

Report

ONTARIO ENERGY BOARD POWER RELIABILITY AND QUALITY SURVEY

FULL REPORT



DATE 2022-02-25 **PROJECT NUMBER** 82188-012

METHODOLOGY



QUANTITATIVE RESEARCH INSTRUMENT

An online survey of 754 Ontarians aged 18 and above who qualify as residential energy users and 252 businesses located in Ontario who qualify as commercial/ or industrial energy users was completed between January 27 and February 15, 2022, using Leger's online panel.

No margin of error can be associated with a non-probability sample (i.e. a web panel in this case). For comparative purposes, though, a probability sample of 754 respondents would have a margin of error of $\pm 3.57\%$, 19 times out of 20, and a sample of 252 respondents would have a margin of error of $\pm 6.17\%$, 19 times out of 20.

ABOUT LEGER'S ONLINE PANEL

Leger's online panel has approximately 400,000 members nationally and has a retention rate of 90%.

QUALITY CONTROL

Stringent quality assurance measures allow Leger to achieve the high-quality standards set by the company. As a result, its methods of data collection and storage outperform the norms set by WAPOR (The World Association for Public Opinion Research). These measures are applied at every stage of the project: from data collection to processing, through to analysis. We aim to answer our clients' needs with honesty, total confidentiality, and integrity.



KEY FINDINGS – RESIDENTIAL POWER OUTAGES (1)

Two-thirds of residential customers report that they have experienced a power outage in the past year (67%). And this experience in terms of frequency has occurred a few times in the year for two-thirds of customers who have experienced an outage (68%).

Importantly, the outages that they've experienced have typically lasted eight hours or less, with three-in-ten reporting that they've experienced an outage of an hour or less (29%), or between 3-8 hours (29%). One-quarter state that their outage lasted between 1-2 hours.

For residential customers, the impact of the outage wasn't significantly material, meaning it had no productive or personal impact beyond creating an inconvenience.

- 69% say that it caused an inconvenience.
- 33% say they lost heat or A/C.
- 25% say it impacted their productivity.

Few residential customers reported more serious impacts such as an impact to their safety or damaged home appliances (9% and 8%, respectively).

KEY FINDINGS – RESIDENTIAL POWER OUTAGES (2)

When considering these impacts, most residential customers say that the reliability of their electricity supply hasn't really changed (72%). Less than one-in-five (17%) say that it is improving. Residential customers rate the importance of knowing their level of electricity supply reliability as important (78%), with one-third (35%) saying it is *very important*. There is an opportunity here for providers to demonstrate how the outages they may be experiencing compare to neighbouring communities and against other providers.

Residential customers aren't as satisfied with their provider when it comes to communication.

- 45% satisfied with communication during the outage.
- 43% satisfied with follow up communications after the outage has been resolved.

When asked about potential rate impacts on their electricity bill in relation to power outages, there is a clear distinction:

- Four-in-five (81%) would NOT pay more to reduce power outages.
- However, two-in-five (22%) would be willing to accept outages if it resulted in a lower electricity bill.

Few residential customers are likely to take it upon themselves to install alternative electrical supplies to eliminate outages (32% are likely). This clearly puts the responsibility back on providers to ensure there is grid and supply reliability.

KEY FINDINGS – BUSINESS POWER OUTAGES (1)

Just under two-thirds of commercial and industrial customers have experienced a power outage in the past year (64%). For businesses, this experience happens a few times a year for a bit over two-thirds (70%).

The outages that they have experienced have typically lasted 1-2 hours (33%), with one-quarter stating that they experienced an outage that lasted less than one hour (25%) or between 3-8 hours (25%).

The impact for business is much more significant. Two-in-five report that the impact was mainly inconvenience (46%). However, material impacts can be seen.

- 49% say that they lost productivity.
- 24% say that they lost sales or revenue.
- 17% say that there was an impact to safety.
- 8% say it caused damage to equipment.

Despite the significant impact on operations, business customers are more likely than residential customers to say that the reliability of their electricity supply is improving (26% vs. 17%). Though, a significant majority (60%) say it remains unchanged over the last five years.

KEY FINDINGS – BUSINESS POWER OUTAGES (2)

Providers have room to showcase how they're changing the way they respond to outages. Specifically, when asked about satisfaction on how they respond to outages business customers reported:

- 53% are satisfied with communication during the outage.
- 51% are satisfied with follow up communications after the outage has been resolved.

Businesses give top marks to their provider on the amount of time it takes to restore power (74%) and the ability to resolve issues to prevent future ones (69%).

Businesses are slightly more open to the idea of paying more to reduce outages.

• 11% would pay between 1%-5% more on their bill to reduce outages. However, the vast majority are opposed to paying more (72% would not pay more).

Given the fact that businesses are more likely to see disruption to their operations due to an outage, it is unsurprising that almost three-in-five (57%) are likely to install alternative electricity supplies in order to limit outages.



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KEY FINDINGS – RESIDENTIAL POWER QUALITY

Less than half of residential customers have experienced power quality issues within the past year. Of the impacts that they have noticed, most say that the quality issues they have experienced were primarily matters of inconvenience (60%).

Similar to outages, most say that their power quality has remained unchanged (68%). Almost all are in favour of their distributor fixing quality issues with 88% saying this is important. Almost half (48%) say that this is *very important*.

Residential customers are more likely to have invested in technologies, like a surge protector, to help mitigate power quality issues (37%).

Residential customers are less convinced that there may be a need to pay more to improve their power quality. Four in five (85%) say they would not pay more. And most are opposed to accepting a low quality if it lowered their bill (73%).

Power quality is of particular importance to residential customers, with almost three-quarters (73%) indicating that they want compensation if quality falls below an acceptable level.

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KEY FINDINGS – BUSINESS POWER QUALITY

About half (49%) of business customers indicate that they have experienced power quality issues in the past 12 months.

Similar to outages, most say that their power quality has remained unchanged (58%). Though, one-quarter (27%) say that they are seeing improvements.

Like with power outages, most businesses indicate that they've experienced inconvenience (49%) but have also seen, loss of productivity (40%), damage to equipment (14%), and a loss of sales/revenue (16%). Given the impacts they've seen, it is not surprising that businesses have invested in technology to mitigate power quality issues (43%).

Similar to residential customers, about one-quarter (23%) of business customers are willing to accept a lower power quality if it means a lower electricity bill. But it is very clear that businesses want compensation (like residential customers) if quality falls below an acceptable level (75% say they want compensation).



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KEY FINDINGS – DEMOGRAPHIC ANALYSIS - OUTAGES

Among residential customers, outages have primarily been experienced in non-urban areas. Those in the North, South, and the Hamilton-Niagara region are more likely to have experienced a power outage in the past 12 months. Almost nine-in-ten rural residential customers say that they have experienced a power outage (86%). Similarly, the same is true for businesses. Rural businesses are also more likely to say that they have experienced an outage (86% vs. 60% of those in an urban area).

The frequency in outage is the same for both businesses and residential customers. Importantly, residential urban customers are more likely to say that they only experience outages once a year. The length of these outages differ between urban and rural customers, with urban customers more likely to say that these outages are short (under 2 hours). Rural customers are more likely to say the outage lasted between 3-8 hours. When it comes to the negative impacts, business customers in urban areas are most likely to cite a loss of productivity with half (55%) saying this compared to just a quarter of rural business customers (27%).

Outages are most likely to influence the opinion that residential customers have of the reliability of their electricity supply over the past five years (9% of those who experienced an outage say that it is deteriorating compared to 1% of those who have not experienced an outage). For businesses, the size of the enterprise is a factor, with small businesses being the ones most likely to have the opinion that the electrical supply reliability is deteriorating.

Satisfaction with outage response also varies. Younger (those 18-34) residential customers are more likely to be satisfied with the communications during an outage and follow up communications after the outage has been resolved. Importantly, those who have experienced an outage are LESS likely to provide high satisfaction scores related to these two areas. About two-in-five (38%) are satisfied with the communications during the outage and follow-up communications after the outage has been resolved (37%). Similarly, businesses who have experienced an outage in the past year are less satisfied with follow-up communications (41%).

KEY FINDINGS - DEMOGRAPHIC ANALYSIS - QUALITY

On the quality of their power, again similar demographic differences are present. Rural communities are more likely to express that they have experienced power quality issues (65% vs. 40%). For businesses and residential customers alike, if they have experienced a power outage, they are also more likely to have experienced power quality issues.

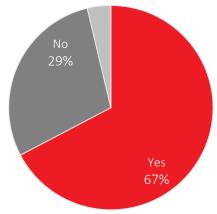
The impact of these power quality issues has primarily been of inconvenience for businesses. Importantly, those in the GTA, Hamilton-Niagara, Southern Ontario, and Eastern Ontario are all more likely to say it was an inconvenience compared to businesses in Northern Ontario.

Investing in technology is very important for residential and commercial customers alike. However, residential customers in rural areas, those over the age of 35, and those who have experienced an outage or power supply issues in the past 12 months are more likely to say they have invested in technologies to mitigate power quality issues. For businesses, small businesses, and those who have experienced an outage or power supply issues are more likely to say they have invested in technologies to mitigate power quality issues.

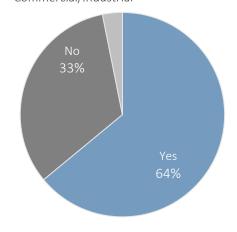


About two-thirds have experienced a power outage in the past year.



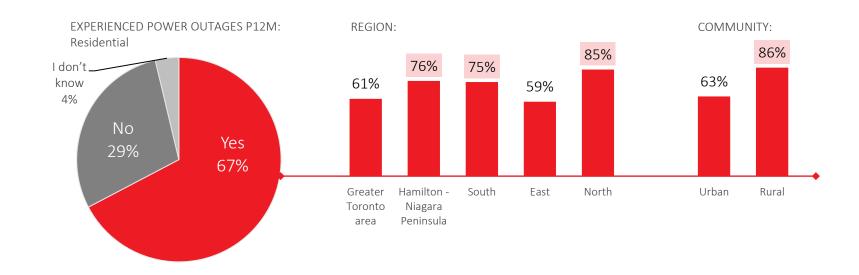


EXPERIENCED POWER OUTAGES P12M: Commercial/Industrial



Two-thirds of residential customers have experienced one or more power outages in the past year.

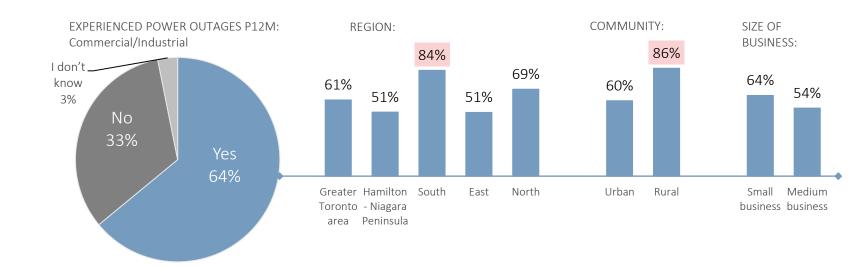
The majority (67%) of residential electricity customers say they have experienced a power outage in the past year, with those in rural areas significantly more likely to say this, and those in the GTA and Eastern Ontario significantly less likely to have experienced one.



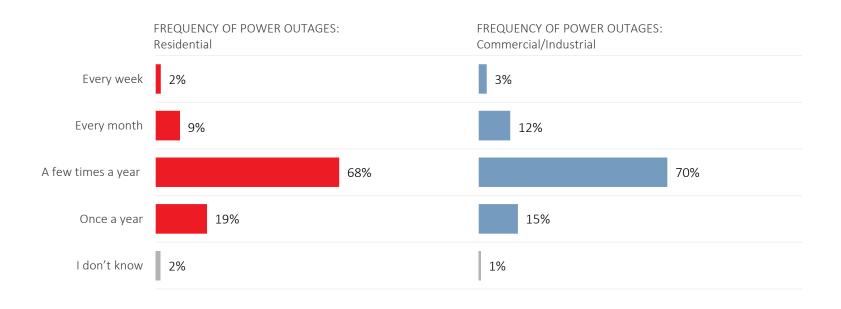


Regionally, there are significant differences when it comes to those experiencing power outages among business customers.

Two-thirds (64%) of commercial or industrial electricity customers say they have experienced one or more power outages in the past year, with those in rural areas and Southern Ontario significantly more likely to say this. The size of the business plays no significant role.

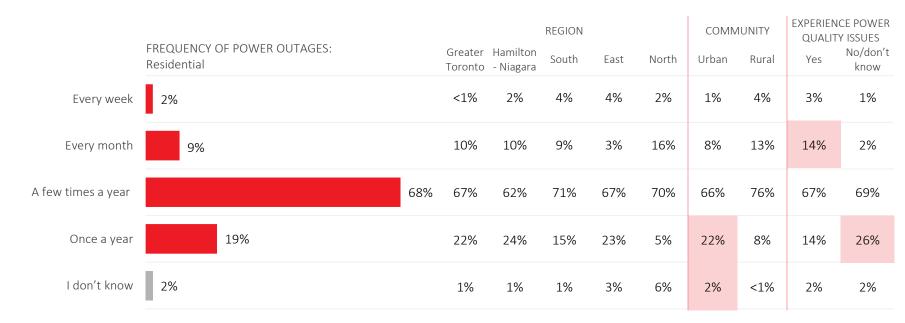


However, the outages happen just a few times a year for the majority.



Most residential customers say outages happen only a few times, yearly.

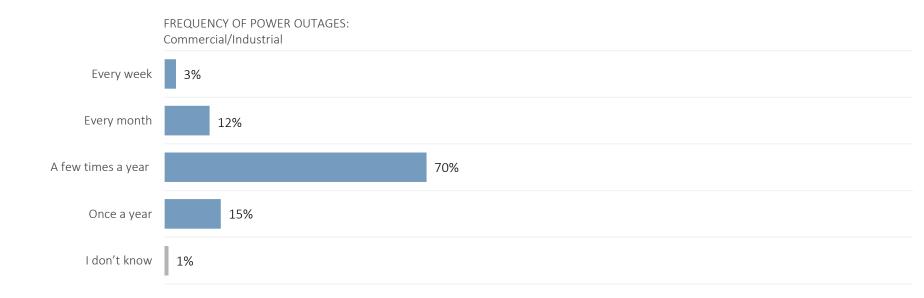
For 68% of residential customers who say they have experienced a power outage in the past 12 months, these outages tend to occur a few times a year, and 19% say they lose power just once in that time frame. One-in-ten (9%) say they experience a loss of electricity service every month and 2% say it happens weekly. Urban customers are more likely to say their power outages happen just about once a year. Customers who say they experience power quality issues are significantly more likely to claim they lose power every month.



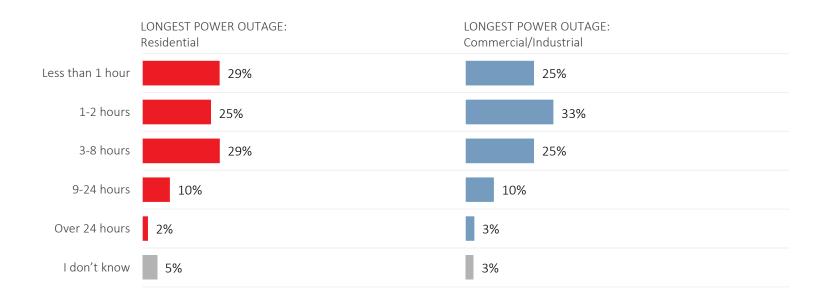
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Seven-in-ten say they lose power to their business a few times a year.

For 70% of commercial or industrial customers who say they have experienced a power outage in the past 12 months, these outages tend to occur a few times a year, and 15% say they lose power just once in that time frame. Just over one-in-ten (12%) say they experience a loss of electricity service every month and 3% say it happens weekly.



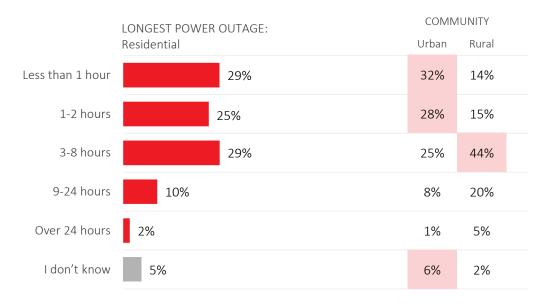
In the past year, most experienced power outages of less than 9 hours; about one-quarter say it was less than an hour.



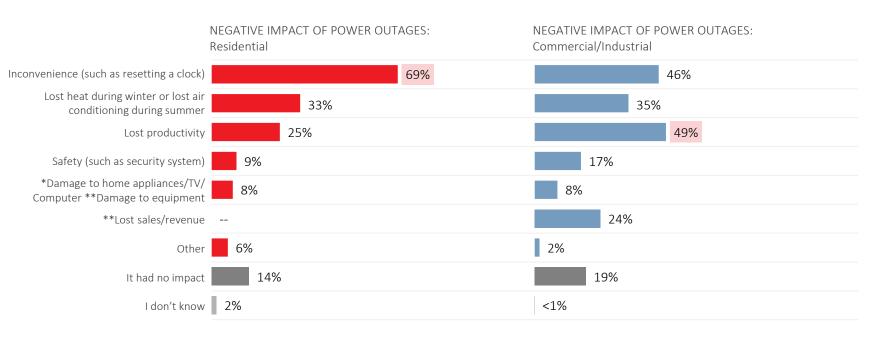
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Most residential customers who did lose power experienced outages of less than 9 hours; three-in-ten say it was less than an hour.

The longest outage experienced by the majority lasted eight hours or less, with similar numbers saying they lost electricity for less than one hour (29%), 1-2 hours (25%), and 3-8 hours (29%). However, 10% say the longest outage they experienced in the past year was 9-24 hours and 2% lost power for more than a day. Urban customers are about twice as likely to have lost power for shorter periods of time (less than 3 hours) compared to rural residents, and significantly less likely to have lost it for 3-8 hours.



Power outages are more of an inconvenience for residential customers; however, business customers see more lost productivity, lost sales/revenue, and safety issues.



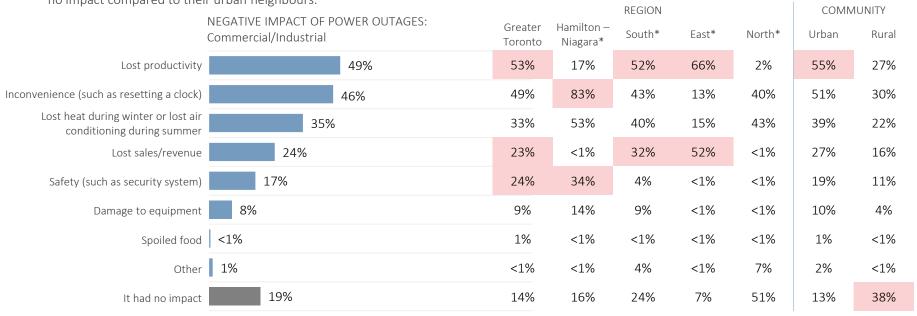
Q8 Did the outage have any negative impact on you / your business? Base: CUSTOMERS WHO HAVE EXPERIENCED OUTAGES: RESIDENTIAL (n=533). Base: COMMERCIAL/INDUSTRIAL (n=165).

^{*} Asked of Residential customers, **Asked of Commercial/Industrial customers



Aside from being a mere inconvenience, business customers saw lost productivity, lost sales/revenue, and safety issues.

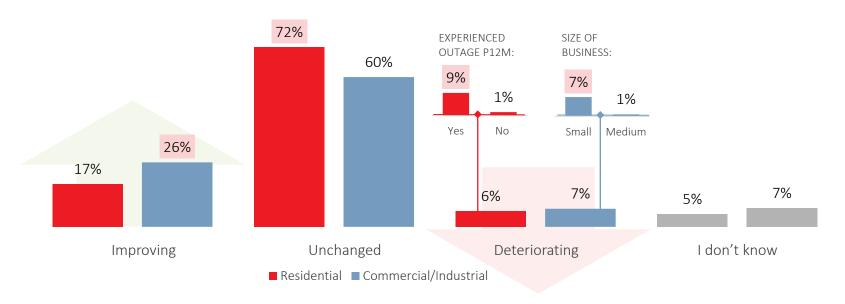
While losing power is an inconvenience to 46% of commercial/industrial customers, half (49%) say they lost productivity due to the outage, especially in urban areas. Lost heat/cooling had a negative impact on 35%, and 24% of businesses say they lost sales and revenue when the power went out. Losing power to their security system was a problem for 17%. Businesses in the GTA, Southern and Eastern Ontario say lost productivity and sales were significantly more of a problem compared to those in Hamilton-Niagara or the North. Rural residents were three times as likely to say losing power had no impact compared to their urban neighbours.





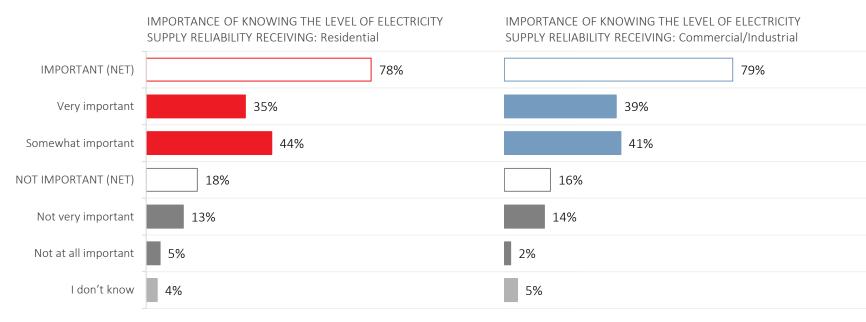
Experience and business size are important factors in determining whether or not customers feel the reliability of their electricity supply is deteriorating.

Most customers believe the reliability of their electricity supply has unchanged over the past 5 years, particularly amongst residential customers. Business customers are significantly more likely to say they think the supply is improving compared to residential customers. Of the few that say the reliability of their electricity supply has deteriorated, residential customers who have experienced outages, and small businesses vs. medium sized are significantly more likely to agree the past 5 years has seen a decrease in reliability.







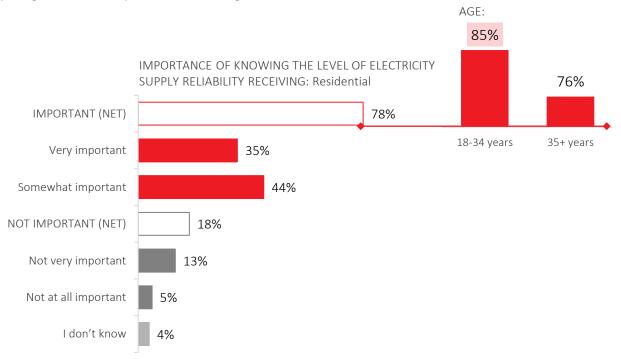


Q10 How important is it for you to know the level of electricity supply reliability that you are receiving (e.g., number and duration of the outages experienced relative to the Ontario average)? Base: RESIDENTIAL (n=754). Base: COMMERCIAL/INDUSTRIAL (n=252).



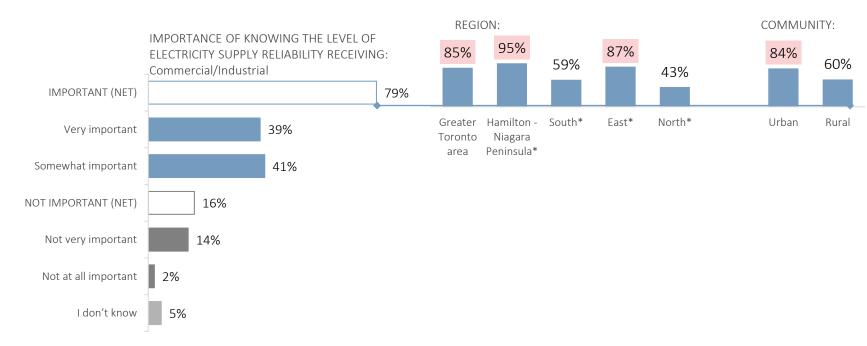
Residential customers say it's important that they know the level of electricity supply reliability compared to others in Ontario.

Most residential customers (78%) say that it is important for them to know the level of electricity supply reliability that they are receiving (e.g., number and duration of the outages experienced relative to the Ontario average), with 35% saying it is very important. Younger customers are significantly more likely to agree with the importance of knowing this information.



Similarly, commercial/industrial customers say it's <u>important</u> that they know the level of electricity supply reliability compared to others in Ontario.

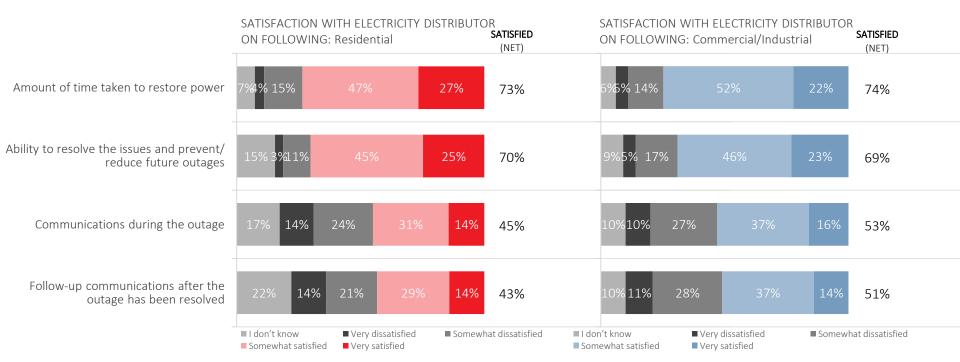
Most business customers (79%) say that it is important for them to know the level of electricity supply reliability that they are receiving (e.g., number and duration of the outages experienced relative to the Ontario average), with 39% saying it is <u>very</u> important. The importance of knowing how their electricity supply compared to the provincial average is significantly more crucial to businesses in the GTA, Hamilton-Niagara, and Eastern Ontario, as well as those in urban areas.



*Low Sample Size

Q10 How important is it for you to know the level of electricity supply reliability that you are receiving (e.g., number and duration of the outages experienced relative to the Ontario average)? Base: COMMERCIAL/INDUSTRIAL (n=252).

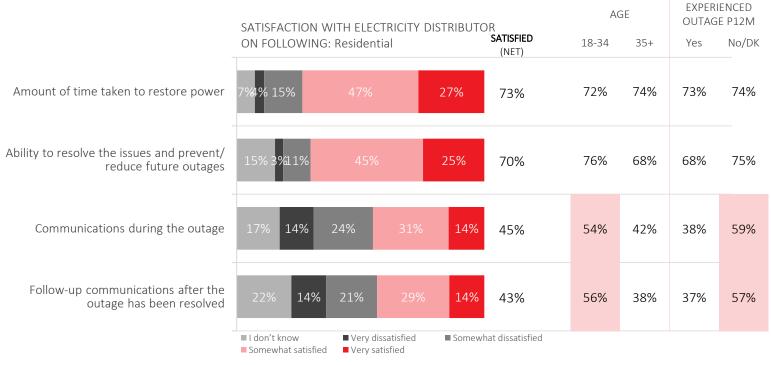
Customers are quite satisfied with the amount of time taken to restore power and the ability to reduce/prevent future outages, but less happy with communication received during and post outage.



Q11 When thinking about power outages, how satisfied are you with your electricity distributor on the following? Base: RESIDENTIAL (n=754). Base: COMMERCIAL/INDUSTRIAL (n=252).

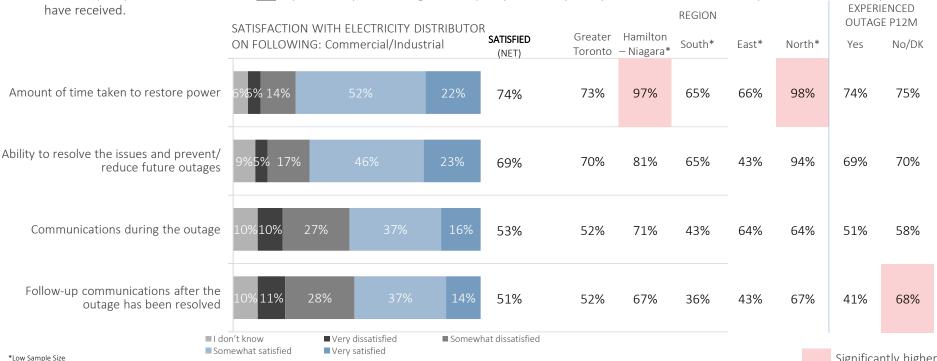
Residential customers are satisfied with the amount of time taken to restore power and the ability to reduce/prevent future outages.

Three-quarters (73%) of residential customers are satisfied with the amount of time their electricity distributor takes to restore power, the ability to resolve the issues and prevent/reduce future outages (70%). However, just over four-in-ten are satisfied with communications during the outage (45%) and follow-up communications after the outage has been resolved (43%). Younger customers (18-34 vs. 35+) and those who have <u>not</u> experienced power outages in the past year are especially satisfied with any communications they have received.



Business customers are quite satisfied with the amount of time taken to restore power and the ability to reduce/prevent future outages.

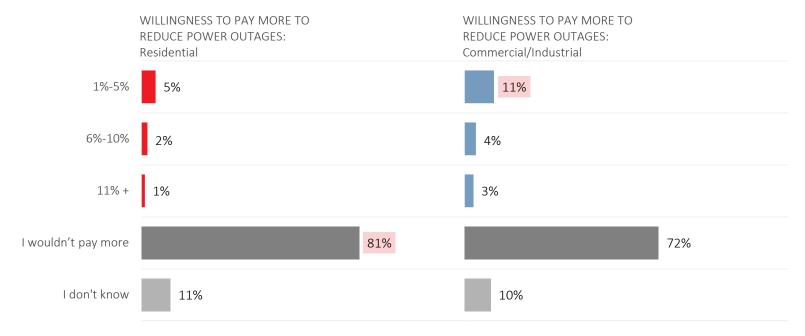
Three-quarters (74%) of commercial/industrial customers are satisfied with the amount of time taken to restore power, especially those in Hamilton-Niagara and Northern Ontario. Seven-in-ten (69%) say the ability of their electricity distributor to resolve the issues and prevent/reduce future outages is satisfactory, however, just half are satisfied with communications during the outage (53%) and follow-up communications after the outage has been resolved (51%). Businesses who have not experienced power outages in the past year are especially satisfied with the follow-up communication they



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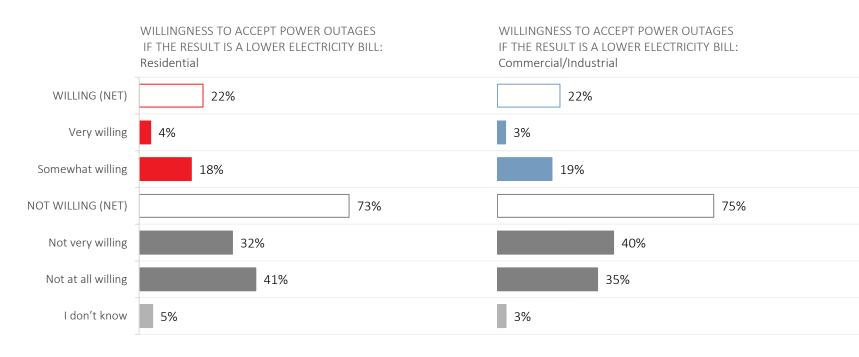
Few appear willing to pay more on their monthly electricity bill to reduce power outages, although business customers are more likely to say they might.

While residential customers are significantly more likely to be adamant, they are not willing to pay anything extra on their monthly electricity bill even if it led to reduced power outages, the vast majority of business customers agree with them. Among residential customers, women (85% vs. 76% men) and older customers, 35+ (85% vs. 69% those age 18-34) are significantly more likely to refuse to pay more. While commercial/industrial customers are significantly more likely to say it's possible they might pay extra to reduce power outages, that amount sits solidly in the 1%-5% range.



Not only are Ontario energy customers unwilling to pay more to reduce outages, they are also not going to accept outages even if the result is a lower electricity bill.

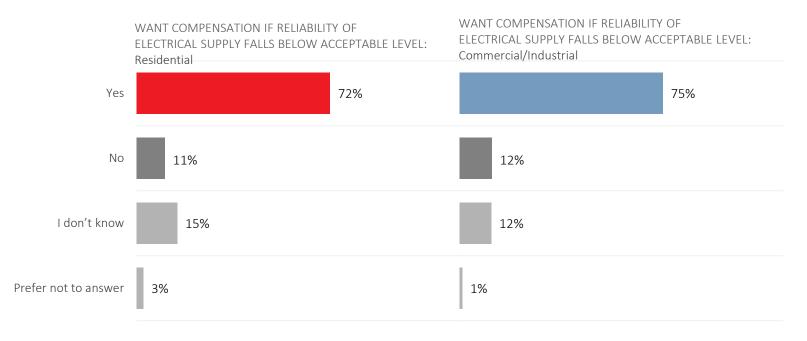
Just two-in-ten (22%) of residential or business customers say they are willing to accept more power outages if it results in a lower electricity bill (although 33% of residential customers aged 18-34 say they would accept this trade-off vs. 18% aged 35+). Three-quarters say they are not willing to have a lower electricity bill at the expense of dealing with power outages, and for roughly four-in-ten, they would be very unwilling to accept this.





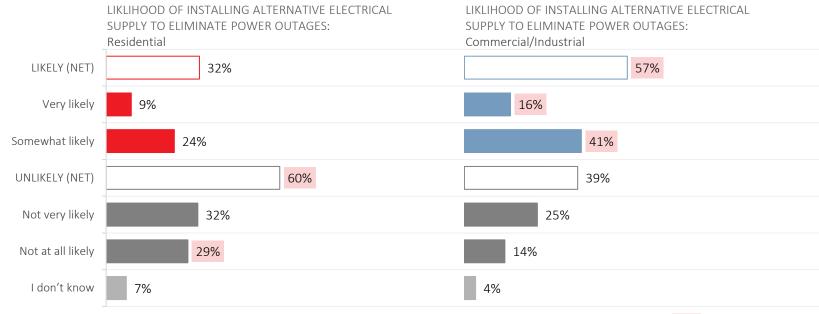
Ontario electricity customers won't pay more to decrease power outages or accept more outages to decrease their bill, and say compensation is needed if the reliability of their electricity supply falls below an acceptable level.

Residential and business customer agree, with three-quarters saying there is a need for compensation if the reliability of their electricity supply falls below an acceptable level.



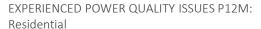
Commercial and industrial customers are nearly twice as likely to install an alternative electricity supply compared to their residential counterparts.

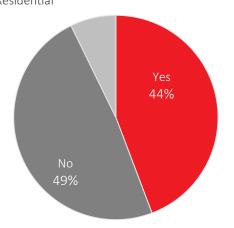
Business customers are nearly twice as likely to say they are likely to install an alternative electricity supply (such as a generator, solar panel or battery) to eliminate power outages than residential customers. However, rural residential customers are significantly more likely to install an alternative supply (55% vs. 28% urban Ontarians).



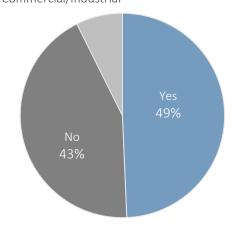


Just under half have experienced power quality issues in the past 12 months.



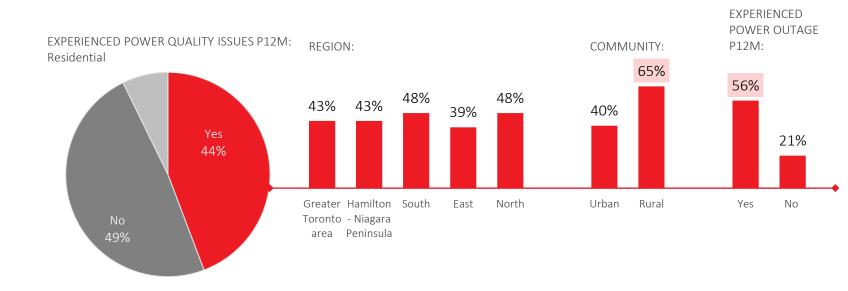


EXPERIENCED POWER QUALITY ISSUES P12M: Commercial/Industrial



Just over four-in-ten residential customers have experienced power quality issues in the past 12 months.

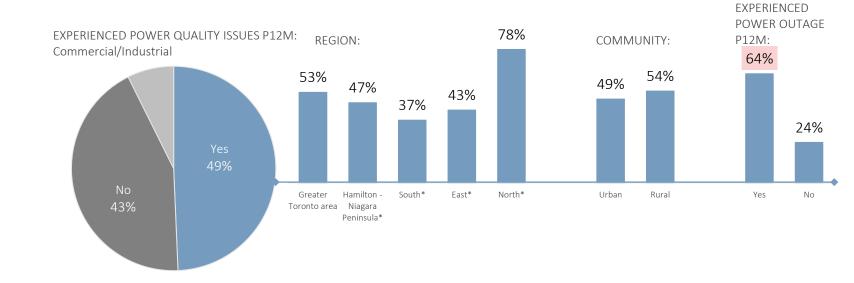
More than four-in-ten (44%) residential customers say they have experienced power quality issues within the past year, especially those who also say they have had power outages in that same time frame. While there are no significant differences between Ontario regions, rural customers are significantly more likely to have power quality issues compared to those in urban communities.



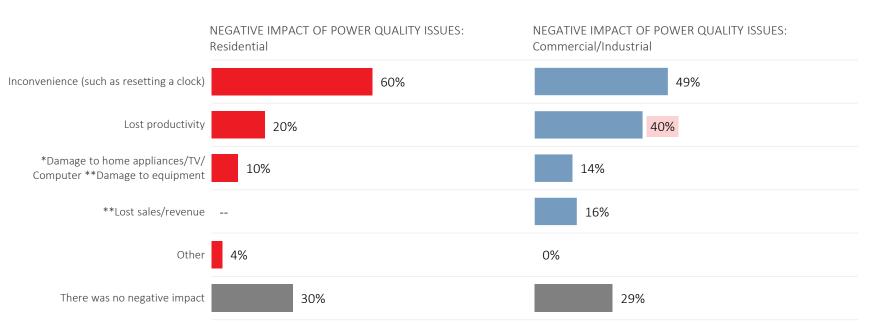
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Half of business customers have experienced power quality issues in the past 12 months.

Half (49%) of commercial/industrial customers say they have experienced power quality issues within the past year, especially those who also say they have had power outages in that same time frame. There are no significant differences between Ontario regions or between rural and urban when it comes to business customers.



Power quality issues are more of an inconvenience for residential customers; however, commercial and industrial customers say in addition to the bother, they have experienced a loss in productivity, sales, and revenue.



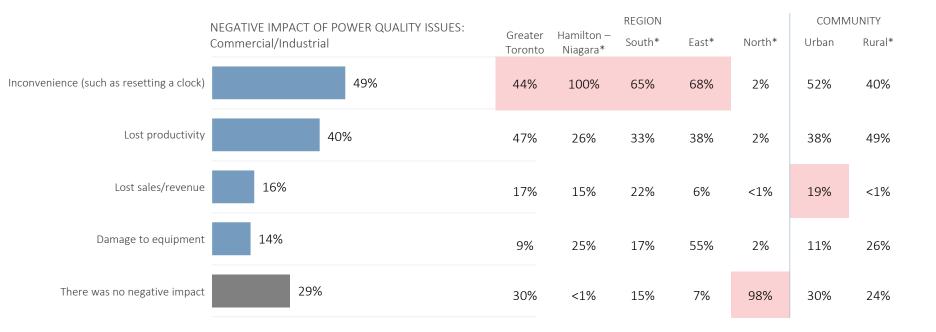
Q17 Did the power quality issues have any negative impact on you / your business?

Base: CUSTOMERS WHO HAVE EXPERIENCED POWER QUALITY ISSUES: RESIDENTIAL (n=332). Base: COMMERCIAL/INDUSTRIAL (n=123).

^{*} Asked of Residential customers. **Asked of Commercial/Industrial customers

Half of business customers say power quality issues are inconvenient, but nearly as many say these issues had a negative impact on productivity.

While not quite as inconvenient as for their residential counterparts, power quality issues still were an annoyance for 49% of commercial/industrial customers, although significantly less so for businesses in Northern Ontario. Four-in-ten (40%) say they experienced lost productivity and one-in-seven say lost sales/revenue (16%) and damage to equipment (14%) were negative impacts of power quality issues. However, 29% feel they experienced no negative impact at all due to power quality.



^{*}Low Sample Size

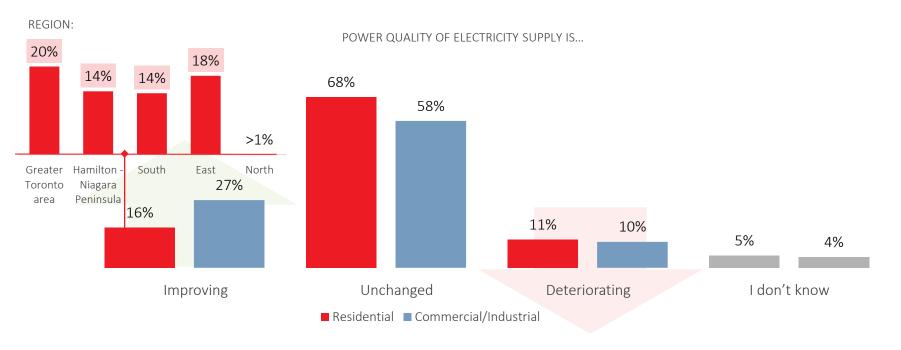
Q17 Did the power quality issues have any negative impact on you / your business?

Base: CUSTOMERS WHO HAVE EXPERIENCED POWER QUALITY ISSUES: Base: COMMERCIAL/INDUSTRIAL (n=123).

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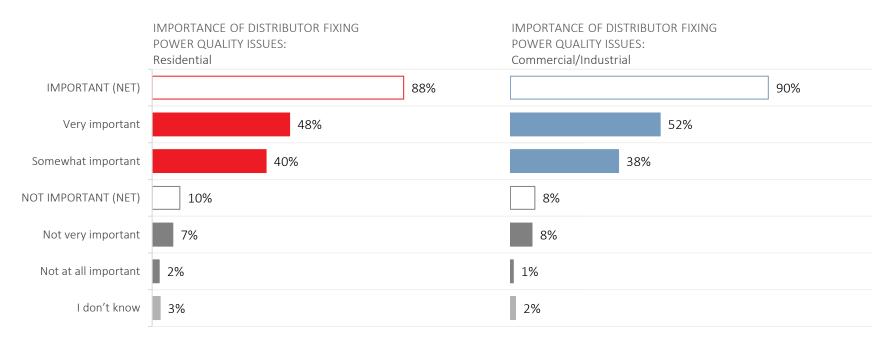
Most believe the power quality of their electricity supply is unchanged.

Seven-in-ten (68%) residential customers and 58% of business customers feel the power quality of their electricity supply has remained unchanged in the past 5 years and one-in-ten feel it has deteriorated. However, 27% of commercial/industrial customers and 16% of residential customers feel that the power quality of their supply is improving, especially among residential customers outside of Northern Ontario.



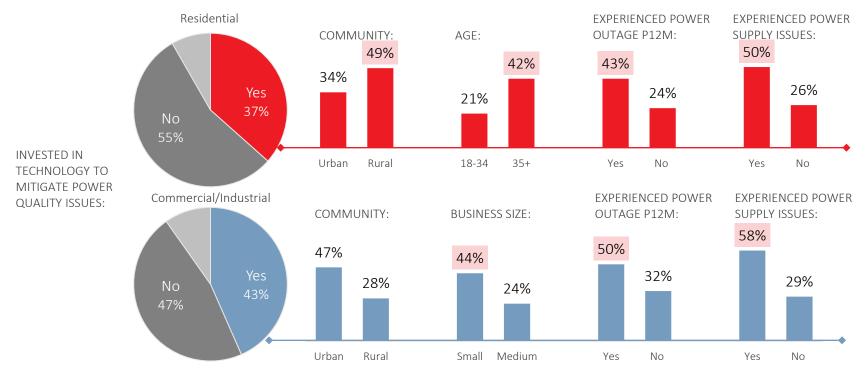
Nine-in-ten of those who have experienced power quality issues say it is <u>important</u> that the distributor fix those issues.

Residential and commercial/industrial customers are equally in agreement then it is important, and in fact <u>very</u> important, for the distributor to fix the power quality issues that they have experienced.



Roughly four-in-ten have invested in technologies to mitigate power quality issues.

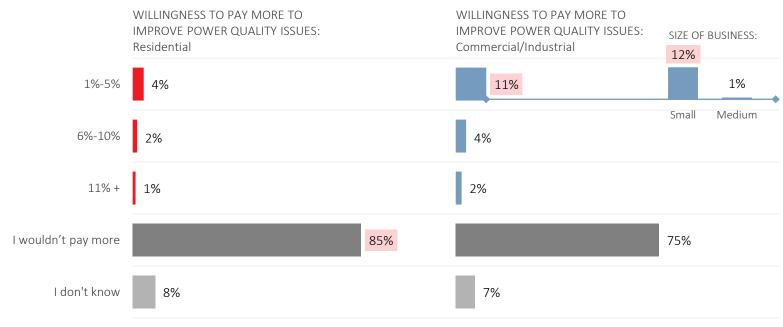
Residential and commercial/industrial customers are equally likely to invest in any technologies (such as surge protection) to mitigate the power quality issues. For residential customers, those in rural communities and those aged 35+ are significantly more likely to have invested in these technologies, and for commercial/industrial customers, small businesses vs. medium sized are likely to do this. For both cohorts, those who have experienced power outages and power supply issues are significantly more likely to say they have invested in technologies to mitigate power supply issues.



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Overall, customers are not more willing to pay more on their monthly electricity bill to improve power quality than they are to pay to reduce power outages, especially among residential customers.

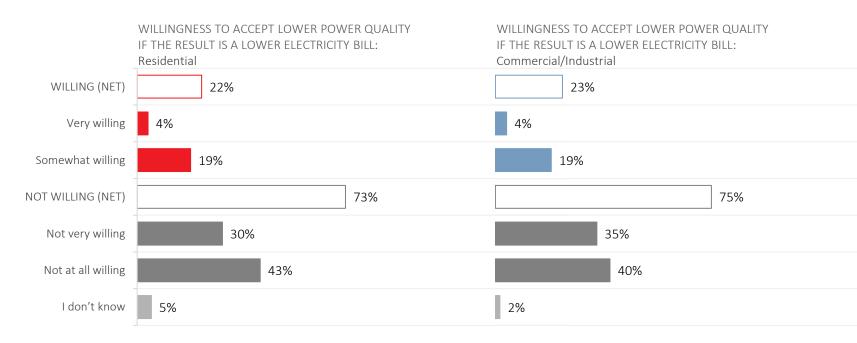
Residential customers are significantly more likely to assert they would not pay anything extra on their monthly electricity bill even if it led to improved power quality and the majority of business customers agree with them. Commercial/industrial customers are more likely to say they might pay extra to reduce power outages, that amount sits solidly in the 1%-5% range, especially among small businesses vs. medium sized ones.





The possibility of a lower electricity bill is not enough for most Ontario customers to accept a lower power quality.

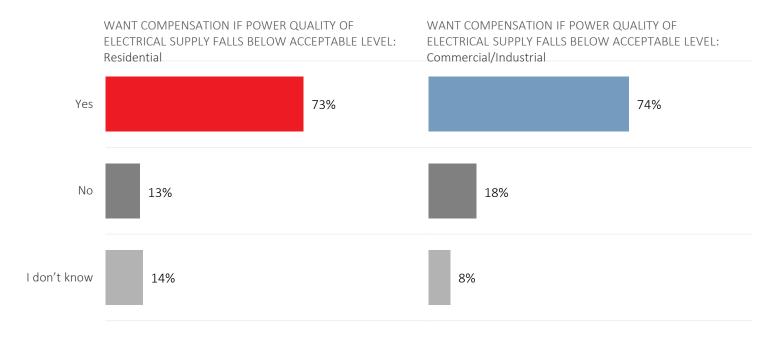
Three-quarters of residential or business customers say they are not willing to accept a lower power quality if it resulted in a lower electricity bill. However, among residential customers, those aged 18-34 are significantly more likely to say they would accept this trade-off (33% vs. 19% those aged 35+), and commercial/industrial customers in the GTA (26%) and Southern Ontario (27%) are more likely to accept lower power quality compared to 7% in other regions of Ontario.



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Ontario electricity customers say compensation is needed if the power quality of their electricity supply falls below an acceptable level.

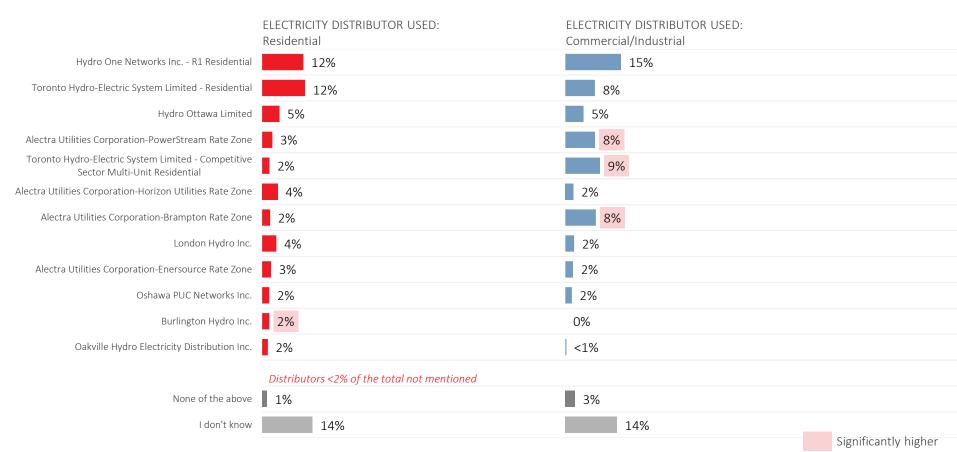
Residential and business customer are in sync here, with three-quarters saying there is a need for compensation if the power quality of their electricity supply falls below an acceptable level.



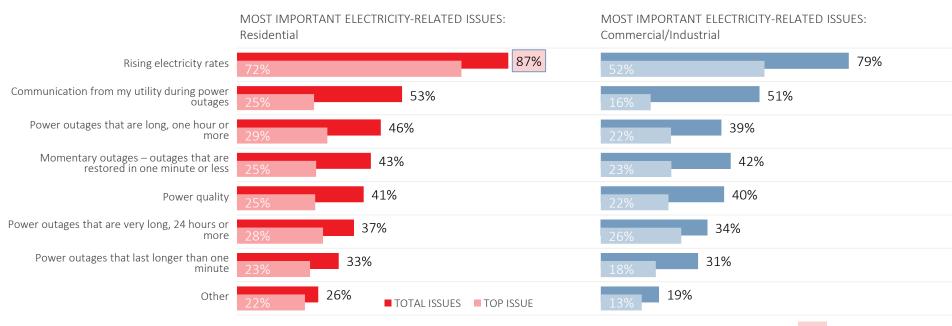


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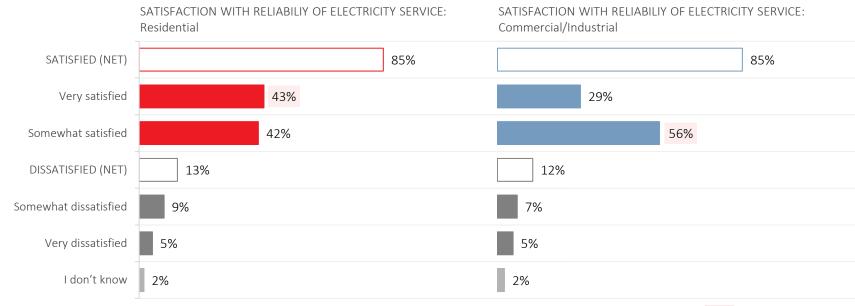
Hydro One Networks Inc. is at the top of the list for both types of customers.



Rising electricity rates top the issues faced by both residential and business customers; in fact, it's the number one reason mentioned by both.



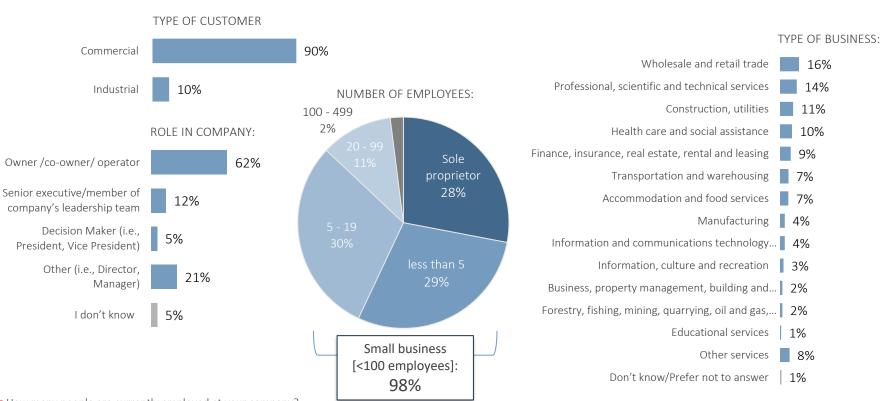
The majority in either group are satisfied with the reliability of their electricity service, although residential customers are more likely to say they are <u>very</u> satisfied compared to commercial or industrial customers.





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Business respondents are primarily owners of small, commercial businesses.

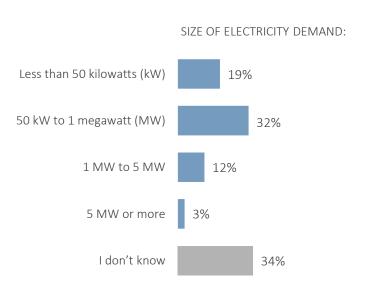


Q1a How many people are currently employed at your company?

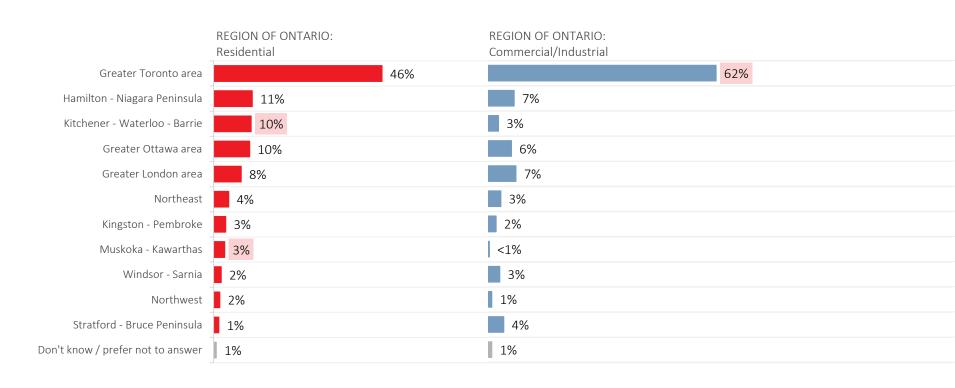
Q1b In terms of the company's ownership, are you...?

Q1c Please select the industry that best describes your business. Base: COMMERCIAL/INDUSTRIAL (n=252).

Most believe the size of their electricity demand from their business is between 50kW and 1MW, although one-third admit they don't know.

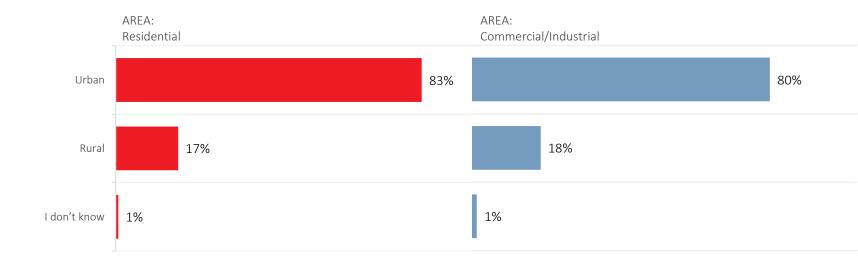


Homes and businesses are mostly situated in the GTA.



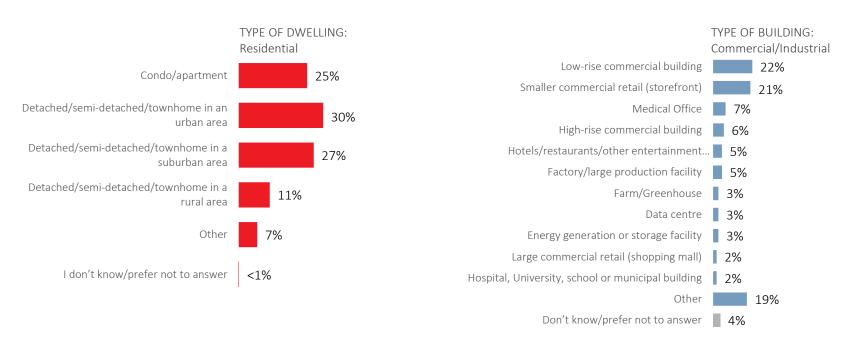
Most classify their area of residence or business as being urban.







Residential dwellings are split between detached/semi-detached/ townhomes in urban or suburban areas and condo/apartments, while businesses primarily are found in low-rise commercial buildings and smaller storefronts.





THE TORONTO PR TEAM:





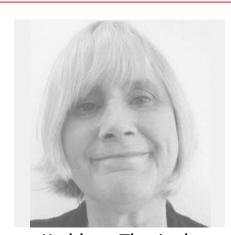
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