



Electrical incidents in Alberta

January 1 to December 31, 2022

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Electrical incidents in Alberta | Municipal Affairs

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Electrical incidents in Alberta – 2022 Report

Regulations under the [Safety Codes Act](#) require all electrical accidents, contacts or fires be reported to the Electrical Administrator. Alberta Municipal Affairs has compiled a summary report of incidents reported between January 1, 2022, and December 31, 2022. Organizations in the electrical industry may wish to use this information to promote public awareness of electrical safety risks.

Incident reporting forms and statistical reports from previous years can be found online at: <https://www.alberta.ca/electrical-standata.aspx>

Information in this report is provided by industry. Any change in wording from the reports received is done for clarification of the incident and to also protect the identity of the individuals involved.

Incidents reported

A total of 1,089 incidents were reported in 2022 involving:

- Overhead power lines;
- Underground power lines; and
- Other types of electrical installations or equipment.

The summary beginning on page six presents the information in a series of tables, texts, and charts:

- Injury incidents summarize fatal and non-fatal injury incidents outlining the number of persons, voltages, and equipment involved and a brief description of injury incidents is provided.
- Power line contacts summarize the different types of power line contacts and the number of fatal and non-fatal injuries incurred for each type of contact. The tables and charts compare historical information with current statistics.
- Since not all incidents are reported, this report underrepresents the incidents that occurred in Alberta. It provides information on the various types of incidents that are reported.

Fatalities

- A worker was fatally electrocuted while working on a motor.
- A person was fatally electrocuted while exiting a hot tub.

Non-fatal injuries

- An electrician received a shock from a junction box when a wire nut fell off a splice.
- An electrician was working on a junction box when they received a shock.
- A student working in an electrical lab touched live wires receiving an electrical shock to their hand.
- A student was trying to disconnect some apparatus from the outlet and did not realize that the power was not disconnected, receiving a shock.
- A student working in an electrical lab touched live wires receiving an electrical shock to their hand.
- An electrician installing exit lights grabbed the cable and discovered that the wires were still live, receiving a shock.
- A power line technician (PLT) was connecting an overhead service to a residence. The PLT's stripping tool contacted the hot conductor and the neutral causing an arch flash.
- A worker inadvertently came into contact with exposed wiring from heat trace and received a shock.
- An electrician received a shock while wrapping up an extension cord.
- An electrician using a jumper cable created a connection between two live phases, resulting in an arc flash and minor injuries to the worker.

- A maintenance worker reached down to pick up a wet absorbent sock when they felt a sudden shock.
- A worker installing tile in a kitchen came in contact with the switch and received a shock.
- A worker using a hoist came in contact with loose wires on the controller and received a shock.
- A worker using a grinder in a wet location received a shock from the tool.
- A worker was plugging in an extension cord and received a shock.
- A child playing by a pedestal touched the top and burnt their wrist.

Summary of reported injury incidents – 2022

Fatal (F) Non-Fatal (N)

1. Persons involved

A. Performing electrical work	F	N	B. Not performing electrical work	F	N
Qualified electrical worker	1	9	Adult	1	5
Qualified power system electrician / power line technician	0	1	Child	0	1
Non-qualified person	0	0			

2. Voltages involved

A. Systems or equipment (not power line contacts)	F	N	B. Contact with power lines (not included in A)	F	N
750 volts or less	1	15	750 volts or less	0	0
Over 750 volts	1	1	Over 750 volts	0	0

3. Systems or equipment involved

A. Interior wiring systems	F	N	B. Utility	F	N
Service/distribution equipment	0	2	Overhead systems—poles/lines/etc.	0	1
Motor control equipment Switches, fixtures, etc.	1	1	Substations and transformers	0	1
Test equipment	0	0	Underground systems	0	1
General wiring/conductors	0	3	Other	0	0
Other equipment	0	1			
	0	0			
C. Utilization equipment	F	N	D. Non-electrical equipment	F	N
Household appliances	0	1	Cranes/booms/pickers	0	0
Commercial/industrial equipment	0	2	Ladders/scaffolds	0	0
Portable power tools	0	1	Drilling rig equipment	0	0
Extension cords	0	2	Farm equipment	0	0
Welding machines/motors	0	0	Moving buildings	0	0
Mobile homes and trailers	0	0	Objects (pipe, antennae, etc.)	0	0
Signs	0	0	Excavating equipment	0	0
Other	1	0	Vehicles (high loads, truck boxes, etc.)	0	0
			Other	0	0

Reported Electrical Power Line Contacts 2022

TYPE OF CONTACT OR DAMAGE	# OF LINE CONTACTS NO INJURIES	NON-FATAL INJURIES	FATALITIES
Overhead Utility Systems			
Vehicle-mounted equipment (booms, hoists, cranes, etc.)	52		
Trucks with raised boxes and vehicles transporting high loads	118		
Excavating or earth moving vehicles	111		
Farm implements	158		
Relocating structures (grain bins)	5		
Vehicles out of control	168		
Aircraft, parachutes, kites, etc.	7		
Falling, brushing or trimming trees	78		
Drilling and seismic equipment	1		
Other contacts	86	1	
Total	784	1	
Underground Utility Systems			
Excavating equipment	162		
Vehicles hitting transformers, pedestals, etc.	107		
Others	18		
Total	287		

Yearly Statistics

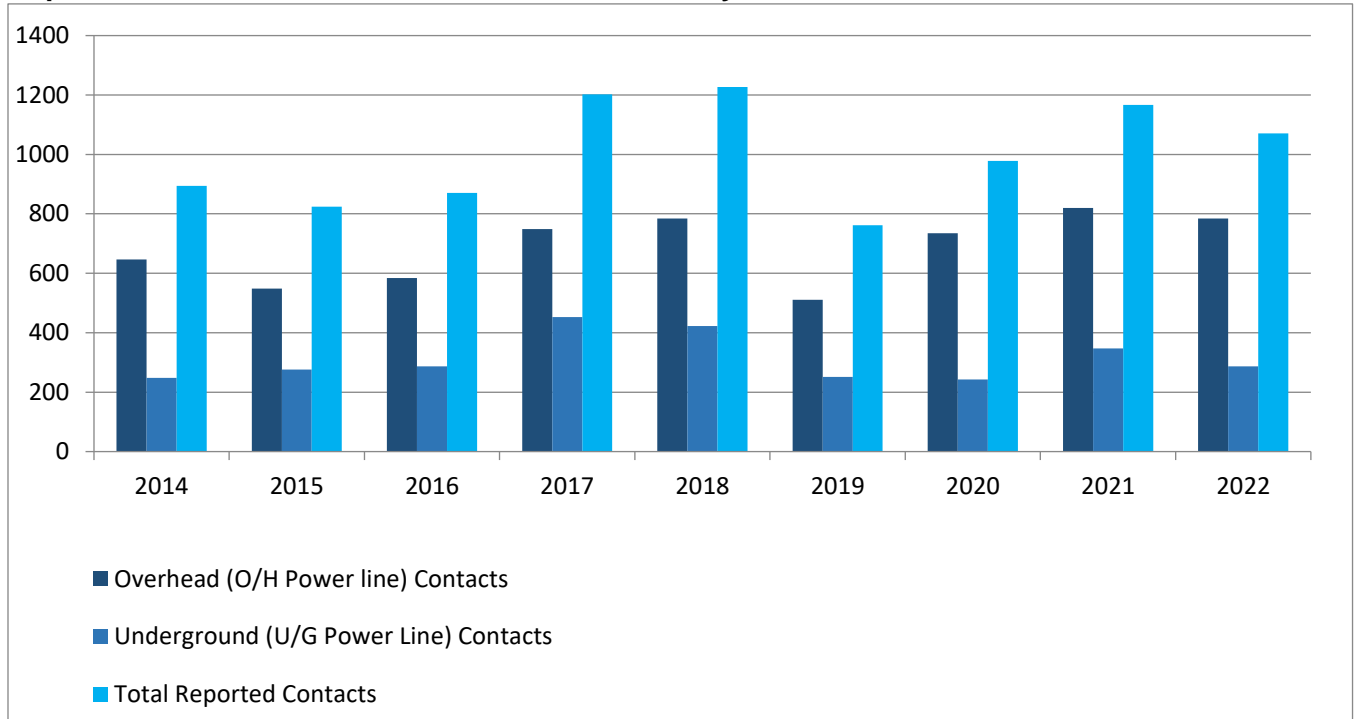
Reported Electrical Power Line Contacts in Alberta – 2013 to 2021

	2014	2015	2016	2017	2018	2019	2020	2021	2022
Overhead power line contacts	646	548	584	749	784	511	735	820	784
Underground power line contacts	248	276	287	453	422	251	243	347	287
Total reported contacts (no injuries or fatalities)	894	824	871	1202	1206	762	978	1167	1071

Fatalities (overhead power line contacts)	0	0	0	2	2	0	2	1	0
Fatalities (Underground power line contacts)	0	0	0	0	0	0	0	0	0
Total reported power line fatalities	0	0	0	2	2	0	2	1	0

Injuries (Overhead contacts)	5	3	1	4	3	6	5	2	1
Injuries (Underground contacts)	0	1	3	1	2	2	0	0	0
Total reported non-fatal electrical injuries (persons)	5	4	4	5	5	8	5	2	1

Reported Power Line Contacts in Alberta– Summary – 2014 to 2022



Reported Power Line Contacts in Alberta – Injuries – 2014 to 2022

