**Northeast Blackout of 1965**

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(Redirected from [Northeast Blackout of 1965](https://en.wikipedia.org/w/index.php?title=Northeast_Blackout_of_1965&redirect=no))

A map of the states and provinces affected; not all areas within the political boundaries were blacked out.

The **Northeast blackout of 1965** was a significant disruption in the [supply of electricity](https://en.wikipedia.org/wiki/Electricity_distribution) on Tuesday, November 9, 1965, affecting parts of [Ontario](https://en.wikipedia.org/wiki/Ontario) in [Canada](https://en.wikipedia.org/wiki/Canada) and [Connecticut](https://en.wikipedia.org/wiki/Connecticut), [Massachusetts](https://en.wikipedia.org/wiki/Massachusetts), [New Hampshire](https://en.wikipedia.org/wiki/New_Hampshire), [New Jersey](https://en.wikipedia.org/wiki/New_Jersey), [New York](https://en.wikipedia.org/wiki/New_York), [Rhode Island](https://en.wikipedia.org/wiki/Rhode_Island), Pennsylvania, and [Vermont](https://en.wikipedia.org/wiki/Vermont) in the [United States](https://en.wikipedia.org/wiki/United_States). Over 30 million people and 80,000 square miles (207,000 km2) were left without electricity for up to 13 hours.

**Cause**

The cause of the failure was human error that happened days before the blackout. Maintenance personnel incorrectly set a [protective relay](https://en.wikipedia.org/wiki/Protective_relay) on one of the transmission lines between the [Niagara](https://en.wikipedia.org/wiki/Regional_Municipality_of_Niagara%2C_Ontario) [generating station](https://en.wikipedia.org/wiki/Electricity_generation) [Sir Adam Beck](https://en.wikipedia.org/wiki/Sir_Adam_Beck_Hydroelectric_Power_Stations) Station No. 2 in [Queenstown, Ontario](https://en.wikipedia.org/wiki/Queenston%2C_Ontario). The safety relay, which was to trip if the current exceeded the capacity of the transmission line, was set too low.

As was common on a cold November evening, power for heating, lighting and cooking was pushing the electrical system to near its peak capacity. Transmission lines heading into Southern Ontario were heavily loaded. At 5:16 p.m. Eastern Time, a small surge of power originating from the [Robert Moses generating plant](https://en.wikipedia.org/wiki/Robert_Moses_Niagara_Hydroelectric_Power_Station) in [Lewiston, New York](https://en.wikipedia.org/wiki/Lewiston%2C_New_York) caused the improperly set [relay](https://en.wikipedia.org/wiki/Relay) to trip at far below the line's rated capacity, disabling a main power line heading into [Southern Ontario](https://en.wikipedia.org/wiki/Southern_Ontario). Instantly, the power that was flowing on the tripped line transferred to the other lines, causing them to become overloaded. Their own protective relays, which are designed to protect the line from overload, tripped, isolating Beck Station from all of Southern Ontario.

With no place else to go, the excess power from Beck Station then switched direction and headed east, over the interconnected lines into [New York State](https://en.wikipedia.org/wiki/New_York_State), overloading them as well, and isolating the power generated in the Niagara region from the rest of the interconnected grid. The Beck generators, with no outlet for their power, were automatically shut down to prevent damage. The Robert Moses Niagara Power Plant continued to generate power, which supplied Niagara Mohawk Power Corporation customers in the metropolitan areas of [Buffalo](https://en.wikipedia.org/wiki/Buffalo%2C_New_York) and [Niagara Falls](https://en.wikipedia.org/wiki/Niagara_Falls%2C_New_York), [NY](https://en.wikipedia.org/wiki/New_York_State). These areas ended up being isolated from the rest of the Northeast power grid and remained powered up. The Niagara Mohawk Western NY Huntley (Buffalo) and Dunkirk steam plants were knocked offline. Within five minutes, the power distribution system in the Northeast was in chaos as the effects of overloads and the subsequent loss of generating capacity cascaded through the network, breaking the grid into "islands." Station after station experienced load imbalances and automatically shut down. The affected power areas were the [Ontario Hydro](https://en.wikipedia.org/wiki/Ontario_Hydro) System, [St Lawrence](https://en.wikipedia.org/wiki/St_Lawrence)-[Oswego](https://en.wikipedia.org/wiki/Oswego%2C_New_York), [Upstate New York](https://en.wikipedia.org/wiki/Upstate_New_York), and [New England](https://en.wikipedia.org/wiki/New_England). With only limited electrical connection southwards, power to the [Southern States](https://en.wikipedia.org/wiki/Southern_United_States) was not affected. The only part of the [Ontario Hydro](https://en.wikipedia.org/wiki/Ontario_Hydro) System not affected was the [Fort Erie](https://en.wikipedia.org/wiki/Fort_Erie) area next to Buffalo, which was still powered by older 25 Hz generators. Residents in Fort Erie were able to pick up a TV broadcast from New York, where a local backup generator was being used for transmission purposes.

**Radio**

An [aircheck](https://en.wikipedia.org/wiki/Aircheck) of [New York City](https://en.wikipedia.org/wiki/New_York_City) [radio station](https://en.wikipedia.org/wiki/Radio_broadcasting) [WABC](https://en.wikipedia.org/wiki/WABC_%28AM%29) from November 9, 1965 reveals disc jockey [Dan Ingram](https://en.wikipedia.org/wiki/Dan_Ingram) doing a segment of his afternoon [drive time](https://en.wikipedia.org/wiki/Drive_time) show, during which he notes that a record he's playing ([Jonathan King](https://en.wikipedia.org/wiki/Jonathan_King)'s "[Everyone's Gone to the Moon](https://en.wikipedia.org/wiki/Everyone%27s_Gone_to_the_Moon)") sounds slow, as do the subsequent [jingles](https://en.wikipedia.org/wiki/Jingle) played during a commercial break. Ingram quipped that the King record "was in the key of R." The station's music playback equipment used motors that got their speed timing from the frequency of the powerline, normally 60 [Hz](https://en.wikipedia.org/wiki/Hertz). Comparisons of segments of the hit songs played at the time of the broadcast, minutes before the blackout happened, in this aircheck, as compared to the same song recordings played at normal speed reveal that approximately six minutes before blackout the line frequency was 56 Hz, and just two minutes before the blackout that frequency dropped to 51 Hz. As [Si Zentner](https://en.wikipedia.org/wiki/Si_Zentner)'s recording of "[(Up a) Lazy River](https://en.wikipedia.org/wiki/%28Up_a%29_Lazy_River)" plays in the background – again at a slower-than-normal tempo – Ingram mentions that the lights in the studio are dimming, then suggests that the electricity itself is slowing down, adding, "I didn't know that could happen". When the station's *Action Central News* report comes on at 5:25 pm ([ET](https://en.wikipedia.org/wiki/Eastern_Time_Zone)), the staff remains oblivious to the impending blackout. The lead story is still [Roger Allen LaPorte](https://en.wikipedia.org/wiki/Roger_Allen_LaPorte)'s [self-immolation](https://en.wikipedia.org/wiki/Self-immolation) at [United Nations Headquarters](https://en.wikipedia.org/wiki/United_Nations_Headquarters) earlier that day to protest [American](https://en.wikipedia.org/wiki/United_States) military involvement in the [Vietnam War](https://en.wikipedia.org/wiki/Vietnam_War); a taped soundbyte with the attending physician play noticeably slower and lower than usual. The newscast gradually fizzles out as power is lost by the time the newsman starts delivering the second story, about New Jersey Senator [Clifford P. Case](https://en.wikipedia.org/wiki/Clifford_P._Case)'s comments on his home state's recent [gubernatorial election](https://en.wikipedia.org/wiki/New_Jersey_gubernatorial_election%2C_1965).

**Unaffected areas**

Some areas within the affected region were not blacked out. Municipal utilities in [Hartford, Connecticut](https://en.wikipedia.org/wiki/Hartford%2C_Connecticut); [Braintree](https://en.wikipedia.org/wiki/Braintree%2C_Massachusetts), [Holyoke](https://en.wikipedia.org/wiki/Holyoke%2C_Massachusetts), and [Taunton, Massachusetts](https://en.wikipedia.org/wiki/Taunton%2C_Massachusetts); and [Fairport](https://en.wikipedia.org/wiki/Fairport%2C_New_York), [Greenport](https://en.wikipedia.org/wiki/Greenport%2C_Suffolk_County%2C_New_York), and [Walden, New York](https://en.wikipedia.org/wiki/Walden%2C_New_York) had their own power plants, which operators disconnected from the grid and which were able to sustain local loads, though some areas lost power for at least a few hours.

**Effect and aftermath**

[New York City](https://en.wikipedia.org/wiki/New_York_City) was dark by 5:27 p.m. The blackout was not universal in the city; some neighborhoods, including the [Midwood](https://en.wikipedia.org/wiki/Midwood%2C_Brooklyn) section of Brooklyn, never lost power. Also, some suburban areas, including [Bergen County](https://en.wikipedia.org/wiki/Bergen_County), [New Jersey](https://en.wikipedia.org/wiki/New_Jersey) - served by [PSE&G](https://en.wikipedia.org/wiki/PSE%26G) - did not lose power. Most of the [television](https://en.wikipedia.org/wiki/Television) stations in the New York metro area were forced off the air, as well as about half the FM radio stations, as their common transmitter tower atop the [Empire State Building](https://en.wikipedia.org/wiki/Empire_State_Building) lost power.

Fortunately, a bright full moon lit up the cloudless sky over the entire blackout area, providing some aid for the millions who were suddenly plunged into darkness.

Power restoration was uneven. Most generators had no auxiliary power to use for startup. Parts of [Brooklyn](https://en.wikipedia.org/wiki/Brooklyn) were repowered by 11:00pm, the rest of the [borough](https://en.wikipedia.org/wiki/Borough) by midnight. However, the entire city was not returned to normal power supply until nearly 7:00 a.m. the next day, November 10.

Power in western New York was restored in a few hours, thanks to the independent generating plant at [Eastman Kodak Company](https://en.wikipedia.org/wiki/Eastman_Kodak) in [Rochester, New York](https://en.wikipedia.org/wiki/Rochester%2C_New_York), which stayed online throughout the blackout. It provided [auxiliary power to restart other generators](https://en.wikipedia.org/wiki/Black_start) in the area which, in turn, were used to get all generators in the blackout area going again.

[*The New York Times*](https://en.wikipedia.org/wiki/The_New_York_Times) was able to produce a ten-page edition for November 10, using the [printing presses](https://en.wikipedia.org/wiki/Printing_press) of a nearby paper that was not affected, the [*Newark Evening News*](https://en.wikipedia.org/wiki/Newark_Evening_News). The front page showed a photograph of the city skyline with its lights all out.

Following the [blackout](https://en.wikipedia.org/wiki/Power_outage), measures were undertaken to try to prevent a repetition. Reliability councils were formed to establish standards, share information, and improve coordination amongst electricity providers. Ten councils were created covering the four networks of the [North American Interconnected Systems](https://en.wikipedia.org/w/index.php?title=North_American_Interconnected_Systems&action=edit&redlink=1). The [Northeast Power Coordinating Council](https://en.wikipedia.org/wiki/Northeast_Power_Coordinating_Council) covered the area affected by the 1965 blackout.

The task force that investigated the blackout found that a lack of voltage and current monitoring was a contributing factor to the blackout, and recommended improvements.

The [Electric Power Research Institute](https://en.wikipedia.org/wiki/Electric_Power_Research_Institute) helped the electric power industry develop new metering and monitoring equipment and systems, which have become the modern [SCADA](https://en.wikipedia.org/wiki/SCADA) systems in use today.

In contrast to the wave of looting and other incidents that took place during the [1977 New York City blackout](https://en.wikipedia.org/wiki/1977_New_York_City_blackout), only five reports of [looting](https://en.wikipedia.org/wiki/Looting) were made in New York City after the 1965 blackout. It was said to be the lowest amount of crime on any night in the city's history since records were first kept.

**In popular culture**

**In film**

The film [*Where Were You When the Lights Went Out?*](https://en.wikipedia.org/wiki/Where_Were_You_When_the_Lights_Went_Out%3F) (1968), starring [Doris Day](https://en.wikipedia.org/wiki/Doris_Day) and [Robert Morse](https://en.wikipedia.org/wiki/Robert_Morse), took a comic view of the event.

**In music**

[Tom Paxton](https://en.wikipedia.org/wiki/Tom_Paxton) wrote a song with the same title and performed it on the first episode of [Pete Seeger](https://en.wikipedia.org/wiki/Pete_Seeger)'s [*Rainbow Quest*](https://en.wikipedia.org/wiki/Rainbow_Quest)

**In television**

During [*Batman*](https://en.wikipedia.org/wiki/Batman_%28TV_series%29) Season 1, episode 16, "[He Meets His Match, The Grisly Ghoul](https://en.wikipedia.org/wiki/He_Meets_His_Match%2C_The_Grisly_Ghoul)" (ABC, March 3, 1966), the Joker mentions [Gotham City](https://en.wikipedia.org/wiki/Gotham_City)'s having a power outage "just like New York".

At the end of [*Green Acres*](https://en.wikipedia.org/wiki/Green_Acres) Season 1, episode 25, "Double Drick" (CBS, March 23, 1966), the blackout is theorized to have been caused when Mr. Douglas plugged an extension cord into the outlet at the top of a power pole which was just installed by the inept employees of the local public utility.

In [*Bewitched*](https://en.wikipedia.org/wiki/Bewitched) Season 3, episode 9, "The Short Happy Circuit of Aunt Clara" (ABC, November 10, 1966), the blackout is caused when Aunt Clara casts a carelessly-worded spell while trying to move a piano. (The episode first aired just over one year after the blackout.)

[*CBS Playhouse*](https://en.wikipedia.org/wiki/CBS_Playhouse) Season 2, episode 4, "[Shadow Game](https://en.wikipedia.org/wiki/Shadow_Game_%28film%29)" (CBS, May 7, 1969), depicts a group of office workers trapped in their building during the blackout.

In the "Eyes" segment from the [*Night Gallery*](https://en.wikipedia.org/wiki/Night_Gallery) pilot film (NBC, November 8, 1969), Joan Crawford plays a wealthy and ruthless blind woman who blackmails a surgeon into performing an eye transplant so she can enjoy temporary sight, only to have the bandages from the operation come off just as the blackout hits.

In [*All in the Family*](https://en.wikipedia.org/wiki/All_in_the_Family) Season 8, episode 10, "Archie and the KKK: Part 1" (CBS, November 27, 1977), the Bunkers are coping with a blackout. At one point Mike alludes to the supposed spike in New York's birthrate following the 1965 blackout (see "In urban legends", below).

During [*Quantum Leap*](https://en.wikipedia.org/wiki/Quantum_Leap) Season 1, episode 6, "Double Identity - November 8, 1965" (NBC, April 21, 1989), the blackout is caused by a 1000 W hair dryer being plugged in. Al and Ziggy suggest that these events will allow Sam to leap.

In [*Dark Skies*](https://en.wikipedia.org/wiki/Dark_Skies) Season 1, episode 17, "To Prey in Darkness" (NBC, March 15, 1997), the blackout is caused by the aliens (ET's) to prevent the television broadcast of the 1947 [Roswell, NM](https://en.wikipedia.org/wiki/Roswell%2C_NM) incident.

In [*Oz*](https://en.wikipedia.org/wiki/Oz_%28TV_Series%29) Season 1, episode 4, "Capital P" (HBO, July 28, 1997), the backstory of an inmate named Bob Rebadow details him being in the middle of being executed by means of the electric chair when the blackout occurred. As a result, his death sentence was commuted to life in prison.

During [*American Dreams*](https://en.wikipedia.org/wiki/American_Dreams) Season 3, episode 8, "One in a Million" (NBC, November 14, 2004), the blackout occurs just before Beth goes into labor at home.

**In urban legends**

A thriving [urban legend](https://en.wikipedia.org/wiki/Urban_legend) arose in the wake of the blackout, claiming that a peak in the [birthrate](https://en.wikipedia.org/wiki/Birthrate) of the blacked-out areas of New York City was observed nine months after the incident. The myth originated in a series of three articles published in [*The New York Times*](https://en.wikipedia.org/wiki/The_New_York_Times) in August 1966, in which interviewed doctors mentioned that they had noticed an increased number of births. The story was debunked in 1970 by J. Richard Udry, a [demographer](https://en.wikipedia.org/wiki/Demographer) from the [University of North Carolina at Chapel Hill](https://en.wikipedia.org/wiki/University_of_North_Carolina_at_Chapel_Hill), who did a careful statistical study that found no increase in the birthrate of the affected areas.

**UFO sightings during the blackout**

When no cause for the blackout was immediately apparent, several writers (including [John G. Fuller](https://en.wikipedia.org/wiki/John_G._Fuller), in his book *Incident at Exeter*) postulated that the blackout was caused by [UFOs](https://en.wikipedia.org/wiki/Unidentified_flying_object). This may have been partially inspired by sightings of UFOs near [Syracuse](https://en.wikipedia.org/wiki/Syracuse%2C_New_York) prior to the blackout.

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