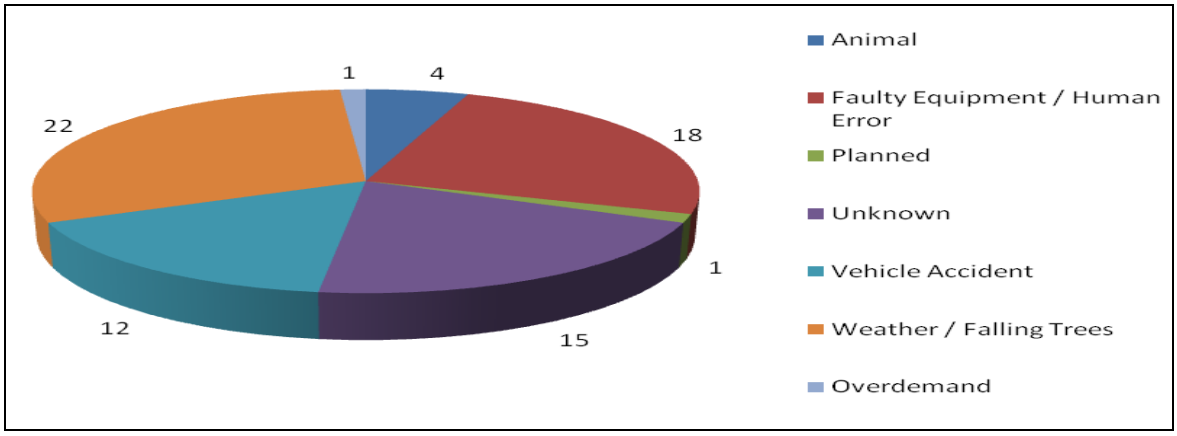
Outage summary

Total number of people affected by outages	194,698
Total duration of outages	1,538 minutes (nearly 26 hours)
Total number of outages	73
State ranking (number of outages)	16
Average number of people affected per outage	2,742
Average duration of outage	23 minutes

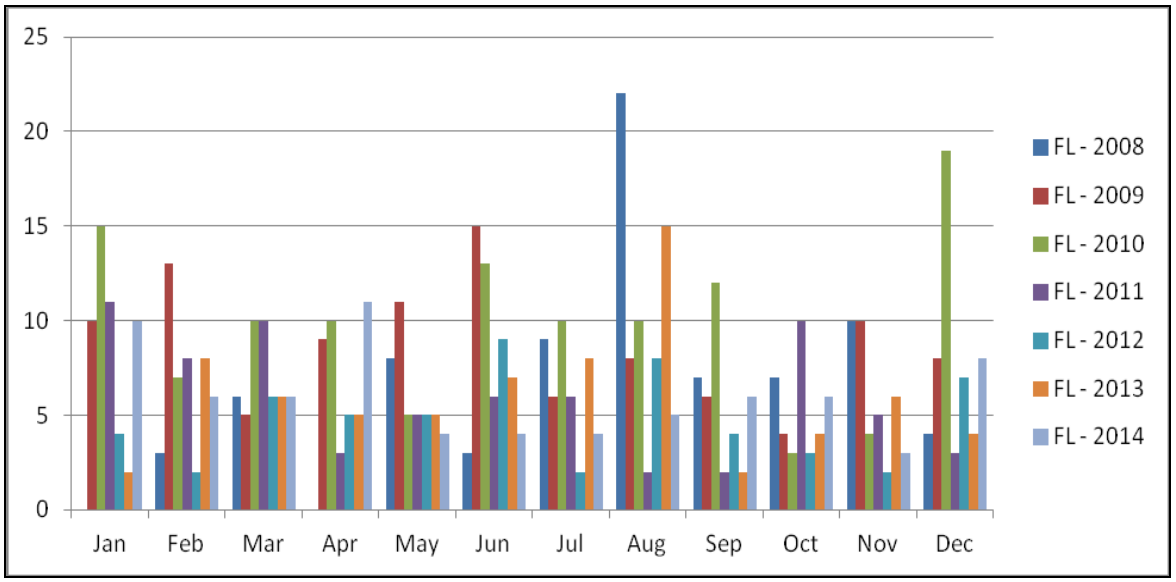
Note: Total number of people affected (and average) based on 47 (64%) of the total reported outages. Total duration of outages (and average) based on 12 (16%) of the total reported outages.

Outage fact: On July 21, a pair of rattlesnakes caused a blackout in Jacksonville. Not to be outdone in the snake community, the following day another slithering reptile knocked out power to 839 customers in the St. Petersburg area, inconveniencing shoppers and bringing a sudden halt to business at the St. Johns Town Center mall.

Reported power outages by cause



Reported power outages by month



Georgia

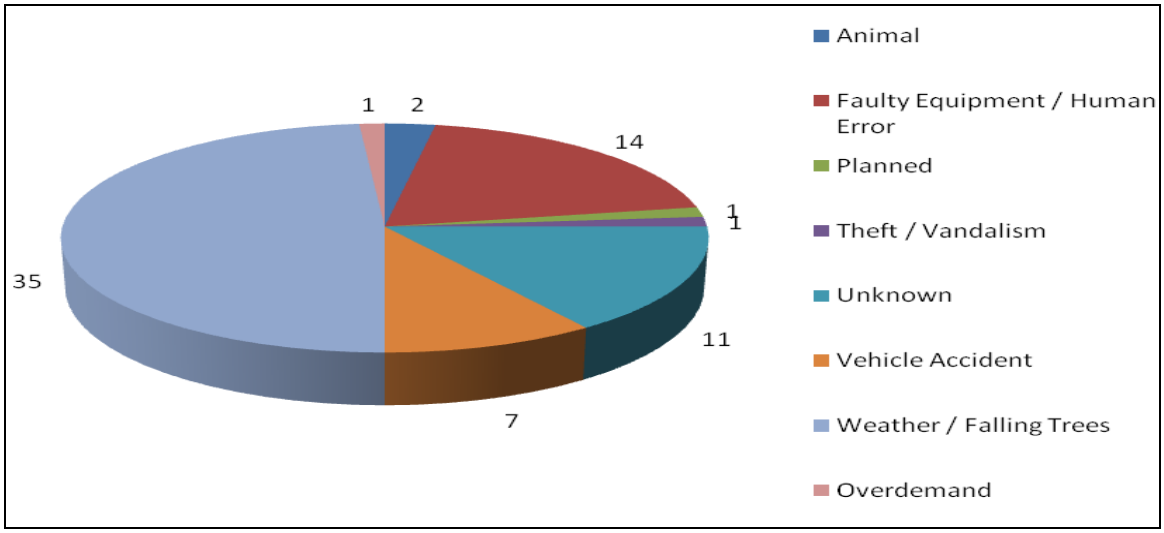
Outage summary

Total number of people affected by outages	300,640
Total duration of outages	1,807 minutes (more than 30 hours)
Total number of outages	72
State ranking (number of outages)	17
Average number of people affected per outage	4,176
Average duration of outage	28 minutes

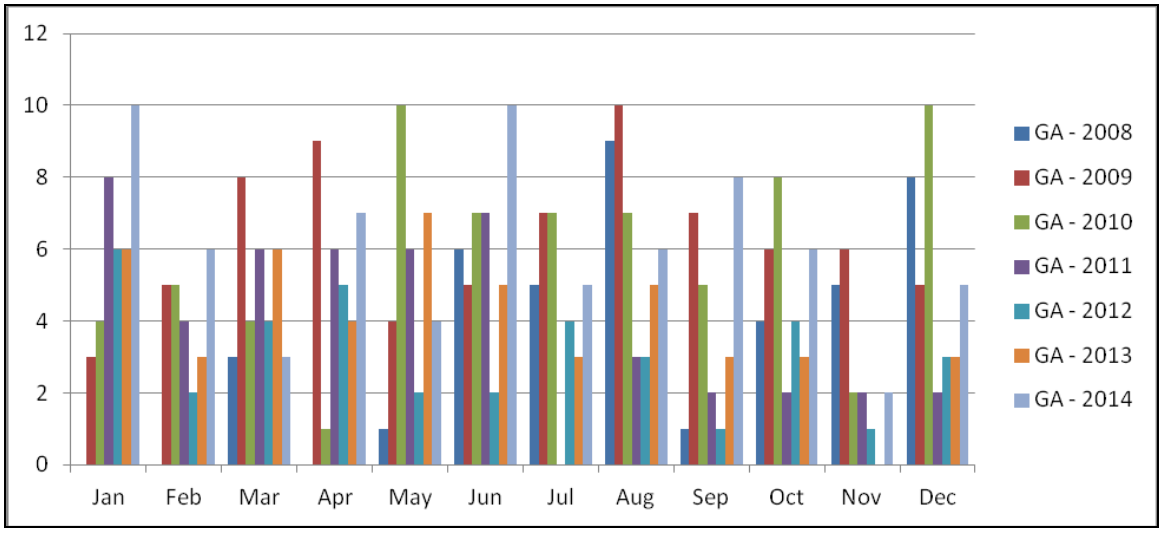
Note: Total number of people affected (and average) based on 42 (58%) of the total reported outages. Total duration of outages (and average) based on 7 (10%) of the total reported outages.

Outage fact: On April 30, a power outage in Morrow preceded a scare at Mt. Zion High School, which was placed on lockdown after false reports of a gun on campus. The alert was the latest in a series of attempts by students to close the school, police said.

Reported power outages by cause



Reported power outages by month



Hawaii

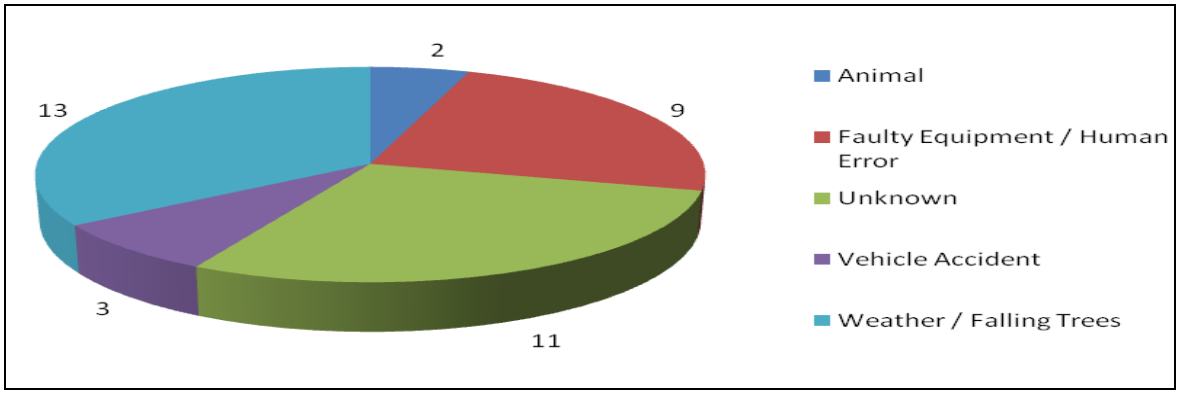
Outage summary

Total number of people affected by outages	164,162
Total duration of outages	1,966 minutes (nearly 33 hours)
Total number of outages	38
State ranking (number of outages)	31
Average number of people affected per outage	4,820
Average duration of outage	52 minutes

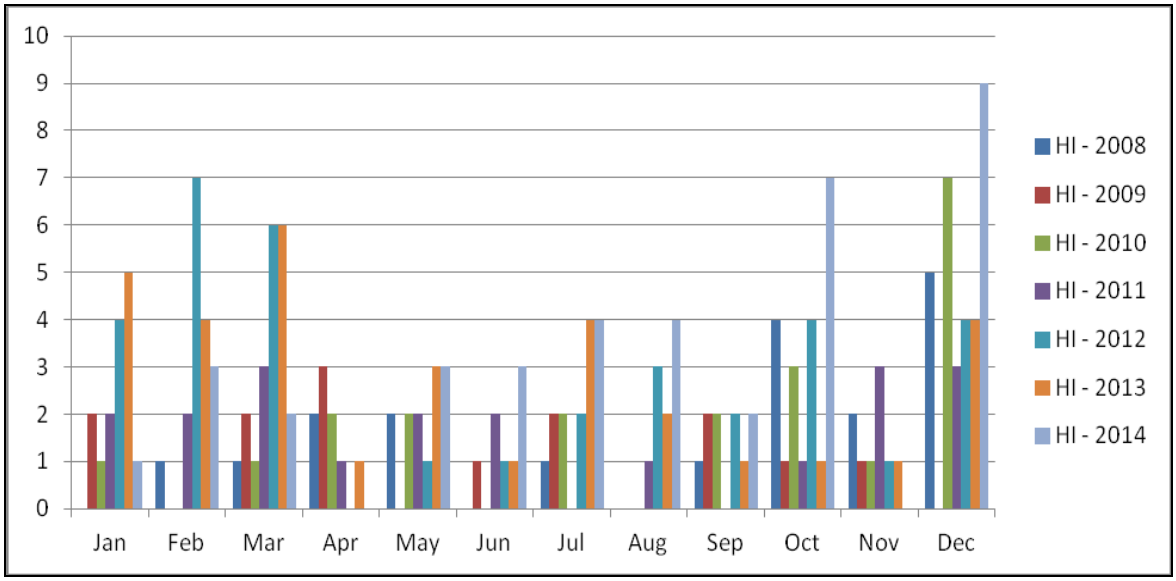
Note: Total number of people affected (and average) based on 30 (79%) of the total reported outages. Total duration of outages (and average) based on 10 (26%) of the total reported outages.

Outage fact: On May 8, Kauai's John Brown Gas Turbine generator — which generates 22 megawatts of electricity — failed, cutting power to the entire island. Other generators, unable to cover the system load, tripped off and circuits on the utility's grid shut down.

Reported power outages by cause



Reported power outages by month



Idaho

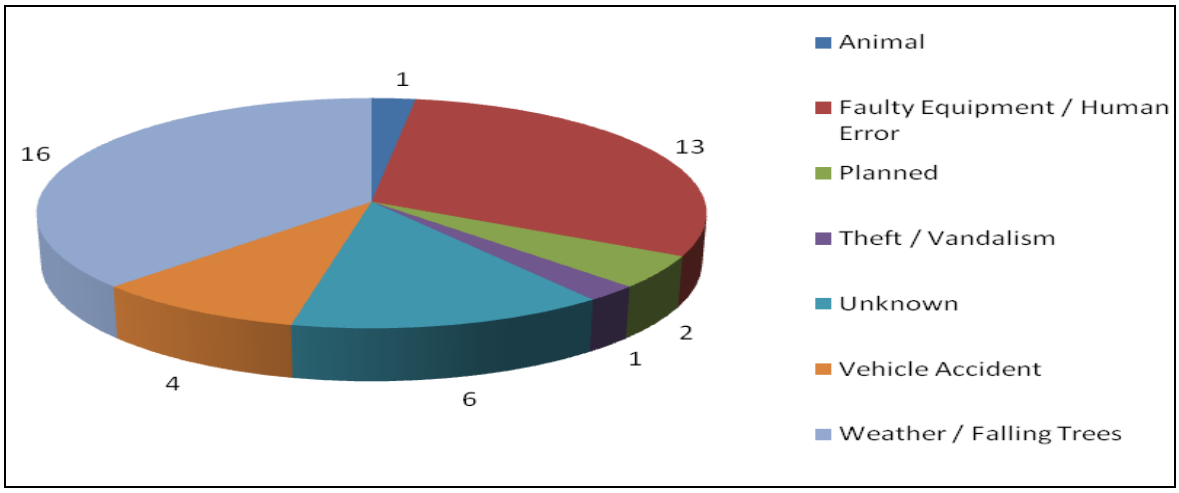
Outage summary

Total number of people affected by outages	129,379
Total duration of outages	1,644 minutes (more than 27 hours)
Total number of outages	43
State ranking (number of outages)	29 (tie)
Average number of people affected per outage	3,009
Average duration of outage	41 minutes

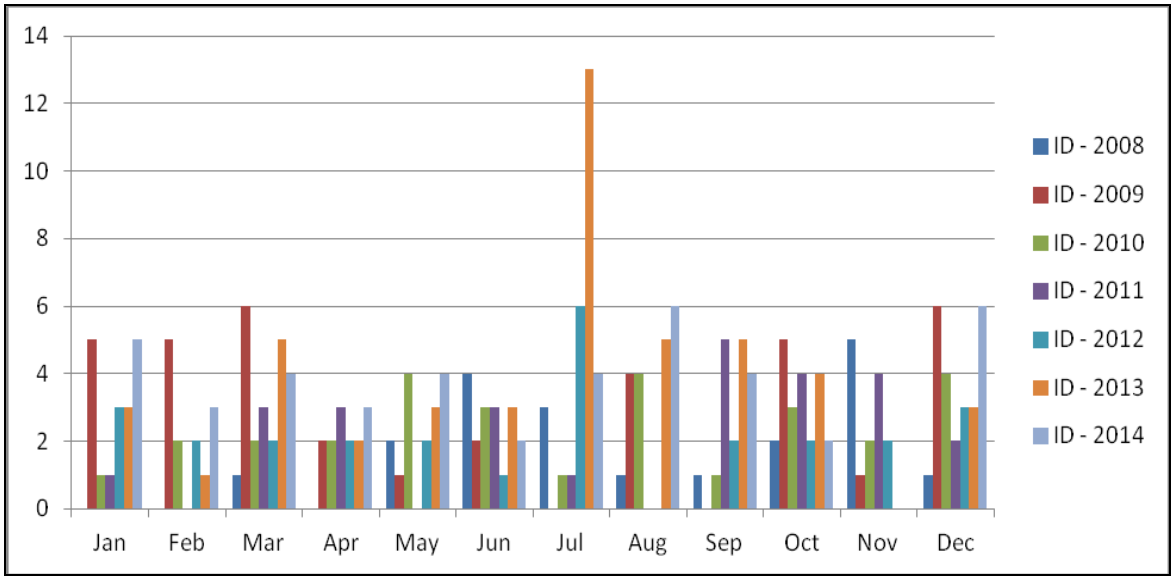
Note: Total number of people affected (and average) based on 36 (84%) of the total reported outages. Total duration of outages (and average) based on 10 (23%) of the total reported outages.

Outage fact: On June 4, a bullet fired from a rifle damaged power lines in Boise and led to an outage for 17,000 customers.

Reported power outages by cause



Reported power outages by month



Illinois

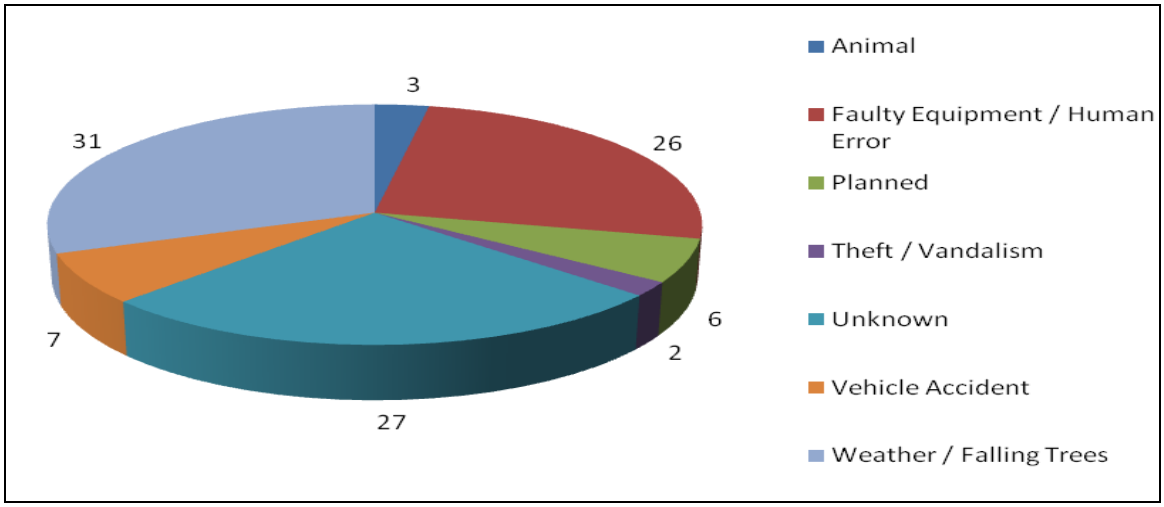
Outage summary

Total number of people affected by outages	549,128
Total duration of outages	1,286 minutes (more than 21 hours)
Total number of outages	102
State ranking (number of outages)	8
Average number of people affected per outage	5,491
Average duration of outage	14 minutes

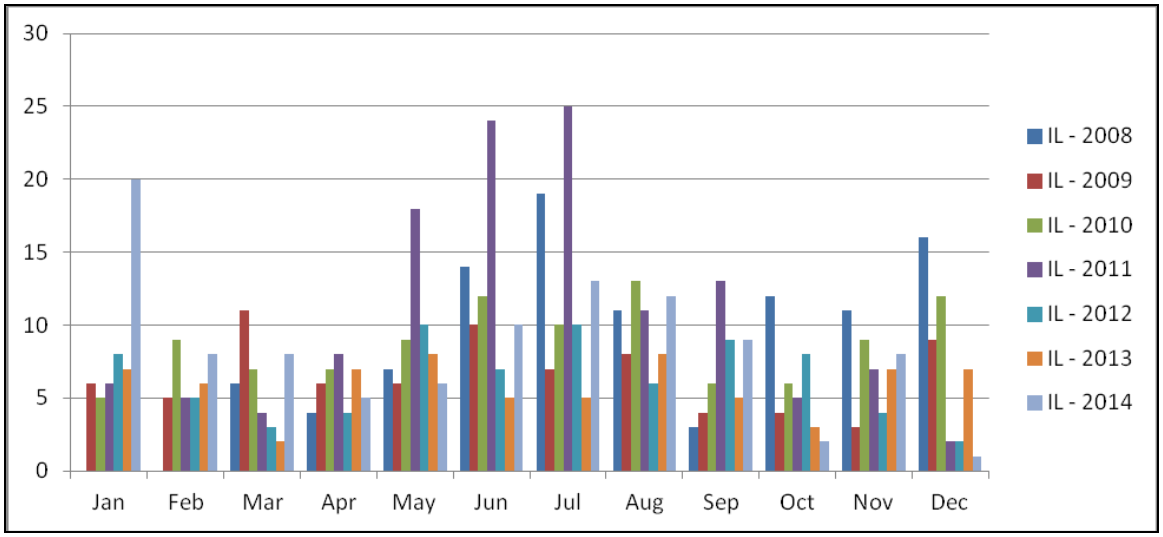
Note: Total number of people affected (and average) based on 62 (61%) of the total reported outages. Total duration of outages (and average) based on 11 (11%) of the total reported outages.

Outage fact: On July 1, a major summer storm that included torrential rains and hurricane-like winds brought havoc to two of the nation's busiest airports and left some 50,000 Chicagoans without power.

Reported power outages by cause



Reported power outages by month



Indiana

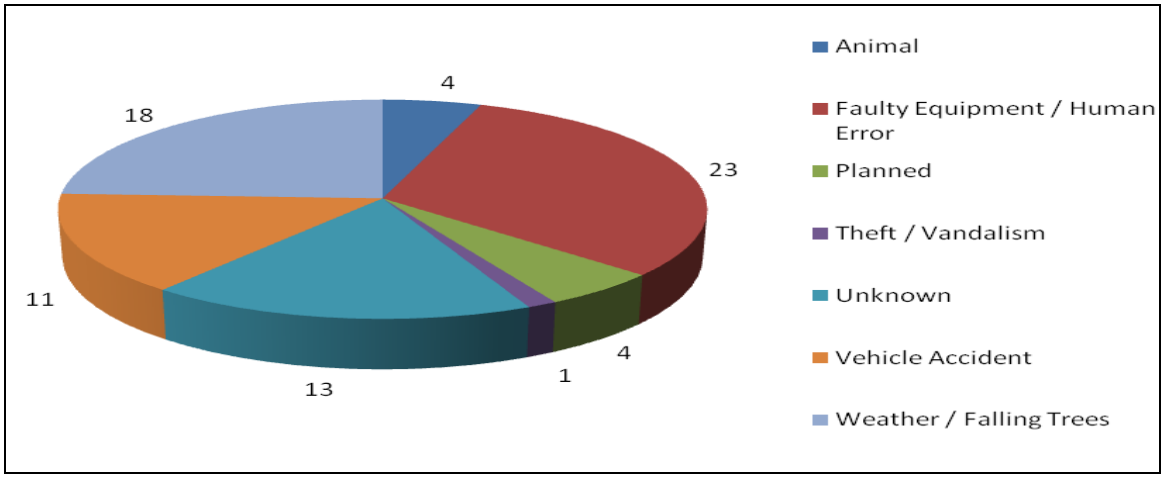
Outage summary

Total number of people affected by outages	154,244
Total duration of outages	1,911 minutes (nearly 32 hours)
Total number of outages	74
State ranking (number of outages)	15
Average number of people affected per outage	2,142
Average duration of outage	29 minutes

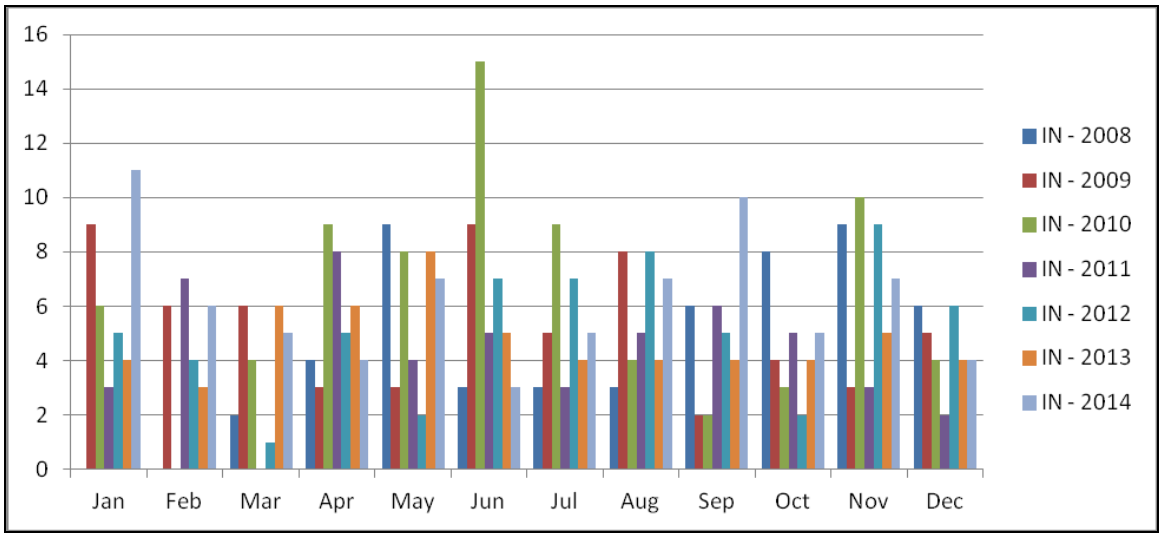
Note: Total number of people affected (and average) based on 39 (53%) of the total reported outages. Total duration of outages (and average) based on 12 (16%) of the total reported outages.

Outage fact: On April 18, two resourceful raccoons were blamed for a Richmond-area outage after the late-night marauders snuck past a "varmint guard" on a transformer and into the buswork, where electricity feeds into individual breakers. Their end came swiftly and suddenly, but not before five breakers shut down.

Reported power outages by cause



Reported power outages by month



Iowa

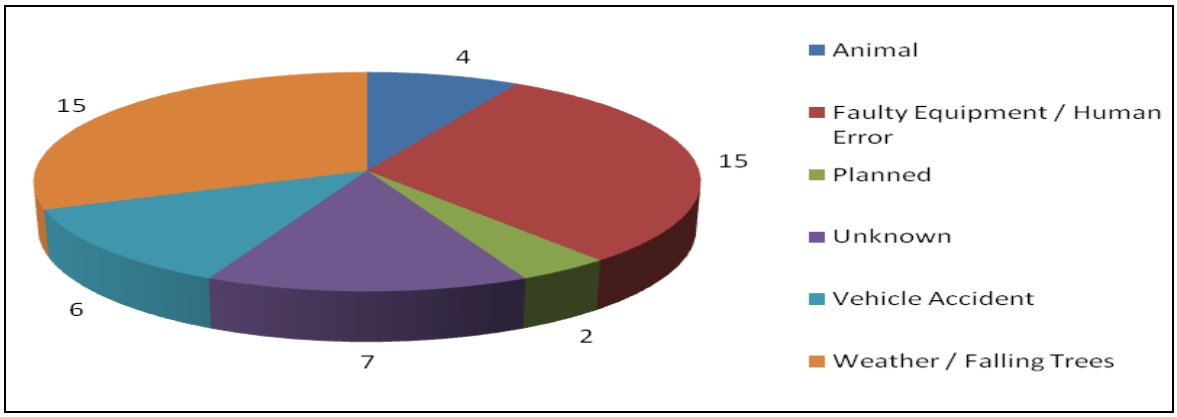
Outage summary

Total number of people affected by outages	89,844
Total duration of outages	2,757 minutes (nearly 46 hours)
Total number of outages	49
State ranking (number of outages)	25
Average number of people affected per outage	1,834
Average duration of outage	59 minutes

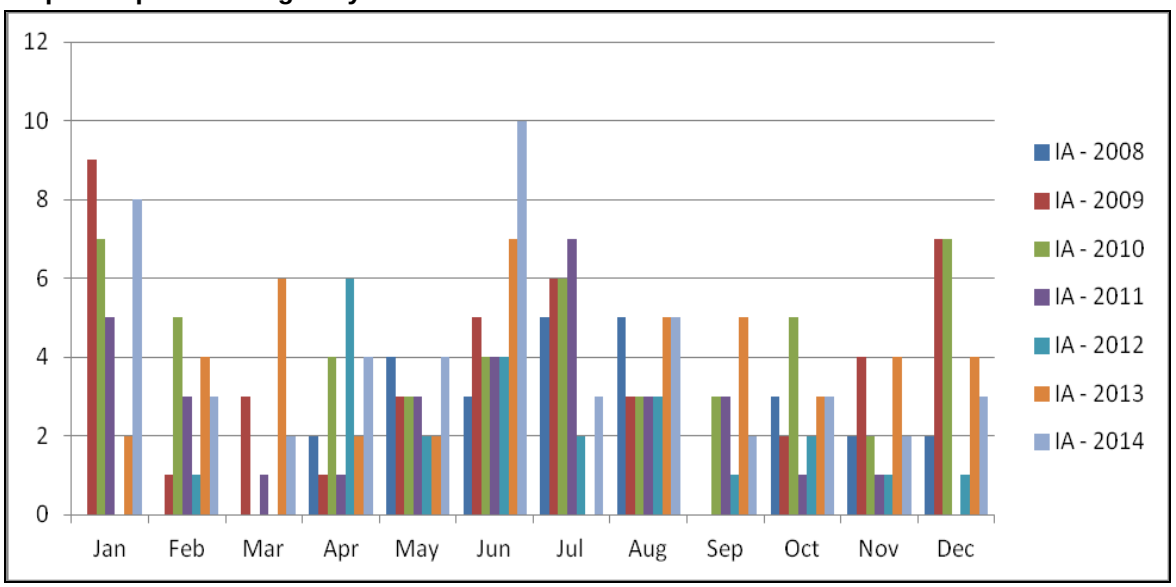
Note: Total number of people affected (and average) based on 33 (67%) of the total reported outages. Total duration of outages (and average) based on 16 (33%) of the total reported outages.

Outage fact: Police arrested a Sioux City man Jan. 19 after he rear-ended a vehicle, attempted to flee, and ran over a power utility box and into a hotel, causing outages in the area.

Reported power outages by cause



Reported power outages by month



Kansas

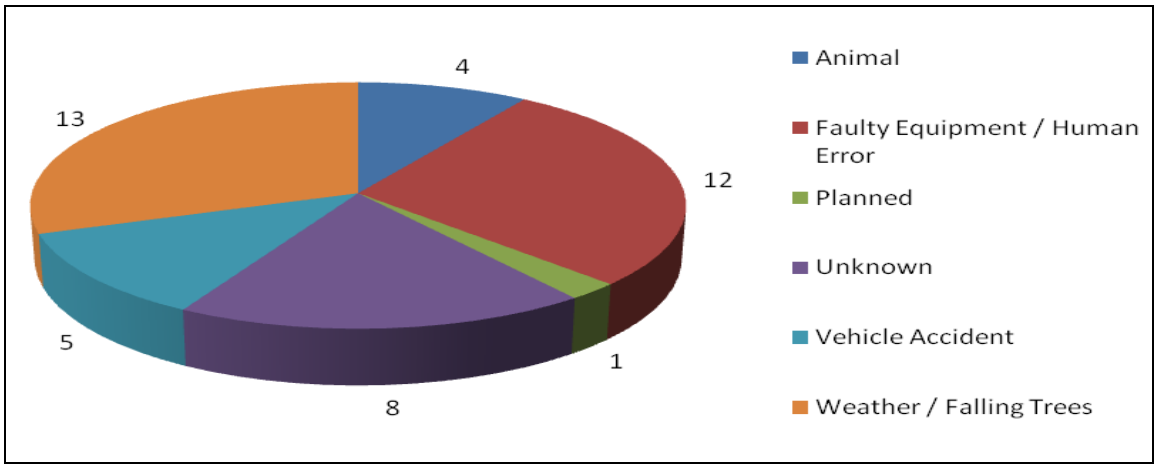
Outage summary

Total number of people affected by outages	83,972
Total duration of outages	958 minutes (almost 16 hours)
Total number of outages	43
State ranking (number of outages)	29
Average number of people affected per outage	2,048
Average duration of outage	23 minutes

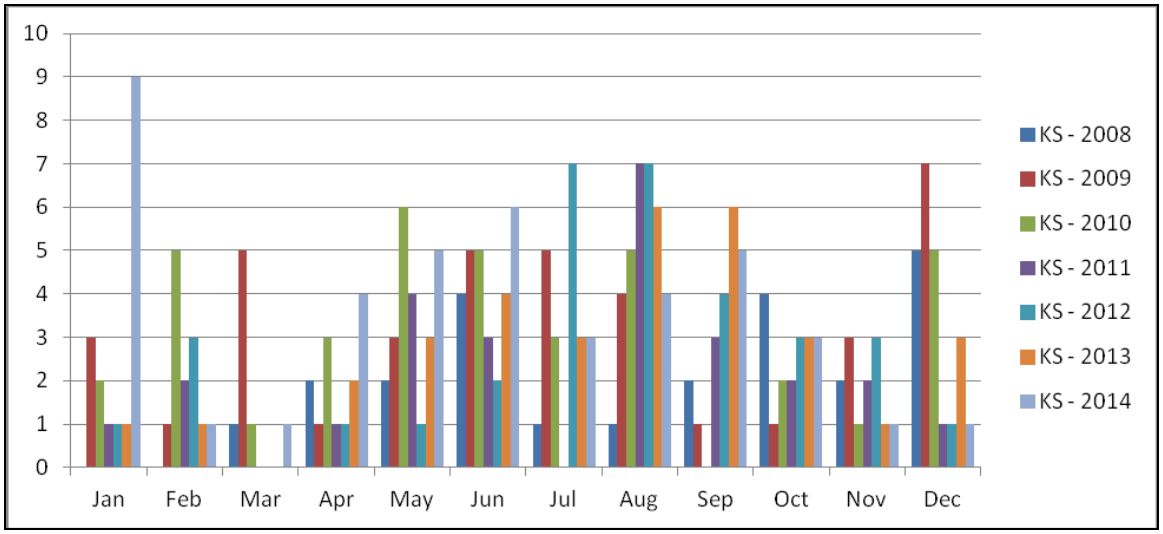
Note: Total number of people affected (and average) based on 29 (67%) of the total reported outages. Total duration of outages (and average) based on 7 (16%) of the total reported outages.

Outage fact: On June 6, a bird got into a Salina substation and tripped the fuses, knocking out power to 2,800 customers.

Reported power outages by cause



Reported power outages by month



Kentucky

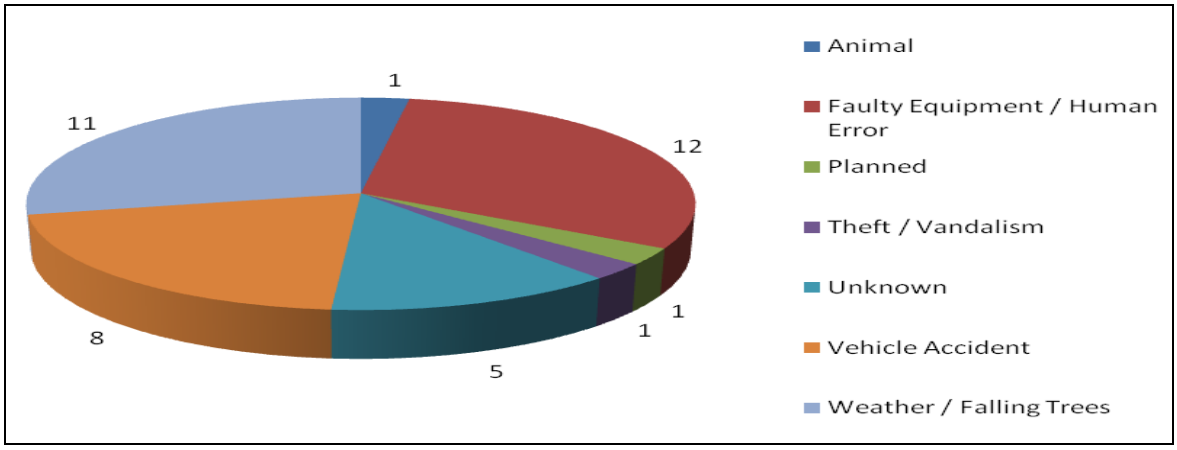
Outage summary

Total number of people affected by outages	114,208
Total duration of outages	1,602 minutes (almost 27 hours)
Total number of outages	39
State ranking (number of outages)	30 (tie)
Average number of people affected per outage	2,928
Average duration of outage	45 minutes

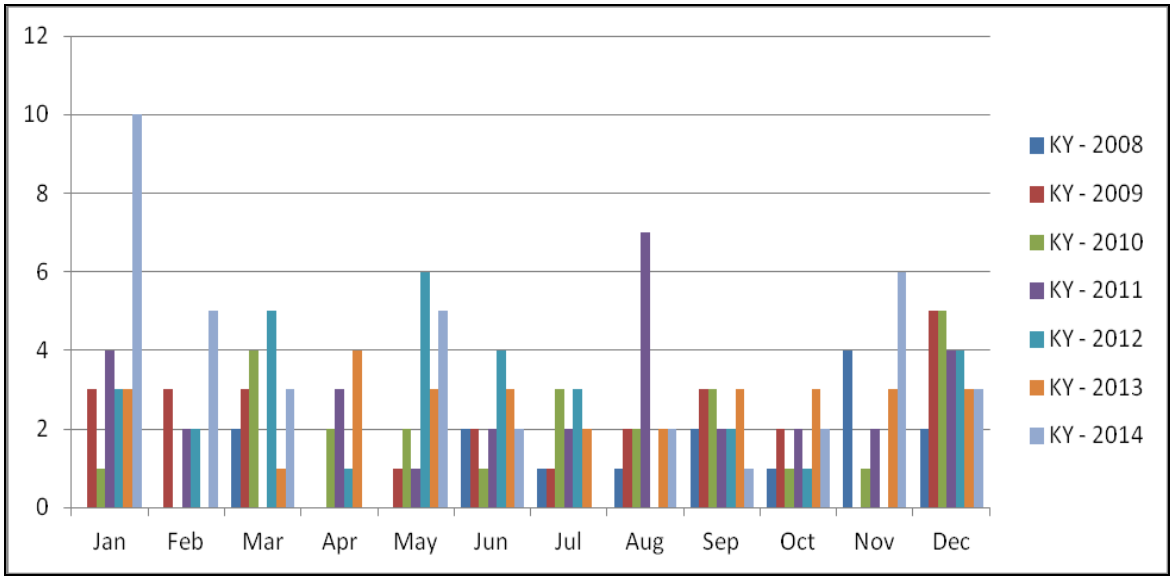
Note: Total number of people affected (and average) based on 25 (64%) of the total reported outages. Total duration of outages (and average) based on 8 (20%) of the total reported outages.

Outage fact: On Nov. 5, a tractor-trailer cut power to 750 customers after it collided with a utility pole. Crews worked into the night to replace the broken pole and restring downed power lines. The driver was briefly trapped inside the truck because of the downed lines.

Reported power outages by cause



Reported power outages by month



Louisiana

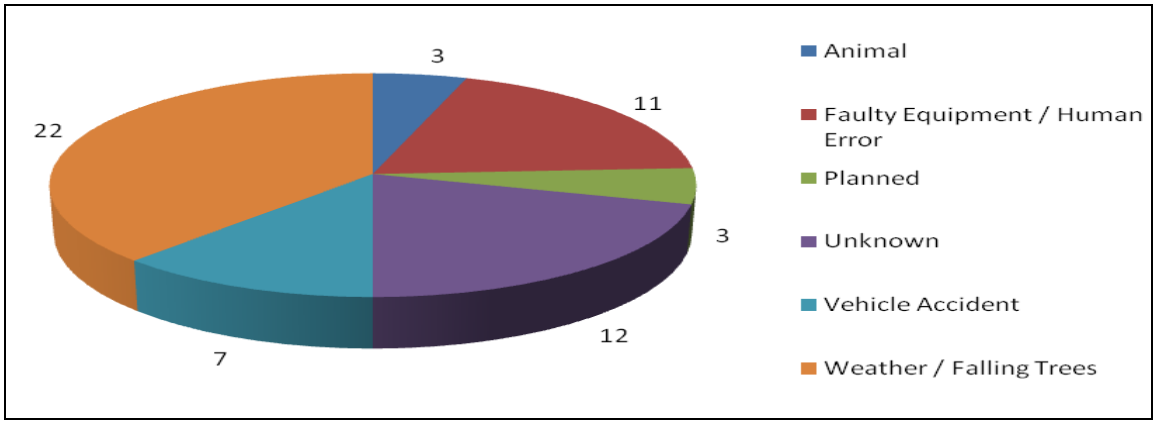
Outage summary

Total number of people affected by outages	181,119
Total duration of outages	1,740 minutes (29 hours)
Total number of outages	58
State ranking (number of outages)	21 (tie)
Average number of people affected per outage	3,123
Average duration of outage	32 minutes

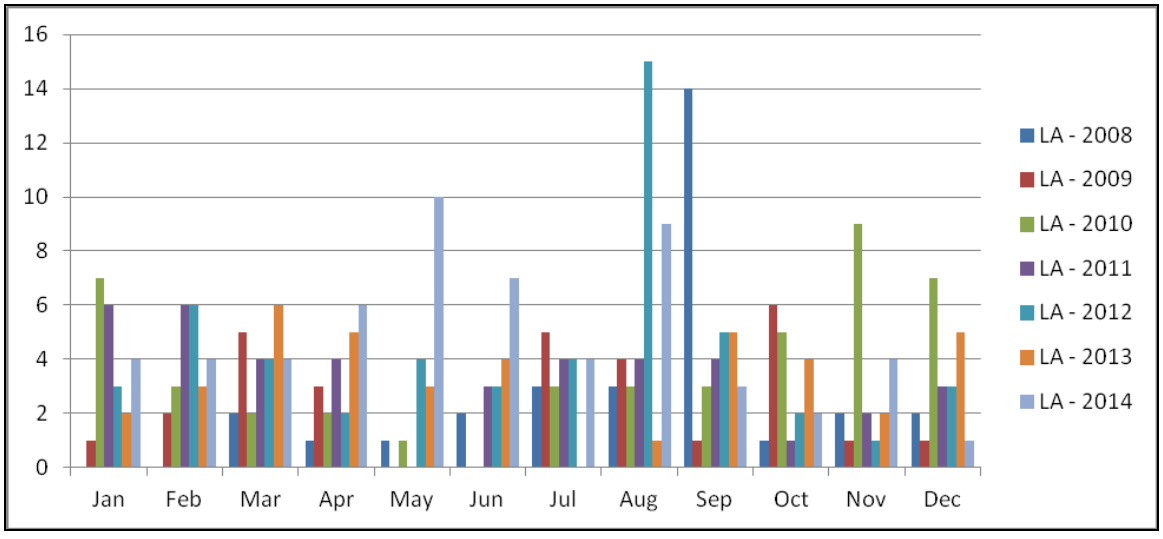
Note: Total number of people affected (and average) based on 41 (71%) of the total reported outages. Total duration of outages (and average) based on 12 (21%) of the total reported outages.

Outage fact: A birthday celebration was blamed for a 2 ½ hour power outage in Opelousas May 18. Repair crews discovered a large group of Mylar balloons had become tangled in wires, causing a blown transformer and a loss of power to 1,900 customers.

Reported power outages by cause



Reported power outages by month



Maine

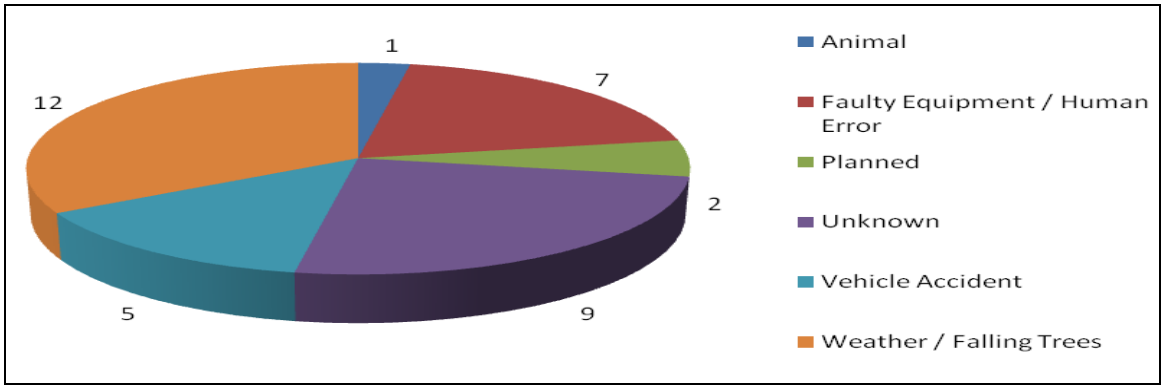
Outage summary

Total number of people affected by outages	347,638
Total duration of outages	846 minutes (14 hours)
Total number of outages	36
State ranking (number of outages)	32
Average number of people affected per outage	9,657
Average duration of outage	24

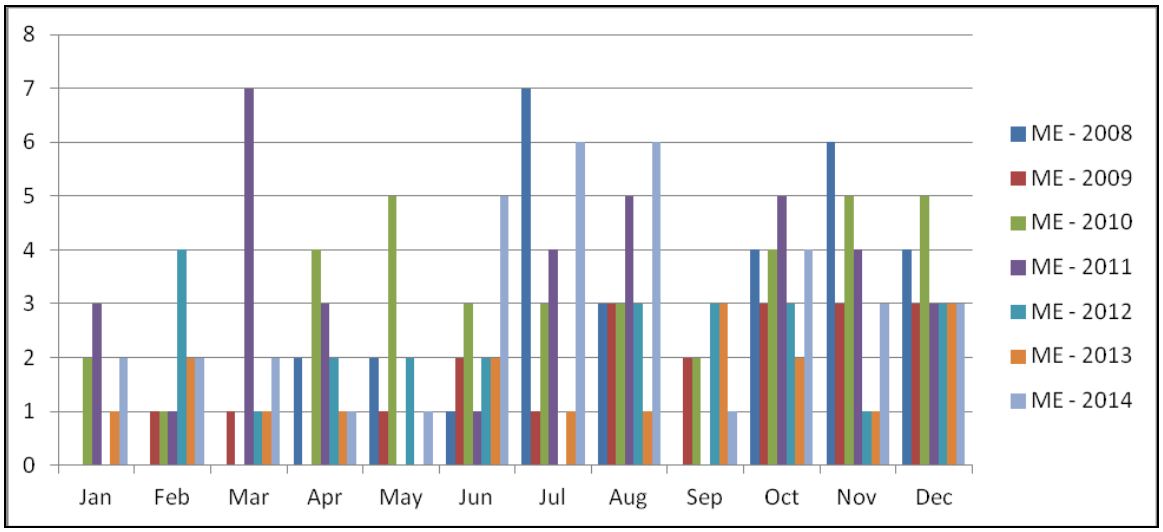
Note: Total number of people affected (and average) based on 27 (75%) of the total reported outages. Total duration of outages (and average) based on 6 (17%) of the total reported outages.

Outage fact: On Nov. 2, a nor'easter that brought powerful wind gusts, heavy rain and more than a foot of wet snow to some areas left 137,000 Maine homes in the dark.

Reported power outages by cause



Reported power outages by month



Maryland / Washington, DC

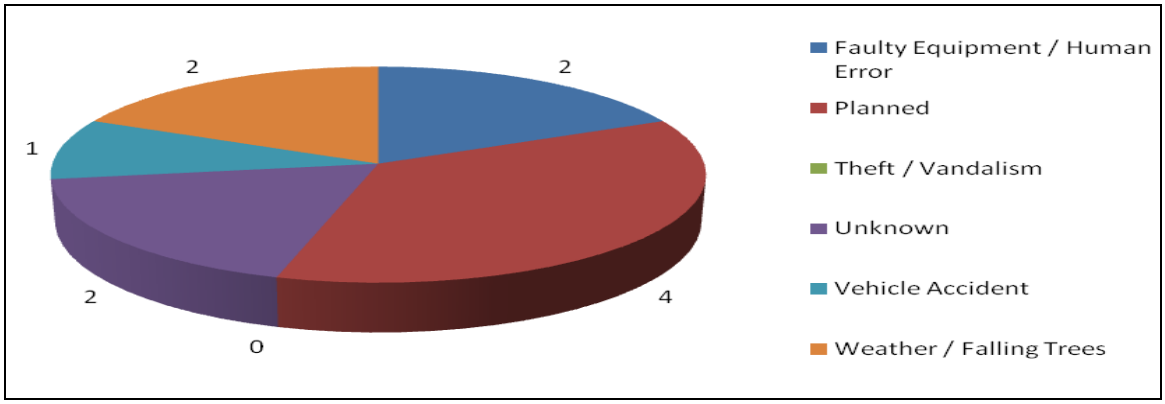
Outage summary

Total number of people affected by outages	165,753
Total duration of outages	2221 minutes (37 hours)
Total number of outages	50
State ranking (number of outages)	14 and 40 (tie), respectively
Average number of people affected per outage	4,452
Average duration of outage	167 minutes (nearly 3 hours)

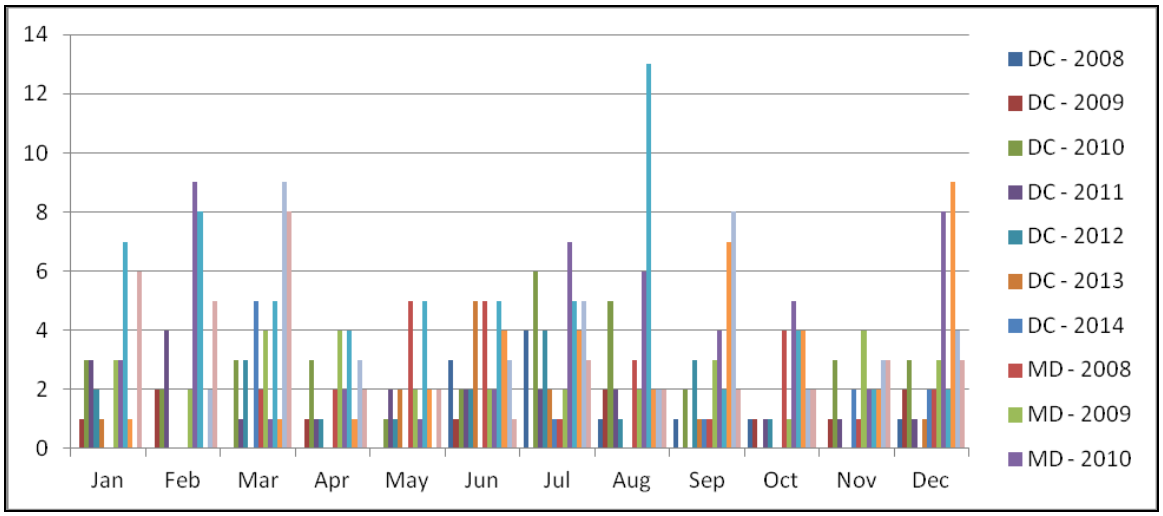
Note: Total number of people affected (and average) based on 3o (60%) of the total reported outages. Total duration of outages (and average) based on 8 (16%) of the total reported outages.

Outage fact: On Dec. 15, nearby construction work cut power at the White House. “Perhaps a premature government shutdown,” joked one reporter.

Reported power outages by cause



Reported power outages by month



Massachusetts

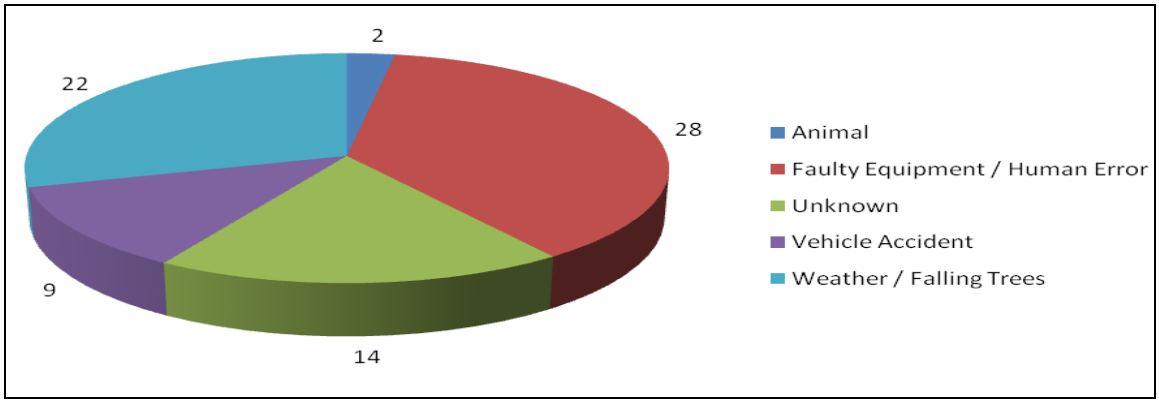
Outage summary

Total number of people affected by outages	239,307
Total duration of outages	4,022 minutes (67 hours)
Total number of outages	75
State ranking (number of outages)	14
Average number of people affected per outage	3,419
Average duration of outage	58 minutes

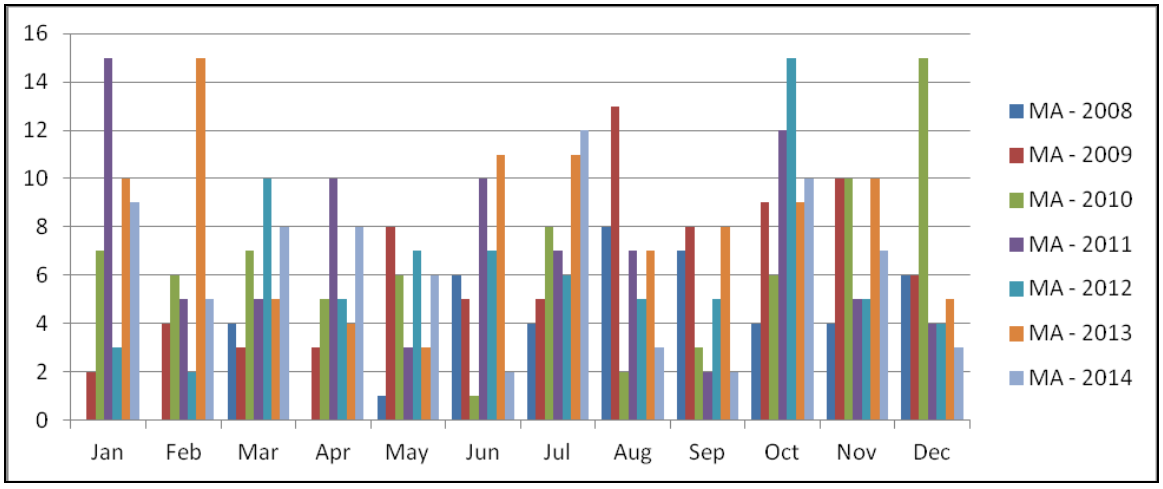
Note: Total number of people affected (and average) based on 51 (68%) of the total reported outages. Total duration of outages (and average) based on 19 (25%) of the total reported outages.

Outage fact: A March 14 outage at MIT affected all buildings served by the university's cogeneration plant, which provides electricity, steam heat, and chilled water to more than 100 buildings. The cause was undetermined.

Reported power outages by cause



Reported power outages by month



Michigan

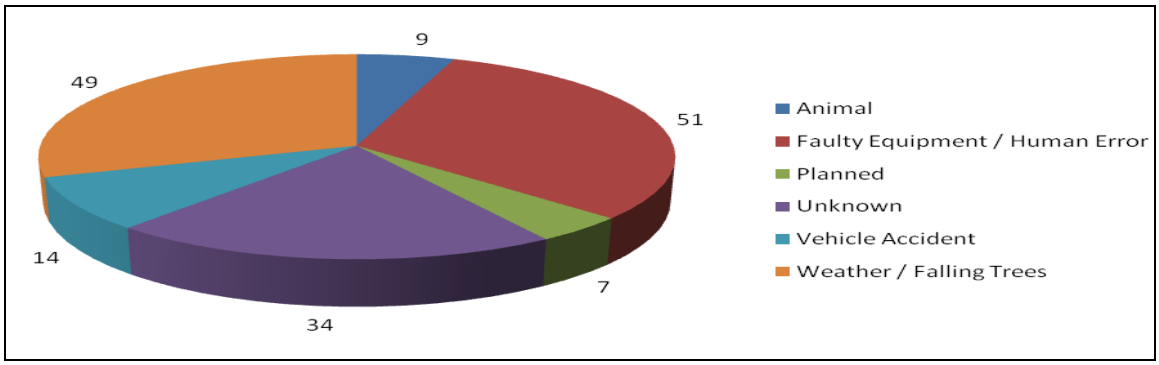
Outage summary

Total number of people affected by outages	1,352,708
Total duration of outages	4,354 minutes (more than 3 days)
Total number of outages	164
State ranking (number of outages)	3
Average number of people affected per outage	8,350
Average duration of outage	28 minutes

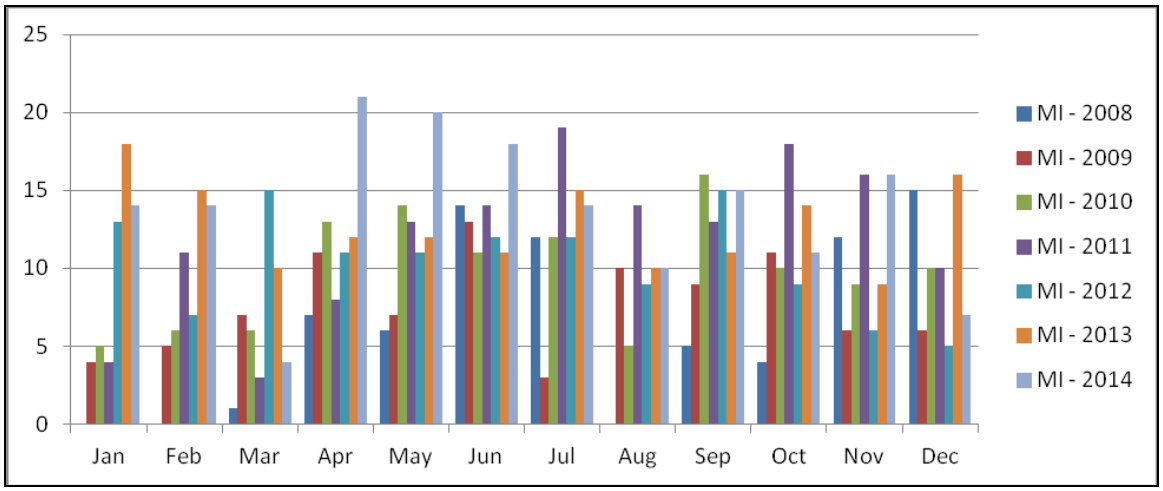
Note: Total number of people affected (and average) based on 118 (72%) of the total reported outages. Total duration of outages (and average) based on 24 (14%) of the total reported outages.

Outage fact: Several waves of thunderstorms were blamed for outages in Jackson that blacked out some 106,000 customers on April 12.

Reported power outages by cause



Reported power outages by month



Minnesota

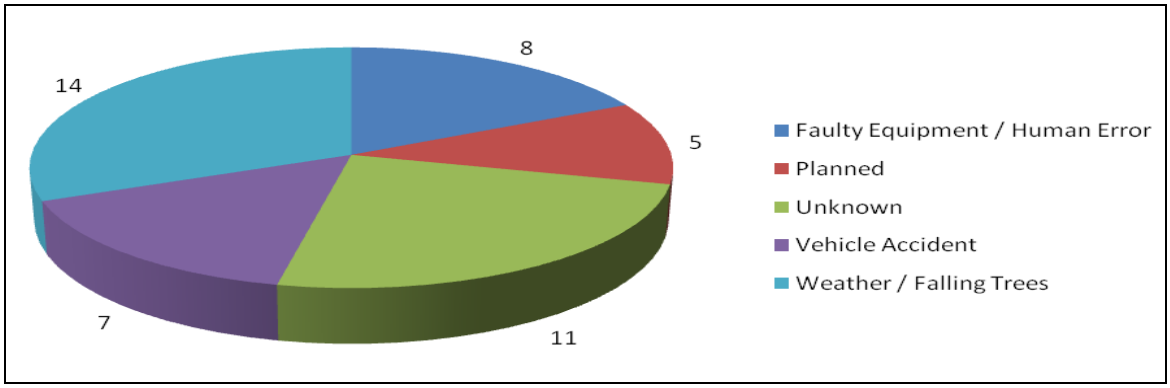
Outage summary

Total number of people affected by outages	163,793
Total duration of outages	1,903 minutes (nearly 32 hours)
Total number of outages	45
State ranking (number of outages)	28
Average number of people affected per outage	3,640
Average duration of outage	42 minutes

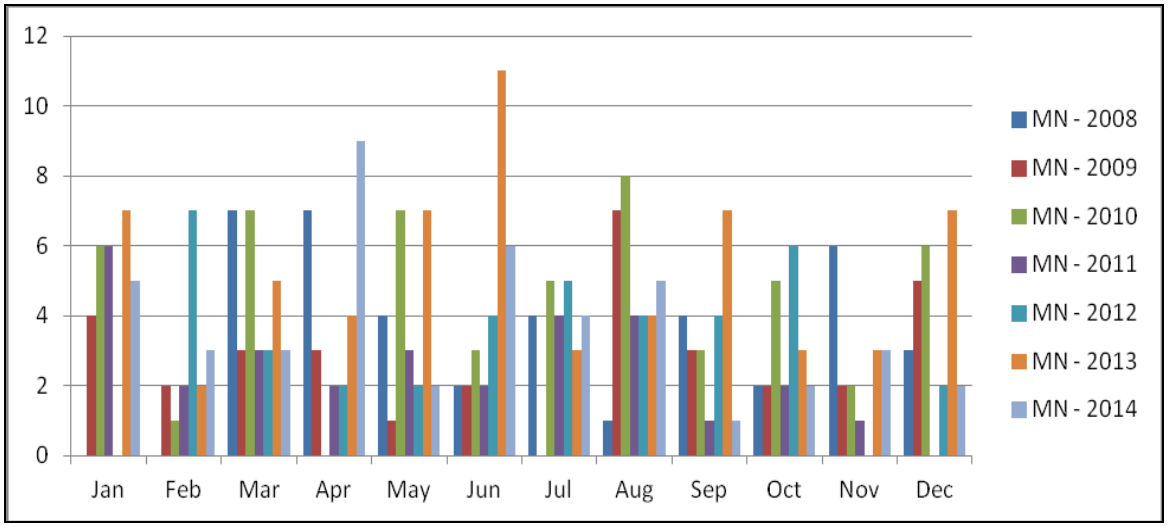
Note: Total number of people affected (and average) based on 34 (75%) of the total reported outages. Total duration of outages (and average) based on 11 (24%) of the total reported outages.

Outage fact: Some 30,000 Twin Cities residents were left without power Feb. 20 when heavy snow that had built up on trees and branches fell onto power lines. There were also reports of some power pole fires.

Reported power outages by cause



Reported power outages by month



Mississippi

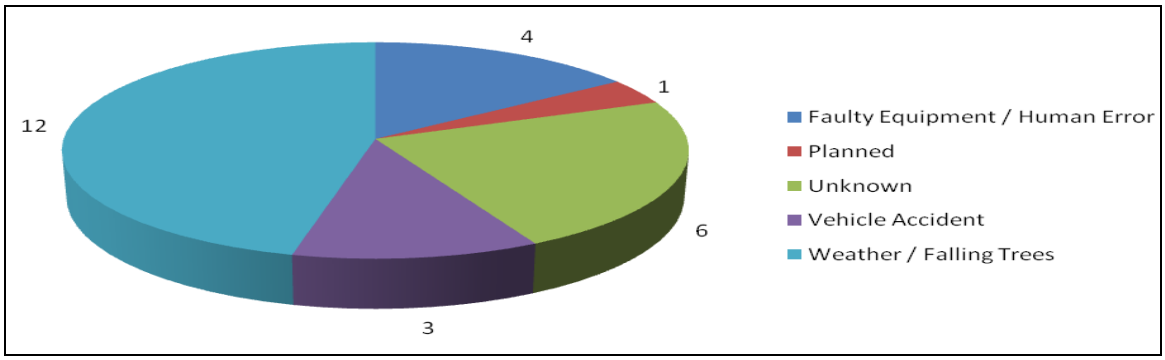
Outage summary

Total number of people affected by outages	21,060
Total duration of outages	180 minutes
Total number of outages	26
State ranking (number of outages)	34
Average number of people affected per outage	842
Average duration of outage	7 minutes

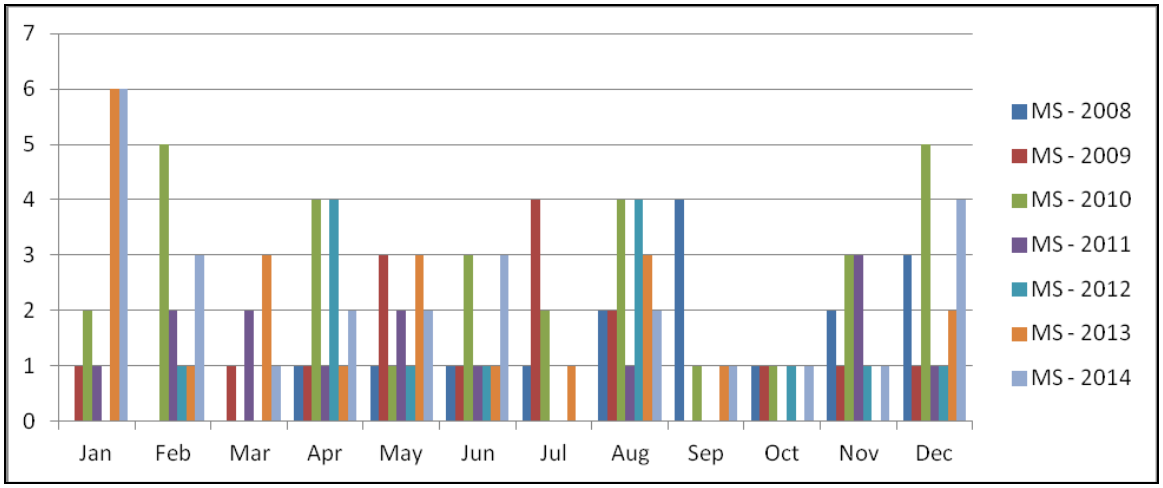
Note: Total number of people affected (and average) based on 13 (50%) of the total reported outages. Total duration of outages (and average) based on 1 (4%) of the total reported outages.

Outage fact: On Jan. 22, a biodiesel explosion caused a blackout In Blue Mountain after causing wires to trip at a nearby electrical substation. The entire town lost power until early afternoon.

Reported power outages by cause



Reported power outages by month



Missouri

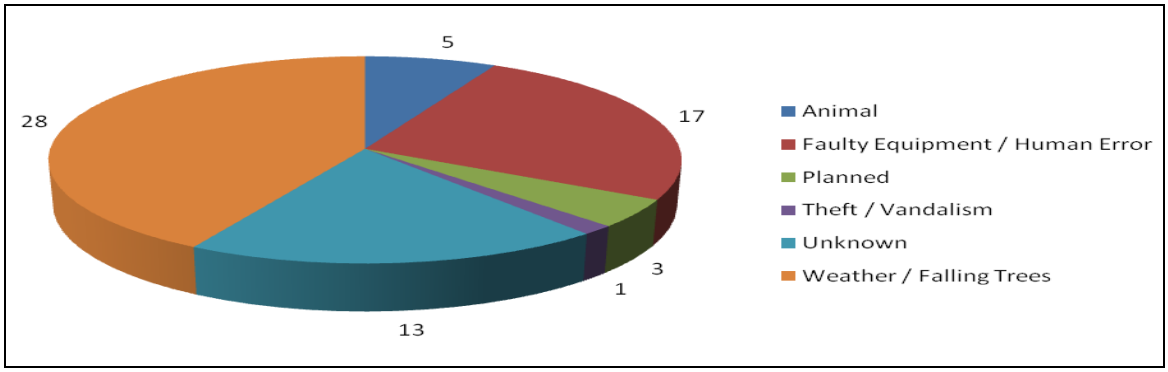
Outage summary

Total number of people affected by outages	195,838
Total duration of outages	12,130 minutes (more than 8 days)
Total number of outages	67
State ranking (number of outages)	18
Average number of people affected per outage	2,967
Average duration of outage	184 minutes

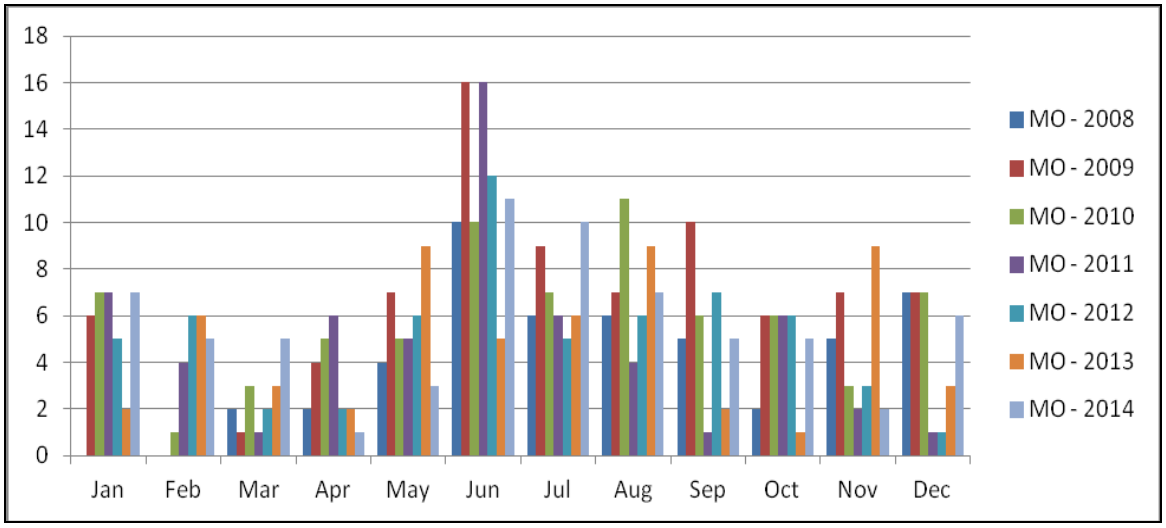
Note: Total number of people affected (and average) based on 42 (63%) of the total reported outages. Total duration of outages (and average) based on 19 (28%) of the total reported outages.

Outage fact: As if the winter wasn't hard enough for many, residents in one East St. Louis apartment building went an entire week without power in February. Housing authority officials said they were waiting for a part to come in to restore power to the government-operated project.

Reported power outages by cause



Reported power outages by month



Montana

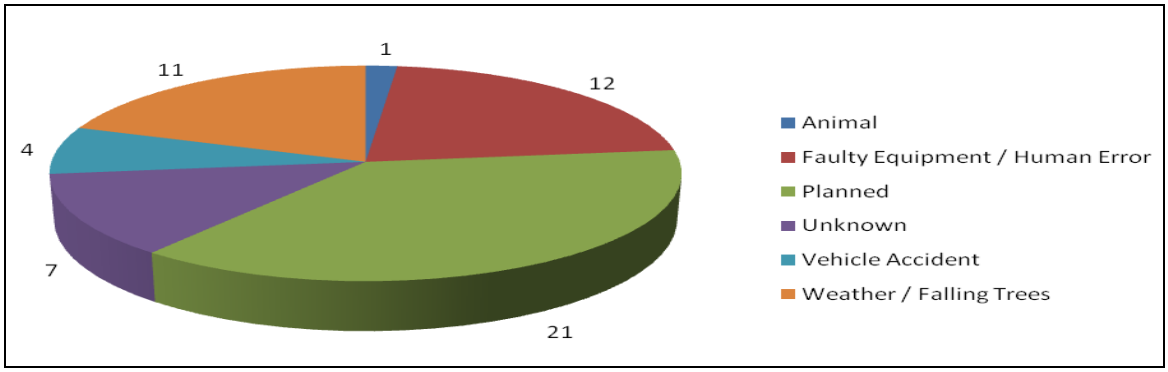
Outage summary

Total number of people affected by outages	55,838
Total duration of outages	4,450 minutes (more than 3 days)
Total number of outages	56
State ranking (number of outages)	23 (tie)
Average number of people affected per outage	1,034
Average duration of outage	87 minutes

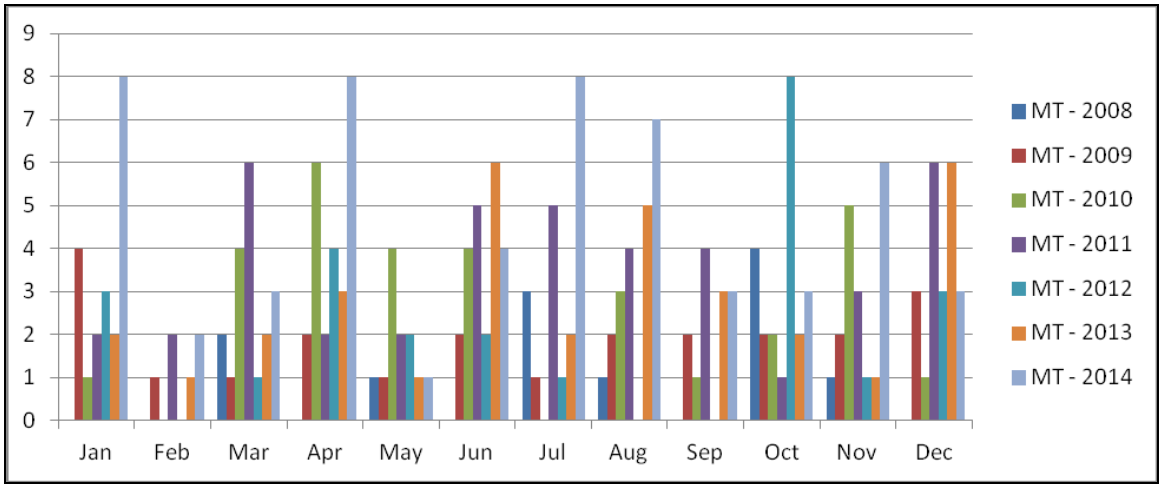
Note: Total number of people affected (and average) based on 28 (50%) of the total reported outages. Total duration of outages (and average) based on 23 (41%) of the total reported outages.

Outage fact: On Feb. 6, some 5,900 Bitterroot Valley customers were left in the dark after wires snapped in extreme cold. When the lines broke, it caused a larger transmission line that runs from Missoula to Hamilton to switch off.

Reported power outages by cause



Reported power outages by month



Nebraska

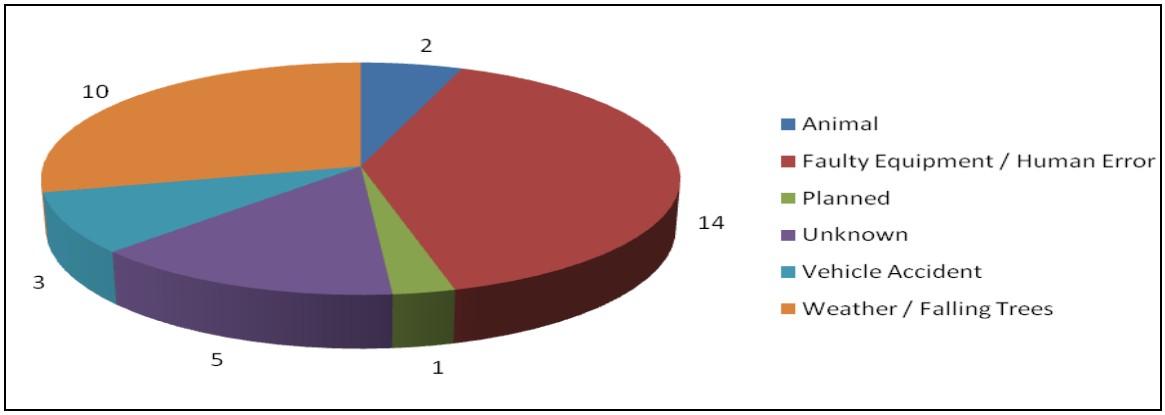
Outage summary

Total number of people affected by outages	58,377
Total duration of outages	1,390 minutes (23 hours)
Total number of outages	35
State ranking (number of outages)	33
Average number of people affected per outage	1,717
Average duration of outage	40 minutes

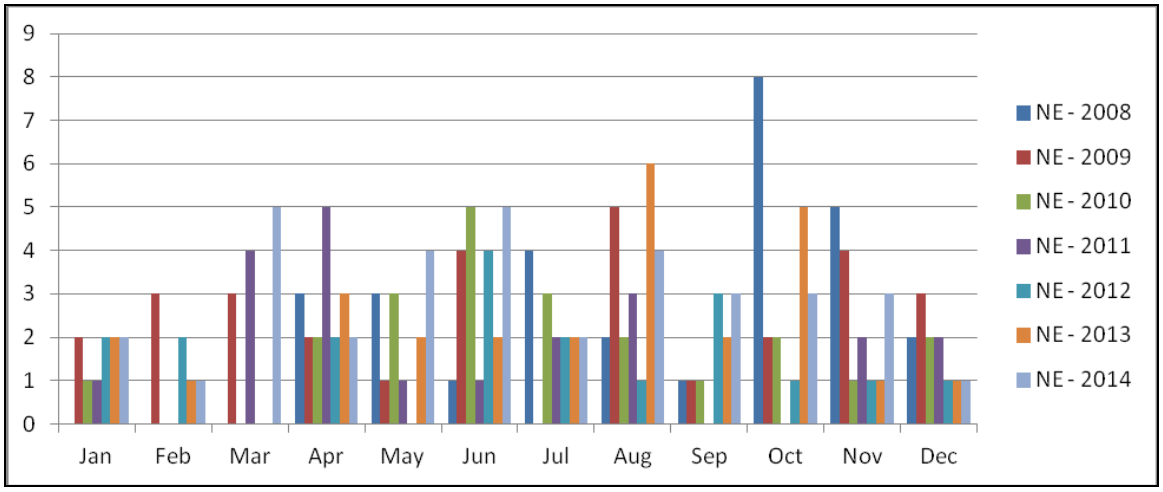
Note: Total number of people affected (and average) based on 25 (71%) of the total reported outages. Total duration of outages (and average) based on 10 (28%) of the total reported outages.

Outage fact: On July 9, after a vehicle smashed into a transmission line, Sidney officials asked all citizens and businesses to conserve energy until the line could be repaired. Work was completed after 3 ½ hours.

Reported power outages by cause



Reported power outages by month



Nevada

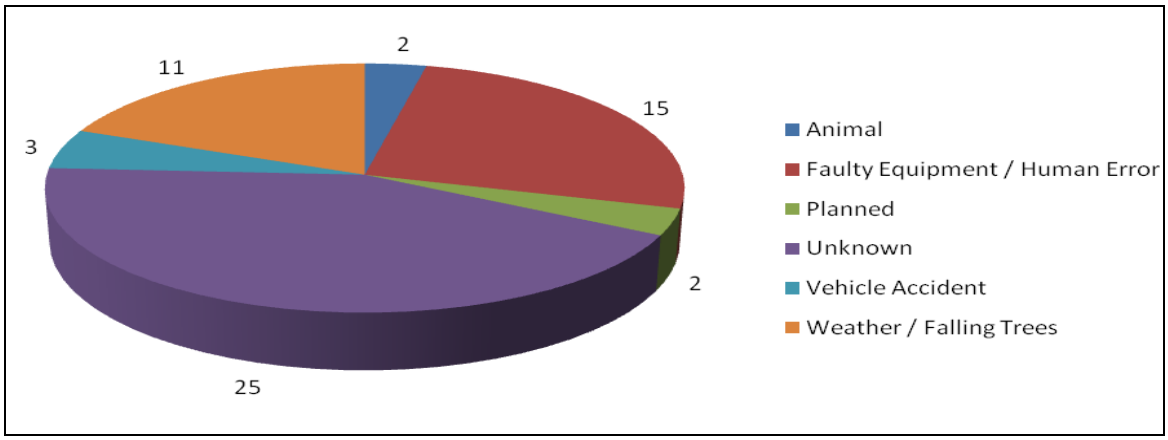
Outage summary

Total number of people affected by outages	164,580
Total duration of outages	995 minutes (16 1/2 hours)
Total number of outages	58
State ranking (number of outages)	21 (tie)
Average number of people affected per outage	2,887
Average duration of outage	17 minutes

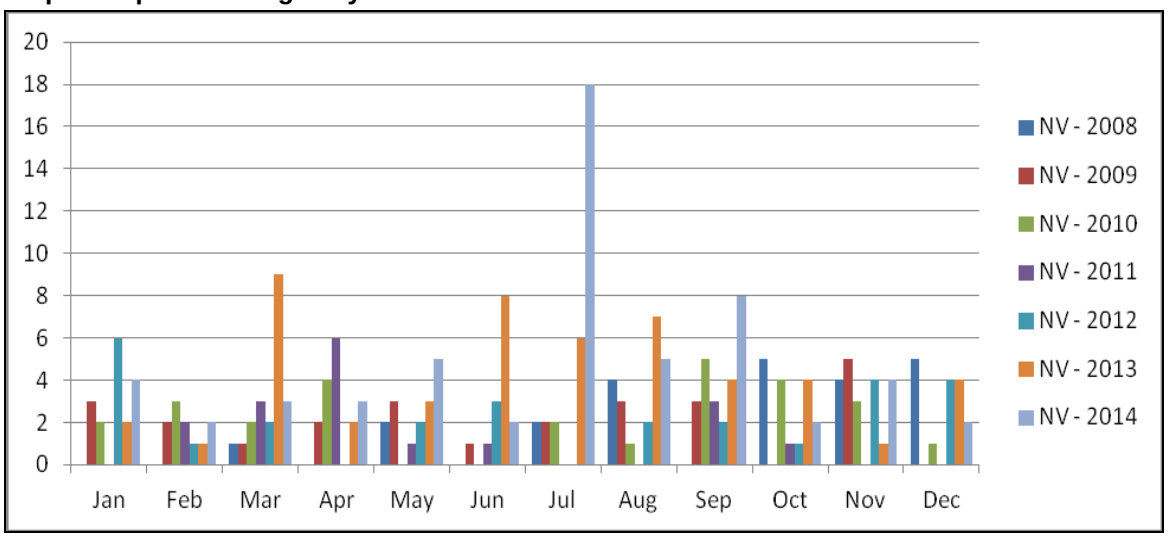
Note: Total number of people affected (and average) based on 49 (84%) of the total reported outages. Total duration of outages (and average) based on 10 (17%) of the total reported outages.

Outage fact: On July 13, a hawk flew into the Lahontan Substation and grounded itself. When it touched a live wire with part of its body, it created a 2-hour outage.

Reported power outages by cause



Reported power outages by month



New Hampshire

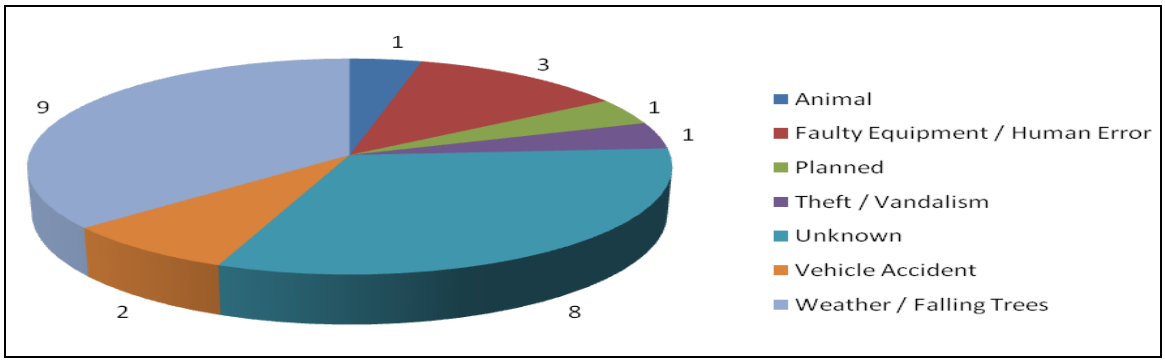
Outage summary

Total number of people affected by outages	236,010
Total duration of outages	790 minutes (13 hours)
Total number of outages	25
State ranking (number of outages)	35 (tie)
Average number of people affected per outage	9,440
Average duration of outage	32 minutes

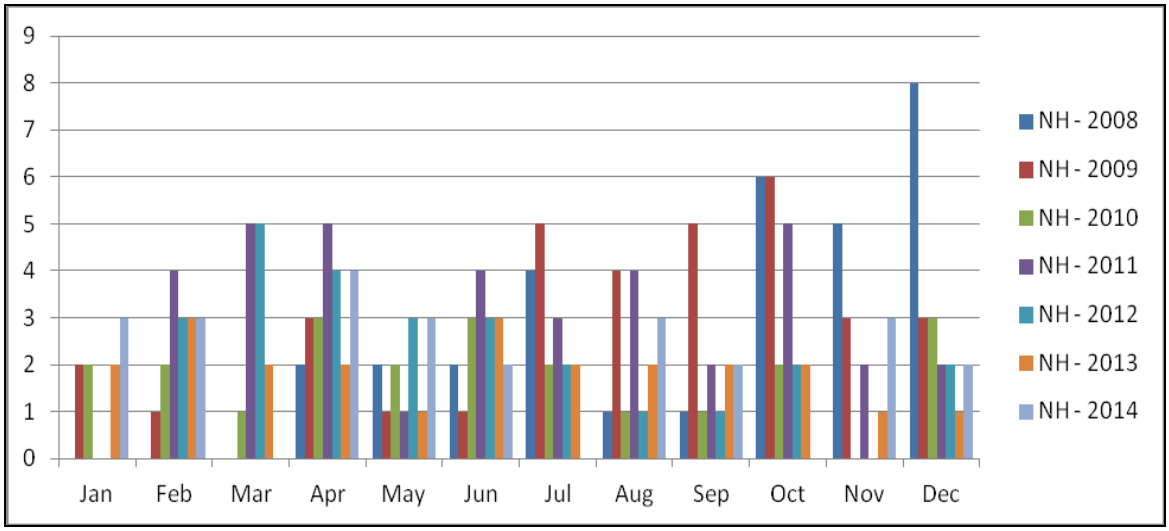
Note: Total number of people affected (and average) based on 16 (64%) of the total reported outages. Total duration of outages (and average) based on 6 (24%) of the total reported outages.

Outage fact: A voltage regulator failed at a Webster substation June 24 due to a break-in and theft of copper ground cable. The regulator's failure caused a 2-hour outage to 2,800 customers.

Reported power outages by cause



Reported power outages by month



New Jersey

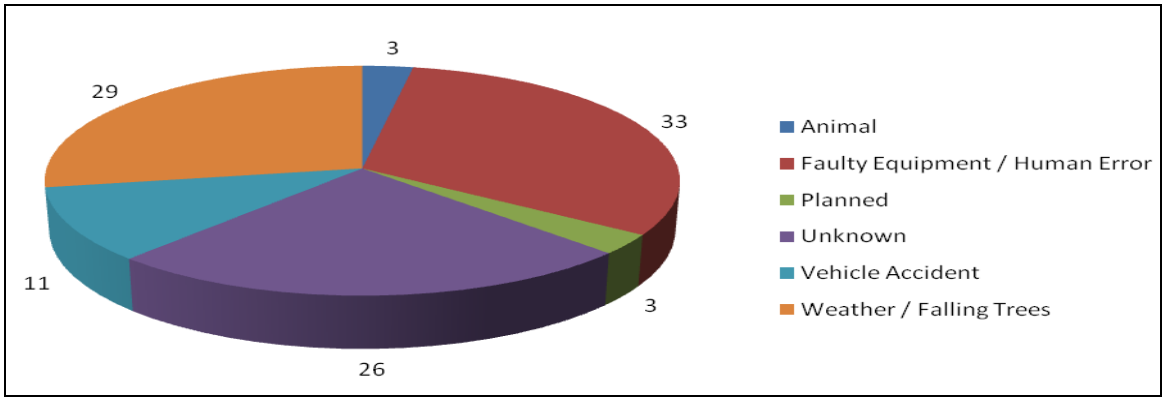
Outage summary

Total number of people affected by outages	236,819
Total duration of outages	2,872 minutes (almost 48 hours)
Total number of outages	105
State ranking (number of outages)	6
Average number of people affected per outage	2,368
Average duration of outage	29 minutes

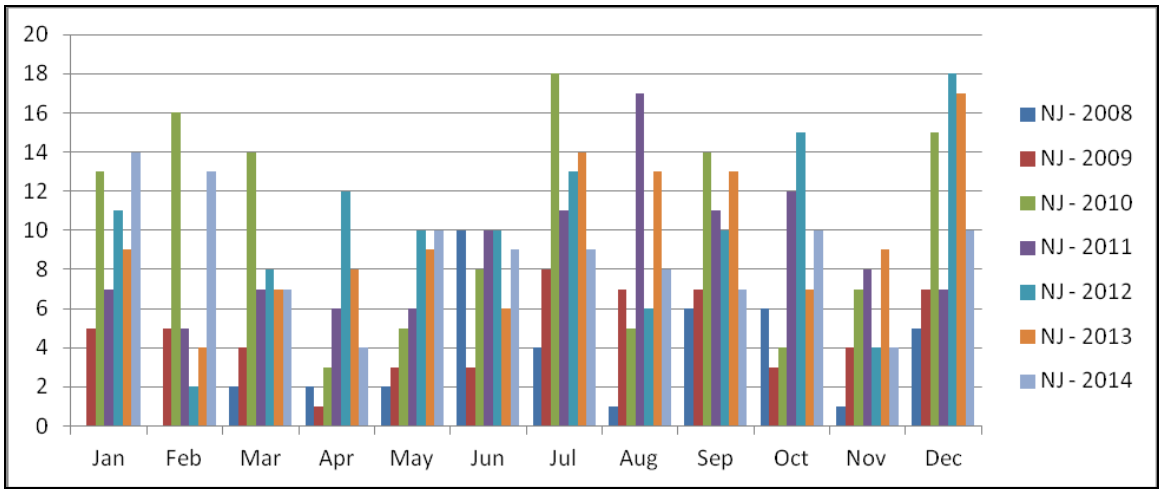
Note: Total number of people affected (and average) based on 65 (62%) of the total reported outages. Total duration of outages (and average) based on 10 (9%) of the total reported outages.

Outage fact: On Dec. 12 a raccoon caused an outage that cut power to more than 12,000 customers in Jersey City, and shut down much of the service on the PATH Train system for about an hour and a half.

Reported power outages by cause



Reported power outages by month



New Mexico

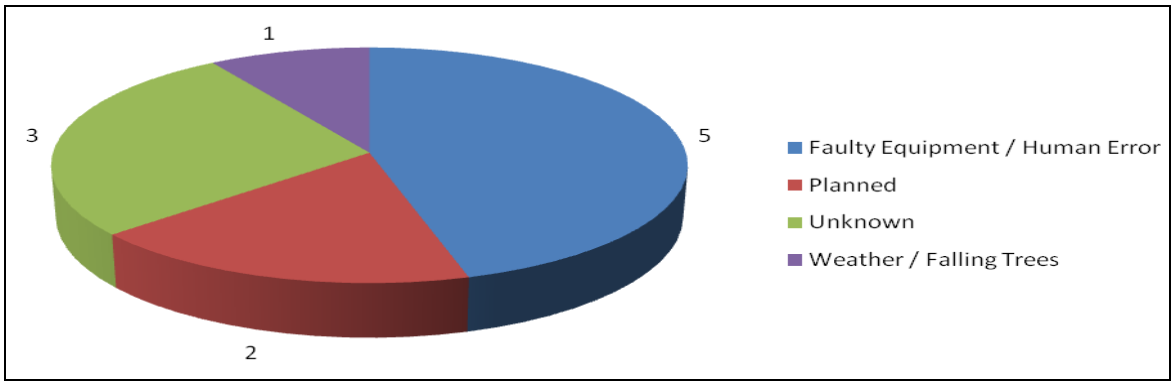
Outage summary

Total number of people affected by outages	10,753
Total duration of outages	180 minutes
Total number of outages	11
State ranking (number of outages)	40 (tie)
Average number of people affected per outage	978
Average duration of outage	16 minutes

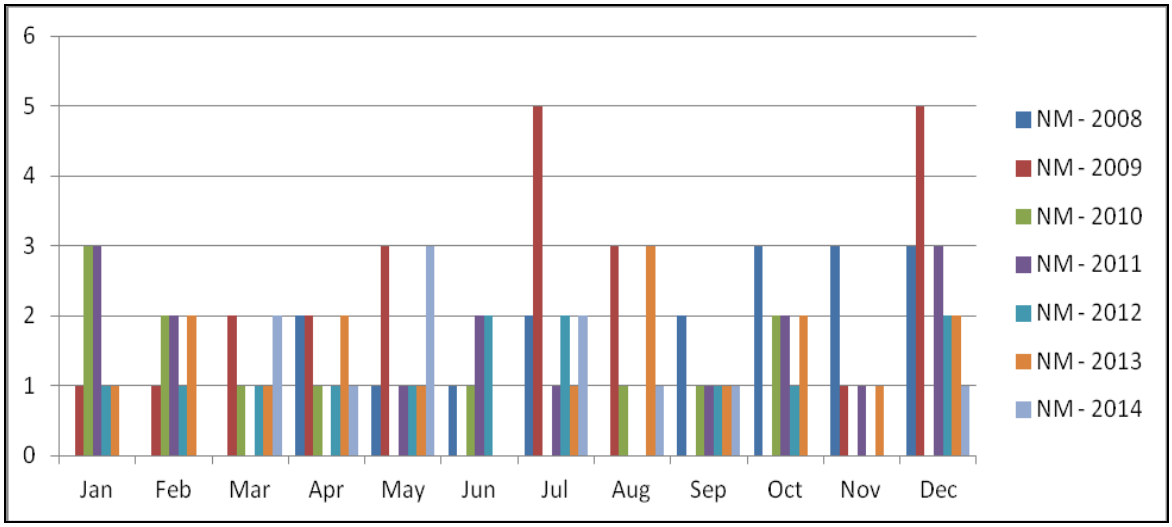
Note: Total number of people affected (and average) based on 5 (45%) of the total reported outages. Total duration of outages (and average) based on 1 (9%) of the total reported outages.

Outage fact: On Sept. 8 Santa Fe Community College cancelled classes because of an equipment-related outage. The utility said there was problem with the power system in the college's neighborhood over the weekend and when workers tried to bring up campus power, the SFCC system suffered a major circuit break.

Reported power outages by cause



Reported power outages by month



New York

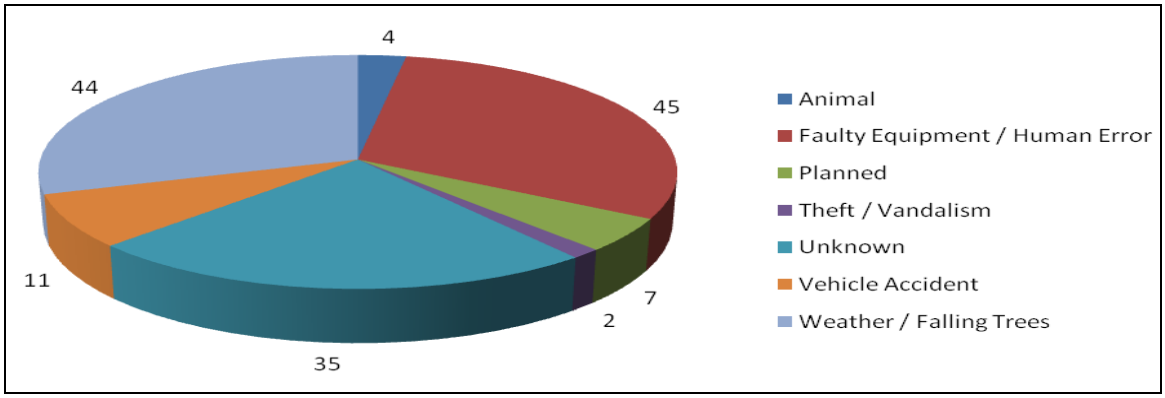
Outage summary

Total number of people affected by outages	881,515
Total duration of outages	6,128 minutes (4 1/4 days)
Total number of outages	148
State ranking (number of outages)	4 (tie)
Average number of people affected per outage	5,956
Average duration of outage	42 minutes

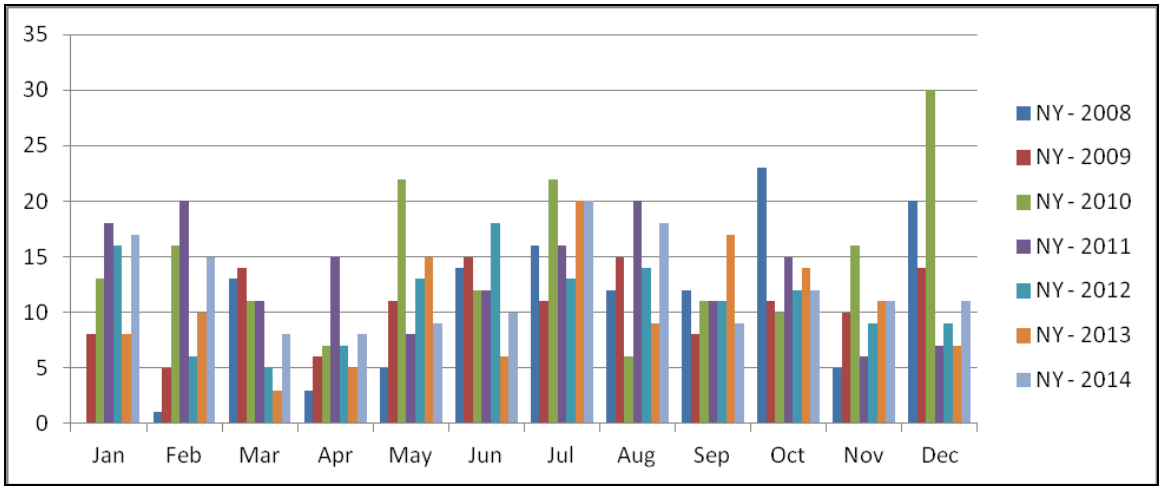
Note: Total number of people affected (and average) based on 82 (55%) of the total reported outages. Total duration of outages (and average) based on 27 (18%) of the total reported outages.

Outage fact: On July 9, a raging summer storm cut power to some 500,000 New Yorkers. A meteorologist for the National Weather Service said the storms in and around Madison County "exhibited a lot of rotation," and tornado warnings were issued during the evening.

Reported power outages by cause



Reported power outages by month



North Carolina

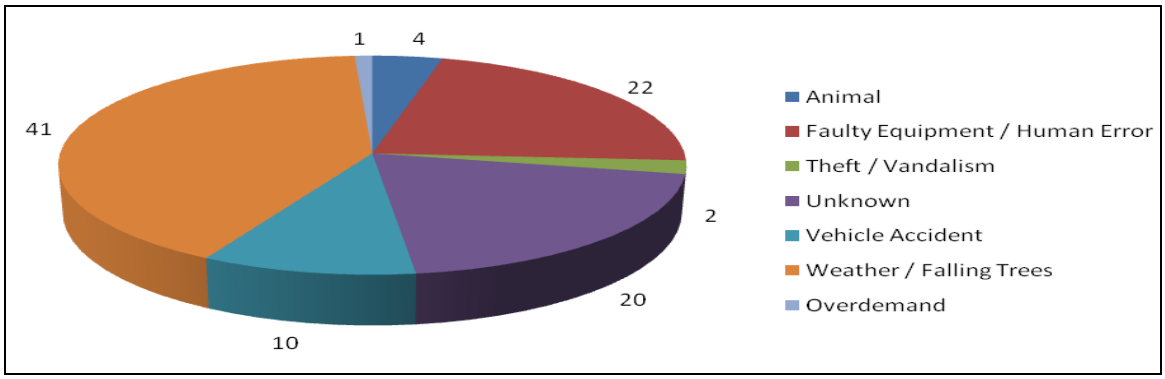
Outage summary

Total number of people affected by outages	410,763
Total duration of outages	8,813 minutes (more than 6 days)
Total number of outages	100
State ranking (number of outages)	9
Average number of people affected per outage	4,108
Average duration of outage	94 minutes

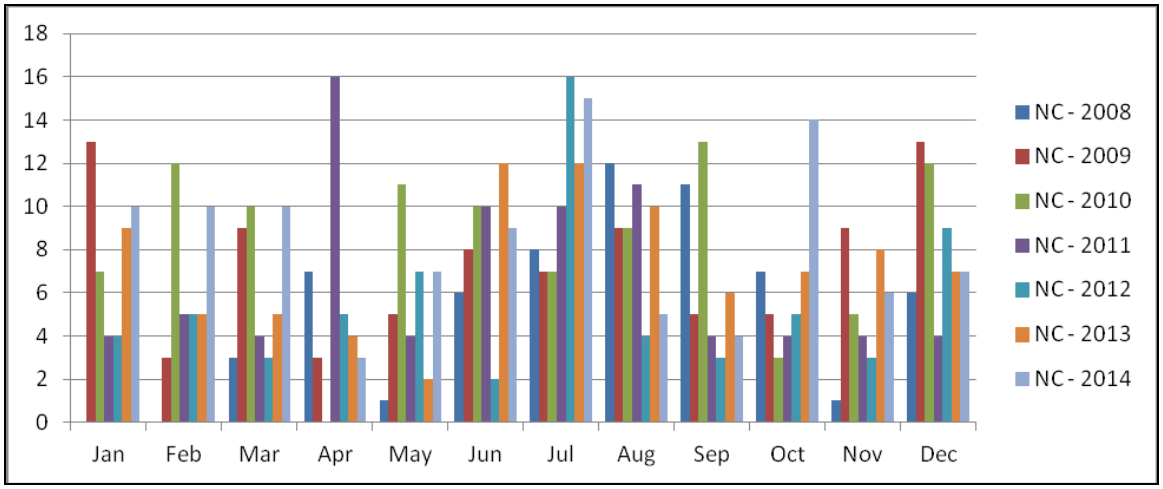
Note: Total number of people affected (and average) based on 64 (64%) of the total reported outages. Total duration of outages (and average) based on 18 (18%) of the total reported outages.

Outage fact: A cat apparently got into some substation equipment on July 30, knocking out power to about 6,200 customers on the south side of Wilmington.

Reported power outages by cause



Reported power outages by month



North Dakota

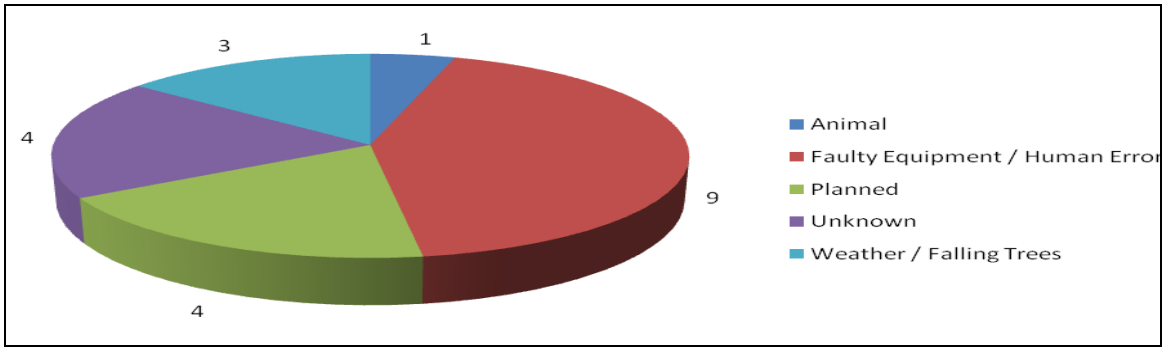
Outage summary

Total number of people affected by outages	29,239
Total duration of outages	745 minutes (more than 12 hours)
Total number of outages	21
State ranking (number of outages)	36 (tie)
Average number of people affected per outage	1,392
Average duration of outage	39 minutes

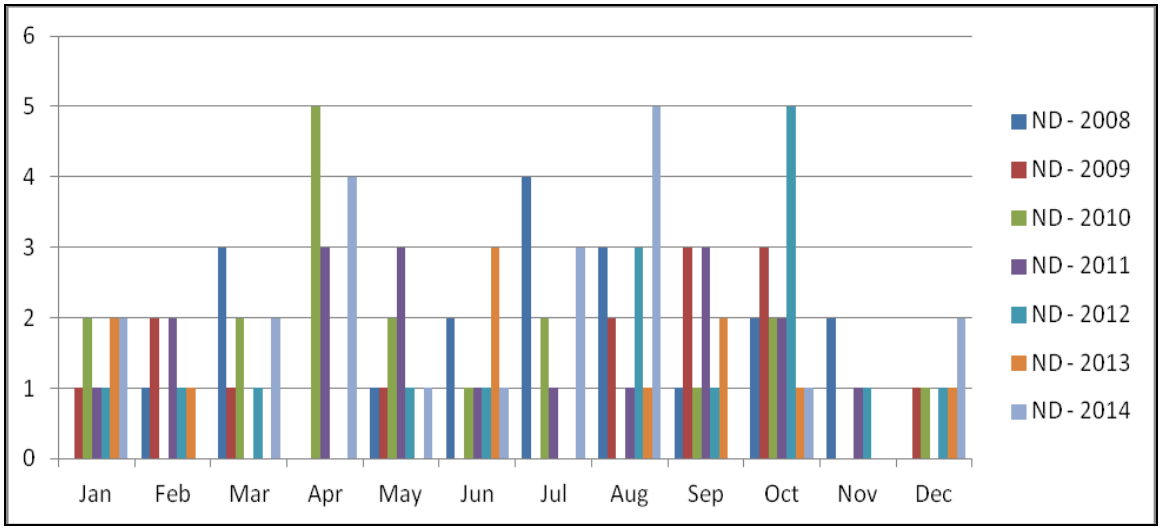
Note: Total number of people affected (and average) based on 14 (67%) of the total reported outages. Total duration of outages (and average) based on 9 (43%) of the total reported outages.

Outage fact: The F-M Redhawks had to start their June 23 game without power after a contractor dug into some equipment in Fargo, cutting electricity to 2,000 people. The game started on time although players and fans had to do without a scoreboard.

Reported power outages by cause



Reported power outages by month



Ohio

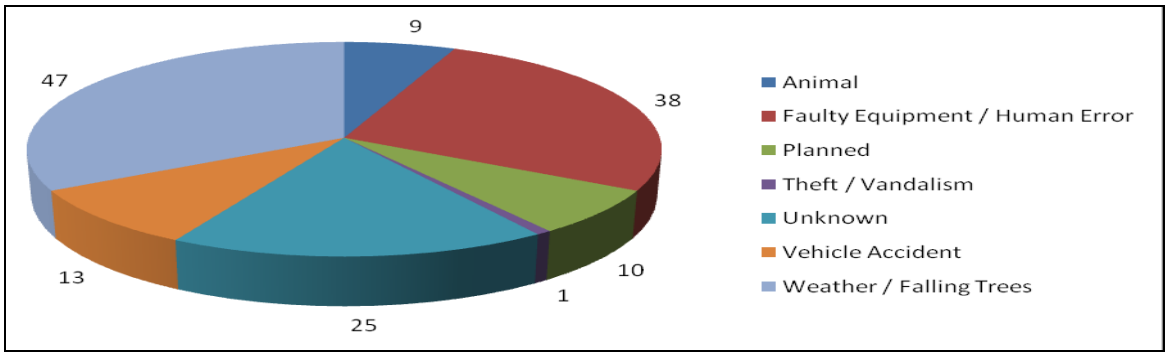
Outage summary

Total number of people affected by outages	410,118
Total duration of outages	8,242 minutes (almost 6 days)
Total number of outages	143
State ranking (number of outages)	5
Average number of people affected per outage	2,950
Average duration of outage	60 minutes

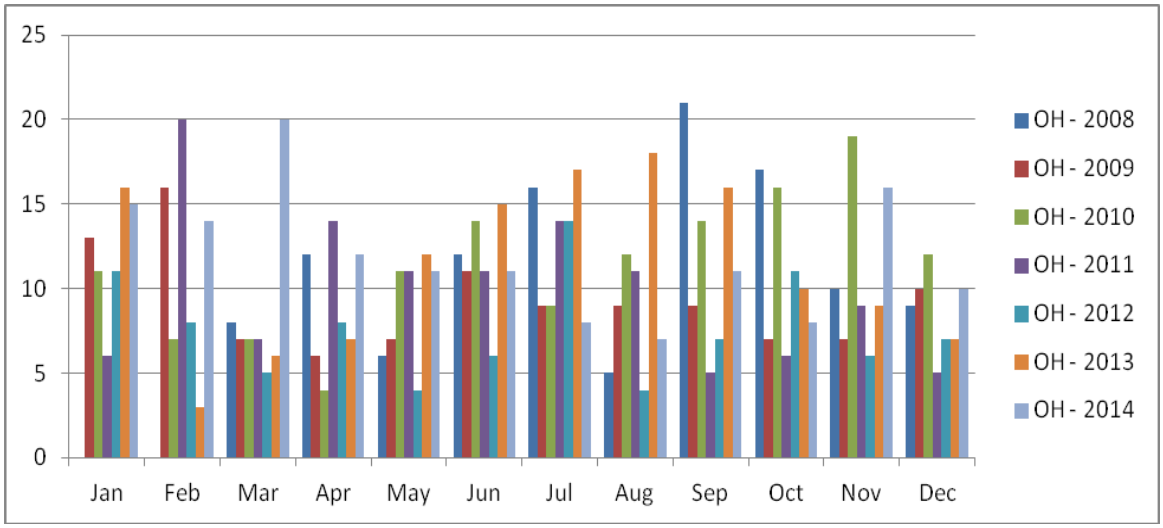
Note: Total number of people affected (and average) based on 108 (75%) of the total reported outages. Total duration of outages (and average) based on 24 (17%) of the total reported outages.

Outage fact: On July 7, a bird's nest fire burned through a cable and set off a safety switch that shut down the power to more than 4,000 customers in Seneca County.

Reported power outages by cause



Reported power outages by month



Oklahoma

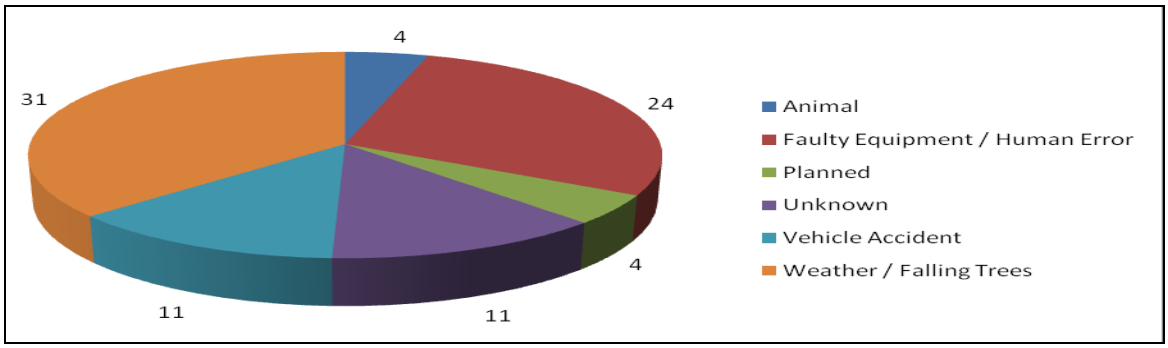
Outage summary

Total number of people affected by outages	132,214
Total duration of outages	3,691 minutes (2 ½ days)
Total number of outages	85
State ranking (number of outages)	12
Average number of people affected per outage	1,612
Average duration of outage	45 minutes

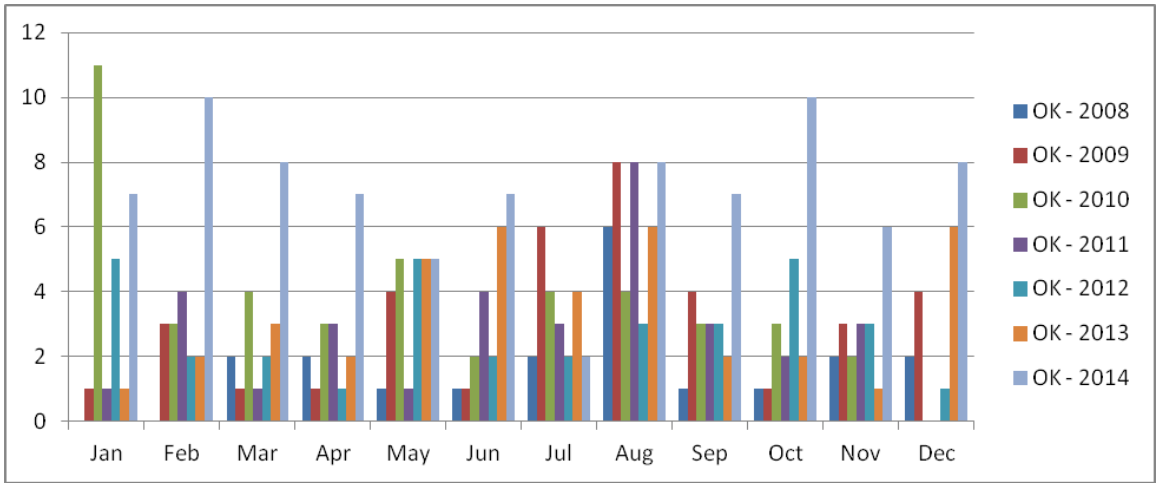
Note: Total number of people affected (and average) based on 54 (64%) of the total reported outages. Total duration of outages (and average) based on 15 (18%) of the total reported outages.

Outage fact: On April 27, an EF2 tornado with estimated peak winds of 115 to 125 mph struck Quapaw, knocking out power to 1,285 customers.

Reported power outages by cause



Reported power outages by month



Oregon

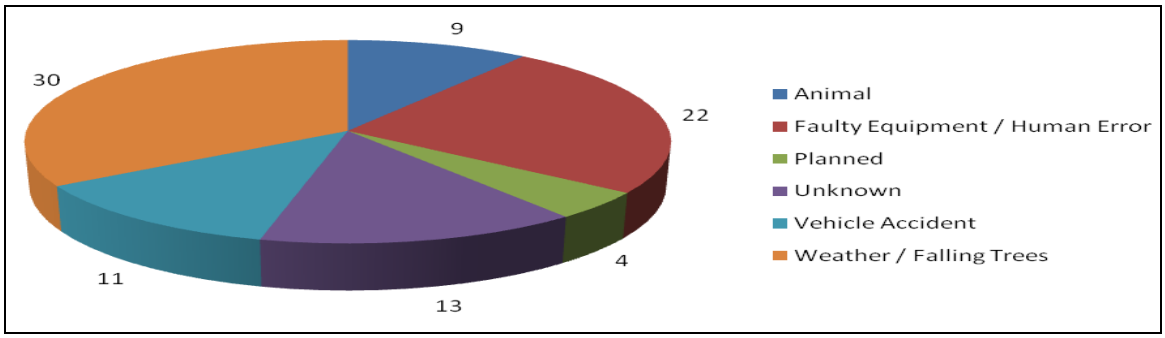
Outage summary

Total number of people affected by outages	416,137
Total duration of outages	3,453 minutes (almost 2 ½ days)
Total number of outages	89
State ranking (number of outages)	11
Average number of people affected per outage	4,729
Average duration of outage	40 minutes

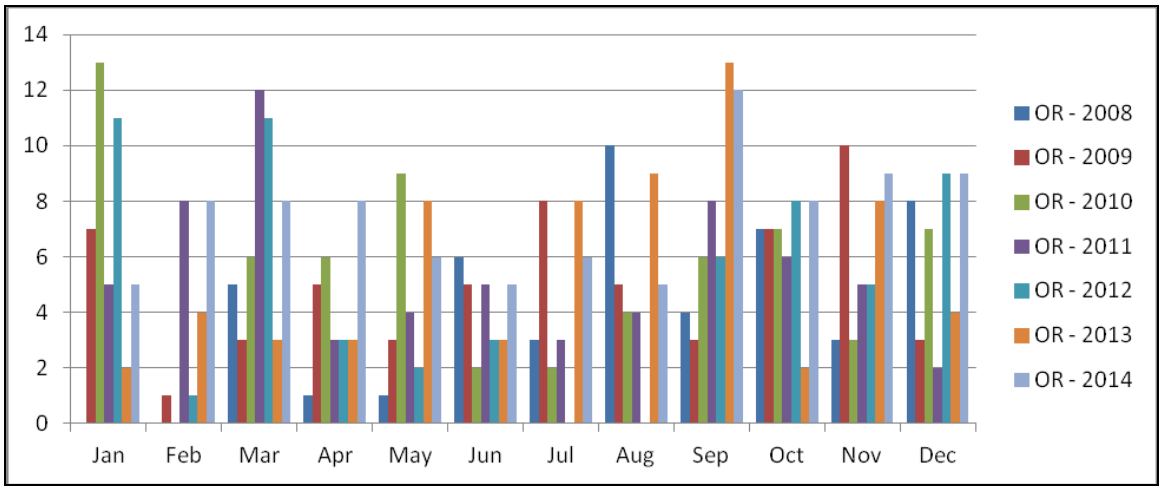
Note: Total number of people affected (and average) based on 63 (70%) of the total reported outages. Total duration of outages (and average) based on 17 (19%) of the total reported outages.

Outage fact: A Nov. 14 ice storm left some customers in rural Benton County powerless for days. In all, 2,100 people were affected by the power cut.

Reported power outages by cause



Reported power outages by month



Pennsylvania

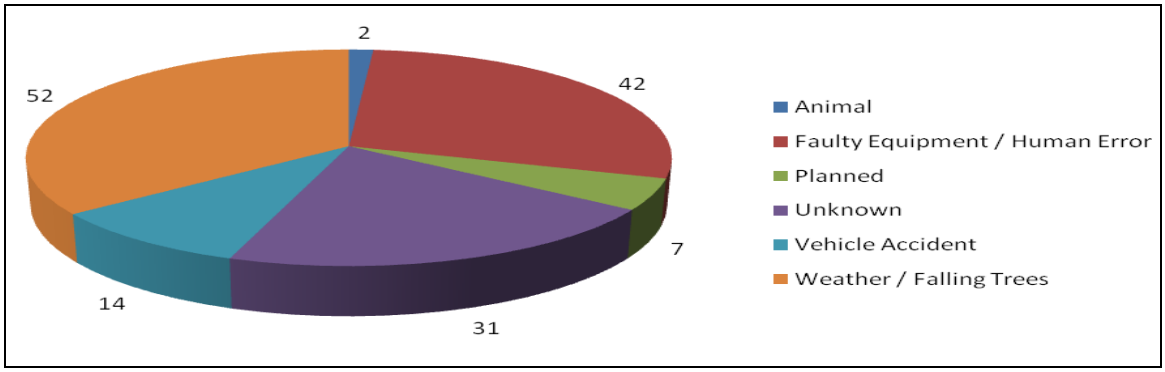
Outage summary

Total number of people affected by outages	1,633,594
Total duration of outages	5,434 minutes (nearly 4 days)
Total number of outages	148
State ranking (number of outages)	4 (tie)
Average number of people affected per outage	11,266
Average duration of outage	38 minutes

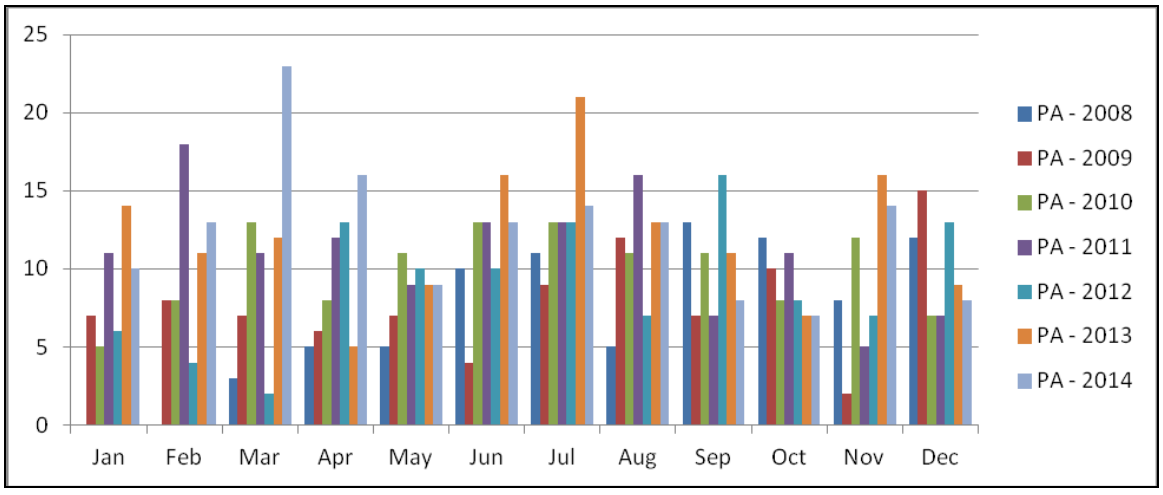
Note: Total number of people affected (and average) based on 99 (67%) of the total reported outages. Total duration of outages (and average) based on 21 (14%) of the total reported outages.

Outage fact: A building scheduled for demolition after being gutted by a fire collapsed from wind and rain, spraying bricks onto the sidewalk and street and knocking out power August 11. The building pulled power wires off utility poles as it collapsed, affecting 809 customers in Philipsburg.

Reported power outages by cause



Reported power outages by month



Rhode Island

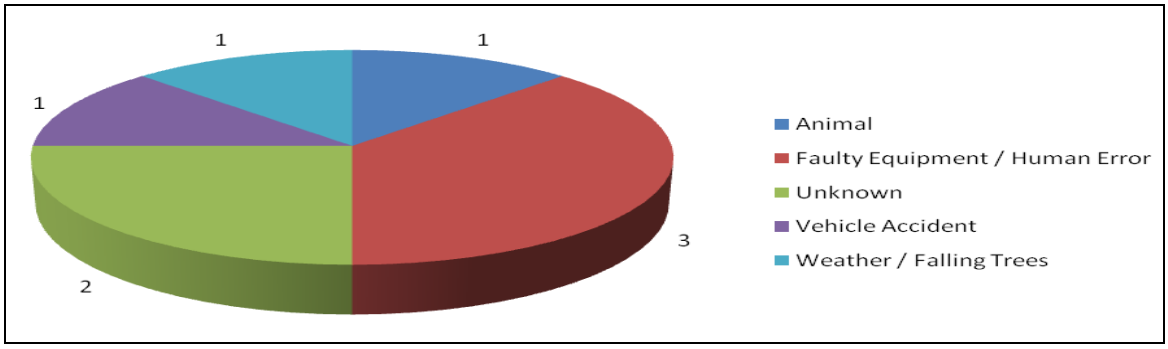
Outage summary

Total number of people affected by outages	19,863
Total duration of outages	210 minutes
Total number of outages	8
State ranking (number of outages)	41
Average number of people affected per outage	2,483
Average duration of outage	26 minutes

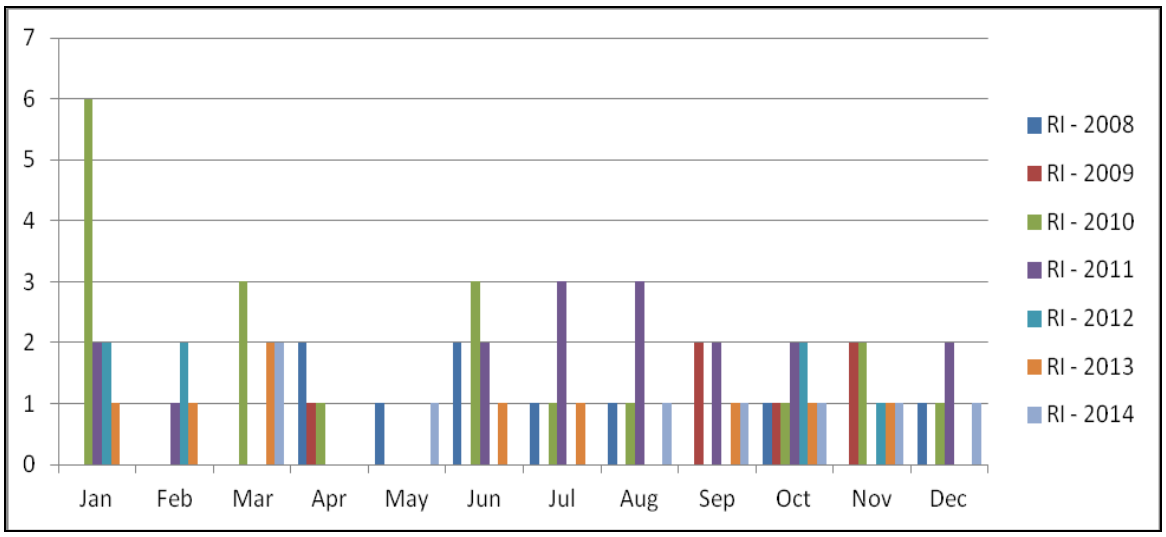
Note: Total number of people affected (and average) based on 5 (63%) of the total reported outages. Total duration of outages (and average) based on 2 (25%) of the total reported outages.

Outage fact: On Oct. 21, a curious squirrel got into a metal pipe that carries electricity, which damaged power station equipment and caused an outage that darkened City Hall, as well as federal and state courthouses. Some 4,500 customers had no electricity for almost 2 hours.

Reported power outages by cause



Reported power outages by month



South Carolina

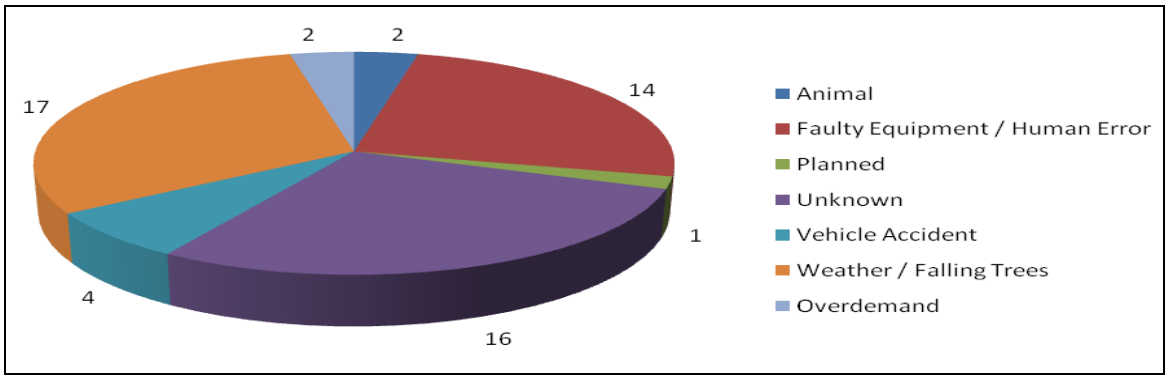
Outage summary

Total number of people affected by outages	381,299
Total duration of outages	225 minutes (almost 4 hours)
Total number of outages	56
State ranking (number of outages)	23 (tie)
Average number of people affected per outage	6,809
Average duration of outage	4 minutes

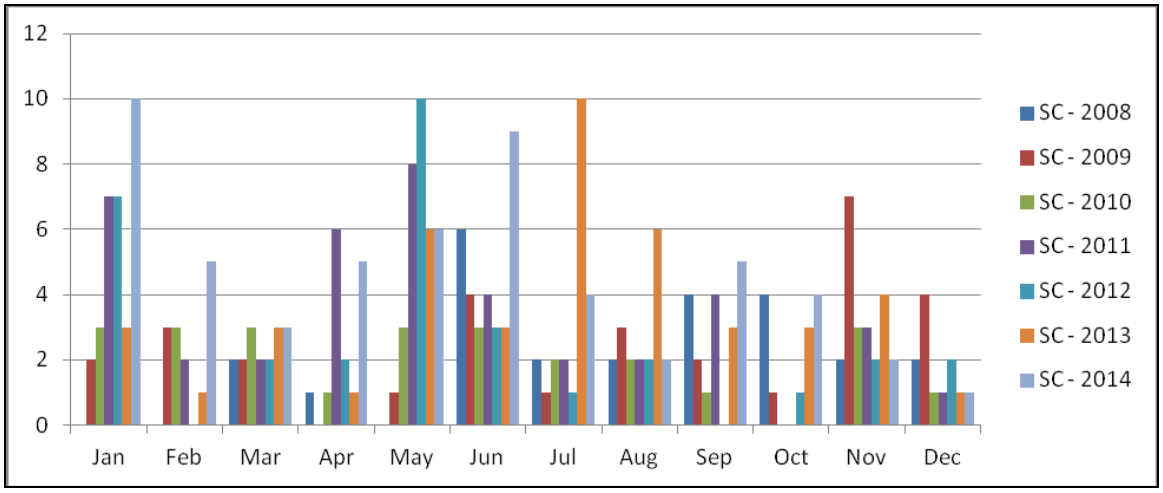
Note: Total number of people affected (and average) based on 35 (63%) of the total reported outages.Total duration of outages (and average) based on 5 (9%) of the total reported outages.

Outage fact: Ice accumulated around the state on Feb. 12, leaving 157,000 Charleston customers without power, even as crews worked through the night to restore electricity.

Reported power outages by cause



Reported power outages by month



South Dakota

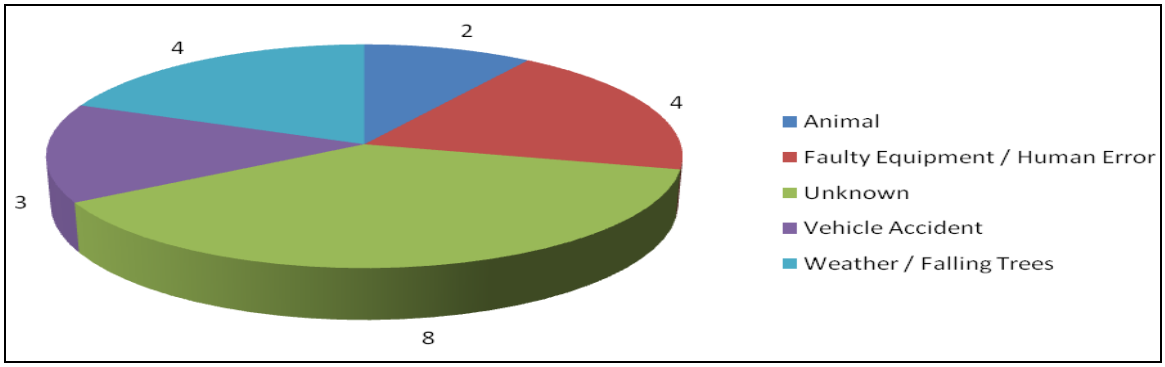
Outage summary

Total number of people affected by outages	60,216
Total duration of outages	557 minutes (more than 9 hours)
Total number of outages	21
State ranking (number of outages)	36 (tie)
Average number of people affected per outage	2,867
Average duration of outage	27 minutes

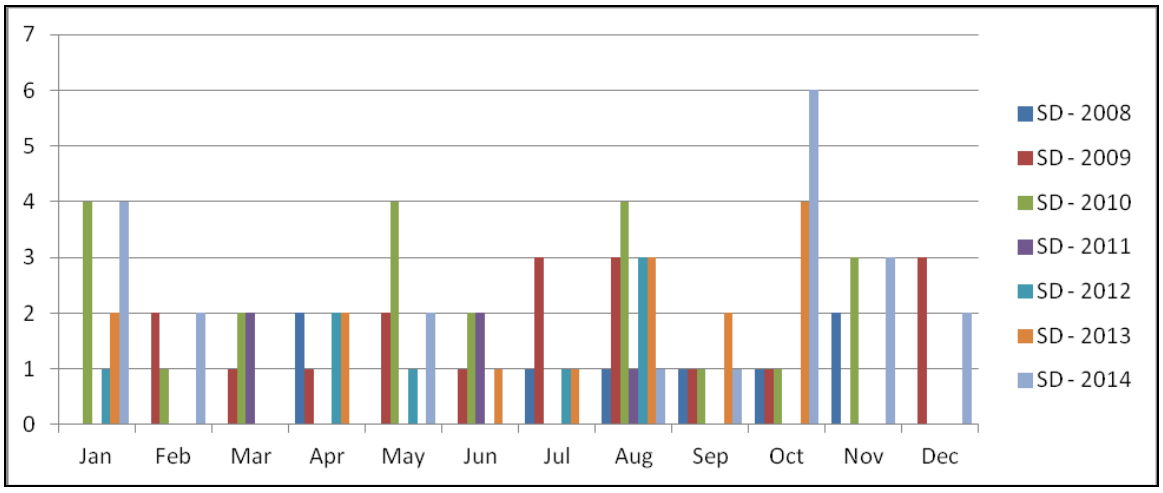
Note: Total number of people affected (and average) based on 17 (81%) of the total reported outages. Total duration of outages (and average) based on 6 (29%) of the total reported outages.

Outage fact: A Sioux Falls teenager faced drunk driving charges following a fiery rollover near Falls Park that caused a May 11 power outage. The car struck a couple of power poles and trees before crashing and catching fire.

Reported power outages by cause



Reported power outages by month



Tennessee

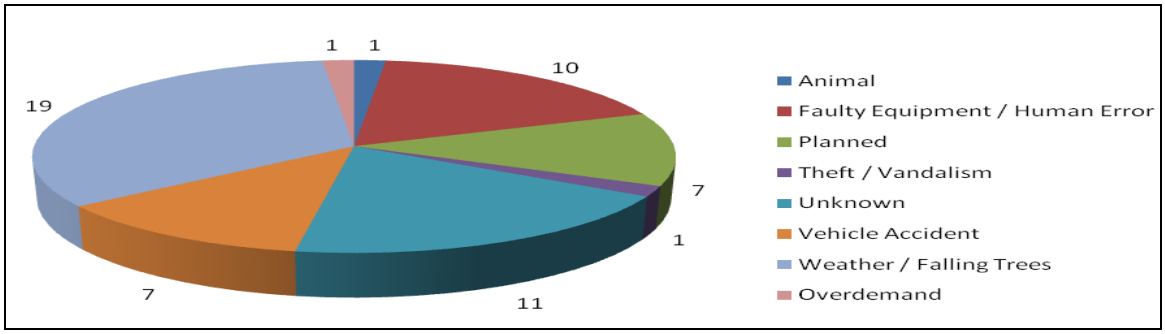
Outage summary

Total number of people affected by outages	209,478
Total duration of outages	1,180 minutes (nearly 20 hours)
Total number of outages	57
State ranking (number of outages)	22
Average number of people affected per outage	3,809
Average duration of outage	21 minutes

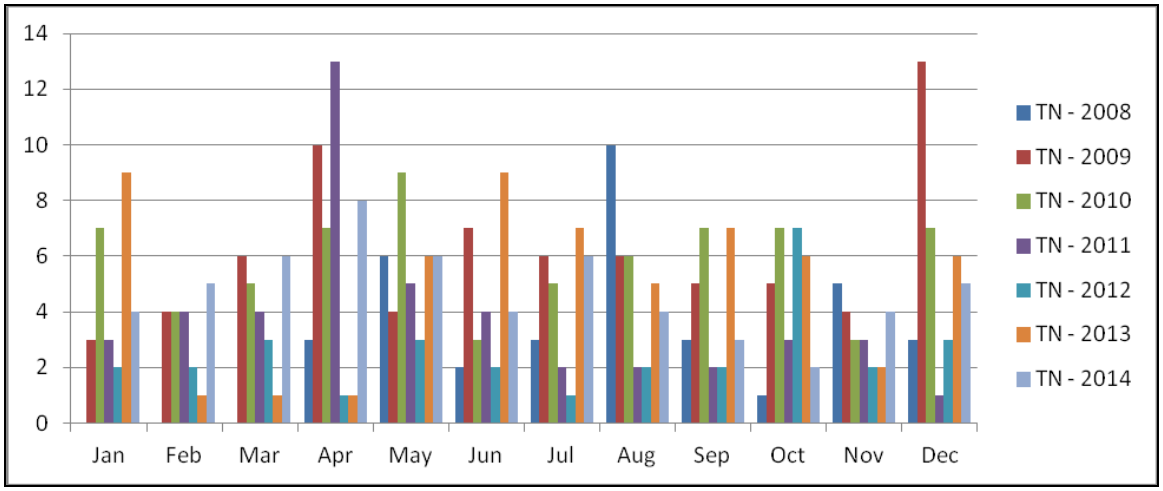
Note: Total number of people affected (and average) based on 35 (61%) of the total reported outages. Total duration of outages (and average) based on 12 (21%) of the total reported outages.

Outage fact: The Tennessee Valley Authority blamed vegetation growth along a 161,000-volt line on Williams Island for at least two power interruptions that cut off power to about 32,000 homes and businesses on May 14.

Reported power outages by cause



Reported power outages by month



Texas

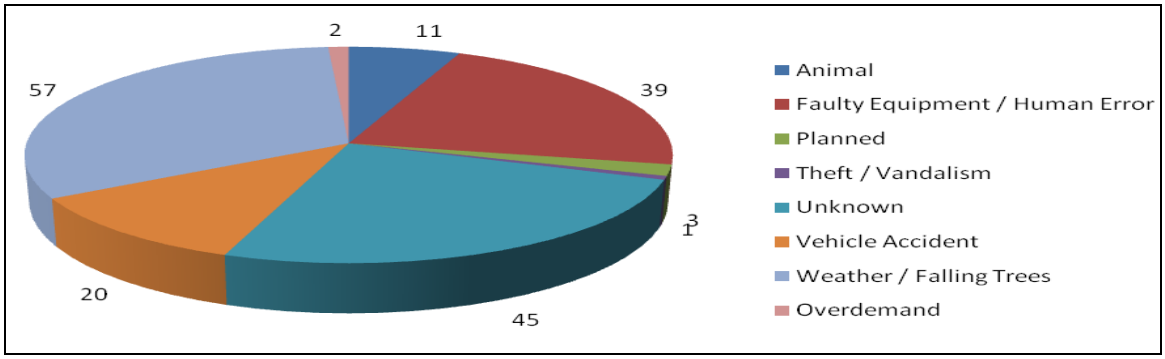
Outage summary

Total number of people affected by outages	818,506
Total duration of outages	2,386 minutes (more than 1 ½ days)
Total number of outages	178
State ranking (number of outages)	2
Average number of people affected per outage	4,624
Average duration of outage	14 minutes

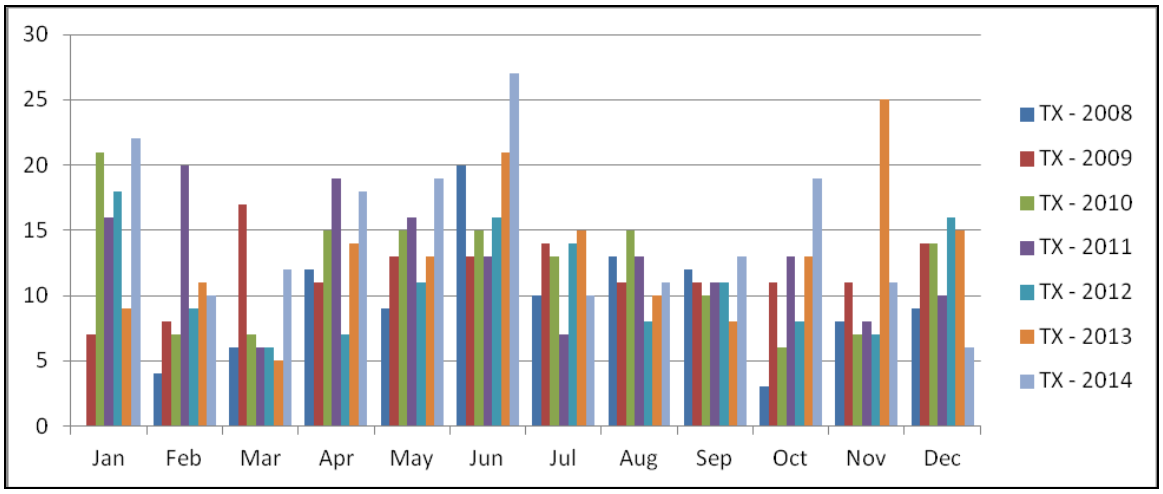
Note: Total number of people affected (and average) based on 115 (65%) of the total reported outages. Total duration of outages (and average) based on 25 (14%) of the total reported outages.

Outage fact: In Navasota, 1,500 customers lost power on Jan. 22 when a vulture flew into a substation. The bird's wingspan connected with two high-volt conductors, shutting down the system for an hour.

Reported power outages by cause



Reported power outages by month



Utah

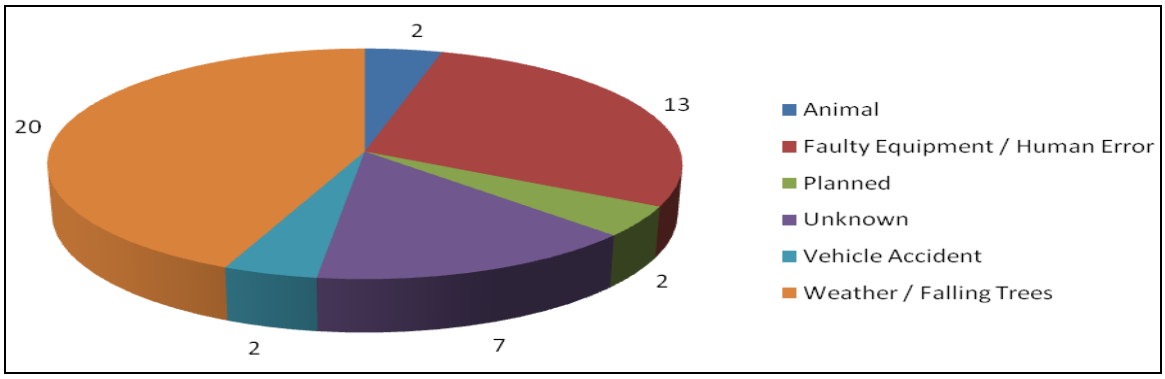
Outage summary

Total number of people affected by outages	126,569
Total duration of outages	1,994 minutes (almost 1 1/2 days)
Total number of outages	46
State ranking (number of outages)	27
Average number of people affected per outage	2,752
Average duration of outage	43 minutes

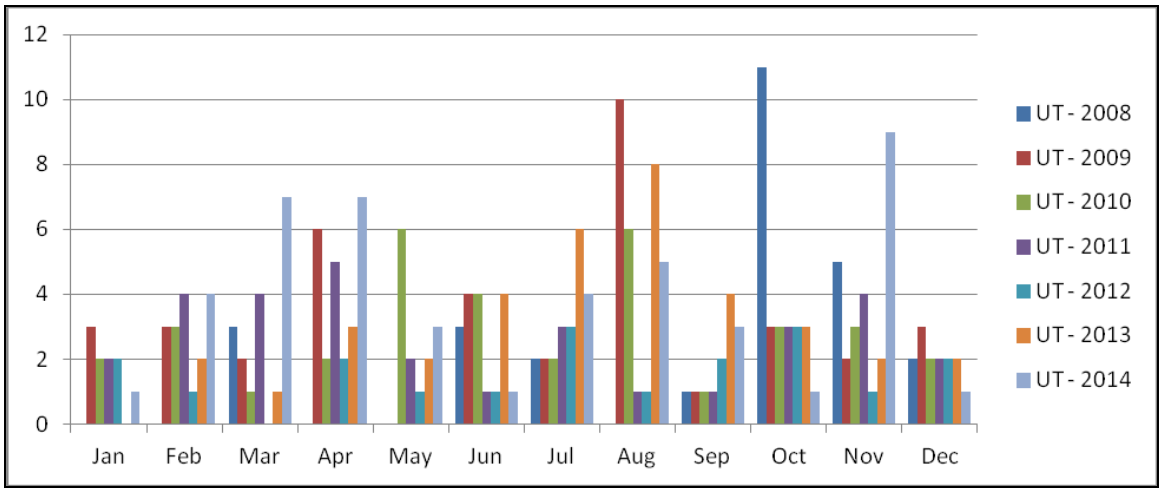
Note: Total number of people affected (and average) based on 33 (72%) of the total reported outages. Total duration of outages (and average) based on 12 (26%) of the total reported outages.

Outage fact: On July 24, the Tunnel Hollow fire burned through several utility poles, cutting power to 1883 customers in Morgan for 2 ½ hours.

Reported power outages by cause



Reported power outages by month



Vermont

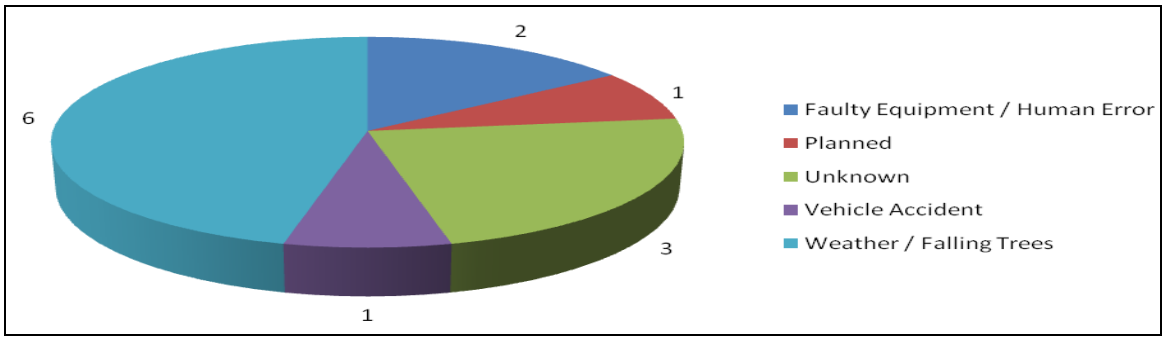
Outage summary

Total number of people affected by outages	45,126
Total duration of outages	480 minutes (8 hours)
Total number of outages	13
State ranking (number of outages)	38
Average number of people affected per outage	3,761
Average duration of outage	40 minutes

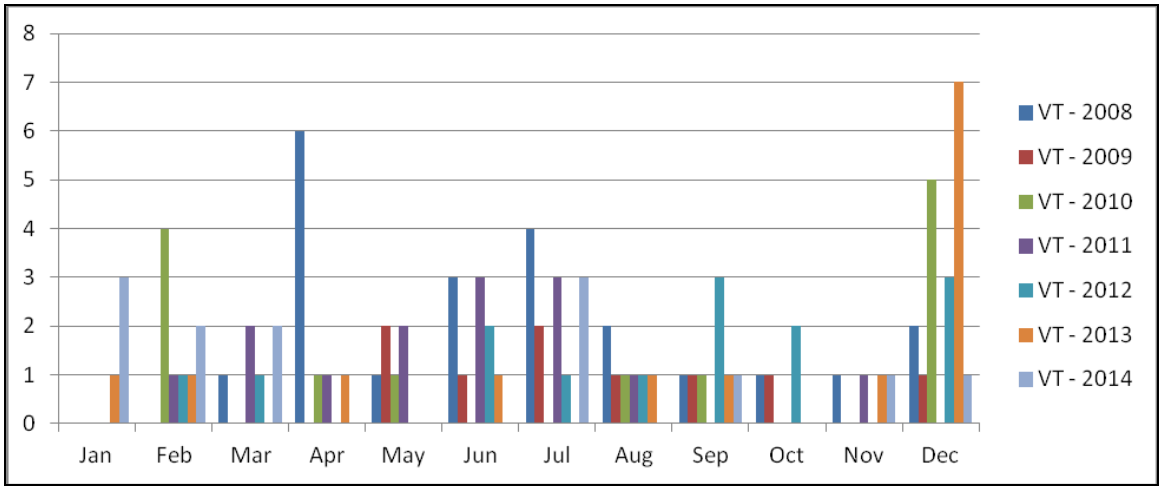
Note: Total number of people affected (and average) based on 8 (62%) of the total reported outages. Total duration of outages (and average) based on 2 (15%) of the total reported outages.

Outage fact: On Jan. 16, melting ice took a toll on Burlington utility equipment, causing an outage that affected many buildings on the UVM central campus.

Reported power outages by cause



Reported power outages by month



Virginia

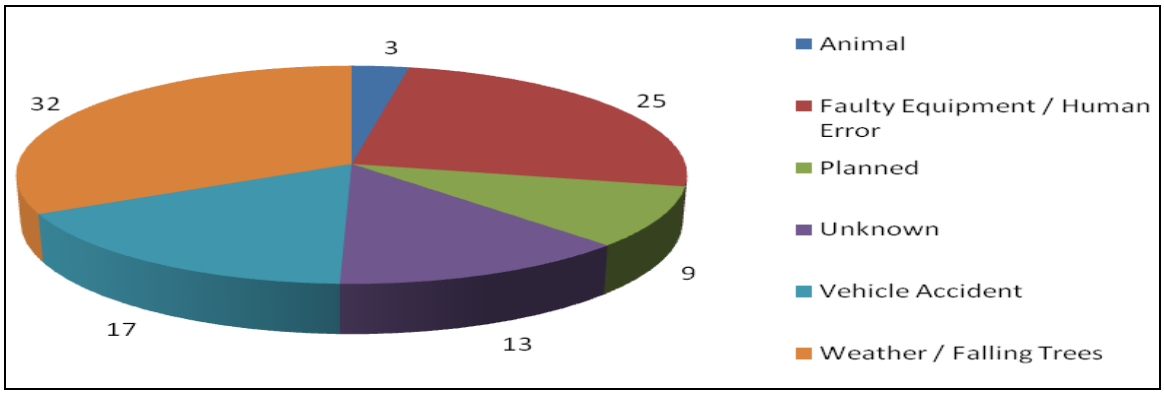
Outage summary

Total number of people affected by outages	389,754
Total duration of outages	7,368 minutes (more than 5 days)
Total number of outages	99
State ranking (number of outages)	10
Average number of people affected per outage	4,060
Average duration of outage	82 minutes

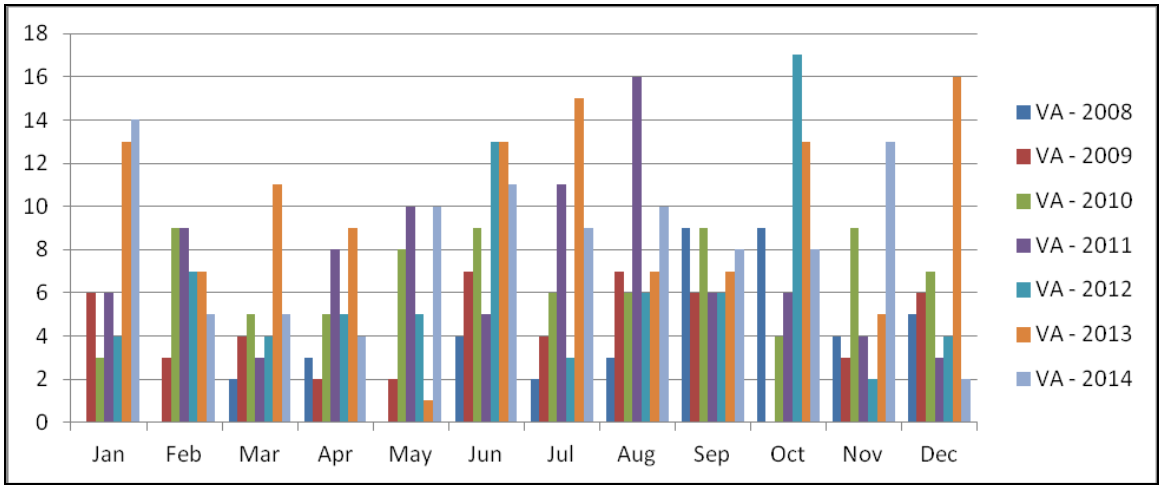
Note: Total number of people affected (and average) based on 71 (72%) of the total reported outages. Total duration of outages (and average) based on 16 (16%) of the total reported outages.

Outage fact: On July 8, a storm packing winds of up to 70 mph knocked out power to 70,000 Fairfax County customers.

Reported power outages by cause



Reported power outages by month



Washington

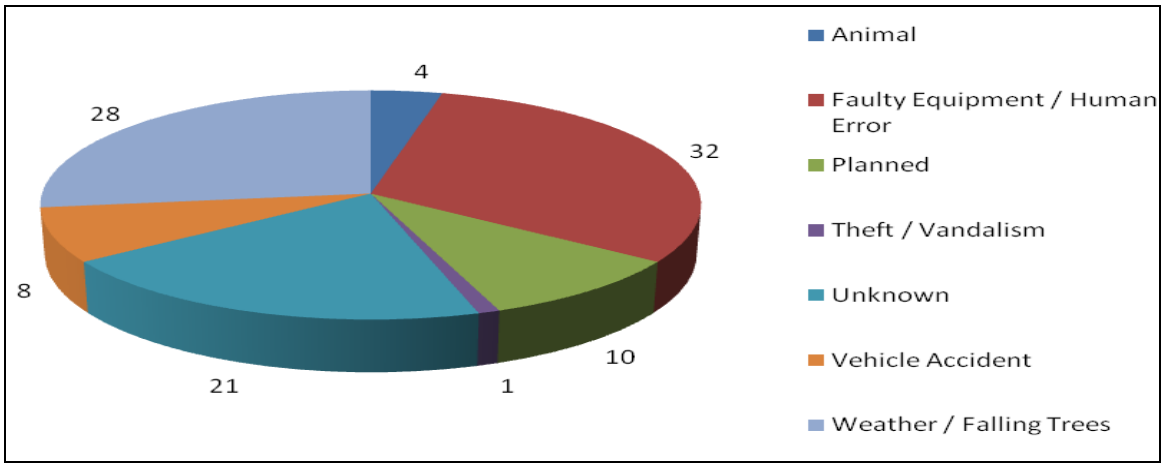
Outage summary

Total number of people affected by outages	501,980
Total duration of outages	6,102 minutes (4 1/4 days)
Total number of outages	104
State ranking (number of outages)	7
Average number of people affected per outage	4,827
Average duration of outage	60 minutes

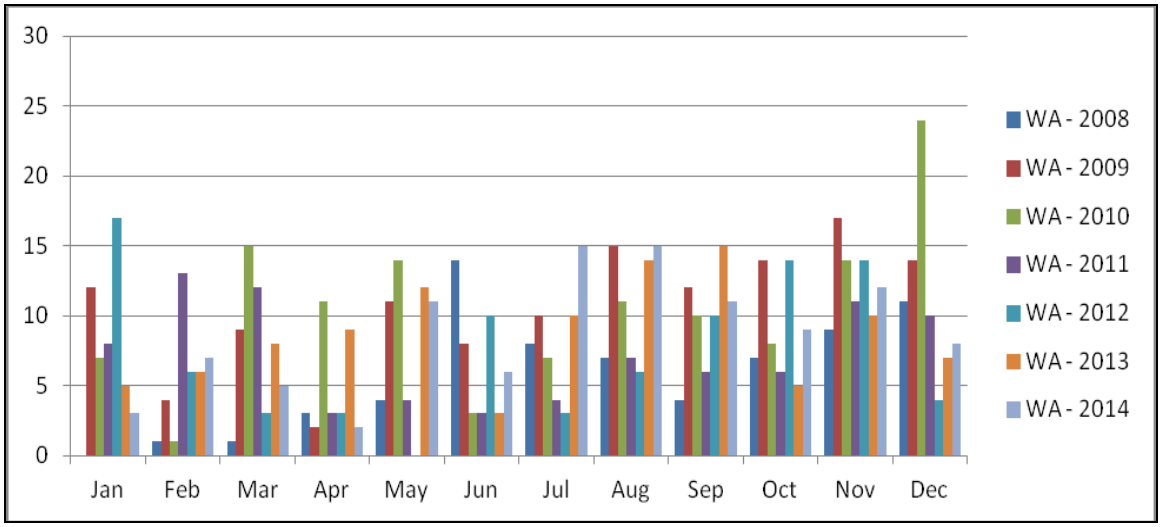
Note: Total number of people affected (and average) based on 66 (63%) of the total reported outages. Total duration of outages (and average) based on 25 (24%) of the total reported outages.

Outage fact: On Sept. 26, a small landslide sent a tree into power lines in the town of Clinton, causing an outage. A concrete retaining wall kept the tree from smashing into a home.

Reported power outages by cause



Reported power outages by month



West Virginia

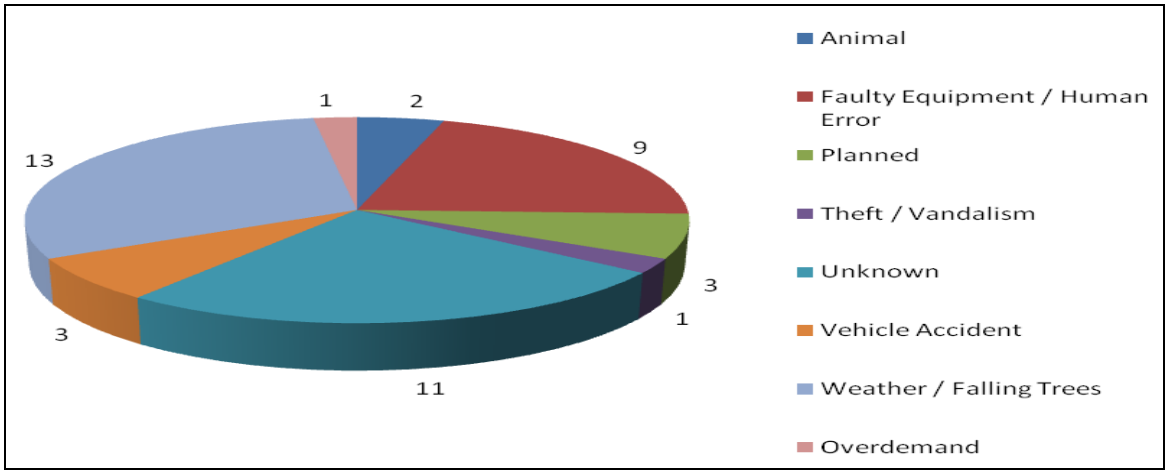
Outage summary

Total number of people affected by outages	137,906
Total duration of outages	1,020 minutes (17 hours)
Total number of outages	43
State ranking (number of outages)	29 (tie)
Average number of people affected per outage	3,207
Average duration of outage	26 minutes

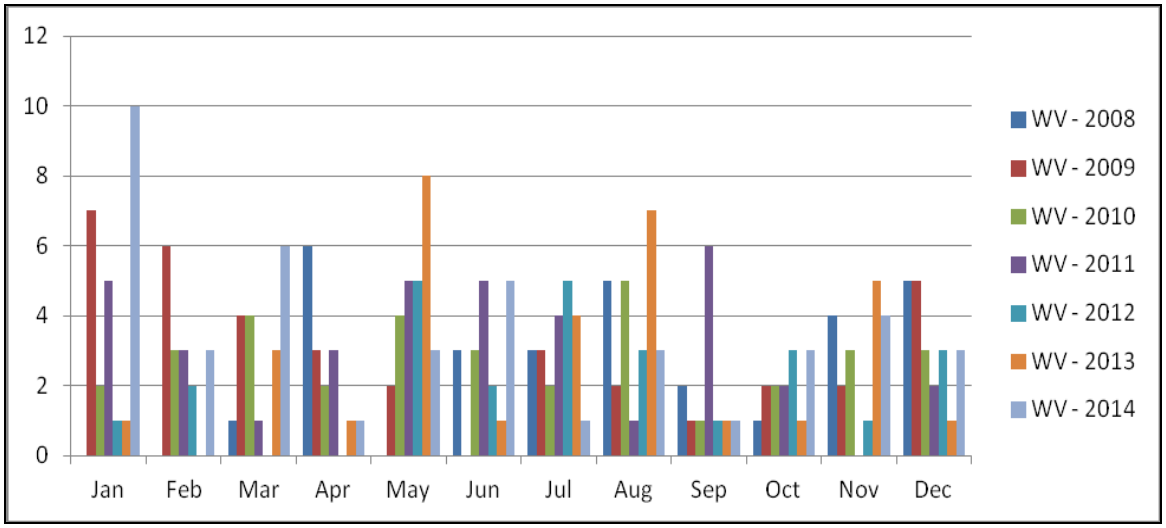
Note: Total number of people affected (and average) based on 35 (76%) of the total reported outages. Total duration of outages (and average) based on 4 (9%) of the total reported outages.

Outage fact: Copper wire theft caused a blackout for 3,000 Huntington customers on Nov. 1 after someone cut the fence at the Park Hills substation and stole the ground wire.

Reported power outages by cause



Reported power outages by month



Wisconsin

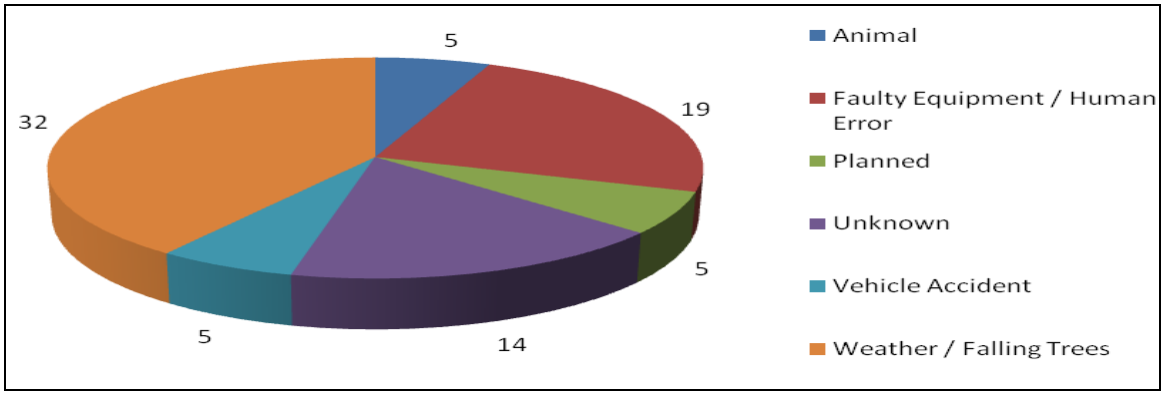
Outage summary

Total number of people affected by outages	355,073
Total duration of outages	2,975 minutes (almost 50 hours)
Total number of outages	80
State ranking (number of outages)	13
Average number of people affected per outage	4,438
Average duration of outage	39 minutes

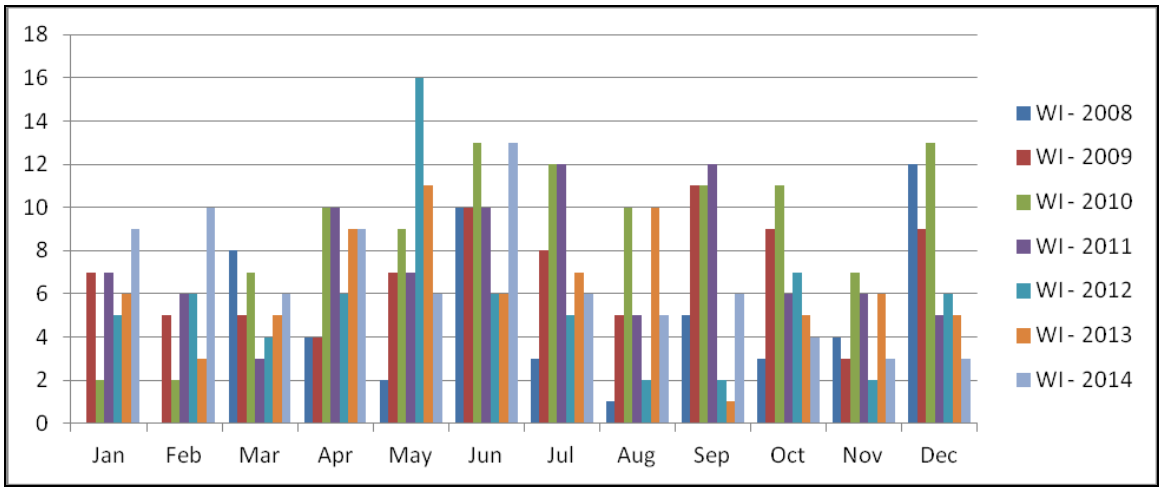
Note: Total number of people affected (and average) based on 63 (79%) of the total reported outages. Total duration of outages (and average) based on 20 (25%) of the total reported outages.

Outage fact: On Jan. 12, 300 Milwaukee customers lost power after a cast iron pipe in a portion of a building's sprinkler system burst, resulting in 4 feet of water seeping into the basement garage. Crews weren't sure why power went out in buildings located up to 3 blocks away.

Reported power outages by cause



Reported power outages by month



Wyoming

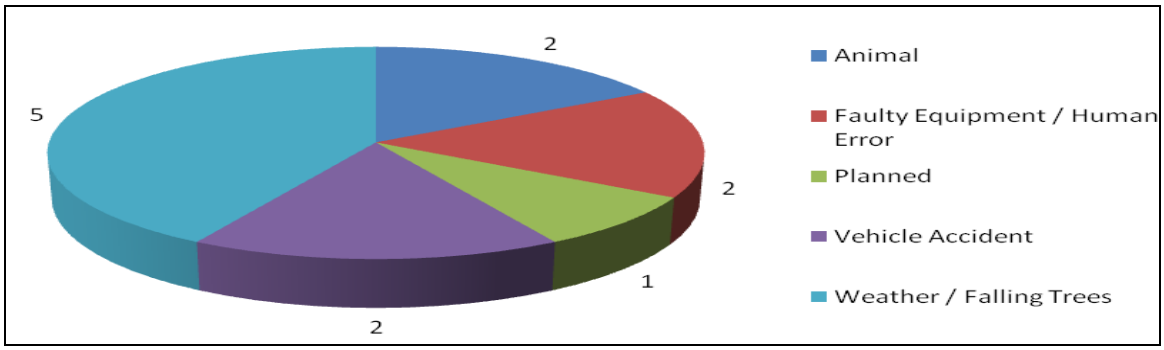
Outage summary

Total number of people affected by outages	12,173
Total duration of outages	376 minutes (more than 6 hours)
Total number of outages	12
State ranking (number of outages)	39
Average number of people affected per outage	1,014
Average duration of outage	31 minutes

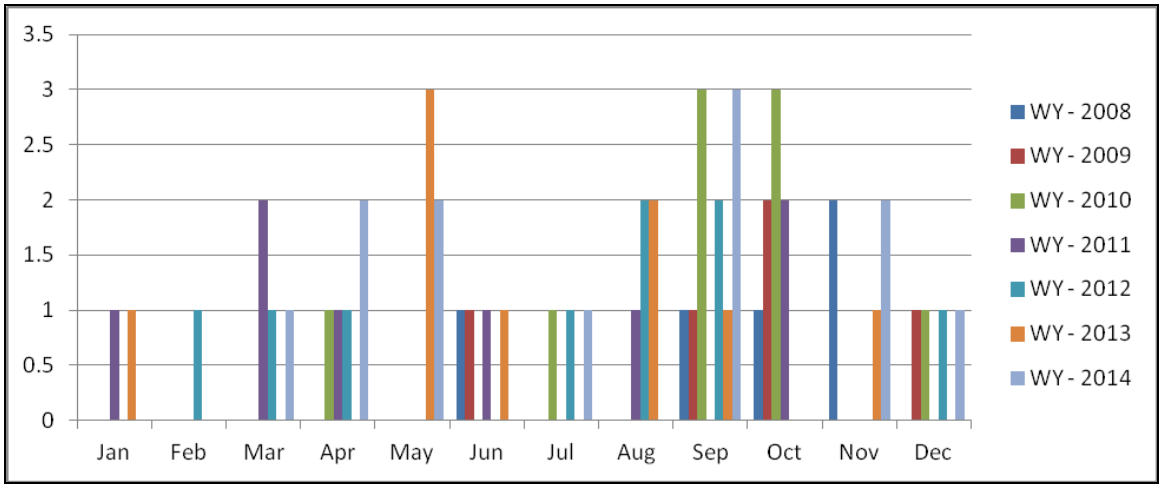
Note: Total number of people affected (and average) based on 8 (67%) of the total reported outages. Total duration of outages (and average) based on 3 (25%) of the total reported outages.

Outage fact: A construction crane struck a power line in Casper April 8, knocking out electricity to 2,100 customers.

Reported power outages by cause



Reported power outages by month



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Printed in USA
MZ153017EN
February 2015