

Recent history: Most of BC Hydro's worst storms happened in the past five years



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Storm season has arrived after one of the driest summers on record, which left drought damaged trees across the province more susceptible to wind, with the potential to result in more power outages this year. B.C. has already experienced two significant storms this season, impacting nearly 350,000 customers in total. But this year is not an exception—from heat waves and flooding to severe snow and windstorms, BC Hydro has seen an increase in significant weather events over the past five years, which have led to some of the most damaging fall and winter storms in BC Hydro's history.

Highlights

- A new survey¹ conducted on behalf of BC Hydro finds three in five British Columbians say the worst fall/winter storm they have ever experienced in B.C. has been within the past five years.
- New BC Hydro data supports this finding, showing severe weather events have led to some of the most damaging storms in BC Hydro's history, with most occurring in the past three to five years.
- Most recent top storms have been made worse by unusually dry conditions that weakened trees and vegetation, making them more susceptible to falling on BC Hydro's electrical infrastructure.
- BC Hydro measures the severity of a storm based on damage to its system and number of customer outages. BC Hydro's top fall/winter storms of all time include:
 - **2018 windstorm:** Over 750,000 customers on the South Coast in December were affected. The storm was so destructive because winds came from three different directions, topping 100 kilometres per hour in some areas. Also, more than 400 millimetres of rain fell in some areas in the week before the storm hit, which destabilized healthy trees.
 - **2022 windstorm:** About 420,000 customers in the Lower Mainland, Sunshine Coast, Gulf Islands and Vancouver Island were affected in early November.
 - **2023 windstorm:** 235,000 customers were without power on the South Coast and Vancouver Island in early November.
 - **2021 atmospheric river storm and flooding:** Over 217,000 customers were affected in mid-November.
- Other major storms outside the seasonal and five-year timeframe include the 2015 August windstorm where over 710,000 customers on the South Coast and Southern Interior were affected, and the 2017 ice storm affecting over 217,000 customers across the province.
- 84% of British Columbians recall at least one of these storms, and 55% experienced a power outage during one of these events.
- This is likely why over half (54%) think fall and winter storms are becoming more frequent and 58% feel they are becoming more severe.
 - Those who live in the Lower Mainland and Vancouver Island are the most likely to say storms are becoming more frequent and severe—likely because most of the top storms affected their region.
- Despite increasing storms and more significant weather events, BC Hydro has been able to maintain and even exceed its goal to have 95% of customers restored within 24 hours in most cases.

Solutions

- While storms may be getting worse, many are unprepared—almost a quarter of British Columbians said they have not taken any steps to prepare for weather-related power outages.
- BC Hydro is encouraging customers to prepare for storm-related power outages by having a well-stocked emergency kit with enough goods such as bottled water, batteries and nonperishable food items to last at least 72 hours.
- For more information on how to prepare and stay safe this storm season, visit bchydro.com/staysafe.

¹ Survey of 800 general population British Columbians by Majid Khoury from Oct 19 to 23, 2023. Margin of Error +/-3.46%.

Climate change and storm season

The effects of climate change are becoming more evident in B.C. From heat waves and flooding to severe snow and windstorms, BC Hydro has seen an increase in storms that it has responded to over the past five years.

In fact, a new survey conducted on behalf of BC Hydro finds three in five British Columbians say the worst fall/winter storm they have ever experienced in B.C. has been within the past five years. New BC Hydro data supports this finding, showing severe weather events have led to some of the most damaging storms in BC Hydro's history, with most occurring in the past three to five years.

Top terrible storms

Adverse weather—especially wind—and falling trees or branches, cause more than half of all power outages, and extreme weather is creating new challenges. B.C. has already experienced its first significant storms of the season. The first happened in late October when heavy wind and rains left over 105,000 BC Hydro customers without power on the South Coast and Vancouver Island. The second most recent windstorm was even more significant, leaving 235,000 customers on the South Coast and Vancouver Island in the dark in early November.

Storm season traditionally stretches from November to March; however, there is a trend of storms now beginning earlier in the fall and extending later into the spring. Extreme weather such as heat waves and drought are also becoming more common in the warmer months. With near record-breaking drought this summer and early fall, there is an elevated risk of more weather-related power outages caused by dead or damaged trees and vegetation contacting electrical infrastructure this storm season.



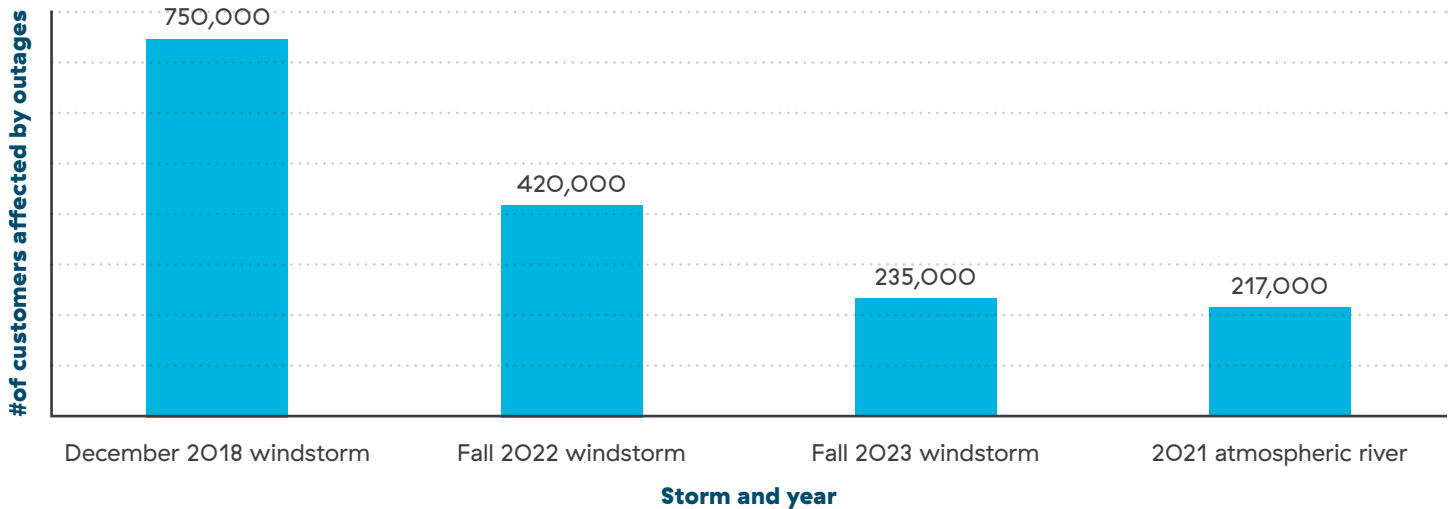
Crews repairing extensive damage in Nanaimo following the December 2018 windstorm, the most destructive in BC Hydro's history.

BC Hydro measures the severity of a storm based on damage to its system and number of customer outages. BC Hydro's top fall/winter storms of all time include the 2018 December windstorm where over 750,000 customers on the South Coast were affected by power outages.

The 2022 November windstorm where 420,000 customers in the Lower Mainland, Sunshine Coast, Gulf Islands and Vancouver Island were affected, the most recent 2023 windstorm affecting over 235,000 customers on the South Coast and Vancouver Island, and the fall 2021 atmospheric river storm and flooding where over 217,000 customers were affected.

Other top major storms outside the seasonal and five-year timeframe include the 2015 August windstorm where over 710,000 customers on the South Coast and Southern Interior were affected, and the 2017 ice storm that resulted in over 217,000 customers experiencing power outages across the province.

BC HYDRO'S WORST STORMS



How BC Hydro prepares for outages

An increase in extreme weather due to climate change is something BC Hydro has been preparing for. In fact, crews prepare year-round for storm season. To improve power outage response times, BC Hydro is using its smart meter network along with advanced technology and processes, including:

- Enhanced prediction logic: using an algorithm and the smart meter network, BC Hydro's system can confirm an outage and mark its location on a map, which a dispatcher can then analyze and dispatch a crew to investigate and make necessary repairs.
- BC Hydro also uses the smart meters to confirm that its restoration efforts have been 100% completed by sending signal to the meter to see if the location has power. This allows BC Hydro to confirm all restoration is complete before crews leave the area.
- Remote services apps: tools that allow field crews to communicate restoration progress more efficiently and accurately, including mobile apps and satellite communication devices for use when out of cell range.
- Improved meteorology models: this information provides greater insight into where and when a storm might hit so BC Hydro can ensure crews are ready to respond quickly.
- Increased vegetation management year-round: BC Hydro spends more than \$50 million annually identifying and removing trees and vegetation that could pose a problem during storm season.

Despite increasing storms, each year BC Hydro has mostly been able to maintain and even exceed its goal to have 95% of customers restored within 24 hours.

A storm to remember

Of the worst storms BC Hydro has experienced, 84% of British Columbians recall at least one of them, and over half (55%) experienced a power outage during one of these events. It is not surprising then that 54% think fall and winter storms are becoming more frequent and almost 60% (58%) think they are becoming more severe. Those who live in the Lower Mainland and Vancouver Island are the most likely to say storms are becoming more frequent and severe—likely because most of the top storms affected their region.

Preparing at home

More storms have not resulted in everyone preparing—almost a quarter said they have not taken any steps to prepare for weather-related power outages.

BC Hydro is encouraging customers to prepare for storm-related power outages by having a well-stocked emergency kit with enough goods such as bottled water, batteries and nonperishable food items to last at least 72 hours.

Make sure to develop a preparedness plan and share it with everyone in your home. BC Hydro's **outage checklist** provides guidance on preparing your home for an outage and ensuring you know what to do before during and after a power outage. For information on power outages and estimated restoration times please visit [bchydro.com/outages](https://www.bchydro.com/outages).

BC Hydro is also reminding British Columbians that if they come across a down or damaged power line, it should be considered live and dangerous and be reported to 9-1-1.

For more information on how to prepare and stay safe this storm season, visit [bchydro.com/staysafe](https://www.bchydro.com/staysafe).

