



Exhibit 1

Application Overview and Administrative Documents

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2.1.1 Introduction

Niagara-on-the-Lake Hydro Inc. (“NOTL Hydro”) is pleased to present its Cost of Service application for rates effective January 1, 2024. This application consists of the following nine (9) Exhibits, and a suite of OEB provided models to support the evidence presented in this application.

- **Exhibit 1:** Application Overview and Administrative Documents
- **Exhibit 2:** Rate Base and Capital (includes Distribution System Plan)
- **Exhibit 3:** Customer and Load Forecast
- **Exhibit 4:** Operating Expenses
- **Exhibit 5:** Cost of Capital and Capital Structure
- **Exhibit 6:** Revenue Requirement and Revenue Deficiency/Sufficiency
- **Exhibit 7:** Cost Allocation
- **Exhibit 8:** Rate Design
- **Exhibit 9:** Deferral and Variance Accounts

All documents have been submitted to the OEB via their website.

The application along with all supporting evidence will also be posted as a link on the utility’s website once the application is received by the Ontario Energy Board (OEB). A hard copy will also be made available at the NOTL Hydro office.

There are no materials that are being filed on a Confidential Basis in this initial application.

The Distribution license of NOTL Hydro is attached as Appendix 1A.

A certificate signed by the President of NOTL Hydro has been attached as Appendix 1B.

Materiality threshold is \$10,000 as set out in the OEB filing requirements. The materiality threshold was \$50,000 in 2019. NOTL Hydro suggests the materiality levels be re-examined for future applications.

2.1.2 Application Summary and Business Plan

2.1.2.1 Executive Summary

The Rate Application Objective

This cost of service rate application is the third submitted by NOTL Hydro following ones previously submitted for 2014 and 2019 rates. The application is extensively detailed. A read of the application should provide a thorough understanding of NOTL Hydro financially, operationally and strategically. NOTL Hydro supports this level of disclosure. As a local monopoly providing an essential service with public ownership, NOTL Hydro should be fully transparent in its activities with the only exceptions being privacy considerations.

This application is for the approval of all rates and charges that NOTL Hydro may charge its customers for the provision of electricity and services. As NOTL Hydro is a monopoly it is appropriate that its rates and charges be reviewed and approved by a third party. There is not a competitive market that helps determine rates and prices for electricity distribution. In Ontario, the Government of Ontario has given the OEB this authority by law.

As mentioned, the purpose of this application is to set the rates and fees that NOTL Hydro can charge its customers. NOTL Hydro is very proud of the fact that it usually has the lowest rates in the Niagara region and some of the lowest rates in Ontario. These low rates are highlighted annually at the public Annual General Meetings, in the Presidents blogs, at open houses and generally whenever there is an opportunity. Though this application is seeking a rate increase, NOTL Hydro has tried to minimize that rate increase as much as possible.

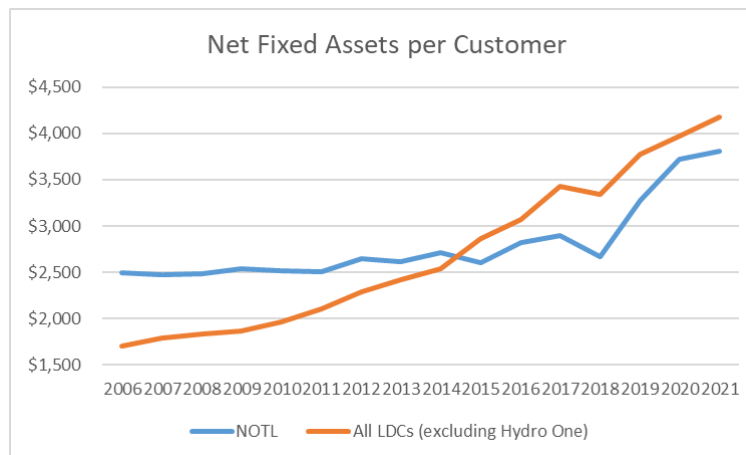
Some examples in which NOTL Hydro has acted in a manner to keep rates low include:

1. In 2020, with the start of the pandemic, NOTL Hydro was asked to defer its rate increase from May to November. After November, NOTL Hydro was given the opportunity to recover all its lost revenue. Most LDCs increased rates to recover this lost revenue by NOTL Hydro was one of a half dozen LDCs that did not. Please see EB-2019-0056.
2. At the start of the pandemic the Board of NOTL Hydro made the decision that NOTL Hydro would not try to recover any lost revenue or incremental costs due to the pandemic. The

feeling was that if our customers were suffering we should not be able to get reimbursed when they cannot. No amounts were ever booked to the accounts the OEB allowed for this purpose.

3. If an LDC wants to earn a higher net profit then the best way to do this is to build a higher rate based and the best way to do that is to build up the net fixed assets balance. From its inception, NOTL Hydro has not taken this approach. NOTL Hydro has invested funds when appropriate, as can be seen in 2019-2021 due to its investments in its stations, as has always spent what is needed on system renewal. However, NOTL Hydro has never made capital investments for the purpose of building rate base. As can be seen in the chart below, NOTL Hydro has gone from having a higher than average net fixed assets per customer to having a lower than average one. This keeps rates down.

Table 1.1: Net Fixed Assets per Customer



4. One of the reasons NOTL Hydro took steps to own its transmission stations was to reduce customer costs. The costs of maintaining these stations is part of NOTL Hydro's distribution costs so adds to the operating costs and increases distribution rates. However, the savings in transmission rates are larger than these increased distribution costs thus making an overall reduction in customer rates.

NOTL Hydro is not unique in this respect. There are other LDCs with the same approach. This approach to rates stems from the ownership structure which has two significant effects.

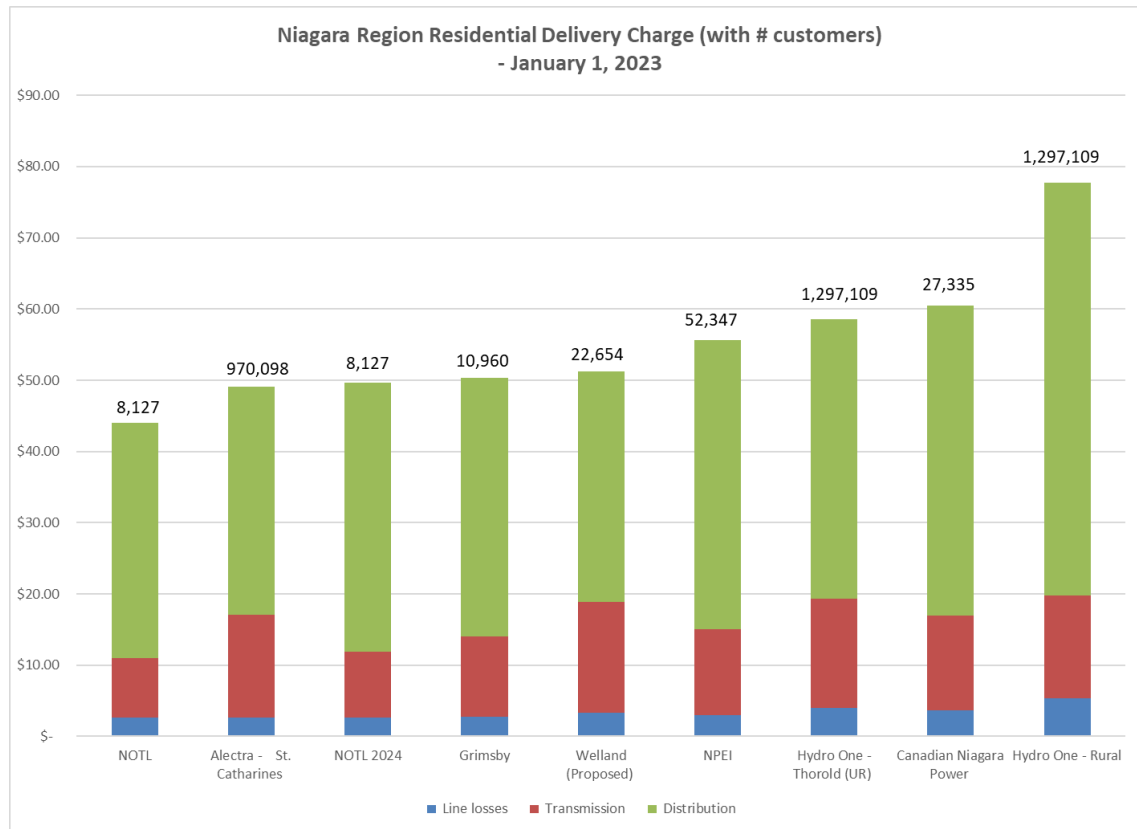
1 1. NOTL Hydro is 100% owned by the Town of Niagara-on-the-Lake and the citizens of
2 Niagara-on-the-Lake are also its customers and its ratepayers. NOTL Hydro is therefore
3 owned by its customers. This means there is no financial benefit from increasing profits
4 by increasing rates. The gain to the customers as owners is offset by the loss with higher
5 rates and vice versa. The Board of NOTL Hydro has therefore set the strategic objective
6 of not maximizing its revenues but of maximizing its overall level of service which includes
7 fair rates.

8
9 2. The Board of NOTL Hydro is appointed by the elected representatives of the Town who
10 were elected by the citizens of the Town; also the ratepayers. The Board of NOTL Hydro
11 has the strongest argument of being the best representative of the ratepayers of Niagara-
12 on-the-Lake. The Board of NOTL Hydro has provided the strategic guidance behind this
13 rate application.

14
15 This does not mean that NOTL Hydro should artificially lower rates. NOTL Hydro must still have
16 rates that allow it to continue to invest properly in the system and provide the reliability required
17 and meet the needs of the customers as they evolve. NOTL Hydro must also still have rates that
18 allow it to provide the level of service needed to meet its responsibilities as defined by the OEB
19 and as demanded by its customers. Finally, NOTL Hydro must also have rates that allow it to
20 earn its regulated return on capital. NOTL Hydro is still an investment made on behalf of the
21 citizens of Niagara-on-the-Lake so should earn a proper return.

22
23 This application is seeking an increase in distribution rates of 11.2%. While that may seek to
24 contradict the arguments above it does not. First of all, despite this rate increase, NOTL Hydro
25 expects it will still have the lowest rates in Niagara in 2024 once other LDCs incorporate their
26 2024 increases. For residential customers this can be seen in the chart below. The proposed
27 2024 rates are still lower than almost all other Niagara LDCs and that is before their own 2024
28 rate increases.

Table 1.2: NOTL Hydro 2023 and 2024 Delivery Charge vs Niagara LDCs



Second, NOTL Hydro must still increase rates as necessary and sometimes this required rate increase will be higher than others. This time, the rate increase is being driven by three factors:

1. Inflation. NOTL Hydro calculates that this rate increase would be 4.85% just due to inflation. This is close half the increase and has been calculated using the OEB methodology less the PEG productivity factor of 0.15% for NOTL Hydro.
2. Fixed asset growth. These past five years have seen a higher than average investment in new assets and that could be seen in the table further above. These investments were within 5% of what was planned in the 2019 Cost of Service and include the investments in the transmission stations. NOTL Hydro expects lower fixed asset growth over the next five years though that can change.
3. Operating costs. NOTL Hydro's operating costs have increased by 26% since 2019 versus inflation of 15.9%. This has not been due to an expanded workforce. NOTL Hydro's staffing has increased by three but all three new positions replaced outside

1 services (locates and underground work) so had very little impact on operating costs.
2 Instead, the big drivers have been the demands for the provision of services (MIST smart
3 meters, station maintenance, cyber security) and some costs which have risen much
4 faster than inflation (benefits, locates, insurance).
5
6

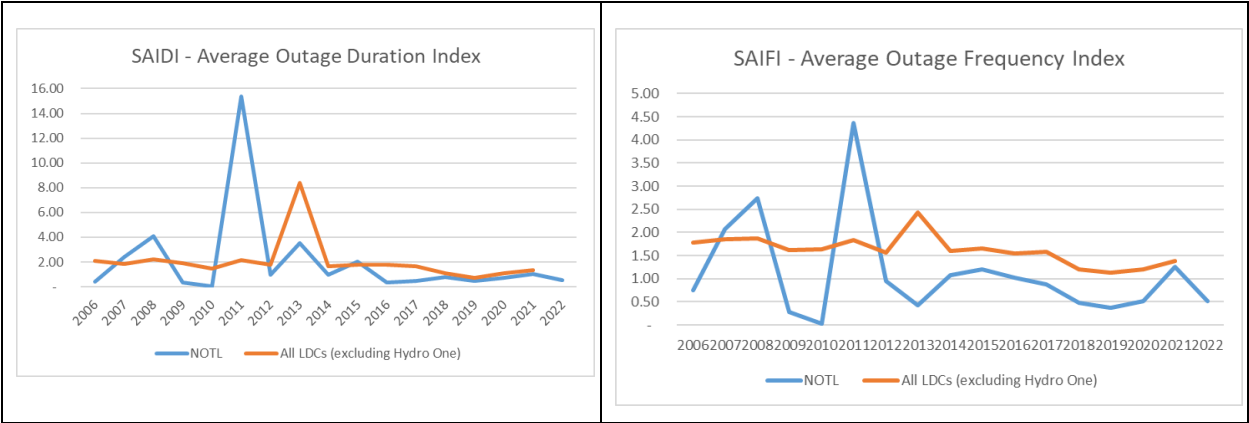
7 **Meeting Customer Needs**

8 Customer's of NOTL Hydro want three things: reliable power, fair rates and good service when
9 they need it. Details on how NOTL Hydro delivers on these and other objectives can also be
10 found in the business plan. The delivery of these three objectives has guided this rate application.
11

12 **Reliability**

13 Of the three deliverables, NOTL Hydro customers have often rated reliable power as the highest
14 priority. This is no surprise given modern life with its preponderance of electronics. The
15 decarbonization and electrification of our current way of life will only increase the importance of
16 reliability. NOTL Hydro has invested extensively over the past 20 years in order to improve
17 reliability. This includes owning and improving the transformation supply points in order in
18 improve the reliability of supply, investing in smart grid technologies to reduce outages and
19 improve response times and rebuilding its grid with either underground or newer, and often larger,
20 overhead infrastructure. These investments have shown themselves in NOTL Hydro's improved
21 reliability performance. Customers have also commented on the reliability compared to previous
22 times or where they have moved from. NOTL Hydro will continue to invest in order to continue to
23 improve reliability and this is reflected in planned expenditures.
24
25

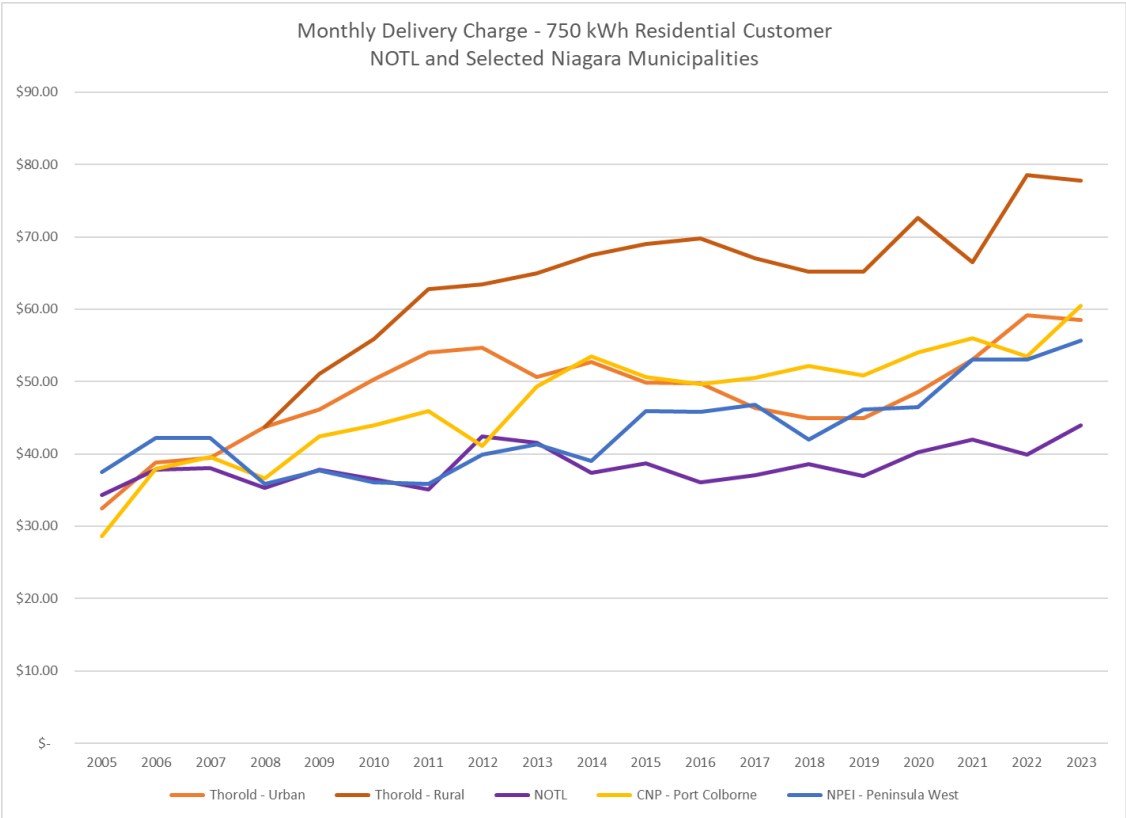
Table 1.3: SAIDI and SAIFI – NOTL Hydro vs Other Ontario LDCs



Rates

As discussed above, NOTL Hydro is very proud of its low rates. These rates did not come about by accident. Prior to 2000, the Niagara-on-the-Lake Hydro-Electric Commission had some of the highest rates in Ontario. It is only through the intelligent management of resources that these rates have become comparatively lower. This can be seen in the table below comparing NOTL Hydro rates with selected other local LDCs.

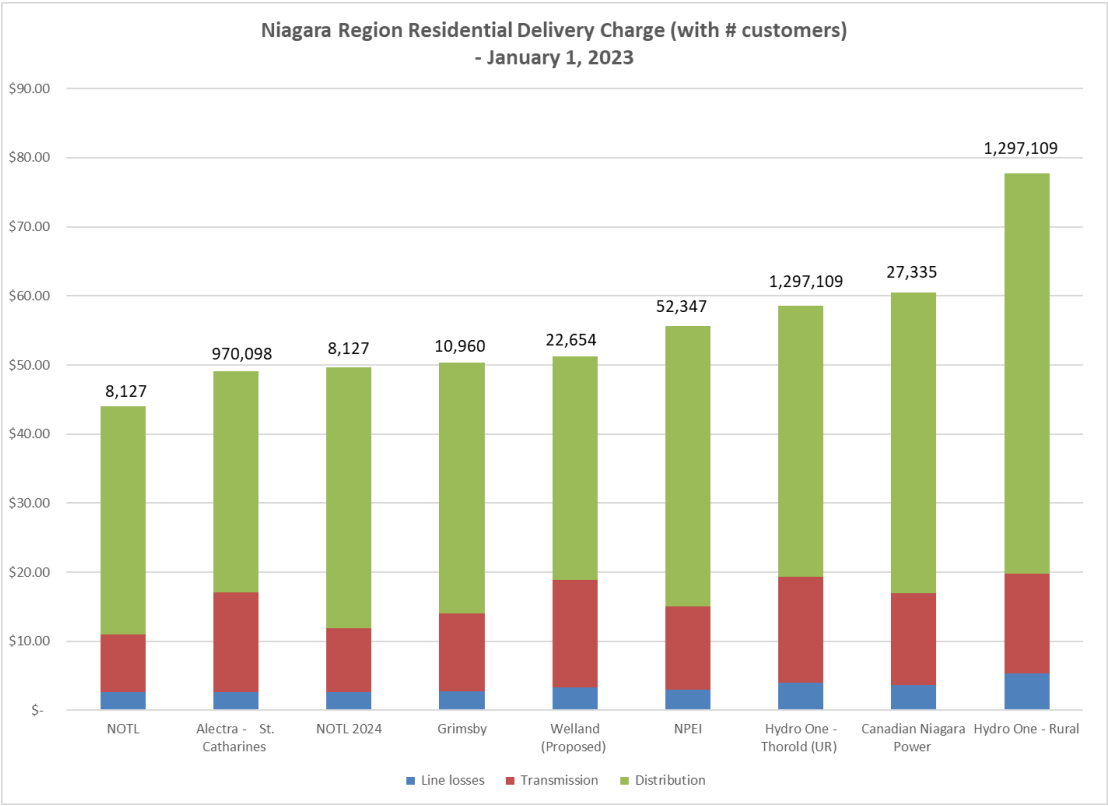
Table 1.4: NOTL Hydro Delivery Charge vs Selected Niagara LDCs



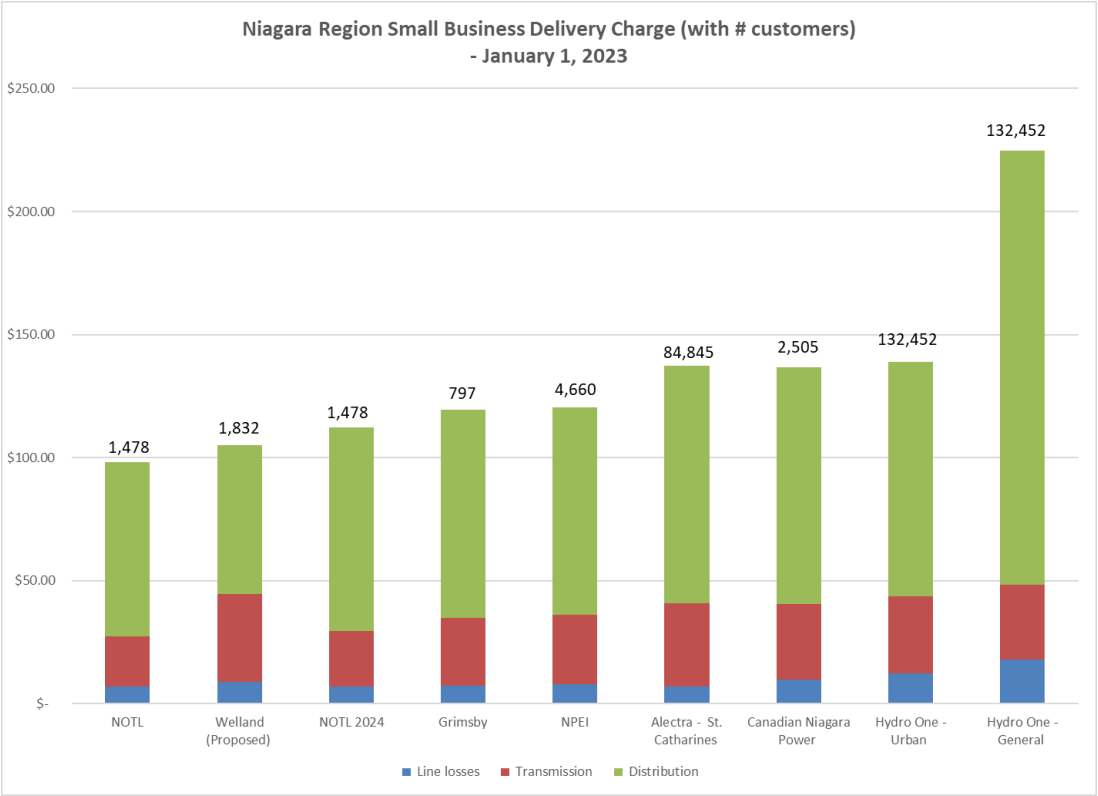
As a result of these continued efforts, NOTL Hydro has the lowest rates in the Niagara Region, the primary comparative cohort, and some of the lowest rates in Ontario. This is not just residential but across all rate classes.

1

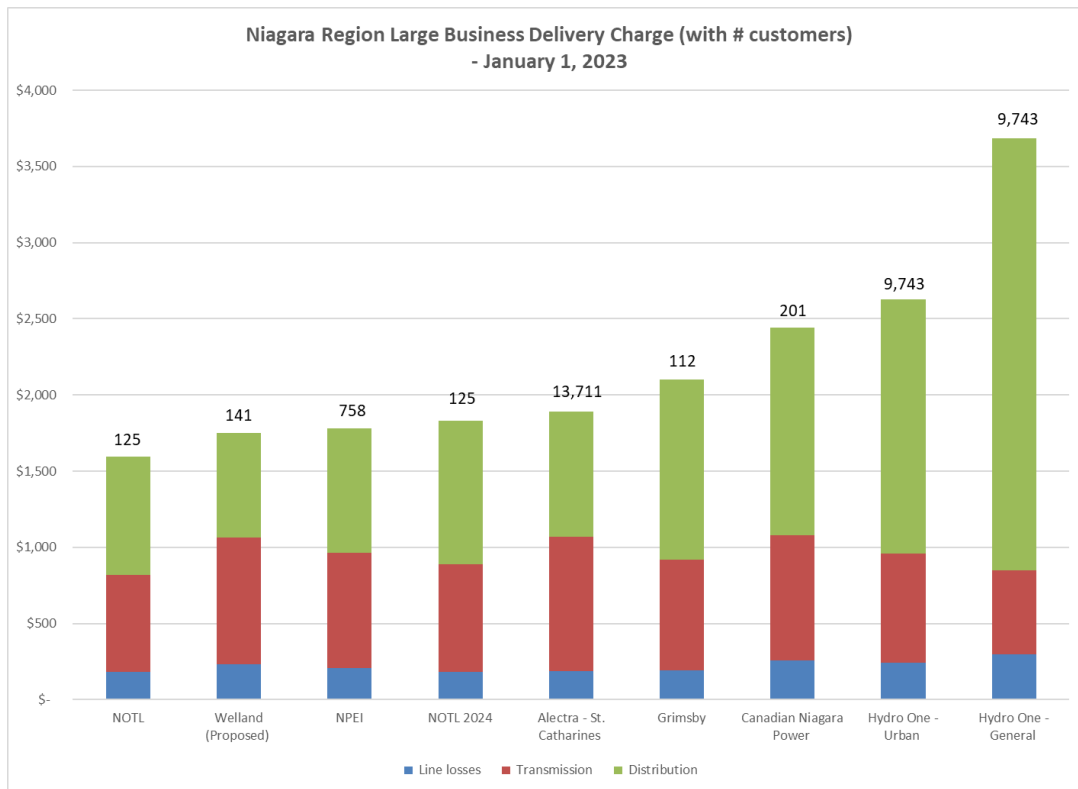
Table 1.5: NOTL Hydro 2023 Delivery Charge vs Niagara LDCs



2



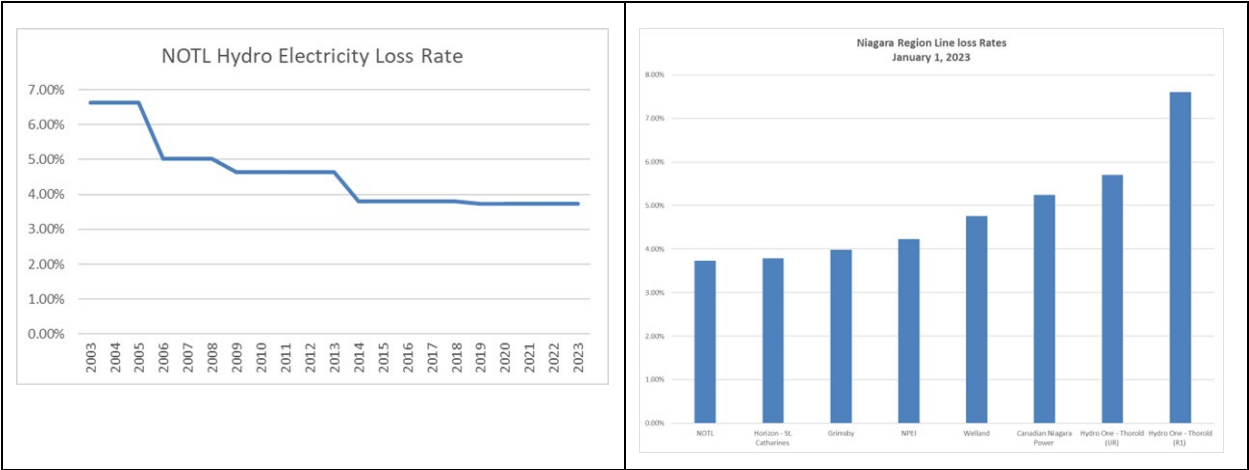
3



Included in the charts are the proposed 2024 rates for NOTL Hydro. Even with the proposed increase in rates, NOTL Hydro will still have one of the lowest rates in Niagara across all rate classes. With the current rate of inflation and large rate riders for transmission and wholesale metering, once the other Niagara LDCs have their 2024 rates determined and approved, it would not be surprising if NOTL Hydro once again had the lowest rates in Niagara over all three rate classes.

Having low rates is not just about having low operating costs or low capital investments. This just reduces the quality of your service or your reliability. It is about having reasonable operating costs and capital investments that are focussed on serving customers. For example, one of the ways NOTL Hydro has achieved low rates is by reducing its line losses through targeted investments. Over the past 20 years, NOTL Hydro has reduced its line losses by 44% through better measurement of consumption and improved infrastructure. As a result, NOTL Hydro now has the lowest line loss rate in Niagara.

Table 1.6: NOTL Hydro Line Loss History and Comparison

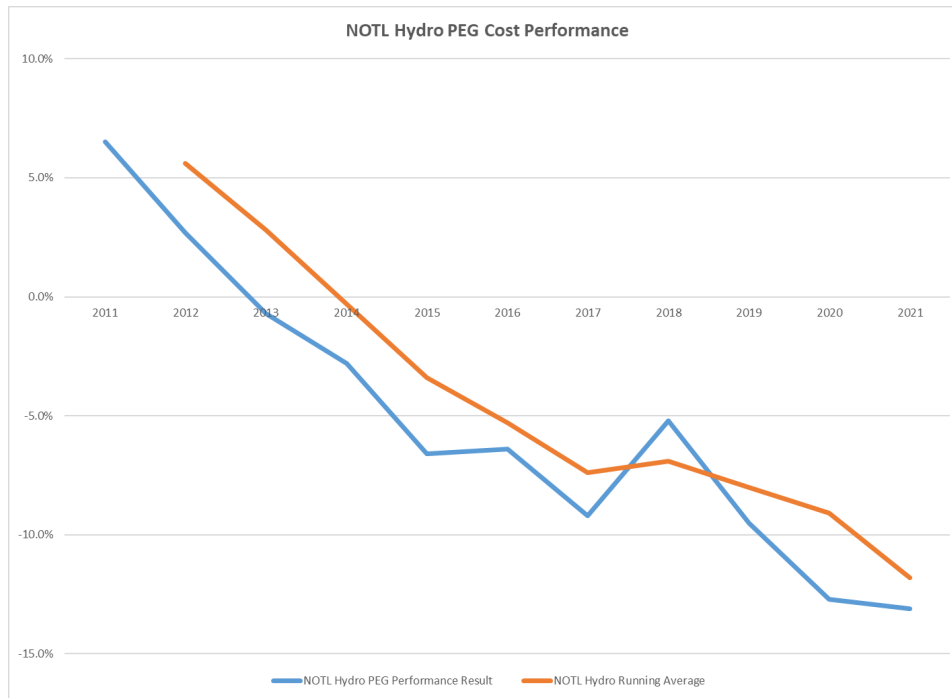


NOTL Hydro's investments in the transformer stations provide a similar story. Though their development and upkeep increases operating and capital costs of NOTL Hydro; the resulting increase in distribution costs is more than offset by savings in transmission charges to NOTL Hydro customers.

Though it does not capture the full story, this performance has been recognized by the OEB with their PEG benchmarking. The PEG analysis tries to look beyond just a simplistic analysis of operating costs and capture both operating and capital costs as well as a number of variables such as customer count, system demand and system expansion. NOTL Hydro's PEG results have improved almost every year and NOTL Hydro was recently promoted to the second tier of LDCs.

Based on its modeling and the financial projections of this submission, the NOTL Hydro PEG result is forecast to continue to improve and move NOTL Hydro very close to the top tier by 2025.

Table 1.7: NOTL Hydro PEG Performance



Service

The final customer expectation is service. This is much harder to quantify though the OEB tries with its RRR reporting. The following are some illustrations as to how NOTL Hydro tries to maintain an appropriate level of customer service for a community such as Niagara-on-the-Lake:

- The office is kept open to customers. For many of our customers, visiting the office is part of their monthly routine. They know the CSRs by name and often are exchanging stories. For others, they appreciate that we are here and easy to get to when needed. Even during the pandemic, the office was only closed for limited periods of time.
- NOTL Hydro has a great reputation with contractors. They greatly appreciate that NOTL Hydro staff are focused on solving issues and moving forward with projects rather than being procedural and not responding to calls.
- Customers will call looking for assistance with electrical issues in their buildings. We have lists of local contractors that we can provide them.
- Most of the time, phone calls are answered immediately in person by NOTL Hydro staff. Having to leave a message is the exception, not the norm, for customers.

- 1 • NOTL Hydro recently implemented an outage warning system that e-mails customers
2 when their power is out.
- 3 • NOTL Hydro staff work hard on collections with calls to customers. As much as possible
4 is done to prevent having to disconnect. This keeps NOTL Hydro's arrears low and helps
5 prevent unnecessary charges to customers. The downside is that some customers now
6 wait for the call before making payment.
- 7 • NOTL Hydro will also call customers with which we have seen high usage to see if we can
8 help them lower their bill.
- 9 • As this is a small community, our services to customers sometimes extend beyond
10 electricity distribution. For example:
 - 11 ○ New residents call us to get their hydro account set-up and NOTL Hydro staff will
12 assist them with advice on some of the other activities needed to get established
13 as a new resident.
 - 14 ○ Customers will sometimes call for directions or assistance just because we know
15 we are here. Lost visitors will also often come in looking for directions.
 - 16 ○ Some community events look for special assistance. NOTL Hydro does not
17 provide donations but can help in certain situations such as using the bucket truck
18 to help put up a large community Christmas tree, providing used poles for certain
19 public parks or providing the use of a pick-up truck during the Terry Fox run.

20
21 This application seeks rates so that NOTL Hydro can continue to meet all three of these customer
22 needs at the same level of quality.

2.1.2.2 Business Plan

A Business Plan has been included as Appendix 1C.

2.1.2.3 Mission & Values

The following are the Mission, Values and Principles of NOTL Hydro as posted on the NOTL Hydro website and as promoted and followed by the Board, management and staff of NOTL Hydro.

Mission Statement

Niagara-on-the-Lake Hydro Inc. is a trusted partner for our customers. Niagara-on-the-Lake Hydro continuously seeks to provide low-cost energy delivery, high reliability and high power quality.

Values

We perform our Mission while maintaining the following values:

1. No compromise on health and safety
2. Operate with integrity in all our dealings
3. Anticipate and meet the needs of our customers
4. Build value for our shareholder
5. Develop and maintain a strong team of employees
6. Be financially prudent
7. Respect the environment

Principles

The following principles have been driving our investment decisions for the past couple of years and will continue to do so. It is recognized that there is an inherent contradiction between many of these principles and managing is about finding a balance between them. These are not necessarily in an order.

1. The distribution grid will be needed. The local grid will be an integral part of the future electricity system so we should continue to keep it in the best shape possible.

2. Our role is to allow customer choice. Customers should be free to choose to make their own energy related decisions or leave them to us. We should not be engaged in activities designed to enrich ourselves at the expense of giving customers choice. Instead, we should be looking at investments that promote customer choice. Implicit in all this is the continued trade-off between cost and customer service (choice) that will always make decisions difficult. The trade-off between providing more distributed generation capacity and the cost of energy storage is an example of this. The trade-off between controlled and uncontrolled electric vehicle charging is another.
3. We should always strive to be a cost-conscious operator. Having lower costs means always having the flexibility to make investments when needed without these becoming a rate or burden issue.
4. We should make our system as flexible as possible. We do not know what the future demands will be on our system but the more flexible it is the more likely it can respond to these demands. The current investments in automated switches and reclosures are an example of this. Increasing our transformation capacity is another example.
5. We do not have to do it all ourselves. Many of the new technologies will be beyond the scope of NOTL Hydro (integrated customer contact systems) but can still be provided through joint purchasing (CHEC) or through third party providers. Other services will be best provided in-house.
6. Electricity is a utility. The vast majority of customers want to have power when they need it (all the time), to have a reasonable bill and to otherwise be left alone. Our job is not to reach out to customers but to be there when customers want to reach out to us and to anticipate their needs.
7. Being municipally owned provides a distinct advantage. Because our customers are also our shareholders, we can make decisions based on the aggregate benefit to them. This may mean decisions that are better for them as customers rather than shareholders. Private ownership may not have this option.

- 1 8. NOTL Hydro should continue to be run independently and as a profit-making business.
2 This provides the discipline to manage costs and the freedom to make long-term
3 decisions.
4
- 5 9. We should hire the best employees possible and have the best working environment.
6 Motivated and intelligent employees will always provide the best service and, in the long
7 run, at the lowest cost.
8
- 9 10. NOTL Hydro will continue to advocate on behalf of its customers when NOTL Hydro
10 believes this is in the customer's best interest. Advocacy will always be about what is best
11 for our customers; not what is best for NOTL Hydro.
12

2.1.2.4 Application Summary

This section is devoted to defining each element of NOTL Hydro's 2024 cost-of-service, explaining how each element is computed and explaining the relationship between the various components. The major components covered in this executive summary are as follows:

1. Revenue Requirement
2. Load Forecast Summary
3. Rate Base and DSP
4. Operations, Maintenance and Administration Expense
5. Cost of Capital
6. Cost Allocation and Rate Design
7. Deferral and Variance Accounts
8. Bill Impacts

2.1.2.4A Revenue Requirement

NOTL Hydro's revenue requirement for the 2024 test year is \$6,725,757. This is the revenue NOTL Hydro needs from rates to cover all its costs.

Table 1.8: Test Year Revenue Requirement

Particular	MIFRS 2019BA	MIFRS 2019	MIFRS 2020	MIFRS 2021	MIFRS 2022	MIFRS 2023	MIFRS 2024
OM&A Expenses	\$2,671,367	\$2,830,352	\$2,952,740	\$3,161,111	\$3,314,505	\$3,410,378	\$3,571,884
Depreciation Expense	\$1,127,484	\$886,207	\$1,283,075	\$1,227,391	\$1,276,739	\$1,347,691	\$1,417,700
Property Taxes	\$34,955	\$35,495	\$41,701	\$42,226	\$42,743	\$43,384	\$43,384
Total Distribution Expenses	\$3,833,805	\$3,752,054	\$4,277,516	\$4,430,728	\$4,633,987	\$4,801,453	\$5,032,969
Regulated Return On Capital	\$1,791,845	\$1,646,247	\$1,628,171	\$1,643,736	\$1,717,109	\$2,007,318	\$2,161,440
Grossed up PILs	\$95,863	\$151,412	\$315,147	\$109,793	\$0	\$166,226	\$140,029
Service Revenue Requirement	\$5,721,514	\$5,549,712	\$6,220,834	\$6,184,257	\$6,351,096	\$6,974,996	\$7,334,438
Less: Revenue Offsets	\$482,448	\$284,255	\$165,261	\$829,859	\$1,542,595	\$564,121	\$608,681
Base Revenue Requirement	\$5,239,066	\$5,265,457	\$6,055,572	\$5,354,399	\$4,808,501	\$6,410,875	\$6,725,757

The revenue requirement is an increase of \$1,486,691 or 28.4% from the Board approved revenue requirement in 2019. The main drivers of this increase are provided in the table below.

Table 1.9: Increase in Revenue Requirement 2019-2024

	2024	2019BA	Variance	Variance %
Long Term Debt	3.83%	3.89%	(0.06%)	
Short Term Debt	4.79%	2.82%	1.97%	
Return on Equity	9.36%	8.98%	0.38%	
Weighted Debt Rate	3.89%	3.82%	0.08%	
Regulated Rate of Return	6.08%	5.88%	0.20%	
Controlable Expenses	3,615,268	2,706,322	908,946	33.6%
Power Supply Expense	27,876,388	25,896,653	1,979,735	7.6%
Total Eligible Distribution Expenses	31,491,657	28,602,975	2,888,681	10.1%
Working Capital Allowance Rate	7.50%	7.50%	0.00%	
Total Working Capital Allowance	2,361,874	2,145,223	216,651	10.1%
Fixed Asset Opening Bal Bridge Year	32,905,404		n/a	n/a
Fixed Asset Opening Bal Test Year	33,466,174		n/a	n/a
Average Fixed Asset	33,185,789	28,311,753	4,874,036	17.2%
Working Capital Allowance	2,361,874	2,145,223	216,651	10.1%
Rate Base	35,547,664	30,456,976	5,090,687	16.7%
Regulated Rate of Return	6.08%	5.88%	0.20%	
Regulated Return on Capital	2,161,440	1,791,845	369,595	20.6%
Deemed Interest Expense	830,536	697,830	132,705	19.0%
Deemed Return on Equity	1,330,905	1,094,015	236,890	21.7%
OM&A	3,571,884	2,671,367	900,517	33.7%
Depreciation Expense	1,417,700	1,127,484	290,217	25.7%
PILs	140,029	95,863	44,165	46.1%
Property Taxes	43,384	34,955	8,429	24.1%
Revenue Offset	(608,681)	(482,448)	(126,233)	26.2%
Revenue Requirement	6,725,757	5,239,066	1,486,691	28.4%

The drivers in the growth of the revenue requirement have been the increase in both assets and annual costs needed to serve the growth in Niagara-on-the-Lake. This growth impact can be seen in the table below which breaks down the increase based on selected drivers of the revenue requirement.

Inflation – Inflation has been the biggest driver of increased costs; especially over the past couple of years. NOTL Hydro has used the OEB approved inflation factors since 2019 with 2024 calculated using the OEB methodology less the NOTL Hydro PEG productivity factor.

Operating Costs – NOTL Hydro has had to incur a number of costs that are new or above inflation in order to meet its regulatory and business requirements. These include reading and managing smart meter for the large customers which was required in 2020, customer billing costs, cyber security and locates. More detail is provided in Exhibit 4.

Other Revenue (Revenue Offset) – Other revenue has grown faster than inflation and this helps reduce the revenue requirement. More detail is provided in Exhibit 6.

Regulated Rate of Return – The regulated rate of return has increased from 5.88% to 6.08% while the rate base has also increased as noted above. More detail is provided in Exhibits 2 and 5.

Depreciation – Depreciation has grown faster than inflation due to the increase in fixed assets. More detail is provided in Exhibit 2.

Table 1.10: Growth in Projected Revenue Requirement

2019 Revenue Requirement	\$5,239,066
Inflationary increase in rates (2019-2024) of 15.9%	833,011
Increase in operating costs	473,836
Increase in Other Revenue	(49,524)
Increase in regulated rate of return	86,207
Increase in depreciation	94,877
Other	48,284
2024 Projected Revenue Requirement	\$6,725,757

More details on the revenue requirement can be found in Exhibit 6.

2.1.2.4B Load Forecast

NOTL Hydro's load forecast is provided in the following table. The load forecast provides the expected demand for electricity and the expected number of customers for use in determining rates.

Table 1.11: Final Load Forecast Results

Rate Class	Year	2019	2020	2021	2022	2023	2024
Residential	Cust/Conn	8,011	8,076	8,117	8,173	8,282	8,404
	kWh	75,007,658	79,728,513	78,645,721	78,473,065	78,769,365	79,654,824
	kW						
General Service < 50 kW	Cust/Conn	1,363	1,388	1,437	1,470	1,487	1,523
	kWh	42,173,377	40,043,495	41,952,897	44,644,119	44,812,686	45,316,433
	kW						
General Service > 50 kW - 4999 kW	Cust/Conn	126	124	125	126	125	127
	kWh	94,000,918	75,559,208	76,914,641	86,913,746	85,629,843	86,743,031
	kW	252,730	192,751	195,348	219,945	218,199	221,036
Unmetered Scattered Load	Cust/Conn	30	30	32	50	60	60
	kWh	254,508	247,075	262,765	315,376	379,083	379,083
	kW						
Street Lights	Cust/Conn	2,153	2,148	2,245	2,254	2,254	2,254
	kWh	854,489	840,175	561,901	563,345	563,345	563,345
	kW	2,389	2,339	1,568	1,568	1,572	1,572
Large User	Cust/Conn	1	1	1	1	1	1
	kWh	17,267,572	25,776,834	19,135,794	1,250,861	19,710,000	39,420,000
	kW	56,470	87,942	67,379	8,525	30,000	60,000
Total	Cust/Conn	11,684	11,766	11,957	12,073	12,208	12,368
	kWh	229,558,522	222,195,299	217,473,718	212,160,512	229,864,323	252,076,717
	kW	311,590	283,032	264,296	230,038	249,771	282,608

The results from the load forecast are summarized in the following table:

Table 1.12: Change in Load Forecast since 2019 CoS Application

	2019 BA	2024	# Increase	% Increase
# Customers*	9,657	10,119	462	4.8%
Load (kwh)	222,679,374	252,076,717	29,397,343	13.2%
Demand (kW)	274,758	282,608	7,850	2.9%

*number of customers is calculated by taking the total amount less street light connections plus 5 for the number of street light customers.

The load forecast was created using a regression analysis with the number of customers, the heating and cooling days, the number of days per month, seasonal flag, and historical loads were the variables included in the analysis. A summary of the source of data is provided in the table below. The regression had an R-squared of 93.03%.

More detail on the load forecast can be found in Exhibit 3.

2.1.2.4C Rate Base and Distribution System Plan

Rate base is a proxy for the total capital (debt and equity) that NOTL Hydro needs to fund its operations. NOTL Hydro's rate base requested for 2024 is \$35,548,784:

Table 1.13: Rate Base Trend

	MIFRS 2019	MIFRS 2019	MIFRS 2020	MIFRS 2021	MIFRS 2022	MIFRS 2023	MIFRS 2024
Particulars	Board Appr	Actual	Actual	Actual	Actual	Bridge	Test
Net Capital Assets in Service:							
Opening Balance		26,203,305	26,084,280	29,497,401	30,732,245	30,264,127	32,905,404
Ending Balance		26,084,280	29,497,401	30,732,245	30,264,127	32,905,404	33,466,174
Average Balance	28,311,753	26,143,792	27,790,840	30,114,823	30,498,186	31,584,765	33,185,789
Working Capital Allowance	2,145,223	2,188,969	2,488,316	2,204,021	2,158,894	2,142,595	2,361,874
Total Rate Base	30,456,976	28,332,761	30,279,156	32,318,844	32,657,079	33,727,361	35,547,664

This rate base is an increase of \$5,090,687 or 16.7% over the Board approved rate base in 2019.

Table 1.14: Rate Base 2019 vs 2024

	2019	2024	2024 vs. 2019	2024 vs. 2019
Particulars	Board Appr	Test	BA vs. Test	BA vs. Test
Net Capital Assets in Service:				
Opening Balance		32,905,404		
Ending Balance		33,466,174		
Average Balance	28,311,753	33,185,789	4,874,036	17.2%
Working Capital Allowance	2,145,223	2,361,874	216,651	10.1%
Total Rate Base	30,456,976	35,547,664	5,090,687	16.7%
	MIFRS	MIFRS	MIFRS	MIFRS
Expenses for Working Capital	2019	2024	2024 vs. 2019	2024 vs. 2019
Eligible Distribution Expenses:	Board Appr	Test	BA vs. Test	BA vs. Test
Distribution Expenses - Operation	711,610	792,135	80,525	11.3%
Distribution Expenses - Maintenance	449,790	513,942	64,151	14.3%
Billing and Collecting	632,867	800,299	167,432	26.5%
Community Relations	11,485	0	(11,485)	(100.0%)
General and Administrative Expenses	858,405	1,456,708	598,302	69.7%
6105-Taxes other than Income Taxes	34,955	43,384	8,429	24.1%
6205-Sub-account LEAP Funding	7,209	8,801	1,591	22.1%
Total Eligible Distribution Expenses	2,706,322	3,615,268	908,946	33.6%
3350-Power Supply Expenses	25,896,653	27,876,388	1,979,735	7.6%
Total Expenses for Working Capital	28,602,975	31,491,657	2,888,681	10.1%
Working Capital factor	7.5%	7.5%	-	0.0%
Total Working Capital	2,145,223	2,361,874	216,651	10.1%

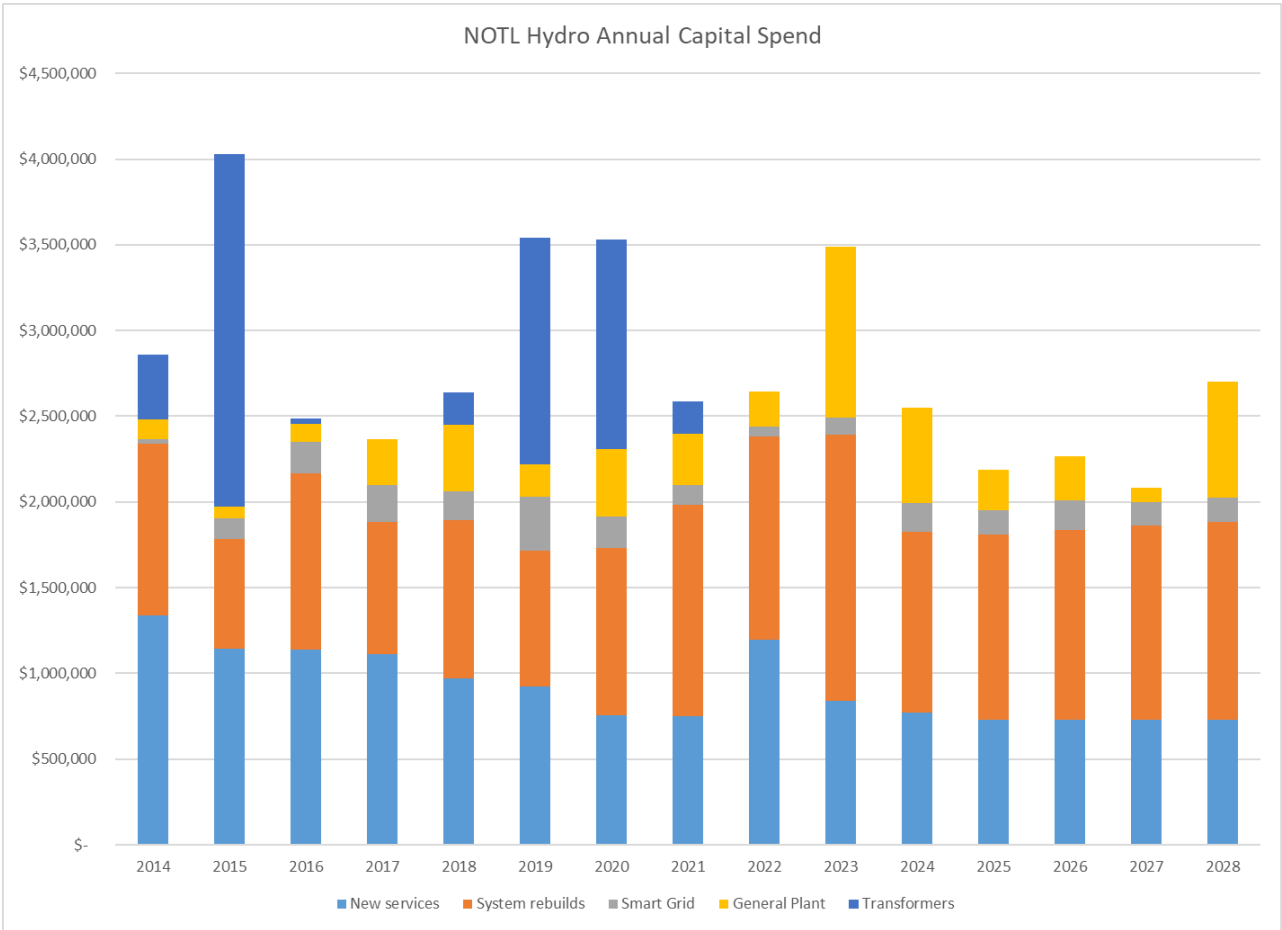
The increase in the net fixed assets accounted for 96% of the increase in rate base or \$4.9 million. The installation of the 83 MVA transformer was the biggest contributor to the increase. 50% of it or \$1.65 million was included in the 2019 net fixed assets so the full amount of around \$2.9 million less depreciation is included in 2024 net fixed assets. Distribution assets grew by a net \$2.1 million after allowing for customer contributions. Most of this is driven by NOTL Hydro's system

renewal projects as the annual expenditure on these is higher than the offsetting depreciation due to inflation.

More detail on rate base can be found in Exhibit 2.

The chart below provides the actual and proposed capital expenditures from 2014-2028.

Table 1.15: Capital Expenditures (2014-2028)



Currently, the proposed capital expenditures for 2024-2028 are comparatively low as NOTL Hydro has completed all the planned work on its transformer stations and will be completing work on its office building this year. The system renewal projects are a continuation of the voltage conversion underground conversion work of the past four decades with the overhead conversion work moving to working on the firelanes. In 2024, the underground work is planned for Garrison Village due to

the outage issues with the underground services in that area. New large trucks are planned for 2023, 2024 and 2028 which renews the full large vehicle fleet. The actual future expenditures may change based on customer needs and a changing environment.

The table below measures the capital expenditures approved in the 2019 Cost of Service against actual expenditures including CWIP for 2019 to 2023 including a five-year total.

Table 1.16: Budgeted vs Actual (2019-2023)

Year	Actual (includes CWIP)	2019 Cost of Service
2019	2,101	4,936
2020	3,147	1,524
2021	1,937	1,359
2022	2,094	1,374
2023	2,237	1,789
Total	11,516	10,982

Though there will have been variation year-to-year in the actual expenditures as NOTL Hydro adjusted to changing conditions, particularly the pandemic, the total expenditures over the 5 years are within 5% of what was planned.

More details on the proposed capital expenditures can be found in the Distribution System Plan.

2.1.2.4D Operations, Maintenance & Administration Expense

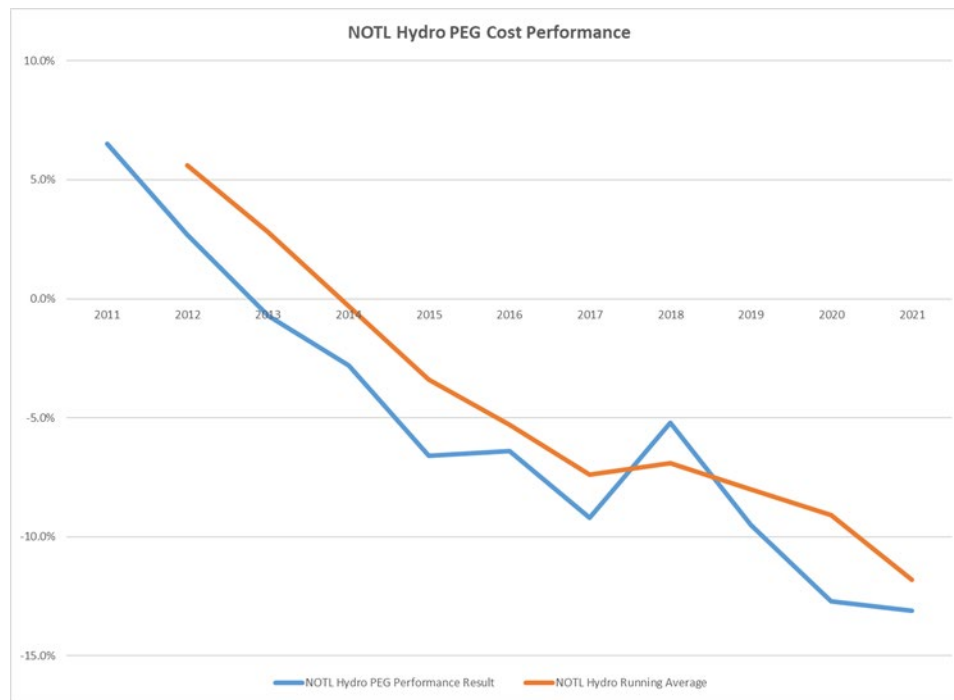
NOTL Hydro is seeking an OM&A (annual operating cost recovery) of \$3,571,884 million for its 2024 Test year. The increase in OM&A over the last five years is shown below.

Table 1.17 – OM&A Trend

	2019 BA	2019	2020	2021	2022	2023	2024
Operations	\$711,610	\$623,207	\$717,525	\$730,154	\$767,087	\$783,175	\$792,135
Maintenance	\$449,790	\$521,538	\$409,998	\$511,054	\$487,879	\$486,646	\$513,942
Billing and Collecting	\$632,867	\$520,425	\$630,975	\$618,632	\$677,732	\$740,878	\$800,299
Community Relations	\$11,485	\$656	\$0	\$0	\$0	\$0	\$0
Administrative and General	\$865,615	\$1,164,525	\$1,194,240	\$1,301,271	\$1,381,806	\$1,399,678	\$1,465,508
Total	\$2,671,367	\$2,830,352	\$2,952,740	\$3,161,111	\$3,314,505	\$3,410,378	\$3,571,884
%Change (year over year)	(7.6%)	6.0%	4.3%	7.1%	4.9%	2.9%	4.7%

In managing costs, NOTL Hydro looks at the total cost rather than just the operating cost. For instance, bringing underground services in house or hosting its billing system in the cloud as part of collaborative effort with other LDCs increases OM&A costs but reduces total costs and improves services. This has been recognized by the OEB with their PEG analysis which measures total cost and has consistently improved since 2018 and is forecast to continue to do so.

Table 1.18 – PEG Results



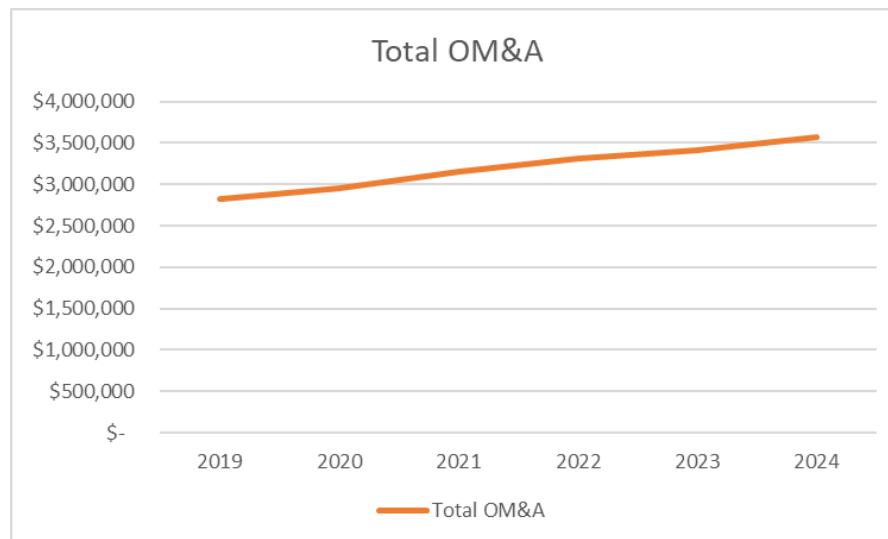
NOTL Hydro's OM&A increase since the last Board approved rates is provided in the table below.

Table 1.19 – OM&A (2019 Board approved versus 2024)

	2019 BA	2024	\$ Variance	% Variance
Operations	\$ 711,610	\$ 792,135	\$ 80,525	11.3%
Maintenance	\$ 449,790	\$ 513,942	\$ 64,151	14.3%
Operations & Maintenance	\$ 1,161,400	\$ 1,306,077	\$ 144,676	12.5%
Billing and Collecting	\$ 632,867	\$ 800,299	\$ 167,432	26.5%
Community Relations	\$ 11,485	\$ -	\$ (11,485)	(100.0%)
Administrative and General	\$ 1,159,013	\$ 1,465,508	\$ 306,496	26.4%
2019 Decision	\$ (293,398)	\$ -	\$ 293,398	(100.0%)
Total	\$ 2,671,367	\$ 3,571,884	\$ 900,517	33.7%

NOTL Hydro's costs have increased steadily since 2019 at an average rate of 4.78%. This can be seen in the table below as well as the annual percentage increases in the last row of table 1.16.

Table 1.20 – OM&A Trend



The biggest driver of the increase in costs has been inflation which has accounted for over half the increase with a total impact of \$424,747. This has been determined using the OEB approved rates less the productivity factor from the PEG analysis which results in an inflation rate lower than most other measures. NOTL Hydro's productivity factor was reduced from 0.30% to 0.15% in 2022 due to its good cost management.

A sample of other cost drivers is provided below. There are three types of drivers: the costs of certain services that NOTL Hydro has had to take on or have changed due to regulations, the cost of new services designed to improve service and lower total cost and the lost cost savings of former provincial programs.

Table 1.21: Selected NOTL Hydro Incremental Costs

Cost	2019 Expense	2024 Expense	Increase (\$000)	% Increase
MIST meters mgmt	9,500	101,480	91,980	968%
Customer billing (UCS)	107,969	148,296	50,327	47%
Cyber security	58,665	85,570	26,905	56%
Control room	16,800	33,048	16,248	97%
Locates	67,248	89,539	22,290	33%
Station maintenance	20,780	4,950	20,170	97%
GIS Analyst	-	26,536	26,536	100%
Underground services	-	28,362	28,362	100%
Insurance	58,442	97,262	38,820	66%
AFT & CDM	(127,123)	-	127,123	100%
Total	\$172,283	\$661,044	\$448,761	211%

More detail on these cost drivers and OM&A in general can be found in Exhibit 4.

2.1.2.4E Cost of Capital

NOTL Hydro's cost of capital has been calculated as 6.08%. NOTL Hydro is using the OEB's cost of capital parameters. In particular, in deriving the cost rate for long-term debt, NOTL Hydro has used the deemed OEB long-term debt rate of 4.88% on the Promissory Note to the Town of Niagara-on-the-Lake when the actual interest rate paid is 7.25%.

There have been no deviations from the OEB cost of capital parameters. NOTL Hydro does note that it has demand notes with CIBC that are classified as short-term debt for financial reporting purposes but have been treated as long-term debt in this application as the loans have a related the interest rate swap that convert them to effective fixed rate long term debt.

The table below shows the determination of the 6.08% weighted cost of capital as well as the resulting ROE and interest expense.

Table 1.22: NOTL Hydro 2024 Cost of Capital

Particulars	2024		Cost Rate	Return
	Capitalization Ratio			
Debt	(%)	(\$)	(%)	(\$)
Long-term Debt	56.0%	\$ 19,906,692	3.83%	\$ 762,426
Short-term Debt	4.0%	\$ 1,421,907	4.79%	\$ 68,109
Total Debt	60.0%	\$ 21,328,598	3.89%	\$ 830,536
Equity				
Common Equity	40.0%	\$ 14,219,065	9.36%	\$ 1,330,905
Preferred Shares		\$ -		\$ -
Total Equity	40.0%	\$ 14,219,065	9.36%	\$ 1,330,905
Total	100.0%	\$35,547,664	6.08%	\$2,161,440

2.1.2.4F Cost Allocation and Rate Design

Rate Mitigation

NOTL Hydro is proposing a distribution rate increase of around 11.2%. As distribution rates are less than 20% of the total bill, the total impact of this increase is less than 2%. Nevertheless, NOTL Hydro is proposing to spread this increase over two years to mitigate the impact on all customers. The base 2025 rates are the rates prior to the IRM inflation adjustment.

Table 1.23 Current Rates versus Proposed 2024 Test Year Rates

	Current 2023	Proposed 2024	Proposed Base 2025
Residential	\$31.97	\$33.77	\$35.56
GS<50 kW - fixed	\$43.56	\$46.01	\$48.46
GS<50 kW - variable	\$0.0129	\$0.0136	\$0.0144
GS>50 kW - fixed	\$311.31	\$328.81	\$346.30
GS>50 kW - variable	\$2.6057	\$2.7480	\$2.8904
Large User - -fixed	\$4,080.99	\$4,310.35	\$4,539.72
Large User - variable	\$2.6057	\$2.7207	\$2.8356
USL - fixed	\$23.43	\$24.75	\$26.06
USL - variable	\$0.0060	\$0.0063	\$0.0067
Streetlight - fixed	\$7.95	\$8.40	\$8.84
Streetlight - variable	\$1.9144	\$2.0220	\$2.1296

The resulting impact of the halved distribution rate increase and the other rate increases can be seen in the table below. The other increases affecting the delivery charge include increases to transmission rates, increases to regulatory charges and catch-up charges as both the transmission rates and regulatory costs increased in 2022 without any change to NOTL Hydro rates. The impact of these other rate increases is over twice that of NOTL Hydro's rates.

Table 1.24: Bill Impact Summary - Current Rates versus Proposed 2024 Test Year Rates

	Distribution Rates		Delivery Charge		Total Bill
Customer Class	\$	%	\$	%	%
Residential	\$1.80	5.63%	\$5.64	12.83%	4.76%
GS < 50	\$3.85	5.55%	\$14.35	14.64%	4.84%
GS > 50	\$36.71	5.54%	\$238.54	16.89%	3.36%
USL	\$1.56	5.53%	\$6.16	15.49%	5.17%
Streetlights	\$138.12	5.66%	\$271.66	10.58%	7.60%
Large Use	\$804.36	4.70%	\$11,183.36	21.15%	2.61%

NOTL Hydro is not proposing any new customer classes or changes to existing customer classes nor is NOTL Hydro proposing any new charges.

Cost Allocation

As part of the preparation of this application, LDCs are required to prepare a cost allocation study. The purpose of this study is to try to ensure the impact of rates reflects the underlying cost to service each rate class. By its nature, there is a fair degree of estimation and assumptions built into this model. NOTL Hydro ran this cost allocation twice, once using the load profile that has been used a number of years and once using a load profile that has been newly developed by another LDC. The commonly used load profile provided the following ratios of rates to costs.

Table 1.25: Cost Allocation Results

Revenue to Cost Ratio Allocation				Target Range	
Customer Class Name	Calculated R/C Ratio	Proposed R/C Ratio	Variance	Floor	Ceiling
Residential	0.9052	0.9052	0.00	0.85	1.15
General Service < 50 kW	1.1338	1.1338	0.00	0.80	1.20
General Service > 50 kW	1.1136	1.1136	0.00	0.80	1.20
Large User	1.0986	1.0986	0.00	0.80	1.20
Unmetered Scattered Load	1.1815	1.1815	0.00	0.80	1.20
Street Lighting	1.4118	1.4118	0.00	0.80	1.20

Based on the results of this model, NOTL Hydro should be lowering the streetlighting rates. However, the effect of this would be to increase residential rates as that is the manner in which the model distributes costs. NOTL Hydro notes that the streetlight rates have already fallen considerably over the past few years and does not consider it fair to decrease them further while increasing residential rates. NOTL Hydro is therefore proposing to leave the cost allocations unchanged.

Fixed/Variable Splits

This model also looks at the allocation of rates between the fixed and floating rates. Residential distribution rates are 100% fixed but the other customer classes have both fixed and variable rates. NOTL Hydro is proposing to keep the fixed to variable ratios the same across all rate classes.

Table 1.26: Fixed / Variable Split Proposal

Existing Rates	Current Rates and Fixed to Variable Split			Proposed Rates at Current Fixed to Variable Split		
Customer Class Name	Fixed Rate	Fixed %	Variable %	Fixed Rate	Fixed %	Variable %
Residential	\$31.97	100.00%	0.00%	\$35.56	100.00%	0.00%
General Service < 50 kW	\$43.56	57.65%	42.35%	\$48.46	57.65%	42.35%
General Service > 50 kW	\$311.31	45.80%	54.20%	\$346.30	45.80%	54.20%
Large User	\$4,080.99	28.52%	71.48%	\$4,539.72	28.52%	71.48%
Unmetered Scattered Load	\$23.43	88.12%	11.88%	\$26.06	88.12%	11.88%
Street Lighting	\$7.95	98.62%	1.38%	\$8.84	98.62%	1.38%

2.1.2.4G Deferral and Variance Accounts

NOTL Hydro proposes to dispose of a debit balance of \$823,799 related to Group 1 and a debit balance of \$182,471 for Group 2 Variance/Deferral Accounts. The Group 1 and Group 2 balances are as of December 31, 2022 plus projected interest and are consistent with the utility's audited financial statements.

Group 1 and Group 2 DVA balances are proposed to be disposed of over 1 year.

There is also a debit balance of \$145,840 to be collected related to the overprovision of credits from the conversion from CGAAP to IFRS. It is proposed to dispose of this balance over 1 year.

NOTL Hydro has followed the OEB's guidance as provided in the OEB's Electricity Distributor's Disposition of Variance Accounts Reporting Requirements Report, including disposing by RPP and non-RPP appropriate categories.

NOTL Hydro is not requesting the creation of any new deferral and variance accounts.

More detail on the deferral and variance accounts can be found in Exhibit 9.

Table 1.27: Account Balances Sought for Disposition / Recovery

Account Description	USoA	Closing Principal Balance as of Dec 31, 2022	Closing Interest Balance as of Dec 31, 2022	OEB-Approved Disposition during 2023	Closing Balance as of Dec 31, 2022 adjusted for 2023 OEB approved dispositions	Projected Interest for 2023 on 2022 balance adjusted for dispositions during 2023	Total Claim Proposed for Disposition	Account to be continued / discontinued
Smart Metering Entity Charge Variance Account	1551	(33,439.11)	(409.14)	6,225.14	(27,623.11)	(1,343.52)	(28,966.63)	Continue
RSVA - Wholesale Market Service Charge	1580	572,644.51	9,209.83	(147,337.96)	434,516.38	21,032.89	455,549.27	Continue
Variance WMS – Sub-account CBR Class B	1580	(43,669.55)	(950.72)	24,020.19	(20,600.08)	(988.21)	(21,588.29)	Continue
RSVA - Retail Transmission Network Charge	1584	455,487.28	6,810.33	(150,315.41)	311,982.20	15,127.60	327,109.80	Continue
RSVA - Retail Transmission Connection Charge	1586	(29,481.65)	(1,250.19)	66,449.55	35,717.71	1,749.47	37,467.18	Continue
RSVA - Power	1588	40,665.76	744.10	(19,843.54)	21,566.32	1,048.10	22,614.42	Continue
RSVA - Global Adjustment	1589	34,564.59	268.35	(4,679.08)	30,153.86	1,459.67	31,613.53	Continue
Disposition and Recovery/Refund of Regulatory Balances (2018)	1595	41,897.30	15,353.94	(57,076.33)	174.91	-	-	Discontinue
Disposition and Recovery/Refund of Regulatory Balances (2019)	1595	-	12,720.38	-	12,720.38	-	-	Continue
Disposition and Recovery/Refund of Regulatory Balances (2020)	1595	36,043.87	16,566.61	-	52,610.48	1,772.46	-	Continue
Disposition and Recovery/Refund of Regulatory Balances (2021)	1595	8,839.72	-	-	8,839.72	434.69	-	Continue
Disposition and Recovery/Refund of Regulatory Balances (2022)	1595	(25,559.40)	(10,392.36)	-	(35,951.76)	(1,256.88)	-	Continue
Total of Group 1 Accounts (including 1589)		1,057,993.32	48,671.13	(282,557.44)	824,107.01	39,036.26	823,799.28	
OEB Cost Assessment	1508	14,771.00	824.68	-	15,595.68	726.36	16,322.04	Continue
Other Regulatory Assets - Sub-Account - Pole Attachments	1508	5,649.81	(1,207.61)	-	4,442.20	277.83	4,720.03	Continue
Other Regulatory Assets - Sub-Account - Large Use	1508	110,020.75	866.72	14,028.97	124,916.44	6,083.58	131,000.02	Continue
Other Regulatory Assets - Sub-Account - Customer Choice	1508	17,421.65	379.76	-	17,801.41	856.71	18,658.12	Continue
Other Regulatory Assets - Sub-Account - Green Button	1508	327.64	5.98	-	333.62	16.11	349.73	Continue
Retail Cost Variance Account - Retail	1518	8,590.14	607.76	-	9,197.90	422.42	9,620.32	Discontinue
Pension & OPEB Forecast Accrual versus Actual Cash Payment Differential	1522	(146,600.42)	-	-	(146,600.42)	-	-	Continue
Pension & OPEB Forecast Accrual versus Actual Cash Payment Differential Contra Account	1522	146,600.42	-	-	146,600.42	-	-	Continue
Pension & OPEB Forecast Accrual versus Actual Cash Payment Differential Carrying Charges	1522	-	(8,949.73)	-	(8,949.73)	-	(8,949.73)	Continue
Retail Cost Variance Account - STR	1548	9,595.87	682.71	-	10,278.58	471.88	10,750.46	Discontinue
Group 2 Sub-Total		166,376.86	(6,789.73)	14,028.97	173,616.10	8,854.89	182,470.99	
LRAM Variance Account	1568	8,454.00	180.00	(8,634.00)	-	-	-	Continue
Accounting Changes Under CGAAP Balance + Return Component	1576	145,840.36	-	-	145,840.36	-	145,840.36	Discontinue
Total		1,378,664.54	42,061.40	(277,162.47)	1,143,563.47	47,891.16	1,152,110.63	

The impact of the Group 1 DVA balances by customer class is summarized as follows:

Table 1.28: Group 1 DVA Balance Disposition by Customer Class

Rate Rider Calculation for Group 1 Deferral / Variance Accounts Balances (excluding Global Adj.)

1550, 1551, 1584, 1586, 1595, 1580 and 1588

Rate Class (Enter Rate Classes in cells below)	Units	kW / kWh / # of Customers	Allocated Group 1 Balance (excluding 1589)	Rate Rider for Deferral/Variance Accounts
RESIDENTIAL	kWh	79,654,824	\$ 241,778	0.0030
GENERAL SERVICE LESS THAN 50 KW	kWh	45,316,433	\$ 147,059	0.0032
GENERAL SERVICE 50 TO 4,999 KW	kW	221,036	\$ 289,999	1.3120
LARGE USE	kW	60,000	\$ 131,789	2.1965
UNMETERED SCATTERED LOAD	kWh	379,083	\$ 1,267	0.0033
STREET LIGHTING	kW	1,572	\$ 1,883	1.1981
Total			\$ 813,774	

Rate Rider Calculation for Account 1580, sub-account CBR Class B

1580, Sub-account CBR Class B

Rate Class (Enter Rate Classes in cells below)	Units	kW / kWh / # of Customers	Allocated Sub- account 1580 CBR Class B Balance	Rate Rider for Sub-account 1580 CBR Class B
RESIDENTIAL	kWh	79,654,824	-\$ 8,213	- 0.0001
GENERAL SERVICE LESS THAN 50 KW	kWh	45,316,433	-\$ 4,672	- 0.0001
GENERAL SERVICE 50 TO 4,999 KW	kW	206,337	-\$ 8,427	- 0.0408
LARGE USE	kW	-	\$ -	-
UNMETERED SCATTERED LOAD	kWh	379,083	-\$ 39	- 0.0001
STREET LIGHTING	kW	1,572	-\$ 58	- 0.0369
Total			-\$ 21,410	

Rate Rider Calculation for RSVA Global Adjustment

Balance of Account 1589 Allocated to Non-WMPs

Rate Class (Enter Rate Classes in cells below)	Units	kWh	Allocated Global Adjustment Balance	Rate Rider for RSVA - Power - Global Adjustment
RESIDENTIAL	kWh	829,084	\$ 324	0.0004
GENERAL SERVICE LESS THAN 50 KW	kWh	4,839,858	\$ 1,889	0.0004
GENERAL SERVICE 50 TO 4,999 KW	kWh	72,529,117	\$ 28,306	0.0004
LARGE USE	kWh	-	\$ -	-
UNMETERED SCATTERED LOAD	kWh	141,586	\$ 55	0.0004
STREET LIGHTING	kWh	492,432	\$ 192	0.0004
Total			\$ 30,766	

The sum of these rate rider allocations is \$823,130, which excludes \$669 that has been allocated to the customers that transitioned between Class A and Class B during the period the rate riders accrued.

Table 1.29: Group 2 DVA Balance Disposition by Customer Class

Rate Rider Calculation for Group 2 Accounts

Rate Class (Enter Rate Classes in cells below)	Units	kW / kWh / # of Customers	Allocated Group 2 Balance	Rate Rider for Group 2 Accounts
RESIDENTIAL	# of Customers	8,404	\$ 97,625	\$ 0.97
GENERAL SERVICE LESS THAN 50 KW	kWh	45,316,433	\$ 38,794	\$ 0.0009
GENERAL SERVICE 50 TO 4,999 KW	kW	221,036	\$ 32,516	\$ 0.1471
LARGE USE	kW	60,000	\$ 7,982	\$ 0.1330
UNMETERED SCATTERED LOAD	kWh	379,083	\$ 590	\$ 0.0016
STREET LIGHTING	kW	1,572	\$ 4,963	\$ 3.1574
Total			\$ 182,471	

Table 1.30: Accounting Change DVA Balance Disposition by Customer Class

Rate Rider Calculation for Accounts 1575 and 1576

Please indicate the Rate Rider Recovery Period (in months) 12

Rate Class (Enter Rate Classes in cells below)	Units	kW / kWh / # of Customers	Allocated Accounts 1575 and 1576 Balances	Rate Rider for Accounts 1575 and 1576
RESIDENTIAL	# of Customers	8,404	\$ 46,085	0.4570
GENERAL SERVICE LESS THAN 50 KW	kWh	45,316,433	\$ 26,218	0.0006
GENERAL SERVICE 50 TO 4,999 KW	kW	221,036	\$ 50,186	0.2270
LARGE USE	kW	60,000	\$ 22,807	0.3801
UNMETERED SCATTERED LOAD	kWh	379,083	\$ 219	0.0006
STREET LIGHTING	kW	1,572	\$ 326	0.2073
Total			\$ 145,840	

2.1.2.4H Bill Impacts

The table below provides the bill impact on both distribution charges and delivery charge as well as the percentage impact on the total bill. The distribution rates are shown after the mitigation proposal from NOTL Hydro spreading the impact over two years.

Table 1.31: Bill Impact Summary - Current Rates versus Proposed 2024 Test Year Rates

Customer Class	Distribution Rates		Delivery Charge		Total Bill
	\$	%	\$	%	%
Residential	\$1.80	5.63%	\$5.64	12.83%	4.76%
GS < 50	\$3.85	5.55%	\$14.35	14.64%	4.84%
GS > 50	\$36.71	5.54%	\$238.54	16.89%	3.36%
USL	\$1.56	5.53%	\$6.16	15.49%	5.17%
Streetlights	\$138.12	5.66%	\$271.66	10.58%	7.60%
Large Use	\$804.36	4.70%	\$11,183.36	21.15%	2.61%

More detailed bill impact summaries are provided as Appendix 1D.

This table captures the impacts of the proposed increases in distribution rates, deferral and variance accounts, RTSRs and the change in the line loss rate. Within these, the only change having an impact on a specific customer or customer group is the proposal to have the Large Use RTSRs also change whenever there is a change in the Uniform Transmission Rates.

The proposed changes to specific service charges, which are not included in the above table, are limited in nature at an estimated annual impact of \$600, have an average occurrence of 5 times a year and do not affect any discrete customer segment.

2.1.3 Administration

2.1.3.1 Contact Information

Application contact information is as follows:

Applicants Name: Niagara-on-the-Lake Hydro Inc.

Applicants Address: PO Box 460

8 Henegan Road

Niagara-on-the-Lake, ON

L0S 1T0

Applicants Contact: Jeff Klassen

Vice President, Finance

Email: jklassen@notlhydro.com

Phone: 905-468-7268

Fax: 905-468-3861

Alternative Contact: Tim Curtis

President

Email: tcurtis@notlhydro.com

Phone: 905-468-2431

Fax: 905-468-3861

2.1.3.2 Legal Representation

Applicants Counsel: David Stevens

Email: dstevens@airdberlis.com

Phone: 416-865-7783

2.1.3.3 Internet Address and Social Media Accounts

The Applicant's website address is www.notlhydro.com

Twitter: @notlhydro - <https://twitter.com/notlhydro>

Facebook: <https://www.facebook.com/NOTLhydro/>

LinkedIn: <https://www.linkedin.com/company/niagara-on-the-lake-hydro/>

2.1.3.4 Statement of Publication

All of NOTL Hydro's customers will be affected by this application.

Upon receiving the Letter of Direction and the Notice of Application and Hearing from the Board, the OEB will arrange to have the Notice of Application and Hearing for this proceeding published in the local community not-paid-for newspaper which has the highest circulation in its service area. NOTL Hydro recommends the following papers:

- The Lake Report, an unpaid local publication delivered to every home in Niagara-on-the-Lake or;
- The Local, an unpaid local publication delivered to every home in Niagara-on-the-Lake

This application and all documents related to this application will be made available on NOTL Hydro's website at: www.notlhydro.com. The application will also be available on the OEB's website at <https://www.oeb.ca/> under Board File Number EB-2023-0041.

2.1.3.5 Statement as to the Form of Hearing Requested

This Application is supported by written evidence. The written evidence will be pre-filed and may be amended from time to time, prior to the Board's final decision on the Application.

NOTL Hydro requests that pursuant to Section 34.01 of the Board's Rules of Practice and Procedure, this proceeding be conducted by way of written hearing but understands that the utility could be asked to participate in an oral hearing. NOTL Hydro requests three Commissioners for its hearing. NOTL Hydro customers deserve the same level of regulatory oversight as customers of other LDCs.

2.1.3.6 Effective Date

NOTL Hydro requests an effective date of January 1, 2024.

2.1.3.7 Changes in Methodologies

There have been no changes in methodologies since the previous Cost of Service.

All processes are in compliance with policies, directives and rules and guidelines from the Ontario Energy Board and other regulators. Regulatory costs have been normalized over the five-year application period.

2.1.3.8 Board Directive from Previous Decisions

At the date of this submission, there were no Board Directives from any previous Board Decisions and/or Orders that require addressing in this Application.

Nevertheless, NOTL Hydro has tried to address issues that arose during the last Cost of Service application. In particular:

- NOTL Hydro was able to reduce its OM&A by \$134,414 in 2019 compared to the OM&A requested in its application. While this did not match the \$ 293,398 reduction in OM&A in the decision (which NOTL Hydro appealed), it does indicate that the effort was made with a fair bit of success. Since then, NOTL Hydro has attempted to control costs by not hiring additional staff except where those staff are directly replacing outside services. This has been the case with the locator and the two underground crewmen that have been hired. While OM&A costs have risen this has been due to additional requirements or high inflation and not increased staffing.
- As recommended in the decision, NOTL Hydro has integrated the Virgil underground project into its annual system renewal projects. No other underground system renewal project work is being done that same year. While NOTL Hydro would have ideally split this work over two years, as it does with the Old Town work, this was not an option as the Niagara Region, who is performing 80% of the work, is striving to finish the project in less than 6 months to limit the impact on residents. NOTL Hydro's share of this project, to which it committed a decade ago, is less than 10% of the total project.
- NOTL Hydro has continued to use the deemed interest rate for the original promissory note that was established with NOTL Hydro was created in 2002. The balance of this note continues to decline as NOTL Hydro repays a portion of it each month.

2.1.3.9 Conditions of Service

The Conditions of Service for NOTL Hydro can be found on applicant's website at:

<https://www.notlhydro.com/wp-content/uploads/2023/01/Conditions-of-Service-v2023-0314.pdf>

1 NOTL Hydro's last change to its Conditions of Service was March 14, 2023. As part of the process
2 of updating the Conditions of Service, the new Conditions of Service, a summary of the changes
3 and a blacklined copy showing all the changes was posted on our website. An insert is also be
4 sent to all our customers advising them of the changes. There were no comments.

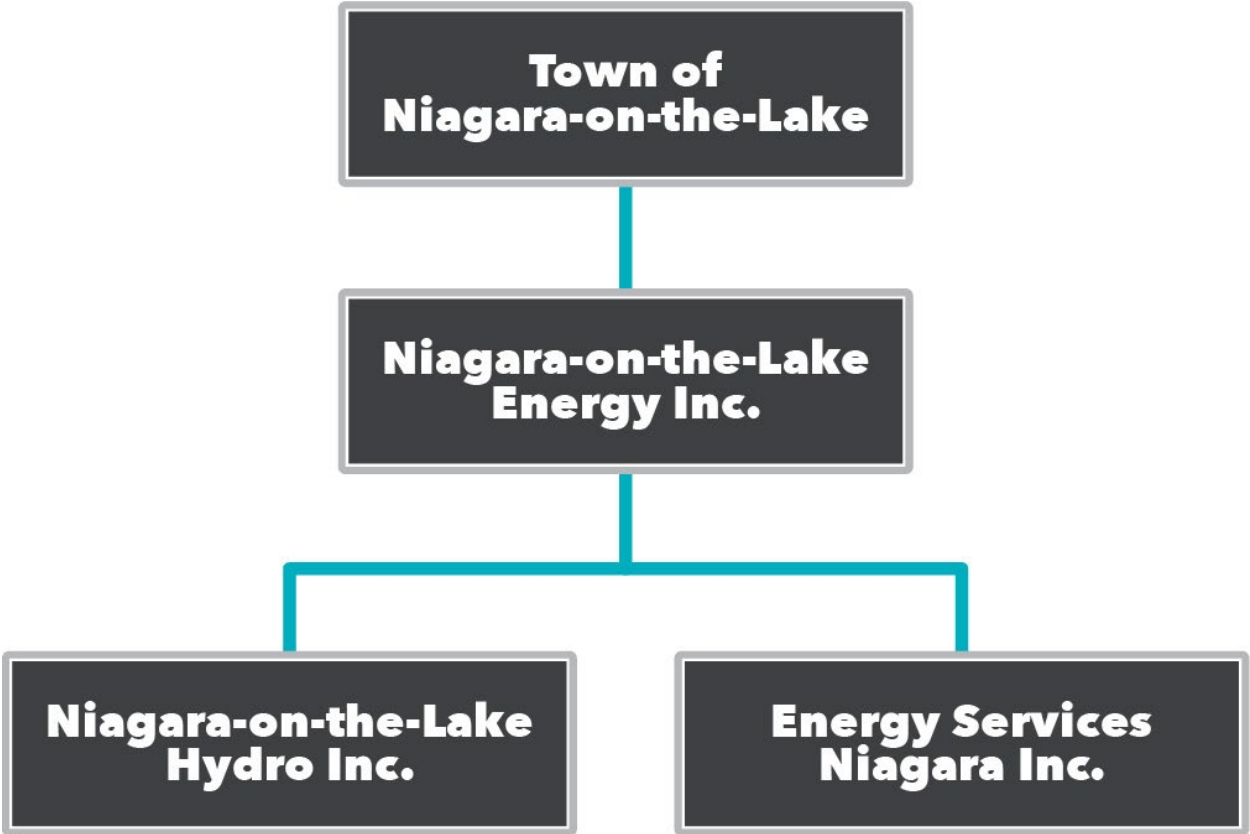
5
6
7 **2.1.3.10 Conditions of Service Rates Confirmation**

8 There are no rate or charges listed in the Conditions of Service that are not on NOTL Hydro's
9 Tariff of Rates and Charges.

10

2.1.3.11 Corporate Organization

Table 1.32: Corporate Chart



There are currently no planned changes to the organizational structure of the NOTL Energy group of companies.

The Corporation of the Town of Niagara-on-the-Lake:

The Corporation of the Town of Niagara-on-the-Lake has 100% ownership of all shares in the Holding Company.

Niagara-on-the-Lake Energy Inc.:

Niagara-on-the-Lake Energy Inc. (NOTL Energy) was incorporated under the laws of the Province of Ontario. The principal activity is as a Holding Company. Niagara-on-the-Lake Energy Inc. has 100% ownership of all shares in NOTL Hydro.

Niagara-on-the-Lake Hydro Inc.:

NOTL Hydro was incorporated on July 1, 2000 under the laws of the Province of Ontario. 100% of NOTL Hydro's shares are owned by the Holding Company that, in turn, is wholly owned by the Corporation of the Town of Niagara-on-the-Lake. The principal activity of NOTL Hydro is to provide distribution of electricity to the customers in the Town of Niagara-on-the-Lake. The Board of Directors consist of one Chairman and six directors. All management and staff work for the regulated LDC.

Energy Services Niagara Inc.:

ESNI was incorporated under the laws of the Province of Ontario. 100% of ESNI's shares are owned by the Holding Company that, in turn, is wholly owned by the Corporation of the Town of Niagara-on-the-Lake. ESNI undertakes the non-regulated activities of Niagara-on-the-Lake Energy Inc. which currently consist of providing the water billing and locate services, owning some small solar generation and owning 25% of the shares in Niagara Regional Broadband Networks Limited (NRBN). NRBN operates fully at arms-length from ESNI and NOTL Hydro.

Boards of Directors

NOTL Hydro has seven directors. The relevant experience of the directors and the corporations on whose Boards they sit are summarized below. NOTL Hydro is now in compliance with the Affiliates Relationship Code. It was not at the time of the previous Cost of Service application and this fact was acknowledged at that time.

Table 1.33: NOTL Hydro Board of Directors

Director	Experience	Independent or Municipal	Years on Board	Board Corporations
Jim Ryan (Chair)	Senior executive of a large public company; other Boards	Independent	21	NOTL Energy NOTL Hydro ESNI
Jim Huntingdon	Former President of NOTL Hydro, engineering technician	Independent	8	NOTL Hydro
Nick Miller	Communications, sales to large utilities	Independent	7	NOTL Hydro
Philip Wormwell	Former VP Finance of NOTL Hydro, government experience	Independent	9	NOTL Hydro
Gary Zalepa	Lord Mayor of NOTL	Municipal	1	NOTL Energy NOTL Hydro ESNI
Adrianna Vizzari	Councillor of NOTL	Municipal	1	NOTL Energy NOTL Hydro ESNI
Marnie Cluckie	Chief Administrative Officer of NOTL	Municipal	2	NOTL Energy NOTL Hydro ESNI

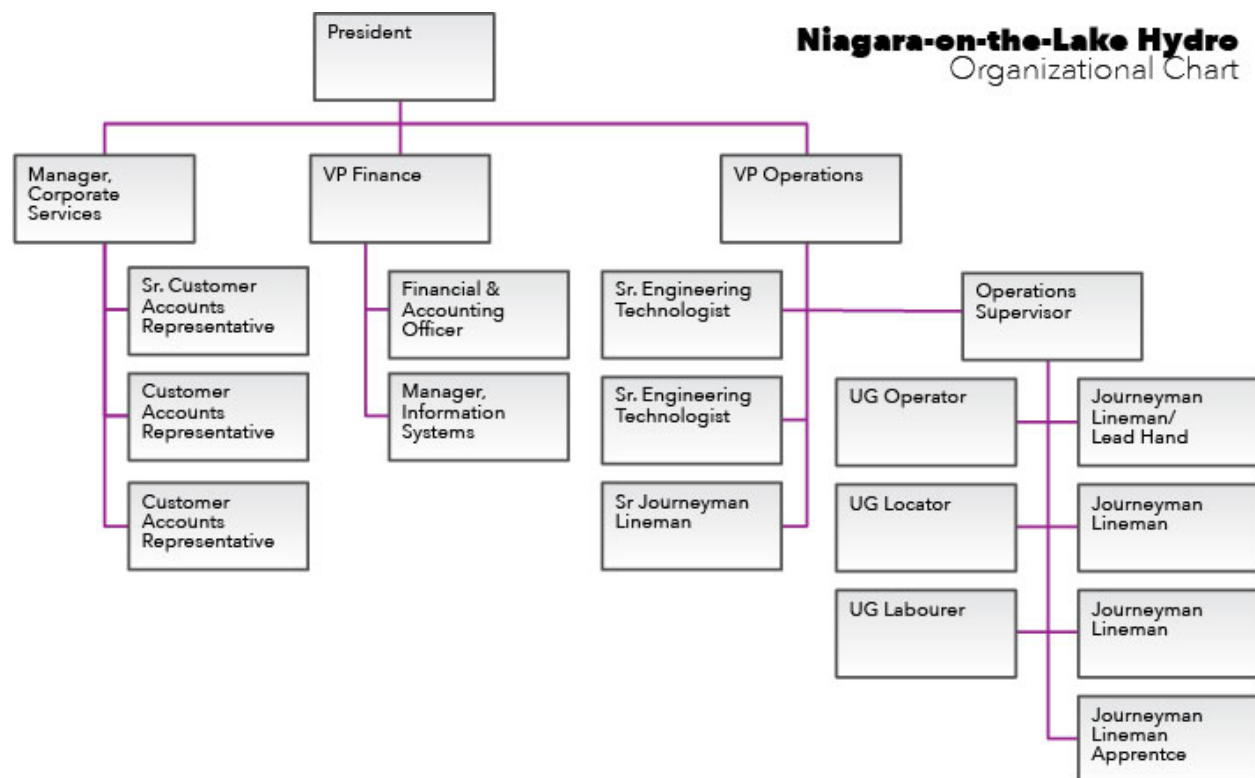
Reporting Relationship between NOTL Hydro and the Town of Niagara-on-the-Lake

The Mayor, Councillor or CAO that sits on the NOTL Hydro Board of Directors reports back to Town Council of Niagara-on-the-Lake. Once a year NOTL Hydro holds its Annual General Meeting at Town council. Town Council is updated on the years' activities by NOTL Hydro and the required corporate resolutions are passed. These meetings are open to the public.

The President of NOTL Hydro also meets with various council members and Town staff on different issues as they arise during the year.

Table 1.34: NOTL Hydro Organization Chart

Operating Structure



NOTL Hydro has 20 full-time employees. Management includes a President, VP Finance, VP Operations, Manager Corporate Services, Operations Supervisor and Manager, Information Services. NOTL Hydro is unionized with three customer service reps, an accounting clerk, five Linemen, two engineering technicians, two underground equipment operators and one locator.

The President is ultimately responsible for all aspects of the company including strategic direction, safety, operation of the distribution system, customer service, billing, training, labour relations, media relations, financial management and capital investments. The President is the primary

liaison with stakeholders including, but not limited to, the Town of Niagara-on-the-Lake, the OEB, the IESO, and the Ministry of Energy. The position is also ultimately responsible for ensuring the company operates with an appropriate culture, for maintaining effective communication throughout the company, and for ensuring that operations and office staff have access to the needed information, services, support and training to allow them to perform their work safely and efficiently. The President reports to the Board and attends all Board meetings.

The Vice President, Finance is responsible for financial reporting; budgeting; regulatory reporting; preparation of annual rate applications; cash management; treasury; taxation; tracking of the company's progress towards achieving financial targets; liaisons with OEB, financial institutions, auditors and the Canada Revenue Agency; the supervision of the finance department and providing guidance to all staff on financial matters. This position reports to the President and attends all Board meetings.

The Vice President, Operations is responsible for all operational matters including the operation of the distribution system, capital investments, the SCADA system, outage management, liaisons with the IESO, Hydro One and ESA, supervision of the line and engineering departments and providing guidance on all engineering matters. This position reports to the President and attends all Board meetings.

The Manager, Corporate Services is responsible for billing, collections, rate updates, managing the CIS system and supervision of the three customer service representatives. This position reports to the President.

NOTL Hydro expects business conditions to be consistent over the planning horizon of this report as they have been over the past five years.

2.1.3.12 Legal Application

IN THE MATTER OF THE *Ontario Energy Board Act*,
1998; S.O. 1998, c.15, Schedule B, as amended;

AND IN THE MATTER OF an Application by Niagara-on-
the-Lake Hydro Inc. for an Order or Orders approving or

fixing just and reasonable distribution rates effective
January 1, 2024.

Niagara-on-the-Lake Hydro Inc. (“NOTL Hydro”) is a licensed distributor of electricity under distribution license ED-2002-0547 issued by the Ontario Energy Board (the “OEB” or the “Board”) under the *Ontario Energy Board Act, 1998* (the “Act”).

NOTL Hydro hereby applies to the Board pursuant to section 78 of the Act for an Order or Orders approving or fixing just and reasonable distribution rates effective January 1, 2024.

This Application is made in accordance with the Chapter 2 of the Filing Requirements for Electricity Distribution Rate Applications dated December 15, 2022.

NOTL Hydro applies to the Board for the following Order or Orders:

- An Order approving NOTL Hydro’s proposed distribution rates for the 2024 rate year, as set out in Exhibit 8, to recover a revenue requirement of \$6,725,757, which includes a Deficiency of \$679,623, or approving such other rates as the Board may find to be just and reasonable, as the final rates effective January 1, 2024;
- An Order approving NOTL Hydro’s amended specific service charges, as described in Exhibit 8;
- An Order approving NOTL Hydro’s Distribution System Plan, as described in Exhibit 2;
- An Order approving clearance of the balances recorded in certain deferral and variance accounts by means of rate riders effective January 1, 2024 for the 2024 rate year, as set out in Exhibit 9;
- An Order approving the Large Use variance account, as originally approved in EB-2018-0056 and as amended in EB-2022-0158, to capture in variances in demand above and below 5,000 kW by Large Use Customers;
- An Order approving the automatic update of the Large Use Retail Transmission Service Rates so that the Network and Connection charges always match the respective Uniform Transmission Rates;

- 1 • An accounting order for the Large Use Customer Variance Revenue Account (EB-2022-
2 0158) such that the allocation across customers within each customer class is consistent
3 with the treatment of other Group 2 Accounts;
4
- 5 • In the event that the Board is unable to provide a Rate Order in this Application for
6 implementation by NOTL Hydro as of January 1, 2024, NOTL Hydro requests that the
7 Board declare its current rates interim, effective January 1, 2024, pending the
8 implementation of the Rate Order for the 2024 rate year; and
- 9 • Such other approvals as NOTL may request, and the Board may accept.

10

2.1.4 Distribution System Overview

Physical Characteristics

NOTL Hydro services the Town of Niagara-on-the-Lake. NOTL Hydro is connected directly to the Hydro One 115 kV transmission lines via two transmission stations that are both owned by NOTL Hydro. NOTL Hydro is not an embedded distributor nor is it a host distributor.

Communities served: Town of Niagara-on-the-Lake

Adjacent distributors: Alectra (St. Catharines), Niagara Peninsula Energy Inc. (Niagara Falls) and National Grid (New York State)

Characteristics: Large contiguous service area serving both rural and urban customers in Niagara-on-the-Lake.

Embedded/Host: The Applicant is neither an embedded nor a host distributor.

Total Service Area: 133 sq. km

Rural Service Area: 119 sq. km

Distribution Type: Electricity distribution

Municipal population: 19,088 – 2021 per Statistics Canada

Population Served: 19,000

Boundaries:

The distribution Licence authorizes NOTL Hydro to distribute and sell electricity within the boundaries as stated below.

The municipal boundaries of the Town of Niagara-on-the-Lake as of January 1, 1970,

- Excluding the area on the East side of Read Road from Lake Ontario in the North to Seaway Haulage Road in the South and the East side of Seaway Haulage Road from Read Road in the North to 1269 Seaway Haulage Road in the South. This includes the following addresses:

- i. On Read Road - 18, 35, 91, 97, 105, 107, 111, 119, 123, 149, 157, 225, 229, 257, 287, 301, 315, 321, 327, 377, 383, 387, 393, 399, 411, 423, 427, 435, 447, 455, 521, 525, 621, 639, 699, 709 and 719.

- ii. On Seaway Haulage – 1269, 1281 and 1289.

- Excluding the customers located at the following physical addresses:

- i. 92 Warner Road, Niagara-on-the-Lake

- ii. 176 Warner Road, Niagara-on-the-Lake

- iii. 196 Warner Road, Niagara-on-the-Lake

- iv. 206 Warner Road, Niagara-on-the-Lake

- v. Ministry of Transportation Hut, Queen Elizabeth Way at Warner Road, Niagara-on-the-Lake

- Including the customers located at the following physical addresses:

- i. 2107 Ravine Road, Niagara Falls

- ii. 1800-1850 St. Paul Avenue, Niagara Falls

- iii. 1857 St. Paul Avenue, Niagara Falls

- iv. 1785 St. Paul Avenue, Niagara Falls

- v. 6490 Steele Road, Niagara Falls

- vi. 6620 Steele Road, Niagara Falls

- vii. 20 Tanbark Road, Niagara Falls

System Description

NOTL Hydro provides electrical distribution services to approximately 10,000 residential and commercial customers in its service area. The Applicant's service territory covers approximately 133 square kilometers of which 119 sq. km is rural and 14 sq. km is urban. The Applicant has a total of 327 circuit kilometers of primary wire and underground cable installed of which 218 km or

67% is overhead. The overhead system includes 1,066 pole mounted transformers and 4,787 poles. The Applicant underground distribution system accounts for approximately 33% of its overall distribution system. This portion of the distribution system is comprised primarily of 109 km of underground conductors and 874 pad mounted distribution transformers.

The Applicant's distribution system is supplied by two high side high voltage transmission stations that transforms the electricity from the transmission grid voltage of 115 kV to the NOTL Hydro distribution voltage of 27.6 kV. The NOTL Hydro station contains a 50 MVA and a 41.7 MVA transformer and is connected to the Q11S 115 kV Hydro One transmission line by way of a 115 kV radial feed owned by Hydro One. The York station contains an 83 MVA transformer that is directly connected to the Q12S 115 kV Hydro One transmission line. NOTL Hydro owns both of these stations. They have historically been deemed distribution assets and NOTL Hydro is proposing to have them continue to be deemed distribution assets.

Other Neighbouring Utilities:

- Alectra (St. Catharines) borders NOTL Hydro on the west, basically along the Welland canal.
- Niagara Peninsula Energy Inc. borders NOTL Hydro to the south, basically along the Niagara escarpment.
- National Grid borders NOTL Hydro to the east across the Niagara River.

Host /Embedded Distributor

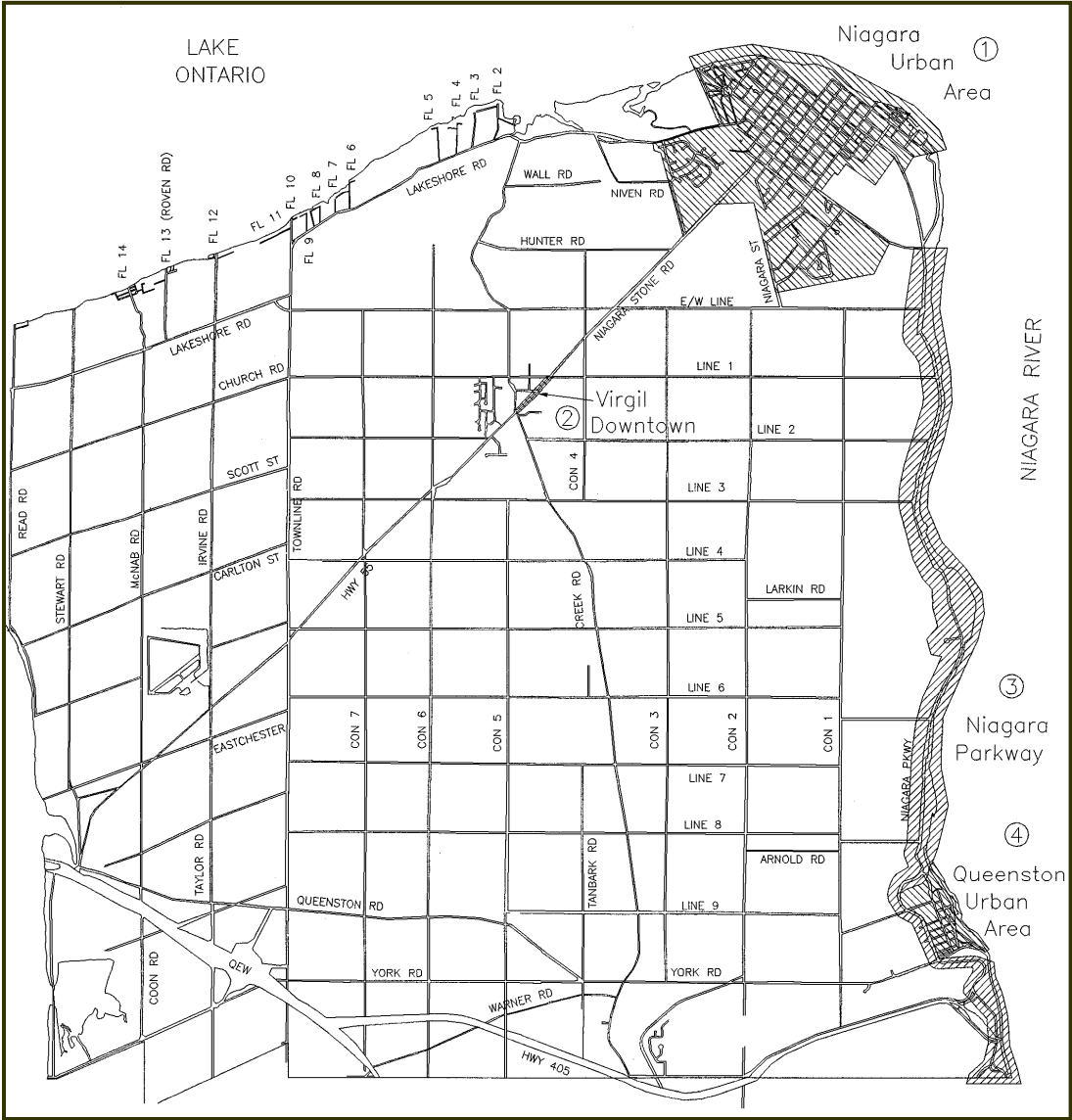
NOTL Hydro does not host any utilities within its service area.

NOTL Hydro does not have any embedded utilities within its service area.

NOTL Hydro is not embedded within another utility's service territory. NOTL Hydro is a registered Market Participant dealing directly with the IESO. All of NOTL Hydro's supply from the grid comes through two transmission stations owned and operated by NOTL Hydro as well as from embedded generation.

The map below shows the Town of Niagara-on-the-Lake:

Table 1.35: Geographical Map of NOTL Hydro’s Service Territory



LEGEND

1. Niagara Olde Town
2. Virgil Downtown
3. Niagara Parkway
4. Queenston Urban Area

2.1.5 Customer Engagement

2.1.5.1 Overview of Customer Engagement

NOTL Hydro always has, and always will, focus on its customers by striving to find that balance between reliability, low rate and service while maintaining financial stability. NOTL Hydro continues to become more customer-centric by investing in new capabilities, programs and technologies that allow us to communicate more effectively and efficiently with our customers.

The following section discusses the nature of our engagement with our customers in six different manners:

- A. Ownership** – NOTL Hydro is ultimately owned by our customers and this creates avenues for engagement and strengthens our responsibility to act in the interests of our customers.
- B. Customer Accessibility** – Customers generally are not interested in dealing with their utility providers until they need to, and then they want to have access as easily as possible. We try to make it easy for our customers to access us when they want to.
- C. Customer Outreach** – Ways in which NOTL Hydro reaches out to customers to help them and provide the best service or information possible.
- D. Community Involvement** – How NOTL Hydro supports the Niagara-on-the-Lake community in which it operates.
- E. Advocacy** – NOTL Hydro advocates on behalf of its customers to improve the electricity system in Ontario and lower the overall cost for our customers.
- F. Customer Surveys** – Biannual surveys are taken on customer satisfaction as required by the Ontario Energy Board.
- G. Letters of Comment.** Unsolicited feedback from our customers.

2.1.5.1A Ownership

NOTL Hydro is owned 100% by the Town of Niagara-on-the-Lake. Our customers are therefore also our ultimate shareholders. This manifests itself in customer engagement in a number of ways.

Town Representation on Board

Three of the seven Board members of the NOTL Energy group of companies are representatives from the Town. These three are the Lord Mayor, the Chief Administrative Officer and one of the Councillors. These three Board members therefore also act as conduits between NOTL Hydro and customers and a number of inquiries have reached NOTL Hydro from customers through this channel. The other four members are independent of the Town and are a majority of the Board.

Communication with Town Councillors

Other Town Councillors also have direct lines of communication to the President of NOTL Hydro and a number of issues, such as vegetation management, from customers have been raised through this channel.

Annual General Meeting

NOTL Energy holds its Annual General Meeting either at Town Hall or virtually in a public session each year. The meeting is advertised and open to the public. The AGM materials are also posted on our website so are accessible at any time.

- <https://www.notlhydro.com/regulatory/>

Financial Statements

The financial statements for NOTL Hydro are posted on the NOTL Hydro website each year following their approval.

- <https://www.notlhydro.com/regulatory/financial-statements/>

Investment Criteria

Investments are made using a “Return on Investment” calculation that factors in any reductions in costs to our customers and not just the “Return” to NOTL Hydro. Some investments, such as converting some of our lines underground as part of the voltage conversion program, which both reduce line losses and improves safety, or improving our transmission station capacity, which improves reliability and reduces transmission charges, might not be undertaken without this more holistic analysis.

Water and Sewer Billing

NOTL Hydro also bills for water and sewer services on the same invoice. This provides customers with the convenience of paying just one bill for their water and electric utilities and having one number to call with bill related questions. The NOTL Energy companies do not provide water and sewer services; these are provided by the Town of Niagara-on-the-Lake. The water billing service is provided on a full cost recovery basis. This is more efficient and enhances the customer service experience.

2.1.5.1B Customer Accessibility

NOTL Hydro recognizes that customers normally have no interest in corresponding with their electricity distributor but that when they do they want to make contact they want it to be as simple as possible. NOTL Hydro strives to achieve this in a number of ways.

Open Office

NOTL Hydro is open 8:30 am - 4:30 pm on all business days with an open counter. NOTL Hydro kept its office open for customers as much as possible during the pandemic though there were times that it had to be closed due to regulations.



1
2
3 A number of enhancements have been made in recent years to make the office more receptive
4 for customers:

- 5 • The address was highlighted on the building in 2016.
- 6 • The new updated sign was installed in 2016.
- 7 • An additional light was added in 2016 for safety for customers who wish to drop off their
8 payments at night in our drop-box.
- 9 • Heating pads, which heat and remove all snow and ice, were first installed for the 2016-
10 2017 winter.
- 11 • A mobility handrail was added in 2017.
- 12 • The curb access was lowered in 2017 for easier access by those with mobility devices.
- 13 • A glass barrier was added in 2020 due to the pandemic.
- 14 • A meeting room directly accessible from the lobby was added in 2021 if more in-depth
15 discussions are required.
- 16



Telephone Attendance

NOTL Hydro customer service staff answer all calls whenever possible rather than letting the calls go to a messaging system. Calls are answered by our customer service staff who are able to respond to almost all questions immediately.

Table 1.36: Telephone Response Rate

Year	Calls Answered Within 30 Seconds
2022	98.0%
2021	98.3%
2020	95.6%
2019	86.8%
2018	90.0%

After Hours Call Service

NOTL Hydro provides an after hours call service that is provided by a local company located in the Niagara Region. Customer calls will therefore continue to be responded to in person except at high volume times. While the call service staff cannot provide the same level of service as NOTL Hydro staff they are familiar with the local environment and communicate directly with the NOTL Hydro operations staff on any power outage issues.

E-mail Access

Customers can e-mail NOTL Hydro anytime at billing@notlhydro.com. All e-mails requiring a response are returned by the next business day.

Table 1.37: E-mail Inquiries

Year	E-mail inquiries
2022	5,588
2021	5,434
2020	4,095
2019	945
2018	820
2017	358

The volume of e-mail correspondence has risen dramatically with the pandemic as customers could not or would not visit the office.

Access to President

Customers have the option of speaking directly to the President. The volumes of these vary from year to year depending on the issues that arise.

Table 1.38: Inquiries to President

Year	Inquiries to President
2022	11
2021	12
2020	18
2019	14
2018	12

Access to NOTL Hydro Board

Customers with significant unresolved issues can address the NOTL Hydro Board or a Committee of the Board of NOTL Hydro. The two cases of this since the last Cost of Service were (i) a local resident who did not want to be charged as a General Service < 50 kW customer even though he had a 400 AMP service as he did not use this excess capability and (ii) a resident who objected to the cost of changing the access to service due to the property being split.

Customer Data Access

NOTL Hydro provides all its smart meter customers with access to Customer Connect. Customer Connect is an online system that provides customers with access to their bills, payment history and usage data. Larger customers can access their hourly data through a Utilismart portal that is provided free to the customers.

As has been mandated, NOTL Hydro will provide its customers with access to their data through a Green Button solution. This is currently being developed in collaboration with the UCS group in order to minimize its cost. It will be online in accordance with the timing requirements of the mandate.

2.1.5.1C Customer Outreach

NOTL Hydro engages in a number of activities designed to provide information to the customer or within easy reach of the customer. NOTL Hydro recognizes that we also have an obligation to reach out to our customers with information relevant to their needs. However, this outreach must be done in a manner that is respectful of their time, intelligence and interests.

Website

NOTL Hydro maintains a website (www.notlhydro.com) that is updated on a regular basis. The website was completely revamped to ensure it used the most up-to-date technology and was smart phone friendly.

Twitter

NOTL Hydro is active on social media and particularly on Twitter. NOTL Hydro has almost 2,000 Twitter followers or around 20% of its customer base. Outage information, community information

1 and energy conservation suggestions are regularly posted on Twitter. The Twitter messages can
2 also be accessed from the website. <https://twitter.com/notlhydro>:
3

4 **2019 Open House**

5 NOTL Hydro held an open house on September 24, 2019 to discuss its ongoing voltage
6 conversion and undergrounding project in the Old Town. Over 70 customers attended.



7
8 One of the questions asked of customers was whether they wished the conversion of their street
9 changed (in either direction) from the proposed schedule. This would only be done if it made
10 sense technically. A number of customers on Gate St. requested that this street be done earlier
11 and that request was accommodated in 2021-2022.
12

13 **Future Open Houses**

14 Future open houses are planned now that the pandemic is no longer preventing this form of
15 communication. On July 19 an open house is planned to present the plans for replacing all the
16 electricity infrastructure on the firelanes. A safety / electric vehicles / heat pumps open house is
17 also being considered for the fall.
18
19

Utilismart Training

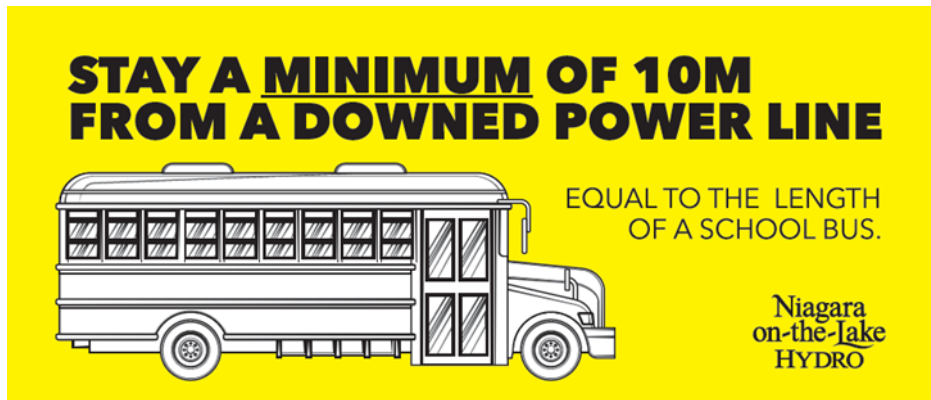
On October 21, 2019, NOTL Hydro held a customer information session for ten larger General Service > 50 kW customers to provide them with training on how to use the new Utilismart system that provides these customers with detailed data on their usage in a user friendly and downloadable manner.

Customer Support Material

NOTL Hydro develops material periodically that is made available to its customers to help them with their energy management and to use electricity safely. This material is available in print in the office lobby and on NOTL Hydro's website. Energy management material can be found at: <https://www.notlhydro.com/learnandsave/> while safety material can be found at: <https://www.notlhydro.com/safety/>.

Inserts

NOTL Hydro regularly includes inserts in its billing to its customers. These include the inserts that are required under regulations (rate changes, supply mix) as well as those sent to assist customers (safety tips, savings ideas).



DOING HOME ELECTRICAL WORK?

We recommend using a Licensed Electrical Contractor, but if you're going to tackle a home electrical job, safety should be your #1 priority. There are three basic principles for safety to go by before starting any project:

1. **Have the Right Tools.** Make sure you have all the tools, items, accessories, and other materials needed for the job.
2. **Have a Job Plan.** It's your opportunity to go over what is needed for the job, identify safety hazards and mitigate/remove the risks.
3. **De-Energize & Double-Check.** Turn off the power to the area you're working on and test to make sure it's off. Test the tester while you're at it.

Go to www.notlhydro.com/safety for more safety information



President Blog

New in 2022 was a weekly blog prepared by the President of NOTL Hydro. Each week a different aspect of either NOTL Hydro or the electricity industry in Ontario is discussed. The blogs can be found on the NOTL Hydro website at <https://www.notlhydro.com/presidents-blog/>.

2.1.5.1D Community Involvement

NOTL Hydro engages in a number of activities within the Town of Niagara-on-the-Lake as part of being a good corporate citizen.

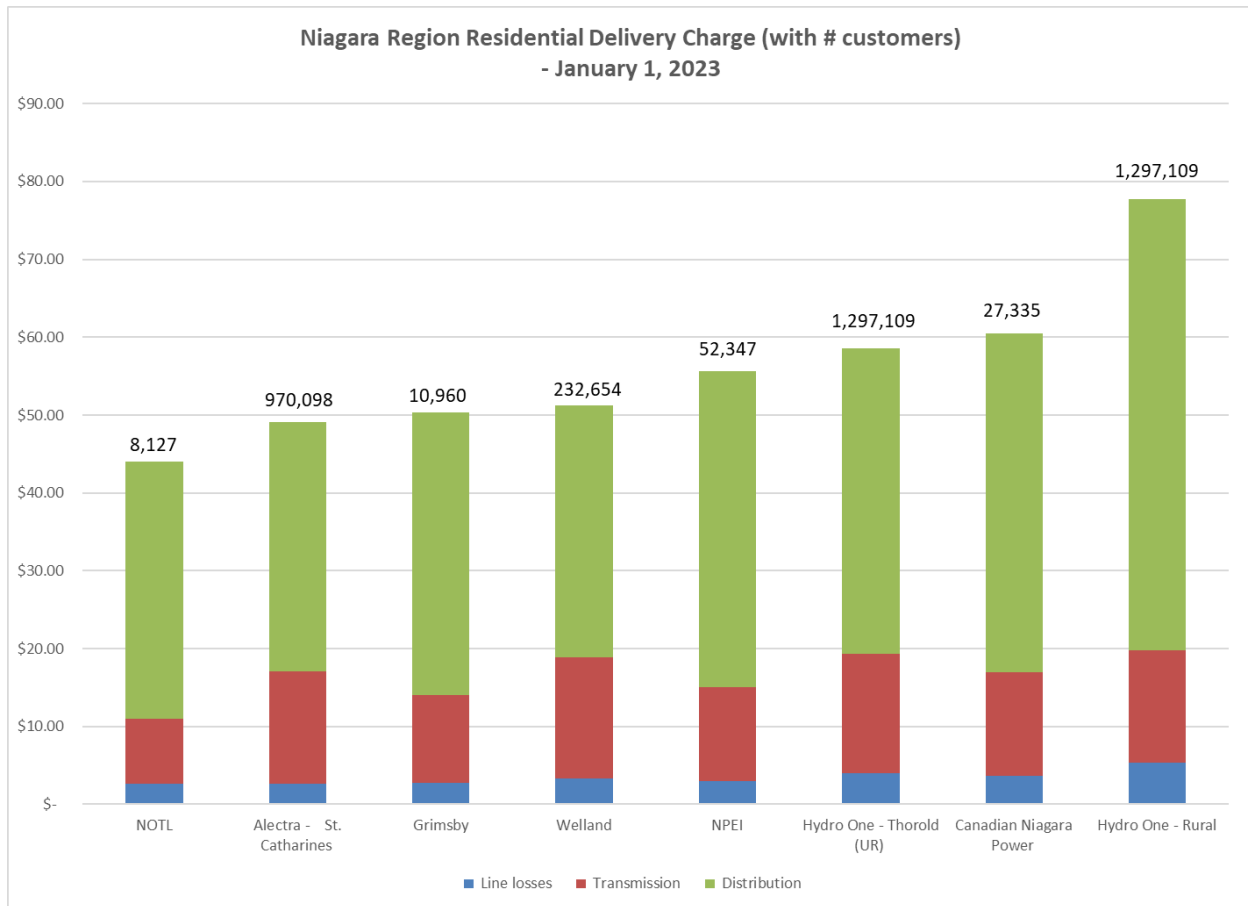
Low Cost Service

Over the last 15 years, NOTL Hydro has had the long-term objective of lowering its relative cost of service. During that timeframe, NOTL Hydro's rates went from being above average in Ontario to in the bottom ten of all local distribution companies and being the lowest in the Niagara Region across all rate classes.

While not sacrificing quality or reliability, NOTL Hydro believes this is the best means by which it can support its community. By keeping rates low NOTL Hydro helps local businesses be more competitive and helps local households manage their budget.

1

Table 1.39: Niagara Region Delivery Charges



2

3

4 **Niagara-on-the-Lake Santa Claus Parade – Food and Toy Drive**

5 NOTL Hydro has been an active participant in the Niagara-on-the-Lake Santa Claus parade since
6 2001. As part of this NOTL Hydro runs a food and toy drive. An insert advertising this is included
7 in the November billings and food and toy donations are collected at our office in the weeks
8 leading up to the parade and during the parade itself. NOTL Hydro staff volunteers collect food,
9 toy and cash donations during the parade.

10



Food and cash donations are given to Newark Neighbours who then prepare Christmas boxes for those in need. The toy donations are split between Newark Neighbours, Gillian’s Place, a women’s shelter, and Project Share, another organization that supports those in need.

In 2020, NOTL Hydro was not able to hold a staff Christmas dinner due to the pandemic. Instead, a donation of around \$4,000 was provided to Newark Neighbours from the NOTL Hydro social fund.

United Way

NOTL Hydro has run a United Way campaign since 2017 in which it deducts from pay contributions from staff and then matches them on a 1:1 basis. The resulting contributions are provided below.

Table 1.40: United Way Donations

Year	Total Donation
2022	\$10,006
2021	\$9,594
2020	\$11,720
2019	\$11,000
2018	\$8,340

Reach Out Niagara and CEAP

NOTL Hydro works closely with Reach Out Niagara, a local agency founded to support low income customers with LEAP donations. NOTL Hydro donates \$1,000 each year to Reach Out Niagara, on top of the required LEAP donations, to assist with the administration of the charity.

Table 1.41: Customers Assisted by Reach Out Niagara

Year	Customers Assisted	\$ Assistance
2022	5	\$3,319
2021	5	\$1,639
2020	4	\$1,702
2019	7	\$3,193
2018	5	\$1,760

In 2021, Reach Out Niagara determined that they had more funds than they would ever need. To maximize the assistance to electricity customers, \$10,000 was donated to each of Community Care and Project Share who administer the LEAP funding in St. Catharines and Niagara Falls respectively. The Ontario Energy Board had advised Reach Out Niagara that this was permissible as long as there were no objections from NOTL Hydro. NOTL Hydro supported this use of the funds.

In addition to Reach Out Niagara, there are other community organizations, such as Community Care, that can support Niagara-on-the-Lake residents who are having challenges with their bills. NOTL Hydro staff work with these customers to direct them to where they might find assistance. During the height of the pandemic, NOTL Hydro was able to assist a number of customers in getting CEAP or the COVID-19 Energy Assistance Program. During 2020-2021, a total of \$59,663 of CEAP funding was disbursed to customers.

Local Charities and Organizations

NOTL Hydro executives and staff often serve with local charities. The President is the Chair of Goodwill Niagara while the VP Finance is the Chair of the United Way for Niagara. Two of the NOTL Hydro staff are volunteer firefighters.

Ad hoc Requests

NOTL Hydro receives many requests to provide assistance in some form or other. Recognizing that we have an obligation to all our customers NOTL Hydro uses the following criteria to assess whether it can assist:

- a) The assistance must benefit the entire community and not just one group or association;
- b) The assistance must be in the form of a service or donation of used goods;
- c) No cash or goods will be provided.

Recent examples of such assistance have included donations of used poles to a local park for lighting, assistance with putting up a large Christmas tree in downtown Niagara-on-the-Lake and the use of a service vehicle to assist in the annual preparations for the Terry Fox Run.

2.1.5.1E Advocacy

NOTL Hydro believes that as experts in our field we have a responsibility to advocate on behalf of our customers. We also have a responsibility to do this in an objective manner. Our actions are guided by some key principles including that we will only advocate when we have something useful to say or to add to the conversation and we will restrict ourselves to Ontario electricity matters.

Meetings with Government Officials and Other Stakeholders

Members of the Board of NOTL Hydro and senior executives have held a number of meetings over the past four years with various stakeholders in the Ontario electricity industry including the opposition critics, the Ministry of Energy, past and current regulators, bloggers and other distributors. These meetings have enhanced our understanding of the industry and the perspectives of various participants in the industry. They have also helped us expand our network.

Some examples of recent meetings have included:

1. Susanna Zagar, Chief Executive Officer with the NOTL Hydro Board – May 2021
2. Jim Harris, former leader of the Green Party of Canada with the NOTL Hydro Board – November 2020
3. Carolyn Calwell, Ministry of Energy with senior executives – March 2020

Presentations and Other Actions

NOTL Hydro has presented at various forums. These presentations, while enabling us to speak on behalf of electricity customers, also enhance the brand of NOTL Hydro and the Town of Niagara-on-the-Lake. Our goal in all our communications is to be constructive and to offer solutions as well as identify problems. As our reputation has developed, we have found that industry participants are now sometimes coming to us with their thoughts and concerns.

These actions have been more limited in recent years due to some of the more positive changes made in the industry and due to the limitations of the pandemic. Some examples of more recent actions include:

1. Intervened in the IESO SME 2022 rate application
2. The new Presidents Blog will raise issues and concerns on specific issues.

Impact

We will never be able to quantify the impact of our advocacy efforts. However, we do know the following:

- We have received positive feedback from our customers who applaud our efforts on their behalf;
- We track our recommendations and have found that, over time, many of them have been implemented though we are not claiming that this was due to our efforts;
- We have found that these efforts have a positive impact on staff morale who are proud to work for a company that is trying to help its customers beyond just delivering electricity;
- The network we have developed as part of these efforts may assist us in future endeavors; and
- We believe the knowledge gained from these efforts will assist us in our ongoing customer service.

2.1.5.1F Customer Surveys

NOTL Hydro performed Customer Surveys in early 2017, early 2019, early 2021 and early 2023. NOTL Hydro's overall index score for each of these surveys was calculated at 75.9%, 78.8%, 79% and 79% respectively. The surveys were a group purchase through CHEC with other CHEC

LDCs participating. NOTL Hydro's score was above the average for the CHEC LDCs. The 2019, 2021 and 2023 surveys have been included as Appendices E-G.

2.1.5.1G Letters of Comment

NOTL Hydro has not received any letters of comment specific to this application but some redacted unsolicited feedback we have received is provided below:

#1

December 24, 2022 7:23 PM

To: Niagara-on-the-Lake Hydro Billing <billing@notlhydro.com>

Subject: Contact Us Form Entry

Name: xxxxxx

Email: xxxxxxxx

Phone: xxxxxxxx

Topic: General Inquiry

Message: Hello! Just wanted to send a big Cudo to the efficiency of your repair team that restored our power within less than an hour on Christmas Eve!! Thank you so much for braving almost hurricane level winds to keep us safe and warm!!

#2

January 20, 2023 2:36 PM

To: Save on Energy <saveonenergy@notlhydro.com>

Subject: Contact Us Form Entry

[EXTERNAL EMAIL] Exercise caution

Name: xxxxxx

Email: xxxxxx

Phone: xxxxxx

Topic: Conservation Inquiry

Message: Please forward this to Tim Curtis

Dear Mr Curtis, thanks for your informative and constructive update on NotL Hydro's capacity and planning for EV's. I do not yet have an EV but we've been considering a purchase.

We've also been considering switching from natural gas to Heat Pumps for environmental considerations. This trend will also pressure Hydro capacity.

I believe an overnight charging pricing strategy will be most effective in managing demand. We have the Hydro device on our system to manage A/C demand during hot summer days.

Thanks also for the reliable service being provided. It's very encouraging to know that NoTL has strong planning. We moved from Toronto 12 years ago. At our Toronto home in High Park we experienced frequent power failures.

Best wishes

1

2 #3

3 February 3, 2023 7:30 PM

4 To: Niagara-on-the-Lake Hydro Billing <billing@notlhydro.com>

5 Subject: Contact Us Form Entry

6 [EXTERNAL EMAIL] Exercise caution

Name: xxxxxxxx

Email: xxxxxx

Phone: xxxxxx

Topic: General Inquiry

Message: THANK YOU!!

For the prompt replacement of the transformer, Friday evening. Though restoring the power did ruin our "candle light" (solar light) dinner.

We know the evening was cold and windy; terrible conditions for having to go out at night to make repairs.

Know you are appreciated.

1

2

3 **#4**

4 **Wed 2022-12-07 11:02 AM**

5 Hi Tim — just an fyi: We had the folks from Miskow out yesterday to install a generator at our
6 home in Chautauqua.

7 I know Hydro's role in that process is relatively minor (pulling the plug and then reconnecting
8 us), but I just wanted to say how smoothly it went on our end and how professional and
9 courteous your staff was.

10 Good work all around. Now, we hope we will never need to use our little investment!

11

12 **#5**

13 **Monday, December 13, 2021 10:42 AM**

14 To: Niagara-on-the-Lake Hydro Billing billing@notlhydro.com

15 From: xxxxx

16 Subject: RE: missing invoice

17 Thank you Jody.....You always provide superior customer service.....Knowledgeable and
18 always willing to help!!! Please pass this on to your upper management!!!

19

20 **#6**

21 **October 15, 2021 1:46 PM**

22 To: Niagara-on-the-Lake Hydro Billing <billing@notlhydro.com>

23 Subject: Contact Us Form Entry

24 Name: xxxxx

25 Email: xxxxxx

26 Phone: xxxx

27 Topic: Billing Question

28 Message: To: Shelley

29 We just wanted to formally thank you for making us aware of the water leakage issue at our
30 home. We really appreciate your taking the time to notice that there was an unusual increased
31 usage and then your taking the time to contact us. Hard to believe it makes such a difference in
32 the consumption amount!

1 Kudos to you for going above and beyond in your job responsibilities.

2 with our sincere thanks

4 **#7**

5 **Sent: April 20, 2022 3:07 PM**

6 From: xxxxx

7 To: Niagara-on-the-Lake Hydro Billing <billing@notlhydro.com>

8 Subject: Re: Contact Us Form Entry

9 Yes, Lauren, all the contact information is correct.

10 I will update you if anything changes in regards to the sale.

11 Thank you for being so helpful and making this easy. Your kindness shows through and it's very
12 much appreciated!

13 Take good care.

14 Kindly,

18 **2.1.5.2 Application-Specific Customer Engagement**

19 NOTL Hydro held an open house on March 8, 2023 to obtain customer feedback on the cost of
20 service application. This event was advertised with a mail insert as well as with advertisements
21 in both the local newspapers. A total of 5 customers attended. This was within the range of
22 expected attendants though at the lower end. This low attendance did provide an opportunity for
23 some detailed discussions with the customers.

25 The number one topic of interest for the customers that attended was electric vehicle charging.
26 Three of the five customers (two were a married couple) arrived in an electric vehicle.

28 Attendees were asked to complete a survey with various questions concerning electricity delivery
29 and their priorities. This survey is also available online though was only completed by one
30 customer. The responses are provided in Appendix H. Reliability was consistently rated as being
31 of the most importance for customers. This is consistent with past surveys and general customer

1 feedback. Rates are generally only viewed as an issue at times or in situations where they are
2 considered high or inflation is high.

3
4 NOTL Hydro was not surprised by the low attendance. Our open office policy means customers
5 can come by any time if they have questions and that does happen on a regular though infrequent
6 basis. As NOTL Hydro is municipally owned in a small community, residents always have the
7 ability to address concerns through the municipal representatives. While some specific issues
8 have been raised through these channels (trees near power lines, construction issues, etc.), no
9 overall performance issues or concerns have been raised.

10
11 The only specific communications NOTL Hydro has had with customers is with the Large Use
12 customer. NOTL Hydro is in frequent communication with this customer so has provided verbal
13 updates. As the proposed rates, including the RTSR rates, are consistent with the nature of the
14 rates approved in EB-2018-0056 and EB-2022-0158 the communication was fairly straight
15 forward.

16
17 Beyond this and the open house, NOTL Hydro has not engaged in any communications with
18 customers. The proposed rate changes affect all customers on a relatively equal basis. The
19 proposed changes to specific service charges are limited in nature at an estimated annual impact
20 of \$600, have an average occurrence of 5 times a year and do not affect any discrete customer
21 segment.

2.1.6 Performance Measurement

2.1.6.1 Scorecard Results and Analysis

NOTL Hydro has continued to provide a customer focused, financially sound, safe and reliable electricity distribution service. Customer satisfaction and feedback inform and influence NOTL Hydro's operations. NOTL Hydro continues to be a financially strong company that re-invests in technology that will bring improvements to customer interactions, system reliability and safety.

NOTL Hydro's 2021 Scorecard, which was published in the fall of 2022, is shown below. The Scorecard reflects the operational and financial performance of NOTL Hydro based on a variety of measures. The Scorecard is also available on-line at <https://www.notlhydro.com/wp-content/uploads/2022/09/Scorecard2021..pdf>.

The following are some targets for ongoing improvement of scorecard results:

- NOTL Hydro has now gone over 250,000 hours without a lost time incident. NOTL Hydro will seek to continue to grow this achievement.
- NOTL Hydro was pleased to see its' cost management efforts rewarded with the movement to the Level 2 PEG efficiency assessment. NOTL Hydro will seek to remain at that level and continue to improve its overall score;
- NOTL Hydro acknowledges that its reliability results were poorer in 2021. NOTL Hydro but notes that reliability results were back to their improved level in 2022 and that reliability will vary from year-to-year depending on weather and local events.

Table 1.42: Scorecard - 2021

Scorecard - Niagara-on-the-Lake Hydro Inc.

9/1/2022

Performance Outcomes	Performance Categories	Measures	2017	2018	2019	2020	2021	Trend	Target	
									Industry	Distributor
Customer Focus Services are provided in a manner that responds to identified customer preferences.	Service Quality	New Residential/Small Business Services Connected on Time	98.94%	99.42%	100.00%	99.21%	100.00%	🟢	90.00%	
		Scheduled Appointments Met On Time	100.00%	100.00%	100.00%	100.00%	100.00%	🟢	90.00%	
		Telephone Calls Answered On Time	87.26%	89.98%	86.80%	95.61%	98.34%	🟢	65.00%	
	Customer Satisfaction	First Contact Resolution	15	12	14	18	12			
		Billing Accuracy	99.85%	99.95%	99.81%	99.87%	99.90%	🟢	98.00%	
		Customer Satisfaction Survey Results	75.9	78.8%	78.8	79.0	79.0			
		Level of Public Awareness	83.00%	83.00%	82.80%	82.80%	82.60%			
Operational Effectiveness Continuous improvement in productivity and cost performance is achieved; and distributors deliver on system reliability and quality objectives.	Safety	Level of Compliance with Ontario Regulation 22/04 ¹	C	C	C	C	C	🟢		C
		Serious Electrical Incident Index	0	0	0	0	0	🟢		0
		Number of General Public Incidents	0.000	0.000	0.000	0.000	0.000	🟢		0.000
		Rate per 10, 100, 1000 km of line						🟢		
	System Reliability	Average Number of Hours that Power to a Customer is Interrupted ²	0.50	0.76	0.50	0.73	1.02	🔴		0.91
		Average Number of Times that Power to a Customer is Interrupted ²	0.88	0.48	0.38	0.52	1.25	🔴		0.93
	Asset Management	Distribution System Plan Implementation Progress	110	101%	96	130	153			
	Cost Control	Efficiency Assessment	3	3	3	3	2			
		Total Cost per Customer ³	\$698	\$761	\$758	\$750	\$768			
		Total Cost per Km of Line ³	\$19,645	\$19,565	\$19,676	\$19,566	\$23,000			
Public Policy Responsiveness Distributors deliver on obligations mandated by government (e.g., in legislation and in regulatory requirements imposed further to Ministerial directives to the Board).	Connection of Renewable Generation	Renewable Generation Connection Impact Assessments Completed On Time ⁴	100.00%	100.00%		100.00%				
		New Micro-embedded Generation Facilities Connected On Time	100.00%	100.00%	100.00%	100.00%	100.00%	🟢	90.00%	
Financial Performance Financial viability is maintained; and savings from operational effectiveness are sustainable.	Financial Ratios	Liquidity: Current Ratio (Current Assets/Current Liabilities)	0.83	0.61	0.56	0.50	0.45			
		Leverage: Total Debt (includes short-term and long-term debt) to Equity Ratio	0.54	0.55	0.57	0.65	0.66			
		Profitability: Regulatory Return on Equity	9.36%	9.36%	8.98%	8.98%	8.98%			
		Deemed (included in rates)	9.81%	10.12%	14.38%	7.80%	6.84%			

1. Compliance with Ontario Regulation 22/04 assessed: Compliant (C); Needs Improvement (NI); or Non-Compliant (NC).

2. An upward arrow indicates decreasing reliability while downward indicates improving reliability.

3. A benchmarking analysis determines the total cost figures from the distributor's reported information.

4. Value displayed for 2021 reflects data from the first quarter, as the filing requirement was subsequently removed from the Reporting and Record-keeping Requirements (RRR).

Legend:

5-year trend



up



down



flat

Current year



target met



target not met

2.1.6.1.1 Service Quality

New Residential/Small Business Services Connected on Time

In 2021, NOTL Hydro connected 166 low-voltage (connections under 750 volts) residential and small business customers. Consistent with prior years, NOTL Hydro connected 100% of these customers on time, which exceeds the Ontario Energy Board's mandated target of 90% for this measure. New service connections are often the first contact with new customers so are an important opportunity to make a good first impression. NOTL Hydro expects this trend to continue into the foreseeable future.

Scheduled Appointments Met On Time

NOTL Hydro scheduled 139 regular appointments in 2021 to connect services, disconnect services, or otherwise complete work requested by its customers. Wherever possible, NOTL Hydro schedules meeting times with customers rather than providing them with a window. The exception to this policy are services involving line crew as their timing is less predictable due to other calls. Consistent with prior years, NOTL Hydro met 100% of these appointments on time, which exceeds the Ontario Energy Board's mandated target of 90% for this measure.

Telephone Calls Answered On Time

In 2021, NOTL Hydro received 8,453 calls from its customers. Calls are answered by customer service staff at our office in NOTL. Due to our size, there is a limited number of staff so at certain busy times the personnel may not be on hand to take all the calls. Consistent with prior years, a customer service representative answered 98.34% of these calls in 30 seconds or less, which significantly exceeds the Ontario Energy Board mandated target of 65% for this measure.

2.1.6.1.2 Customer Satisfaction

First Contact Resolution

NOTL Hydro defines “First Contact Resolution” as customer contacts that are escalated beyond customer service to either the President or the Board. The volumes of these vary from year to year depending on the issues that arise.

Billing Accuracy

NOTL Hydro considers timely and accurate billing to be an essential component of customer satisfaction. NOTL Hydro has checks and measures in place to monitor the accuracy of the bills. These efforts are being made more difficult by the increasing complexity of electricity bills and the increased number of legislated changes required to the bills. In 2021, NOTL Hydro had a Billing Accuracy Measure of 99.9%. NOTL Hydro also bills water and wastewater on behalf of the Town of NOTL. The accuracy of water bills is not included in the above measure.

Customer Satisfaction Survey Results

Since 2015, NOTL Hydro has collaborated with the CHEC group to conduct a joint survey using Redhead Media Solutions. NOTL Hydro’s 2021 survey results of 79% are average for the CHEC group. NOTL Hydro notes that the methodology used to measure the customer satisfaction results is not consistent across LDCs though it is consistent across the CHEC group.

2.1.6.1.3 Safety

Public Safety

The Public Safety measure is generated by the Electrical Safety Authority and is comprised of three components: Public Awareness of Electrical Safety, Compliance with Ontario Regulation 22/04, and the Serious Electrical Incident Index. A breakdown of the three components is as follows:

Level of Public Awareness

The biannual ESA survey gauges the public’s awareness of key electrical safety concepts related to electrical distribution equipment found in a utility’s territory. The survey also provides a benchmark of the levels of awareness including identifying gaps where additional education

1 and awareness efforts may be required. NOTL Hydro's public awareness survey score in 2022
2 was 82.6%. The surveys for 2020 and 2022 are attached as Exhibits I and J.

3 **Level of Compliance with Ontario Regulation 22/04**

4 Ontario Regulation 22/04 establishes the safety requirements for the design, construction, and
5 maintenance of electrical distribution systems, particularly in relation to the approvals and
6 inspections required prior to putting electrical equipment into service. Through our strong
7 commitment to safety, NOTL Hydro was found to be compliant with Ontario Regulation 22/04
8 (Electrical Distribution Safety) over the past five years.

10 **Serious Electrical Incident Index**

11 This is a measure of serious electrical incidents, including fatalities, which occur within a utility's
12 territory. In 2021, NOTL Hydro had zero fatalities and no (0) serious incidents within its territory,
13 which translates to a rate of 0 incidents per 1,000 km of line.

15 **2.1.6.1.4 System Reliability**

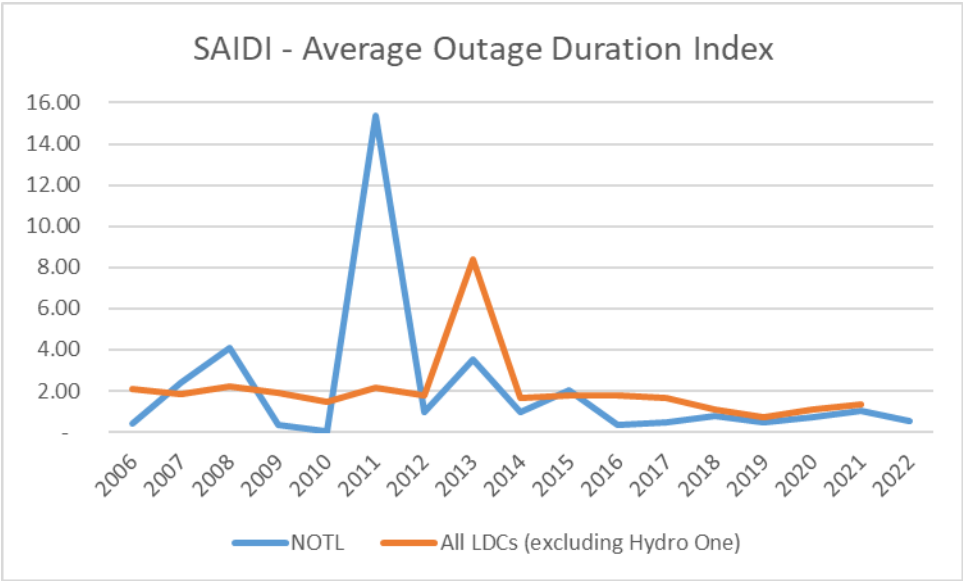
17 **Average Number of Hours that Power to a Customer is Interrupted**

18 The average number of hours that power to a customer is interrupted is a measure of system
19 reliability or the ability of a system to perform its required function. NOTL Hydro views reliability
20 of electrical service as a high priority for its customers and has consistently been making
21 investments to improve reliability; most recently by installing new switches and reclosures. NOTL
22 Hydro regularly maintains its distribution system to ensure its level of reliability is maintained. For
23 2021, NOTL Hydro's average number of hours that power to a customer was interrupted is 1.02.
24 This is slightly higher than its target of 0.91 based on its five-year average due to a couple of full
25 feeder outages during the year.

27 NOTL Hydro's SAIDI has tracked close but slightly below the provincial average (excluding Hydro
28 One) for the past seven years.

1

Table 1.43: SAIDI 2006-2022



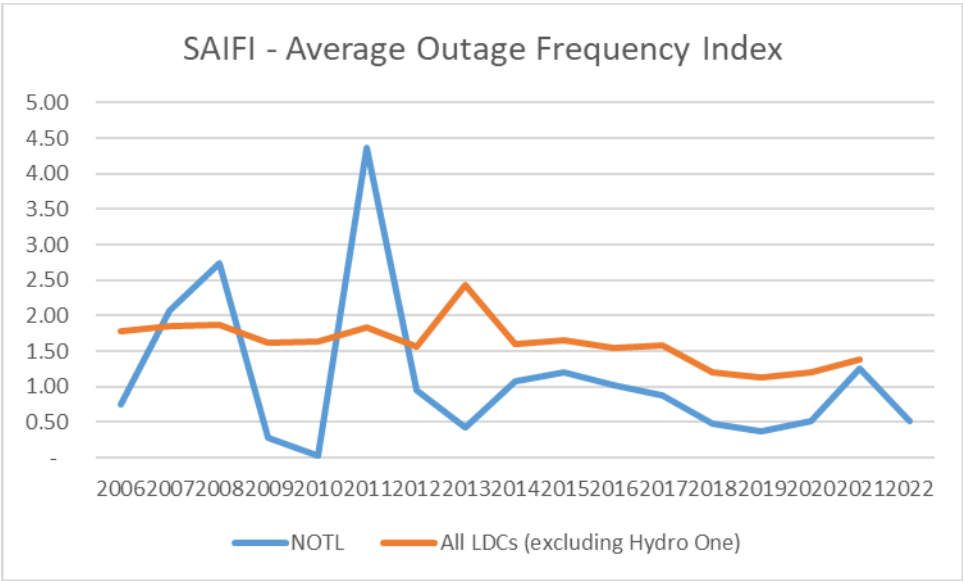
2

3 **Average Number of Times that Power to a Customer is Interrupted**

4 The average number of times that power to a customer is interrupted is another measure of
5 system reliability and is also a high priority for NOTL Hydro. NOTL Hydro customers experienced
6 interrupted power 1.25 times during 2021. NOTL Hydro’s target for this measure is 0.93 based on
7 its five-year average. NOTL Hydro’s performance has generally been below the provincial
8 average (excluding Hydro One) for the past ten years.

9

Table 1.44: SAIFI 2006-2022



10

2.1.6.1.5 Asset Management

Distribution System Plan Implementation Progress

The Distribution System Plan was prepared in 2018 and forecasted capital expenditures over five (5) years, which are required to maintain and expand the utility's electricity system to serve its current and future customers. The Distribution System Plan Implementation Progress measure is intended to assess NOTL Hydro's effectiveness at planning and implementing these capital expenditures. Consistent with other new measures, utilities were given an opportunity to define this measure in the manner that best fits their organization. As a result, this measure may differ from other utilities in the province.

NOTL Hydro defines this measure as the amount spent compared to the distribution system plan, expressed as a percentage. While this will vary from year-to-year, over the 2019-2023 five year period NOTL Hydro's capital spend was within five percent of that planned in the 2019 DSP.

2.1.6.1.6 Cost Control

Efficiency Assessment

On an annual basis, each utility in Ontario is assigned an efficiency ranking based on its performance. To determine a ranking, electricity distributors are divided into five groups based on the magnitude of the difference between their actual costs and predicted costs. In 2021, NOTL Hydro was promoted to Group 2 recognizing its improvements in efficiency. This performance in analyzed in more detail in section 2.1.6.2.

Total Cost per Customer

Total cost per customer is calculated as the sum of NOTL Hydro's capital and operating costs, including certain adjustments to make the costs more comparable between utilities and dividing this cost figure by the total number of customers that NOTL Hydro serves. NOTL Hydro's total cost is \$768 per customer.

Total Cost per km of Line

NOTL Hydro's rate is \$23,000 per km of line. The total cost used is the same total cost mentioned in Total Cost per Customer above and is then divided by NOTL Hydro's total kilometers of line within our service territory. NOTL Hydro's territory is substantially covered by our service lines so

1 little in the way of new lines are expected to be built. As a result, the cost per km of line is expected
2 to increase as capital and operating costs increase.

4 **2.1.6.1.7 Connection of Renewable Generation**

6 **Renewable Generation Connection Impact Assessments Completed on Time**

7 Electricity distributors are required to conduct Connection Impact Assessments (CIA's) on all
8 renewable generation connections within 60 days of receiving authorization from the Electrical
9 Safety Authority. In 2021, NOTL Hydro had no impact assessment requests.

10 **New Micro-embedded Generation Facilities Connected On Time**

11 Micro-embedded generation facilities consist of solar, wind, or other clean energy projects of less
12 than 10 kW that are typically installed by homeowners, farms or small businesses. In 2021, NOTL
13 Hydro connected 1 new micro-embedded generation facilities within its territory. Over the years
14 100% of these projects have been connected within the prescribed timeframe of five (5) business
15 days, which significantly exceeds the Ontario Energy Board's mandated target of 90% for this
16 measure. NOTL Hydro works closely with its customers and their contractors to ensure the
17 customer's needs are met and/or exceeded.

18 **2.1.6.1.8 Financial Ratios**

20 **Liquidity: Current Ratio (Current Assets/Current Liabilities)**

21 The current ratio is used as a company's ability to pay its short-term debts and financial
22 obligations. Typically, a current ratio between 1 and 1.5 is considered good. If the current ratio is
23 below 1, then a company may have problems meeting its current financial obligations.

24 NOTL Hydro's current ratio of 0.45 would therefore normally be considered a cause for concern.
25 The cause of the low ratio is loans which are booked as current liabilities as they are demand
26 loans. However, the actuality is that they are being repaid over a 15-year term and the interest
27 rate has been fixed via 15 year interest rate swaps.

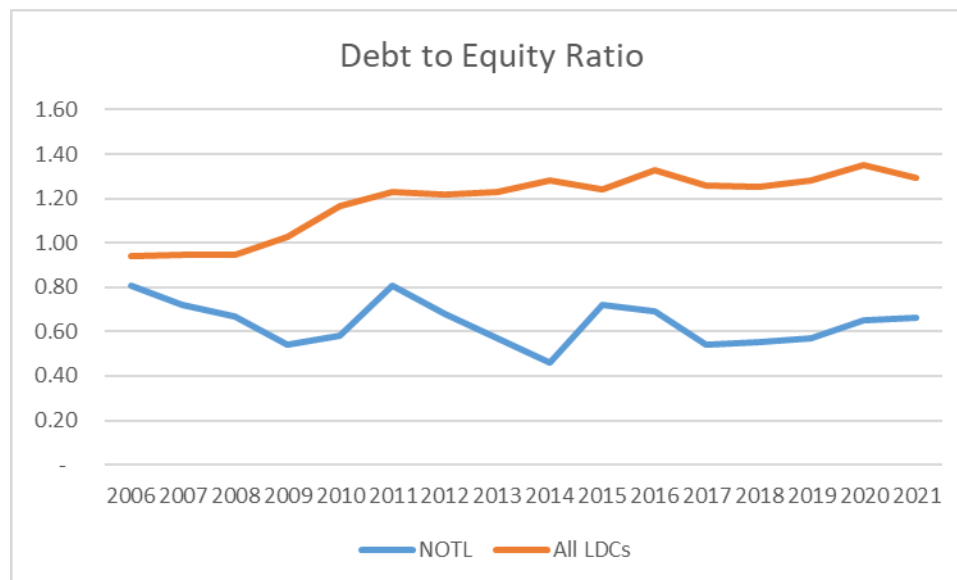
28 In addition, NOTL Hydro maintains the financial practice of almost always using its line of credit
29 so that it does not often have a positive cash balance. This is considered a more efficient use of
30 funds but does have a negative impact on the current ratio.

Leverage: Total Debt (includes short-term and long-term debt) to Equity Ratio

The debt-to-equity ratio is a financial ratio indicating the relative proportion of shareholders' equity and debt used to finance a company's assets. The Ontario Energy Board uses a capital structure of 60% debt and 40% equity (a debt-to-equity ratio of 60/40 or 1.5) when setting rates for an electricity utility.

In 2021, NOTL Hydro's debt to equity ratio was 0.66, which is considerably lower than the average debt to equity ratio of around 1.35 across Ontario distributors. NOTL Hydro has a fiscal strategy of maintaining a low ratio which provides for flexibility should the company ever need to suddenly borrow.

Table 1.45: NOTL Hydro Debt to Equity Ratio



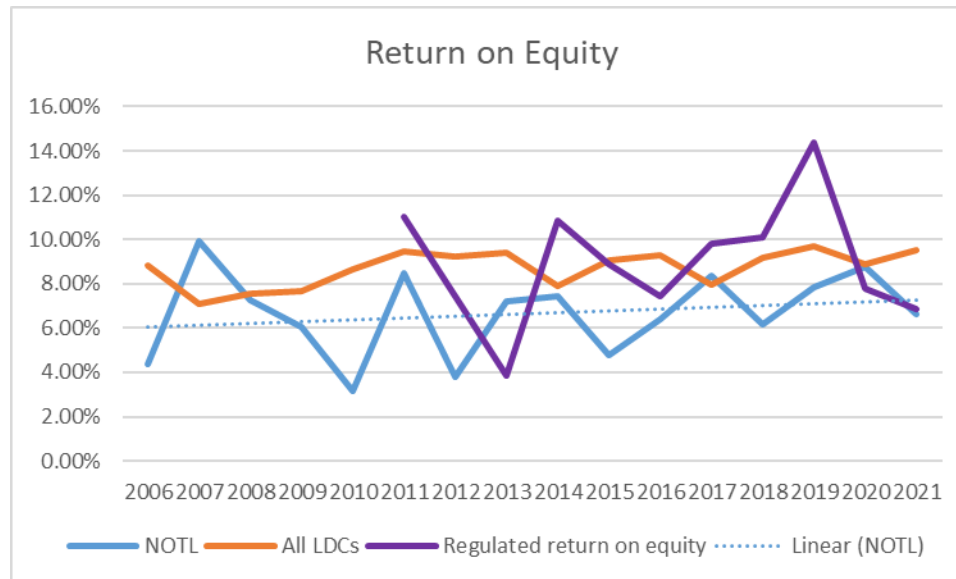
Profitability: Regulatory Return on Equity – Deemed (included in rates)

Return on equity (ROE) measures the rate of return on shareholder equity. ROE demonstrates an organization's profitability or how well a company uses its investments to generate earnings growth. NOTL Hydro's current distribution rates were approved by the Ontario Energy Board and include an expected (deemed) regulatory return on equity of 8.98%. The Ontario Energy Board allows a distributor to earn within +/- 3% of the expected return on equity. If a distributor performs outside of this range, it may trigger a regulatory review of the distributor's financial structure by the Ontario Energy Board.

Profitability: Regulatory Return on Equity – Achieved

NOTL Hydro achieved a ROE of 6.84% in 2021, which is within the +/-3% range allowed by the Ontario Energy Board (see above paragraph). The ROE was lower in 2021 due to lower revenues and higher costs as a result of the pandemic. NOTL Hydro anticipates the average ROE to fall within the +/-3% range into the foreseeable future.

Table 1.46: NOTL Hydro Return on Equity



2.1.6.2 PEG Benchmarking

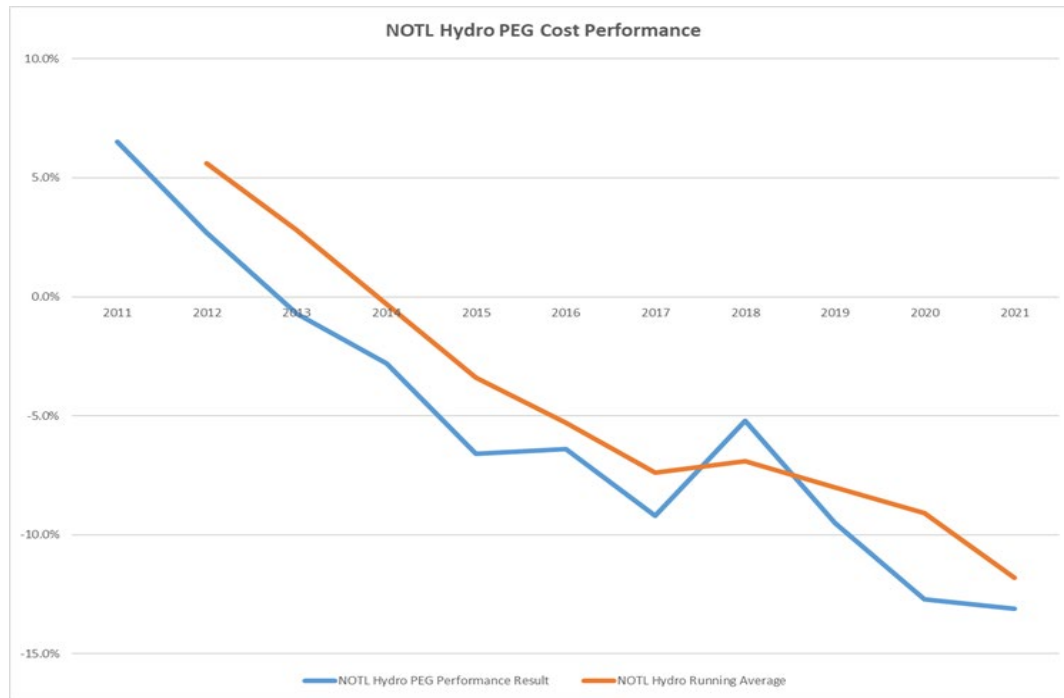
NOTL Hydro was pleased to be recognized by the OEB for its efficiency and its efforts to maintain low costs, and thus its low rates, on behalf of its customers when it was moved to the Group II stretch factor.

Table 1.47: NOTL Hydro PEG Measure

	2016	2017	2018	2019	2020	2021
Cost Efficiency	-6.4%	-9.2%	-5.2%	-9.5%	-12.7%	-13.1%
Stretch Factor	0.30	0.30	0.30	0.30	0.30	0.15

NOTL Hydro's PEG performance over the past ten years and its constant focus on efficiency and improvement can be seen in the chart below.

Table 1.48: NOTL Hydro PEG Results



NOTL Hydro's business plan and application have reflected the PEG forecasting model focus on total cost rather than just operating costs or just capital expenditures. Some examples of this include:

- Software technology is moving more and more to cloud-based models. NOTL Hydro's CIS system is an example of this as it shares the same system with six other LDCs in a cloud-based environment. Cloud-based systems save costs in aggregate but any expenditures are fully reflected in operating costs and not capital. As NOTL Hydro does not own the underlying software it cannot capitalize the costs and so operating costs are that much higher. NOTL Hydro could purchase a CIS system and earn a return on its investment but that would not be beneficial for customers in total.
- Due to external factors, NOTL Hydro found it prudent to bring underground excavating operations in-house. Under IFRS, time spent not providing services directly, such as training and in-house work, cannot be capitalized. When NOTL Hydro purchases these services, the full costs can be capitalized even though the charges cover these additional costs. These changes increase OM&A but the net effect has been to reduce total costs.

NOTL Hydro notes that in determining the expected cost performance, the PEG report states “*The variables used to explain total cost are the same as in the previous PEG report. They include the outputs such as customers, kWh deliveries and capacity. Prices for capital and OM&A along with other business conditions such as customer growth and average length of lines are also included.*” (PEG Report to the Ontario Energy Board – July 2022). This is a more sophisticated and realistic approach than just looking at customer growth.

NOTL Hydro has also modeled its PEG results out to 2025 based on the financial projections included in this application. The trend of continually improving results is expected to continue with NOTL Hydro exceeding the Tier 1 benchmark in 2025 though not yet having the three-year average. This further vindicates NOTL Hydro's cost management approach.

Table 1.49: NOTL Hydro Forecast PEG Results

Summary of Cost Benchmarking Results							
Niagara-on-the-Lake Hydro Inc.							
	2020 (History)	2021 (History)	2022 (History)	2023 (Bridge)	2024 (Test)	2025	
Cost Benchmarking Summary							
Actual Total Cost	7,219,801	7,478,536	7,670,517	8,415,500	8,864,718	9,282,289	
Predicted Total Cost	8,196,312	8,521,217	9,001,032	9,980,119	10,757,230	11,471,822	
Difference	(976,510)	(1,042,680)	(1,330,516)	(1,564,619)	(1,892,513)	(2,189,533)	
Percentage Difference (Cost Performance)	-12.7%	-13.1%	-16.0%	-17.05%	-19.35%	-21.18%	
Three-Year Average Performance			-13.9%	-15.37%	-17.47%	-19.19%	
Stretch Factor Cohort							
Annual Result	2	2	2	2	2	2	
Three Year Average			2	2	2	2	

2.1.6.3 Activity and Performance Based Benchmarking

The OEB, in an effort to measure performance more deeply than at the total cost level, has begun Activity and Performance Based Benchmarking (APB). APB attempts to measure the cost of particular activities and compare these across LDCs so that individual LDCs can then benchmark themselves.

NOTL Hydro will review its performance in these activities based on the most recent results. Unit cost results which are for 2021 and are taken from the APB Unit Cost Calculations: 2021 Results released on September 30, 2022. The total cost comparisons are taken from the Pacific Economics Group Report to the Ontario Energy Board – Activities and Program Benchmarking: 2020 Results released May 4, 2022. However, there are a number of caveats:

- The APB project is still in its infancy and there are a number of issues with the data that still need to be resolved. This was acknowledged by the OEB in their November 3, 2022 letter when they stated that *“its approach to APB is one of continuous improvement”*.
- The sample size of 57 is very small if you are trying to determine statistically significant outcomes. It is fine for high level comparisons.
- The LDCs vary in size from less than two thousand to over one million. They will also vary greatly in processes for the activities. This will greatly affect the accounting allocations to each of the activities reducing comparability. This can be seen in the large variation of results.
- There are a large number of assumptions made in determining the predicted results. These are acknowledged in the reports. The use of all assumptions means the range of what the predicted result could be will be very large. This makes comparability with actual costs less effective.

In viewing the APB results, NOTL Hydro is cognizant of these shortcomings.

Billing O&M

Table 1.50: Billing O&M APB results

	NOTL Hydro	LDC Average	Variance Fav (Unfav)
Average Unit cost per customer (2021)	\$34.61	\$35.49	\$0.88
		Predicted	
Average Total Cost (2020)	\$322,360	\$376,407	15.5%

NOTL Hydro's billing O&M costs are shown as both below the industry average and below predicted costs. As an efficiency, NOTL Hydro shares its CIS system with a number of other small LDCs to help manage costs. It also outsources bill printing as the postal savings make this a cost-effective solution.

Meter O&M

Table 1.51: Meter O&M APB results

	NOTL Hydro	LDC Average	Variance Fav (Unfav)
Average Unit cost per customer (2021)	\$19.75	\$19.80	\$0.05
		Predicted	
Average Total Cost (2020)	\$188,134	\$231,633	20.8%

NOTL Hydro's meter O&M costs are shown as to be at the industry average and below the predicted cost. NOTL Hydro does not have dedicated meter staff but the engineering technicians and line staff all perform meter duties. For the more sophisticated meters for larger customers a third party will be used. Over time this is the most cost-effective approach.

Vegetation Management O&M

Table 1.52: Vegetation Management O&M APB results

	NOTL Hydro	LDC Average	Variance Fav (Unfav)
Average Unit cost per pole (2021)	\$12.01	\$34.70	\$22.69

		Predicted	
Average Total Cost (2020)	\$66,782	\$175,114	96.4%

NOTL Hydro's vegetation management O&M costs are shown as both below the industry average and below predicted costs. NOTL Hydro outsources its basic vegetation management on three-year contracts over which the vegetation is trimmed over the entire Town. Any additional vegetation management is performed by staff. The tree canopy in NOTL gets bigger every year.

Lines O&M

Table 1.53: Lines O&M APB results

	NOTL Hydro	LDC Average	Variance Fav (Unfav)
Average Unit cost km of primary line (2021)	\$1,275.18	\$1,812.30	\$537.12
		Predicted	
Average Total Cost (2020)	\$446,508	\$478,883	7%

NOTL Hydro's lines O&M costs are shown as both below the industry average and below predicted costs. Lines O&M is performed by NOTL Hydro staff.

Station Maintenance

NOTL Hydro does not own any distribution stations. All the 27.6 kV feeder lines come directly from the two high voltage transformation stations owned by NOTL Hydro. The voltage conversion project in which NOTL Hydro has been engaged has made this possible with the resulting efficiencies realized.

Pole O&M

Table 1.54: Poles O&M APB results

	NOTL Hydro	LDC Average	Variance Fav (Unfav)
Average Unit cost per pole (2021)	\$12.12	\$10.86	(\$1.26)
		Predicted	
Average Total Cost (2020)	\$54,244	\$43,358	(22.4%)

NOTL Hydro's pole O&M costs are shown as both above the industry average and above predicted costs. Lines O&M is performed by NOTL Hydro staff. Pole O&M and lines O&M tend to be done at the same time so the aggregate of these two measures may be more meaningful at this time.

Station Capex

NOTL Hydro does not own any distribution stations.

Poles, Towers and Fixtures Capex

Table 1.55: Poles and Fixtures Capex APB results

	NOTL Hydro	LDC Average	Variance Fav (Unfav)
Average Unit cost per pole (2021)	\$4,004	\$8,514	\$4,510
		Predicted	
Average Total Cost (2020)	\$514,745	\$550,965	6.8%

NOTL Hydro's poles, towers and fixtures capex are shown as both below the industry average and below predicted costs. Overhead capex is usually performed by NOTL Hydro staff though for larger jobs on streets that require traffic management the jobs may be outsourced. These outsourced jobs are infrequent and only performed every few years. Large underground jobs are outsourced. Underground service work was previously outsourced but starting in 2022 much of the service work was brought inhouse due to the impending bankruptcy of our primary contractor for this work. This has proven to be more efficient and, more important, more effective in terms of meeting customers timing expectations.

Line Transformer Capex

Table 1.56: Line Transformer Capex APB results

	NOTL Hydro	LDC Average	Variance Fav (Unfav)
Average Unit cost per line transformer additions (2021)	\$7,728	\$10,152	\$2,424
		Predicted	
Average Total Cost (2020)	\$326,153	\$225,285	(37.0%)

NOTL Hydro's line transformer capex are shown as both below the industry average but above predicted costs. NOTL Hydro has historically over-sized its pad-mounted transformers. This was considered more efficient given the historical tendency for voltage upgrades but lately has also served to assist with the accommodation of EVs and EV charging. NOTL Hydro has also been building up its capital inventory due to expected price increases and supply challenges.

Meter Capex

Table 1.57: Meter Capex APB results

	NOTL Hydro	LDC Average	Variance Fav (Unfav)
Average Unit cost per customer (2021)	\$12.13	\$12.12	(\$0.01)
		Predicted	
Average Total Cost (2022)	\$130,717	\$82,851	(45.6%)

NOTL Hydro's meter capex are shown as both below the industry average and below predicted costs. NOTL Hydro has replaced many of the larger meters in its territory over the past few years. Some of these replacements were required to meet the OEB regulations that all meters should become smart meters. NOTL Hydro replaced many of these meters shortly before the deadline due to concerns with the Sensus meters in these classes. A large number of meters also had to be replaced due to the Measurement Canada meter reverification. Where the number of meters of a particular type in the field was small it was considered more efficient to replace them all rather than reverify a sample. This will reduce the ongoing reverification costs.

On March 27, 2023, the Ontario Energy Board released its Unit Cost Report for the 2021 results. This looked at industry trends which can be used to compare the NOTL Hydro trends. The NOTL Hydro trends are summarized in the table below.

Table 1.58: NOTL Hydro APB trends

	2017	2018	2019	2020	2021	Average
Billing O&M	\$ 33.45	\$ 33.84	\$ 29.97	\$ 37.43	\$ 38.35	\$ 34.61
Metering O&M	\$ 18.76	\$ 20.07	\$ 19.17	\$ 19.86	\$ 20.90	\$ 19.75
Vegetation Management O&M	\$ 5.83	\$ 15.67	\$ 15.96	\$ 10.33	\$ 12.27	\$ 12.01
Lines O&M			\$ 1,272.52	\$ 1,128.16	\$ 1,424.86	\$ 1,275.18
Stations O&M	n/a	n/a	n/a	n/a	n/a	n/a
Poles, Towers, Fixtures O&M	\$ 16.74	\$ 10.99	\$ 13.31	\$ 9.79	\$ 9.78	\$ 12.12
Stations Capex	n/a	n/a	n/a	n/a	n/a	n/a
Poles, Towers, Fixtures Capex	\$ 1,461.88	\$ 5,879.91	\$ 3,257.05	\$ 4,757.38	\$ 4,665.98	\$ 4,004.44
Line Transformers Capex	\$ 7,807.73	\$ 12,193.89	\$ 5,497.68	\$ 6,575.54	\$ 6,567.32	\$ 7,728.43
Meters Capex	\$ 8.51	\$ 12.28	\$ 13.29	\$ 15.47	\$ 11.12	\$ 12.13

The following are the comments on these trends.

Billing O&M – The NOTL Hydro trends are consistent with the overall industry performance which is an average annual increase of \$1.15/Customer/Yr.

Metering O&M – Per capita costs have been increasing with the switch to the smart meters and the need for additional metering services from Utilismart.

Vegetation Management O&M – Costs are expected to remain stable as outsourced on three year contracts.

Lines O&M – Costs are below the industry median and average but will vary from year to year based on capital vs. O&M work mix.

Stations O&M – NOTL Hydro does not own any distribution stations.

Poles, Towers and Fixtures O&M – Costs have declined and are now below industry average.

1 Stations Capex – NOTL Hydro does not own any distribution stations.

2
3 Poles, Towers and Fixtures Capex – Due to small number of new poles each year the cost per
4 year will vary considerably and it is difficult to determine the trend based on the small data set.
5 Costs are below the industry average.

6
7 Line Transformers Capex – Consistent with the industry, NOTL Hydro is seeing large increases
8 in the costs of line transformers.

9
10 Meters Capex - Due to small number of new meters each year the cost per year will vary
11 considerably and it is difficult to determine the trend based on the small data set. Costs are above
12 the industry average.

2.1.7 Facilitating Innovation

Innovation comes in many forms. Sometimes innovation is needed to manage changing circumstances in order to adapt effectively to the new environment. However, innovation can also be about managing existing processes in new or slightly modified ways in order to achieve efficiencies. Both of these are discussed below.

New Environments

NOTL Hydro recognizes that with the expected electrification of transportation and heating as well as the energy transition much innovation will be required to accomplish this in a safe and efficient manner. This has been discussed frequently in its Presidents Blog. There are certain steps NOTL Hydro has undertaken to adapt where necessary but, more importantly, to prepare. These include:

- NOTL Hydro has undertaken an internal study to analyze the impact of the electrification of transportation and the impact this would have on its ability to deliver its service. This includes assessing the impact on supplying its service territory with the increased demand as well as changes to the assets on its grid that may be necessary. This study allows NOTL Hydro to understand the magnitude of the potential challenge.
- NOTL Hydro has used 100 kV rather than 50 kV pad mounted transformers for a couple of decades as its standard sizing. This practice has placed NOTL Hydro in a strong position to manage a growth in EV usage and charging. In some instances, NOTL Hydro is now installing 167 kV pad mounted transformers.
- When customers inform us of their EV purchase and charger installation, NOTL Hydro will analyze the related transformer loading and upgrade it if necessary. This is not charged to the owner. NOTL Hydro encourages its customers to report EV and EV charger purchases to us but they are under no obligation to do so nor does NOTL Hydro ever believe they should be.
- NOTL Hydro has greatly expanded its transformation capacity from the 115 kV transmission system to the local grid over the past 20 years. NOTL Hydro is in a position to manage significant growth and has the plans and room should further transformation capacity be necessary.

- 1 • To ensure NOTL Hydro keeps this innovation requirement top of mind, the Board of NOTL
2 Hydro has created a Green Committee. This is the only committee of the NOTL Hydro
3 Board. The committee is charged with monitoring developments in the electrification and
4 energy transition space and making recommendations as to steps NOTL Hydro may want
5 to continue.
- 6 • NOTL Hydro hired a consulting firm, Enviro-Scan, to measure its greenhouse gas output
7 and suggest changes that both reduce greenhouse gases and save money. Many of
8 these recommendations have been implemented and the measurements provide a base
9 line for future analysis and decision-making.

10
11 One area in which NOTL Hydro does not have developed plans is the expansion of distributed
12 generation; primarily solar generation. This is not yet cost efficient so is only happening on a
13 limited scale. Existing engineering standards limit the amount of this generation that can be grid
14 connected. If solar power became cost effective at the residential level and there is no solution
15 to the limitations of these standards, the solar power may be limited to behind the meter
16 installations with no grid connections. This would be a suboptimal solution for both the customer
17 and the grid as a whole. NOTL Hydro has discussed this with experts in both Canada and the
18 United States but has not identified a solution.

19
20 One innovation NOTL Hydro did undertake was the installation of a 250 kV battery that was
21 directly connected to a feeder line. This project was undertaken in cooperation with the Smart
22 Grid Fund of the Ministry of Energy and Panasonic Canada. The project had three objectives:

- 23 1. Determine if the battery could be used to offset the limits of the engineering standards on
24 installing new generation on feeder lines in order to expand the amount of generation that
25 could be installed.
- 26 2. Determine if the battery could be used for peak shaving.
- 27 3. Determine if the battery could be used for voltage management.

28
29 The project demonstrated that the battery could be used for all three purposes but that in no case
30 was it a cost-effective solution. NOTL Hydro believes battery costs will have to come down a long
31 way still to have a major impact at the distribution grid level.

Existing Processes

NOTL Hydro is constantly looking for innovative ways to provide existing services in a more efficient manner. UCS, a collaborative sharing of the CIS system, has been a historical successful model in this regard. Some recent examples of these include:

- NOTL Hydro hired i-de-a, a software developer out of Waterloo, to develop a new solution that alerts customers in the event of an outage. Customers must sign up to get these notifications as we do not want to contacting customers without their consent when not required for regular business. Customers who travel or own property in NOTL but do not live here full time may be interested. This solution is now live with the customer count slowly increasing.
- As described in section 2.9, NOTL Hydro, working with five other LDCs, has jointly hired a GIS Technician. The jointly sharing of a resource with specific time allocations is a new approach for smaller utilities.
- NOTL Hydro does not have its own IT specialist. NOTL Hydro also recognizes the very real threat of cyber security attacks. In this regards it supports the attention the OEB is paying to this risk with its RRR requirements and the current hearing though also recognizes that there is no one solution to this challenge. To ensure NOTL Hydro is protected as best as possible, it uses a four level of protection approach:
 1. All staff are reminded regularly about the dangers of cyber attacks and the steps they can take to prevent them. This includes both training and frequent reviews of their hardware and access abilities.
 2. The Manager, Information Services, while not an IT expert, has been trained and takes care of all the basic issues.
 3. A third-party IT firm is used for all key IT processes including managing the firewall, ensuring back-up processes are in place, procuring and preparing all new hardware and implementing all new software from an IT perspective. This IT firm provides this same service to a number of organizations including other LDCs.
 4. The part-time services of a former CIO of a Canadian Fortune 500 firm is used to oversee the IT set-up including checking that the IT firm is fulfilling its obligations and advising NOTL Hydro on changes to the IT landscape.

2.1.8 Financial Information

Audited Financial Statements

The audited financial statements for 2022 and previous years are available on the NOTL Hydro website: <https://www.notlhydro.com/regulatory/financial-statements/> .

Annual Report and Management's Discussion and Analysis

The Applicant does not publish an annual report to its shareholders. The presentations made to the shareholder at the Annual General Meetings are available on the NOTL Hydro website at the same link as the financial statements.

Prospectuses and Rating Agency Reports

NOTL Hydro does not issue debt securities or shares so has not published a prospectus nor is it rated by any rating agency.

Changes in Tax Status

The utility is not seeking any changes in its tax status in this application and remains a corporation.

Existing Accounting Orders

NOTL Hydro has prepared the 2024 Cost of Service rate application under MIFRS.

Account Standards used in Application

In accordance with the Board's Filing Requirements, NOTL Hydro has used MIFRS as the accounting standard for general purpose financial statements since 2015.

Segregation of Rate Regulated Activities

During the past five years, NOTL Hydro was engaged in the delivery of the IESO's Conservation and Demand Management Programs. The accounting of these activities was segregated from NOTL Hydro's rate regulated activities in accordance with the Board's Accounting Procedures

1 Handbook for Electricity Distributors. NOTL Hydro does not have any generation. There is a small
2 solar plant on its building which is owned by a sister company, Energy Services Niagara Inc.
3 (ESNI). NOTL Hydro receives rent for the use of its roof.

4 ESNI also provides water billing services for the Town of Niagara-on-the-Lake. This is a
5 convenience for our customers who get both bills on the same invoice. NOTL Hydro bills ESNI
6 for the full cost of any time and services related to water billing. Likewise, ESNI provides locate
7 services to the Town of Niagara-on-the-Lake. NOTL Hydro bills ESNI for the full cost of any time
8 and services related to locates.

9
10 **Departures from the Uniform System of Accounts or Accounting Orders**

11 As far as NOTL Hydro is aware, there are no departures from the Uniform System of Accounts or
12 to any OEB accounting orders.

2.1.9 Distributor Consolidation

NOTL Hydro has not acquired nor amalgamated with any other distributor(s) since its last rebasing application.

NOTL Hydro collaborates extensively with other Ontario distributors to improve efficiency and mitigate costs. Some examples of this collaboration include:

- NOTL Hydro uses the control room of Oakville Hydro for its SCADA monitoring, switching and hold-offs. This is significantly less expensive than if NOTL Hydro were to have its own control room. NOTL Hydro previously used the control room of Alectra but Alectra decided they no longer wished to provide this service.
- NOTL Hydro is a member of Utility Collaborative Services Inc. (UCS) along with five other LDCs. Members of UCS share a common platform for the Northstar CIS system and share in the services of an IT specialist who manages the platform. This is much more efficient and cost effective than if NOTL Hydro were to manage this process on its own.
- NOTL Hydro uses the Utilismart product which is provided by the Essex Power companies. Utilismart is used for settlements and for providing NOTL Hydro's larger customers with access to data more sophisticated than in the Customer Connect platform available to regular customers.
- NOTL Hydro is jointly sharing a GIS Technician, through CHEC, with five other LDCs. This enables each of these smaller LDCs to obtain the services of a dedicated GIS expert on a part time basis in a manner that would not otherwise be available.
- NOTL Hydro is working with a number of LDCs to implement a common Green Button solution. By working together, these LDCs are able to reduce the cost and effort required to implement Green Button.
- NOTL Hydro is in constant communication with local Niagara LDCs such as Welland Electric, Grimsby Power and NPEI as well as many CHEC LDCs. The biggest benefit of this is the sharing of ideas. CHEC deliberately encourages this in their meetings. For example, many of the IT services NOTL Hydro uses have come from recommendations from CHEC members. These discussions often also identify opportunities for savings and mutual support. For instance, NOTL Hydro may have sourced a needed transformer from one CHEC member while NPEI will sometimes provide metering services for the more sophisticated meters for which NOTL Hydro does not have inhouse capability.

- NOTL Hydro uses some of the services of EARTH, part of the Erie Thames Power group of companies. These include bill printing, meter service provision, retailer hub services and hosting of NOTL Hydro's CIS system.
- NOTL Hydro has mutual aid agreements with all CHEC members and many Niagara LDCs. NOTL Hydro provided several days of assistance to Canadian Niagara Power between Christmas and New Years Day in 2022 under these agreements.

NOTL Hydro's most significant collaboration is its membership in Cornerstone Hydro Electric Concepts (CHEC), a collaborative organization that currently includes 15 of the smaller LDCs in the province. Resources and support are delivered by the association through member participation, including NOTL hydro and through the CHEC staff. Participation results in substantial efficiencies and workload reduction for each member. A valuation of the organization (through a template created by BDO) performed in 2020 set the valuation at approximately \$256,767 for a three-year term, or \$86,600 annually per member.

Shared resources are provided for multiple areas of LDC operations including Finance & Regulatory, Operation and Health & Safety, Billing and Customer Information Systems, Human Resources and Labour Relations, and Communications and Customer Engagement. Specific examples of the resources include:

- The Green Button All-Member Working Group educated members on the requirements, led the vetting and evaluation of third-party vendors, facilitated collaboration within members to save costs, and planned the implementation. This resulted in cost savings for members, reduced effort, and the assurance of knowing that the project will be guided by the experience and knowledge of the extended group.
- A group purchase of services by 14 members for the biannual Customer Satisfaction Survey and ESA Safety Survey reduced the cost of the surveys and the standardization allows for easier comparisons between LDCs.
- The Disconnection Process Working Group developed a calendar tool and communication templates to ensure member disconnection processes were being properly implemented and they were accurately communicating and interacting with customers according to the Distribution System Code.

- 1 • The shared training across all portfolios to reduce costs and ensure the courses are
2 delivered professionally and staff are educated on the changes and requirements within
3 the industry. A sample of recent training courses includes Basic & Advanced Regulatory
4 training, Leadership Training for Operations staff, Basics of Electricity and Electrical Safety
5 Awareness I & II, Managing Customer Relationships, Effective Business Communication,
6 Spring Safety Session, and Privacy & Information Access Training.
- 7 • The recognition of CHEC as the voice of small LDCs in Ontario has facilitated improved
8 communication between regulatory bodies, such as the OEB and the Ministry of Energy,
9 and the CHEC members, resulting in more informed staff and the opportunity to provide
10 feedback.
- 11 • CHEC encourages networking and NOTL Hydro is in constant communication with other
12 members. This results in continual sharing of ideas and opportunities for savings and
13 mutual support. Specific examples include the recommendation of third-party vendors, the
14 sourcing of a needed equipment or materials from another member, or technical services
15 where NOTL Hydro does not have inhouse capabilities.
- 16 • A Mutual Agreement between CHEC members provides support during extreme weather
17 events or during more extensive capital projects. An annually updated asset list lets
18 members know what other resources may be available through other members as needed.
- 19 • Members work together to develop policies and regulatory documents. Substantial
20 savings have been realized through the CHEC Cost of Service process and models such
21 as the data storage model. A lead lag study developed by one member was provided to
22 all members. A COVID vaccination policy was developed and distributed to members.
23 Recent updates to the Conditions of Service were developed by a small working group
24 and delivered to all members. A common social media calendar is developed each month
25 and distributed to communication staff at each member LDC.

2.1.10 Impacts of COVID-19 Pandemic

NOTL Hydro is not seeking to recover any of the previously incurred costs or lost revenue from the COVID-19 pandemic.

Like all businesses, NOTL Hydro was impacted by the COVID-19 pandemic in a number of different ways. These include:

- NOTL Hydro's load changed during the pandemic with greater electricity use by residential customers and less by commercial customers. In aggregate, the load declined. The ongoing impact of this is discussed as part of the load forecast.
- Revenue also declined in line with the declining commercial load. The increase in residential load had no impact on revenue as residential customers pay a fixed distribution rate.
- NOTL Hydro had higher OM&A costs during the pandemic due to a variety of factors including adjusting processes to allow staff to work from home, lost time that could otherwise be charged to capital work as line and engineering staff worked from home, and purchases for supplies for staff and customer safety. Following the pandemic, OM&A costs have increased significantly due to the rising inflation. This is discussed in more detail in the OM&A section.
- NOTL Hydro's capital work was largely maintained during the pandemic though there were some shortfalls while staff was working from home. More importantly, capital costs have increased substantially due to the inflation following the pandemic. This has been exasperated by the supplies and labour shortages which have greatly increased the costs of contracted work and either delayed or prevented some capital work. This is discussed in more detail in the rate base section.

1 Appendices

Appendix 1A	NOTL Hydro Distribution Licence
Appendix 1B	Executive Certificate
Appendix 1C	Business Plan
Appendix 1D	Bill_Impact tables filed in excel
Appendix 1E	2019 Final Customer Satisfaction report
Appendix 1F	2021 Final Customer Satisfaction report
Appendix 1G	2023 Final Customer Satisfaction report
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Appendix 1K	NOTL_2024_Benchmarking_Spreadsheet_Forecast_Model _(2022_OEB_Model) filed in excel

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APPENDIX 1A

NOTL Hydro Distribution License



Electricity Distribution Licence

ED-2002-0547

Niagara-on-the-Lake Hydro Inc.

Valid Until

March 31, 2023

Original Signed By

Brian Hewson

**Vice President, Consumer Protection and Industry Performance
Ontario Energy Board**

Date of Issuance: October 16, 2003

Date of Last Amendment: September 12, 2019

Ontario Energy Board
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LIST OF AMENDMENTS

Board File No.	Date of Amendment
EB-2010-0216	November 12, 2010
EB-2014-0324	December 18, 2014
EB-2016-0015	January 28, 2016
EB-2017-0105	March 31, 2017
EB-2017-0096	May 25, 2017
EB-2017-0197	June 29, 2017
EB-2017-0318	February 8, 2018
EB-2019-0167	September 12, 2019

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1 Definitions

In this Licence:

"Accounting Procedures Handbook" means the handbook, approved by the Board which specifies the accounting records, accounting principles and accounting separation standards to be followed by the Licensee;

"Act" means the *Ontario Energy Board Act, 1998*, S.O. 1998, c. 15, Schedule B;

"Affiliate Relationships Code for Electricity Distributors and Transmitters" means the code, approved by the Board which, among other things, establishes the standards and conditions for the interaction between electricity distributors or transmitters and their respective affiliated companies;

"distribution services" means services related to the distribution of electricity and the services the Board has required distributors to carry out, including the sales of electricity to consumers under section 29 of the Act, for which a charge or rate has been established in the Rate Order;

"Distribution System Code" means the code approved by the Board which, among other things, establishes the obligations of the distributor with respect to the services and terms of service to be offered to customers and retailers and provides minimum, technical operating standards of distribution systems;

"Electricity Act" means the *Electricity Act, 1998*, S.O. 1998, c. 15, Schedule A;

"IESO" means the Independent Electricity System Operator;

"Licensee" means Niagara-on-the-Lake Hydro Inc.

"Market Rules" means the rules made under section 32 of the Electricity Act;

"OPA" means the Ontario Power Authority;

"Performance Standards" means the performance targets for the distribution and connection activities of the Licensee as established by the Board in accordance with section 83 of the Act;

"Rate Order" means an Order or Orders of the Board establishing rates the Licensee is permitted to charge;

"regulation" means a regulation made under the Act or the Electricity Act;

"Retail Settlement Code" means the code approved by the Board which, among other things, establishes a distributor's obligations and responsibilities associated with financial settlement among retailers and consumers and provides for tracking and facilitating consumer transfers among competitive retailers;

"service area" with respect to a distributor, means the area in which the distributor is authorized by its licence to distribute electricity;

"Standard Supply Service Code" means the code approved by the Board which, among other things, establishes the minimum conditions that a distributor must meet in carrying out its obligations to sell electricity under section 29 of the Electricity Act;

"wholesaler" means a person that purchases electricity or ancillary services in the IESO administered markets or directly from a generator or, a person who sells electricity or ancillary services through the IESO-administered markets or directly to another person other than a consumer.

2 Interpretation

- 2.1 In this Licence, words and phrases shall have the meaning ascribed to them in the Act or the Electricity Act. Words or phrases importing the singular shall include the plural and vice versa. Headings are for convenience only and shall not affect the interpretation of the Licence. Any reference to a document or a provision of a document includes an amendment or supplement to, or a replacement of, that document or that provision of that document. In the computation of time under this Licence, where there is a reference to a number of days between two events, they shall be counted by excluding the day on which the first event happens and including the day on which the second event happens and where the time for doing an act expires on a holiday, the act may be done on the next day that is not a holiday.

3 Authorization

- 3.1 The Licensee is authorized, under Part V of the Act and subject to the terms and conditions set out in this Licence:
- a) to own and operate a distribution system in the service area described in Schedule 1 of this Licence;
 - b) to retail electricity for the purposes of fulfilling its obligation under section 29 of the Electricity Act in the manner specified in Schedule 2 of this Licence; and
 - c) to act as a wholesaler for the purposes of fulfilling its obligations under the Retail Settlement Code or under section 29 of the Electricity Act.

4 Obligation to Comply with Legislation, Regulations and Market Rules

- 4.1 The Licensee shall comply with all applicable provisions of the Act and the Electricity Act and regulations under these Acts, except where the Licensee has been exempted from such compliance by regulation.
- 4.2 The Licensee shall comply with all applicable Market Rules.

5 Obligation to Comply with Codes

- 5.1 The Licensee shall at all times comply with the following Codes (collectively the "Codes") approved by the Board, except where the Licensee has been specifically exempted from such

compliance by the Board. Any exemptions granted to the licensee are set out in Schedule 3 of this Licence. The following Codes apply to this Licence:

- a) the Affiliate Relationships Code for Electricity Distributors and Transmitters;
- b) the Distribution System Code;
- c) the Retail Settlement Code; and
- d) the Standard Supply Service Code.

5.2 The Licensee shall:

- a) make a copy of the Codes available for inspection by members of the public at its head office and regional offices during normal business hours; and
- b) provide a copy of the Codes to any person who requests it. The Licensee may impose a fair and reasonable charge for the cost of providing copies.

6 Obligation to Provide Non-discriminatory Access

- 6.1 The Licensee shall, upon the request of a consumer, generator or retailer, provide such consumer, generator or retailer with access to the Licensee's distribution system and shall convey electricity on behalf of such consumer, generator or retailer in accordance with the terms of this Licence.

7 Obligation to Connect

- 7.1 The Licensee shall connect a building to its distribution system if:

- a) the building lies along any of the lines of the distributor's distribution system; and
- b) the owner, occupant or other person in charge of the building requests the connection in writing.

- 7.2 The Licensee shall make an offer to connect a building to its distribution system if:

- a) the building is within the Licensee's service area as described in Schedule 1; and
- b) the owner, occupant or other person in charge of the building requests the connection in writing.

- 7.3 The terms of such connection or offer to connect shall be fair and reasonable and made in accordance with the Distribution System Code, and the Licensee's Rate Order as approved by the Board.

- 7.4 The Licensee shall not refuse to connect or refuse to make an offer to connect unless it is permitted to do so by the Act or a regulation or any Codes to which the Licensee is obligated to comply with as a condition of this Licence.

8 Obligation to Sell Electricity

- 8.1 The Licensee shall fulfill its obligation under section 29 of the Electricity Act to sell electricity in accordance with the requirements established in the Standard Supply Service Code, the Retail Settlement Code and the Licensee's Rate Order as approved by the Board.

9 Obligation to Maintain System Integrity

- 9.1 The Licensee shall maintain its distribution system in accordance with the standards established in the Distribution System Code and Market Rules, and have regard to any other recognized industry operating or planning standards adopted by the Board.

10 Market Power Mitigation Rebates

- 10.1 The Licensee shall comply with the pass through of Ontario Power Generation rebate conditions set out in Appendix A of this Licence.

11 Distribution Rates

- 11.1 The Licensee shall not charge for connection to the distribution system, the distribution of electricity or the retailing of electricity to meet its obligation under section 29 of the Electricity Act except in accordance with a Rate Order of the Board.

12 Separation of Business Activities

- 12.1 The Licensee shall keep financial records associated with distributing electricity separate from its financial records associated with transmitting electricity or other activities in accordance with the Accounting Procedures Handbook and as otherwise required by the Board.

13 Expansion of Distribution System

- 13.1 The Licensee shall not construct, expand or reinforce an electricity distribution system or make an interconnection except in accordance with the Act and Regulations, the Distribution System Code and applicable provisions of the Market Rules.
- 13.2 In order to ensure and maintain system integrity or reliable and adequate capacity and supply of electricity, the Board may order the Licensee to expand or reinforce its distribution system in accordance with Market Rules and the Distribution System Code, or in such a manner as the Board may determine.

14 Provision of Information to the Board

- 14.1 The Licensee shall maintain records of and provide, in the manner and form determined by the Board, such information as the Board may require from time to time.
- 14.2 Without limiting the generality of paragraph 14.1, the Licensee shall notify the Board of any material change in circumstances that adversely affects or is likely to adversely affect the business, operations or assets of the Licensee as soon as practicable, but in any event no more than twenty (20) days past the date upon which such change occurs.

15 Restrictions on Provision of Information

- 15.1 The Licensee shall not use information regarding a consumer, retailer, wholesaler or generator obtained for one purpose for any other purpose without the written consent of the consumer, retailer, wholesaler or generator.
- 15.2 The Licensee shall not disclose information regarding a consumer, retailer, wholesaler or generator to any other party without the written consent of the consumer, retailer, wholesaler or generator, except where such information is required to be disclosed:
- a) to comply with any legislative or regulatory requirements, including the conditions of this Licence;
 - b) for billing, settlement or market operations purposes;
 - c) for law enforcement purposes; or
 - d) to a debt collection agency for the processing of past due accounts of the consumer, retailer, wholesaler or generator.
- 15.3 The Licensee may disclose information regarding consumers, retailers, wholesalers or generators where the information has been sufficiently aggregated such that their particular information cannot reasonably be identified.
- 15.4 The Licensee shall inform consumers, retailers, wholesalers and generators of the conditions under which their information may be released to a third party without their consent.
- 15.5 If the Licensee discloses information under this section, the Licensee shall ensure that the information provided will not be used for any other purpose except the purpose for which it was disclosed.

16 Customer Complaint and Dispute Resolution

- 16.1 The Licensee shall:
- a) have a process for resolving disputes with customers that deals with disputes in a fair, reasonable and timely manner;
 - b) publish information which will make its customers aware of and help them to use its dispute resolution process;
 - c) make a copy of the dispute resolution process available for inspection by members of the public at each of the Licensee's premises during normal business hours;
 - d) give or send free of charge a copy of the process to any person who reasonably requests it; and
 - e) subscribe to and refer unresolved complaints to an independent third party complaints resolution service provider selected by the Board. This condition will become effective on a date to be determined by the Board. The Board will provide reasonable notice to the Licensee of the date this condition becomes effective.

17 Term of Licence

- 17.1 This Licence shall take effect on October 16, 2003 and expire on March 31, 2023. The term of this Licence may be extended by the Board.

18 Fees and Assessments

- 18.1 The Licensee shall pay all fees charged and amounts assessed by the Board.

19 Communication

- 19.1 The Licensee shall designate a person that will act as a primary contact with the Board on matters related to this Licence. The Licensee shall notify the Board promptly should the contact details change.
- 19.2 All official communication relating to this Licence shall be in writing.
- 19.3 All written communication is to be regarded as having been given by the sender and received by the addressee:
- a) when delivered in person to the addressee by hand, by registered mail or by courier;
 - b) ten (10) business days after the date of posting if the communication is sent by regular mail; and
 - c) when received by facsimile transmission by the addressee, according to the sender's transmission report.

20 Copies of the Licence

- 20.1 The Licensee shall:
- a) make a copy of this Licence available for inspection by members of the public at its head office and regional offices during normal business hours; and
 - b) provide a copy of this Licence to any person who requests it. The Licensee may impose a fair and reasonable charge for the cost of providing copies.

21 Conservation and Demand Management

[Intentionally left blank]

22 Pole Attachments

- 22.1 The Licensee shall provide access to its distribution poles to all Canadian carriers, as defined by the Telecommunications Act, and to all cable companies that operate in the Province of Ontario. For each attachment, with the exception of wireless attachments, the Licensee shall charge the rate approved by the Board and included in the Licensee's tariff.
- 22.2 The Licensee shall:

- a) annually report the net revenue, and the calculations used to determine that net revenue, earned from allowing wireless attachments to its poles. Net revenues will be accumulated in a deferral account approved by the Board;
- b) credit that net revenue against its revenue requirement subject to Board approval in rate proceedings; and
- c) provide access for wireless attachments to its poles on commercial terms normally found in a competitive market.

23 Winter Disconnection, Reconnection and Load Control Devices

23.1 Subject to paragraph 23.4, the Licensee shall not, during a Disconnection Ban Period:

- a) disconnect an occupied residential property solely on the grounds of non-payment;
- b) issue a disconnection notice in respect of an occupied residential property solely on the grounds of non-payment; or
- c) install a load control device in respect of an occupied residential property solely on the grounds of non-payment.

Nothing in this paragraph shall preclude the Licensee from (i) disconnecting an occupied residential property during a Disconnection Ban Period in accordance with all applicable regulatory requirements, including the required disconnection notice, or (ii) installing a load control device in respect of an occupied residential property during a Disconnection Ban Period, in each case if at the unsolicited request of the customer given in writing for that Disconnection Ban Period.

23.2 Subject to paragraph 23.4,

- (a) for the 2017/2018 Disconnection Ban Period, if the Licensee had disconnected a residential property on or before November 2, 2017 solely on the grounds of non-payment, the Licensee shall reconnect that property, if an occupied residential property, as soon as possible, and shall do the same in respect of any such property that may be disconnected by Licensee between that date and the commencement of the Disconnection Ban Period. The Licensee shall waive any reconnection charge that might otherwise apply in respect of that reconnection; and
- (b) for each subsequent Disconnection Ban Period, the Licensee shall ensure that any residential property that had been disconnected solely on the grounds of non-payment is, if an occupied residential property, reconnected as at the commencement of the Disconnection Ban Period. The Licensee shall waive any reconnection charge that might otherwise apply in respect of that reconnection.

Nothing in this paragraph shall require the Licensee to reconnect an occupied residential property in respect of a Disconnection Ban Period if the customer gives unsolicited notice to the Licensee not to do so in writing for that Disconnection Ban Period and has not rescinded that notice.

23.3 Subject to paragraph 23.4,

- (a) for the 2017/2018 Disconnection Ban Period, if the Licensee had installed a load control device in respect of an occupied residential property on or before November 2, 2017 either for non-payment or at the customer's request, the Licensee shall remove that device and restore full service to the property as soon as possible, and shall do the same in respect of any load control device installed in respect of any such property between that date and the commencement of the Disconnection Ban Period. The Licensee shall waive any charge that might otherwise apply in respect of such removal; and
- (b) for each subsequent Disconnection Ban Period, the Licensee shall ensure that any load control device installed in respect of an occupied residential property either for non-payment or at the customer's request is removed and full service is restored to the property as at the commencement of the Disconnection Ban Period. The Licensee shall waive any charge that might otherwise apply in respect of such removal.

Nothing in this paragraph shall (i) require the Licensee to remove a load control device in respect of a Disconnection Ban Period if the customer gives unsolicited notice to the Licensee not to do so in writing for that Disconnection Ban Period and has not rescinded that notice; or (ii) prevent the Licensee from installing or maintaining a load control device if the customer makes an unsolicited request in writing for the Licensee to do so for that Disconnection Ban Period and has not rescinded that request.

23.4 Nothing in paragraphs 23.1 to 23.3 shall:

- a) prevent the Licensee from taking such action in respect of an occupied residential property as may be required to comply with any applicable and generally acceptable safety requirements or standards; or
- b) require the Licensee to act in a manner contrary to any applicable and generally accepted safety requirements or standards.

23.5 The Licensee shall waive any collection of account charge that could otherwise be charged in relation to an occupied residential property during a Disconnection Ban Period.

23.6 For the purposes of paragraphs 23.1 to 23.5:

"Disconnection Ban Period" means the period commencing at 12:00 am on November 15th in one year and ending at 11:59 pm on April 30th in the following year;

"load control device" has the meaning given to it in the Distribution System Code; and

"occupied residential property" means an account with the Licensee:

- a) that falls within the residential rate classification as specified in the Licensee's Rate Order; and
- b) that is:
 - i. inhabited; or
 - ii. in an uninhabited condition as a result of the property having been disconnected by the Licensee or of a load control device having been installed in respect of the property outside of a Disconnection Ban Period.

- 23.7 Paragraphs 23.1 to 23.5 apply despite any provision of the Distribution System Code to the contrary.

SCHEDULE 1 DEFINITION OF DISTRIBUTION SERVICE AREA

This Schedule specifies the area in which the Licensee is authorized to distribute and sell electricity in accordance with paragraph 8.1 of this Licence.

1. The municipal boundaries of the Town of Niagara-on-the-Lake as of January 1, 1970,
 - Excluding the area on the East side of Read Road from Lake Ontario in the North to Seaway Haulage Road in the South and the East side of Seaway Haulage Road from Read Road in the North to 1269 Seaway Haulage Road in the South. This includes the following addresses:
 - i. On Read Road - 18, 35, 91, 97, 105, 107, 111, 119, 123, 149, 157, 225, 229, 257, 287, 301, 315, 321, 327, 377, 383, 387, 393, 399, 411, 423, 427, 435, 447, 455, 521, 525, 621, 639, 699, 709 and 719.
 - ii. On Seaway Haulage – 1269, 1281 and 1289.
 - Excluding the customers located at the following physical addresses:
 - i. 92 Warner Road, Niagara-on-the-Lake
 - ii. 176 Warner Road, Niagara-on-the-Lake
 - iii. 196 Warner Road, Niagara-on-the-Lake
 - iv. 206 Warner Road, Niagara-on-the-Lake
 - v. Ministry of Transportation Hut, Queen Elizabeth Way at Warner Road, Niagara-on-the-Lake
 - Including the customers located at the following physical addresses:
 - i. 2107 Ravine Road, Niagara Falls
 - ii. 1800-1850 St. Paul Avenue, Niagara Falls
 - iii. 1857 St. Paul Avenue, Niagara Falls
 - iv. 1785 St. Paul Avenue, Niagara Falls
 - v. 6490 Steele Road, Niagara Falls
 - vi. 6620 Steele Road, Niagara Falls
 - vii. 20 Tanbark Road, Niagara Falls

SCHEDULE 2 PROVISION OF STANDARD SUPPLY SERVICE

This Schedule specifies the manner in which the Licensee is authorized to retail electricity for the purposes of fulfilling its obligation under section 29 of the Electricity Act.

The Licensee is authorized to retail electricity directly to consumers within its service area in accordance with paragraph 8.1 of this Licence, any applicable exemptions to this Licence, and at the rates set out in the Rate Orders.

SCHEDULE 3 LIST OF CODE EXEMPTIONS

This Schedule specifies any specific Code requirements from which the Licensee has been exempted.

1. Licensee is exempt from the requirements of section 2.5.3 of the Standard Supply Service Code with respect to the price for small volume/residential consumers, subject to the Licensee offering an equal billing plan as described in its application for exemption from Fixed Reference Price, and meeting all other undertakings and material representations contained in the application and the materials filed in connection with it.

APPENDIX A

MARKET POWER MITIGATION REBATES

1. Definitions and Interpretations

In this Licence

"embedded distributor" means a distributor who is not a market participant and to whom a host distributor distributes electricity;

"embedded generator" means a generator who is not a market participant and whose generation facility is connected to a distribution system of a distributor, but does not include a generator who consumes more electricity than it generates;

"host distributor" means a distributor who is a market participant and who distributes electricity to another distributor who is not a market participant.

In this Licence, a reference to the payment of a rebate amount by the IESO includes interim payments made by the IESO.

2. Information Given to IESO

- a Prior to the payment of a rebate amount by the IESO to a distributor, the distributor shall provide the IESO, in the form specified by the IESO and before the expiry of the period specified by the IESO, with information in respect of the volumes of electricity withdrawn by the distributor from the IESO-controlled grid during the rebate period and distributed by the distributor in the distributor's service area to:
 - i consumers served by a retailer where a service transaction request as defined in the Retail Settlement Code has been implemented; and
 - ii consumers other than consumers referred to in clause (i) who are not receiving the fixed price under sections 79.4, 79.5 and 79.16 of the *Ontario Energy Board Act, 1998*.
- b Prior to the payment of a rebate amount by the IESO to a distributor which relates to electricity consumed in the service area of an embedded distributor, the embedded distributor shall provide the host distributor, in the form specified by the IESO and before the expiry of the period specified in the Retail Settlement Code, with the volumes of electricity distributed during the rebate period by the embedded distributor's host distributor to the embedded distributor net of any electricity distributed to the embedded distributor which is attributable to embedded generation and distributed by the embedded distributor in the embedded distributor's service area to:
 - i consumers served by a retailer where a service transaction request as defined in the Retail Settlement Code has been implemented; and
 - ii consumers other than consumers referred to in clause (i) who are not receiving the fixed price under sections 79.4, 79.5 and 79.16 of the *Ontario Energy Board Act, 1998*.
- c Prior to the payment of a rebate amount by the IESO to a distributor which relates to electricity

consumed in the service area of an embedded distributor, the host distributor shall provide the IESO, in the form specified by the IESO and before the expiry of the period specified by the IESO, with the information provided to the host distributor by the embedded distributor in accordance with section 2.

The IESO may issue instructions or directions providing for any information to be given under this section. The IESO shall rely on the information provided to it by distributors and there shall be no opportunity to correct any such information or provide any additional information and all amounts paid shall be final and binding and not subject to any adjustment.

For the purposes of attributing electricity distributed to an embedded distributor to embedded generation, the volume of electricity distributed by a host distributor to an embedded distributor shall be deemed to consist of electricity withdrawn from the IESO-controlled grid or supplied to the host distributor by an embedded generator in the same proportion as the total volume of electricity withdrawn from the IESO-controlled grid by the distributor in the rebate period bears to the total volume of electricity supplied to the distributor by embedded generators during the rebate period.

3. Pass Through of Rebate

A distributor shall promptly pass through, with the next regular bill or settlement statement after the rebate amount is received, any rebate received from the IESO, together with interest at the Prime Rate, calculated and accrued daily, on such amount from the date of receipt, to:

- a retailers who serve one or more consumers in the distributor's service area where a service transaction request as defined in the Retail Settlement Code has been implemented;
- b consumers who are not receiving the fixed price under sections 79.4, 79.5 and 79.16 of the *Ontario Energy Board Act, 1998* and who are not served by a retailer where a service transaction request as defined in the Retail Settlement Code has been implemented; and
- c embedded distributors to whom the distributor distributes electricity.

The amounts paid out to the recipients listed above shall be based on energy consumed and calculated in accordance with the rules set out in the Retail Settlement Code. These payments may be made by way of set off at the option of the distributor.

If requested in writing by OPGI, the distributor shall ensure that all rebates are identified as coming from OPGI in the following form on or with each applicable bill or settlement statement:

"ONTARIO POWER GENERATION INC. rebate"

Any rebate amount which cannot be distributed as provided above or which is returned by a retailer to the distributor in accordance with its licence shall be promptly returned to the host distributor or IESO as applicable, together with interest at the Prime Rate, calculated and accrued daily, on such amount from the date of receipt.

Nothing shall preclude an agreement whereby a consumer assigns the benefit of a rebate payment to a retailer or another party.

Pending pass-through or return to the IESO of any rebate received, the distributor shall hold the funds received in trust for the beneficiaries thereof in a segregated account.

ONTARIO POWER GENERATION INC. REBATES

For the payments that relate to the period from May 1, 2006 to April 30, 2009, the rules set out below shall apply.

1. Definitions and Interpretations

In this Licence

"embedded distributor" means a distributor who is not a market participant and to whom a host distributor distributes electricity;

"embedded generator" means a generator who is not a market participant and whose generation facility is connected to a distribution system of a distributor, but does not include a generator who consumes more electricity than it generates;

"host distributor" means a distributor who is a market participant and who distributes electricity to another distributor who is not a market participant.

In this Licence, a reference to the payment of a rebate amount by the IESO includes interim payments made by the IESO.

2. Information Given to IESO

- a Prior to the payment of a rebate amount by the IESO to a distributor, the distributor shall provide the IESO, in the form specified by the IESO and before the expiry of the period specified by the IESO, with information in respect of the volumes of electricity withdrawn by the distributor from the IESO-controlled grid during the rebate period and distributed by the distributor in the distributor's service area to:
 - i consumers served by a retailer where a service transaction request as defined in the Retail Settlement Code has been implemented and the consumer is not receiving the prices established under sections 79.4, 79.5 and 79.16 of the *Ontario Energy Board Act, 1998*; and
 - ii consumers other than consumers referred to in clause (i) who are not receiving the fixed price under sections 79.4, 79.5 and 79.16 of the *Ontario Energy Board Act, 1998*.
- b Prior to the payment of a rebate amount by the IESO to a distributor which relates to electricity consumed in the service area of an embedded distributor, the embedded distributor shall provide the host distributor, in the form specified by the IESO and before the expiry of the period specified in the Retail Settlement Code, with the volumes of electricity distributed during the rebate period by the embedded distributor's host distributor to the embedded distributor net of any electricity distributed to the embedded distributor which is attributable to embedded generation and distributed by the embedded distributor in the embedded distributor's service area to:

- i consumers served by a retailer where a service transaction request as defined in the Retail Settlement Code has been implemented; and
 - ii consumers other than consumers referred to in clause (i) who are not receiving the fixed price under sections 79.4, 79.5 and 79.16 of the *Ontario Energy Board Act, 1998*.
- c Prior to the payment of a rebate amount by the IESO to a distributor which relates to electricity consumed in the service area of an embedded distributor, the host distributor shall provide the IESO, in the form specified by the IESO and before the expiry of the period specified by the IESO, with the information provided to the host distributor by the embedded distributor in accordance with section 2.

The IESO may issue instructions or directions providing for any information to be given under this section. The IESO shall rely on the information provided to it by distributors and there shall be no opportunity to correct any such information or provide any additional information and all amounts paid shall be final and binding and not subject to any adjustment.

For the purposes of attributing electricity distributed to an embedded distributor to embedded generation, the volume of electricity distributed by a host distributor to an embedded distributor shall be deemed to consist of electricity withdrawn from the IESO-controlled grid or supplied to the host distributor by an embedded generator in the same proportion as the total volume of electricity withdrawn from the IESO-controlled grid by the distributor in the rebate period bears to the total volume of electricity supplied to the distributor by embedded generators during the rebate period.

3. Pass Through of Rebate

A distributor shall promptly pass through, with the next regular bill or settlement statement after the rebate amount is received, any rebate received from the IESO, together with interest at the Prime Rate, calculated and accrued daily, on such amount from the date of receipt, to:

- a retailers who serve one or more consumers in the distributor's service area where a service transaction request as defined in the Retail Settlement Code has been implemented and the consumer is not receiving the prices established under sections 79.4, 79.5 and 79.16 of the *Ontario Energy Board Act, 1998*;
- b consumers who are not receiving the fixed price under sections 79.4, 79.5 and 79.16 of the *Ontario Energy Board Act, 1998* and who are not served by a retailer where a service transaction request as defined in the Retail Settlement Code has been implemented; and
- c embedded distributors to whom the distributor distributes electricity.

The amounts paid out to the recipients listed above shall be based on energy consumed and calculated in accordance with the rules set out in the Retail Settlement Code. These payments may be made by way of set off at the option of the distributor.

If requested in writing by OPGI, the distributor shall ensure that all rebates are identified as coming from OPGI in the following form on or with each applicable bill or settlement statement:

"ONTARIO POWER GENERATION INC. rebate"

Any rebate amount which cannot be distributed as provided above or which is returned by a retailer to the distributor in accordance with its licence shall be promptly returned to the host distributor or IESO as applicable, together with interest at the Prime Rate, calculated and accrued daily, on such amount from the date of receipt.

Nothing shall preclude an agreement whereby a consumer assigns the benefit of a rebate payment to a retailer or another party.

Pending pass-through or return to the IESO of any rebate received, the distributor shall hold the funds received in trust for the beneficiaries thereof in a segregated account.



APPENDIX 1B

Executive Certification



April 28, 2023

Board Secretary
Ontario Energy Board
P.O. Box 2319
2300 Yonge Street, 27th Floor
Toronto, ON M4P 1E4

To whom it may concern:

Further to Page 2 of Chapter 1 of the Filing Requirements, I, Tim Curtis, President of Niagara-on-the-Lake Hydro Inc., certify that the evidence filed is accurate, consistent, and complete to the best of my knowledge and that NOTL Hydro has processes and internal controls in place for the preparation, review, verification and oversight of account balances being disposed. NOTL Hydro also confirms that this application does not include any personal information (as that phrase is defined in the Freedom of Information and Protection of Privacy Act), that is not otherwise redacted in accordance with rule 9A of the OEB's Rules of Practice and Procedure.

Yours truly,

A handwritten signature in black ink, appearing to read 'Tim Curtis'.

Timothy B. Curtis
President



APPENDIX 1C

Business Plan



Appendix 1C

Business Plan

(Approved January 19, 2023 – NOTL Hydro Board)

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Executive Summary

Niagara-on-the-Lake Hydro Inc. ("NOTL Hydro") is a small local distribution company (LDC) with around 10,000 customers operating in a Town with some unusual features such as having a high average net wealth, a large tourism industry and little industry. Over the past 20-years, NOTL Hydro has developed a strong reputation within the Town such that residents want NOTL Hydro to be locally owned and operated.

NOTL Hydro has achieved a strong reputation by its commitment to the Mission, Values and Principles directed by its Board resulting in low rates, a secure supply of electricity, good reliability, a motivated staff and a high level of service. It is also an LDC that has been able to adapt to the changes in the operating environment in a manner that is in the best interests of our customers.

NOTL Hydro operates with the objective of doing what is best for its customer in the long-term. This means continually striving to find the right mix of cost, service level and reliability. This is achieved by, as the Chair of the Board of NOTL Hydro puts it, "thinking of our customers in every decision we make". Some decisions will emphasize cost management (outsourced IT instead of dedicated internal staff), some decisions will emphasize service (keeping the office open for customers and burying some lines) and some decisions will emphasize reliability (investments in our transformation capacity). All are about what is best in the long term.

This business plan is therefore one of continuity. It is a plan that summarizes the overall business objectives for the period; the detailed budgets are separate and approved on an annual basis. NOTL Hydro will continue with the activities that have helped it be successful and customer centric. These will be enhanced as appropriate and necessary.

Capital spending is also expected to be steady after 2023. Spending will be subject to conditions but NOTL Hydro will have sufficient supply capacity for the next 5-years and the building will have been upgraded such that no further significant and unusual capital updates are currently planned. The regular voltage conversion and asset maintenance capital programs will continue as they have for the past several decades.

Operating spending is also a plan of continuity. Increases will still be needed for inflation, new capabilities like green button and the in-housing of certain activities due to local conditions. The basic plan of moving services in-house when that makes more sense and out-sourcing services

- 1 when that makes more sense will continue. Cooperating with other LDCs, particularly as part of
- 2 CHEC, makes out-sourcing a more viable option in some instances.
- 3

1. Introduction – Environmental Scope

NOTL Hydro, as the sole electricity provider in the Town of Niagara-on-the-Lake, must operate in a manner that reflects the demands of its environment. The business plan is designed to reflect this environment. There are some environmental aspects that drive NOTL Hydro's business plan beyond the normal objectives of an electricity provider.

High Net Wealth

- The Town of Niagara-on-the-Lake is one of the wealthiest communities in Canada on a per capita basis. In 2019, the Town was ranked the 31st most wealthy community with a per capita net wealth of \$1.255 million. Much of this wealth is with retirees who move to Niagara-on-the-Lake to enjoy its many attractions. With wealth come both expectations and the ability to pay to have these expectations met. This manifests itself in several ways. One of the mottos around the board table is “leaving things better than we found them”. The idea being that, when we perform work on the grid, we will restore the grounds to be better than when we started. We achieve this objective quite frequently and it is a description of our overall approach. This can increase costs.
- There is an expectation around the level of service provided. NOTL Hydro maintains certain service levels such as an office that is always open to the public (except when closures are provincially mandated due to a pandemic), that has staff that answer phones during office hours and that will meet with any customer. This increases operating costs but allows NOTL Hydro to have an exceptional customer experience. NOTL Hydro could reduce costs by not providing these services but that would not be meeting the demands of its customers.
- There is an expectation that objectives will be achieved through the intelligent application of business practices rather than simply cutting costs. NOTL Hydro has the lowest rates not by having the lowest costs but through intelligent investments such as its transformer stations (resulting in lower transmission costs) and its grid (resulting in lower line loss costs).
- While keeping the customer experience at high levels, NOTL Hydro also prides itself in offering the lowest rates in Niagara to accommodate customers of all income levels.

Tourist Town

Niagara-on-the-Lake is a tourist town with over 1.5 million tourists annually to a town with a population of less than 20,000. Most of the businesses in Niagara-on-the-Lake are dependent on the tourist trade including most retail, restaurants, wineries, hotels, the Shaw Festival and

many related service providers (bike rentals, etc.). NOTL Hydro is expected to operate in a manner that recognizes this reality. Some examples of NOTL Hydro activities that were driven in part by the demands of being a tourist town include:

- Converting overhead services to underground in high traffic tourist areas such as the Old Town and the Virgil main street. This enhances the attractiveness of these areas so facilitates local businesses.
- Reliability in the Old Town was vastly improved by the installation of automatic switches over ten years ago. Old Town businesses that previously had generators have now comfortably removed them.
- A recently adopted hydro box beautification program adds artistic flavour to some hydro boxes with local artists work wrapped on select transformers. The program is aligned with the municipality's Communities in Bloom program meant to focus on improving the Town's image for tourism.

Customer Composition

NOTL Hydro's customer make-up differs from the Ontario norm in many respects. These include:

- There are only two small industrial manufacturing customers within the territory of Niagara-on-the-Lake. Based on zoning and the town plan there are not likely to be any future new manufacturing customers. The industrial park in the Town includes a jam maker, a distillery, Jet Boats storage and storage for the Shaw Festival (theatre); not your typical industrial park tenants. The larger (GS>50 kW) customers tend to be in agriculture, hospitality or education.
- Much of the Town is Greenbelt. Niagara-on-the-Lake has five designated urban areas and the rest is restricted to farming with limited new residential potential. Of these urban areas only one, Glendale, has the capacity for any significant growth. The other four (the Old Town, Queenston, Virgil and St. Davids) are largely at capacity. Significant growth with a high density is planned for Glendale but no development has yet started.
- NOTL Hydro has had one Large Use customer and may have another. The first customer, a cannabis grower, commenced operations in 2018 but closed the site in early 2022 and it is now for sale. The second potential customer, a cryptocurrency miner, is still working on getting approvals and their first connection. Given the volatility of the cryptocurrency market it is not known how long this customer will be in place and even if they will commence operations.

- 1
- 2 NOTL Hydro will always operate keeping these environmental considerations in mind.
- 3

2. Mission and Values

NOTL Hydro develops and manages the monopoly electrical distribution network in the Town of Niagara-on-the-Lake and delivers electricity to residential and commercial customers via its distribution system. The Board of NOTL Hydro has approved the following Mission, Values and Principles to help guide management in their daily activities.

Mission

Niagara-on-the-Lake Hydro is a trusted partner for our customers. Niagara-on-the-Lake Hydro will continuously seek to provide low-cost energy delivery, high reliability and high power quality.

Values

We will perform our Mission while maintaining the following values:

1. No compromise on safety and health
2. Operate with integrity in all our dealings
3. Anticipate and meet the needs of our customers
4. Build value for our shareholder
5. Develop and maintain a strong team of employees
6. Be financially prudent
7. Enhance the environment

Principles

The following principles have been driving our investment decisions for the past couple of years and will continue to do so. It is recognized that there is an inherent contradiction between many of these principles and managing is about finding a balance between them. These are not necessarily in an order:

1. **The distribution grid will be needed.** The local grid will be an integral part of the future electricity system so we should continue to keep it in the best shape possible.
2. **Our role is to allow customer choice.** Customers should be free to choose to make their own energy related decisions or leave them to us. We should not be engaged in activities designed to enrich ourselves at the expense of giving customers choice. Instead, we should be looking at investments that promote customer choice. Implicit in all this is the continued trade-off between cost and customer service (choice) that will always make decisions difficult. The trade-off between providing more distributed generation capacity

and the cost of energy storage is an example of this. The trade-off between controlled and uncontrolled electric vehicle charging is another.

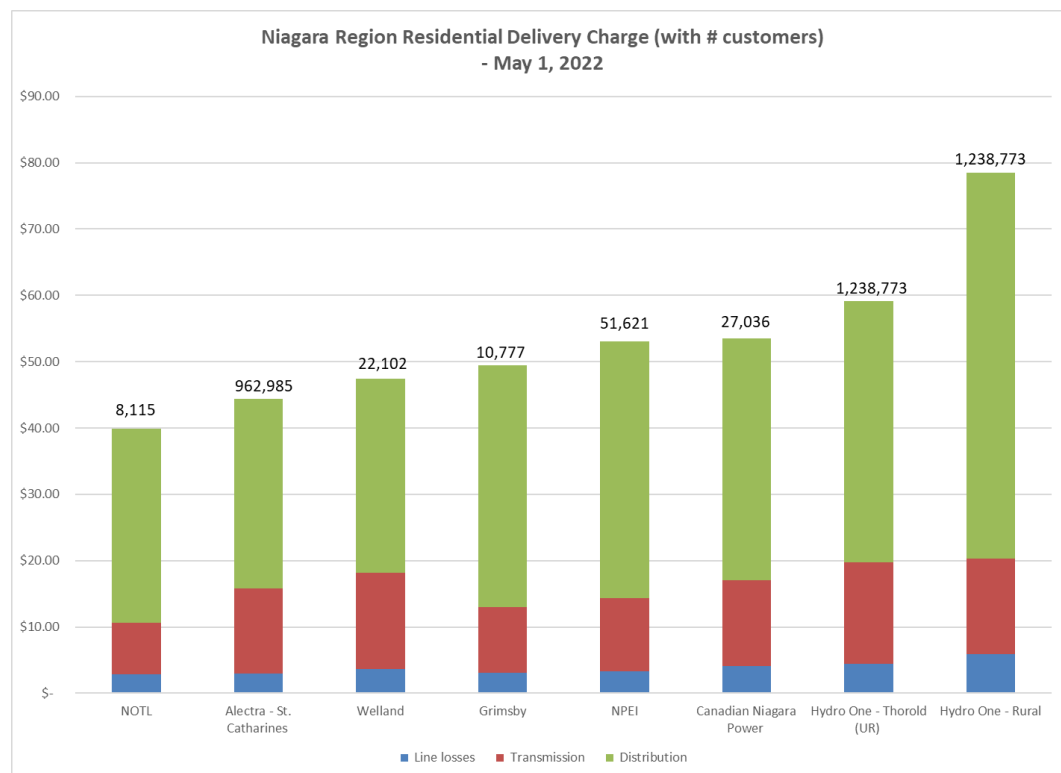
3. **We should always strive to be a cost-conscious operator.** Having lower costs means always having the flexibility to make investments when needed without these becoming a rate or burden issue.
4. **We should make our system as flexible as possible.** We do not know what the future demands will be on our system but the more flexible it is the more likely it can respond to these demands. The current investments in automated switches and reclosures are an example of this. Increasing our transformation capacity is another example.
5. **We do not have to do it all ourselves.** Many of the new technologies will be beyond the scope of NOTL Hydro (integrated customer contact systems) but can still be provided through joint purchasing (CHEC) or through third party providers. Other services will be best provided in-house.
6. **Electricity is a utility.** The vast majority of customers want to have power when they need it (all the time), to have a reasonable bill and to otherwise be left alone. Our job is not to reach out to customers but to be there when customers want to reach out to us and to anticipate their needs.
7. **Being municipally owned provides a distinct advantage.** Because our customers are also our shareholders we can make decisions based on the aggregate benefit to them. This may mean decisions that are better for them as customers rather than shareholders. Private ownership may not have this option.
8. **NOTL Hydro should continue to be run independently and as a profit-making business.** This provides the discipline to manage costs and the freedom to make long-term decisions.
9. **We should hire the best employees possible and have the best working environment.** Motivated and intelligent employees will always provide the best service and, in the long run, at the lowest cost.
10. **NOTL Hydro will continue to advocate on behalf of its customers** when NOTL Hydro believes this is in the customer's best interest. Advocacy will always be about what is best for our customers; not what is best for NOTL Hydro.

3. Long-term Objectives

Based on its environmental considerations and its mission, values and principles, NOTL Hydro has developed the following long-term objectives. These, in turn, will guide the development of the five-year plan.

Keep Rates Low – Despite being the smallest LDC in the Niagara region, NOTL Hydro has the lowest rates in the region for the past few years. Keeping rates low is achieved by intelligent investments and by managing costs and capital expenditures in a prudent manner. This prudent approach will continue.

Chart 1: Niagara Region Residential Delivery Charges



An LDC has many opportunities to make decisions that have a rate impact. Examples include the timing of capital investments, the choice between operating or capital expenditures in addressing issues and capitalization policies. NOTL Hydro has deliberately made decisions that are neutral or have a lower rate impact. Over two decades the impact has been considerable.

A significant example of this has been the investment in transformer stations. These

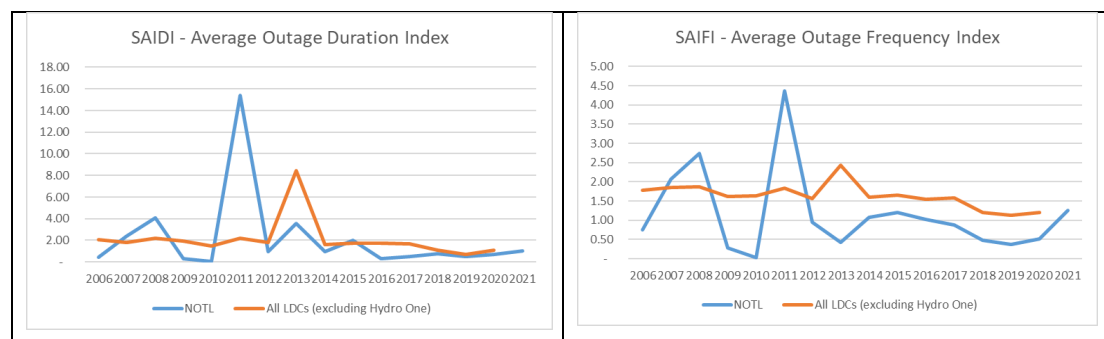
investments increase our distribution rates as these significant investments are added to rate base. However, this rate increase is more than offset by the reduction in transmission rates for our customers.

Another example has been decisions that increase operating costs but reduce total costs. The decision to bring underground excavating work in-house increased operating costs but decreased total costs and drastically improved the timing of services to our customers. Likewise, the customer billing system, being a software as a service, increases operating costs but total costs are lower than if NOTL Hydro purchased its own system.

Maintain a Security of Supply – NOTL Hydro is not responsible for sourcing the generation of electricity; that is managed by the IESO. However, NOTL Hydro is responsible for ensuring it has the transformation capacity to bring that electricity to Niagara-on-the-Lake. NOTL Hydro has 83 MVA of transformation at York MTS and 91.7 MVA of transformation at NOTL MTS from a 50 MVA and a 41.7 MVA transformer. The 41.7 MVA transformer is the oldest of the transformers and it is less than 20-years old. NOTL Hydro is currently able to supply the full Town load from either MTS. NOTL Hydro’s peak grid demand is currently around 50 MW.

Keep Improving Reliability – Reliability is rated by our customers as their top priority. NOTL Hydro has achieved low outage rates over the past few years. However, this can be due to luck as much as to good planning. NOTL Hydro will continue to make investments with the goal of continually improving reliability. These investments include the ongoing voltage conversion program which replaces the oldest assets and makes the system a more consistent voltage as well as the investments in switches and reclosures.

Chart 2: SAIDI and SAIFI



Communicate Appropriately with Customers – NOTL Hydro recognizes that most of our customers expect electricity to be provided 100% of the time, expect a monthly bill delivered on a timely and accurate basis and do not expect to communicate with us otherwise. However, if our customers do wish to communicate with NOTL Hydro they expect this to be as simple and effective as possible. To achieve this, NOTL Hydro maintains as many lines of communication as possible such as an open office, phone lines, e-mail, Twitter, Town Councillors, etc. NOTL Hydro will also provide readily available material which it believes to be relevant should our customers wish to access it.

Advocate for our Customers – NOTL Hydro is not just a distributor of electricity to our customers. NOTL Hydro is their representative to the electricity sector as a whole. If NOTL Hydro believes decisions are being made that are not in the best interests of its customers NOTL Hydro will advocate on their behalf.

Use Strategic Alliances - There is a vast pool of people with experience, knowledge and expertise in the electricity industry within the province represented by the collegial relationships between utilities, partnerships with private consultants in many disciplines and contacts with vendors supplying the latest technologically advanced products for all distribution companies and customers. All the above is tapped through associations, partnerships (both informal and formal, for profit and not-for-profit corporations), forums and working groups. Working collectively and collaboratively, they can share ideas and resources, solve problems, adapt to new regulations and policy changes from governing bodies. NOTL Hydro and its employees are members of the following associations, partnerships, and groups:

- Cornerstone Hydro Electric Concepts (CHEC)
- Utility Collaborative Services (UCS)
- Utilities Standards Forum (USF)
- Professional Engineers of Ontario (PEO)
- Chartered Professional Accountants (CPA) Ontario

NOTL Hydro also participates in groups on an ad hoc basis such as regional utility meetings and Grid Smart City.

Invest in People – NOTL Hydro hires and retains a quality staff by making their experience at NOTL Hydro positive, safe and progressive. NOTL Hydro offers continuous opportunities for training and personal development. Staff are kept informed and a culture of customer satisfaction is promoted. NOTL Hydro's smaller size means staff have greater visibility into all the operations of the business and how their work contributes to it. Their work also has a much greater scope and variety. As the Chair of the NOTL Hydro Board puts it, "every job is mission critical". The result of this strategy is an engaged workforce and a low turnover.

Capitalize on Technology - NOTL Hydro keeps abreast of changing technologies through ongoing discussions with vendors and other LDCs. When these technologies make sense from a cost and performance perspective NOTL Hydro will invest.

In 2010, NOTL Hydro was one of the first Ontario LDCs to invest in automatic switches. These switches, which have direct communication links between themselves and the transformer stations, will automatically switch feeds if there is a power outage in the Old Town. Prior to the implementation of these switches, the Old Town, which is at the end of the feeder lines, had a poor outage performance and this was a source of concern and frustration with our customers. Customers now comment on how much better the outage performance is.

NOTL Hydro is currently investing in more switches and re-closures to continue to reduce outages and to expand the flexibility of our system in anticipation of future demands. These investments also expand the capability of the SCADA system.

In 2015, NOTL Hydro went live with its new outage management system. This system utilizes the last gasp of the smart meters to provide alerts to line crews and senior management of outages. Like many LDCs, NOTL Hydro now has

1 stories of restoring lost power during the night before customers were even aware
2 they had an outage.

3
4 In 2022, NOTL Hydro went live with its new outage notification system. This
5 system, which is optional but at no additional cost to customers, will alert
6 customers if they have an outage and make the customers aware that NOTL
7 Hydro knows there is an outage affecting them.

8
9
10 **Adaptation** - While NOTL Hydro does not know what the future will bring, it tries
11 to invest and align its practices in line with changes as they occur. Examples of
12 previous changes that have been adapted successfully include smart meters
13 (now used for outage notifications), Conservation and Demand Management
14 (high LDC performance level as a means of assisting customers) and smart grid
15 technology (used to improve reliability).

16
17 NOTL Hydro is continuing to invest in additional switches and reclosures which
18 facilitate more easily managing the flow of electricity within the NOTL Hydro grid.
19 This may facilitate future growth in distributed generation. NOTL has one of, if not
20 the highest, density of solar installations in Ontario but these investments by our
21 customers have slowed and the system is reaching capacity on some of its feeder
22 lines.

23
24 NOTL Hydro is preparing for potential growth in electric vehicles by planning ahead
25 for the potential impacts and changes required.

26
27
28 **Continuous Emphasis on Safety** - Safety must always be the primary priority at
29 an LDC. NOTL Hydro continues to stress the importance of safety in all its
30 activities. In 2012, NOTL Hydro was awarded the ZeroQuest Sustainability level
31 award for safety; the first LDC in Ontario to reach this level.

32
33 NOTL Hydro maintains the service of a part-time specialist dedicated to safety
34 who helps ensure NOTL Hydro is kept abreast of best practices and helps ensure

1 the continuous emphasis on safety. In 2022, NOTL Hydro reached the 250,000
2 hours without a lost time incident milestone; an achievement that took 9 years.

3
4 NOTL Hydro also tries to impart its safety philosophy to customers whenever
5 possible. Safety material is displayed at our office and on our website.

6 <https://www.notlhydro.com/safety/> Safety is also on the agenda at all open
7 house meetings.

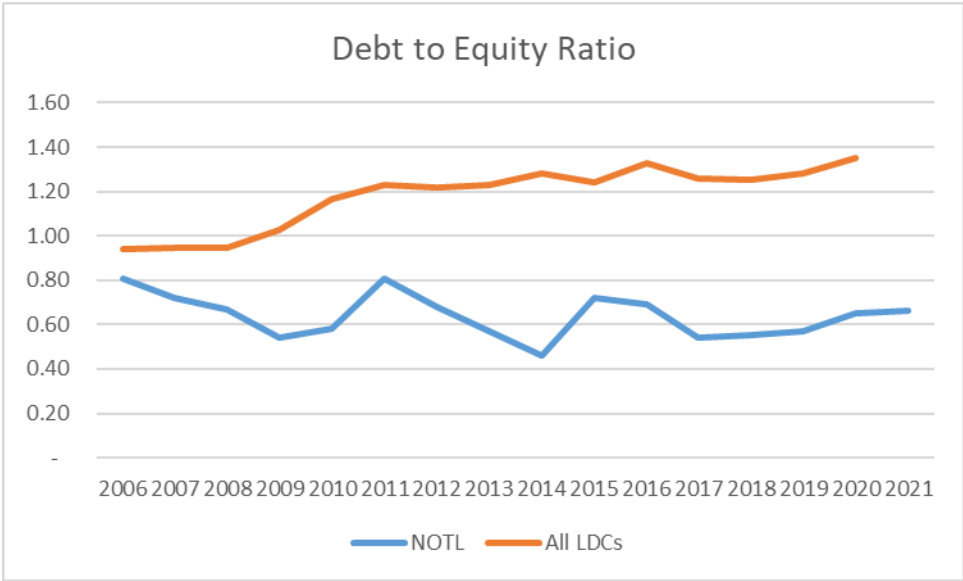
8
9
10 **Climate Change Preparation** – This impacts NOTL Hydro in two ways. First, the
11 electrification of transportation, heating and industrial energy is expected to have
12 a significant impact on the demand for electricity. NOTL Hydro will continue to
13 monitor this and ensure it can adapt on an appropriate and timely basis. Second,
14 NOTL Hydro is looking at its own operations and looking for ways to reduce its
15 own carbon footprint.

16
17
18 **Maintain Financial Prudence** - NOTL Hydro believes it is prudent to maintain a
19 low debt:equity ratio. This gives the company the financial flexibility to make
20 investments or pay dividends when needed. The current low debt:equity level
21 reflects the effect of this strategy. The two increases in 2005 and 2015 were the
22 result of significant investments in the high voltage transformer stations.

23
24

1

Chart 3: Historic Debt:Equity Ratios



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6

Note: Debt is comprised of current and long-term debt and notes to related parties. For 2006-2008 Ontario LDC debt does not include current portion

4. Five Year Planning

The following is a rough description of the planned activities over the next five years. These are all subject to change based upon conditions and changing circumstances. NOTL Hydro Board approval has only been obtained for 2023.

Activities

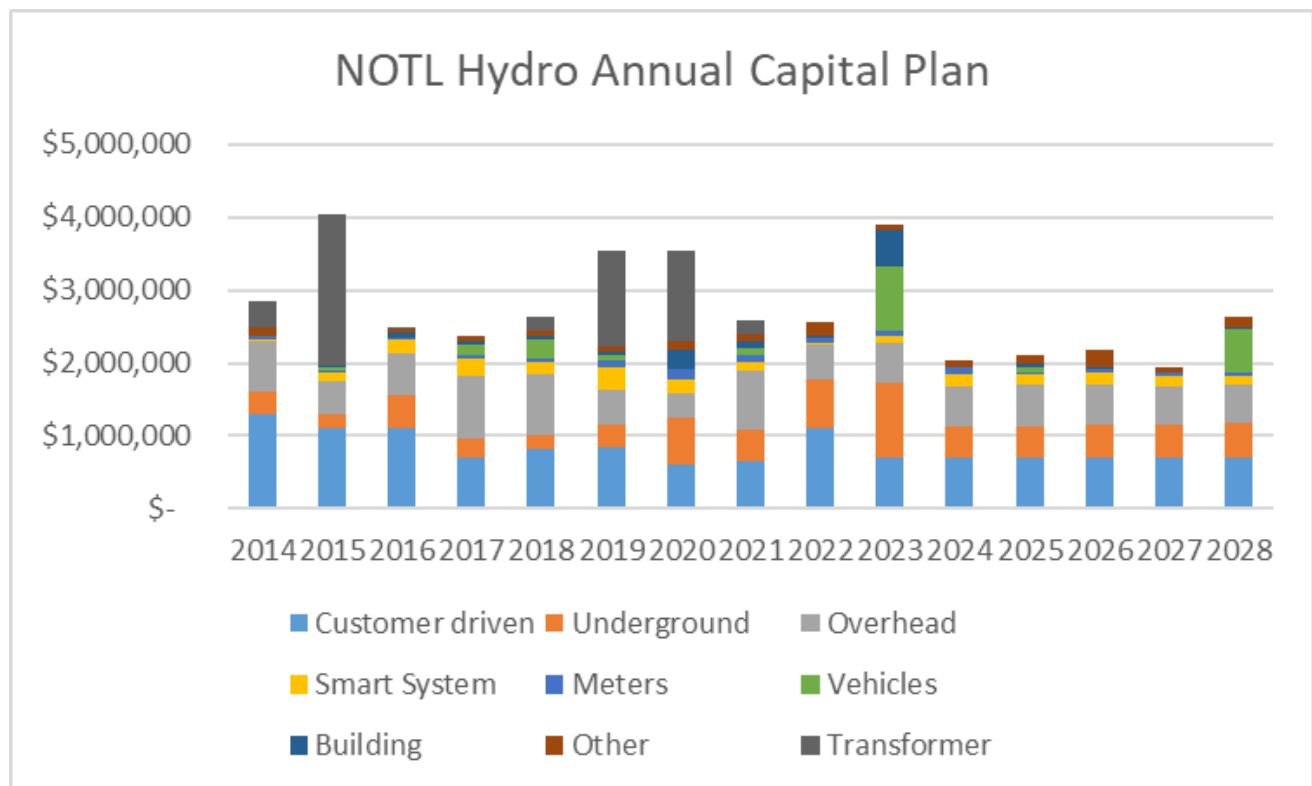
As an electricity distributor, NOTL Hydro's activities are very stable from year-to-year. The following are some of the key activities NOTL Hydro currently envisions either maintaining or adding going forward.

- NOTL Hydro will maintain an open-door policy so that customers can visit and get their concerns addressed at any time. NOTL Hydro considers this a key distinguishing service even though it could reduce costs by not providing it.
- NOTL Hydro will continue to have the phone answered by staff during regular business hours. NOTL Hydro staff enjoy the reaction of some customers, who have moved from other municipalities, on being engaged immediately by staff within 30 seconds of calling (~97% of all business-hour calls answered by a human within 30 seconds).
- NOTL Hydro will continue to look for opportunities to directly assist customers. In the past this was with solar installations and CDM. Going forward, it may likely be electric vehicle charging. NOTL Hydro requests that customers advise NOTL Hydro if they are installing an EV charger so that NOTL Hydro can check the local transformation capacity and upgrade it if necessary.
- NOTL Hydro will continue to advocate on behalf of its customers when appropriate.
- NOTL Hydro engages with customers when suitable recognizing that customers are looking for value from the engagement. NOTL Hydro held a well attended open house on the voltage conversion program and undergrounding in the Old Town in 2019. No open houses were held during the pandemic. An open house has been scheduled for July 19 to discuss the upcoming work on the firelanes. NOTL Hydro is also considering having an open house during the fall of 2023 which will be a combination of a safety day with sessions on heat pumps and electric vehicles.
- NOTL Hydro will continue to work with other LDCs, particularly as part of CHEC, to realize efficiencies in delivering services where the benefits of this cooperation exceed the costs.
- NOTL Hydro will continue its prudent financial administration but will also continue to pay a fair dividend to its owner reflecting their investment.

Capital Plan

NOTL Hydro's current capital plans for the years 2023-2028 are relatively stable other than 2023 which has several non-repeating activities.

Chart 4: Annual Capital Plan



Customer Driven – This shows the gross capital cost of capital expenditures driven by customer demand. These will vary from year-to-year depending on activity and is fully outside the control of NOTL Hydro. For instance, around a quarter of the activity in 2022 was driven by upgrades requested by Bell Canada. The net cost of these projects is much lower due to NOTL Hydro's customer contribution requirements.

Underground – This is planned underground system work. In most years this is the conversion of the overhead 4 kV system in the Niagara-on-the-Lake urban areas to a 27.6 kV underground system. This conversion project is now expected to be completed by 2033. In 2023 the underground work will be in Virgil instead of the Old Town due to the planned road construction by the Niagara Region. In 2024 this work will be the second stage of Garrison Village. The

Garrison Village project is not voltage conversion but the replacing of an existing 27.6 kV underground line which has had significant outage issues

Overhead – This is planned overhead system work. Until 2024, this will be the conversion of the overhead 4 kV system to an overhead 27.6 kV system in the rural parts of Niagara-on-the-Lake. By 2024, all the rural lines will have been converted except those on the firelanes. Work will start on the firelanes in 2024 (14 Firelanes in total). The firelanes pose more of a challenge as they are all privately owned and not Town roads. It is anticipated that converting and upgrading all the firelanes will take at least ten years depending on the level of cooperation from the lane owners. The overhead conversion work is usually performed by NOTL Hydro staff except when on busy thoroughfares where a larger crew and traffic control is needed.

The combination of the overhead and underground system work is targeted at a little over \$1 million a year though this will vary from year-to-year. NOTL Hydro believes this level of renewal investment is appropriate given the size of the grid and its expected life. Overhead and underground capital work includes ongoing upgrades that are necessary and in addition to the regular programs as determined by the asset management analysis. For instance, much of the planned overhead work in 2023 is replacement of sections of line that are not having a voltage conversion but need to be replaced due to condition. The replacement of individual items due to condition will also continue.

Smart System – These are investments in the grid to improve reliability by using smart technology; primarily switches and reclosers. Automated switches replace existing manual switches and allow switching to be performed immediately using the SCADA system and control room rather than waiting for the line staff to get to the manual switch in their truck. Reclosures allow the feeders to return to power after certain contacts. NOTL Hydro aims to keep investing in these products including installing sufficient switches to allow for a fully automated switching between the two stations by 2024.

Meters – Investments in meters are normally required for growth and customers upgrades. From 2019 to 2024 the annual investments are much higher due to reverification requirements. The delivery time for new meters has become exceptionally long the past year which is delaying some of the planned investments.

Vehicles – NOTL Hydro will be taking delivery of two new large vehicles in 2023: a new digger in March and a new bucket truck in December. The current bucket truck was purchased in 2013 and was due for replacement. The digger was purchased in 2011. It was scheduled for replacement in 2026 but due to ongoing maintenance issues this was brought forward to 2024. An opportunity to purchase a digger which was already under construction brought forward the purchase date further to 2023. Pick-up trucks are replaced when they reach the end of their useful life. These will likely be electric going forward.

Building – The building was renovated in 2020-2021 due to the pandemic and the need to improve both the boardroom and the staff kitchen. A new garage is planned in 2023 with an additional 3 to 4 bays. This garage is needed for the expanded fleet as well as to store much of the inventory which is currently outside and has been damaged both by the elements and attempted theft.

Other – Other investments include ongoing upgrades of software and hardware. In 2022-2023 an excavator and a new pick-up truck were purchased for the new underground crew. A boring machine and truck is temporarily planned for 2026 though no decision has been made on that yet as the business case still needs to be done. This could also include an investment in a vacuum truck though that is currently viewed as less likely.

Operating Plan

No significant changes are currently projected for NOTL Hydro's operating plan for the next five years. The major factors that will affect the plan are inflation, unknown changes to the regulatory environment and unknown changes to the demands on the system.

- NOTL Hydro has an agreement with its union that extends to 2026. The average rate in the agreement is a little over 2%. Depending on the actual rate of inflation, adjustments outside of the agreement may be required. On January 1, 2023, NOTL Hydro provided a 3% wage increase that is outside of the agreement.
- The future rate of inflation is unknown. The rate of inflation NOTL Hydro is seeing in some of its operations is much higher than the headline CPI inflation. For example, gas prices are up over 50%, bill stock costs are up 155% and envelopes are up 239%.
- No new hires are currently planned however there are certain factors that may change this:

- If the cryptocurrency customer reaches its full objective (currently 50 MW) then an additional hire will be required to meet the demands created by this customer.
- NOTL Hydro may bring boring and the use of a vacuum truck inhouse due to challenges in the local market. This would involve additional staff as was the case with both locates and underground excavating. Most of the additional cost would be capital but, due to IFRS, some will be OM&A.
- In 2023, NOTL Hydro plans on using 20% of the services of a GIS analyst that is being hired by CHEC. This analyst will be dedicated to providing services to 6 LDC members including NOTL Hydro.
- The potential impact of growth in electric vehicles is unknown. It is currently expected that the impact will largely be on the capital budget with upgrades to transformers.
- The impact of new regulatory requirements is also unknown. The new green button requirements, which will go live in 2023, will have an impact on operating costs. The cost of locates is also rising due to the new regulatory requirements though bringing this inhouse has helped offset this cost increase somewhat. As the provincial government or regulators bring in new requirements additional costs are likely to be incurred.



APPENDIX 1E

2019 Final Customer Satisfaction Report



2019 Customer Satisfaction Survey Final Report

For Niagara-on-the-lake Hydro
By Redhead Media Solutions Inc.

April 15, 2019

Introduction and Summary

Thank you for selecting Redhead Media Solutions Inc. for this important project for Niagara-on-the-lake Hydro (NOTL Hydro). We appreciate your confidence in us to provide you with data on Customer Satisfaction that can now be used to compare with the previous survey in 2017 and among other LDCs.

We have restructured our reporting to you this year, replacing the traditional single report with tables and transitioning to a more robust and informative graphics based style that gives you the ability to see differences “at a glance” as opposed to simply comparing numbers. To supplement this report, we have also included the full set of 2019 tables, comparative 2017/2019 tables and comments for question G15 (open comments) in spreadsheet format, allowing you easy access to the data we have generated. You can find this as part of the email we sent labelled “Appendix A”. The methodology guide, as well as residential and general service questionnaires are also included as appendices B, C and D for your reference.

Should there be any specific data or breakouts that you require, please contact us to discuss.

Graydon Smith
President

Niagara
On-The-Lake
HYDRO

Introduction and Summary

Redhead Media Solutions Inc. (Redhead), partnering with ADVANIS for data collection and reporting, has been retained (via an RFP process by Cornerstone Hydro Electric Concepts Inc. - CHEC) to conduct a 2019 Customer Satisfaction Survey for NOTL Hydro. This survey is a required part of an LDC's Balanced Scorecard and other reporting and regulatory requirements for the Ontario Energy Board (OEB).

The complete group of participating CHEC LDCs are as follows:

- Centre Wellington Hydro
- EPCOR
- Grimsby Power
- Lakefront Utilities
- Lakeland Power Distribution
- Niagara-on-the-Lake Hydro
- Orangeville Hydro
- Ottawa River Power
- Renfrew Hydro
- Rideau St. Lawrence Distribution
- Tillsonburg Hydro
- Wasaga Distribution
- Wellington North Power

Additionally, Redhead also provided services for this project outside the CHEC group of LDCs.

Introduction and Summary

This final report contains data specifically for NOTL Hydro.

The survey is comprised of 400 randomly selected interviews of NOTL Hydro customers among the low volume customer base (residential customers and general service under 50kW customers; GS<50kW). Residential customers were asked to confirm that they receive an electricity or hydro bill from NOTL Hydro and that they are the primary payer of that bill, or share the responsibility.

GS<50kW customers were also asked to confirm they receive an electricity or hydro bill from NOTL Hydro, and additionally to confirm that the person who manages the organization's electricity bill was the one to complete the interview. The sample frame is stratified on region (where applicable) and consumption quartiles by rate class in accordance with the "Survey Implementation Requirements" on page 4 of the "EDA/Innovative Customer Satisfaction Scorecard: Methodology & Survey Implementation Guide", contained in Appendix B of this report.

The objective of the survey is to provide an Overall Customer Satisfaction index score for NOTL Hydro. This is a calculated aggregate value based on responses of to 9 core measures in the survey instrument. In some cases, additional questions were asked but not included in the calculation of the Customer Satisfaction Index Score.

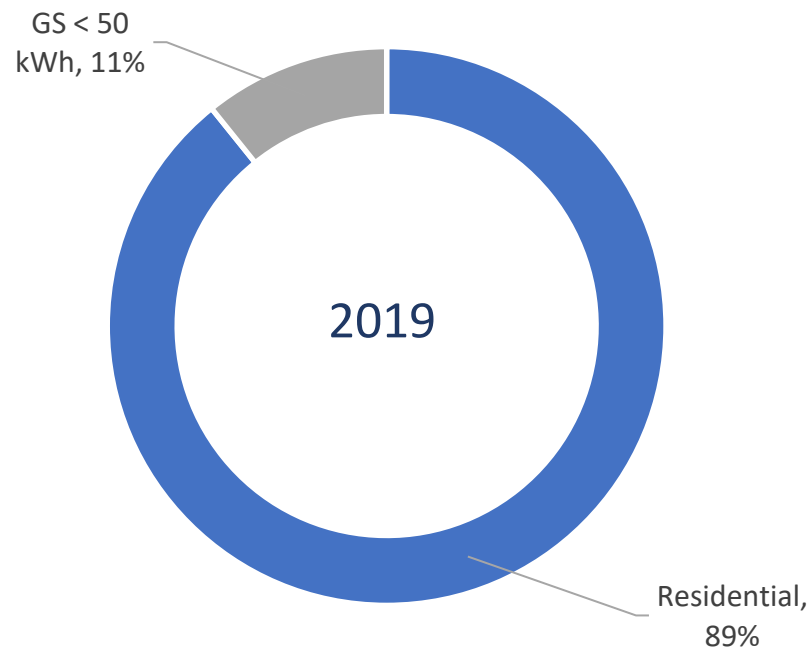
NOTL Hydro's 2019 Customer Satisfaction Index Score is 78.8%, This is a 2.9% increase over the 2017 score (75.9%) and 0.6% less than the mean average of all LDCs surveyed (79.4%).

This falls within a very tight spectrum of index scores we processed for all LDCs that participated in the 2019 survey via Redhead. When the confidence interval and margin of error is applied to all index scores, there is significant overlap between LDCs which underlines the statistical similarity of performance and satisfaction among participants. Statistically, NOTL Hydro is similar to all the other LDC surveyed.

The following report contains graphic data and tables for all prescribed questions as well as year-over-year comparative data (internal) and comparative scoring data (external). Additional data is available in the attached spreadsheet sheets and tables. (Appendix A)

Question scoring and index methodologies were prescribed by the EDA/Innovative. As such, there has been limited additional analysis provided beyond the direction provided to meet the reporting guidelines. Should you wish further analysis of the data please contact our office to discuss.

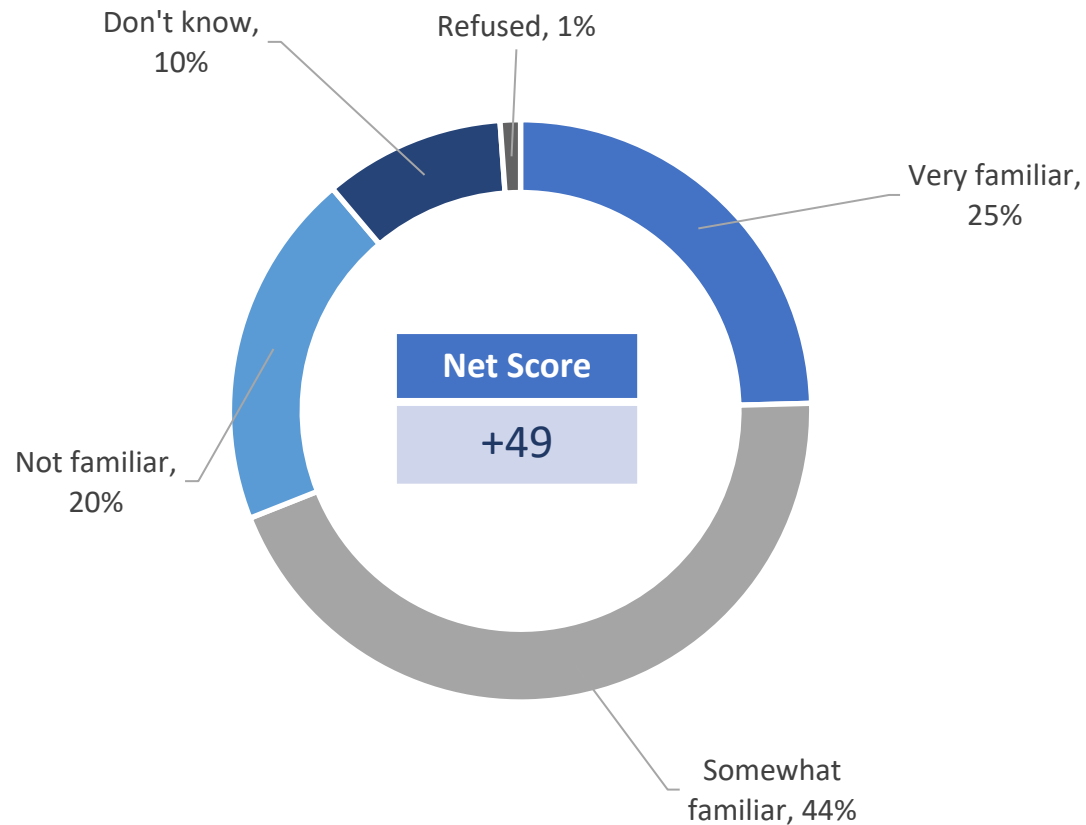
Customer Type: Low Volume Rate Class



	Total	Residential	General service business GS<50kWh
Base: Total answering	400	349	51
Residential	89%	100%	0%
General service business GS<50kWh	11%	0%	100%

*Note: Charts and tables may not add up to 100% due to rounding

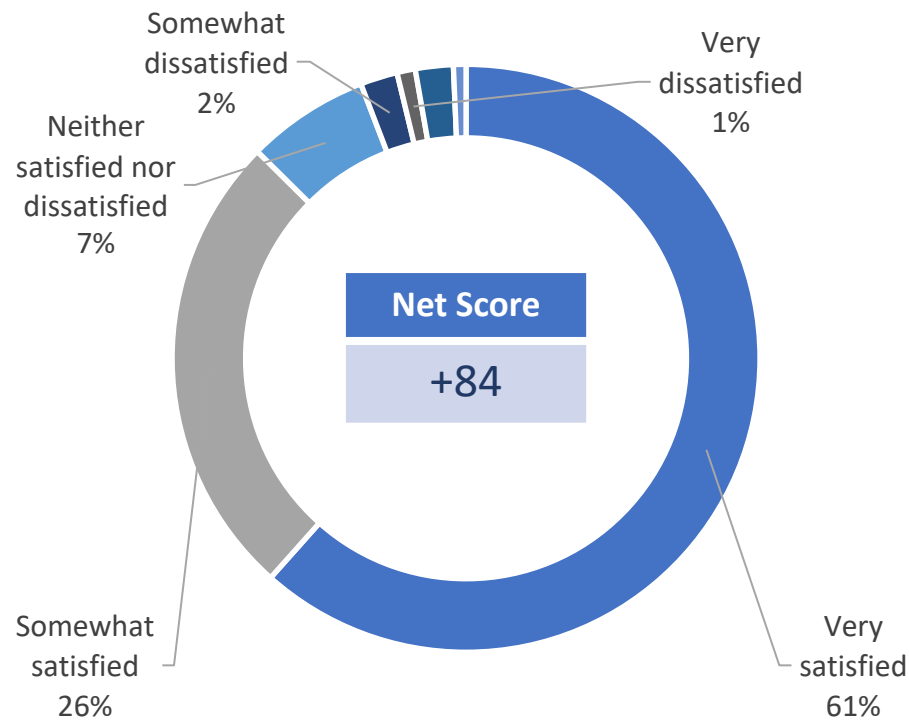
B4: How familiar are you with NOTL Hydro, which operates the electricity distribution system in your community?



	Total	Residential	General service business GS<50kWh
Base: Total answering	400	349	51
Very familiar	25%	24%	32%
Somewhat familiar	44%	44%	45%
Not familiar	20%	21%	8%
Don't know	10%	10%	13%
Refused	1%	1%	2%

*Note: Charts and tables may not add up to 100% due to rounding

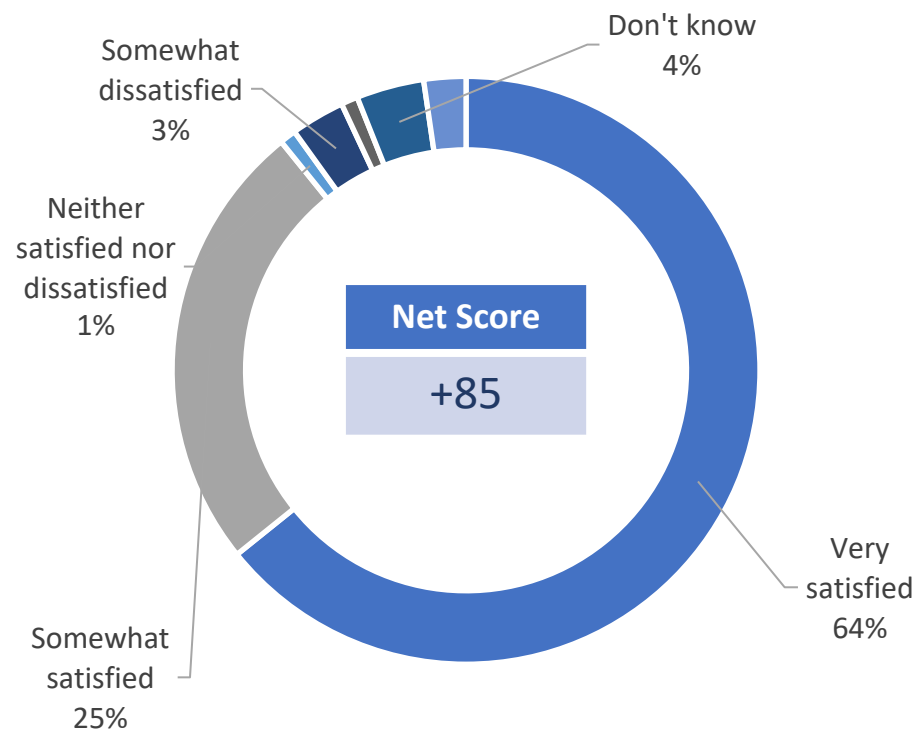
B5: Thinking specifically about the services provided to you and your community by NOTL Hydro, overall, how satisfied are you with the services that you receive from NOTL Hydro?



*Note: Charts and tables may not add up to 100% due to rounding

	Total	Residential	General service business GS<50kWh
Base: Total Answering	400	349	51
Very satisfied	61%	64%	40%
Somewhat satisfied	26%	24%	42%
Neither satisfied nor dissatisfied	7%	6%	10%
Somewhat dissatisfied	2%	2%	2%
Very dissatisfied	1%	1%	3%
Don't know	2%	2%	4%
Refused	1%	1%	0%

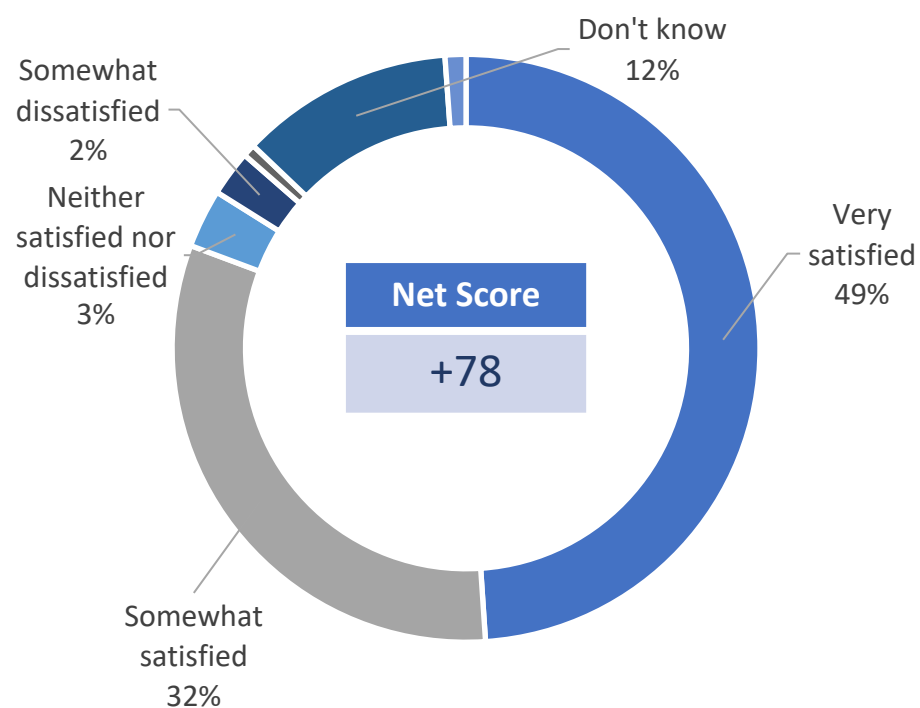
C6: Satisfaction with the reliability of your electricity service – as judged by the number of outages you experience.



	Total	Residential	General service business GS<50kWh
Base: Total Answering	400	349	51
Very satisfied	64%	65%	55%
Somewhat satisfied	25%	24%	30%
Neither satisfied nor dissatisfied	1%	1%	2%
Somewhat dissatisfied	3%	3%	2%
Very dissatisfied	1%	1%	0%
Don't know	4%	3%	8%
Refused	2%	2%	4%

*Note: Charts and tables may not add up to 100% due to rounding

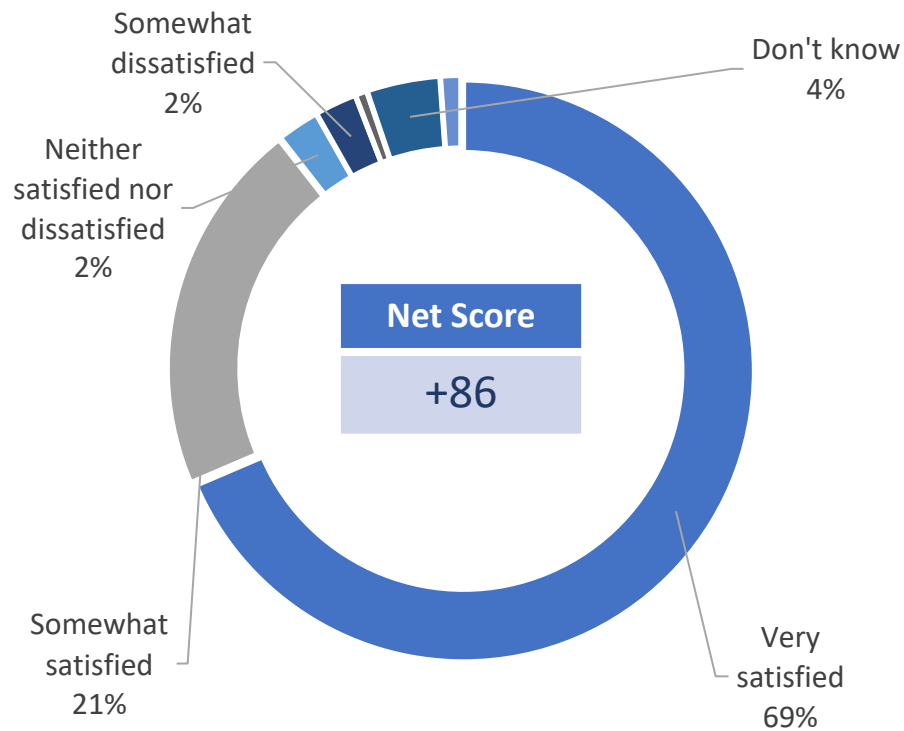
C7: Satisfaction with the amount of time it takes when outages occur.



	Total	Residential	General service business GS<50kWh
Base: Total Answering	400	349	51
Very satisfied	49%	49%	48%
Somewhat satisfied	32%	31%	40%
Neither satisfied nor dissatisfied	3%	3%	2%
Somewhat dissatisfied	3%	3%	2%
Very dissatisfied	1%	1%	0%
Don't know	12%	12%	8%
Refused	1%	1%	0%

*Note: Charts and tables may not add up to 100% due to rounding

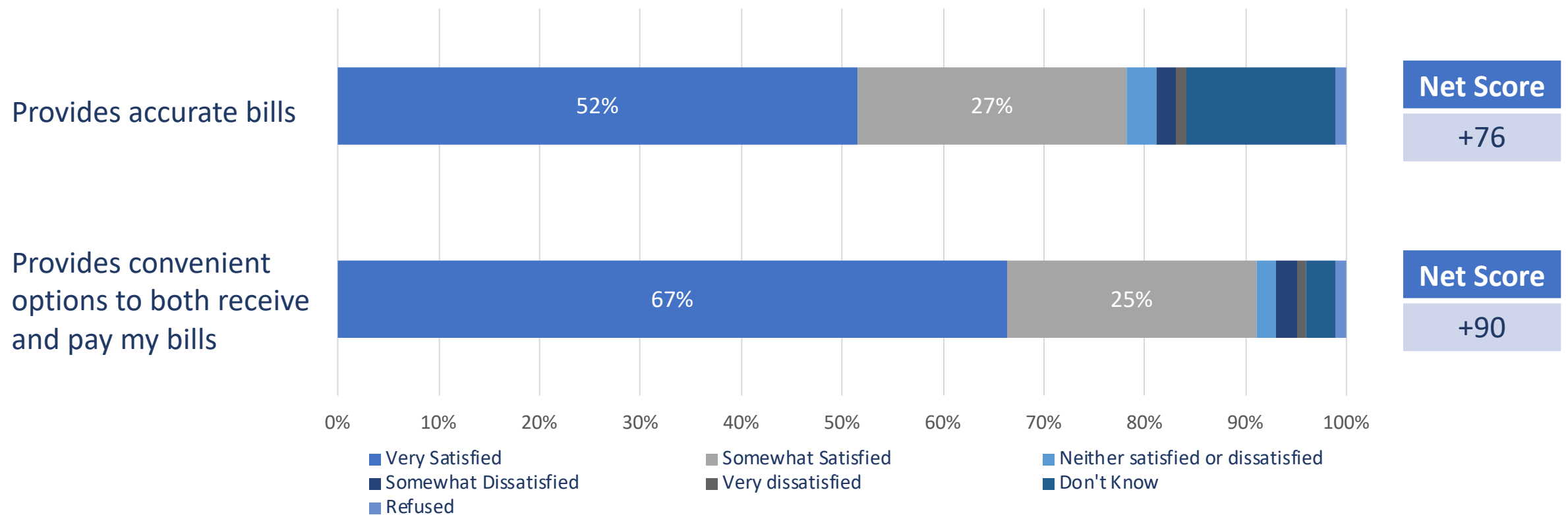
C8: Satisfaction with the quality of power delivered to you as judged by the absence of voltage fluctuations that can result in the flickering or dimming of lights or may affect your equipment.



	Total	Residential	General service business GS<50kWh
Base: Total Answering	400	349	51
Very satisfied	69%	72%	44%
Somewhat satisfied	21%	20%	32%
Neither satisfied nor dissatisfied	2%	2%	6%
Somewhat dissatisfied	2%	2%	7%
Very dissatisfied	1%	0%	4%
Don't know	4%	4%	6%
Refused	1%	1%	2%

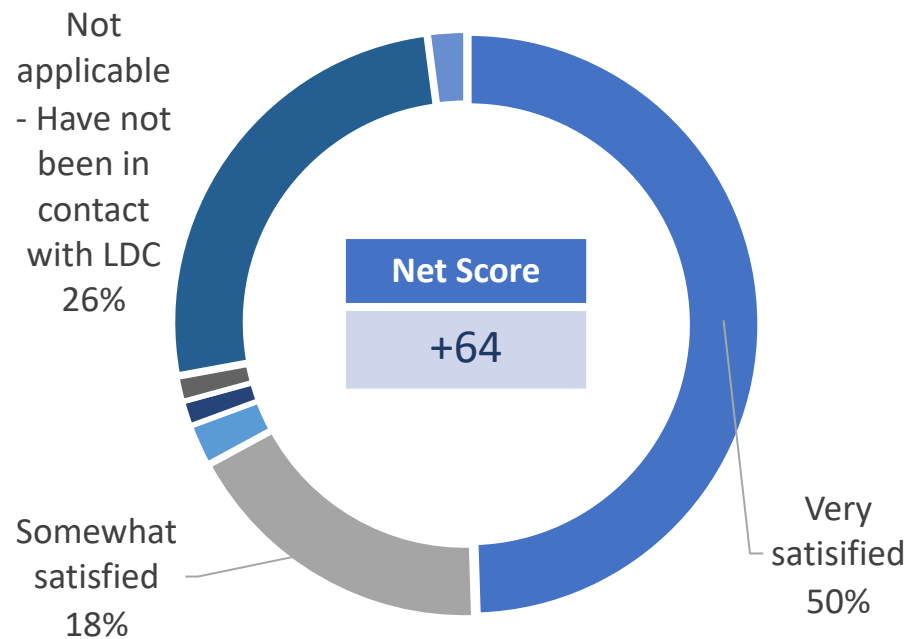
*Note: Charts and tables may not add up to 100% due to rounding

D9/D10: For each of the following statements about the bills that you receive from NOTL Hydro, please tell me how satisfied you are...



*Note: Charts and tables may not add up to 100% due to rounding

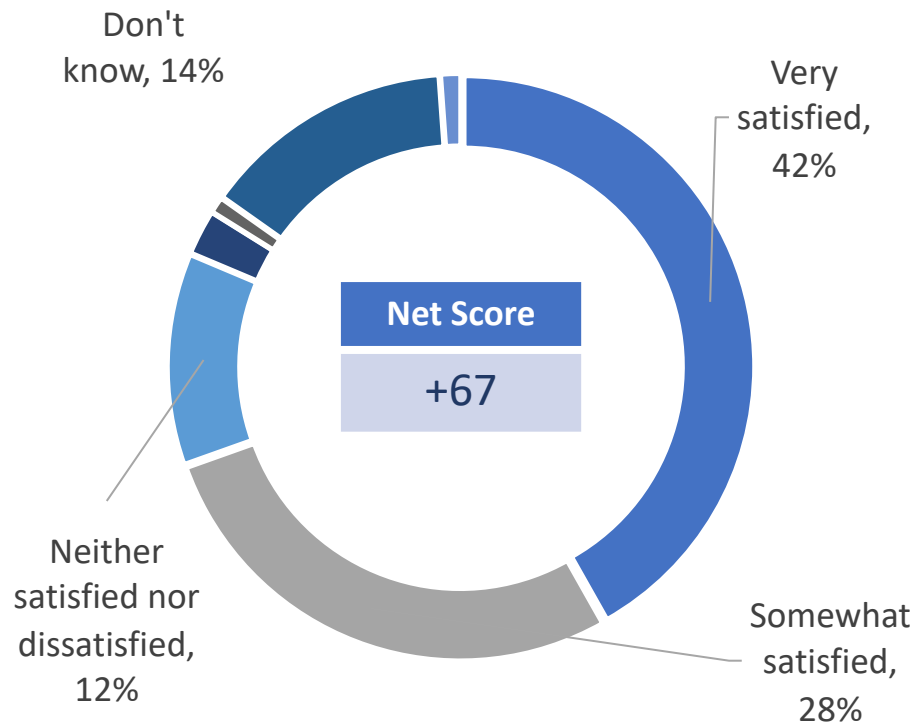
E11: Overall, how satisfied are you with the customer service provided by NOTL Hydro?



	Total	Residential	General service business GS<50kWh
Base: Total Answering	400	349	51
Very satisfied	50%	49%	49%
Somewhat satisfied	18%	16%	31%
Neither satisfied nor dissatisfied	2%	2%	2%
Somewhat dissatisfied	1%	2%	0%
Very dissatisfied	1%	1%	2%
Not applicable - Have not been in contact with LDC	26%	27%	16%
Don't know	2%	2%	0%

*Note: Charts and tables may not add up to 100% due to rounding

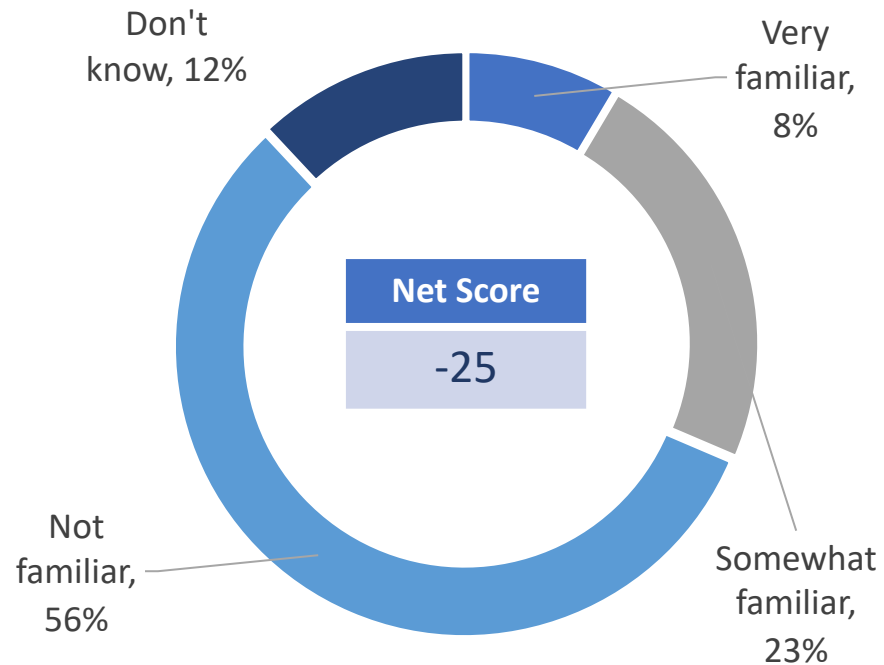
F12: Overall, how satisfied are you with the communications that you receive from NOTL Hydro related specifically to your electrical service?



	Total	Residential	General service business GS<50kWh
Base: Total Answering	400	349	51
Very satisfied	42%	44%	26%
Somewhat satisfied	28%	26%	42%
Neither satisfied nor dissatisfied	12%	12%	14%
Somewhat dissatisfied	3%	3%	0%
Very dissatisfied	1%	1%	0%
Don't know	14%	14%	16%
Refused	1%	1%	2%

*Note: Charts and tables may not add up to 100% due to rounding

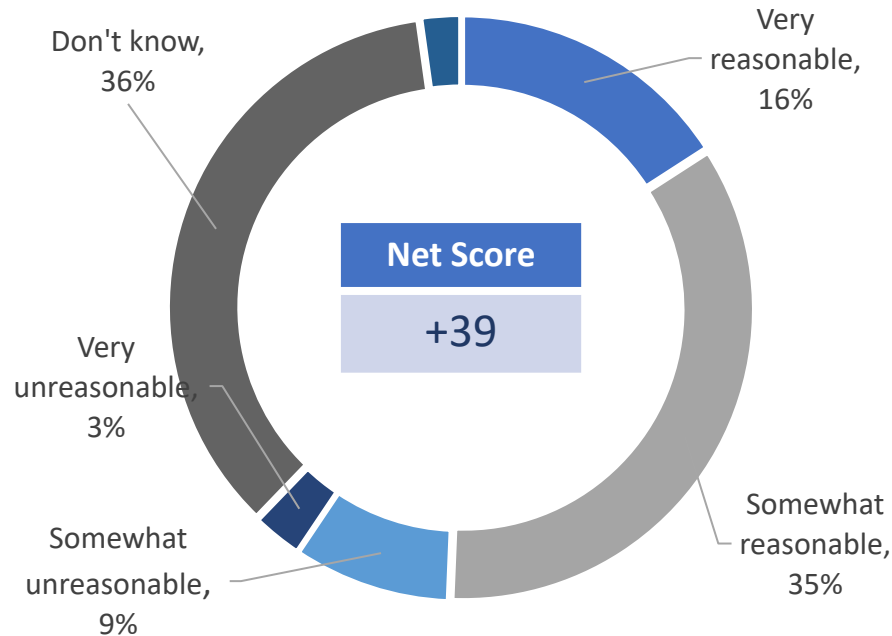
G13: Before this survey, how familiar with you with the percentage of your (household/organization)'s electricity bill that went to NOTL Hydro?



	Total	Residential	General service business GS<50kWh
Base: Total Answering	400	349	51
Very familiar	8%	9%	4%
Somewhat familiar	23%	23%	23%
Not familiar	56%	58%	40%
Don't know	12%	9%	34%

*Note: Charts and tables may not add up to 100% due to rounding

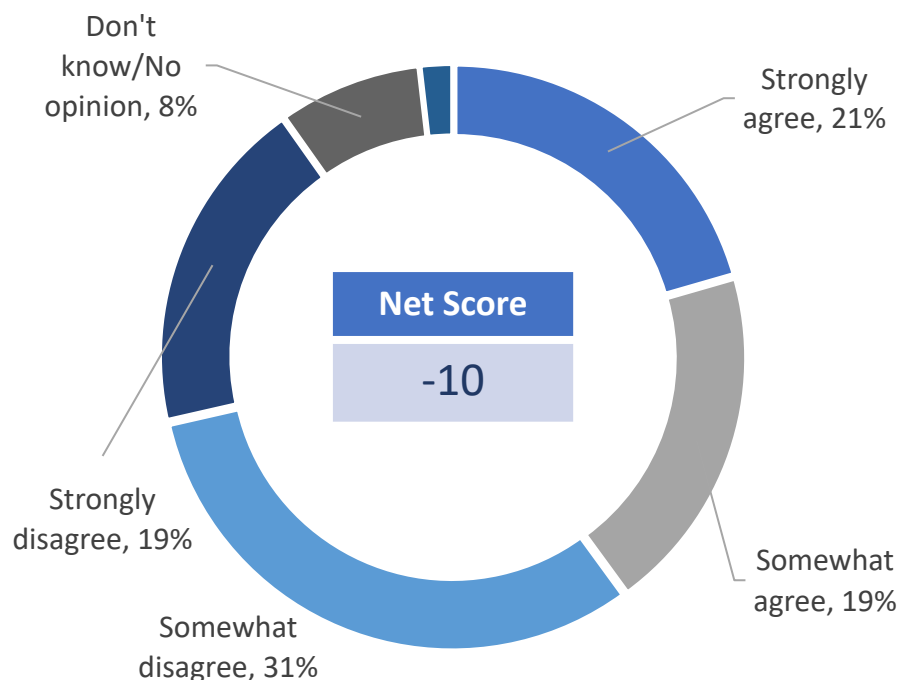
G14: Do you feel that the percentage of your (household/organizations)'s total electricity bill that you pay to NOTL Hydro for the services they provide is...?



	Total	Residential	General service business GS<50kWh
Base: Total Answering	400	349	51
Very reasonable	16%	17%	4%
Somewhat reasonable	35%	34%	39%
Somewhat unreasonable	9%	8%	13%
Very unreasonable	3%	3%	2%
Don't know	36%	35%	39%
Refused	2%	2%	2%

*Note: Charts and tables may not add up to 100% due to rounding

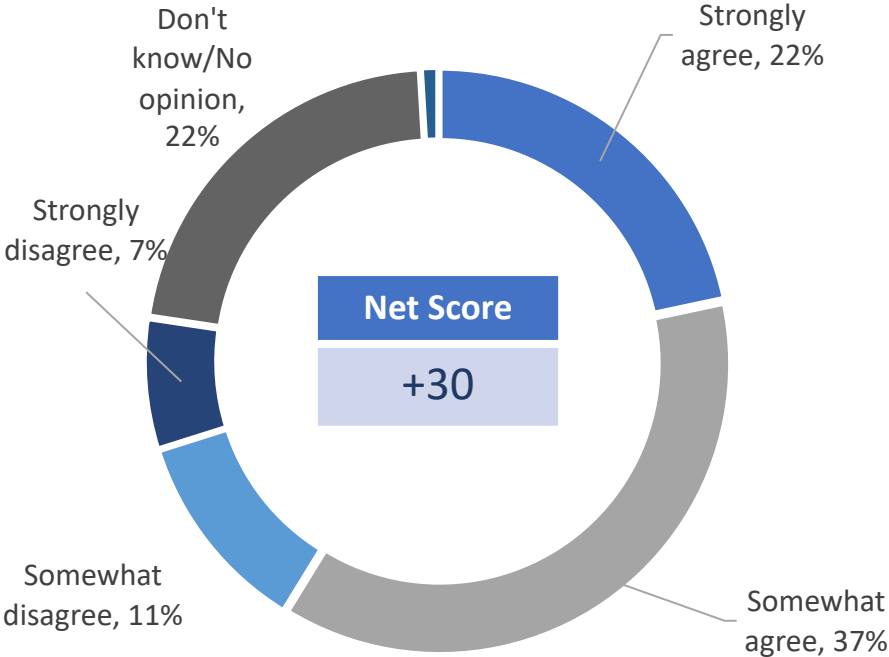
H16: The cost of my electricity bill has a major impact on (my finances and requires I do without some other important priorities)/(on the bottom line of my organization and results in some important spending priorities and investments being put off.



	Total	Residential	General service business GS<50kWh
Base: Total Answering	400	349	51
Strongly agree	21%	19%	31%
Somewhat agree	19%	19%	25%
Somewhat disagree	31%	33%	18%
Strongly disagree	19%	20%	6%
Don't know/No opinion	8%	7%	18%
Refused	2%	2%	2%

*Note: Charts and tables may not add up to 100% due to rounding

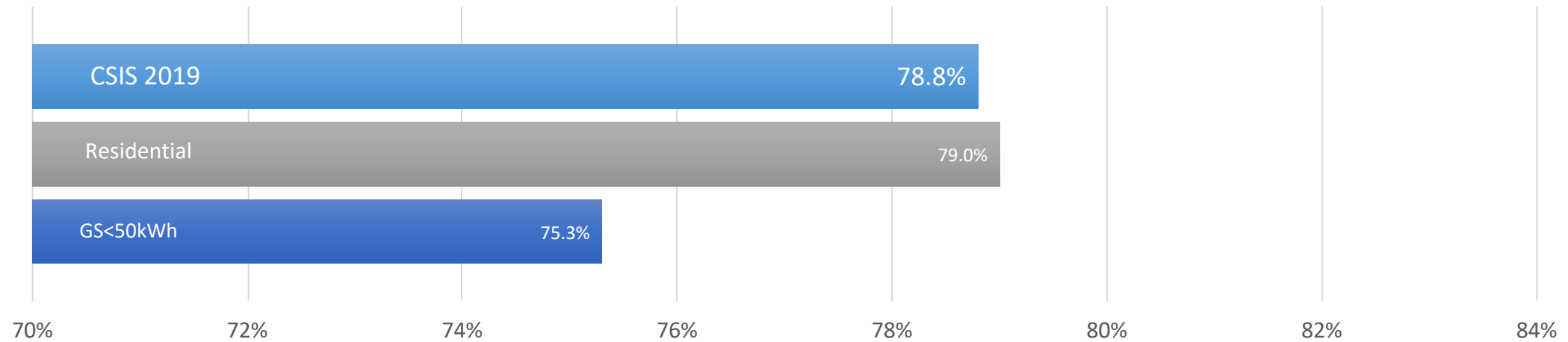
H17: Customers are well served by the electricity system in Ontario.



	Total	Residential	General service business GS<50kWh
Base: Total Answering	400	349	51
Strongly agree	22%	23%	14%
Somewhat agree	37%	36%	43%
Somewhat disagree	11%	11%	12%
Strongly disagree	7%	8%	5%
Don't know/No opinion	22%	21%	27%
Refused	1%	1%	0%

*Note: Charts and tables may not add up to 100% due to rounding

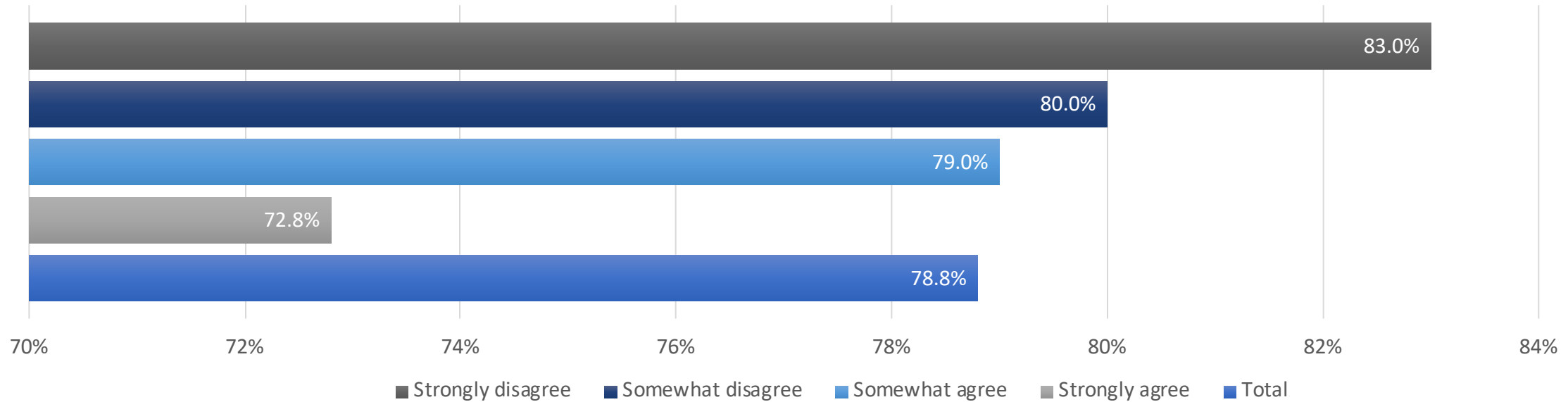
Customer Satisfaction Index Score



	Total	Residential	General service business GS<50kWh
Base: Total Answering	400	349	51
Customer Satisfaction index score	78.8%	79.0%	75.3%

*Note: Charts and tables may not add up to 100% due to rounding

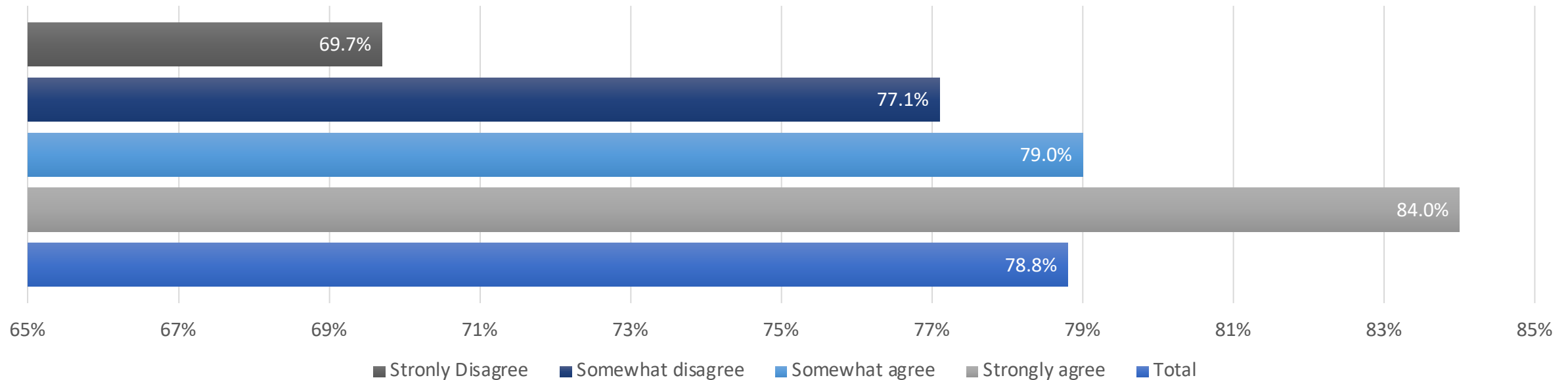
Customer Satisfaction Index Score by reply to question H16 (Electricity bill impact on finances)



	Total	Strongly agree	Somewhat agree	Somewhat disagree	Strongly disagree
Base: Total Answering Customer Satisfaction index score	400	78	81	120	77
	78.8%	72.8%	79.0%	80.0%	83.0%

*Note: Charts and tables may not add up to 100% due to rounding

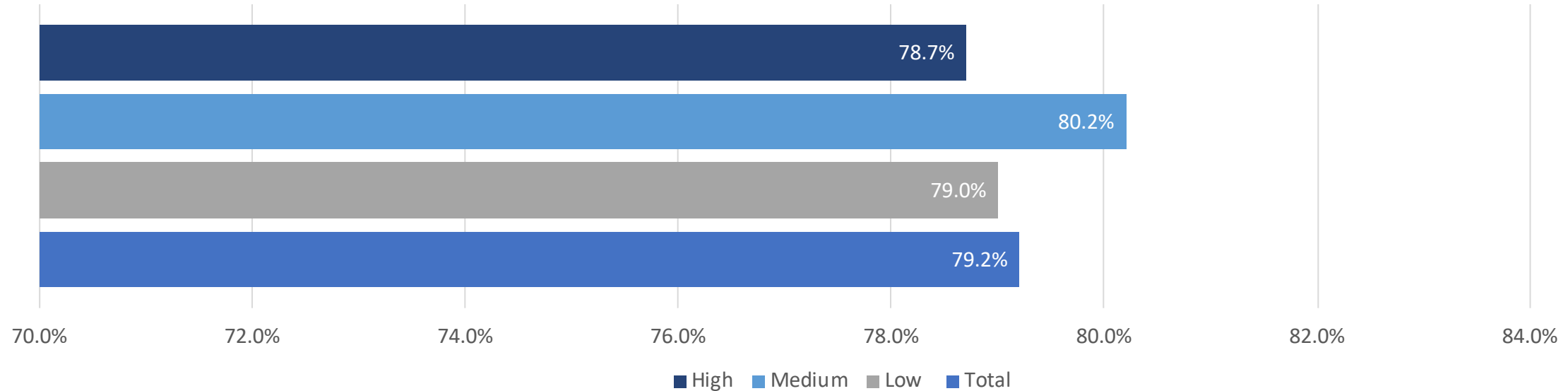
Customer Satisfaction Index Score by reply to question **H17** (Well served by electricity system)



	Total	Strongly agree	Somewhat agree	Somewhat disagree	Strongly disagree
Base: Total Answering	400	87	145	46	29
Customer Satisfaction index score	78.8%	84.0%	79.0%	77.1%	69.7%

*Note: Charts and tables may not add up to 100% due to rounding

Customer Satisfaction Index Score by consumption tranches (residential)

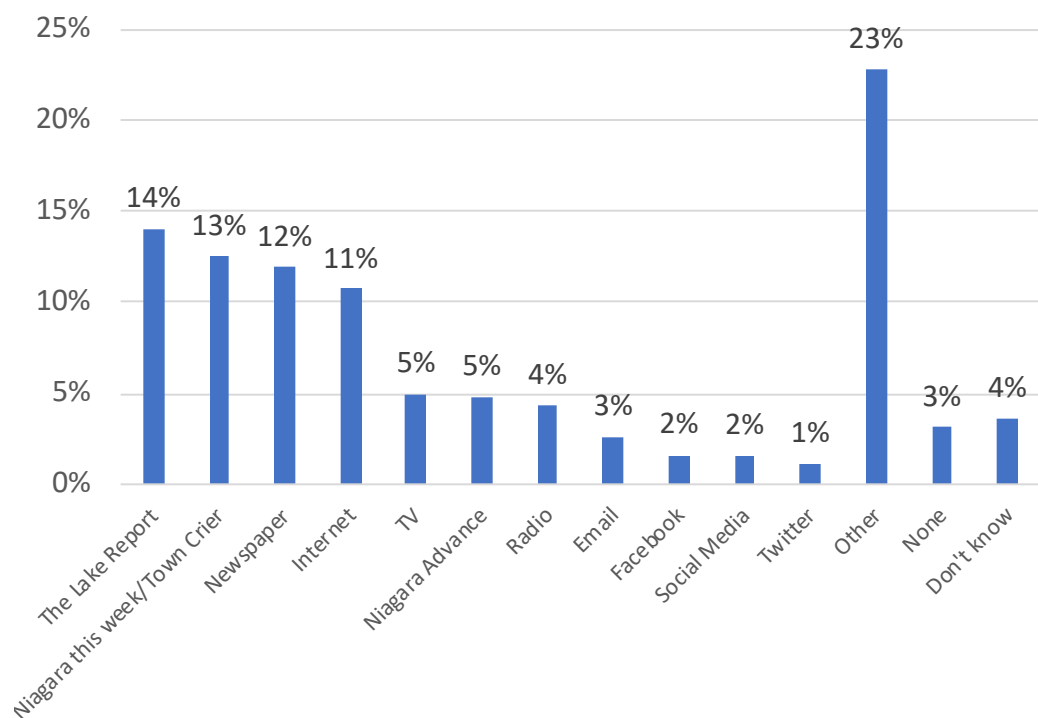


	Total	Low consumption	Medium consumption	High consumption
Base: Residential customers	349	111	89	149
Customer Satisfaction index score	79.2%	79.0%	80.2%	78.7%

*Note: Charts and tables may not add up to 100% due to rounding

Source: Redhead Media Solutions/Advanis telephone random customer survey, January 9-March 4, 2019, n=349.

NOTL1: What is your preferred access point for local news and events?

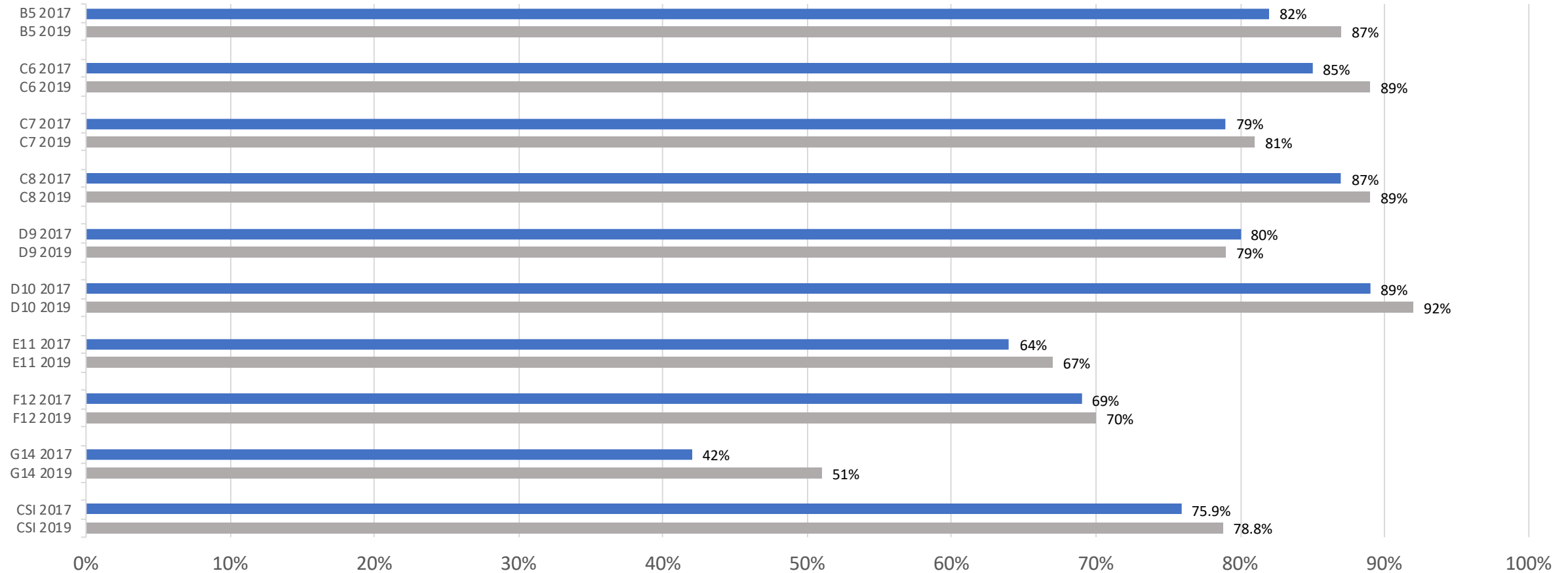


*Note: Charts and tables may not add up to 100% due to rounding

	Niagara-on-the-Lake Hydro	Residential	General service business GS<50kWh
Base: NOTL Hydro Answering	400	349	51
The Lake Report	14%	14%	17%
Niagara this week/Town Crier	13%	14%	4%
Newspaper	12%	12%	10%
Internet	11%	10%	14%
TV	5%	5%	8%
Niagara Advance	5%	5%	0%
Radio	4%	4%	10%
Email	3%	3%	2%
Facebook	2%	2%	0%
Social Media	2%	1%	4%
Twitter	1%	1%	0%
Other	23%	23%	22%
None	3%	3%	6%
Don't know	4%	4%	4%

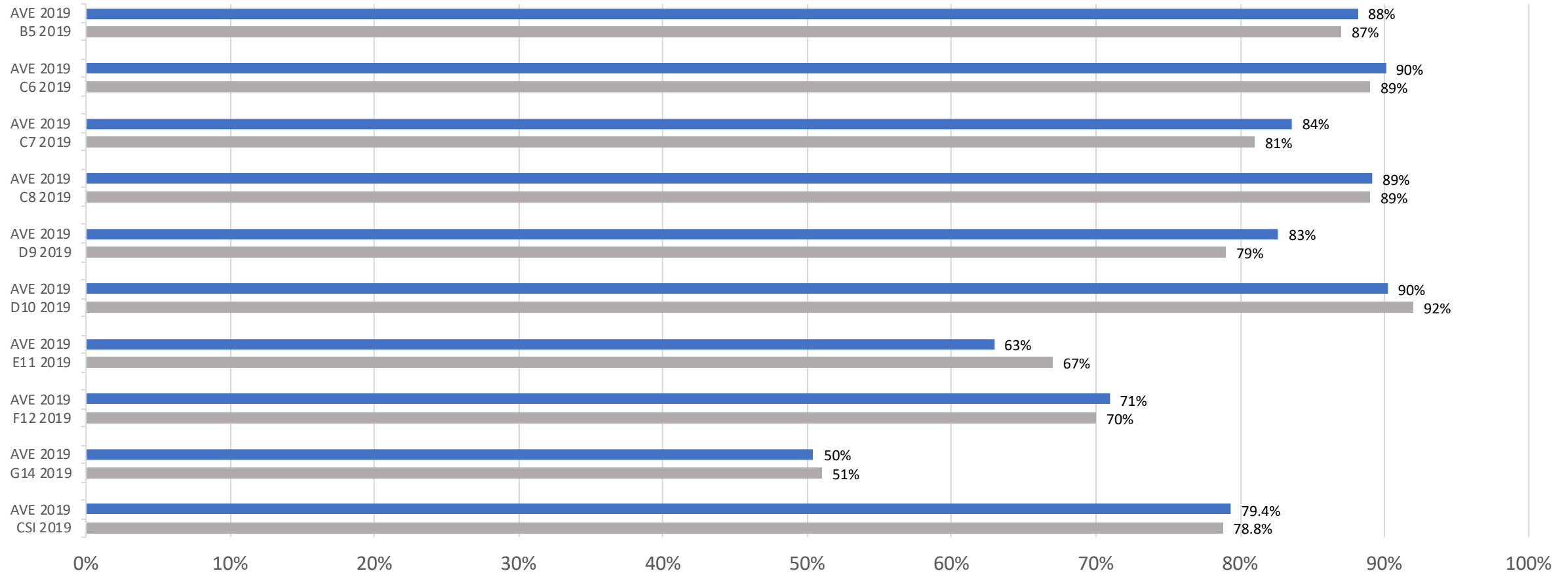
Comparative Data – Core CSI Questions 2017/2019

Net Satisfied Response



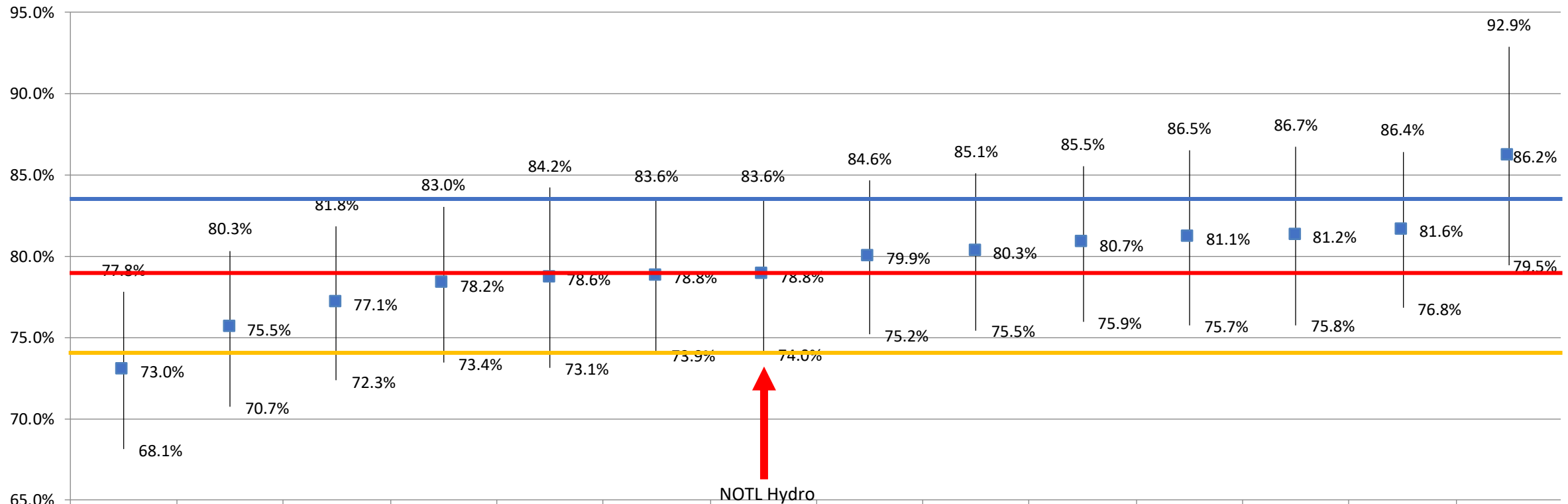
*Note: Charts and tables may not add up to 100% due to rounding

Comparative Data – Core CSI Questions Participant Ave/NOTL Hydro Net Satisfied Response



*Note: Charts and tables may not add up to 100% due to rounding

Customer Satisfaction Index Score Comparison Upper and Lower Bound



- The lines denote NOTL Hydro's upper and lower bound based on the CSI Score.
- Almost all LDCs confidence intervals overlap, similar to 2017.
- NOTL Hydro overlaps with all LDCs, which indicates a statistical similarity.

Methodology Summary

Commissioned by	NOTL Hydro
Sample size	400 randomly selected customers
Margin of error	±4.8 percentage points, 19 times out of 20
Survey mode	Random telephone survey of customer base, CATI data collection
Survey sample	Residential and GS <50kWh customer lists provided by NOTL Hydro
Time of calling	4PM-9PM Weekdays, 10AM-5PM Saturdays, scheduled callbacks
In-field dates	Jan 9-March 4, 2019
Language	English only
Survey author	Innovative Research/Electricity Distributors Association
Question Order	Report shown in order
Question Wording	Questions shown in report as asked
Survey Company	Redhead Media Solutions Inc/Advanis

Methodology Details

Target Respondents

The respondents of the survey were Ontario residents who are the primary bill payer or share the responsibility if residential or the person in-charge of managing the electricity bill at the organization if general service, and who resided within one of NOTL Hydro's service territory(ies). Service territories were determined based on customer lists provided by NOTL Hydro.

Sample Size and Statistical Reliability

The final total completed surveys by LDC, and the associated margin of error for each, are shown below.

All margins of error are shown at a 95% confidence level.

- E.g., the margin of error associated with a sample size of 400 for a large (infinite) population is ± 4.9 percentage points, 19 times out of 20.

Since NOTL Hydro has a finite population, we used the specific population sizes (i.e., the number of samples records received from NOTL Hydro) in the calculation of margin of error. Doing so is more accurate, and results in a narrower margin of error than if we simply assumed large (infinite) population for each.

Sample sizes were set according to the *LDC Customer Satisfaction Survey: Methodology & Survey Implementation Guide*, prepared for the Electrical Distributors Association (April 19, 2016 revision):

Where possible, sample size of $n=400$.

Distributors with 3000 to 4999 customers (residential + GS<50), $n=300$

Distributors with <3000 customers (residential + GS<50), $n=200$

Methodology Details

Sampling Methodology

Redhead was provided sample lists from NOTL Hydro. Customer lists included all basic information required such as name, telephone number, region (where applicable), customer type (residential or GS<50), LDC fee, Annual or Monthly consumption values. Redhead then calculated which quartile group each resident belonged to by evenly dividing them into four groups within each region and customer type. These quartiles were calculated based on annual consumption value.

To minimize low response:

- Sample was loaded in batches to ensure the sample was fully utilized before moving onto fresh sample records;
- Calls were made between the hours of 4pm and 9pm ET; and
- Call backs were scheduled and honored between the hours of 9am and 9pm ET.

Sample Cleaning

Redhead cleaned the customer lists individually once received from each LDC to ensure the customer list counts reflected actual individual records that could be called. The following steps were taken during sample cleaning.

- All records with no phone numbers were removed.
- All phone numbers were checked to see if they were valid numbers (i.e. 10 digits, all numerical, etc.) and any bad cases were removed.
- When duplicates were detected based on phone number, the average of the consumption value was calculated and kept for one consolidated record. All others were removed.
- Residential and GS<50KW were separated into their own lists to be loaded and managed separately in the calling system.

Regions within each customer list were given a numerical value to be used for calling quotas.

Methodology Details

Questionnaire

The survey instrument was provided by the Electricity Distributors Association (EDA) developed in conjunction with Innovative Research. The survey consisted of an introduction, overall satisfaction, power quality and reliability, billing and payment, customer service experience, communications, price, optional deeper dive questions, and final personal finance / sector mood measures. Additional questions were provided individually by NOTL Hydro. These questions are not required as part of the survey and, as outlined in the methodology guideline, were asked after all the standard and required questions.

Data Collection

Computer aided telephone interviews (CATI) were conducted from January 9-March 4, 2019.

Quality Control

- Advanis, on behalf of Redhead, trained the interviewers to understand the study's objectives;
- Detailed call records are kept by the automated CATI system, and are supplemented by output files to SPSS for productivity analysis (i.e., not subject to human error);
- The survey was soft launched in LDCs that had the most available sample, and the data was then checked before calling began in full for NOTL Hydro;
- 100% of all surveys are digitally recorded for potential review (see next bullet);
- Advanis' Quality Assurance team listened to the actual recordings of five percent of completed surveys and compared the responses to those entered by the interviewer to ensure that responses from respondents are properly recorded;
- Team Supervisors conduct regular more formal evaluations with each interviewer, in addition to nightly monitoring of each interviewer on their team;
- Project Managers closely monitored the progress of data collection, including call record dispositions;
- All SPSS code is reviewed by a more senior researcher;
- All Report Builder output is reviewed by a more senior researcher; and
- All values in the report are reviewed by another team member to ensure accuracy.

Methodology Details

Analysis of Findings & Data Weighting

Results were weighted to match the proportion of low volume rate class records as provided to Redhead after cleaning of the sample file. Where a region flag was also provided, results were weighted to the low volume rate class within each region and regions were weighted proportionately to one another based on the customer base as provided in the cleaned sample file.

The Customer Satisfaction index scores have been highlighted and were calculated as described below, based on instructions in the Survey Methodology Guidelines. The “response values” referenced in the description below were also determined and provided by the survey authors.

Data analysis and cross-tabulation have been conducted using SPSS and Report Builder software.

As noted above, LDCs without a region flag were weighted to their low volume rate class proportion based on the cleaned sample file. LDCs with a region flag were weighted to their low volume rate class proportion within each region based on the cleaned sample file, and then regions were weighted proportionately to one another based on the customer base as provided in the cleaned sample file.

Specific values of the number of sample records, estimated population proportions, and final weighted sample counts within NOTL Hydroare provided below. The sum of the regional population proportions within an LDC may not equal 100% due to rounding.

This **index score** is calculated using the following process:

Step 1: Weight data to n=400 with each low volume rate class proportionate to its share of LDC customer base.

Step 2: Rescale the index score variables onto the 0 to 1 scale as indicated by the response values detailed below.

Step 3: The average result of the questions asked for each OEB topic and the overall satisfaction score will be added together³.

	B5
+	[C6+C7+C8] divided by 3
+	[D9+D10] divided by 2
+	E11
+	F12
+	G14
=	Total cumulative scores

Step 4: The total cumulative score from Step 2 will be divided by 6 to generate the **Customer Satisfaction Index Score** (bound between 0-1).

The chart on the following page illustrates how the **Customer Satisfaction Index Score** will be calculated.

Methodology Tables

Margin of error

LDC	Customer Records from LDC	Completed Surveys	Sample Size as % of Customer list	Margin of Error @ 95% confidence level
NOTL Hydro	7944	400	5.04%	+/- 4.8%

Sample Weighting

Niagara-on-the-Lake Hydro						
Regions Flagged in Sample	Low Volume Rate Class	Sample Received	Rate Class Proportion	Estimated Population Proportion	Weighted Sample Count	Unweighted Sample Count
Niagara-on-the-Lake Hydro	Residential	5,909	89%	100%	298	324
	General Service < 50 kW	767	11%		39	46
Queenston	Residential	83	95%	0%	4	4
	General Service < 50 kW	4	5%		0	1
St Davids	Residential	559	96%	0%	28	12
	General Service < 50 kW	25	4%		1	1
Virgil	Residential	531	90%	0%	27	9
	General Service < 50 kW	60	10%		3	3
Niagara Falls	Residential	4	67%	0%	0	0
	General Service < 50 kW	2	33%		0	0
TOTAL	Residential	5,630	87%	100%	357	349
	General Service < 50 kW	811	13%		43	51
					400	400

Thank You

We greatly appreciate working on this important project for Niagara-on-the-Lake Hydro and hope we have met or exceeded your expectations.

We are happy to present this data to your staff or Board members upon request. If you wish to do so, please contact us for an appointment.

We look forward to working with you on future projects, including the Electricity Safety Awareness Survey later in 2019. Please note if you have any other projects that we may be able to help you with, don't hesitate to be in touch.

Graydon Smith - President
Redhead Media Solution Inc.
505 Hwy 118 W.
Suite 416
Bracebridge, ON
P1L 2G7

Niagara
On-The-Lake
HYDRO



APPENDIX 1F

2021 Final Customer Satisfaction Report

2021 Niagara-on-the-Lake Hydro Customer Satisfaction Survey

Introduction and Summary

Thank you for selecting Redhead Media Solutions Inc. for this important project for Niagara-on-the-Lake (NOTL) Hydro. We appreciate your confidence in us to provide you with data on Customer Satisfaction that provides both a current snapshot and can be used to compare with previous surveys in 2017, 2019 and among other LDCs that we work with.

It is our goal to always be improving our deliverables and provide value to our clients. To supplement this report, we have also included a stand-alone section on comparable data and verbatims for question G15 (open comments) in spreadsheet format. The methodology guide, as well as residential and general service questionnaires are also included as appendices B, C and D for your reference.

Should there be any specific data or breakouts that you require we would be happy to provide them. Please contact us to discuss how we can assist you and ensure you are getting the most from this project.

Sincerely,

Graydon Smith
President

Niagara
On-The-Lake
HYDRO

Introduction and Summary

Redhead Media Solutions Inc. (Redhead), partnering with ADVANIS for data collection and reporting, has been retained (via an RFP process by Cornerstone Hydro Electric Concepts Inc. - CHEC) to conduct a 2021 Customer Satisfaction Survey for NOTL Hydro. This survey is a required part of an LDC's Balanced Scorecard and other reporting and regulatory requirements for the Ontario Energy Board (OEB).

The complete group of participating CHEC LDCs are as follows:

- Centre Wellington Hydro
- EPCOR
- EARTH Power
- Grimsby Power
- Lakefront Utilities
- Lakeland Power Distribution
- NOTL Hydro
- Orangeville Hydro
- Ottawa River Power Corp
- Renfrew Hydro
- Rideau St. Lawrence Distribution
- Tillsonburg Hydro
- Wasaga Distribution
- Wellington North Power

Introduction and Summary

This final report contains data specifically for NOTL Hydro.

The survey is comprised of 400 randomly selected interviews of NOTL Hydro customers among the low volume customer base (residential customers and general service under 50kW customers; GS<50kW). Residential customers were asked to confirm that they receive an electricity or hydro bill from NOTL Hydro and that they are the primary payer of that bill or share the responsibility.

GS<50kW customers were also asked to confirm they receive an electricity or hydro bill from NOTL Hydro, and additionally to confirm that the person who manages the organization's electricity bill was the one to complete the interview. The sample frame is stratified on region (where applicable) and consumption quartiles by rate class in accordance with the "Survey Implementation Requirements" on page 4 of the "EDA/Innovative Customer Satisfaction Scorecard: Methodology & Survey Implementation Guide" which is contained in Appendix B of this report.

The objective of the survey is to provide an Overall Customer Satisfaction index score for NOTL Hydro. This is a calculated aggregate value based on responses of to 9 core measures in the survey instrument. In some cases, additional questions were asked but not included in the calculation of the Customer Satisfaction Index Score.

NOTL Hydro's 2021 Customer Satisfaction Index Score is 79%, This the same as the 2019 score (79%) and same as than the average of all LDCs (79%).

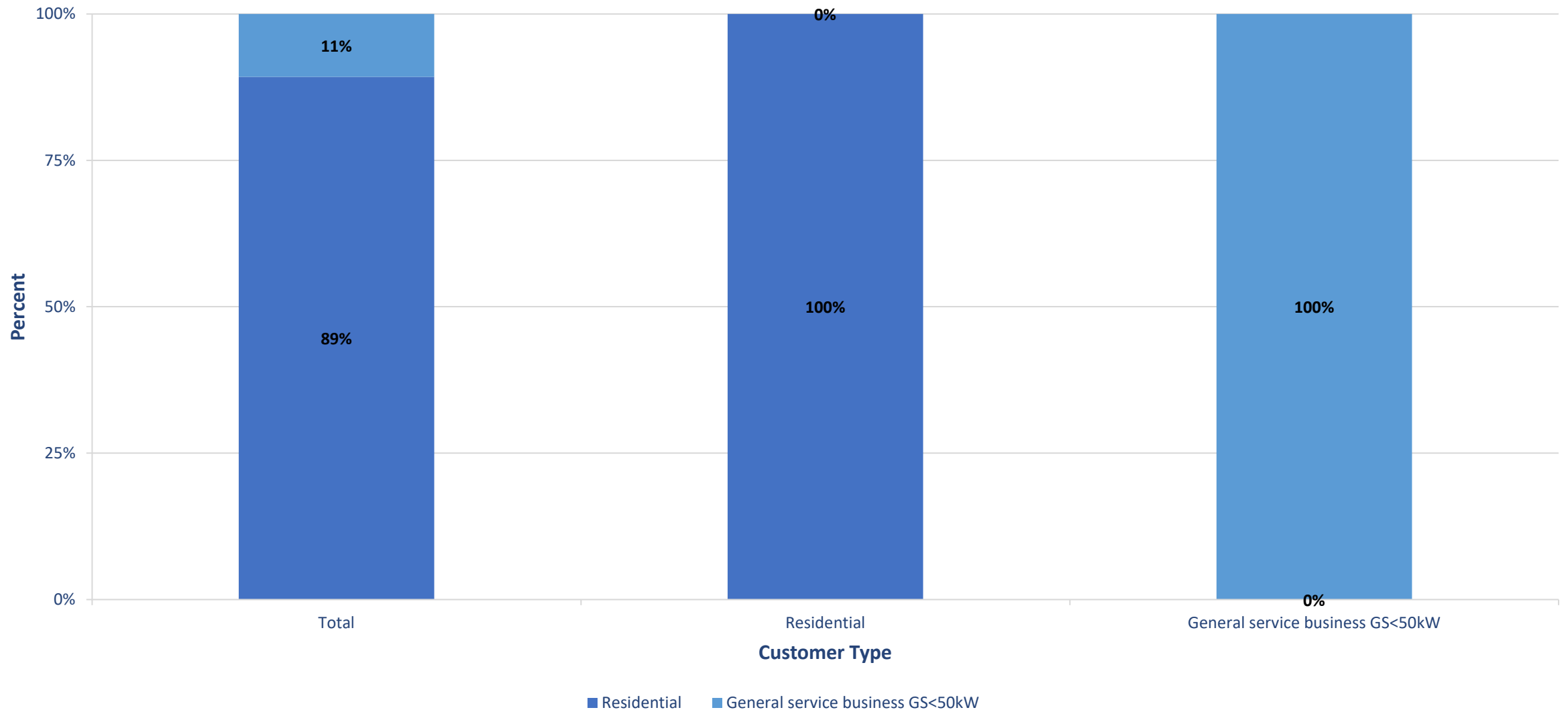
This falls within a very tight spectrum of index scores we processed for all LDCs that participated in the 2019 survey via Redhead. When the confidence interval is applied to all index scores, there is significant overlap between LDCs which underlines the statistical similarity of performance and satisfaction among participants. Statistically, NOTL Hydro is similar to all other LDCs surveyed.

The following report contains graphic data and tables for all core questions as well as any additional questions supplied by the LDC, which were asked after the core questions were completed.

Question scoring and index methodologies were prescribed by the EDA/Innovative. As such, there has been limited additional analysis provided beyond the direction provided to meet the reporting guidelines. Should you wish further analysis of the data please contact our office to discuss.

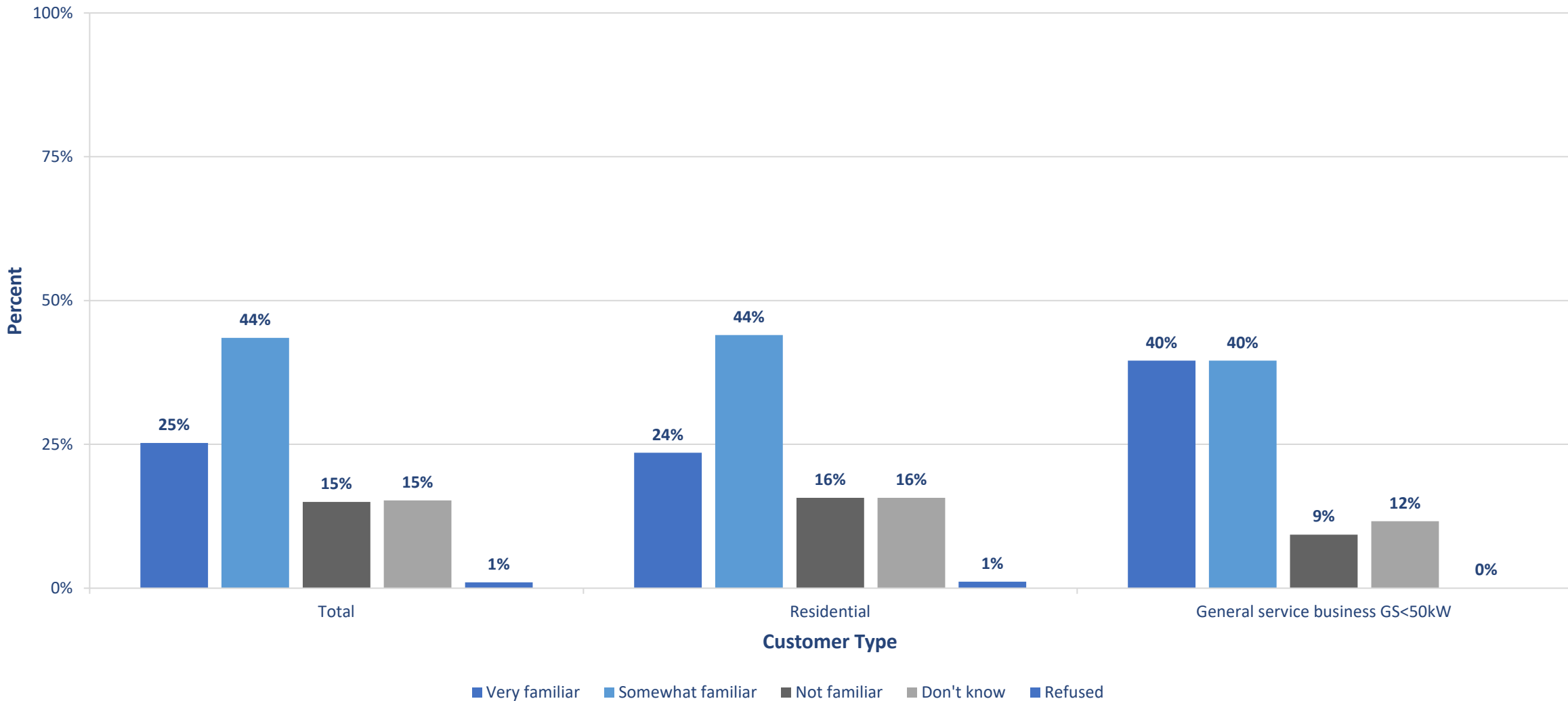
PARTICIPANT INFORMATION

Customer Type

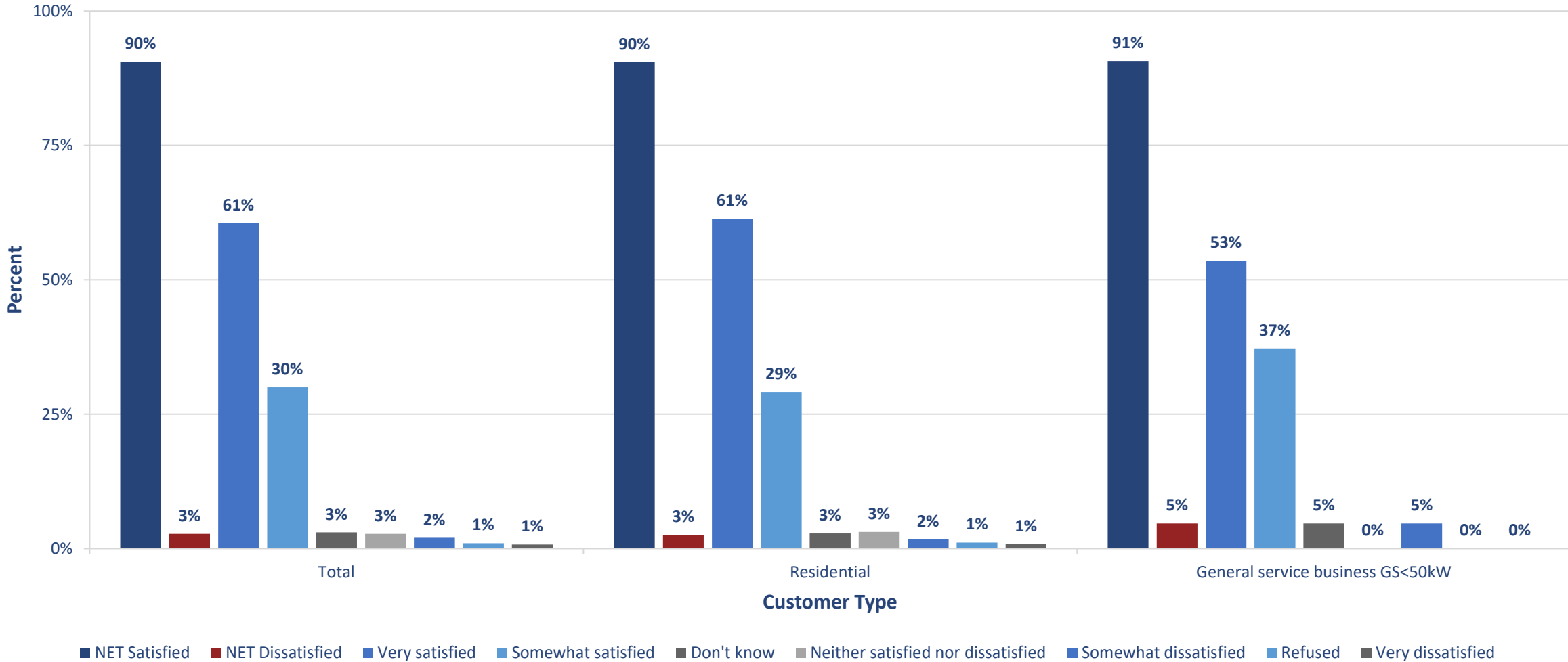


QUESTIONS/DATA

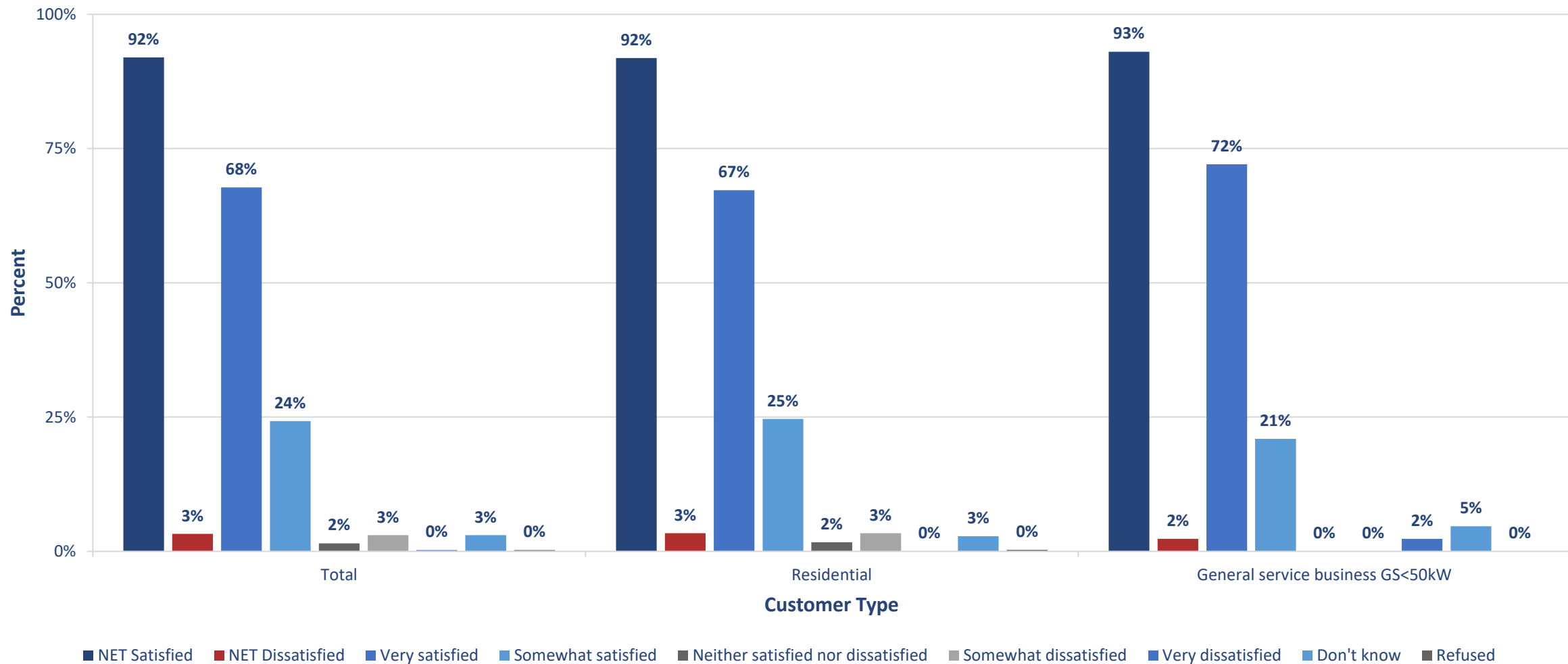
How familiar are you with NOTL Hydro, which operates the electricity distribution system in your community?



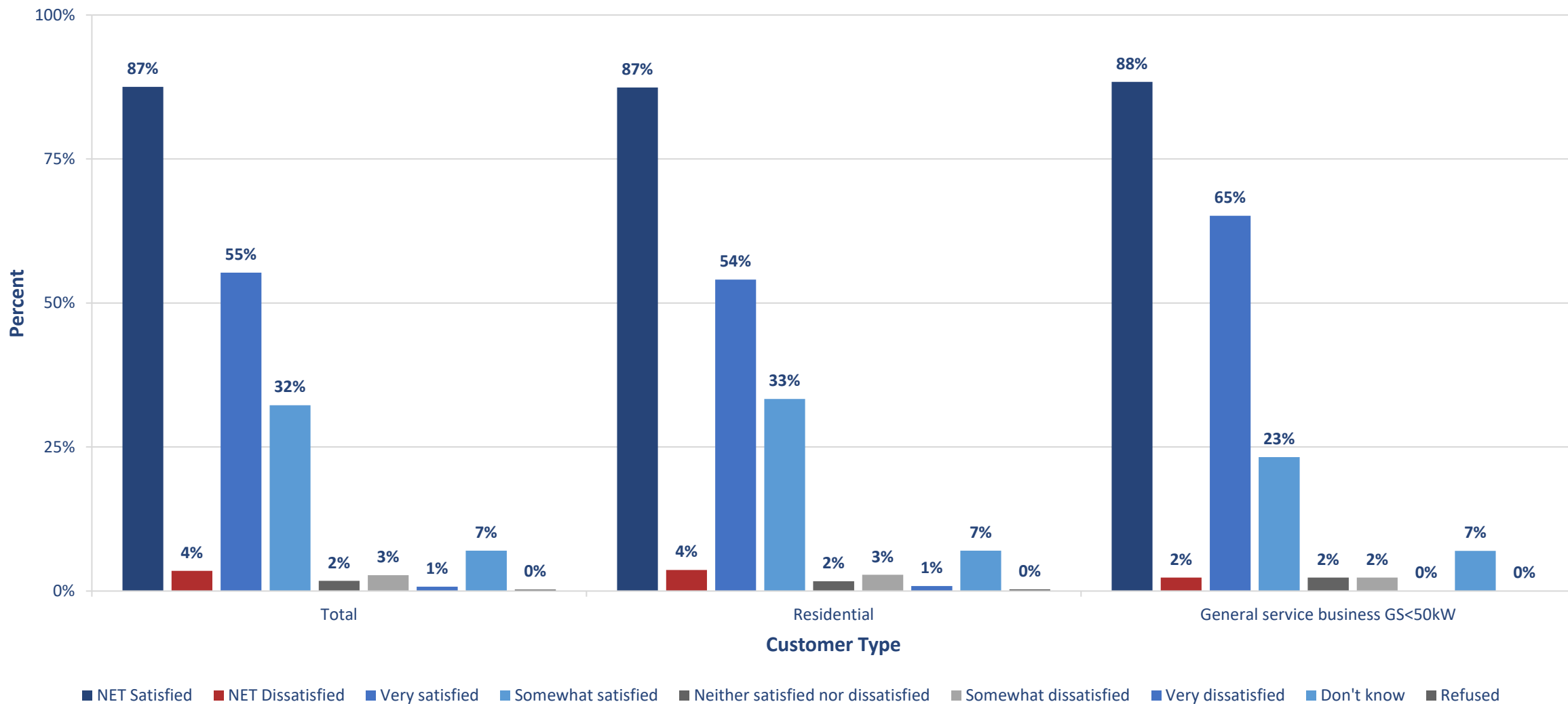
Thinking specifically about the services provided to you and your community by NOTL Hydro, overall, how satisfied are you with the services that you receive from NOTL Hydro?



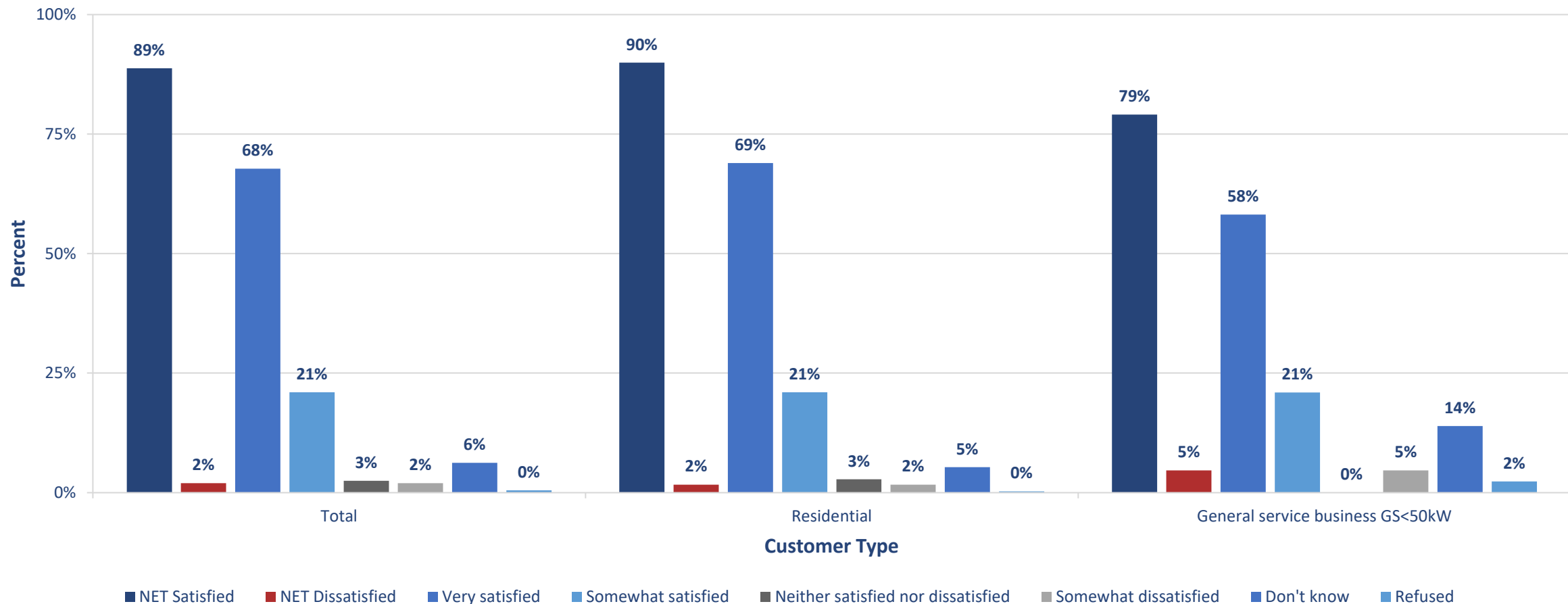
The reliability of your electricity service – as judged by the number of power outages you experience: How satisfied are you with the electrical service that you receive from NOTL Hydro based on...?



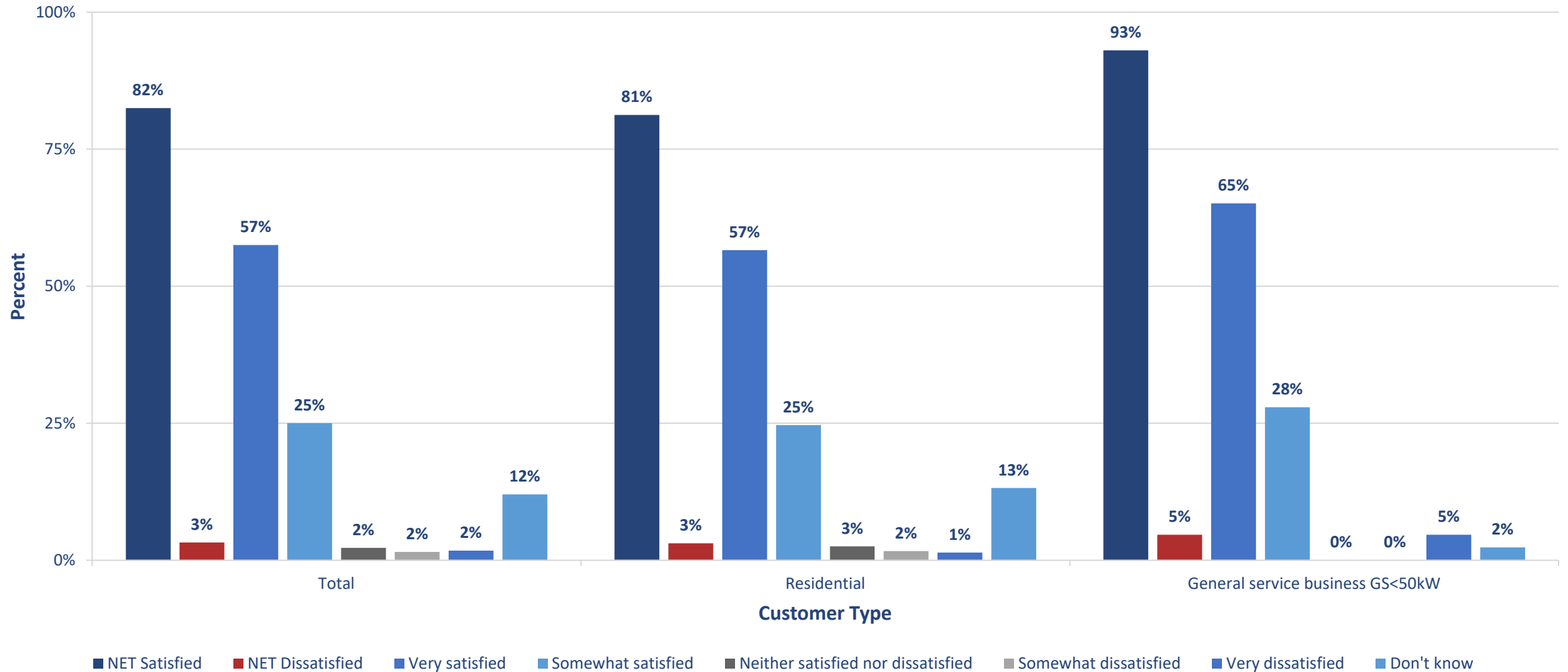
The amount of time it takes to restore power when power outages occur: How satisfied are you with the electrical service that you receive from NOTL Hydro based on...



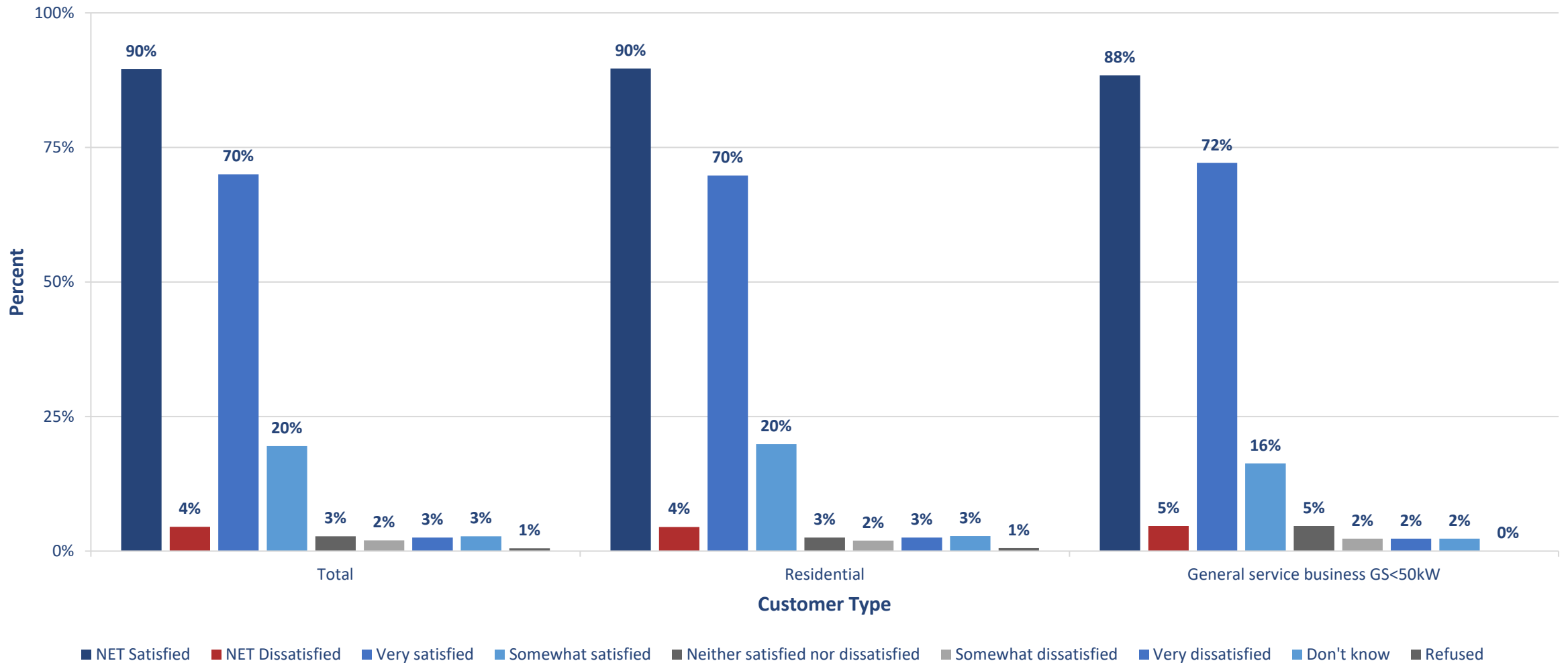
The quality of the power delivered to you as judged by the absence of voltage fluctuations that can result in [flickering/dimming of lights OR have an affect on equipment]: How satisfied are you with the electrical service that you receive from NOTL Hydro



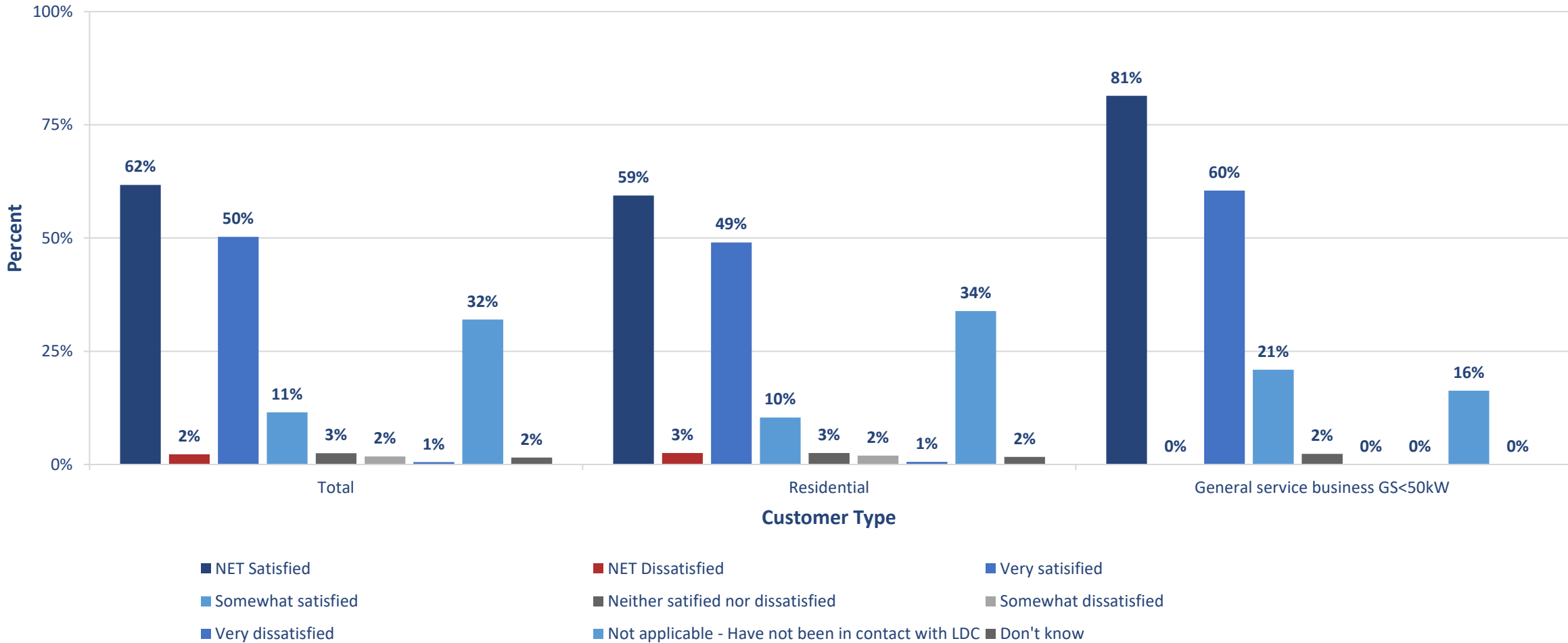
Providing accurate bills: How satisfied are you with the bills that you receive from NOTL Hydro based on them...?



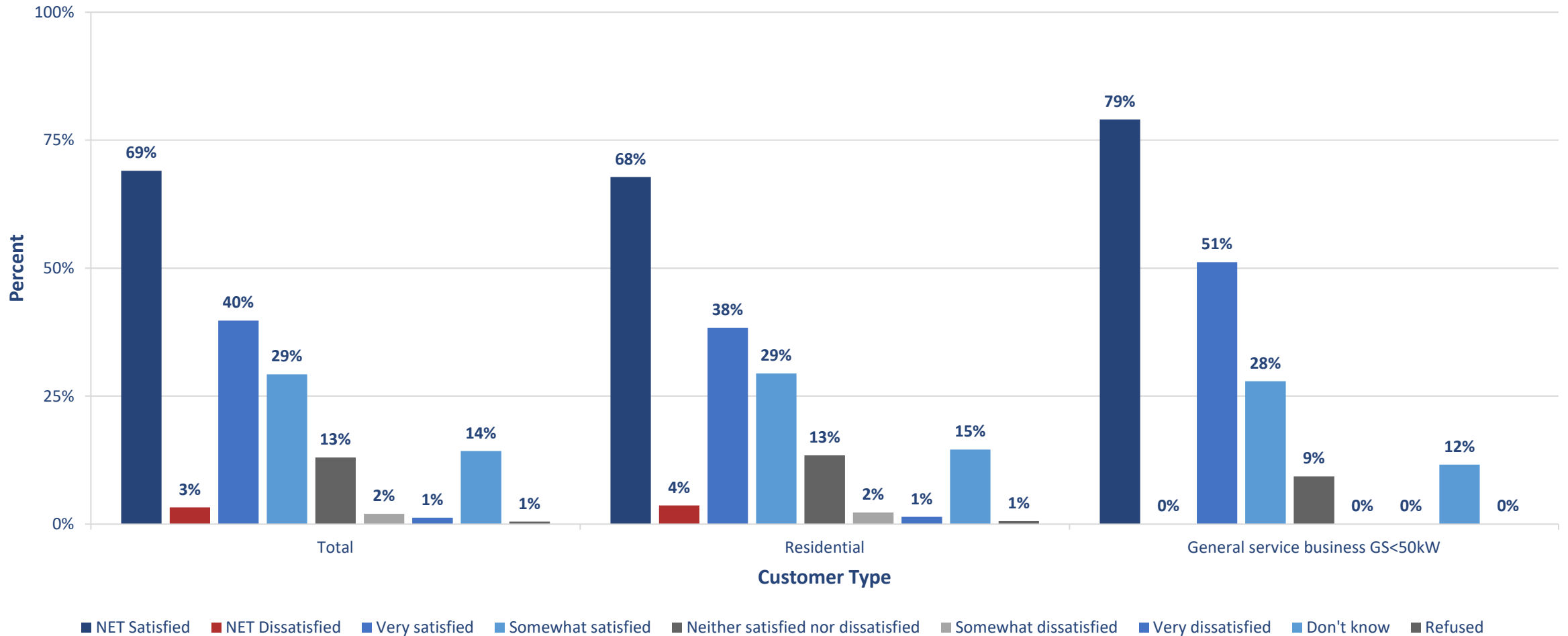
Providing convenient options to both receive and pay your bills: How satisfied are you with the bills that you receive from NOTL Hydro based on them...?



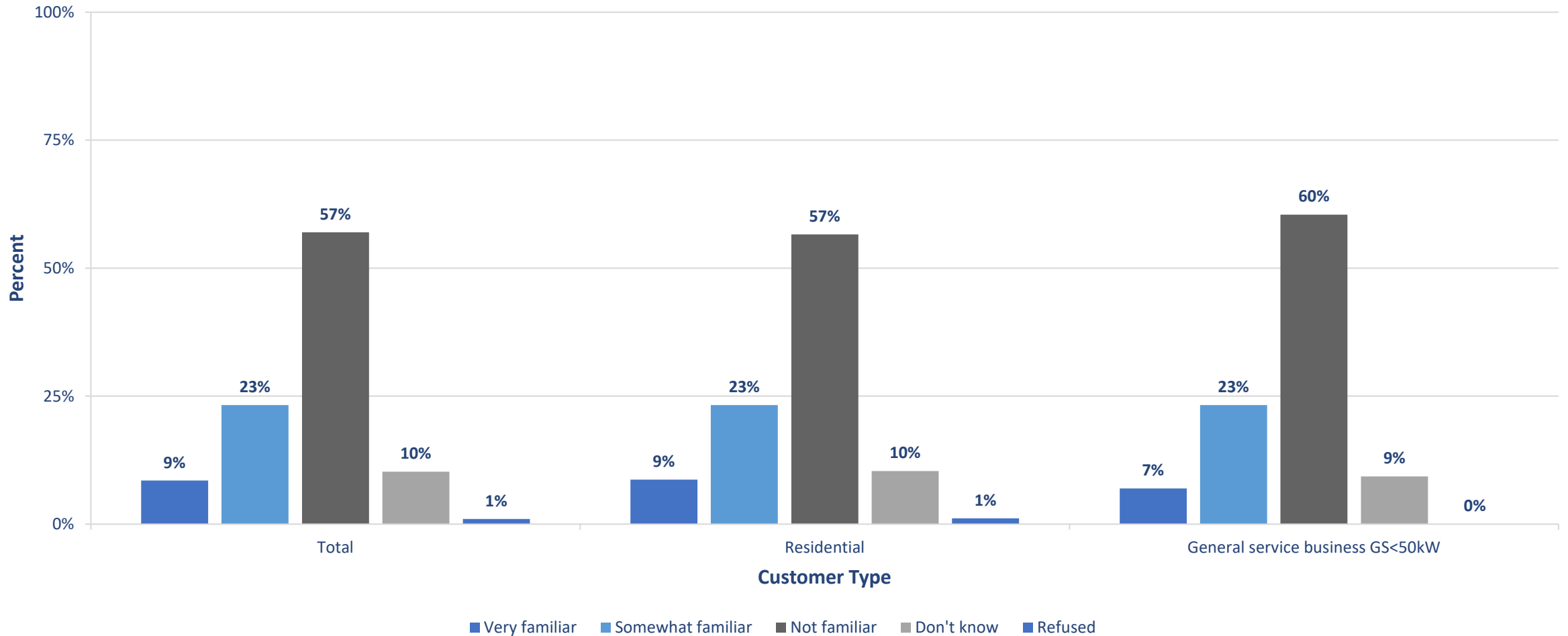
How satisfied are you with the customer service you have received when dealing with employees of NOTL Hydro, whether on the telephone, via email, in person or through online conversations including social media?



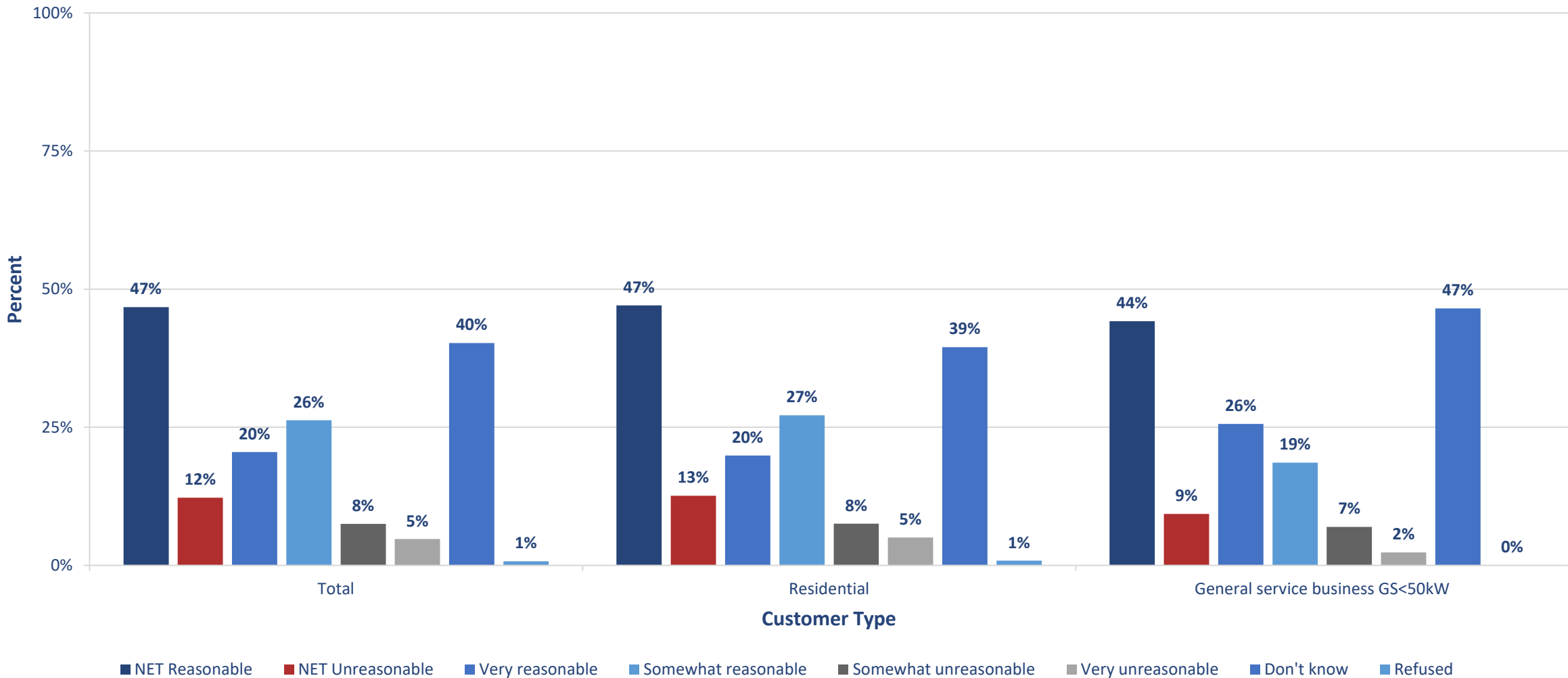
How satisfied are you with the communications that you may receive from NOTL Hydro without talking directly to an employee, including information found on their website, bill inserts, advertising, notices, emails, or social media sites?



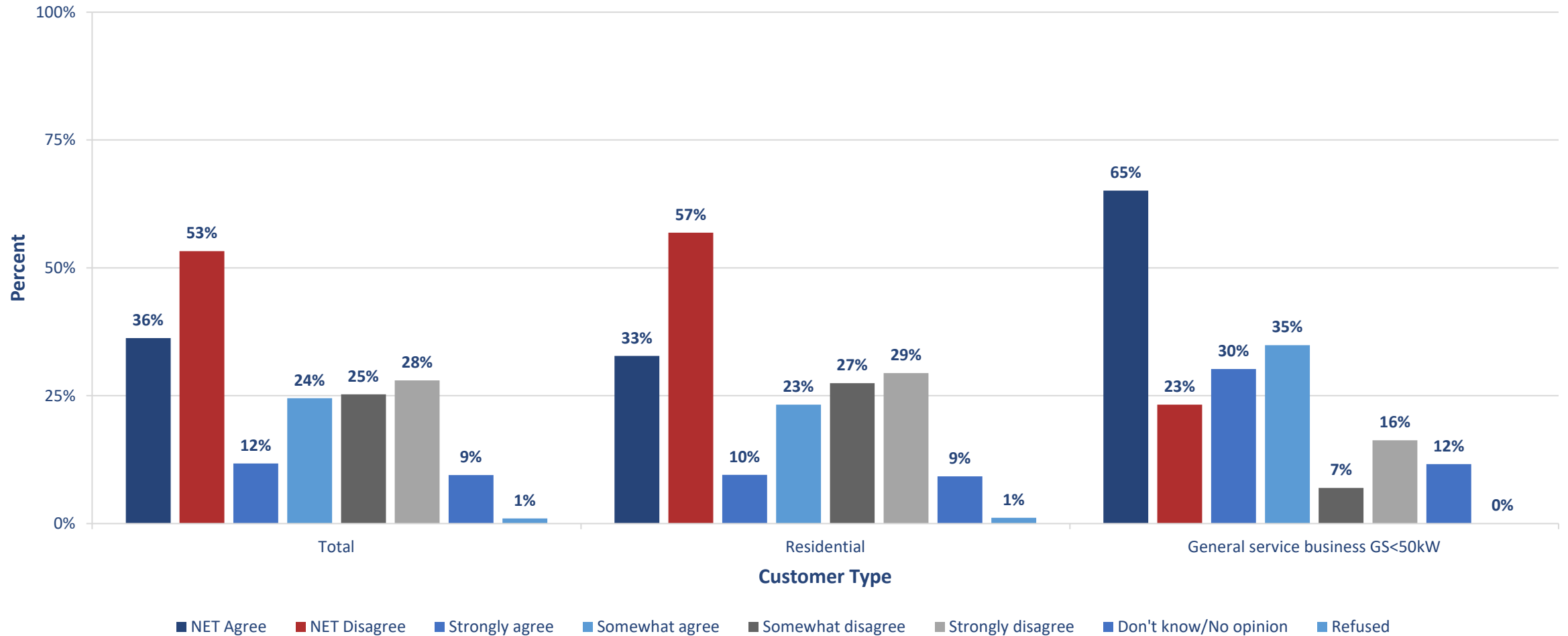
How familiar are you with the percentage of your electricity bill that went to NOTL Hydro?
So, NOT the portions allocated to power generation companies, transmission companies, the provincial government and regulatory agencies.



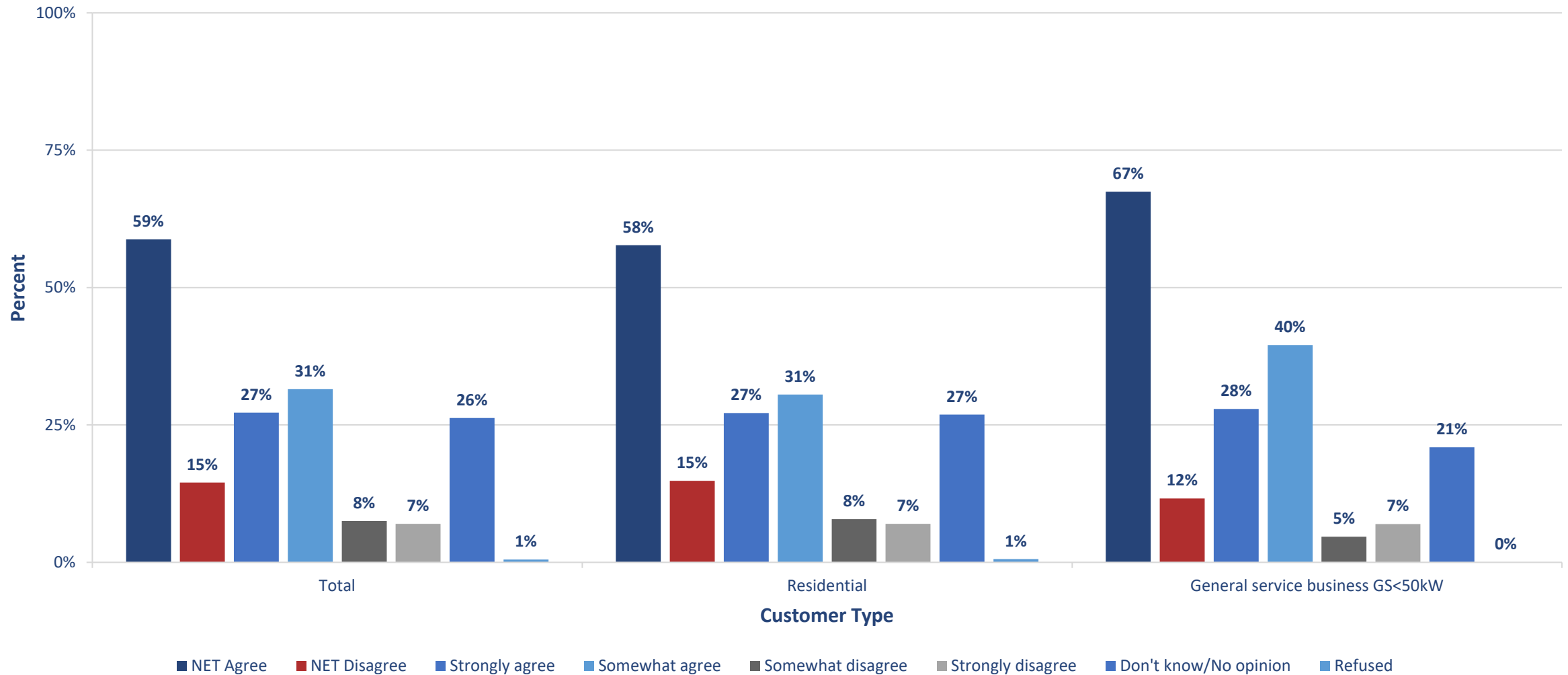
Do you feel that the percentage of your total electricity bill that you pay to NOTL Hydro for the services they provide is...?



The cost of my electricity bill has a major impact [on personal finances OR bottom line of organization]: To what extent do you agree with the following statements regarding the electricity system in Ontario?

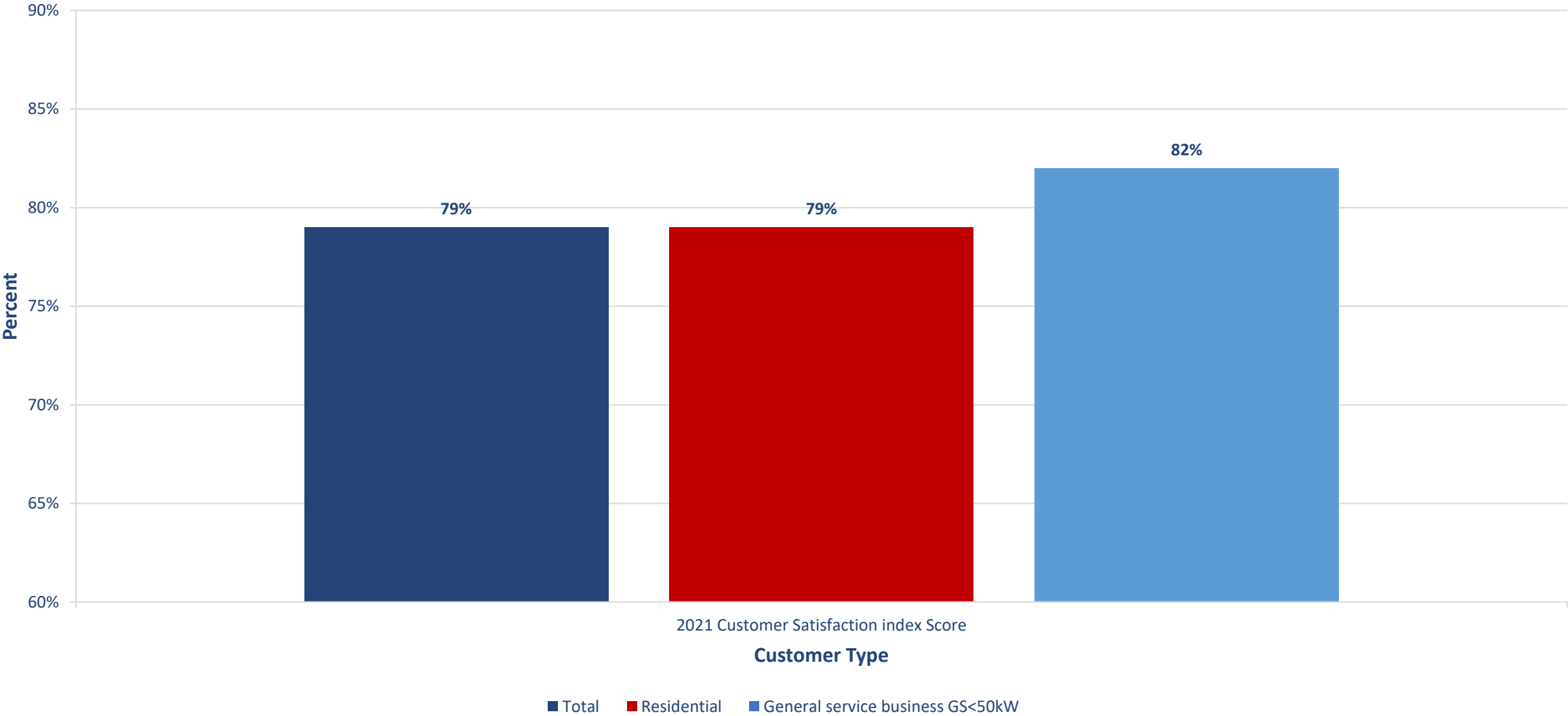


Customers are well served by the electricity system in Ontario: To what extent do you agree with the following statements regarding the electricity system in Ontario?



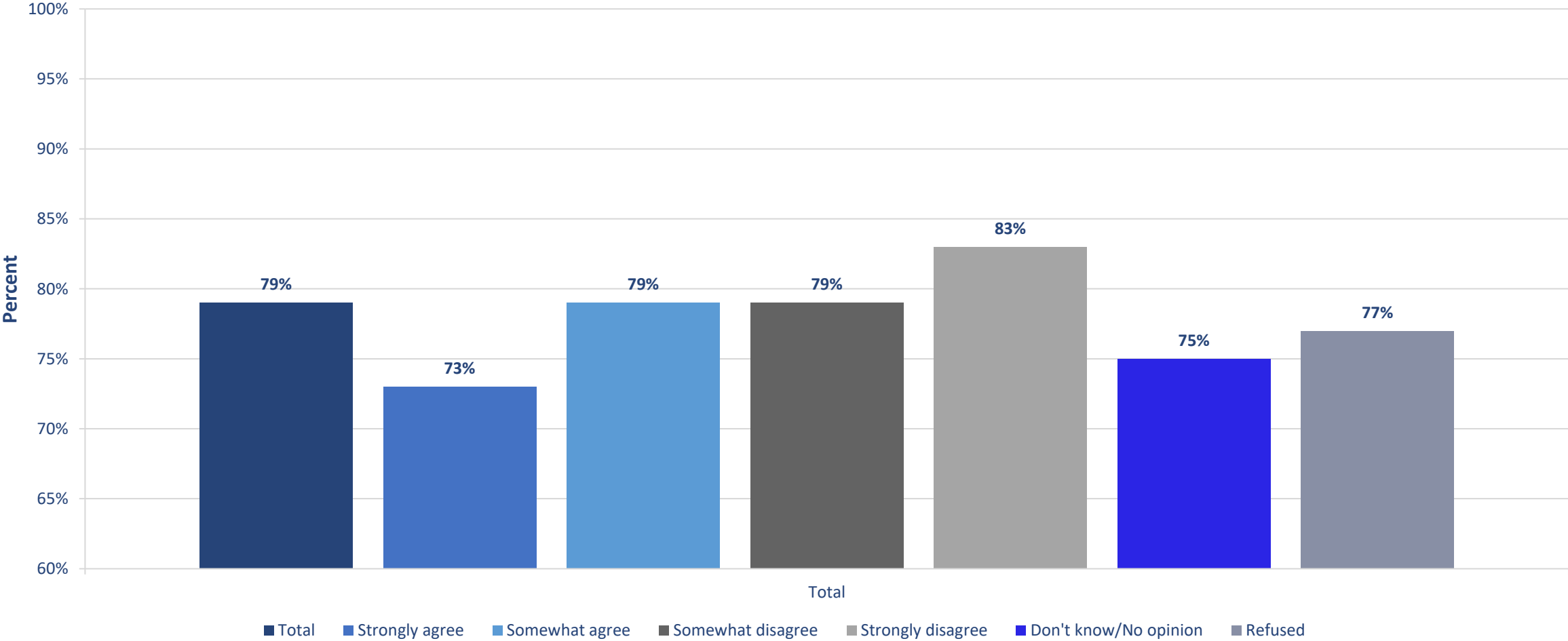
CUSTOMER SATISFACTION INDEX

2021 Customer Satisfaction Index Score



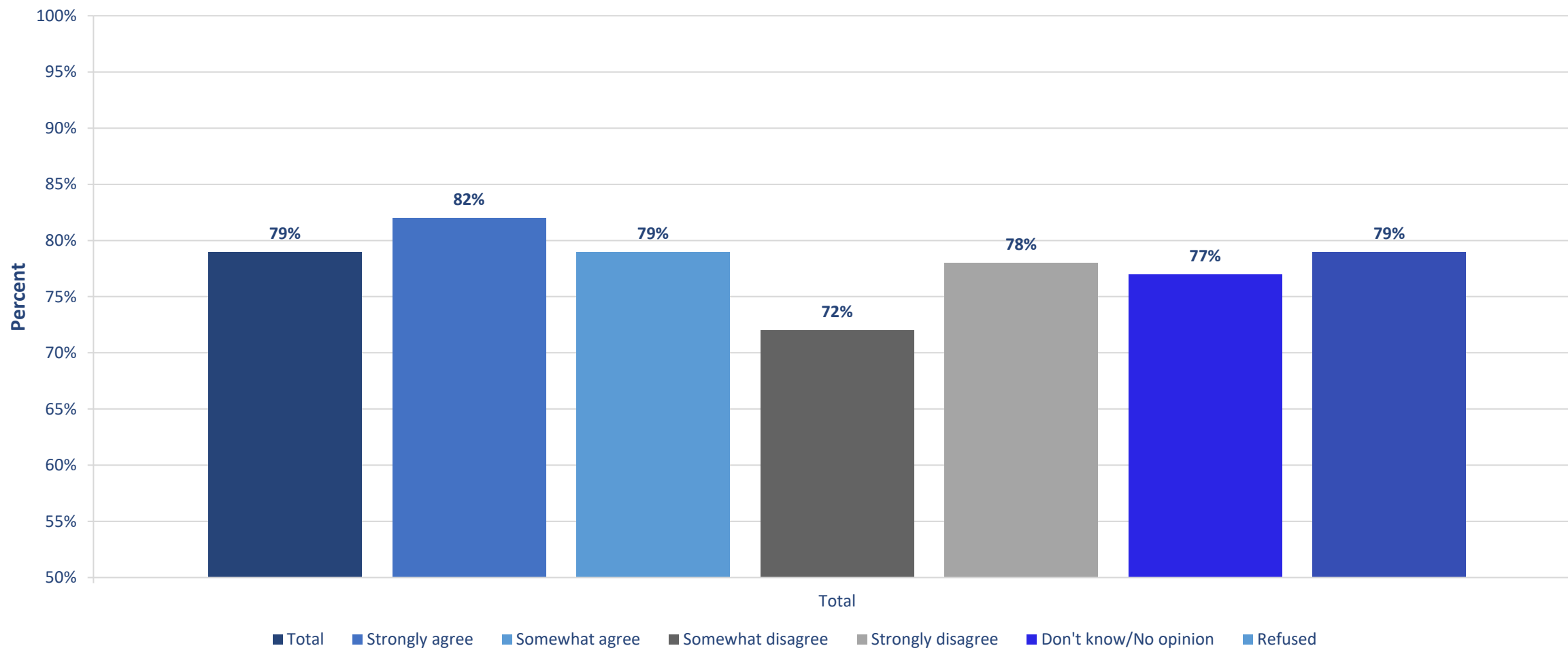
Customer Satisfaction Index by the following statement:

The cost of my electricity bill has a major impact on [my personal finances/bottom line]

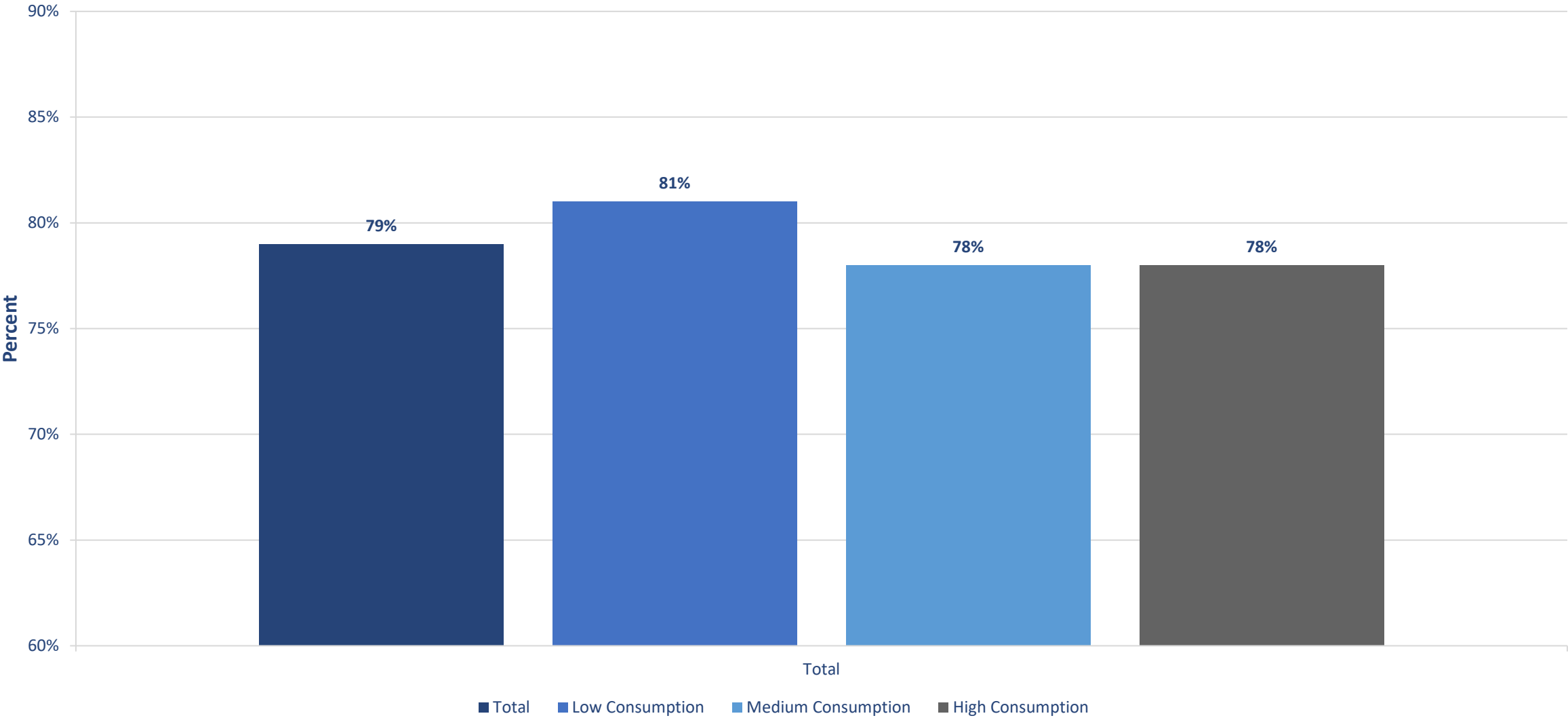


Customer Satisfaction Index by the following statement:

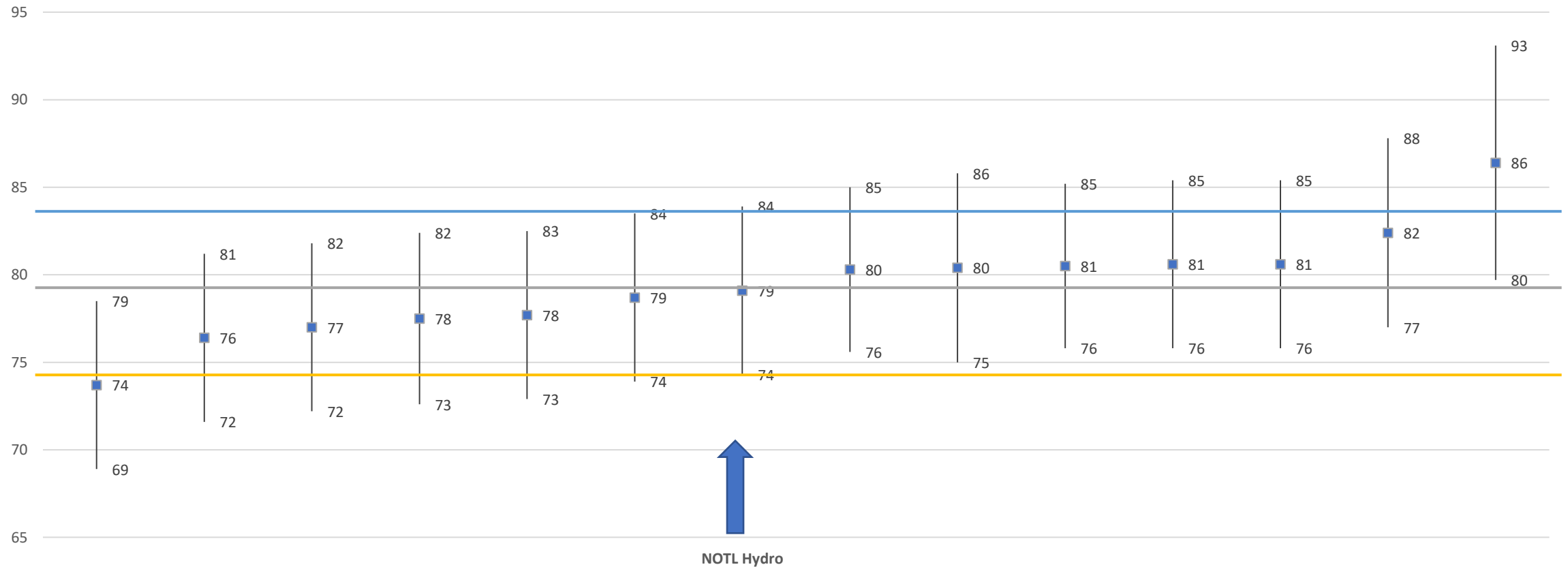
Customers are well served by the electricity system in Ontario



Customer Satisfaction Index by consumption



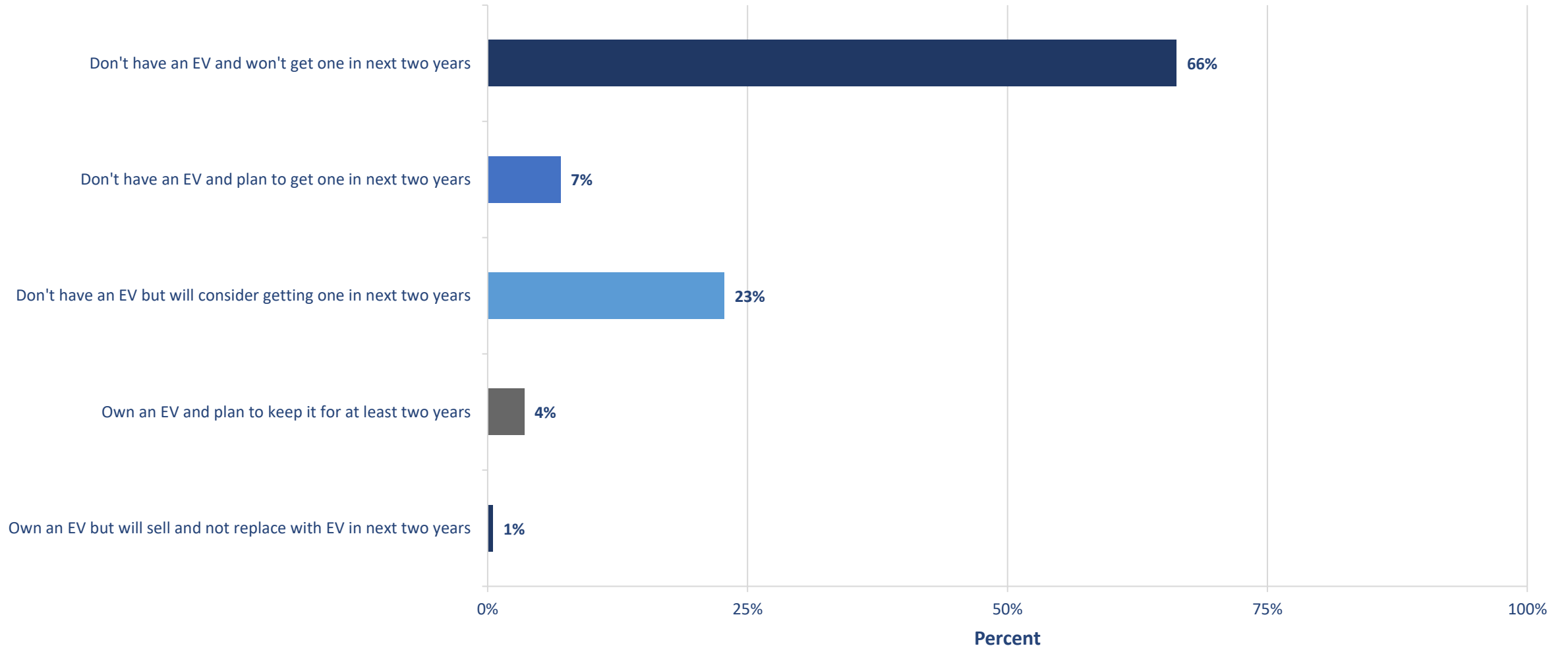
Customer Satisfaction Index Score Comparison to External LDCs Upper and Lower Bound



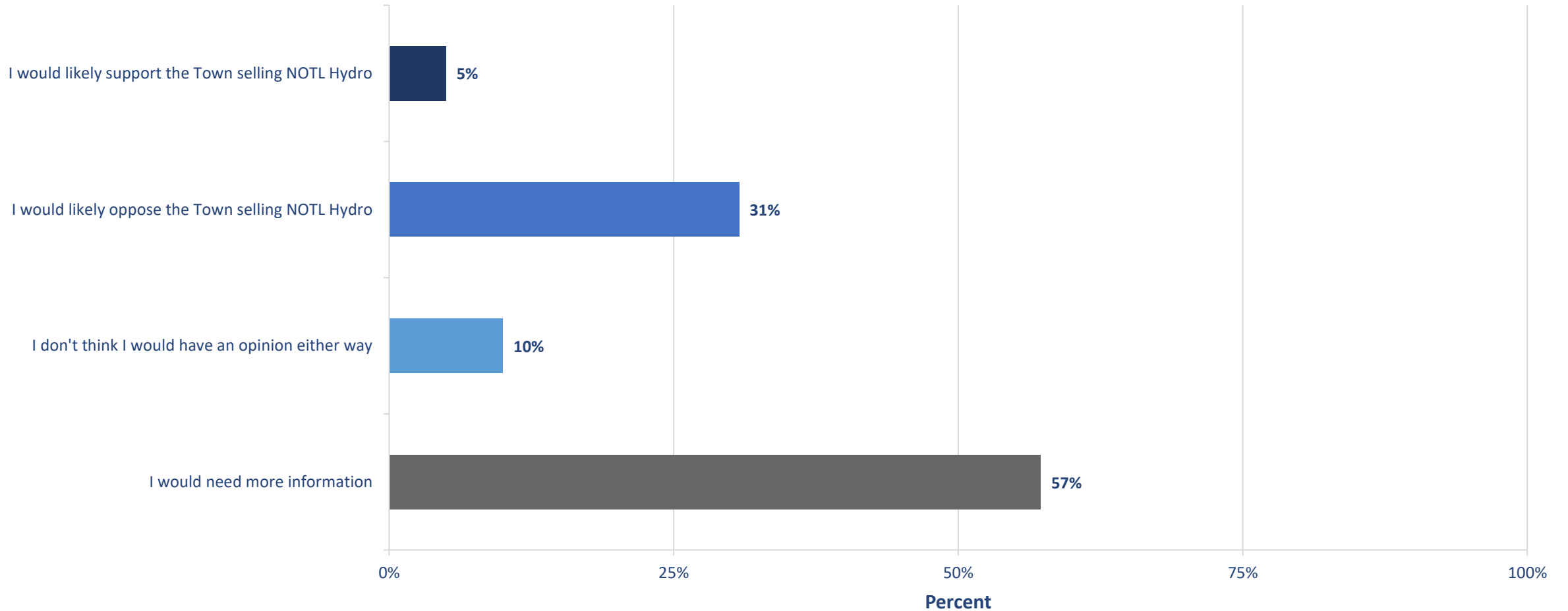
- The lines denote NOTL Hydro's upper and lower bound based on the CSI Score.
- Almost all LDCs confidence intervals overlap, similar to 2019.
- NOTL Hydro overlaps with all LDCs, indicating statistical uniformity.

CUSTOM QUESTIONS

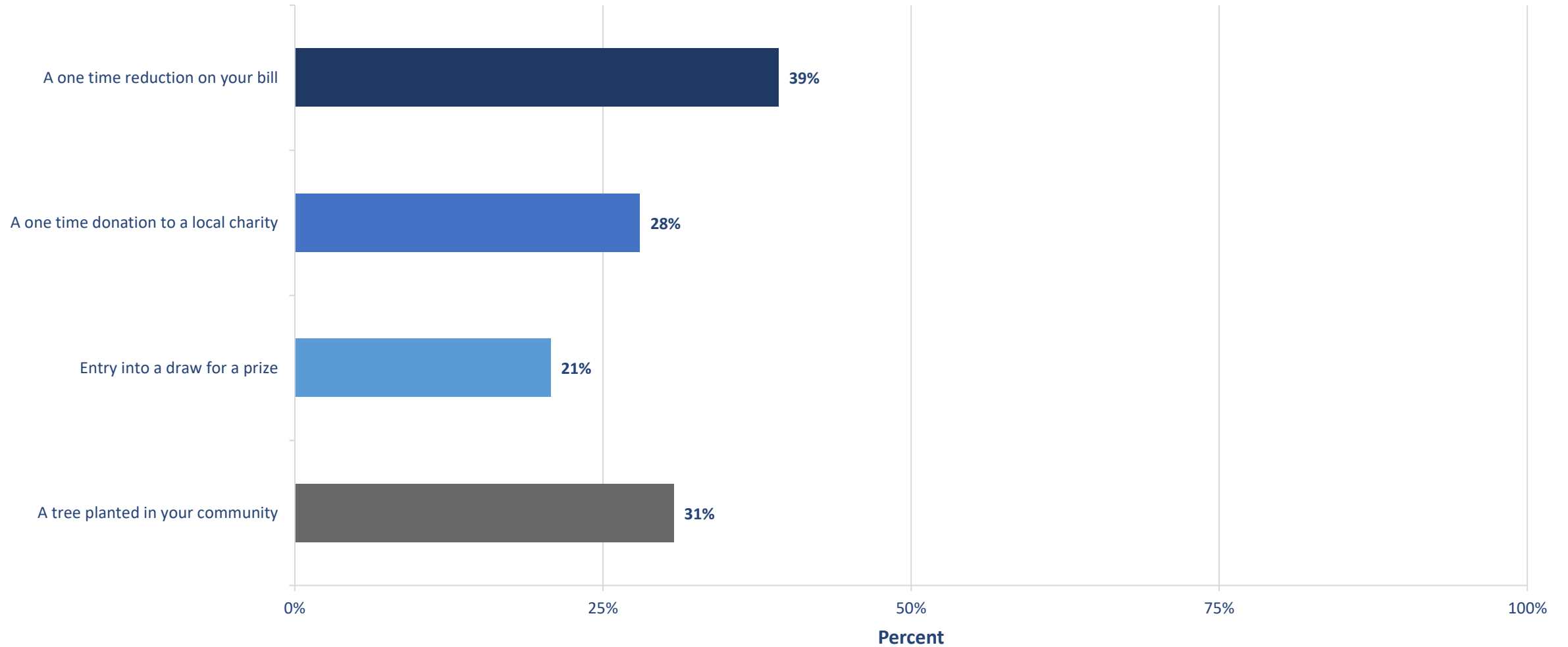
Thinking of electric vehicles, also known as "EVs", which of these best describes your household?



The Town of Niagara-on-the-Lake might have the opportunity in the future to sell NOTL Hydro to another utility. There is no opportunity right now. If there was, which of the following describes your opinion?

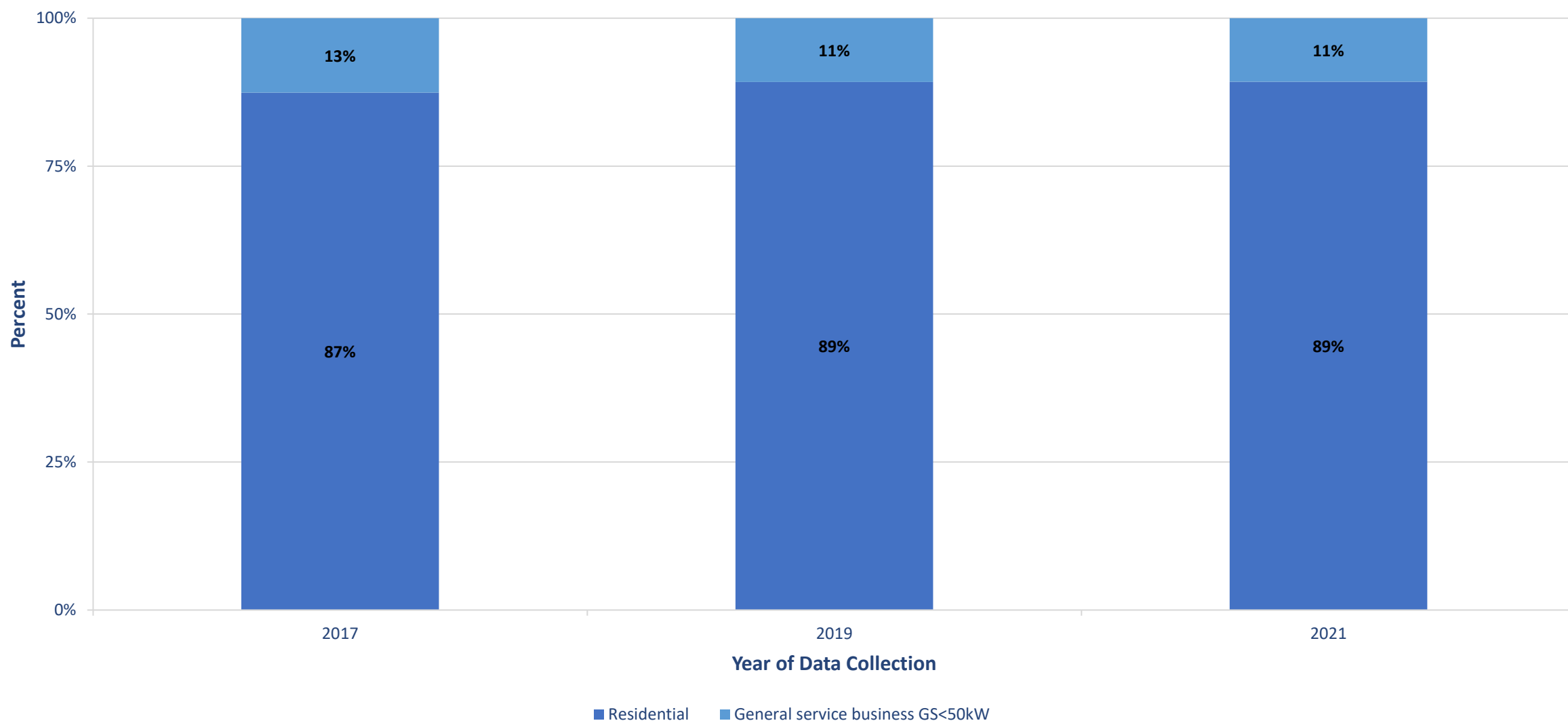


% Selected 'Yes': For each of the following offers, would they encourage you to switch your monthly electric bill from regular to email (electronic mail)?

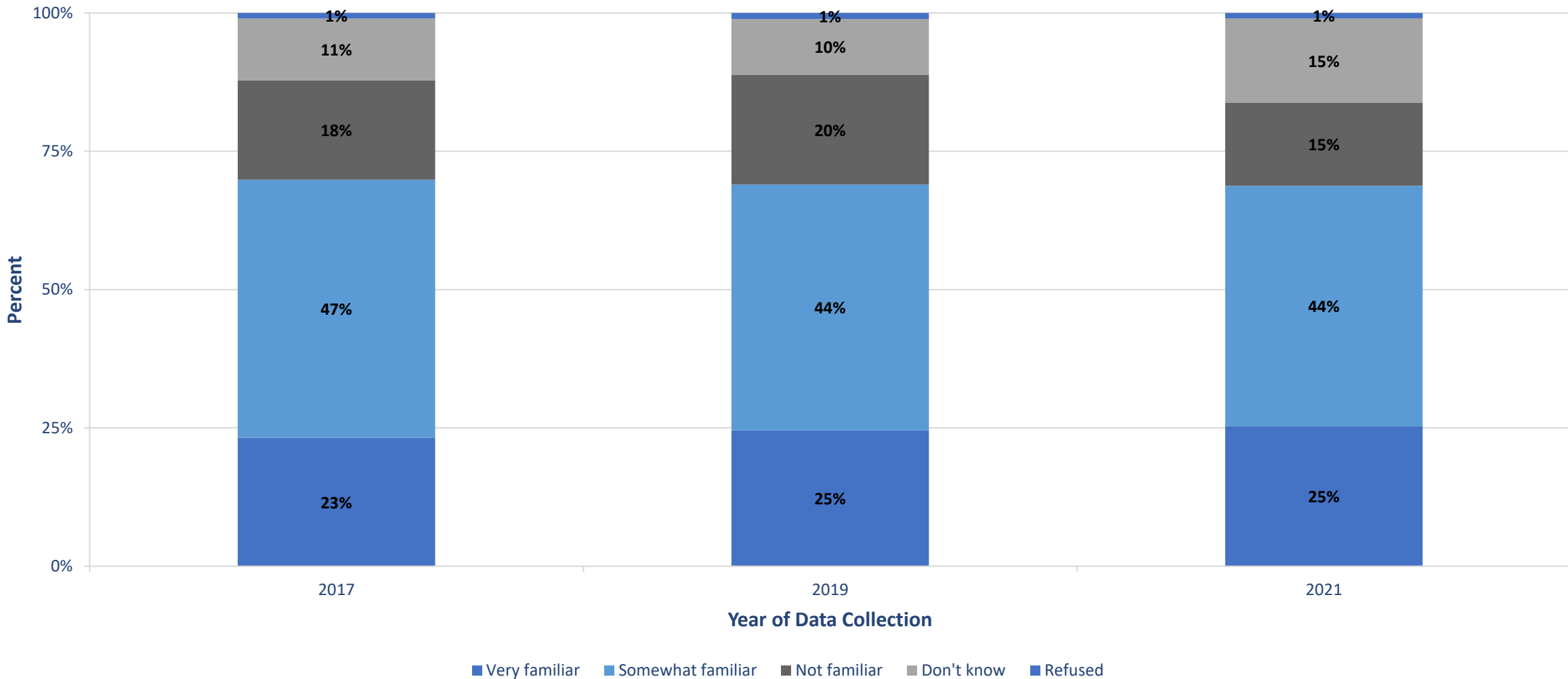


CORE COMPARATIVE DATA 2017-2021

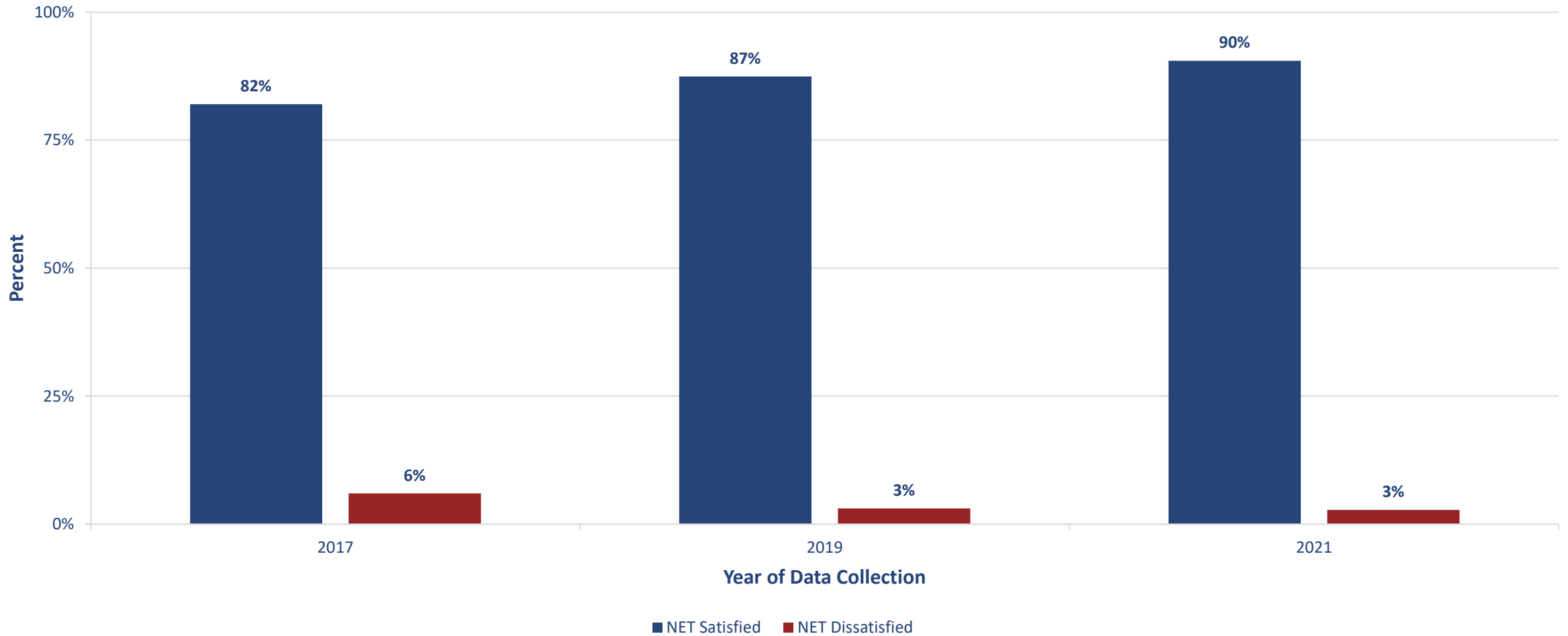
Customer Type



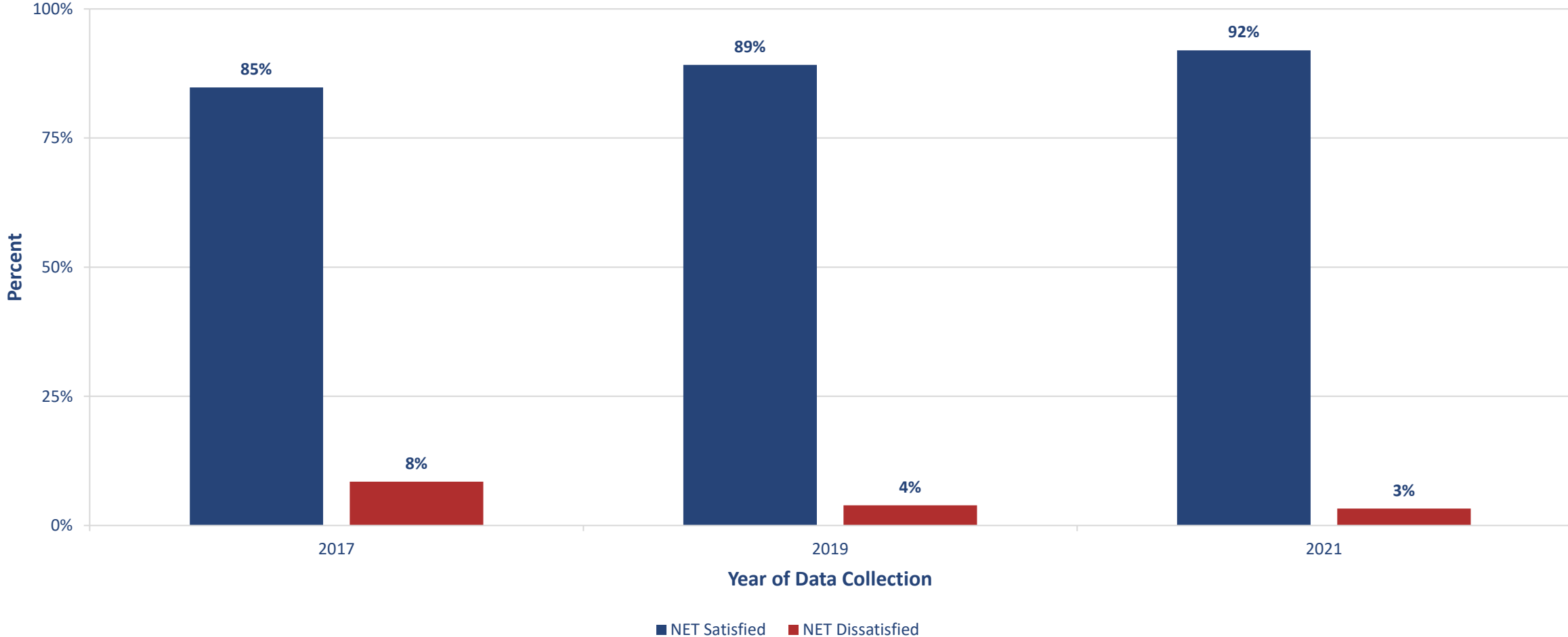
How familiar are you with NOTL Hydro, which operates the electricity distribution system in your community?



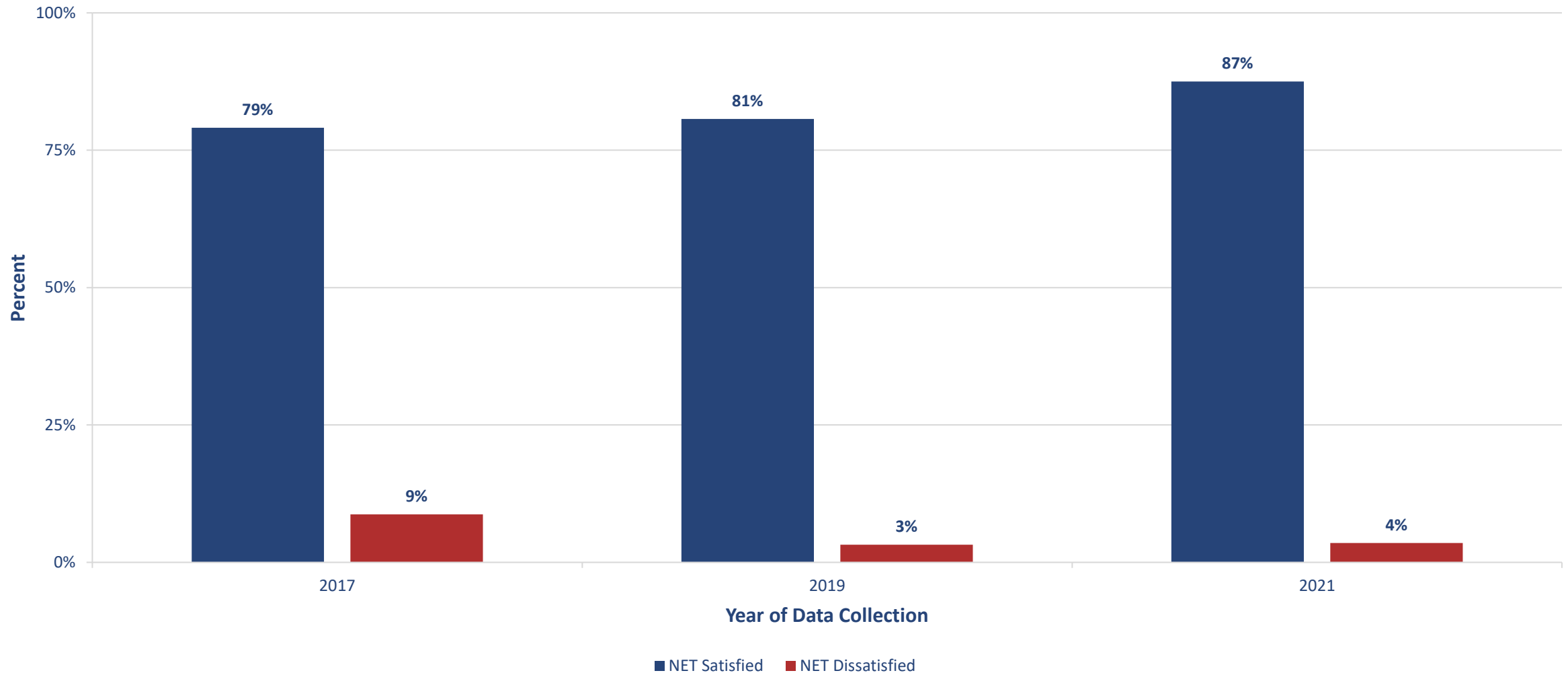
Thinking specifically about the services provided to you and your community by NOTL Hydro, overall, how satisfied are you with the services that you receive from NOTL Hydro?



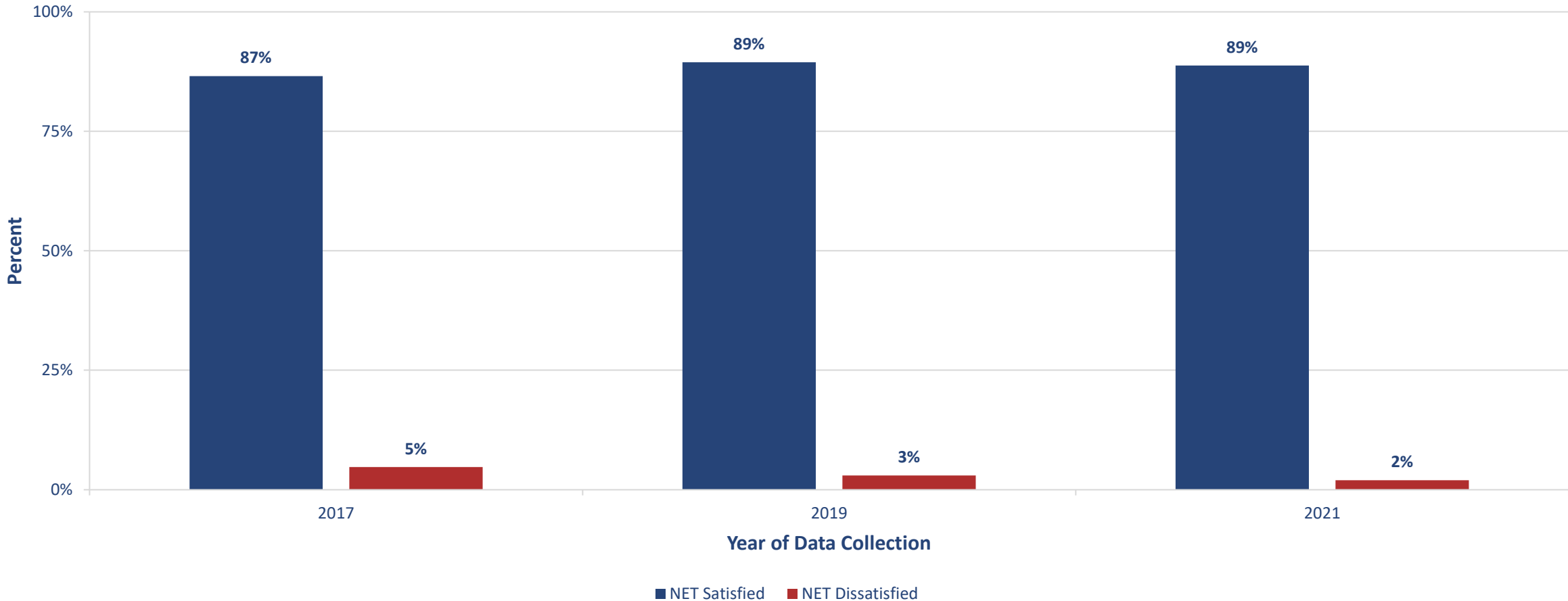
The reliability of your electricity service – as judged by the number of power outages you experience: How satisfied are you with the electrical service that you receive from NOTL Hydro based on...?



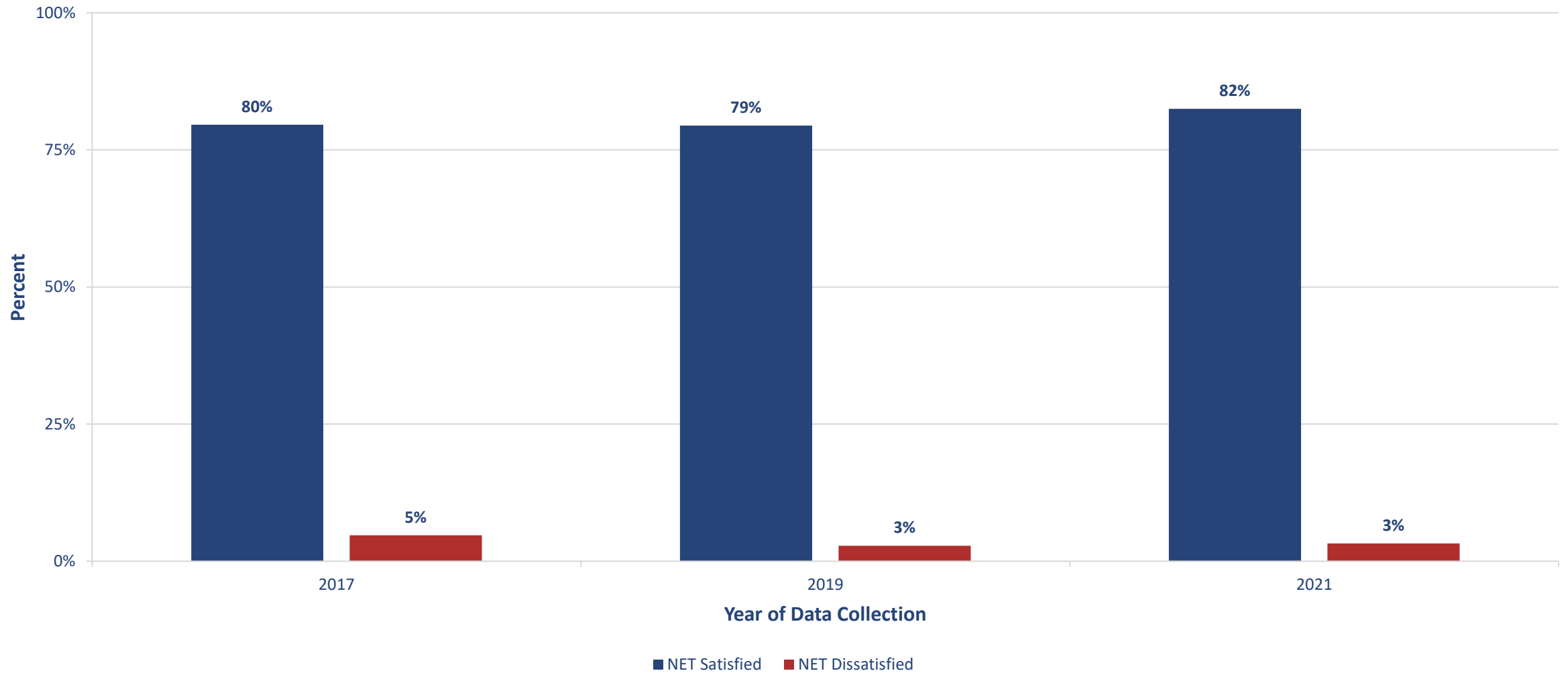
The amount of time it takes to restore power when power outages occur: How satisfied are you with the electrical service that you receive from NOTL Hydro based on...?



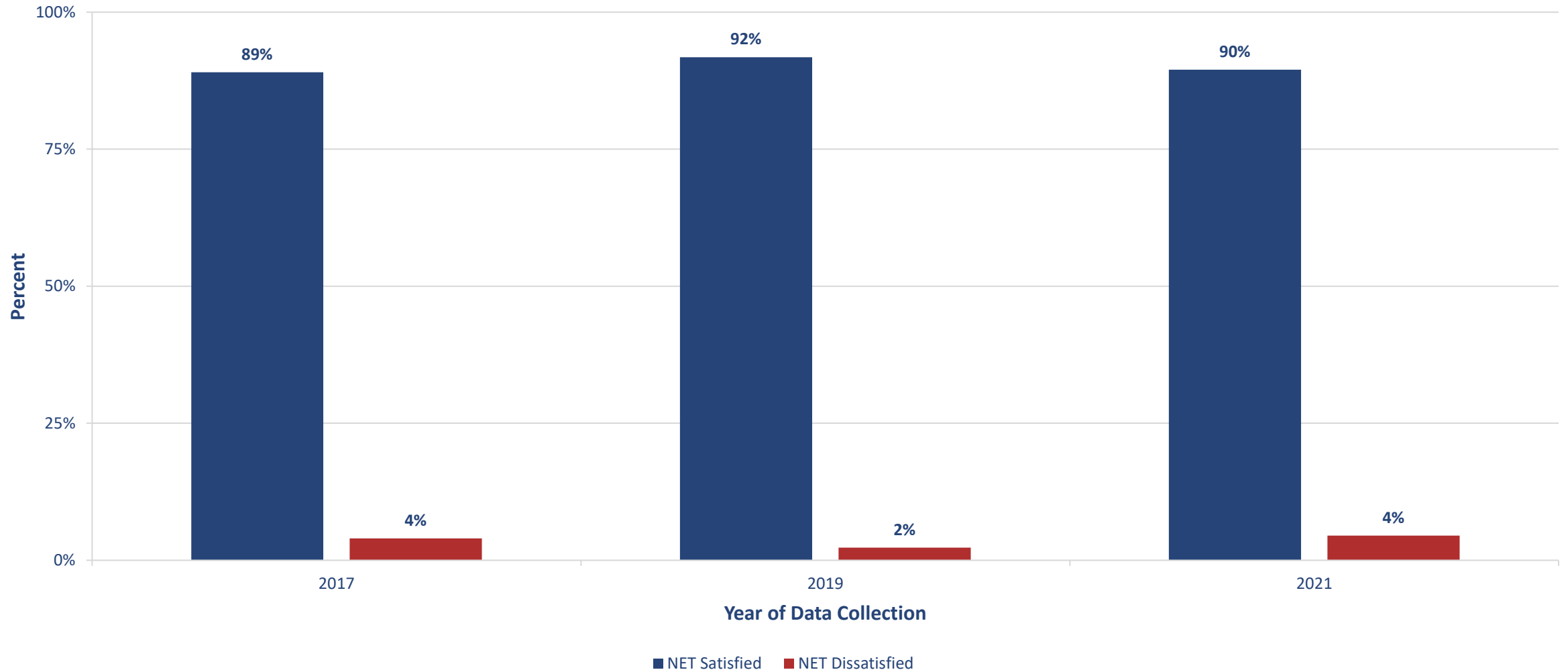
The quality of the power delivered to you as judged by the absence of voltage fluctuations that can result in [flickering/dimming of lights OR have an affect on equipment]: How satisfied are you with the electrical service that you receive from NOTL Hydro



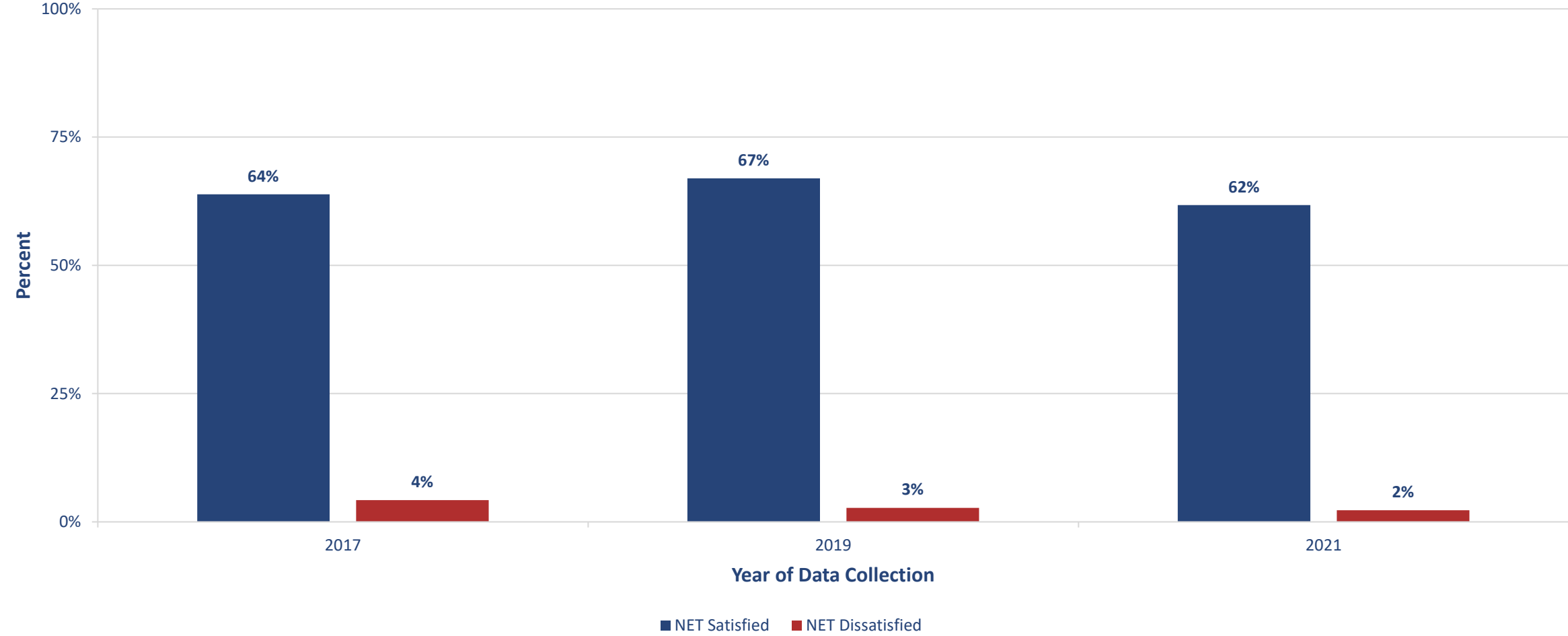
Providing accurate bills: How satisfied are you with the bills that you receive from NOTL Hydro based on them...?



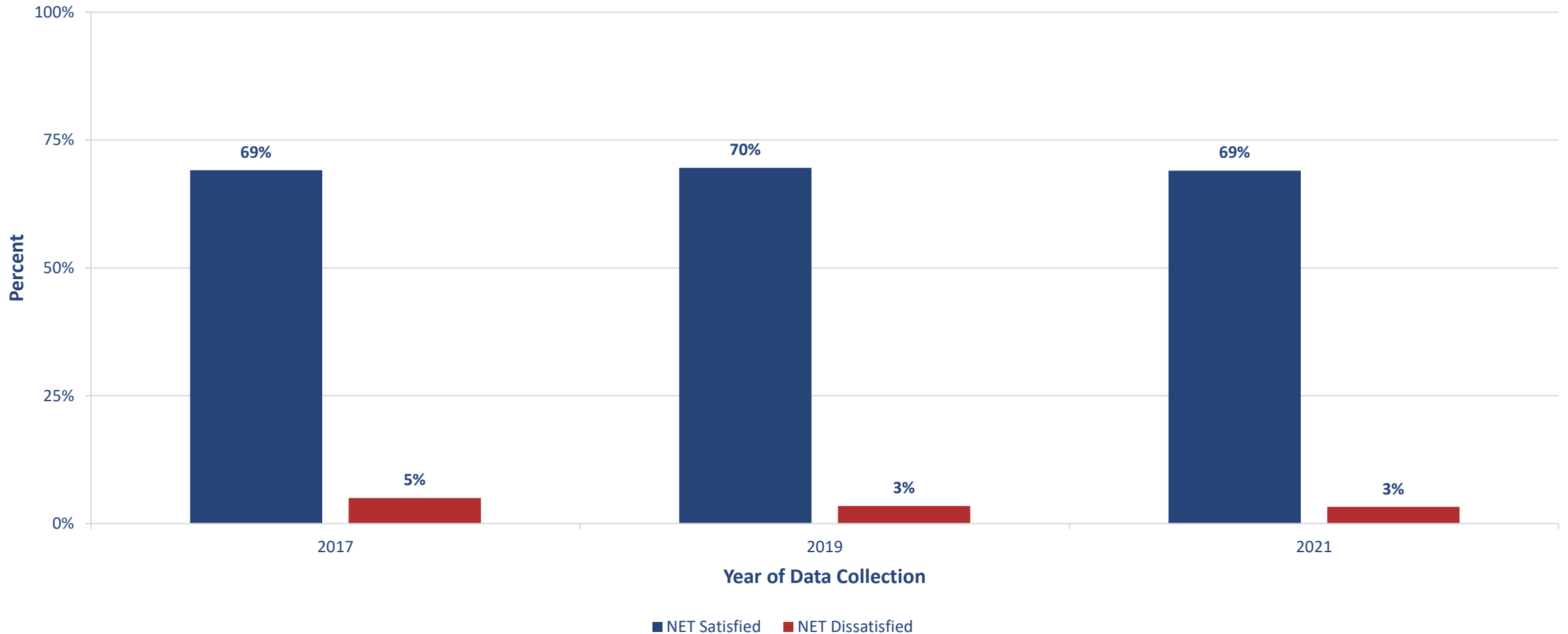
Providing convenient options to both receive and pay your bills: How satisfied are you with the bills that you receive from NOTL Hydro based on them...?



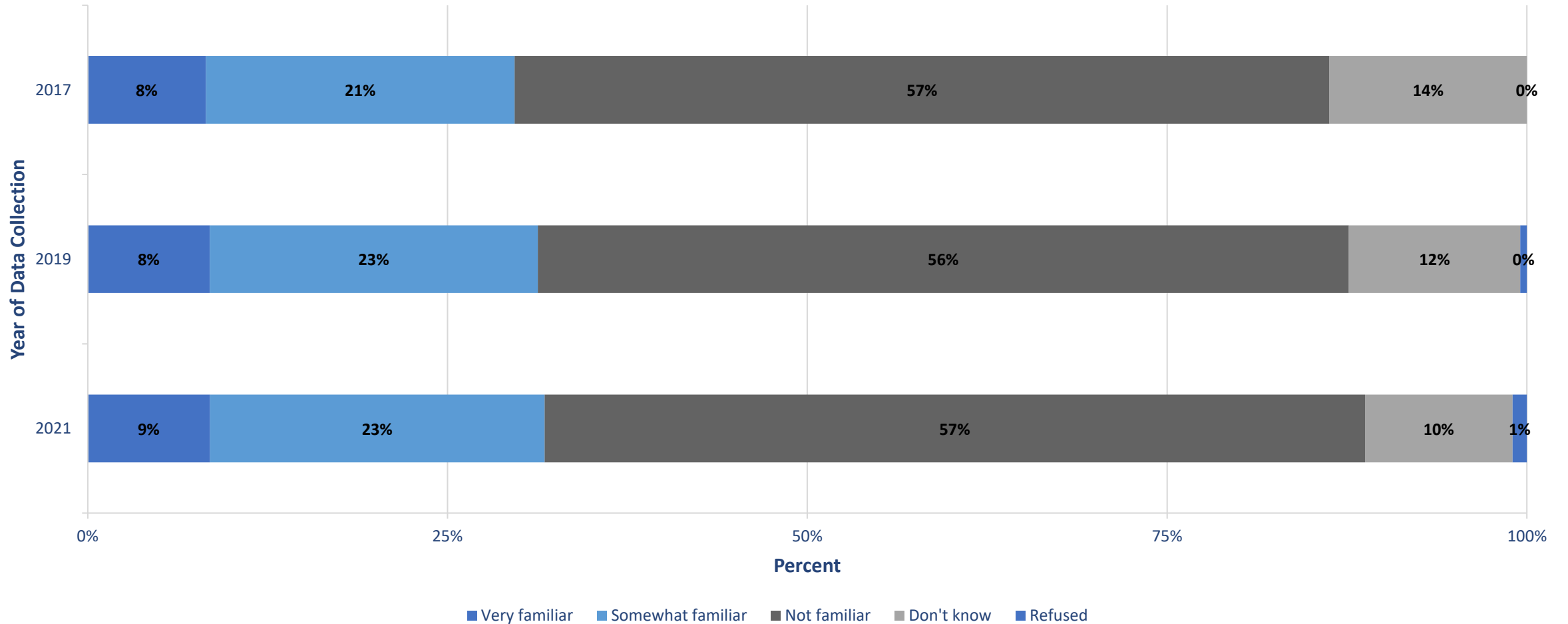
How satisfied are you with the customer service you have received when dealing with employees of NOTL Hydro, whether on the telephone, via email, in person or through online conversations including social media?



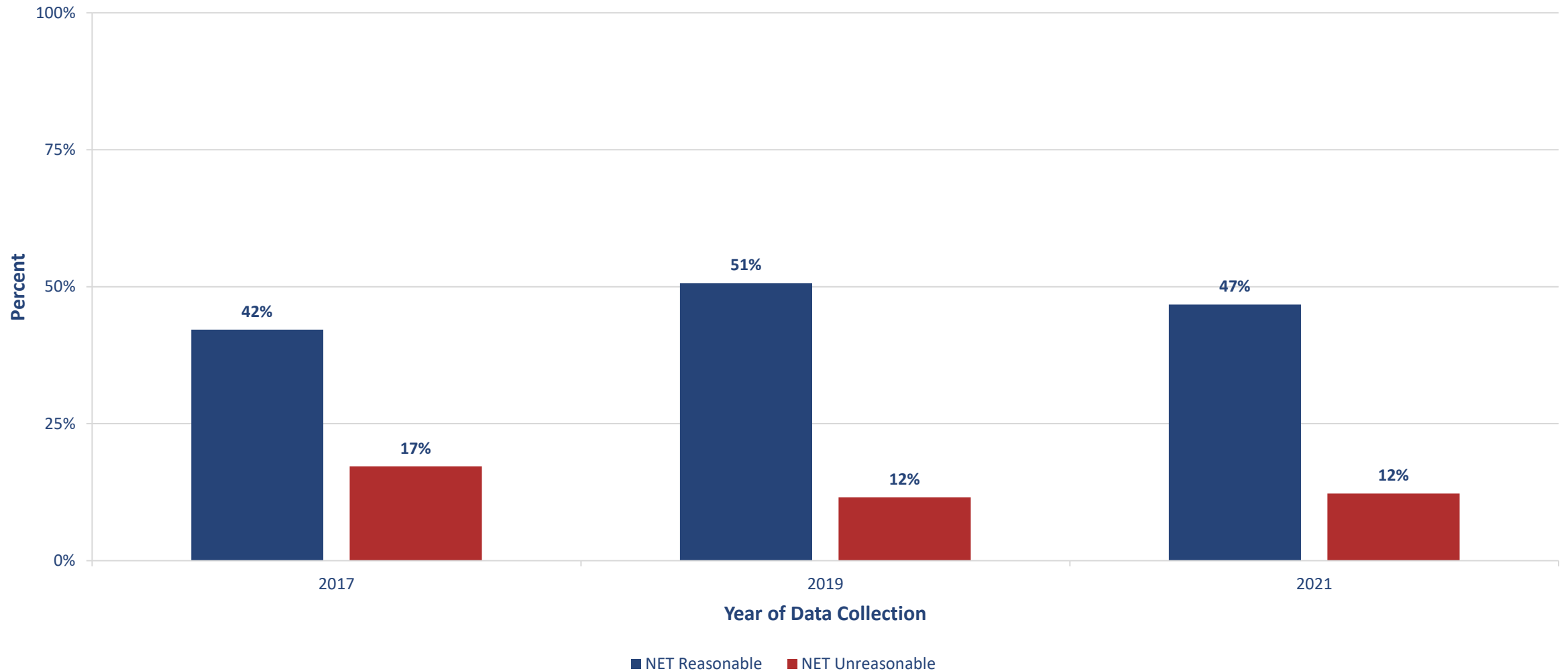
How satisfied are you with the communications that you may receive from NOTL Hydro without talking directly to an employee, including information found on their website, bill inserts, advertising, notices, emails, or social media sites?



How familiar are you with the percentage of your electricity bill that went to NOTL Hydro?
So, NOT the portions allocated to power generation companies, transmission companies, the provincial government and regulatory agencies.



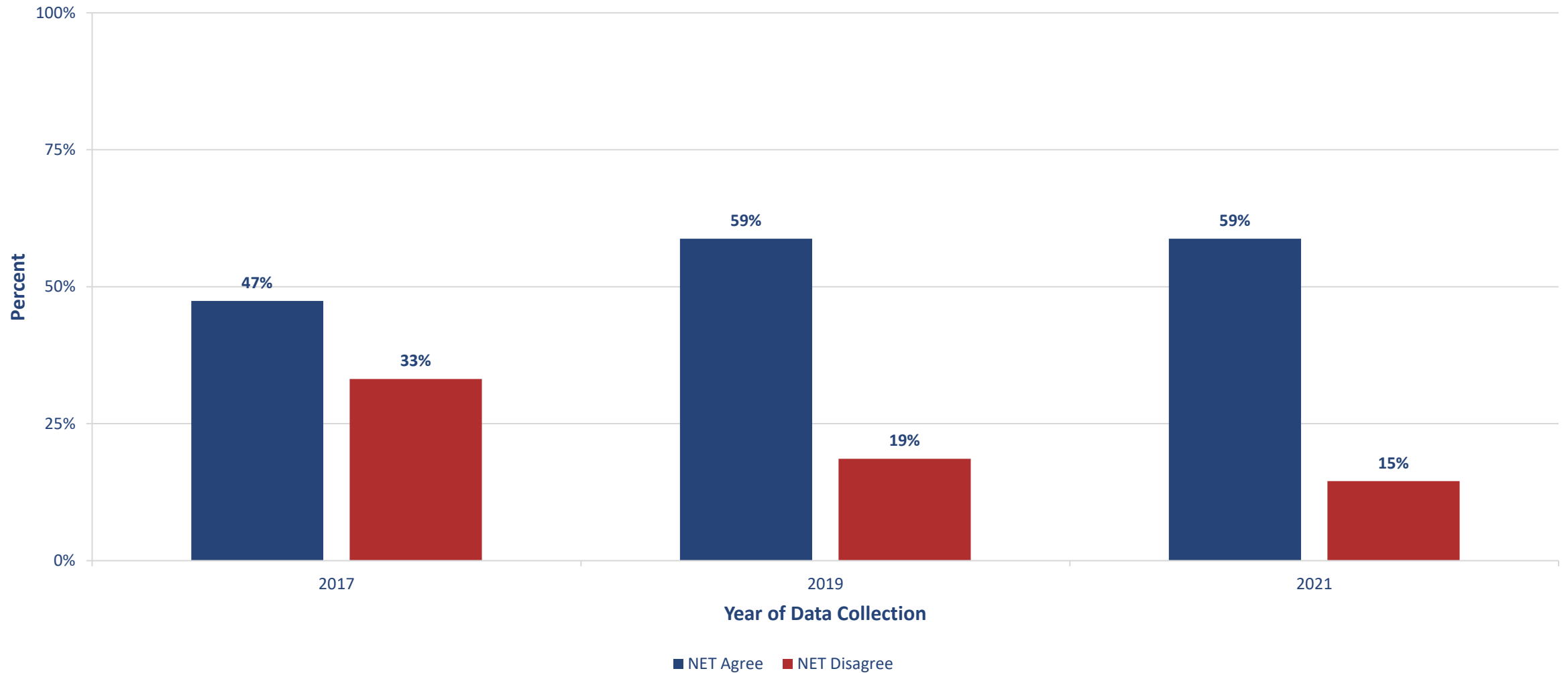
Do you feel that the percentage of your total electricity bill that you pay to NOTL Hydro for the services they provide is...?



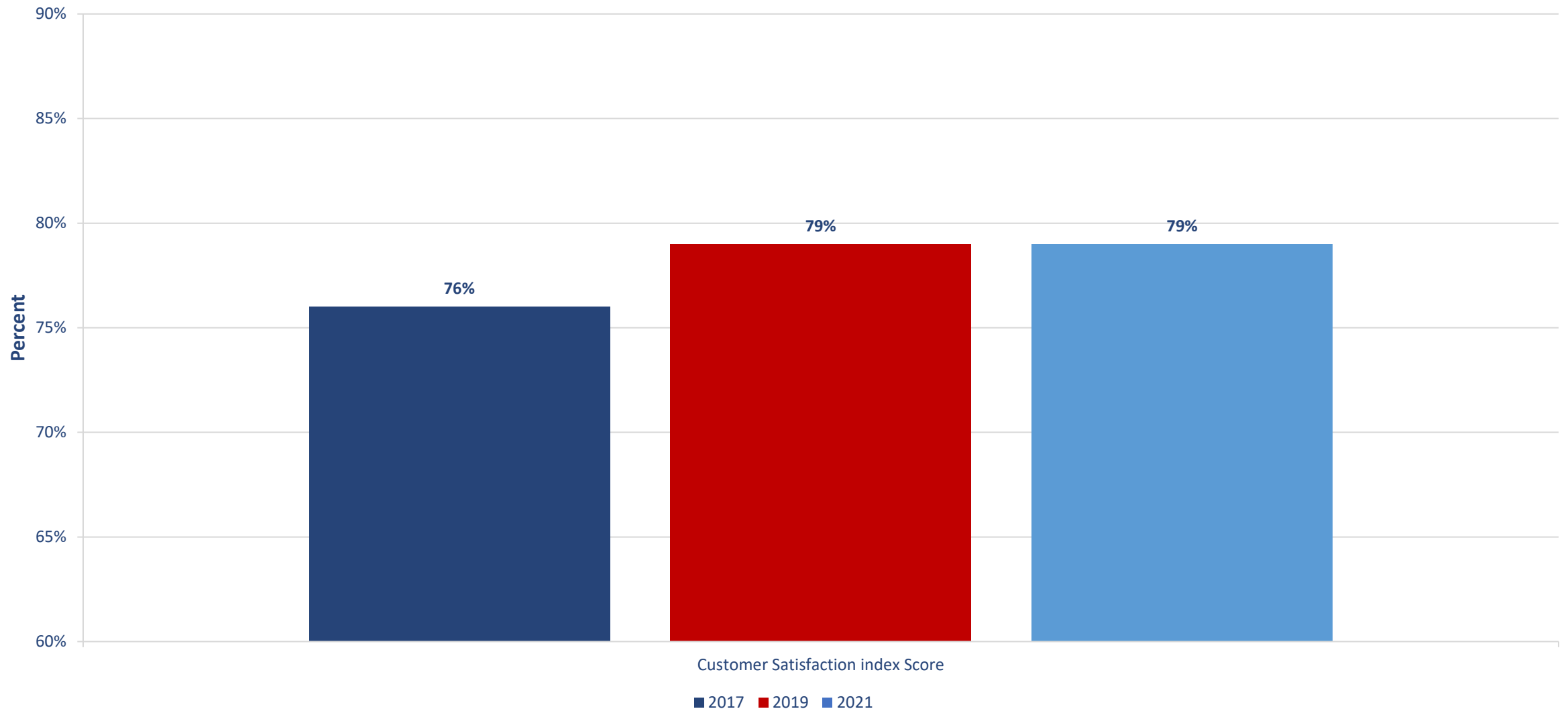
The cost of my electricity bill has a major impact [on personal finances OR bottom line of organization]: To what extent do you agree with the following statements regarding the electricity system in Ontario?



Customers are well served by the electricity system in Ontario: To what extent do you agree with the following statements regarding the electricity system in Ontario?



Customer Satisfaction Index Score



METHODOLOGY

Methodology Summary

Commissioned by	NOTL Hydro Inc.
Sample size	400 randomly selected customers
Margin of error	±4.8 percentage points, 19 times out of 20
Survey mode	Random telephone survey of customer base, CATI data collection
Survey sample	Residential and GS <50kWh customer lists provided by NOTL Hydro
Time of calling	4PM-9PM Weekdays, 10AM-5PM Saturdays, scheduled callbacks
In-field dates	January 14-February 25, 2021
Language	English only
Survey author	Innovative Research/Electricity Distributors Association
Question Order	Report shown in order
Question Wording	Questions shown in report as asked
Survey Company	Redhead Media Solutions Inc/Advanis

Methodology Details

Target Respondents

The respondents of the survey were Ontario residents who are the primary bill payer or share the responsibility if residential or the person in-charge of managing the electricity bill at the organization if general service, and who resided within one of NOTL Hydro's service territory(ies). Service territories were determined based on customer lists provided by NOTL Hydro.

Sample Size and Statistical Reliability

The final total completed surveys by LDC, and the associated margin of error for each, are shown below.

All margins of error are shown at a 95% confidence level.

- E.g., the margin of error associated with a sample size of 400 for a large (infinite) population is ± 4.8 percentage points, 19 times out of 20.

Since NOTL Hydro has a finite population, we used the specific population sizes (i.e., the number of samples records received from NOTL Hydro) in the calculation of margin of error. Doing so is more accurate, and results in a narrower margin of error than if we simply assumed large (infinite) population for each.

Sample sizes were set according to the *LDC Customer Satisfaction Survey: Methodology & Survey Implementation Guide*, prepared for the Electrical Distributors Association (April 19, 2016 revision):

Where possible, sample size of $n=400$.

Distributors with 3000 to 4999 customers (residential + GS<50), $n=300$

Distributors with <3000 customers (residential + GS<50), $n=200$

Methodology Details

Sampling Methodology

Redhead was provided sample lists from NOTL Hydro. Customer lists included all basic information required such as name, telephone number, region (where applicable), customer type (residential or GS<50), LDC fee, Annual or Monthly consumption values. Redhead then calculated which quartile group each resident belonged to by evenly dividing them into four groups within each region and customer type. These quartiles were calculated based on annual consumption value.

To minimize low response:

- Sample was loaded in batches to ensure the sample was fully utilized before moving onto fresh sample records;
- Calls were made between the hours of 4pm and 9pm ET; and
- Call backs were scheduled and honored between the hours of 9am and 9pm ET.

Sample Cleaning

Redhead cleaned the customer lists individually once received from each LDC to ensure the customer list counts reflected actual individual records that could be called. The following steps were taken during sample cleaning.

- All records with no phone numbers were removed.
- All phone numbers were checked to see if they were valid numbers (i.e. 10 digits, all numerical, etc.) and any bad cases were removed.
- When duplicates were detected based on phone number, the average of the consumption value was calculated and kept for one consolidated record. All others were removed.
- Residential and GS<50KW were separated into their own lists to be loaded and managed separately in the calling system.

Regions within each customer list were given a numerical value to be used for calling quotas.

Methodology Details

Questionnaire

The survey instrument was provided by the Electricity Distributors Association (EDA) developed in conjunction with Innovative Research. The survey consisted of an introduction, overall satisfaction, power quality and reliability, billing and payment, customer service experience, communications, price, optional deeper dive questions, and final personal finance / sector mood measures. Additional questions were provided individually by NOTL Hydro. These questions are not required as part of the survey and, as outlined in the methodology guideline, were asked after all the standard and required questions.

Data Collection

Computer aided telephone interviews (CATI) were conducted from January 14-February 25, 2021.

Quality Control

- Advanis, on behalf of Redhead, trained the interviewers to understand the study's objectives;
- Detailed call records are kept by the automated CATI system, and are supplemented by output files to SPSS for productivity analysis (i.e., not subject to human error);
- The survey was soft launched in LDCs that had the most available sample, and the data was then checked before calling began in full for NOTL Hydro;
- 100% of all surveys are digitally recorded for potential review (see next bullet);
- Advanis' Quality Assurance team listened to the actual recordings of five percent of completed surveys and compared the responses to those entered by the interviewer to ensure that responses from respondents are properly recorded;
- Team Supervisors conduct regular more formal evaluations with each interviewer, in addition to nightly monitoring of each interviewer on their team;
- Project Managers closely monitored the progress of data collection, including call record dispositions;
- All SPSS code is reviewed by a more senior researcher;
- All Report Builder output is reviewed by a more senior researcher; and
- All values in the report are reviewed by another team member to ensure accuracy.

Methodology Details

Analysis of Findings & Data Weighting

Results were weighted to match the proportion of low volume rate class records as provided to Redhead after cleaning of the sample file. Where a region flag was also provided, results were weighted to the low volume rate class within each region and regions were weighted proportionately to one another based on the customer base as provided in the cleaned sample file.

The Customer Satisfaction index scores have been highlighted and were calculated as described below, based on instructions in the Survey Methodology Guidelines. The “response values” referenced in the description below were also determined and provided by the survey authors.

Data analysis and cross-tabulation have been conducted using SPSS and Report Builder software.

As noted above, LDCs without a region flag were weighted to their low volume rate class proportion based on the cleaned sample file. LDCs with a region flag were weighted to their low volume rate class proportion within each region based on the cleaned sample file, and then regions were weighted proportionately to one another based on the customer base as provided in the cleaned sample file.

Specific values of the number of sample records, estimated population proportions, and final weighted sample counts within NOTL Hydro are provided below. The sum of the regional population proportions within an LDC may not equal 100% due to rounding.

This **index score** is calculated using the following process:

Step 1: Weight data to n=400 with each low volume rate class proportionate to its share of LDC customer base.

Step 2: Rescale the index score variables onto the 0 to 1 scale as indicated by the response values detailed below.

Step 3: The average result of the questions asked for each OEB topic and the overall satisfaction score will be added together³.

	B5
+	[C6+C7+C8] divided by 3
+	[D9+D10] divided by 2
+	E11
+	F12
+	G14
=	Total cumulative scores

Step 4: The total cumulative score from Step 2 will be divided by 6 to generate the **Customer Satisfaction Index Score** (bound between 0-1).

The chart on the following page illustrates how the **Customer Satisfaction Index Score** will be calculated.

Methodology Tables

Margin of error

LDC	Customer Records from LDC	Completed Surveys	Sample Size as % of Customer list	Margin of Error @ 95% confidence level
NOTL Hydro	7665	400	5.22%	+/- 4.8%

Sample weighting

Niagara-on-the-Lake Hydro						
Regions Flagged in Sample	Low Volume Rate Class	Clean, Deduplicated Sample Received	Rate Class Proportion	Estimated Customer	Weighted Sample Count	Unweighted Sample Count
				Proportion		
TOTAL	Residential	6,842	89%	100%	357	357
	General Service < 50 kW	823	11%		43	43
					400	400

Thank You

We greatly appreciate working on this important project for NOTL Hydro and hope we have met or exceeded your expectations.

We are happy to present this data to your staff or Board members upon request. If you wish to do so, please contact us for an appointment.

We look forward to working with you on future projects, including the Electricity Safety Awareness Survey later in 2021. Please note if you have any other projects that we may be able to help you with, don't hesitate to be in touch.

Graydon Smith - President
Redhead Media Solution Inc.
505 Hwy 118 W.
Suite 416
Bracebridge, ON
P1L 2G7

Niagara
On-The-Lake
HYDRO





APPENDIX 1G

2023 Final Customer Satisfaction Report



for



March 2023



Deliverables

Advanis is pleased to provide **this report with results of the 2023 Customer Satisfaction study.**

- We include comparisons to previous years of the study, where applicable.

In addition to this report, you have access to **Advanis' Online Reporting Environment (ORE)** which allows you to:

- create charts and tables like those contained in this report
 - you will be able to do much more analysis than we had space for in this overall report (e.g., look at results comparing segments of the annual consumption index or the regions within your LDC, if applicable)
- review the verbatim responses to:
 - the open-ended question “Is there anything you would like your LDC to do to improve its services to you?”; and
 - questions where respondents could “specify” a response to one of your custom questions (if applicable).
 - Note that you can export the verbatim responses to Excel at the click of a button; and
 - search for key words or filter the results by different segments (e.g., customer type, region) or other questions in the survey.

To access the ORE, visit this link: portal.advanis.net and enter your username in the format `firstname_lastname`. If you've forgotten your password, there is a link to reset it on the login page. If you have any questions, please contact Gary.Offenberger@advanis.net.

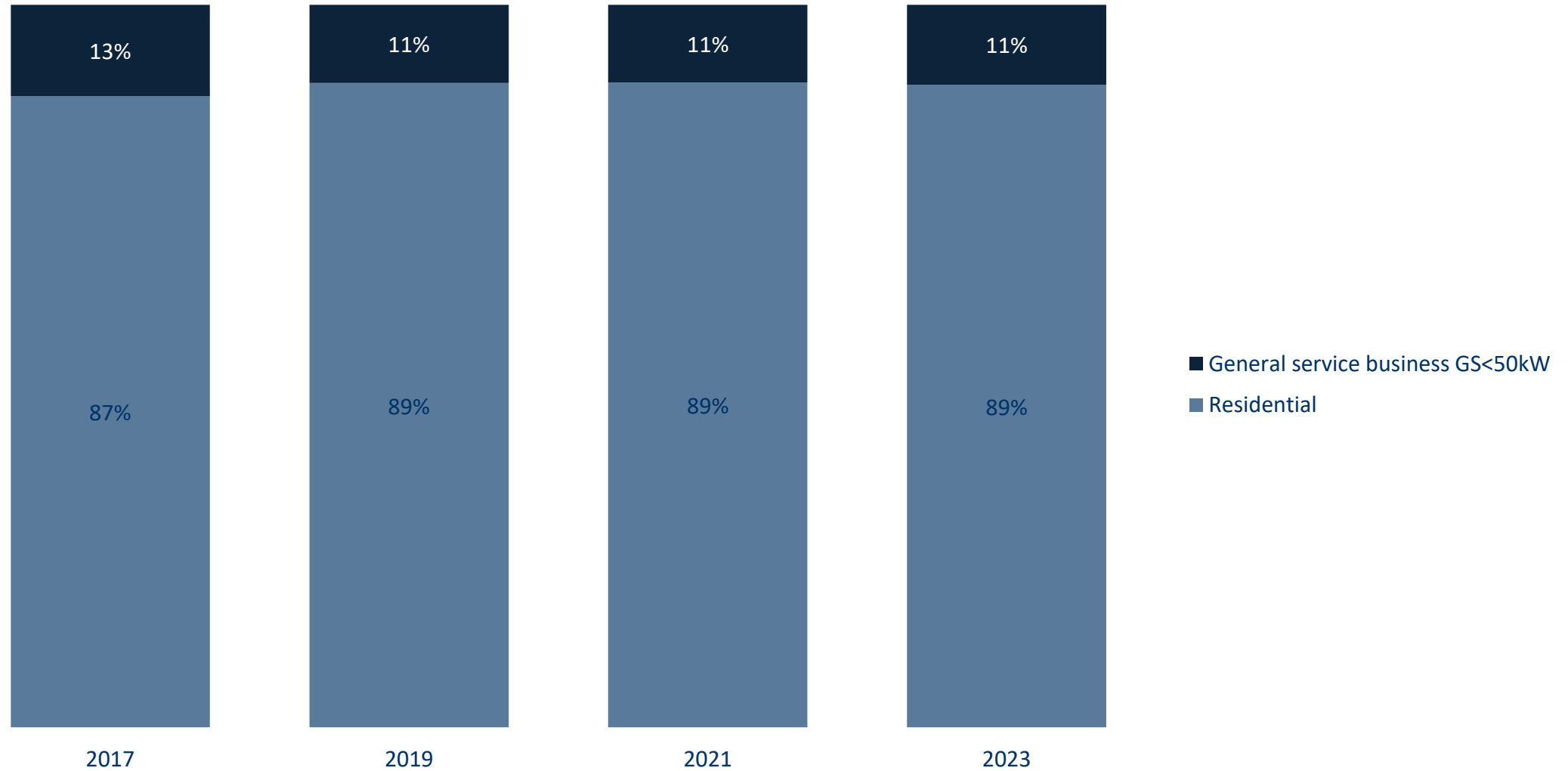
Contents

<u>Customer Profile</u>	4
<u>Customer Satisfaction Index Score – 2023 Results & Trend</u>	8
<u>Core (OEB) Survey Questions – 2023 Results</u>	12
<u>Custom (NOTL only) Survey Questions – 2023 Results</u>	26
<u>Core (OEB) Survey Questions – Trend over Time</u>	31
<u>NOTL's Custom Survey Questions– Trend over Time</u>	44
<u>Methodology</u>	46

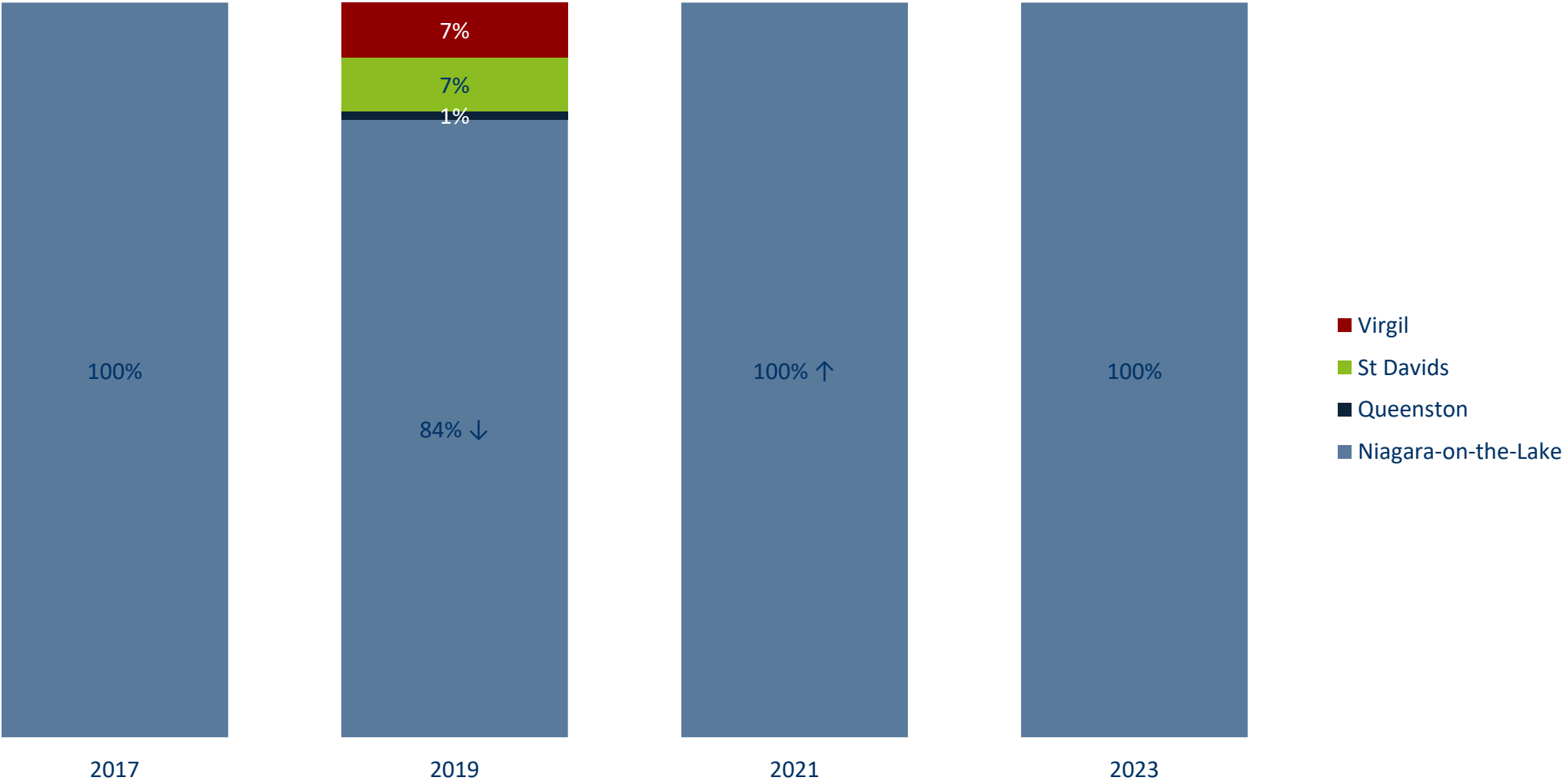
Lead Consultant: Gary.Offenberger@advanis.net // 780.229.1140

Customer (i.e., Survey Respondent) Profile

Customer Type - information provided by Niagara-on-the-Lake Hydro

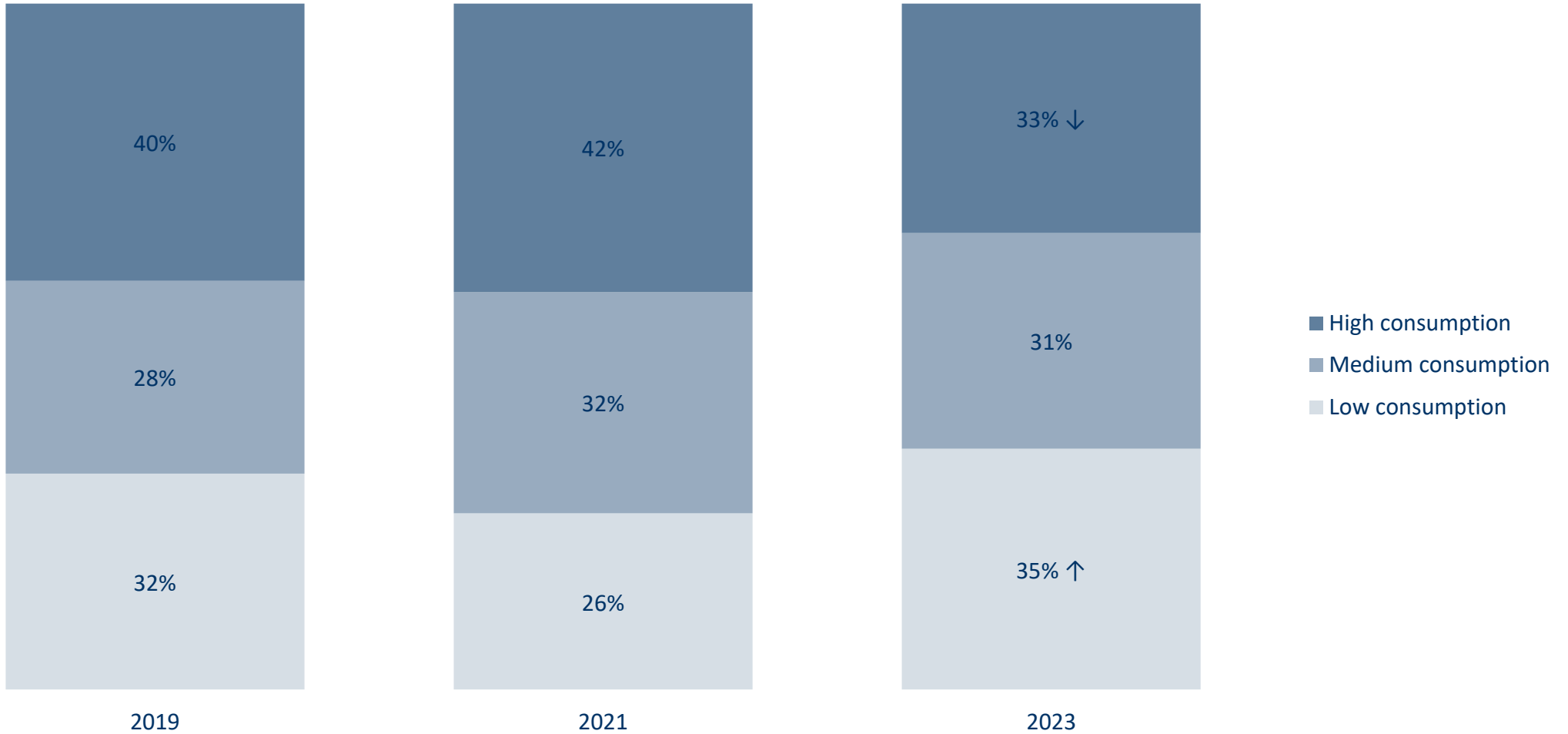


Region - information provided by Niagara-on-the-Lake Hydro



Weight: Aggregate weight for LDC based on customer_type
Filters: LDC: Niagara-on-the-Lake Hydro

*Indexed score of annual consumption (Only have GS data for 2023 onwards) -
information provided by Niagara-on-the-Lake Hydro*



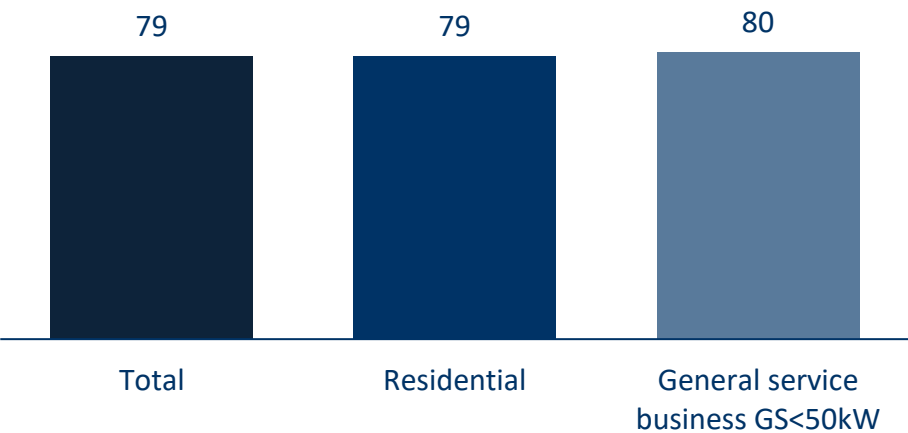
Weight: Aggregate weight for LDC based on customer_type

Filters: LDC: Niagara-on-the-Lake Hydro

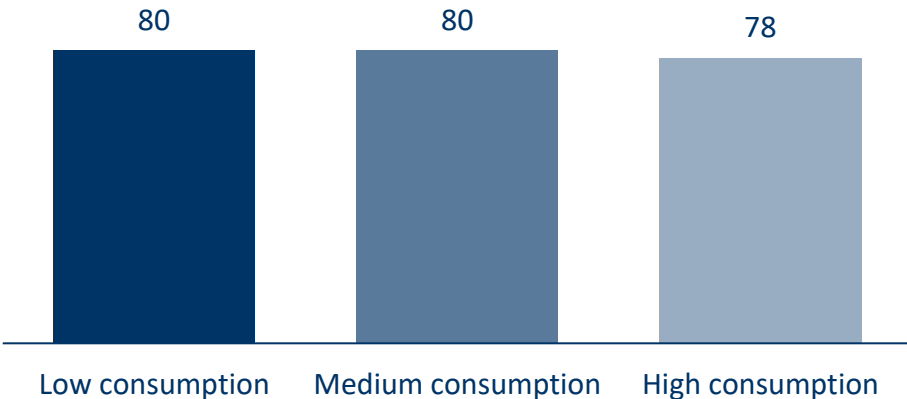
Customer Satisfaction Index Score – 2023 Results & Trend

Customer Satisfaction Index: NOTL Hydro for 2023

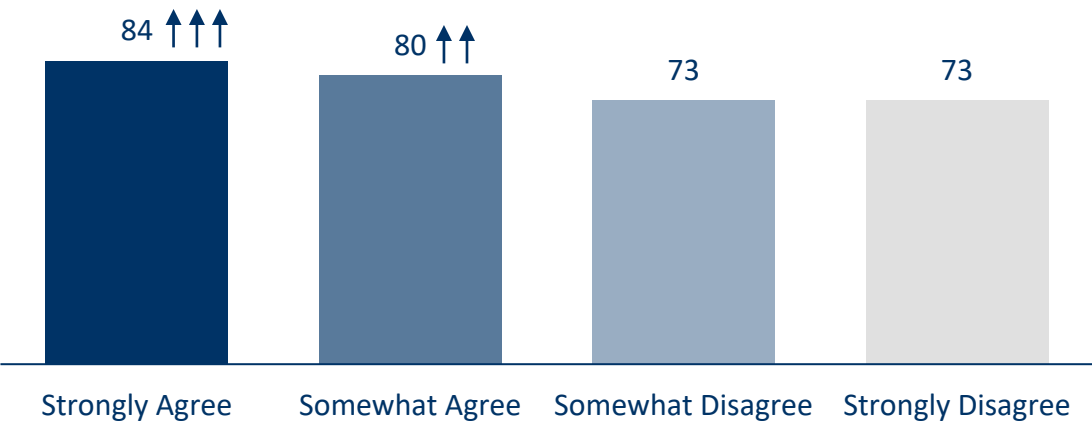
CSI Score – Total and by Customer Type



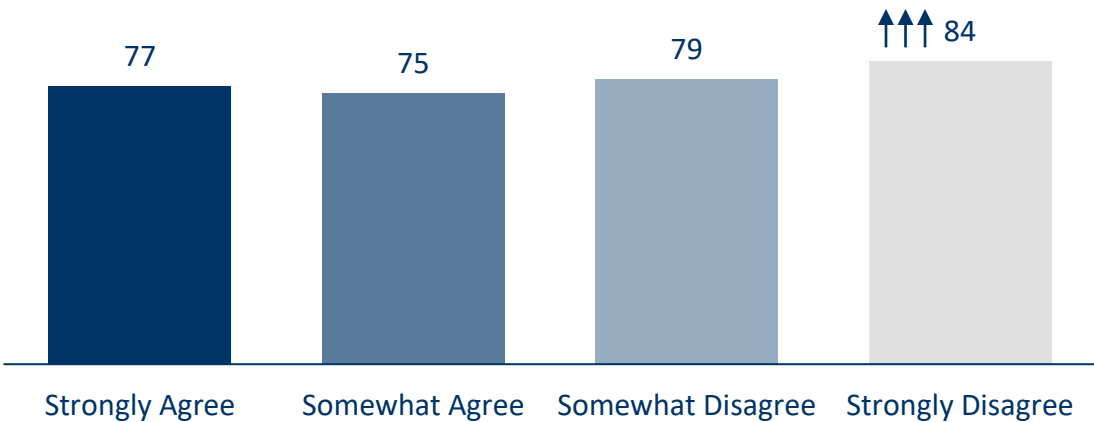
CSI Score by Annual Consumption Index



CSI Score for each segment of agreement with:
“Customers are well served by the electricity system in Ontario”



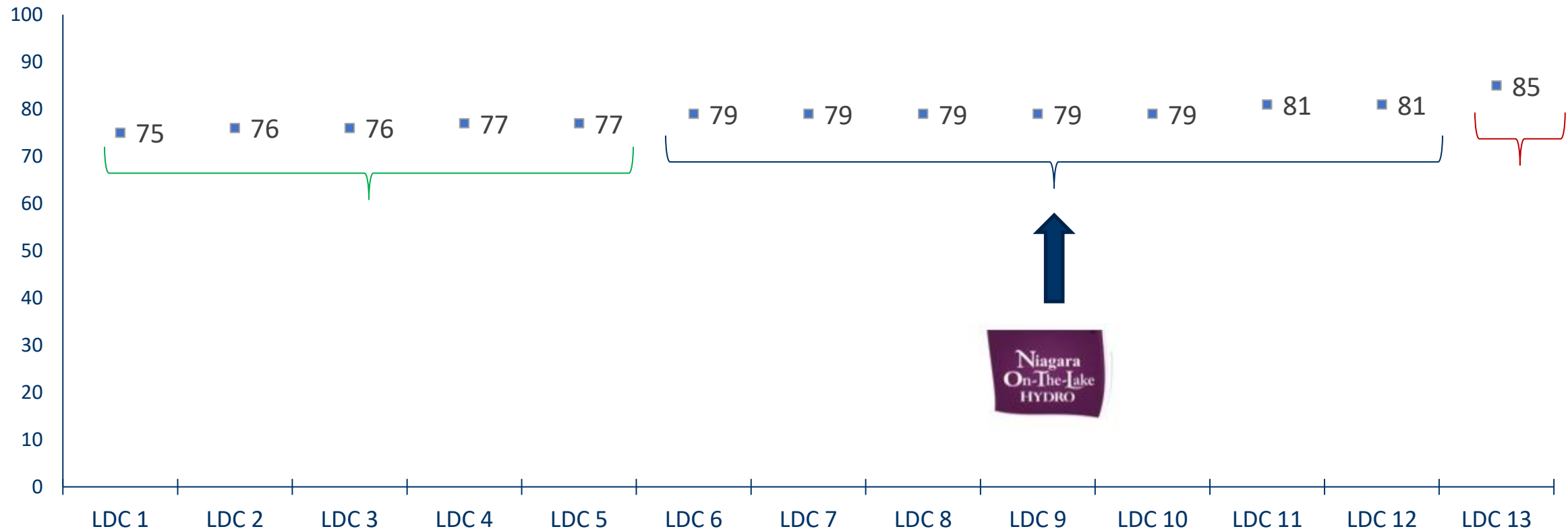
CSI Score for each segment of agreement with:
“The cost of my electricity bill has a major impact [on personal finances] OR [bottom line of organization]”



Weight: Aggregate weight for LDC based on customer_type
Filters: Year of Data Collection: 2023, LDC: Niagara-on-the-Lake Hydro
Note: Arrows denote statistically higher than other segment(s) at 95% confidence level; sometimes an apparent difference is not statistically significant because of low base size in a segment

Customer Satisfaction Index: Compared to Other CHEC Members

- In 2023, NOTL's score of 79 is *statistically* the same as that of 6 other LDCs.
- NOTL's score is *statistically* higher than that of 5 other LDCs.
- NOTL's score is *statistically* lower than that of 1 other LDC.

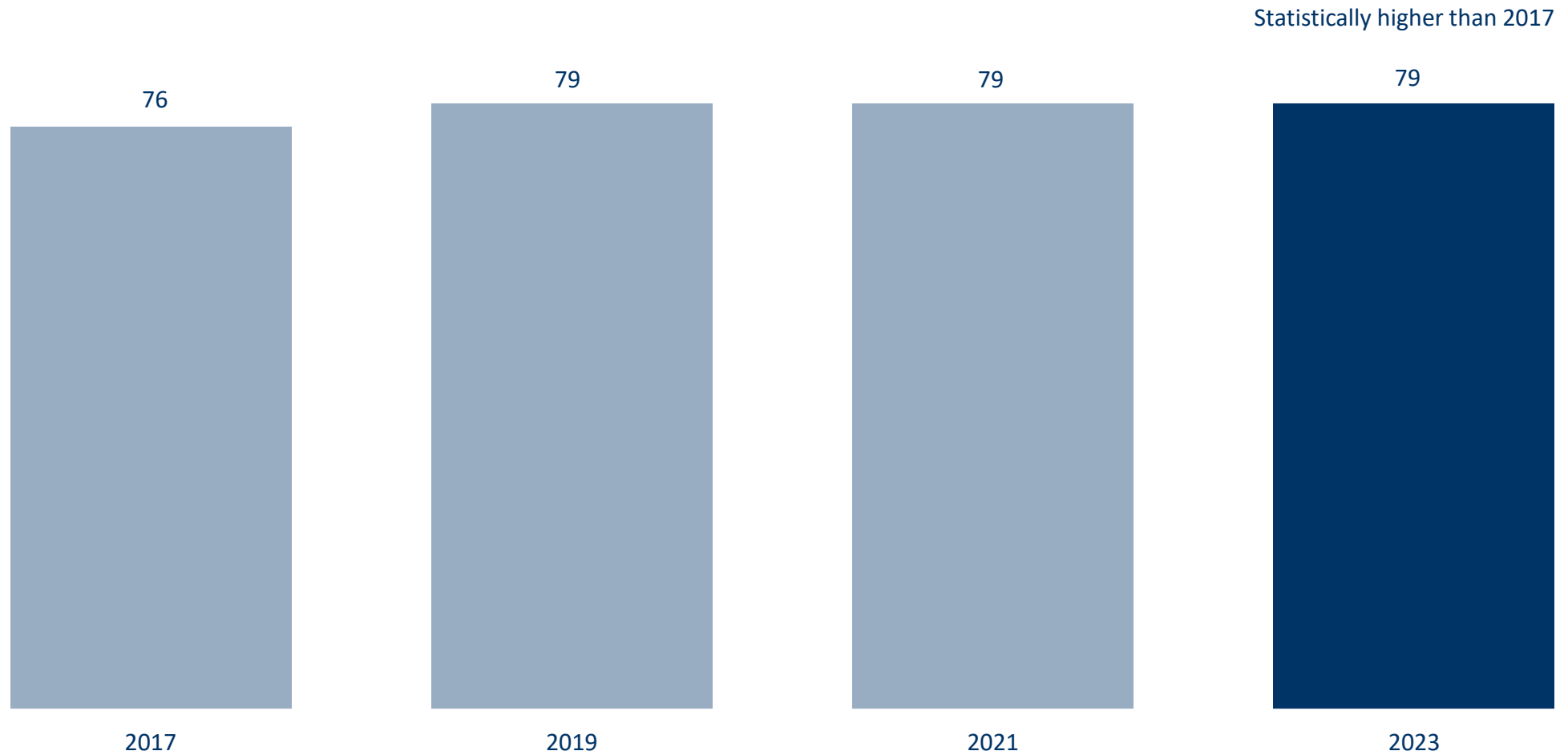


Weight: Aggregate weight for LDC based on customer_type

Filters: Year of Data Collection: 2023

Note: Statistical differences at 95% confidence level; sometimes an apparent difference is not statistically significant because of low base size in a segment

Niagara-on-the-Lake Customer Satisfaction Index by Year



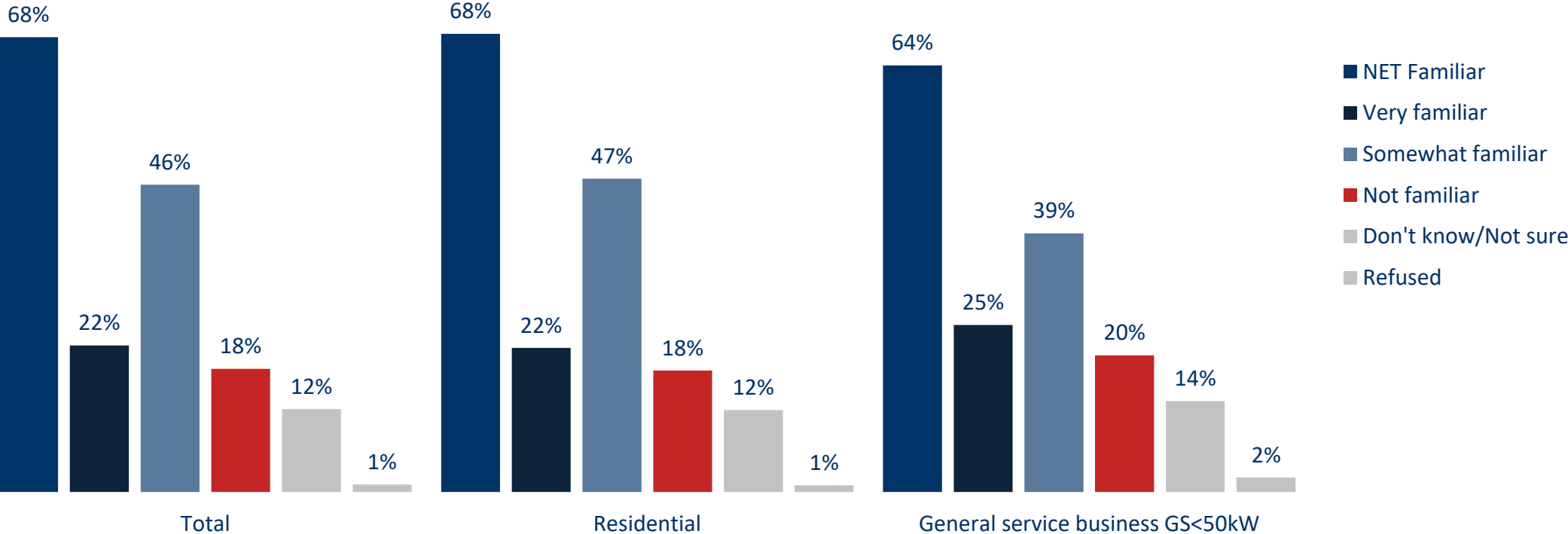
Weight: Aggregate weight for LDC based on customer_type

Filters: LDC: Niagara-on-the-Lake Hydro

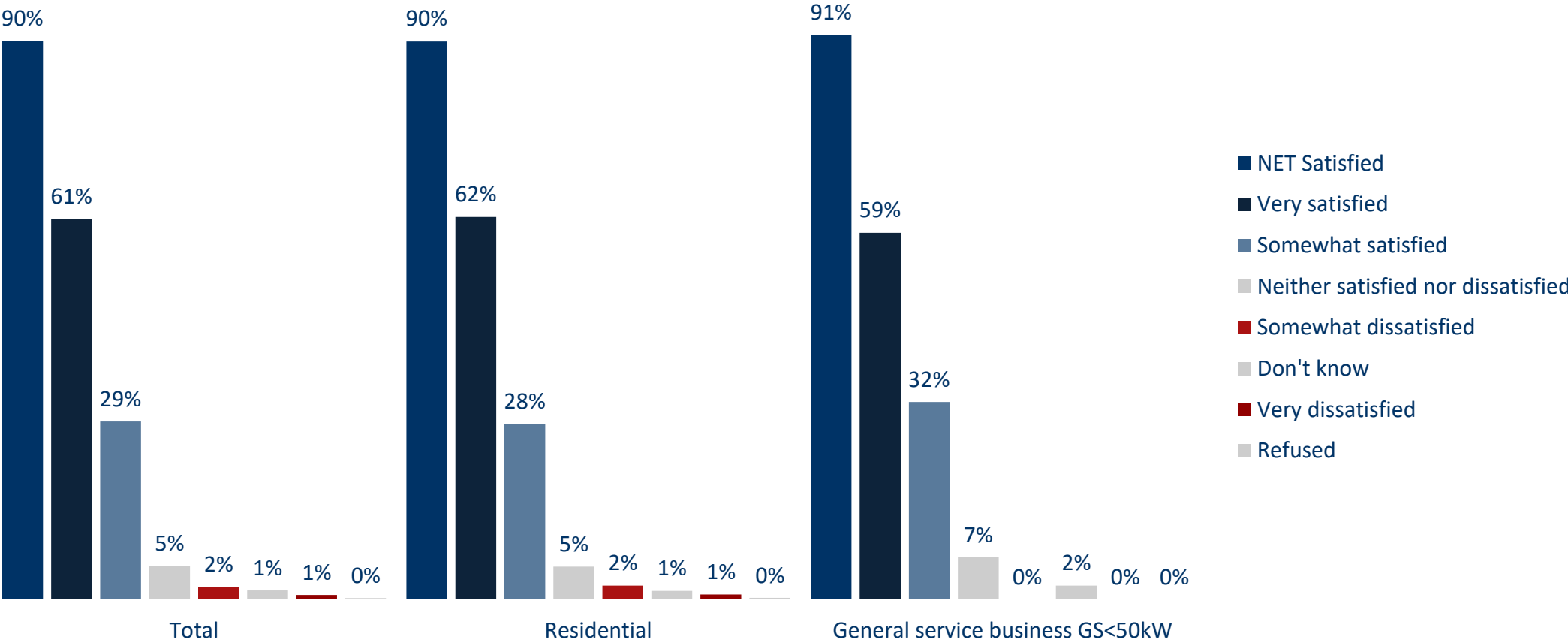
Note: Statistical differences at 95% confidence level; sometimes an apparent difference is not statistically significant because of low base size in a segment

Core (OEB) Survey Questions – 2023 Results

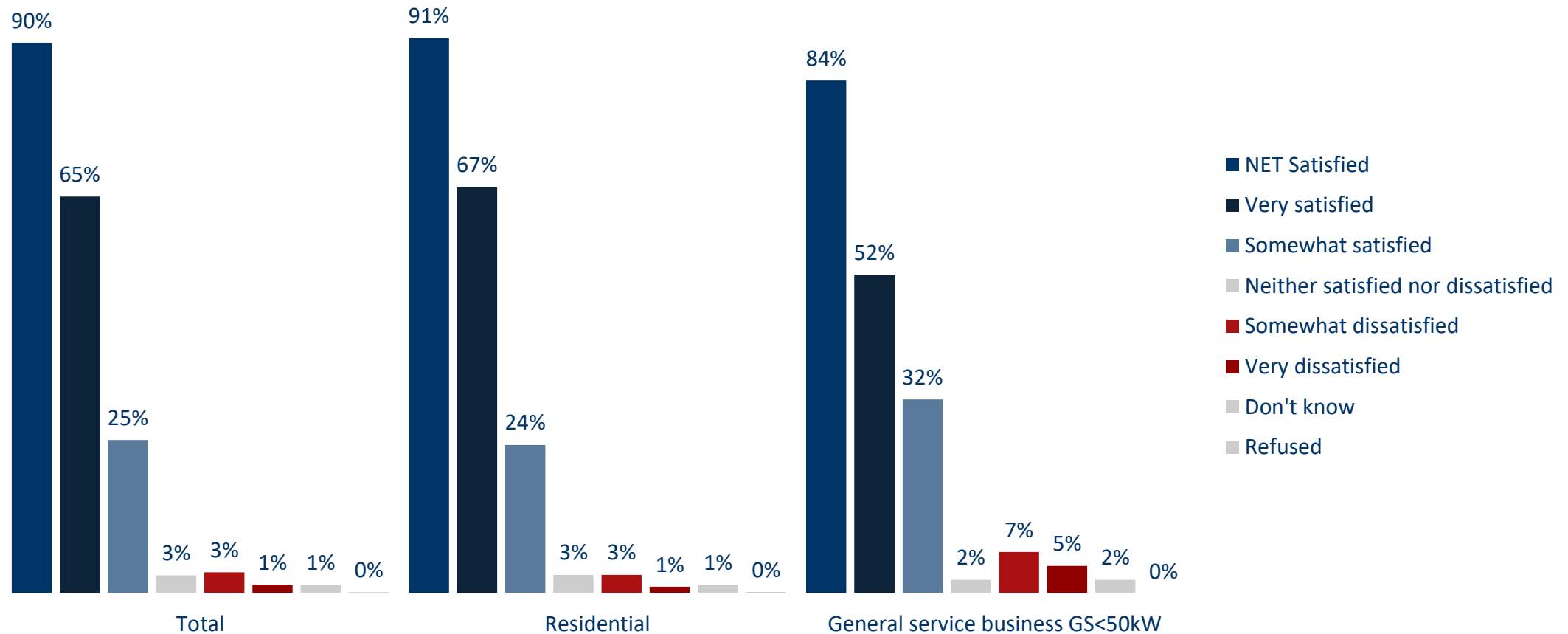
How familiar are you with Niagara-on-the-Lake Hydro, which operates the electricity distribution system in your community?



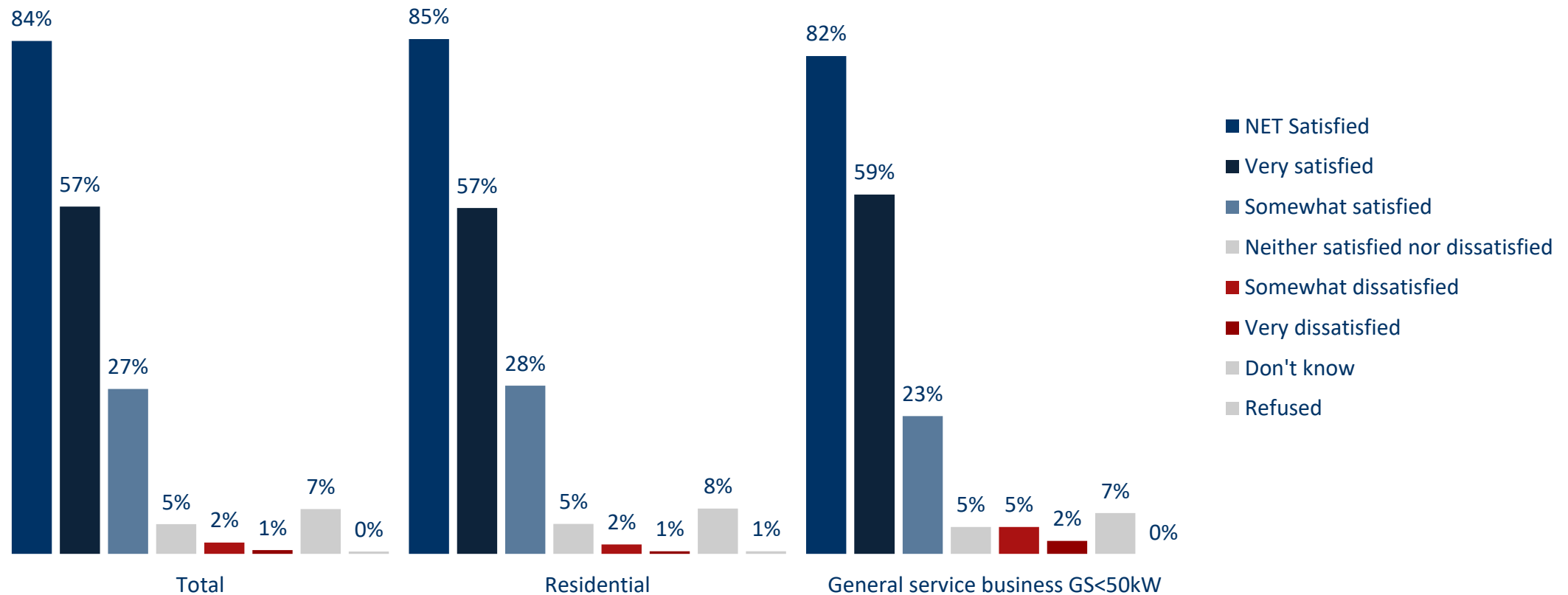
Thinking specifically about the services provided to you and your community by Niagara-on-the-Lake Hydro, OVERALL, how satisfied are you with the services that you receive?



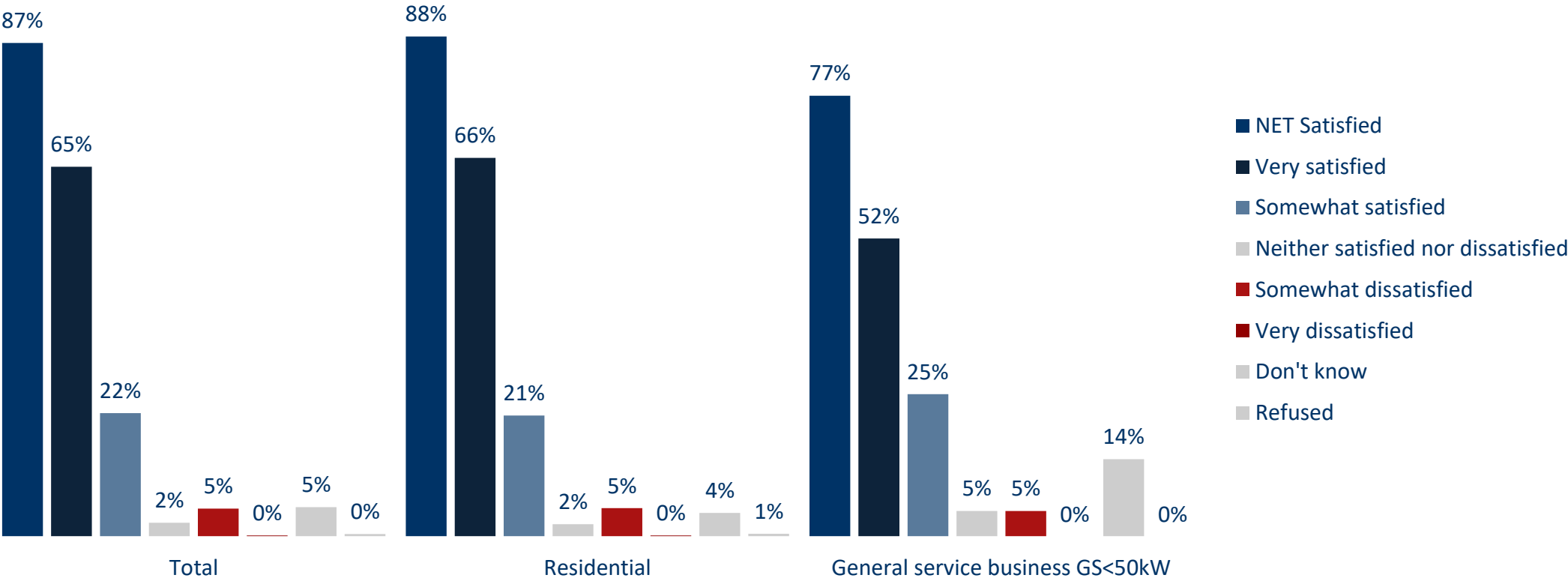
How satisfied are you with the electrical service that you receive from Niagara-on-the-Lake Hydro - based on the RELIABILITY of your electrical service as judged by the number of outages you experience?



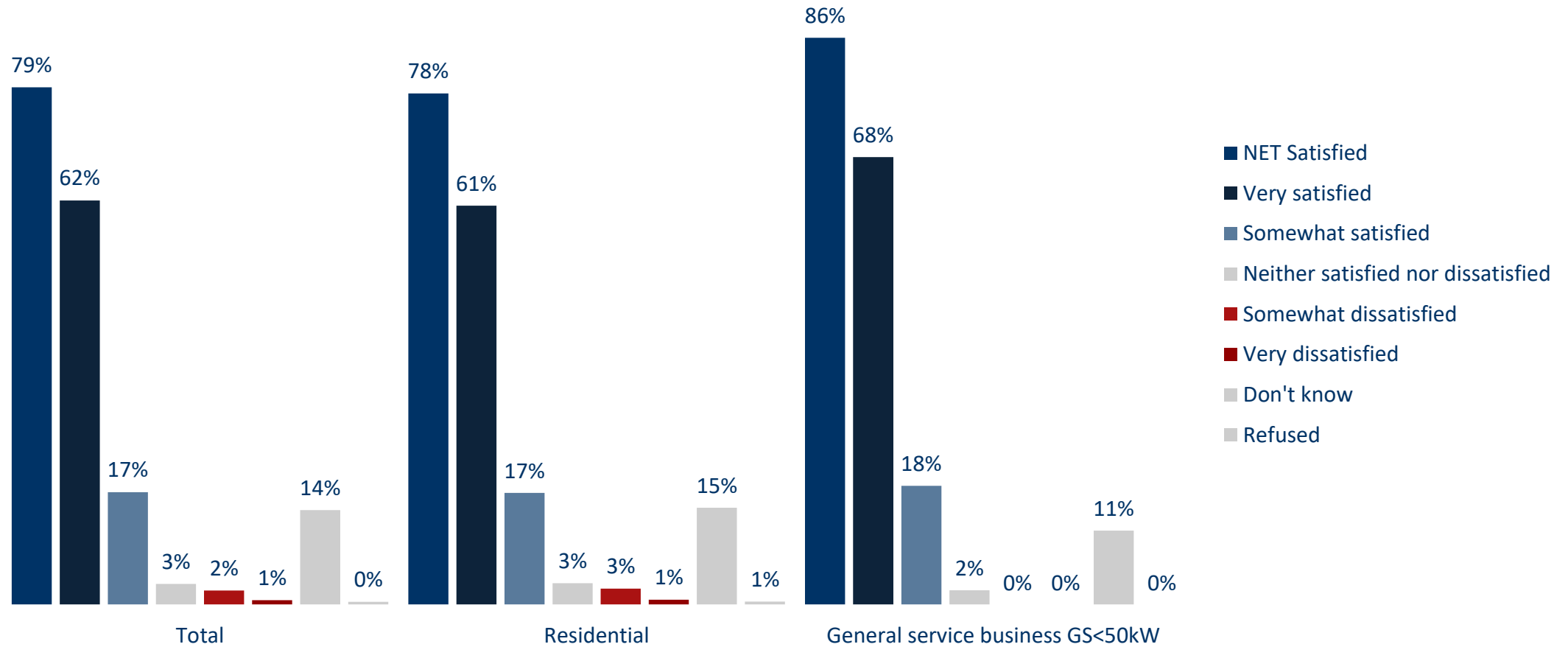
How satisfied are you with the electrical service that you receive from Niagara-on-the-Lake Hydro - based on the amount of TIME IT TAKES TO RESTORE POWER when outages occur?



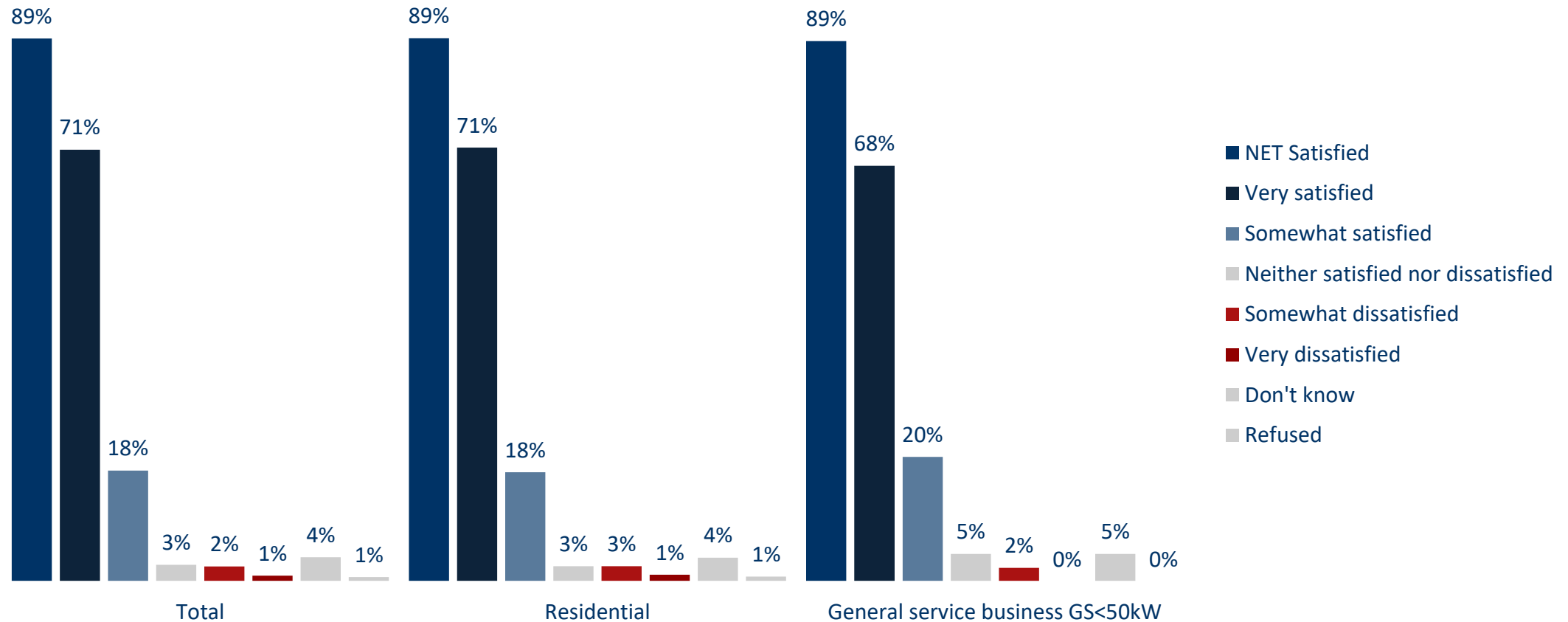
How satisfied are you with the electrical service that you receive from Niagara-on-the-Lake Hydro - based on the QUALITY OF THE POWER delivered to you as judged by the absence of voltage fluctuations that can result in flickering/dimming of lights / an af



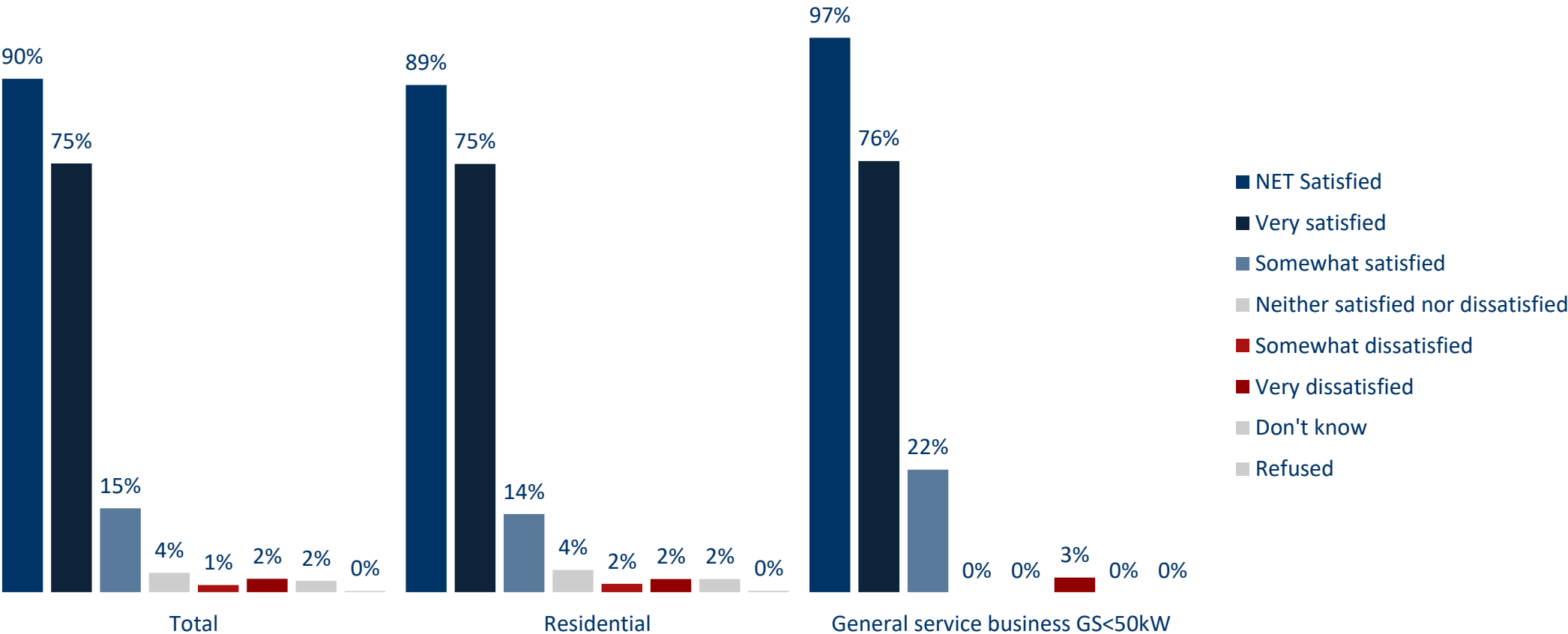
How satisfied are you with the bills that you receive from Niagara-on-the-Lake Hydro - based on them providing ACCURATE BILLS?



How satisfied are you with the bills that you receive from Niagara-on-the-Lake Hydro - based on them providing CONVENIENT OPTIONS TO RECEIVE AND PAY BILLS?



How satisfied are you with the CUSTOMER SERVICE you have received when dealing with employees of Niagara-on-the-Lake Hydro, whether on the telephone, via email, in person or through online conversations including social media?

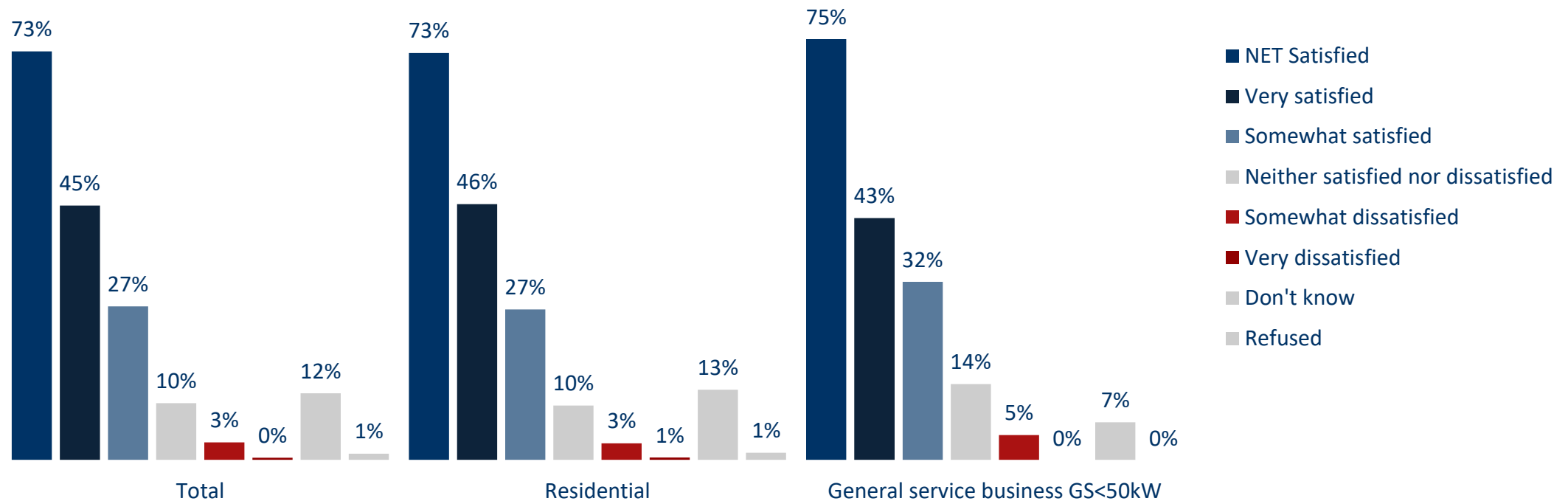


Weight: Aggregate weight for LDC based on customer_type

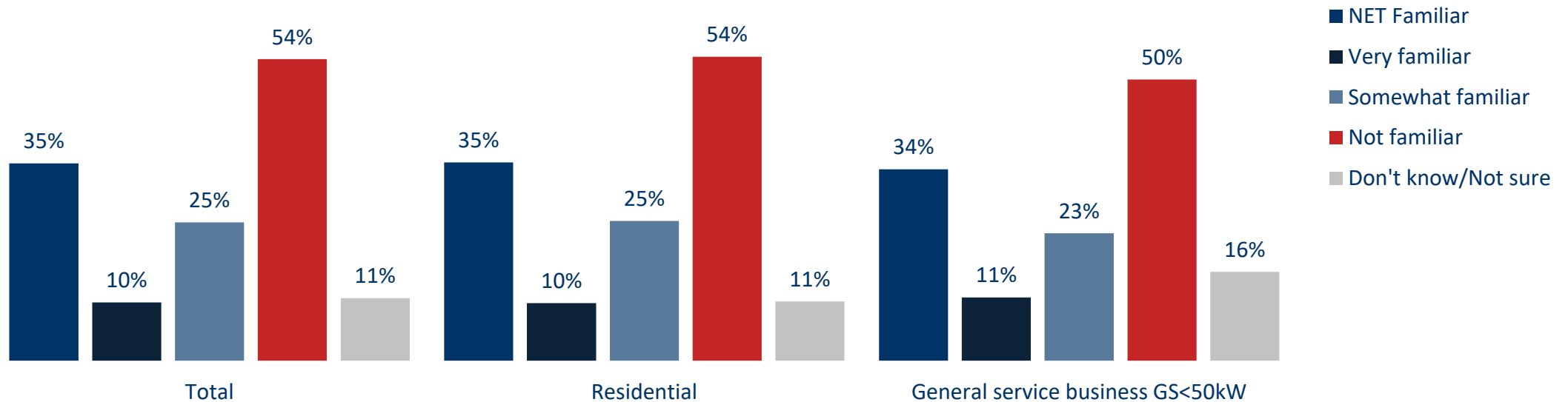
Filters: Year of Data Collection: 2023, LDC: Niagara-on-the-Lake Hydro

Note: Base excludes those who indicated that they had not contacted customer service, thus could not provide an assessment

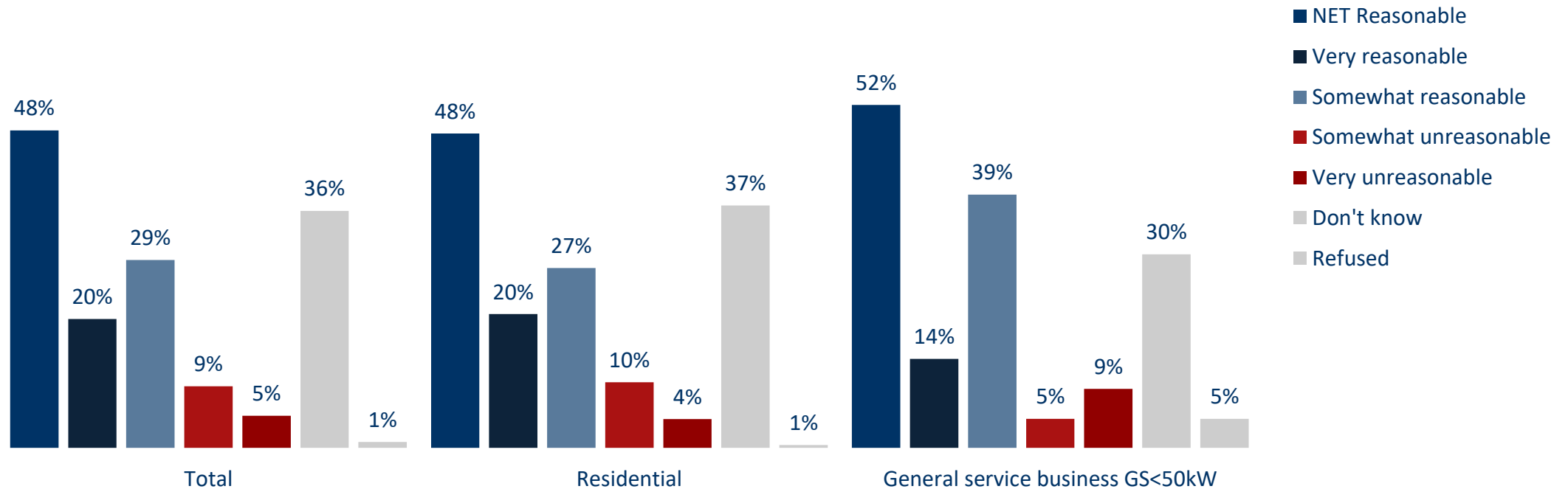
How satisfied are you with the COMMUNICATIONS that you may receive from Niagara-on-the-Lake Hydro without talking directly to an employee, including information found on their website, bill inserts, advertising, notices, emails, or social media sites?



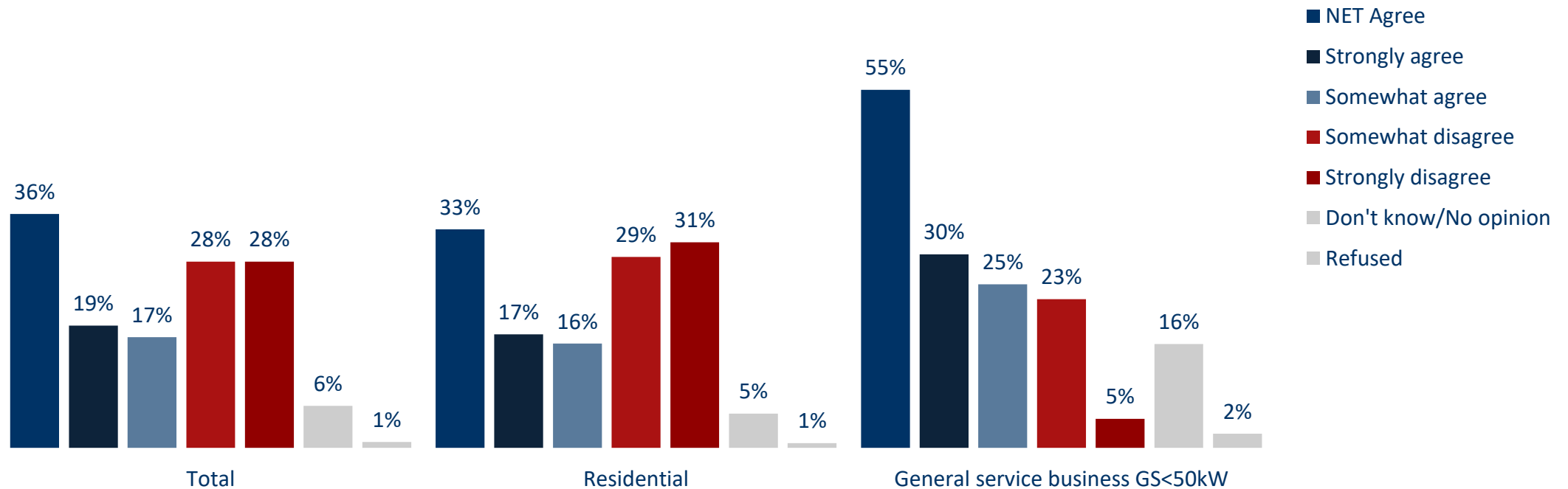
How familiar are you with the percentage of your electricity bill that went to Niagara-on-the-Lake Hydro? So, NOT the portions allocated to power generation companies, transmission companies, the provincial government and regulatory agencies.



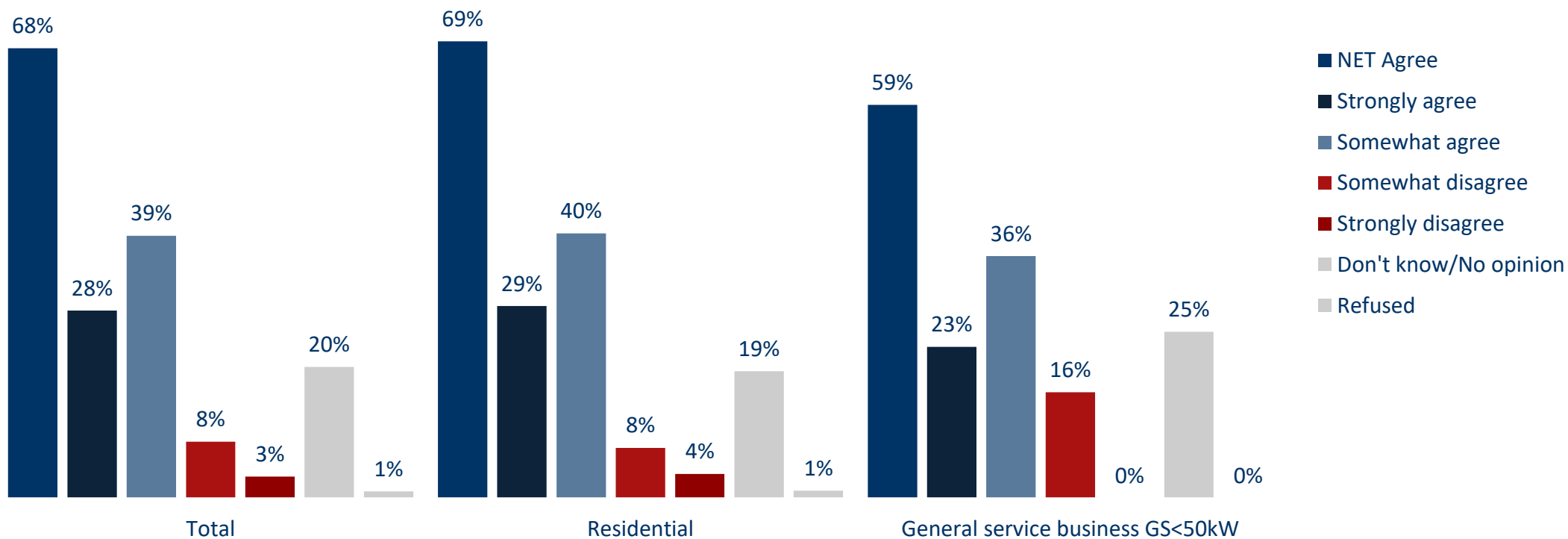
Do you feel that the percentage of your total electricity bill that you pay to Niagara-on-the-Lake Hydro for the services they provide is...?



To what extent do you agree with "The cost of my electricity bill has a major impact [on personal finances OR bottom line of organization]"?

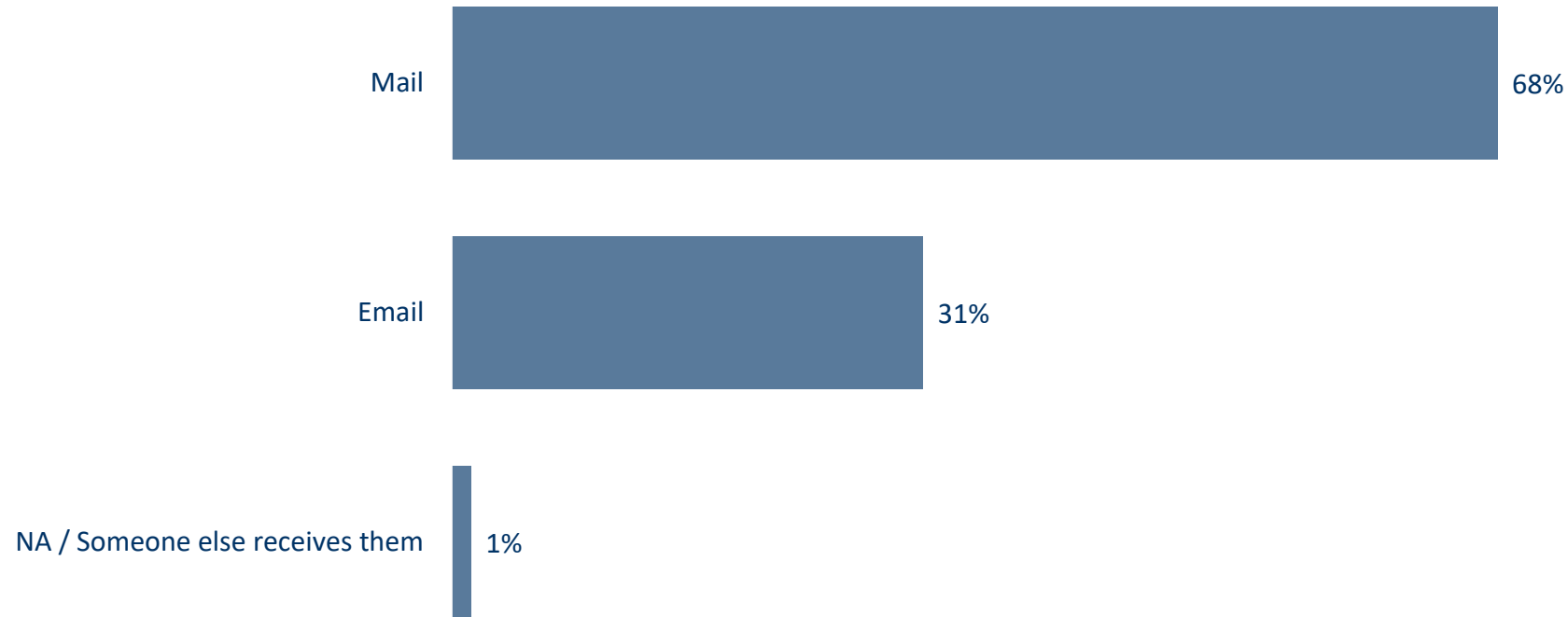


To what extent do you agree with "Customers are well served by the electricity system in Ontario"?

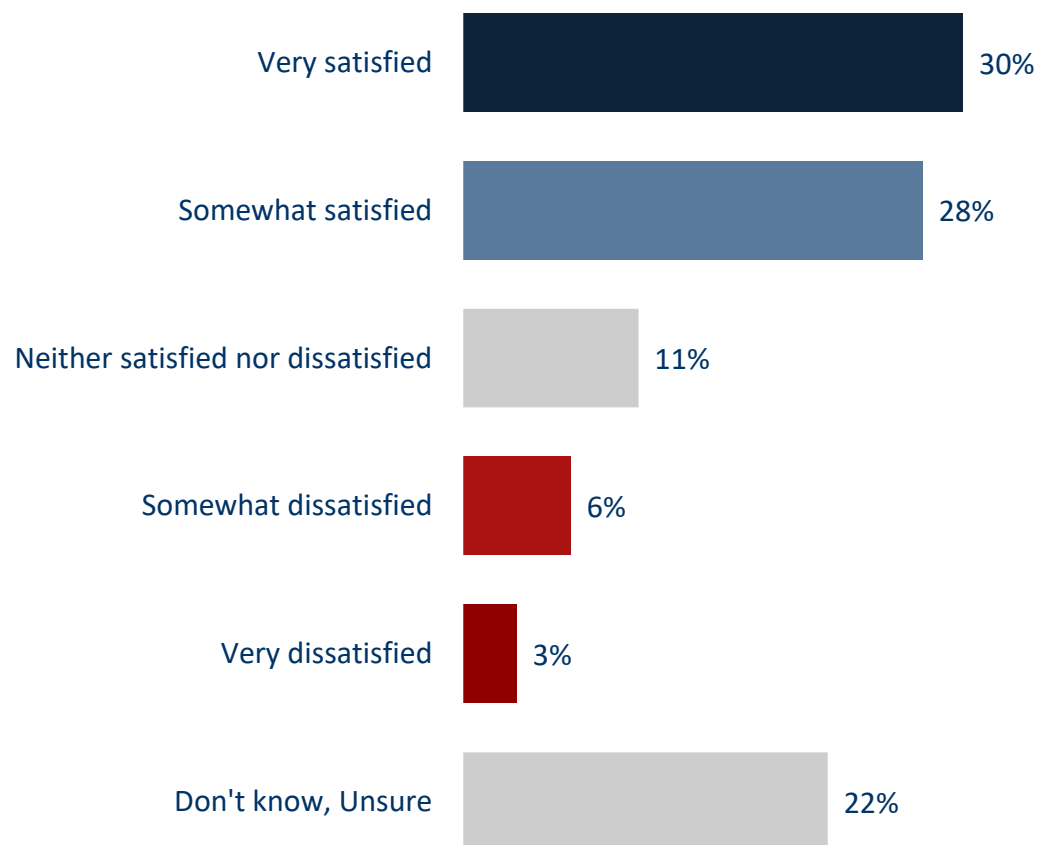


NOTL's Custom Survey Questions – 2023 Results

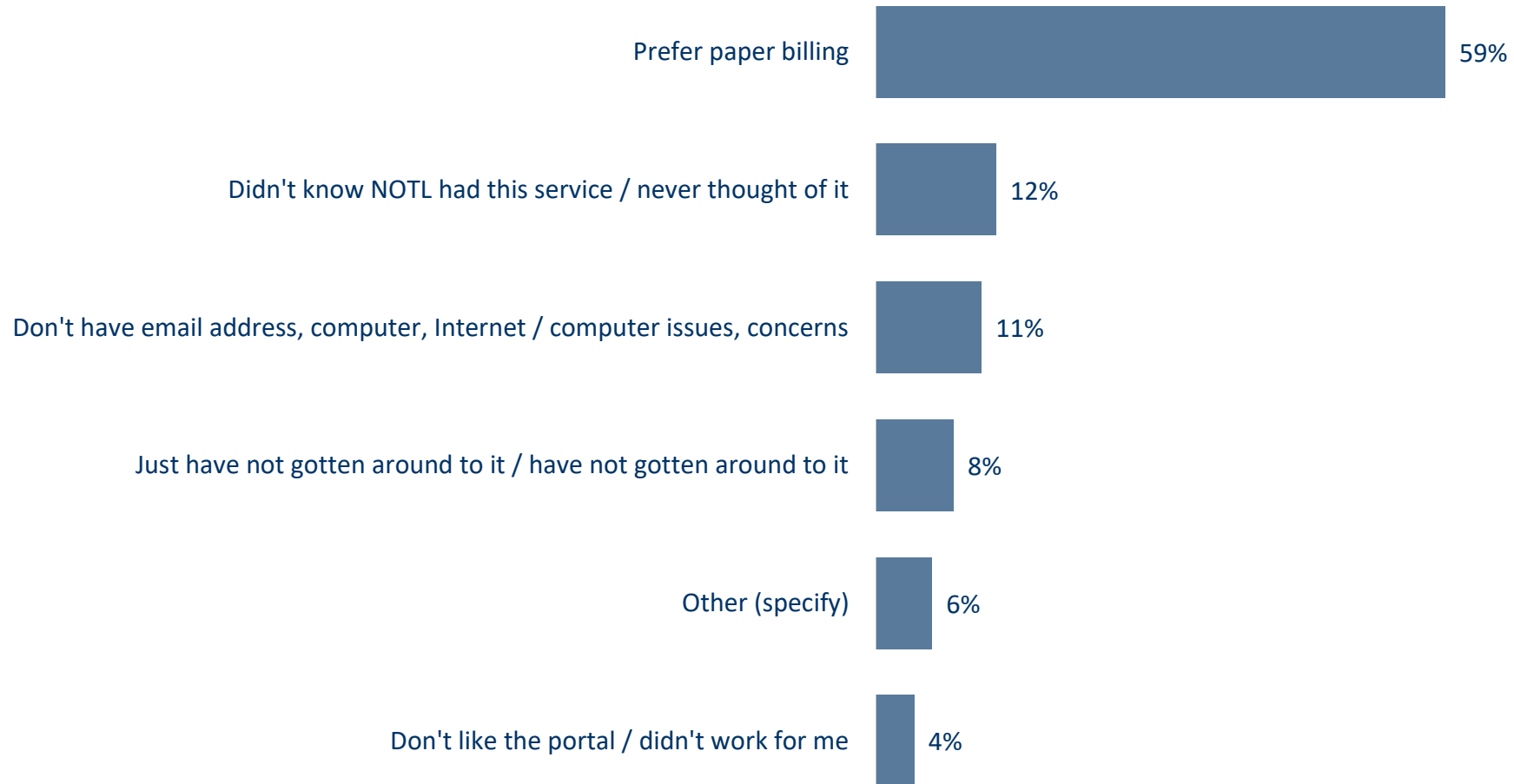
Do you receive your bills via mail or email?



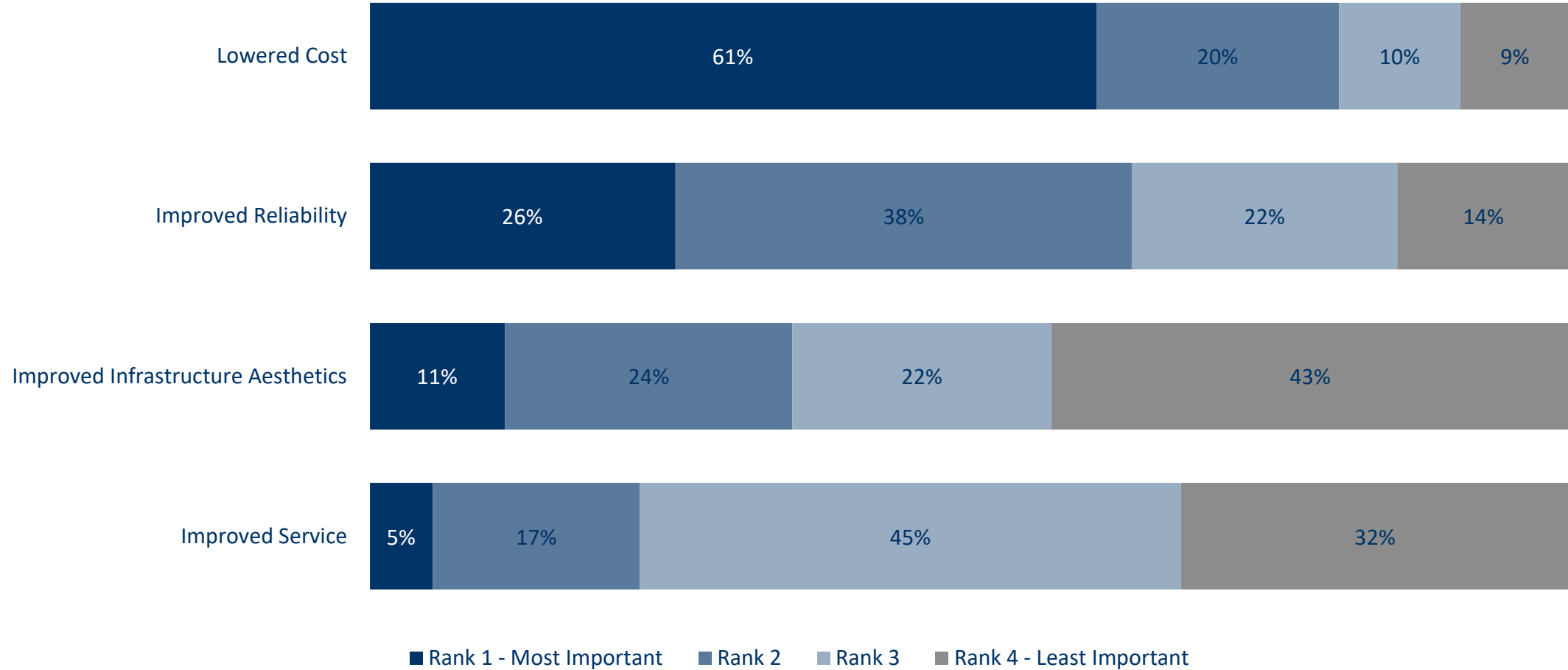
*Please tell me if you are very dissatisfied, dissatisfied, neutral, satisfied, very satisfied or unsure about the existing portal.
[Asked of those who are signed up for email delivery]*



Why are you not signed up for email delivery?
[Asked of those who are NOT signed up for email delivery]

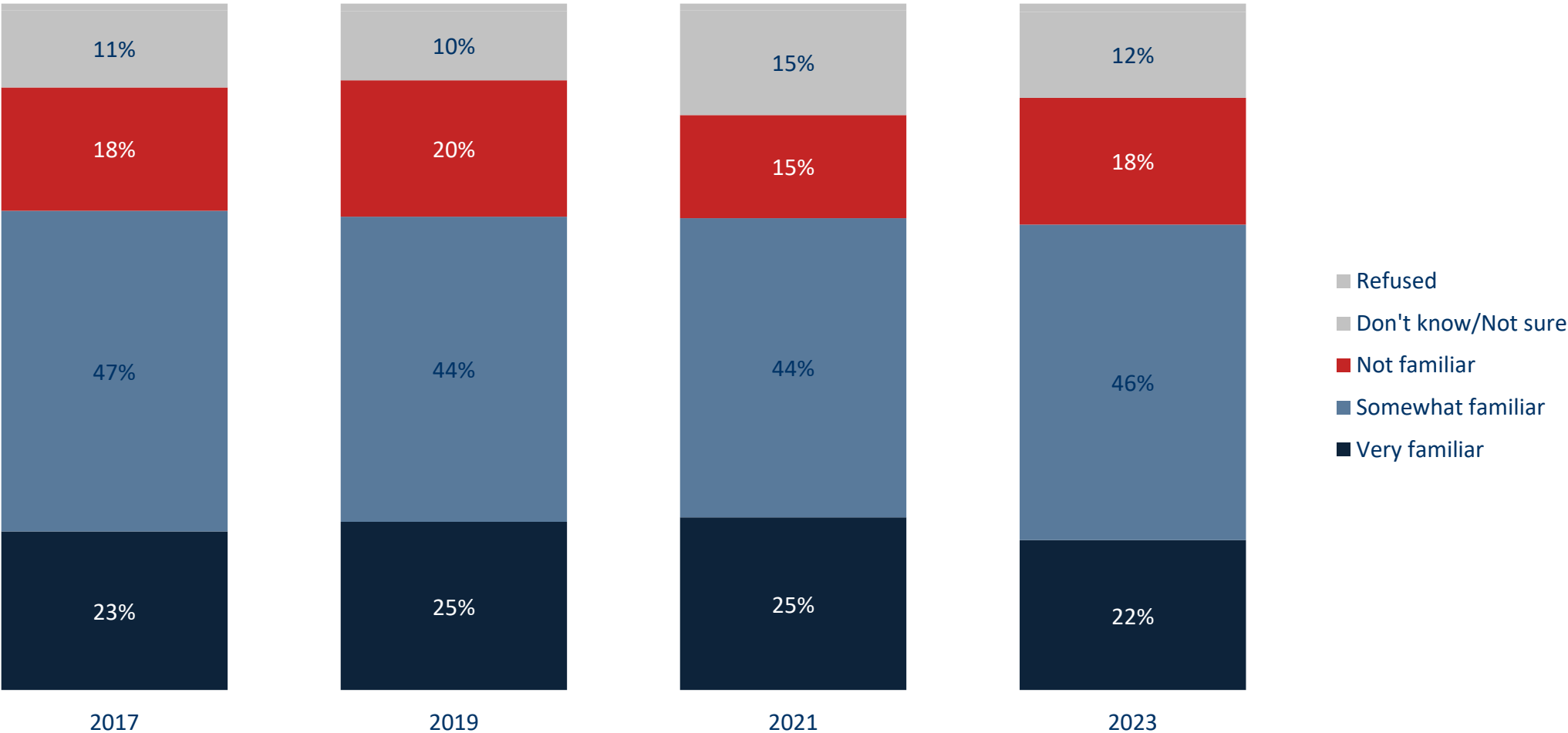


Please rank the following items in order of most importance [1] to least importance [4].



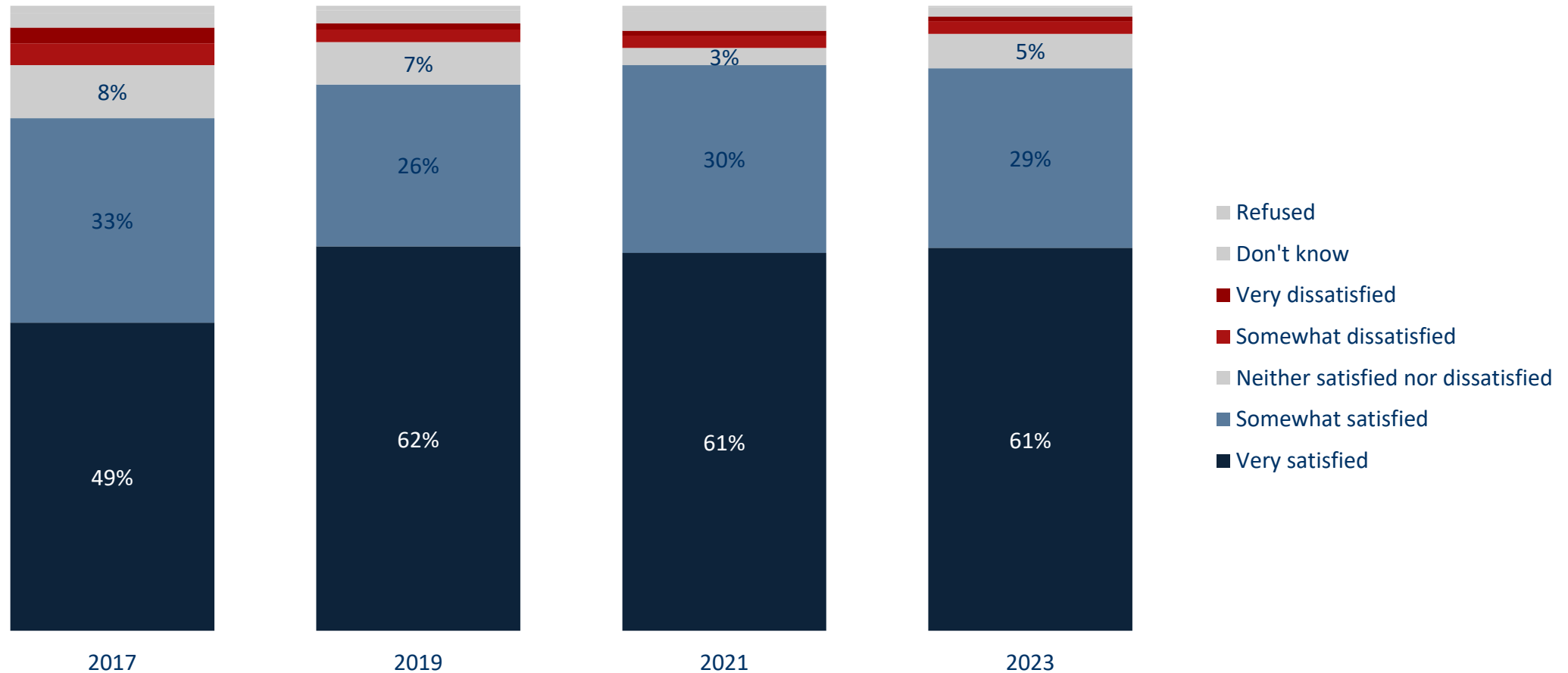
Core (OEB) Survey Questions – Trend over Time

How familiar are you with Niagara-on-the-Lake Hydro, which operates the electricity distribution system in your community?

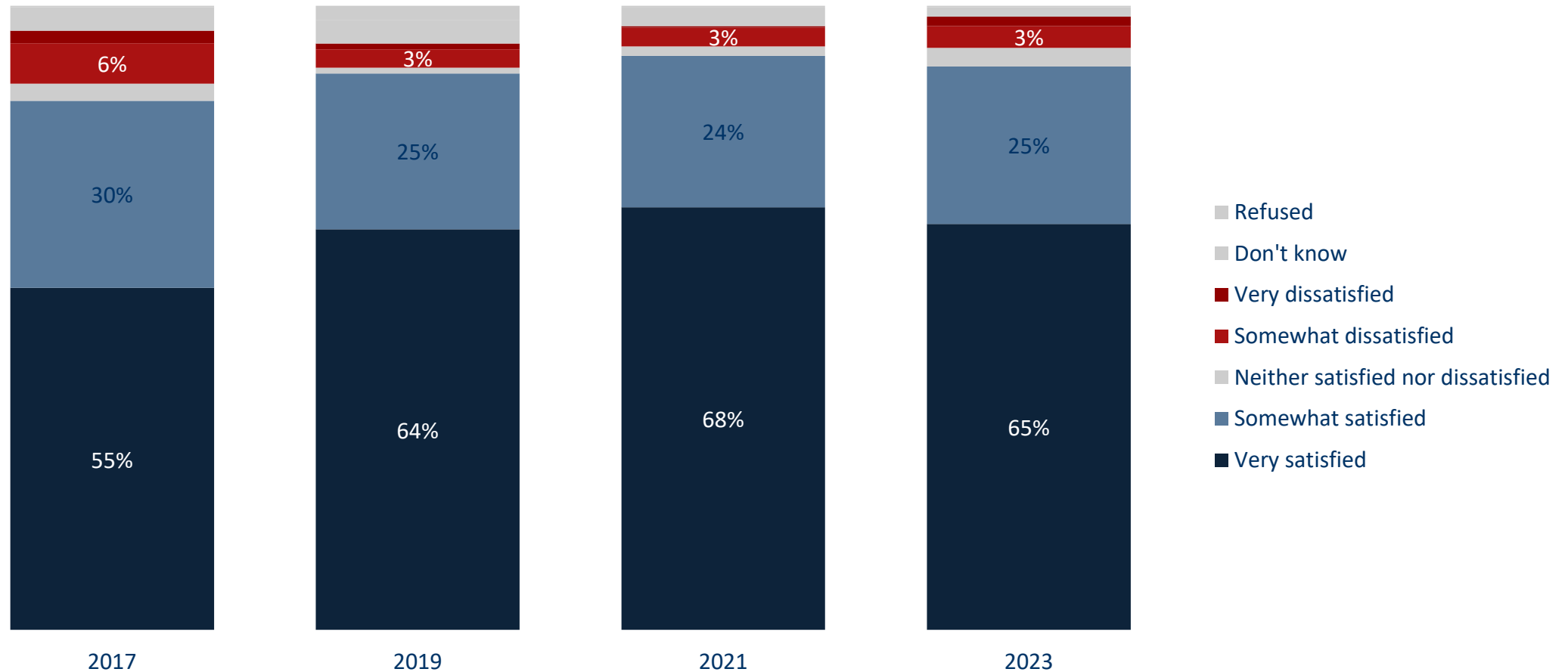


Weight: Aggregate weight for LDC based on customer_type
Filters: LDC: Niagara-on-the-Lake Hydro

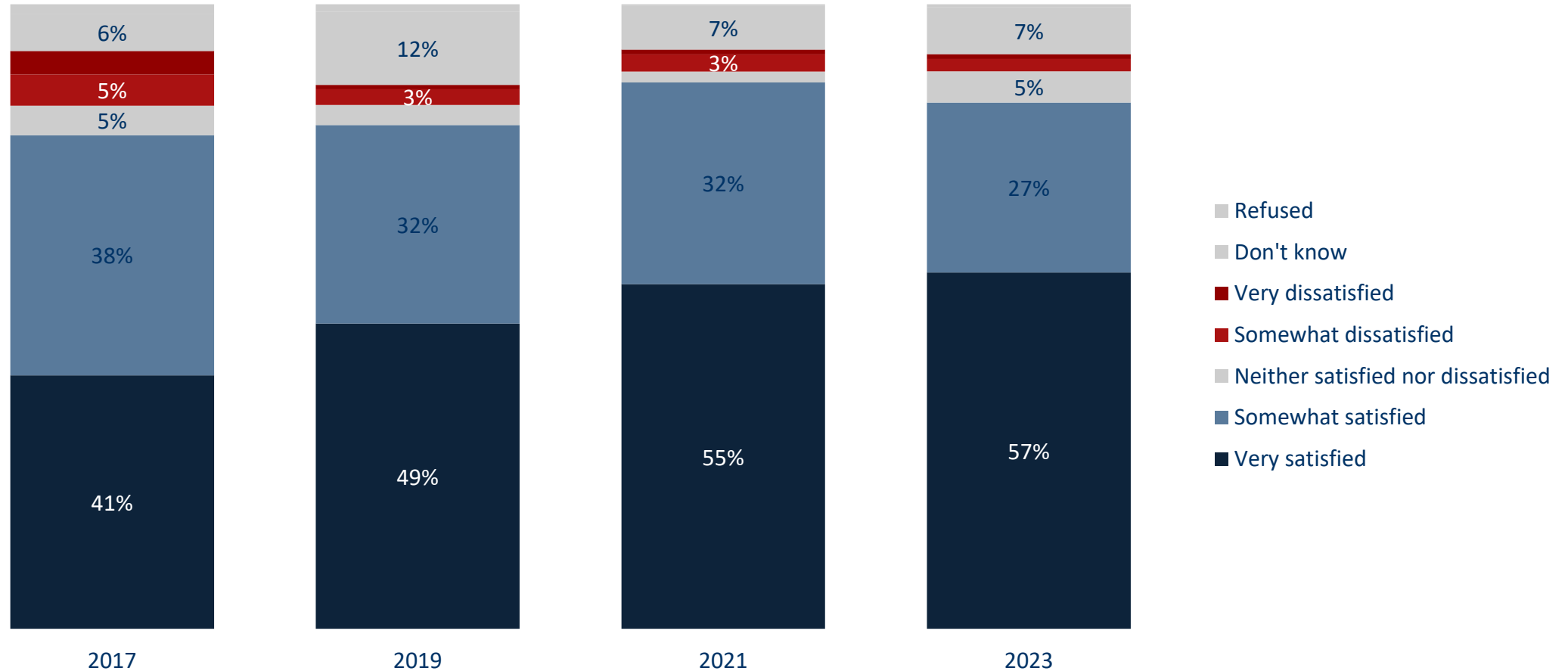
Thinking specifically about the services provided to you and your community by Niagara-on-the-Lake Hydro, OVERALL, how satisfied are you with the services that you receive?



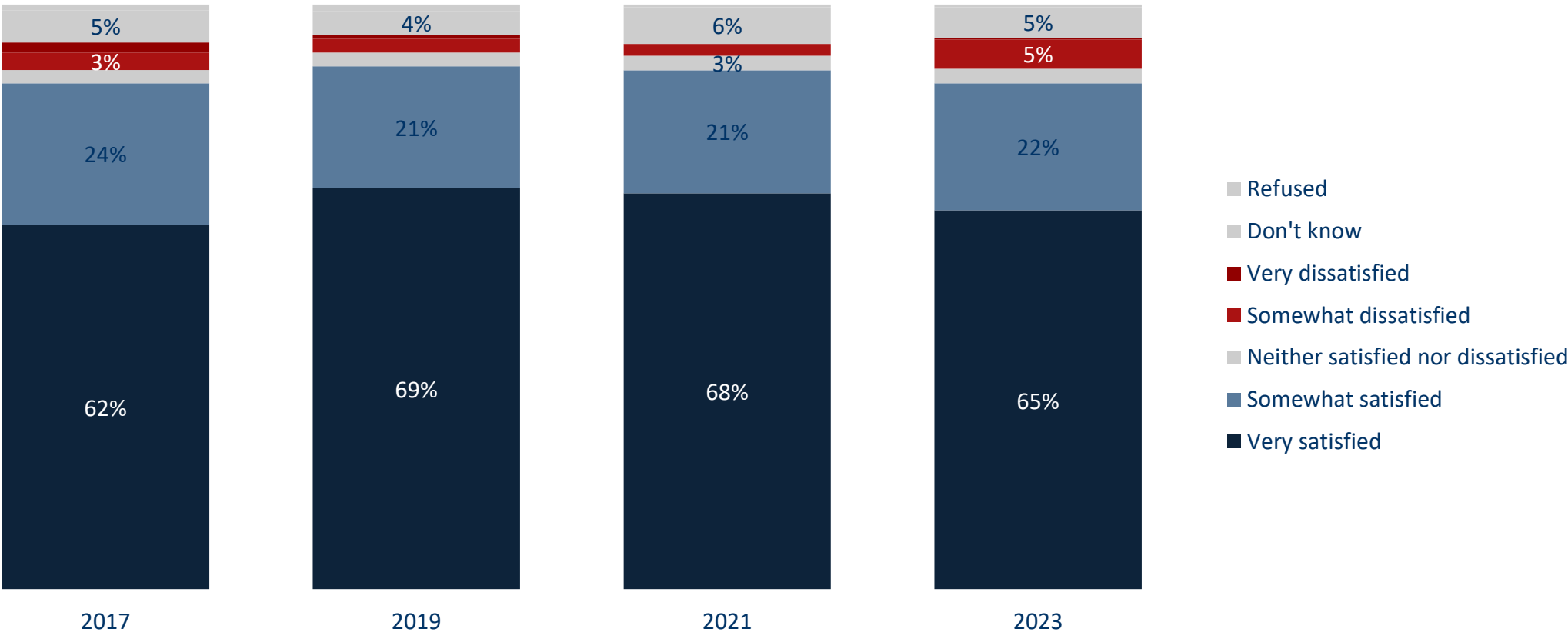
How satisfied are you with the electrical service that you receive from Niagara-on-the-Lake Hydro - based on the RELIABILITY of your electrical service as judged by the number of outages you experience?



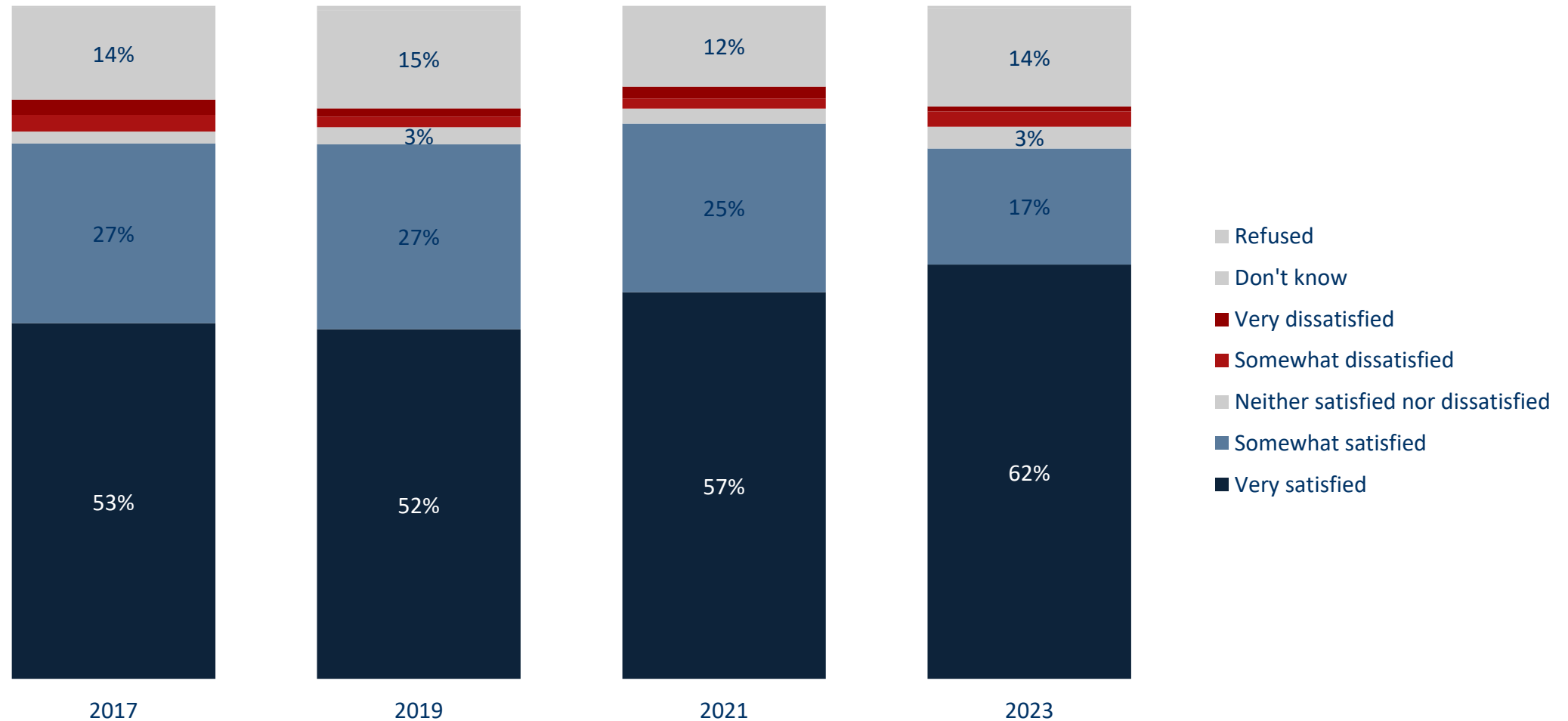
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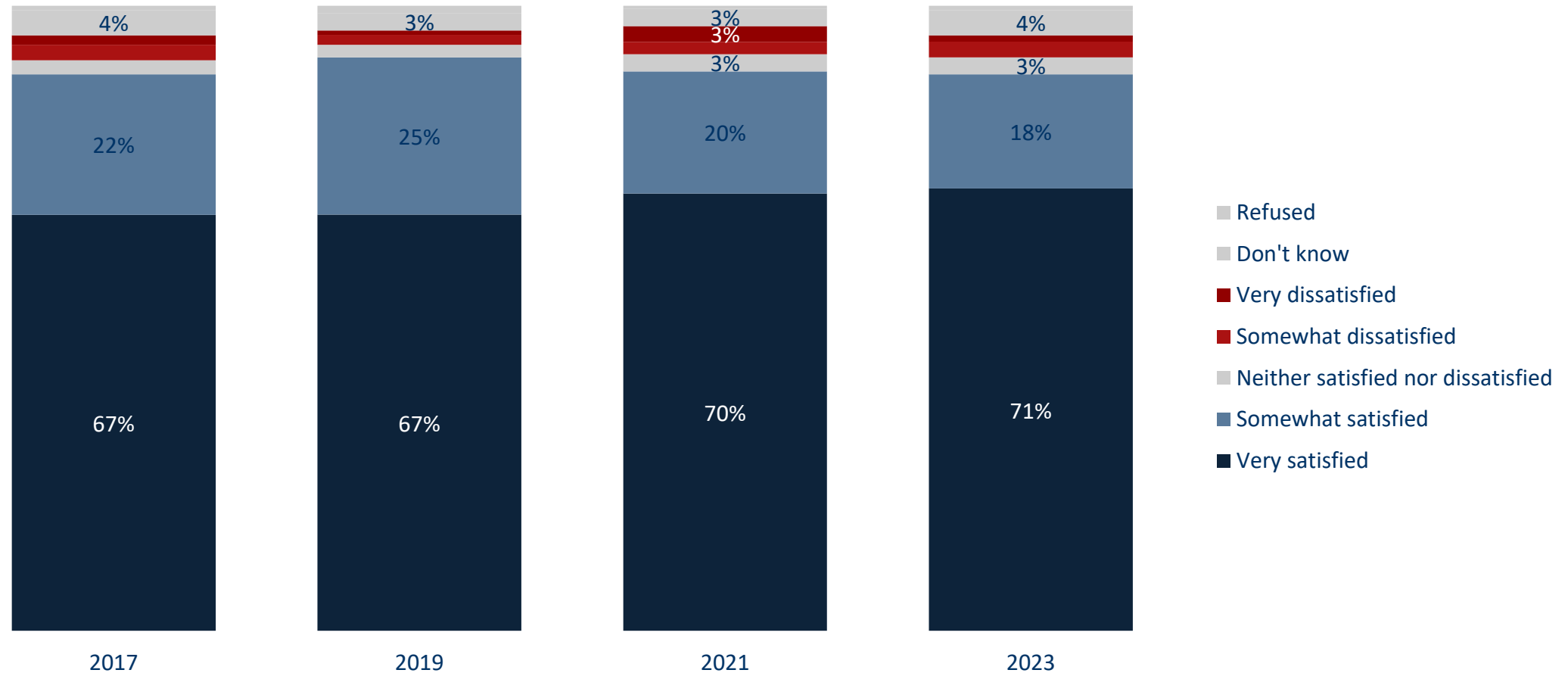
How satisfied are you with the electrical service that you receive from Niagara-on-the-Lake Hydro - based on the QUALITY OF THE POWER delivered to you as judged by the absence of voltage fluctuations that can result in flickering/dimming of lights / an af



How satisfied are you with the bills that you receive from Niagara-on-the-Lake Hydro - based on them providing ACCURATE BILLS?



How satisfied are you with the bills that you receive from Niagara-on-the-Lake Hydro - based on them providing CONVENIENT OPTIONS TO RECEIVE AND PAY BILLS?

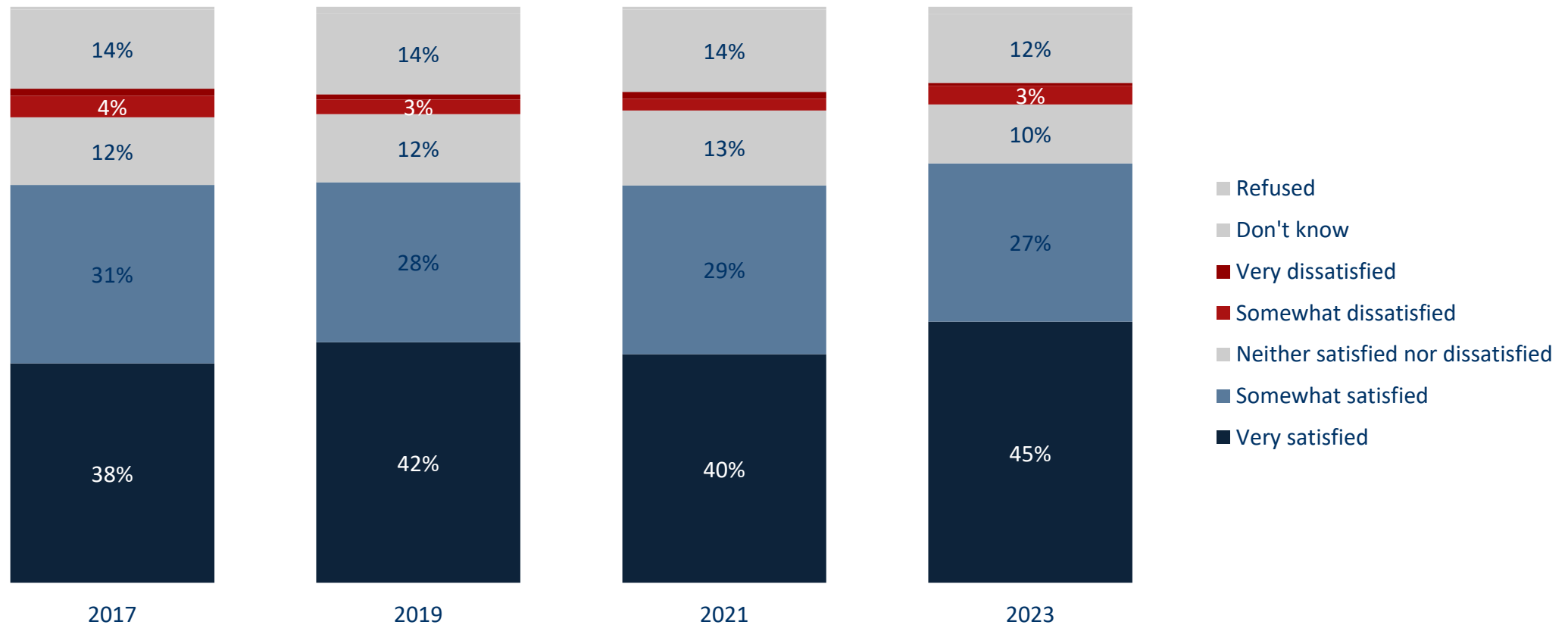


Weight: Aggregate weight for LDC based on customer_type

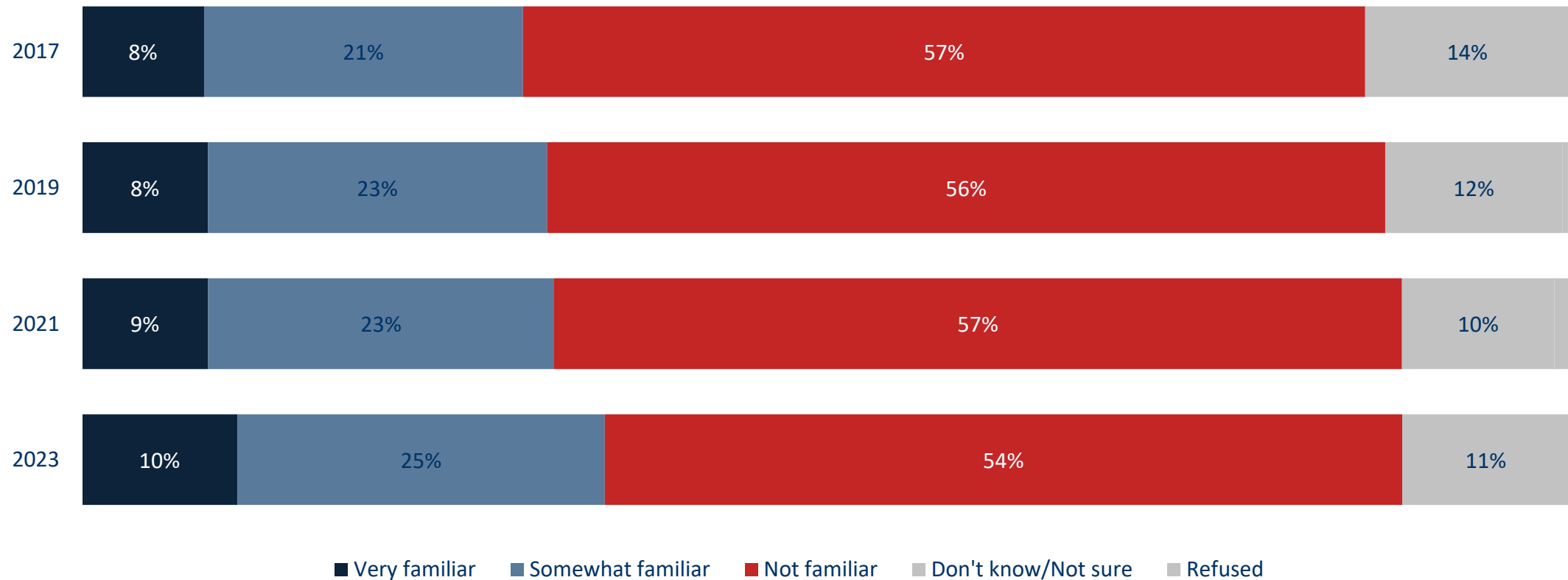
Filters: LDC: Niagara-on-the-Lake Hydro

Note: Base excludes those who indicated that they had not contacted customer service, thus could not provide an assessment

How satisfied are you with the COMMUNICATIONS that you may receive from Niagara-on-the-Lake Hydro without talking directly to an employee, including information found on their website, bill inserts, advertising, notices, emails, or social media sites?



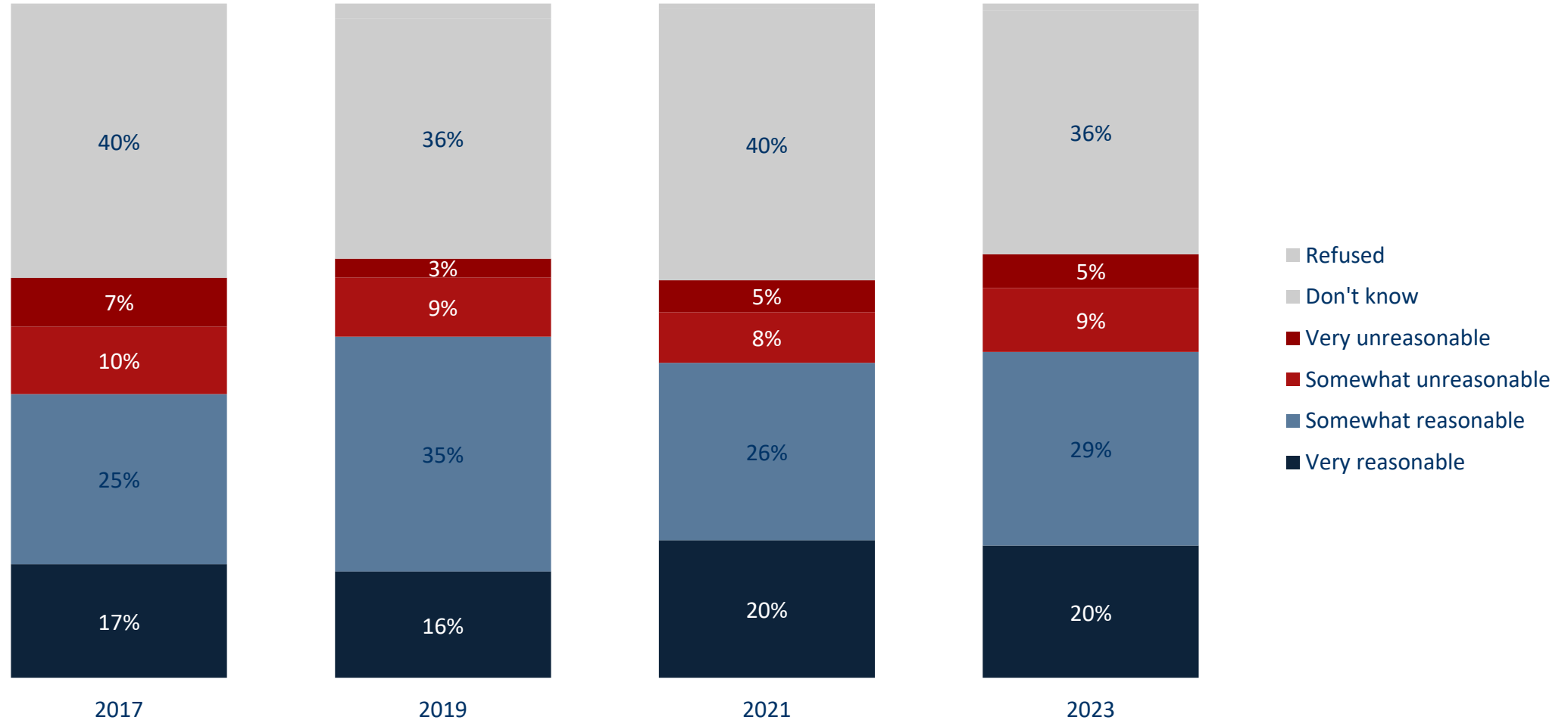
How familiar are you with the percentage of your electricity bill that went to Niagara-on-the-Lake Hydro? So, NOT the portions allocated to power generation companies, transmission companies, the provincial government and regulatory agencies.



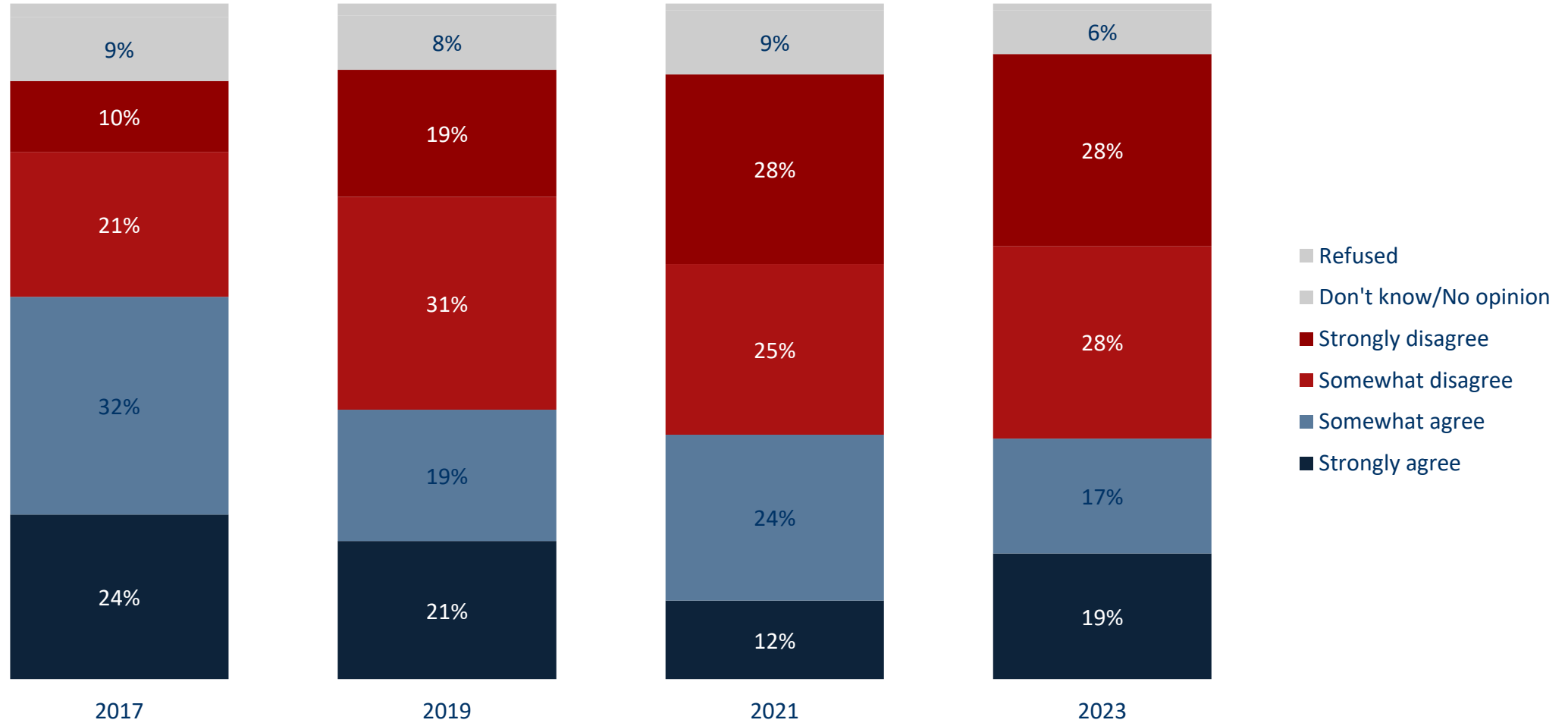
Weight: Aggregate weight for LDC based on customer_type

Filters: LDC: Niagara-on-the-Lake Hydro

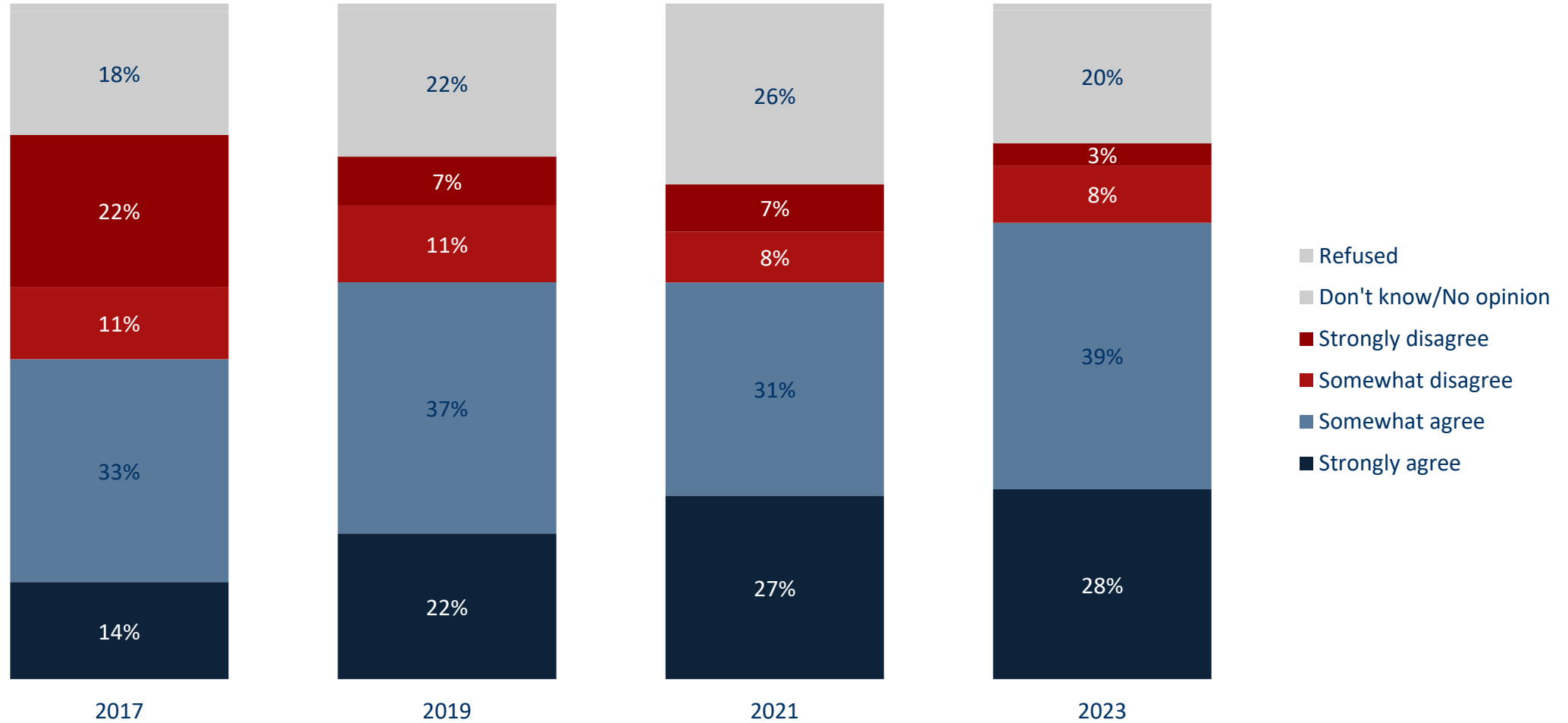
Do you feel that the percentage of your total electricity bill that you pay to Niagara-on-the-Lake Hydro for the services they provide is...?



To what extent do you agree with "The cost of my electricity bill has a major impact [on personal finances OR bottom line of organization]"?



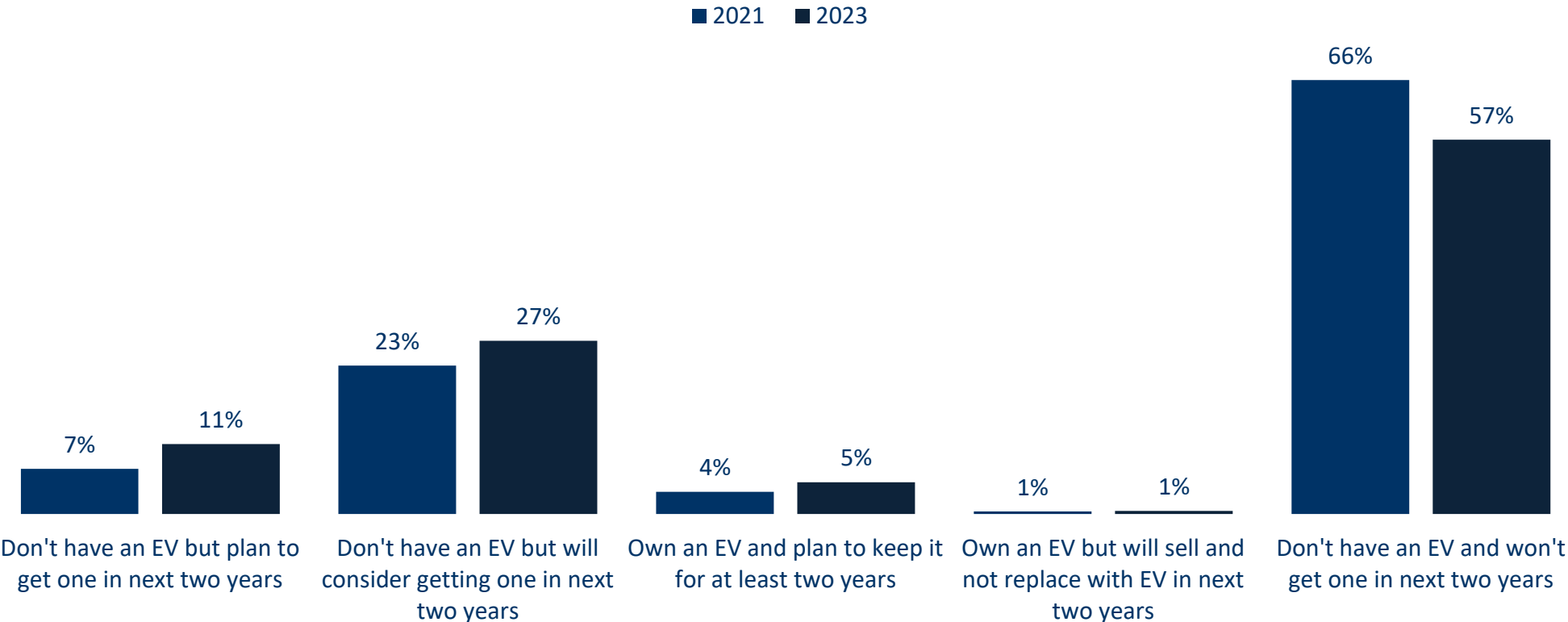
To what extent do you agree with "Customers are well served by the electricity system in Ontario"?



Weight: Aggregate weight for LDC based on customer_type
Filters: LDC: Niagara-on-the-Lake Hydro

NOTL's Custom Survey Questions– Trend over Time

Thinking of electric vehicles, also known as "EVs", which of these best describes your household?



Methodology

Methodology Summary

Commissioned by	Niagara-on-the-Lake Hydro
Sample size	401 randomly selected customers
Margin of error	±4.8 percentage points, 19 times out of 20
Survey mode	Random telephone survey of customer base, CATI data collection
Survey sample	Residential and GS <50kWh customer lists provided by Centre Wellington Hydro
Time of calling	4PM-9PM Weekdays, 10AM-5PM Saturdays, scheduled callbacks
In-field dates	January 9-February 22, 2023
Language	English only
Survey author	Innovative Research/Electricity Distributors Association
Question Order	Core (OEB) questions then LDC-specific questions
Question Wording	Questions shown in report largely as asked; exact questionnaire available upon request
Survey Company	Advanis Gary.Offenberger@advanis.net

Methodology Details (1/4)

Target Respondents

The respondents of the survey were Ontario residents who are the primary bill payer or share the responsibility if residential or the person in-charge of managing the electricity bill at the organization if general service, and who resided within one of LDC's service territory(ies). Service territories were determined based on customer lists provided by the LDC.

Sample Size and Statistical Reliability

The final total completed surveys by LDC, and the associated margin of error for each, are shown below.

All margins of error are shown at a 95% confidence level.

- E.g., the margin of error associated with a sample size of 400 for a large (infinite) population is ± 4.9 percentage points, 19 times out of 20.

Since each LDC has a finite population, we used the specific population sizes (i.e., the number of sample records received from each LDC) in the calculation of margin of error. Doing so is more accurate, and results in a narrower margin of error than if we simply assumed large (infinite) population for each.

Sample sizes were set according to the *LDC Customer Satisfaction Survey: Methodology & Survey Implementation Guide*, prepared for the Electrical Distributors Association (April 19, 2016 revision):

Where possible, sample size of $n=400$.

Distributors with 3000 to 4999 customers (residential + GS<50), $n=300$

Distributors with <3000 customers (residential + GS<50), $n=200$

Methodology Details (2/4)

Sampling Methodology

Advanis was provided sample lists from each LDC. Customer lists included all basic information required such as name, telephone number, region (where applicable), customer type (residential or GS<50), LDC fee, Annual or Monthly consumption values. Redhead then calculated which quartile group each resident belonged to by evenly dividing them into four groups within each region and customer type. These quartiles were calculated based on annual consumption value.

To minimize low response:

- Sample was loaded in batches to ensure the sample was fully utilized before moving onto fresh sample records;
- Calls were made between the hours of 4pm and 9pm ET; and
- Call backs were scheduled and honored between the hours of 9am and 9pm ET.

Sample Cleaning

Redhead cleaned the customer lists individually once received from each LDC to ensure the customer list counts reflected actual individual records that could be called. The following steps were taken during sample cleaning.

- All records with no phone numbers were removed.
- All phone numbers were checked to see if they were valid numbers (i.e., 10 digits, all numerical, etc.) and any bad cases were removed.
- When duplicates were detected based on phone number, the average of the consumption value was calculated and kept for one consolidated record. All others were removed.
- Residential and GS<50KW were separated into their own lists to be loaded and managed separately in the calling system.

Regions within each customer list were given a numerical value to be used for calling quotas.

Methodology Details (3/4)

Questionnaire

The survey instrument was provided by the Electricity Distributors Association (EDA) developed in conjunction with Innovative Research. The survey consisted of an introduction, overall satisfaction, power quality and reliability, billing and payment, customer service experience, communications, price, optional deeper dive questions, and final personal finance / sector mood measures. Additional questions were provided individually by some LDCs. These questions are not required as part of the survey and, as outlined in the methodology guideline, were asked after all the standard and required questions.

Data Collection

Computer aided telephone interviews (CATI) were conducted from **January 9-February 22, 2023**.

Quality Control

- Advanis trained its interviewers to understand the study's objectives;
- Detailed call records are kept by the automated CATI system, and are supplemented by output files to SPSS for productivity analysis (i.e., not subject to human error);
- The survey was soft launched in LDCs that had the most available sample, and the data was then checked before calling began in full for each;
- 100% of all surveys are digitally recorded for potential review (see next bullet);
- Advanis' Quality Assurance team listened to the actual recordings of five-ten percent of completed surveys and compared the responses to those entered by the interviewer to ensure that responses from respondents are properly recorded;
- Team Supervisors conduct regular more formal evaluations with each interviewer, in addition to nightly monitoring of each interviewer on their team;
- Project Managers closely monitored the progress of data collection, including call record dispositions;
- All SPSS code is reviewed by a more senior researcher;
- All report output is reviewed by a more senior researcher; and
- All values in the report are reviewed by another team member to ensure accuracy.

Methodology Details (4/4)

Analysis of Findings & Data Weighting

Results were weighted to match the proportion of low volume rate class records as provided to Advanis after cleaning of the sample file. Where a region flag was also provided, results were weighted to the low volume rate class within each region and regions were weighted proportionately to one another based on the customer base as provided in the cleaned sample file.

The Customer Satisfaction index scores have been highlighted and were calculated as described below, based on instructions in the Survey Methodology Guidelines. The “response values” referenced in the description below were also determined and provided by the survey authors.

Data analysis and cross-tabulation have been conducted using SPSS and Advanis’ proprietary Online Reporting Environment software.

As noted above, LDCs without a region flag were weighted to their low volume rate class proportion based on the cleaned sample file. LDCs with a region flag were weighted to their low volume rate class proportion within each region based on the cleaned sample file, and then regions were weighted proportionately to one another based on the customer base as provided in the cleaned sample file.

Specific values of the number of sample records, estimated population proportions, and final weighted sample counts within LDC are provided on the next slide. The sum of the regional population proportions within an LDC may not equal 100% due to rounding.

This **index score** is calculated using the following process:

Step 1: Weight data to n=400 with each low volume rate class proportionate to its share of LDC customer base.

Step 2: Rescale the index score variables onto the 0 to 1 scale as indicated by the response values detailed below.

Step 3: The average result of the questions asked for each OEB topic and the overall satisfaction score will be added together³.

	B5
+	[C6+C7+C8] divided by 3
+	[D9+D10] divided by 2
+	E11
+	F12
+	G14
=	Total cumulative scores

Step 4: The total cumulative score from Step 2 will be divided by 6 to generate the **Customer Satisfaction Index Score** (bound between 0-1).

The chart on the following page illustrates how the **Customer Satisfaction Index Score** will be calculated.

Methodology Tables

Margin of error

LDC	Clean Customer Records from LDC	Completed Surveys	Sample Size as % of Customer list	Margin of Error @ 95% confidence level*
Niagara-on-the-Lake Hydro	7596	401	5.28%	+/- 4.8%

* Since each LDC has a finite population, we used the specific population sizes (i.e., the number of sample records received from each LDC) in the calculation of margin of error. Doing so is more accurate, and results in a narrower margin of error than if we simply assumed large (infinite) population for each.

Sample weighting

Niagara-on-the-Lake Hydro						
Regions Flagged in Sample	Low Volume Rate Class	Sample Received (Cleaned, Deduplicated)	Rate Class Proportion	Estimated Customer Proportion	Weighted Sample Count	Unweighted Sample Count
TOTAL	Residential	6,758	89%	100%	357	357
	General Service < 50 kW	838	11%		44	44
					401	401



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780.229.1140



APPENDIX 1H

Open House Customer Survey Responses

NOTL Hydro Open House Questionnaire

4 total questionnaires were submitted. 3 of them were completed on paper during the Open House Event on March 8, 2023. The fourth was completed online on March 8 at 12:26pm.

Question 1: What type of customer best describes you?

- ☐ Residential – 3 responses
- ☐ Small Business – 0 responses
- ☐ Large Business – 0 responses
- ☐ Other – 1 response

Question 2: Please rank the following in importance to you from 1-3.

*Note – 2 paper form entries did not have this question answered properly and were not included in the total; one had check marks on all options and the other had an **x** only on Reliability.*

- ☐ **Rates** – of the two submissions, each selected as 3rd most important.
- ☐ **Customer Service** – of the two submissions, each selected as 2nd most important.
- ☐ **Reliability** – of the two submissions, each selected as 1st most important,

Question 3: What is your favourite thing about NOTL Hydro? (open-ended question)

Entered as submitted.

- ☐ Customer Service
- ☐ Reliability
- ☐ Accessibility of Info
- ☐ Local & the people

Question 4: What is the one thing we could add to the product / service that will help you? (open-ended question)

Entered as submitted.

- ☐ Info on upcoming cars going electric and how will this affect home use and installation in the home. I live in a condo complex and our power grid might be inadequate.
- ☐ Keep expanding your ability to have solar & encourage net zero.
- ☐ Plain language explanations of changes on bill
- ☐ Everything is fine very personal

Question 5: What would you like to see us keep (and/or stop) doing?

Entered as submitted. One paper form not completed.

- ☐ If it ain't broke do not fix it but maintain it.
- ☐ Keep expanding your ability to have solar & encourage net zero.
- ☐ Everything except above (Plain language explanations of changes on bill)

Question 6: Do you think having a local presence and a local office open to residents is an important service to Niagara-on-the-Lake?

- ☐ Yes – 4 responses
- ☐ No – 0 responses

Question 7: Are you happy with the service you receive from NOTL Hydro?

- ☐ Yes – 4 responses
- ☐ No – 0 responses

Question 8: Do you think moving the hydro wires along Highway 55 in Virgil underground is a good idea even though it will cost \$1 million?

- ☐ Yes – 2 responses
- ☐ No – 1 response
- ☐ Not entered – 1 response

Question 9: Are you thinking about purchasing an EV as your next car?

- ☐ Yes – 1 response
- ☐ No – 1 response
- ☐ Note one did not answer but noted they already own an EV.

Question 10: Have you ever given any consideration to heat pumps to heat your home?

- ☐ Yes – 2 responses, one of yes responses they already own one.
- ☐ No – 1 response
- ☐ Not entered – 1 response

Question 11: Would you be interested in an information session about EVs and heat pumps hosted by NOTL Hydro?

- ☐ Yes – 2 responses
- ☐ Not entered – 2 responses

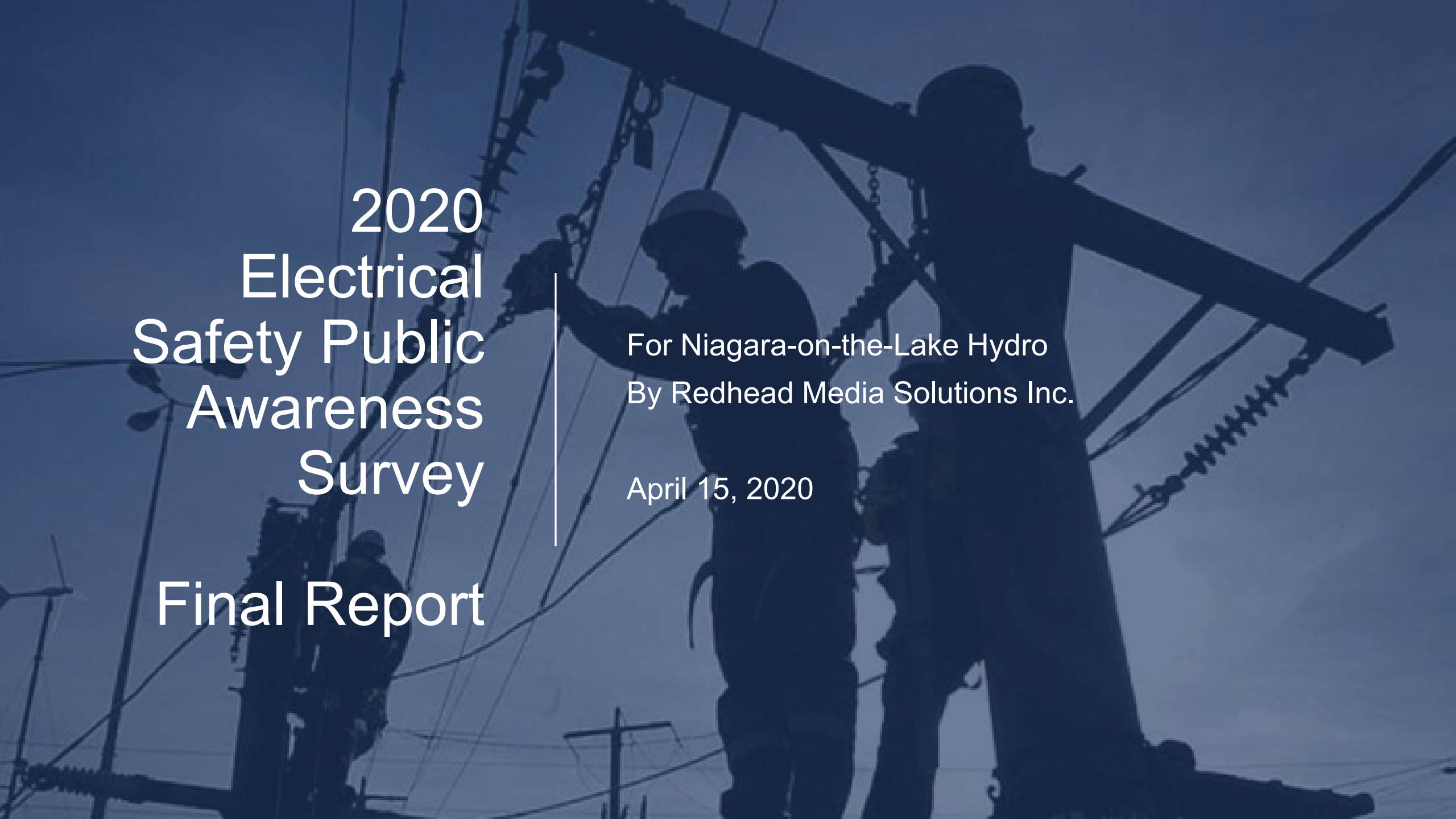
Question 12: Please add anything else you would like to contribute about NOTL Hydro.

- ☐ Not entered – 4 responses



APPENDIX 11

2020 ESA Safety Survey Report



2020 Electrical Safety Public Awareness Survey

Final Report

For Niagara-on-the-Lake Hydro
By Redhead Media Solutions Inc.

April 15, 2020

Introduction and Summary

Thank you for selecting Redhead Media Solutions Inc. for this important project for Niagara-on-the-Lake Hydro. We appreciate your confidence in us to provide you with data on Electrical Safety Awareness that can now be used to compare with previous surveys and among other LDCs.

We have restructured our reporting to you this year, replacing the traditional single report with tables and transitioning to a more robust and informative graphics-based style that gives you the ability to see responses and information “at a glance” as opposed to simply comparing numbers.

To supplement this report, we have also included the full set of 2020 tables and comparative 2016/2018/2020 tables in spreadsheet format, allowing you easy access to the data we have generated. You can find this in “Appendix A”. The methodology guide and questionnaire are also included as appendices B, C for your reference.

Should there be any specific data or breakouts that you require, please contact us to discuss.

Graydon Smith
President

Niagara
On-The-Lake
HYDRO

Introduction and Summary

Redhead Media Solutions Inc. (Redhead), partnering with ADVANIS for data collection and statistics, has been retained (via a 2017 RFP process by Cornerstone Hydro Electric Concepts Inc. - CHEC) to conduct the 2020 Electrical Safety Public Awareness Survey for Niagara-on-the-Lake Hydro. This survey is a required part of an LDC's Balanced Scorecard and other reporting and regulatory requirements for the Ontario Energy Board (OEB).

The complete group of participating CHEC LDCs are as follows:

- Centre Wellington Hydro
- EPCOR
- Grimsby Power
- Lakefront Utilities
- Lakeland Power Distribution
- Niagara-on-the-Lake Hydro
- Orangeville Hydro
- Ottawa River Power
- Renfrew Hydro
- Rideau St. Lawrence Distribution
- Tillsonburg Hydro
- Wasaga Distribution
- Wellington North Power

Additionally, Redhead also provided services for this project outside the CHEC group of LDCs.

Introduction and Summary

This final report contains data specifically for Niagara-on-the-Lake Hydro.

This survey is comprised of approximately 400 randomly selected interviews of with Ontario residents who are 18 years or older and reside in the Niagara-on-the-Lake Hydro service territory. The sample frame is stratified by age group and gender within each territory and the data is also weighted to be representative of the adult population within each territory.

The objective of the survey is to provide a Public Safety Awareness (PSA) index score for Niagara-on-the-Lake Hydro. This is a calculated aggregate value based on the responses of individuals to six core measures in the survey instrument.

The 2020 PSA Index Score is 82.8%.

The median score for participating LDCs is 83.3%.

The 2016-2020 delta = -0.2 % which is within the margins of error.

The 2018-2020 delta = +1.3% which is within the margins of error.

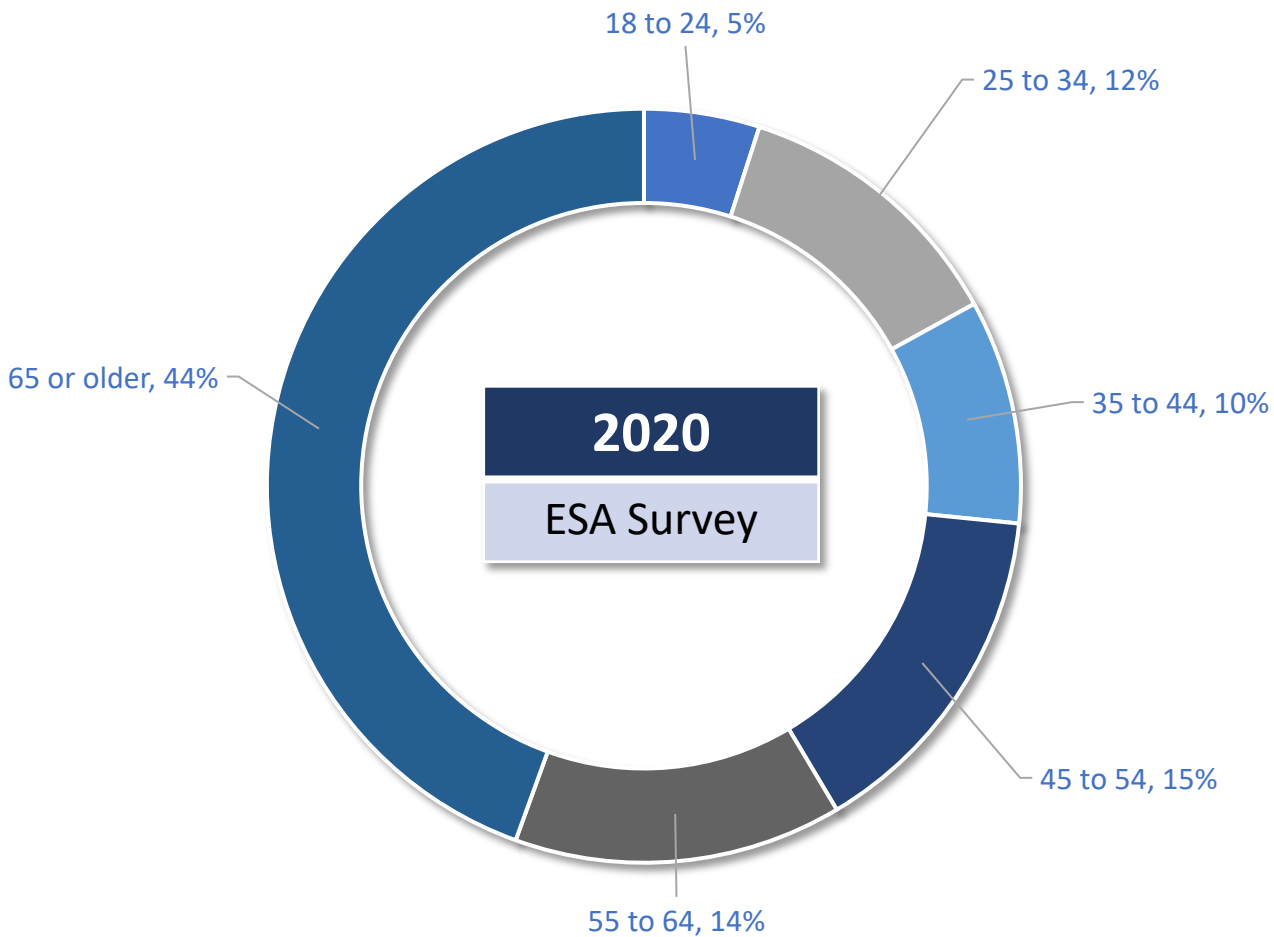
The 2020 score sits within a very tight spectrum of scores we calculated for all participating LDCs. When the confidence interval and margin of error is applied to all index scores, there is significant overlap between LDCs which underlines the statistical similarity of performance and electrical safety awareness among participants. Statistically, Niagara-on-the-Lake Hydro is similar to all other LDCs surveyed.

The following report contains graphic data and tables for all core questions as well as year-over-year comparative data (internal) and comparative scoring data (external). Additional data is available in the attached spreadsheet sheets and tables. (Appendix A)

Questions and scoring methodology was prescribed by the survey authors, Electrical Safety Authority/Innovative Research. As such, there has been limited additional analysis provided beyond the direction provided to meet the reporting guidelines. Should you wish further analysis of the data please contact our office to discuss.

DEMOGRAPHICS

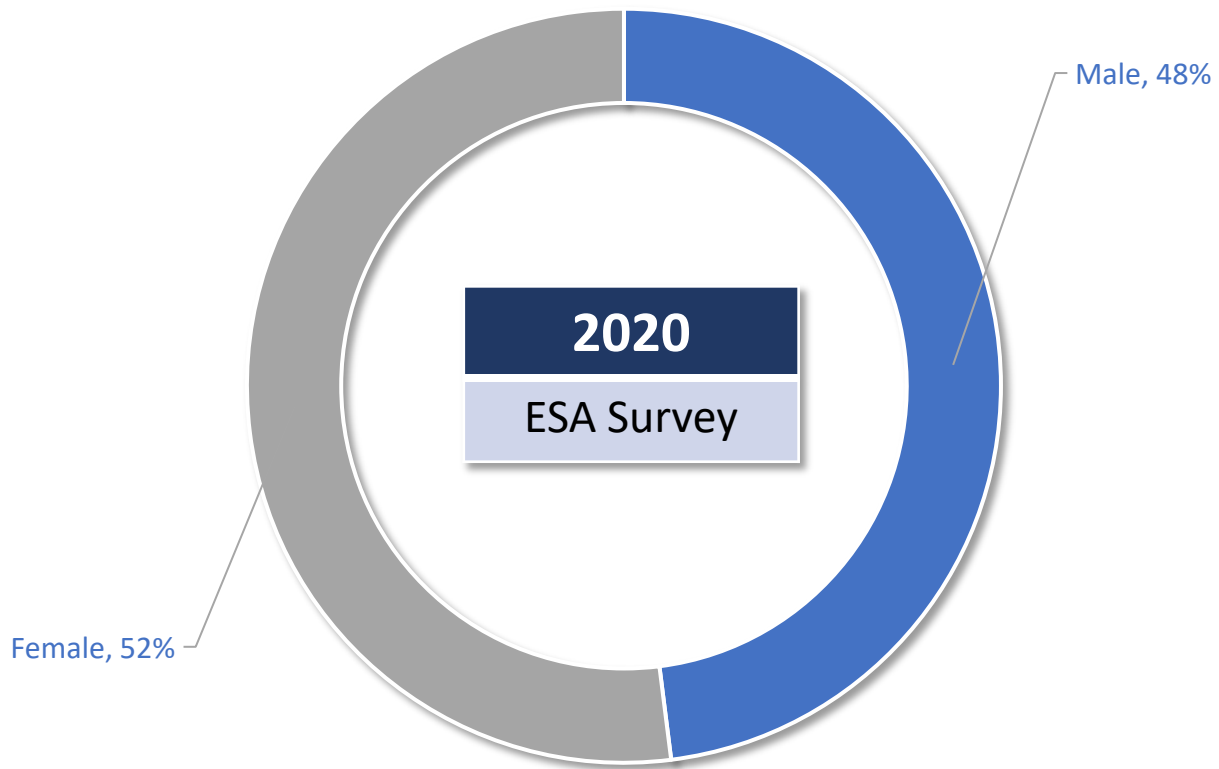
Age of Respondent



	Total
Base: Total Answering	400
18 to 24	5%
25 to 34	12%
35 to 44	10%
45 to 54	15%
55 to 64	14%
65 or older	44%

*Note: Charts and tables may not add up to 100% due to rounding

Gender of Respondent

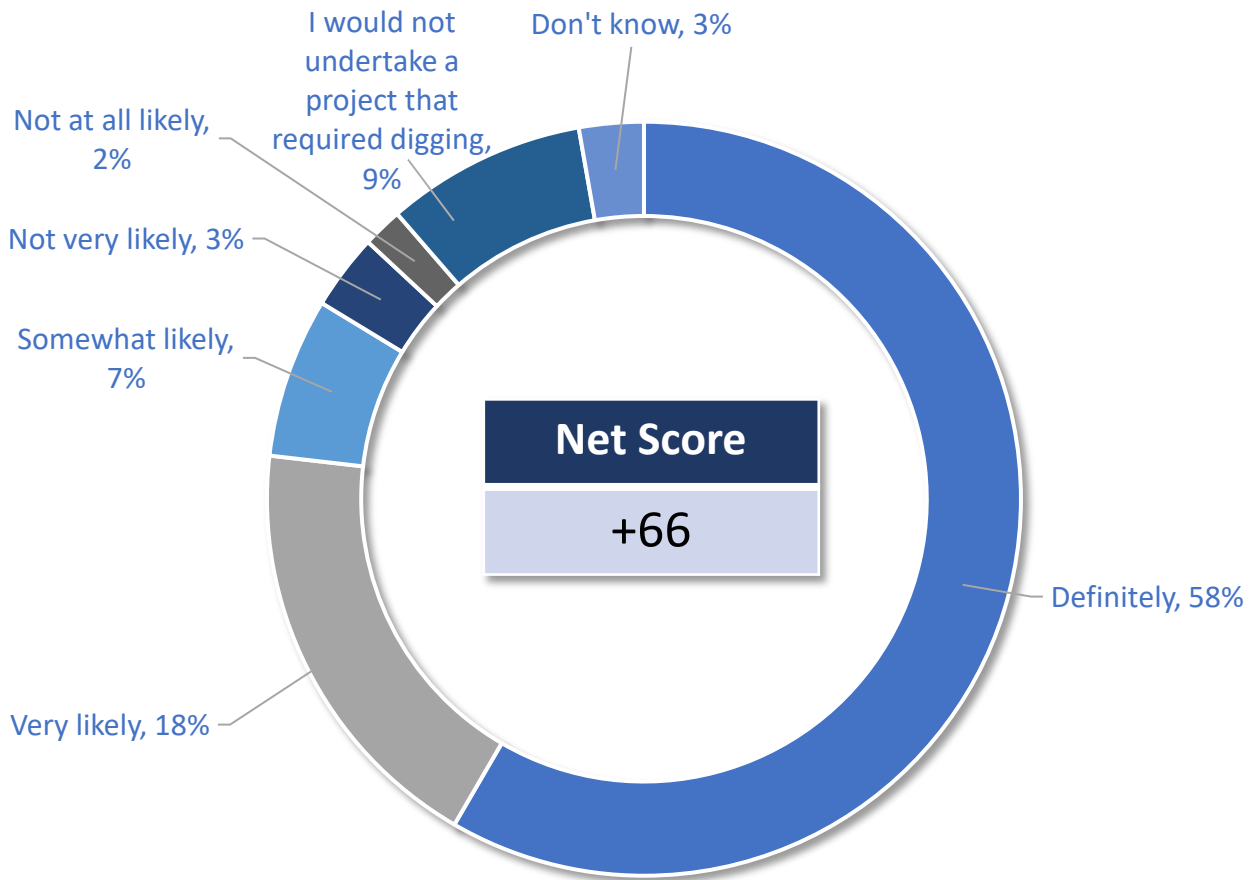


	Total
Base: Total Answering	400
Male	48%
Female	52%

*Note: Charts and tables may not add up to 100% due to rounding

QUESTIONS

B5: If you were to undertake a household project that required digging, such as planting a tree or building a deck, how likely are you to call to locate electrical or other underground lines?



	Total
Base: Total Answering	400
Definitely	58%
Very likely	18%
Somewhat likely	7%
Not very likely	3%
Not at all likely	2%
I would not undertake a project that required digging	9%
Don't know	3%

*Note: Charts and tables may not add up to 100% due to rounding

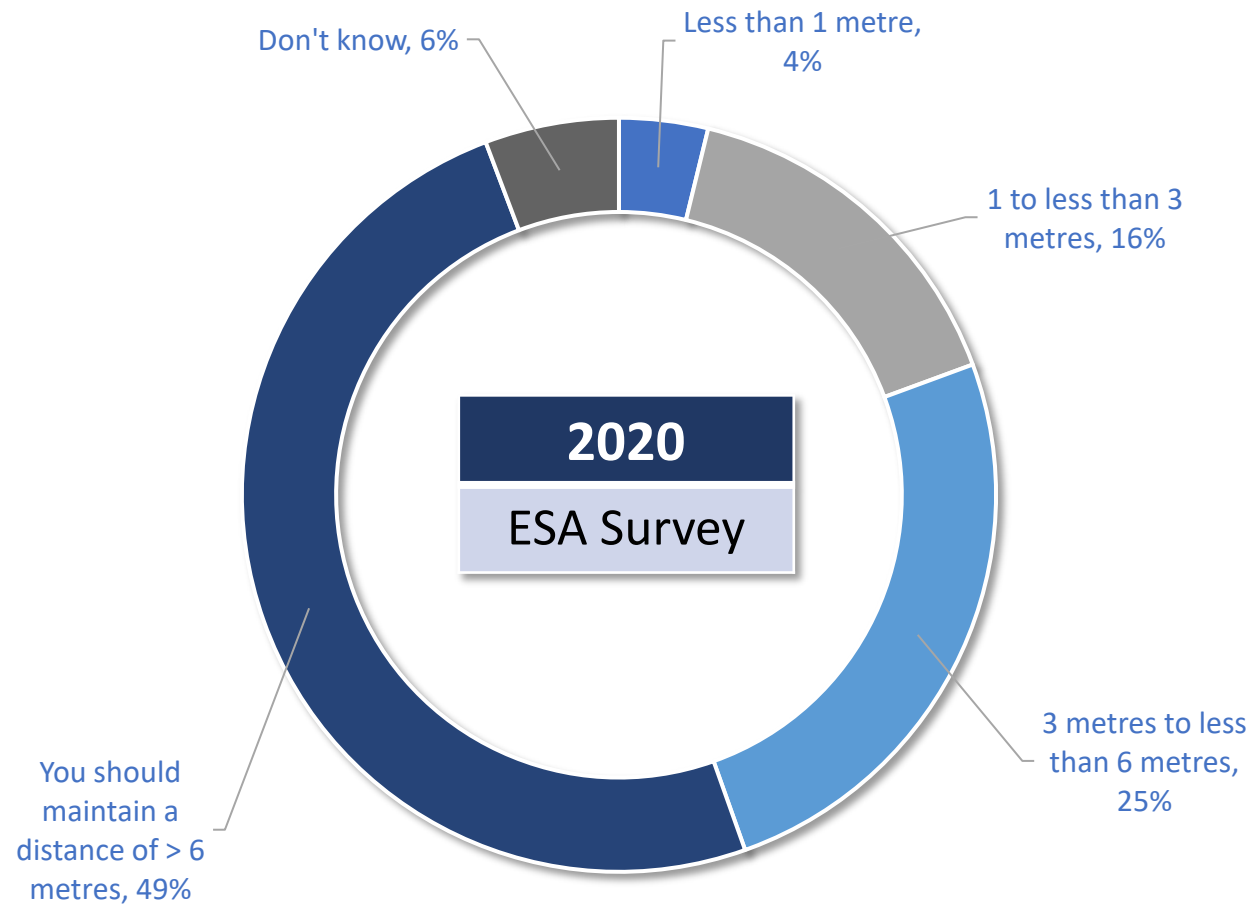
B6: How dangerous do you believe it is to touch – with your body or any object – an overhead power line?



	Total
Base: Total Answering	400
Very dangerous	95%
Somewhat dangerous	4%
Not very dangerous	0%
Not at all dangerous	0%
Don't know	0%

*Note: Charts and tables may not add up to 100% due to rounding

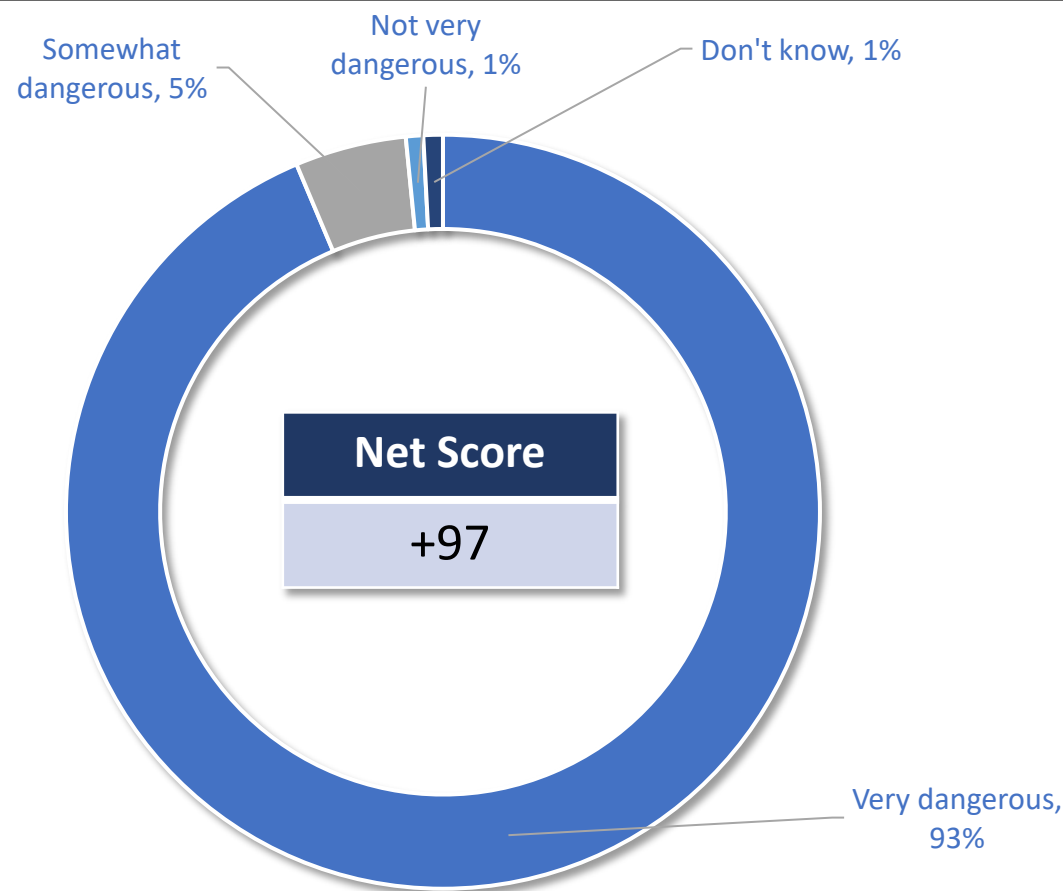
B7: When undertaking outdoor activities, such as standing on a ladder, cleaning windows or eaves, climbing or trimming trees, how closely do you believe you can safely come to an overhead power line with your body or an object?



	Total
Base: Total Answering	400
You can safely touch an overhead power line	0%
Less than 1 metre	4%
1 to less than 3 metres	16%
3 metres to less than 6 metres	25%
You should maintain a distance of > 6 metres	49%
Don't know	6%

*Note: Charts and tables may not add up to 100% due to rounding

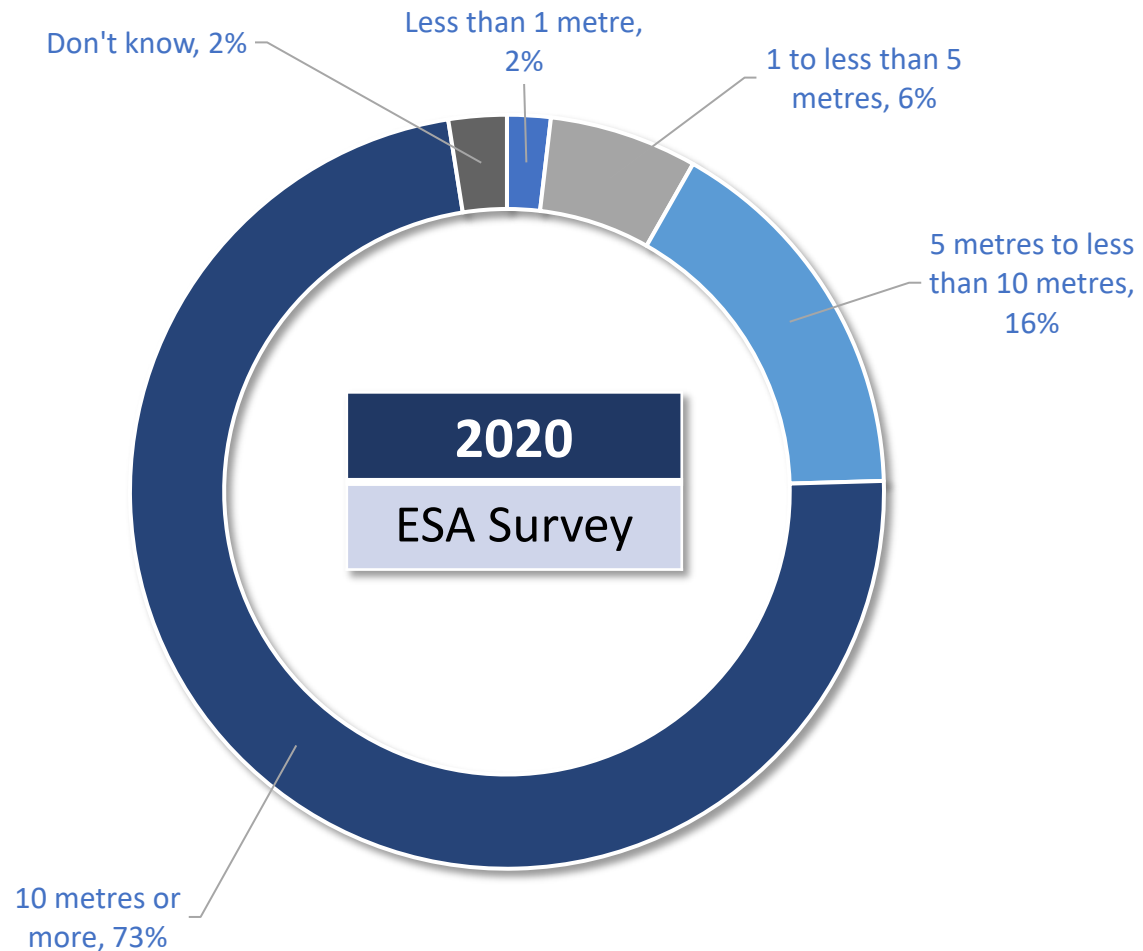
B8: Some electrical utility equipment is located on the ground, such as locked steel cabinets that contain transformers. How dangerous do you believe it is to try to open, remove contents, or touch the equipment inside?



	Total
Base: Total Answering	400
Very dangerous	93%
Somewhat dangerous	5%
Not very dangerous	1%
Not dangerous at all	0%
Don't know	1%

*Note: Charts and tables may not add up to 100% due to rounding

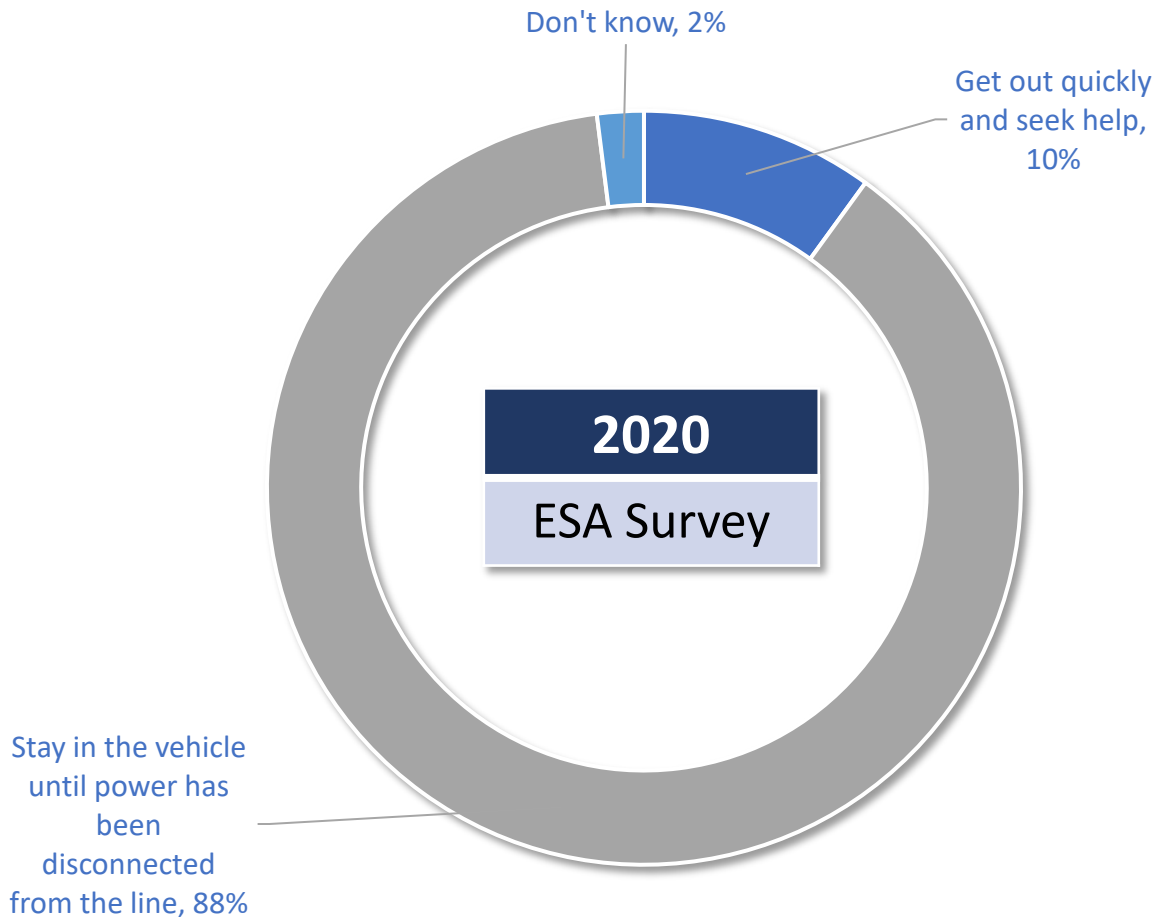
B9: How closely do you believe you can safely come to a downed overhead power line, such as a downed line caused by a storm or accident?



	Total
Base: Total Answering	400
You can safely touch a downed overhead power line	0%
Less than 1 metre	2%
1 to less than 5 metres	6%
5 metres to less than 10 metres	16%
10 metres or more	73%
Don't know	2%

*Note: Charts and tables may not add up to 100% due to rounding

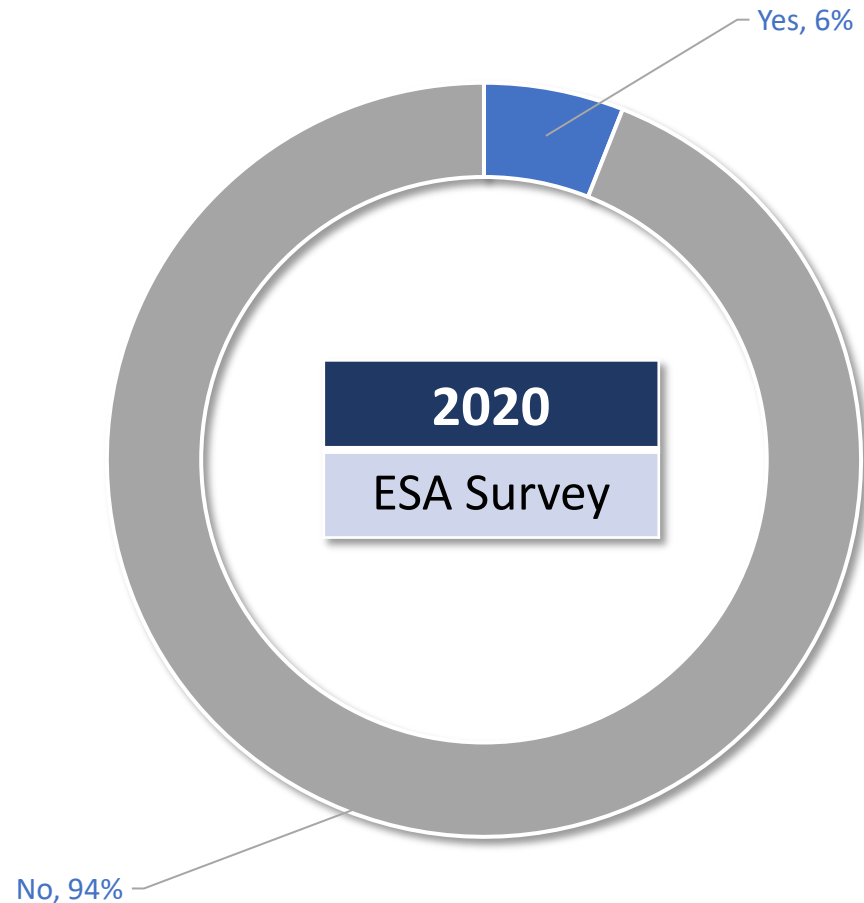
B10: If you were in a vehicle, such as a car, bus or truck and an overhead power line came down on top of it, which of the following options do you believe is generally safer?



	Total
Base: Total Answering	400
Get out quickly and seek help	10%
Stay in the vehicle until power has been disconnected from the line	88%
Don't know	2%

*Note: Charts and tables may not add up to 100% due to rounding

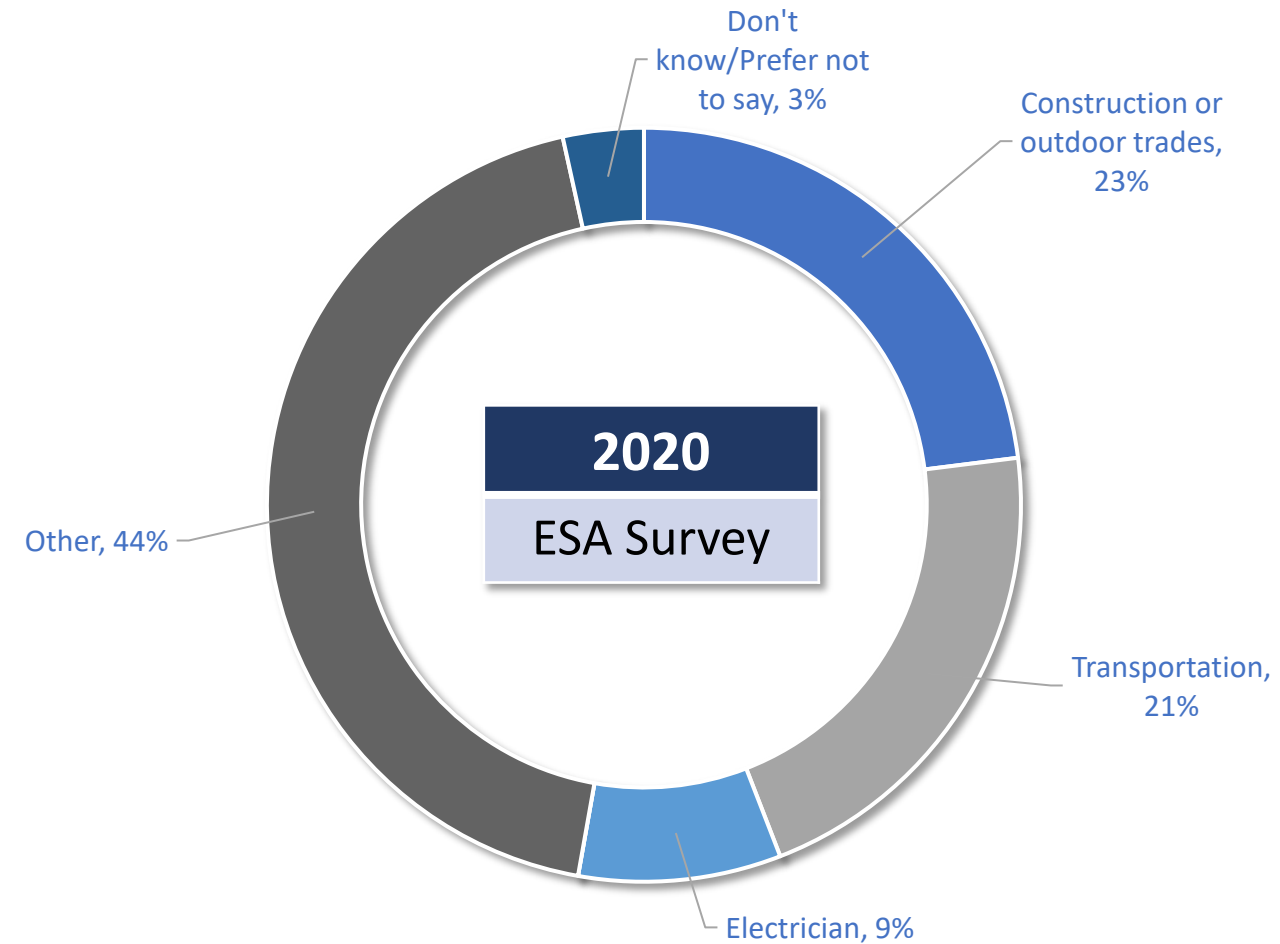
B11: Does your job regularly cause you to come close to energized power lines?



	Total
Base: Total Answering	400
Yes	6%
No	94%
Don't know	0%

*Note: Charts and tables may not add up to 100% due to rounding

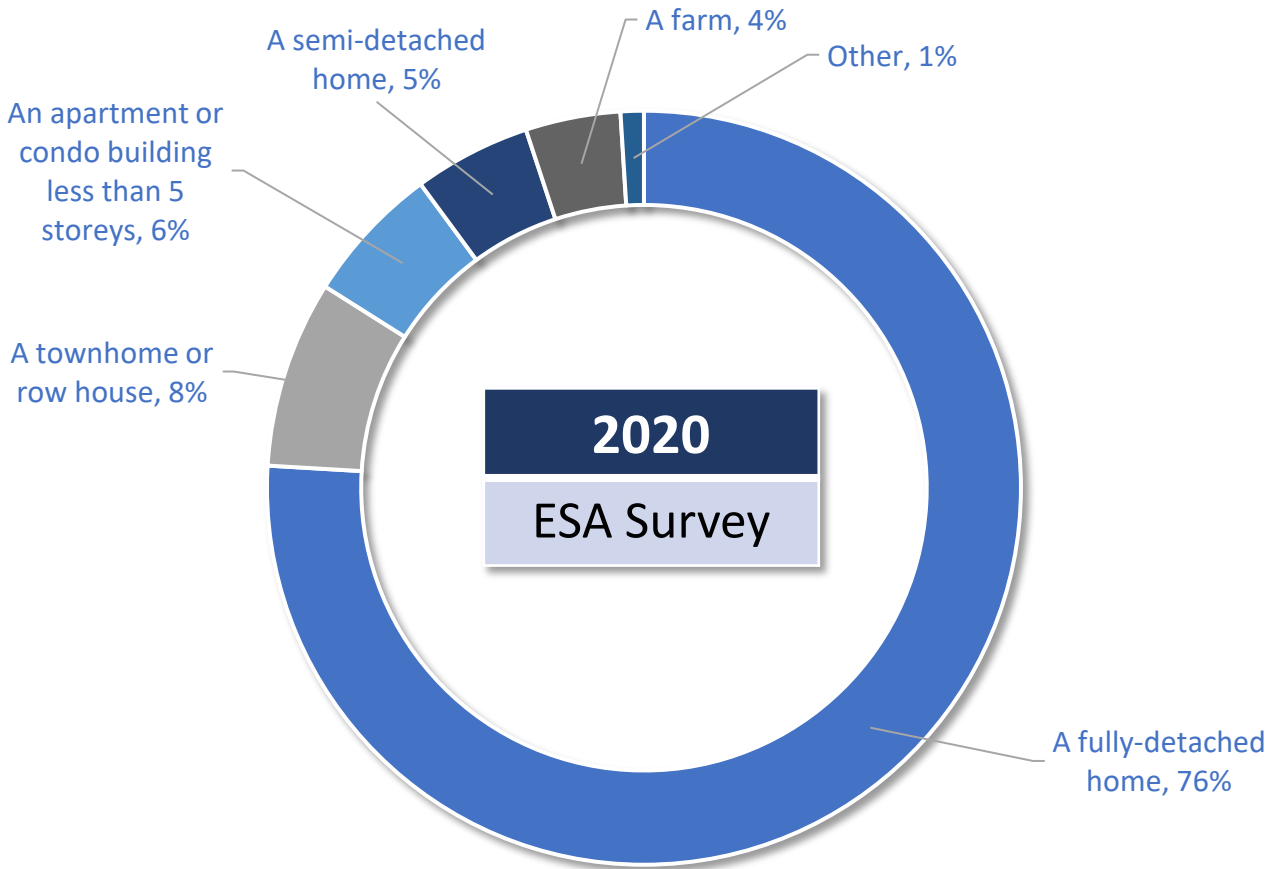
B12: Do you work in any of the following fields?



	Total
Base: Job requires regular proximity to power lines	21
Construction or outdoor trades	23%
Transportation	21%
Electrician	9%
General labour	0%
Other	44%
Don't know/Prefer not to say	3%

*Note: Charts and tables may not add up to 100% due to rounding

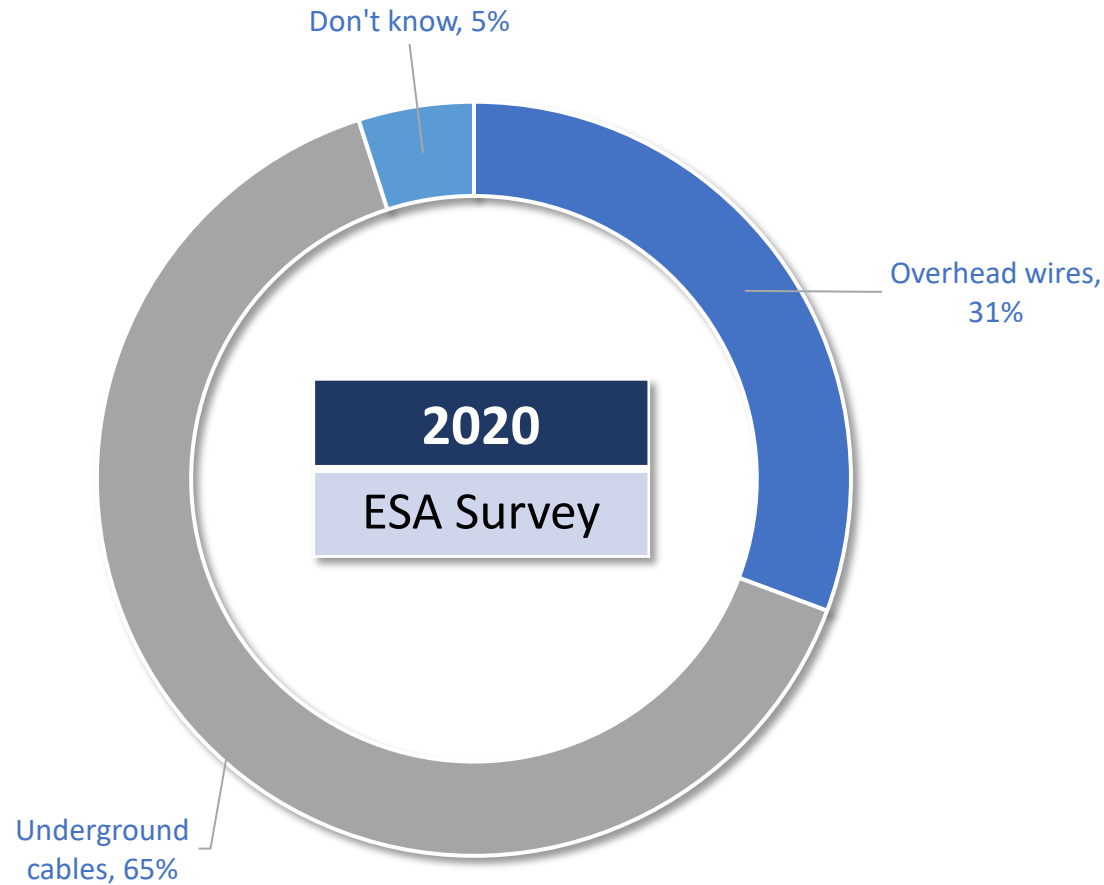
B13: How would you describe your primary residence?



	Total
Base: Total Answering	400
A fully-detached home	76%
A townhome or row house	8%
An apartment or condo building less than 5 storeys	6%
A semi-detached home	5%
A farm	4%
An apartment or condo building 5 storeys or higher	0%
Other	1%

*Note: Charts and tables may not add up to 100% due to rounding

B14: Does your primary residence receive electricity through overhead wires or underground cables?

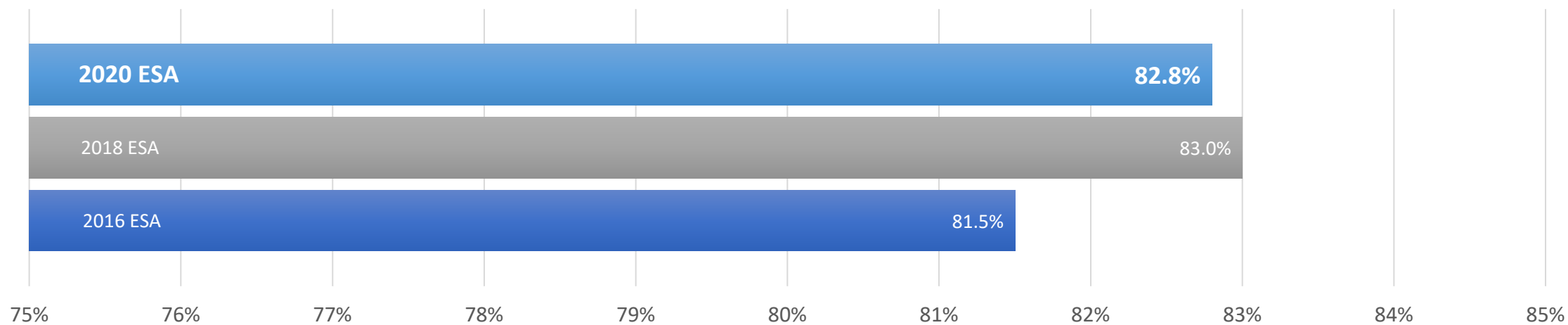


	Total
Base: Total Answering	400
Overhead wires	31%
Underground cables	65%
Don't know	5%

*Note: Charts and tables may not add up to 100% due to rounding

RESULTS

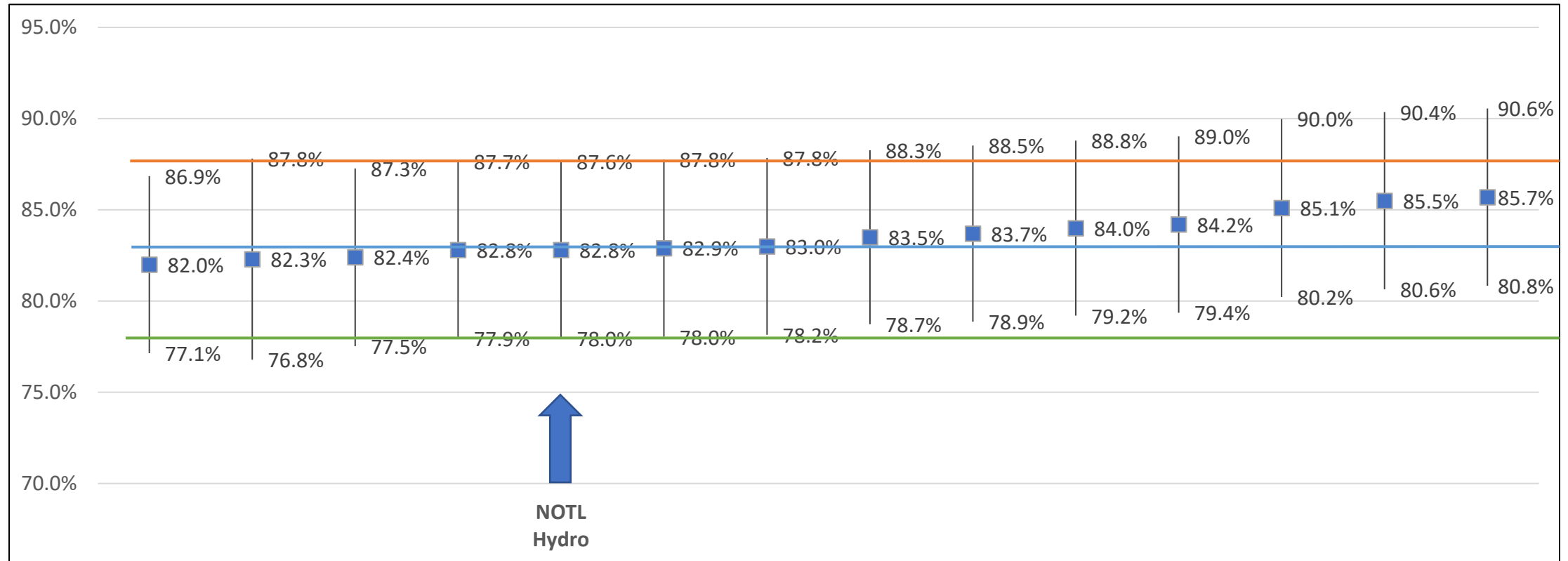
2020 Public Safety Awareness Index Score



	2016	2018	2020
Base: Total Answering	400	401	400
Public Safety Awareness Index Score	81.5%	83.0%	82.8%

*Note: Charts and tables may not add up to 100% due to rounding

2020 Public Safety Awareness Index Score External Comparison Upper and Lower Bound



- The lines denote Niagara-on-the-Lake Hydro's upper bound (orange), lower bound (green) and 2020 PSA Index score (blue). This is calculated by adding (upper) and subtracting (lower) the margin of error from the 2020 ESA Score.
- Niagara-on-the-Lake Hydro overlaps with all survey LDCs, which indicates a statistical similarity, as also occurred in the 2018 ESA Survey.

METHODOLOGY

Methodology Summary

Commissioned by	Niagara-on-the-Lake Hydro
Sample size	400 randomly selected customers
Margin of error	±4.8 percentage points, 19 times out of 20
Survey mode	Random telephone survey of customer base, CATI data collection
Survey sample	Residents 18 years of age + who reside in the service territory of Niagara-on-the-Lake Hydro
Time of calling	4PM-9PM ET Weekdays, callbacks scheduled 9AM-9PM ET
In-field dates	January 7-March 12, 2020
Language	English only
Survey author	Innovative Research/Electrical Safety Authority
Question Order	Report shown in order
Question Wording	Questions shown in report as asked
Survey Company	Redhead Media Solutions Inc/Advanis

Methodology Details

Target Respondents

The respondents of the survey were Ontario residents 18 years of age or older who reside within Niagara-on-the-Lake Hydro's service territory. Target areas were determined based on a list of postal codes provided by Niagara-on-the-Lake Hydro.

Sample Size and Statistical Reliability

All margins of error (MoE) are shown at a 95% confidence level.

- E.g., the margin of error associated with a sample size of 400 for a large (infinite) population is ± 4.9 percentage points, 19 times out of 20.
- Because Niagara-on-the-Lake Hydro's service area has a smaller adult (18+) population, and MoE is a function of the relationship between sample size and population, it is appropriate to apply a finite population correction factor when calculating MoE. When sample size is a higher percentage of the population, the MoE may narrow.

Sample sizes were set according to the *Public Awareness of Electrical Safety: Methodology & Survey Implementation Guide*, prepared for the Electrical Safety Authority by Innovative Research (November 2015):

- Where possible, sample size of $n=400$.
- For LDCs with a service territory population of less than 5,000, a minimum sample size of $n=300$ is appropriate.
- For LDCs with a service territory population of less than 3,000, a minimum sample size of $n=200$ is appropriate.

Methodology Details

Sampling Methodology

Redhead was provided service territory postal codes from Niagara-on-the-Lake Hydro. Both landline and wireless sample were used. The landline sample used listed numbers only, the wireless sample was drawn randomly from the most recent working cell phone lists in rate centers in or around the specified area(s). We then sampled from these lists randomly using Advanis' proprietary sample server.

To minimize low response:

- Sample was loaded in batches to ensure the sample was fully utilized before moving onto fresh sample records;
- Calls were made between the hours of 4pm and 9pm ET on weekdays; and
- Call backs were scheduled and honored between the hours of 9am and 9pm ET.

Questionnaire

The survey instrument was provided by the Electrical Safety Authority (ESA) developed in conjunction with Innovative Research. The survey consisted of an introduction, electrical safety core questions and demographic information.

Data Collection

Computer aided telephone interviews (CATI) were conducted from January 7-March 12, 2020.

Methodology Details

Quality Control

The accuracy and integrity of results is of the highest importance for Redhead/Advanis. As such, several controls are implemented to ensure the highest quality output is achieved:

- Advanis, on behalf of Redhead, trained the interviewers to understand the study's objectives;
- Detailed call records are kept by the automated CATI system, and are supplemented by output files to SPSS for productivity analysis (i.e., not subject to human error);
- The survey was soft launched in select markets. The data was then checked before calling began in full for Niagara-on-the-Lake Hydro;
- 100% of all surveys are digitally recorded for potential review;
- Advanis' Quality Assurance team listened to the actual recordings of five percent of completed surveys and compared the responses to those entered by the interviewer to ensure that responses from respondents are properly recorded;
- Team Supervisors conduct regular more formal evaluations with each interviewer, in addition to nightly monitoring of each interviewer on their team;
- Project Managers closely monitored the progress of data collection, including call record dispositions;
- All SPSS code is reviewed by a more senior researcher;
- All Report Builder output is reviewed by a more senior researcher; and
- All values in the report are reviewed by another team member to ensure accuracy.

Methodology Details

Analysis of Findings & Data Weighting

Within each LDC, results were weighted to match corresponding population proportions from the most recent Statistics Canada census data for these six combinations of gender and age:

- Males 18-34
- Females 18-34
- Males 35-54
- Females 35-54
- Males 55 and older
- Females 55 and older

As noted above, the service territory was specified by postal code. Since census data is not available by postal code, Redhead provided Advanis with the municipalities covered by the LDC, and the population numbers for the Census Subdivisions that most closely matched those municipalities were totaled to arrive at the LDC population proportions for each of the six gender/age combinations.

The Public Safety Awareness index scores have been highlighted and were calculated as described below, based on instructions from the Electrical Safety Authority (ESA). The “provided response values” referenced in the description below were also determined and provided by the ESA. Data analysis and cross-tabulation have been conducted using SPSS and Report Builder software.

This index score is calculated using the following formulas:

Step 1: Add each individual respondent's key measurement questions using the provided response values.

$$\begin{array}{rcl} & & B5 \\ + & & B6 \\ + & & B7 \\ + & & B8 \\ + & & B9 \\ + & & B10 \\ = & & \text{Individual respondent's cumulative score} \end{array}$$

Step 2:

$$\begin{array}{l} \text{Individual respondent's cumulative score} / \# \text{ of sections} \\ = \text{Respondent Standardized Score} \end{array}$$

Step 3:

$$\begin{array}{l} \text{Summation of all "Respondent Standardized Scores" / n-size (i.e. total sample size)} \\ = \text{Raw Index Score} \end{array}$$

Step 4:

$$\text{Raw Index Score} \times 100 = \text{Index Score (bound between 0-100\%)}$$

Methodology Tables

Margin of error

LDC	Completed Surveys	Sample Size as % of population	Assuming Large Population	Using Actual 18+ Population
Niagara-on-the-Lake Hydro	400	2.7%	+/- 4.9%	+/- 4.8%

Service Territory Defined by Postal Code

LDC	Total Postal Codes in Service Territory	Forward Sortation Areas (FSA) Covered	Number of Local Delivery Units in Each FSA
Niagara-on-the-Lake Hydro	5	LOS	5

Thank You

We greatly appreciate working on this important project for Niagara-on-the-Lake Hydro and hope we have met or exceeded your expectations.

We are happy to present this data to your staff or Board members upon request. If you wish to do so, please contact us for an appointment.

We look forward to working with you on future projects. Please note if you have any other projects that we may be able to help you with, don't hesitate to be in touch.

Graydon Smith - President
Redhead Media Solution Inc.
505 Hwy 118 W.
Suite 416
Bracebridge, ON
P1L 2G7

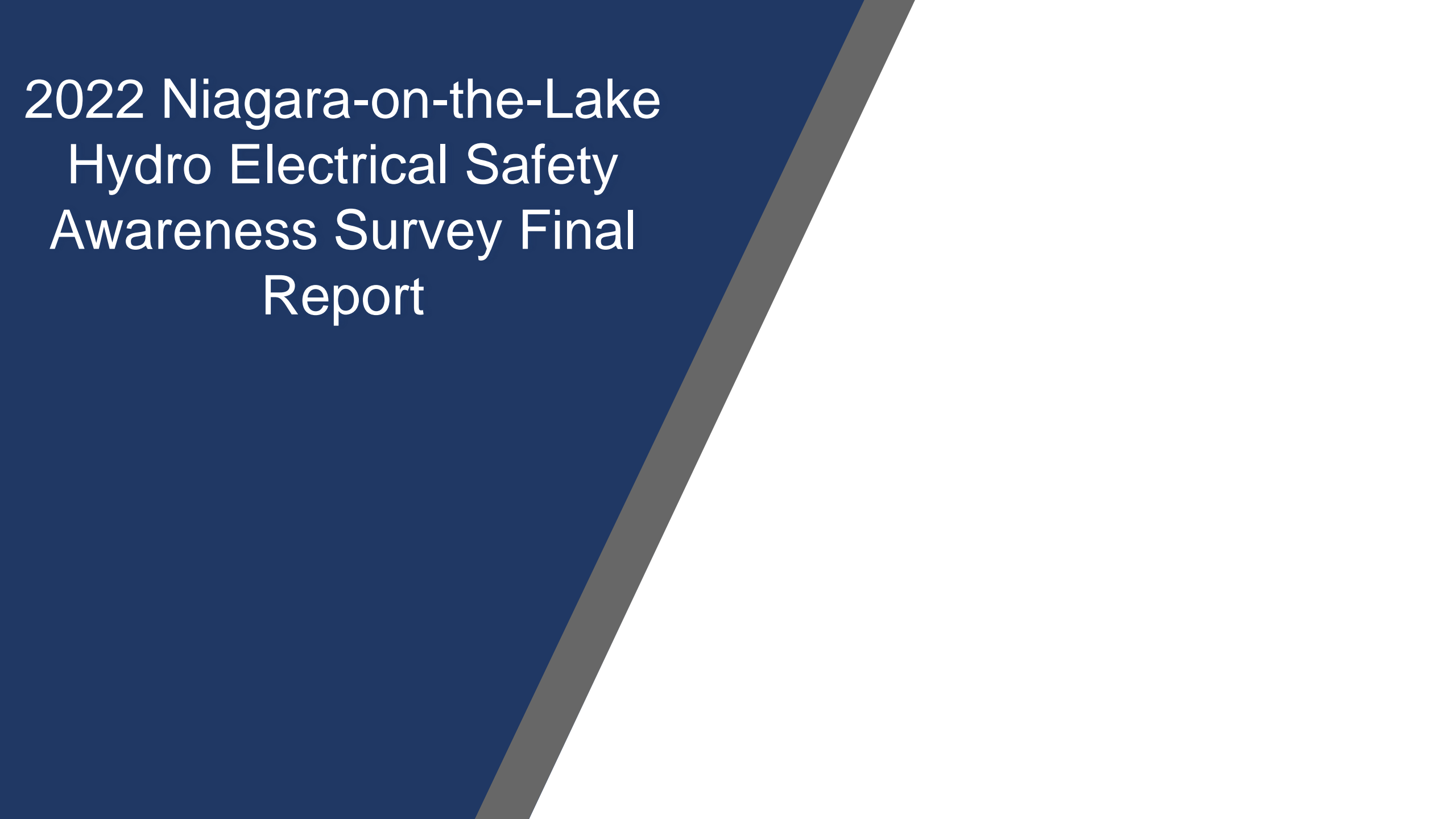
Niagara
On-The-Lake
HYDRO



APPENDIX 1J

2022 ESA Safety Survey Report

EB-2023-0041



2022 Niagara-on-the-Lake Hydro Electrical Safety Awareness Survey Final Report

Introduction and Summary

Thank you for selecting Redhead Media Solutions for this important project for Niagara-on-the-Lake Hydro. We appreciate your confidence in us to provide you with data on Electrical Safety Awareness (ESA) in your region which provides both a current snapshot and can be used to compare with previous surveys and among other LDCs in Ontario that we work with.

It is always our goal to improving our deliverables and provide value to our clients. This report contains data for 2022 as well as historical data for 2016, 2018 and 2020 as well as comparative data where appropriate.

Should there be any specific data or breakouts that you require we would be happy to provide them. Please contact us to discuss how we can assist you and ensure you are getting the most from this project.

Sincerely,

Graydon Smith
President
Redhead Media Solutions Inc.

Niagara
On-The-Lake
HYDRO

Introduction and Summary

Redhead Media Solutions Inc. (Redhead), partnering with ADVANIS for data collection and reporting, has been retained by Cornerstone Hydro Electric Concepts Inc. (CHEC) to conduct a 2022 Electrical Safety Awareness Survey for Niagara-on-the-Lake Hydro. This survey is a required part of an LDC's Balanced Scorecard and other reporting and regulatory requirements for the Ontario Energy Board (OEB).

The complete group of participating CHEC LDCs are as follows:

- Centre Wellington Hydro
- EPCOR
- EARTH Power
- Grimsby Power
- Lakefront Utilities
- Lakeland Power Distribution
- Niagara-on-the-Lake Hydro
- Orangeville Hydro
- Ottawa River Power
- Renfrew Hydro
- Rideau St. Lawrence Distribution
- Tillsonburg Hydro
- Wasaga Distribution
- Wellington North Power

Introduction and Summary

This final report contains data specifically for Niagara-on-the-Lake Hydro.

Redhead Media Solutions, partnering with Advanis for data collection, is consulting on behalf of Niagara-on-the-Lake Hydro to conduct the Electrical Safety Authority's Public Awareness survey for 2022. This survey is a required part of the LDC Balanced Scorecard for reporting to the Ontario Energy Board (OEB).

This survey is comprised of 400 randomly selected interviews with Ontario residents who are 18 years or older and reside in the required Niagara-on-the-Lake Hydro service territory. The sample frame is stratified by age group and gender within each the territory, and the data is weighted to be representative of the adult population within the territory.

The objective of the survey is to provide an Electrical Safety Awareness (ESA) index score for Niagara-on-the-Lake Hydro. This is a calculated aggregate value based on the responses of individuals to six core measures in the survey instrument.

Niagara-on-the-Lake Hydro's 2022 Electrical Safety Awareness Score is 82.6%, This is a 0.2% decrease over the 2020 score (82.8%) and 1.2% less than the average of all LDCs (83.8%). This is not a statistically significant difference from previous surveys or other LDCs.

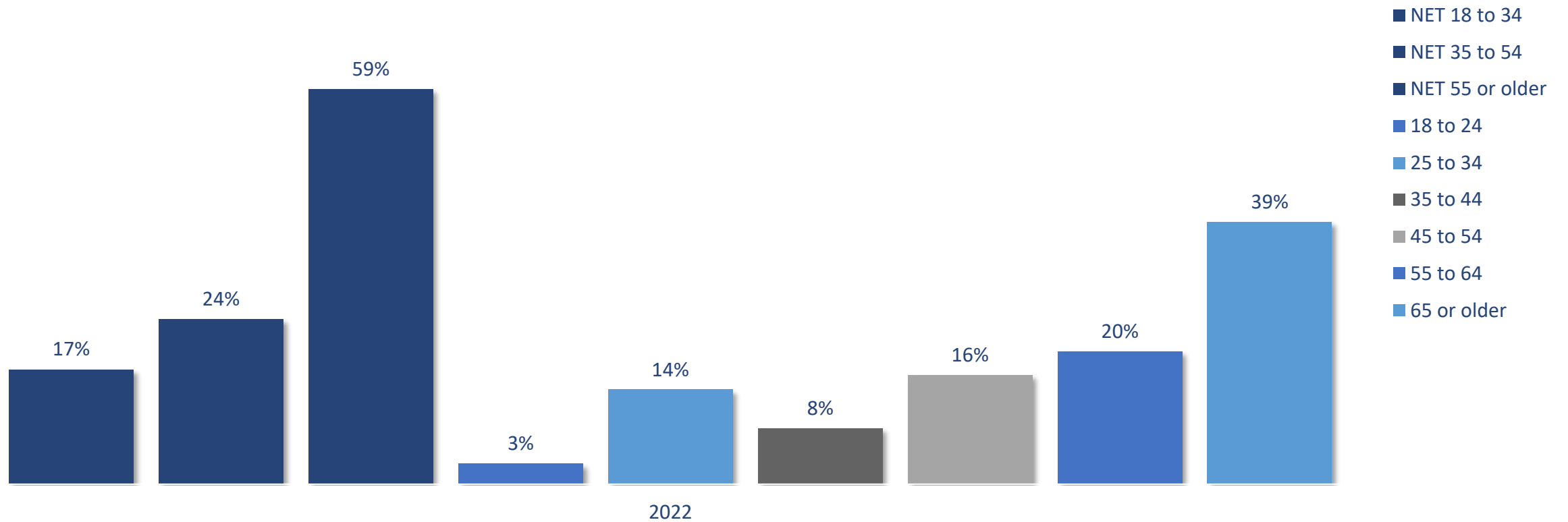
This falls within a very tight spectrum of index scores we processed for all LDCs that participated in the 2022 survey via Redhead. When the confidence interval and margin of error is applied to all index scores, there is significant overlap between LDCs which underlines the similarity of electrical safety awareness among participants.

The following report contains data and for all core questions as well as any additional questions supplied by the LDC (optional), asked after the core questions.

Question scoring and index methodologies were prescribed by the ESA/Innovative. As such, there has been limited additional analysis provided beyond the direction provided to meet the reporting guidelines. Should you wish further analysis of the data please contact our office to discuss.

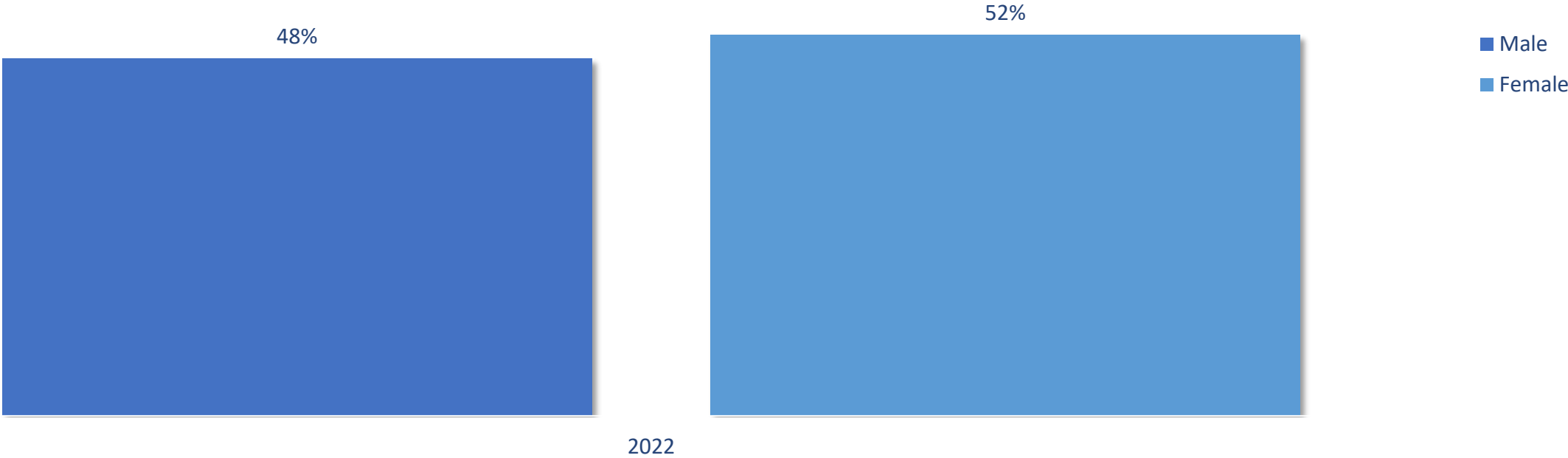
DEMOGRAPHICS

age_r - Age of respondent (based on A2, A2a)



Source: Redhead Media Solutions/Advanis telephone survey of 18-year-old + individuals residing in the service territory, January 4-February 23, 2022, n=400, accurate 4.9 percentage points plus or minus, 19 times out of 20.

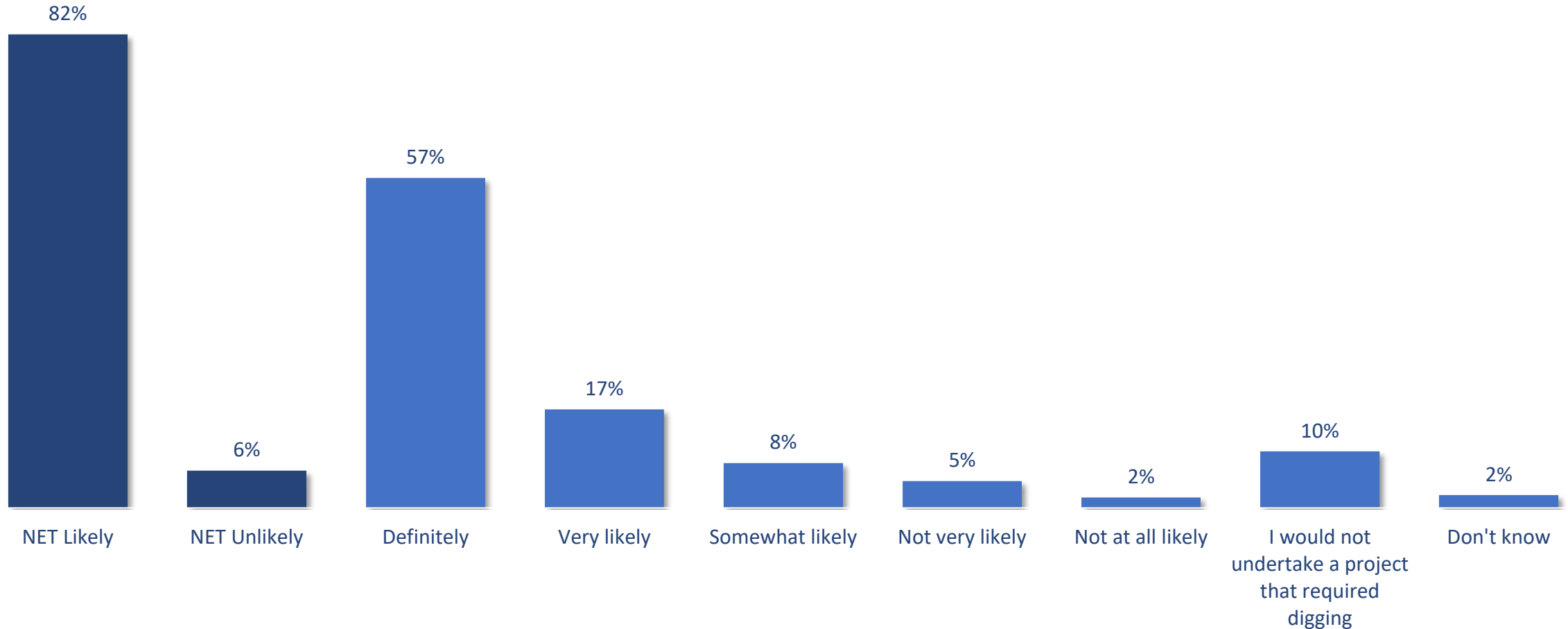
a4 - Gender



Source: Redhead Media Solutions/Advanis telephone survey of 18-year-old + individuals residing in the service territory, January 4-February 23, 2022, n=400, accurate 4.9 percentage points plus or minus, 19 times out of 20.

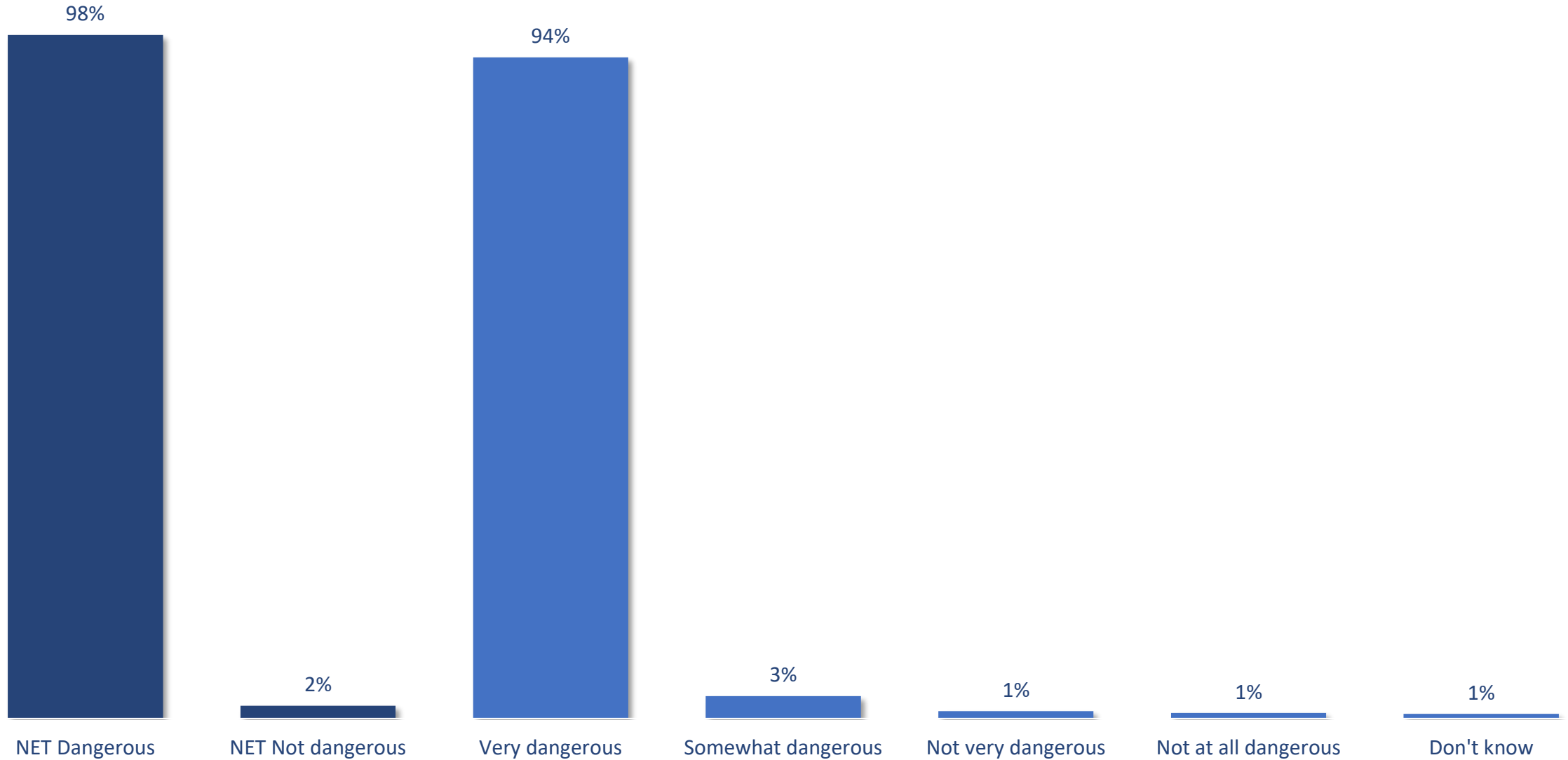
QUESTIONS/DATA

b5 - If you were to undertake a household project that required digging, such as planting a tree or building a deck, how likely are you to call to locate electrical or other underground lines?



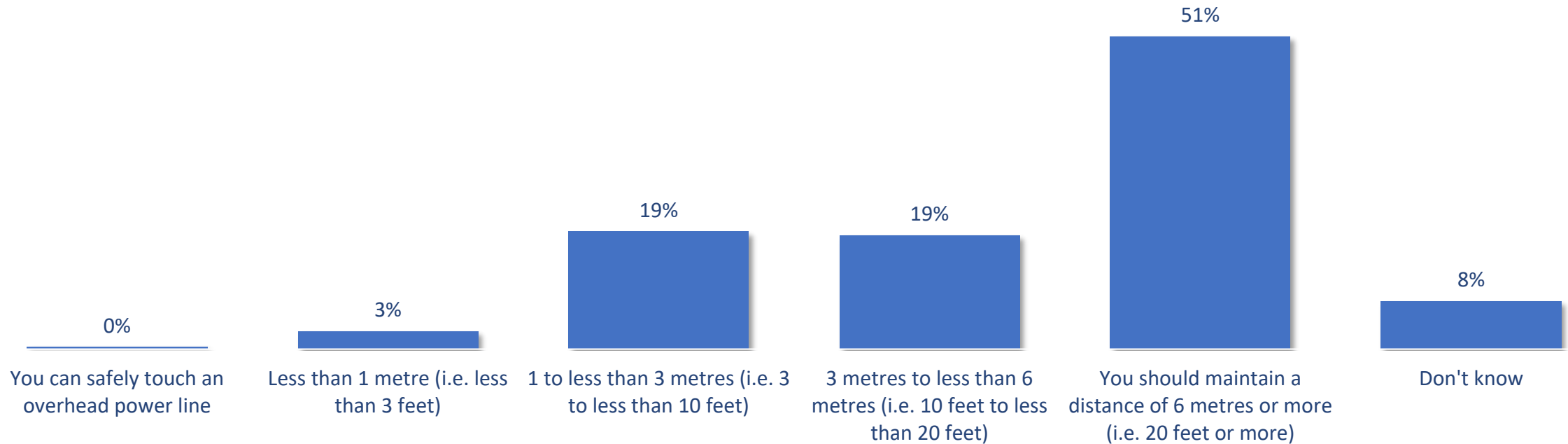
Source: Redhead Media Solutions/Advanis telephone survey of 18-year-old + individuals residing in the service territory, January 4-February 23, 2022, n=400, accurate 4.9 percentage points plus or minus, 19 times out of 20.

b6 - How dangerous do you believe it is to touch - with your body or any object - an overhead power line?



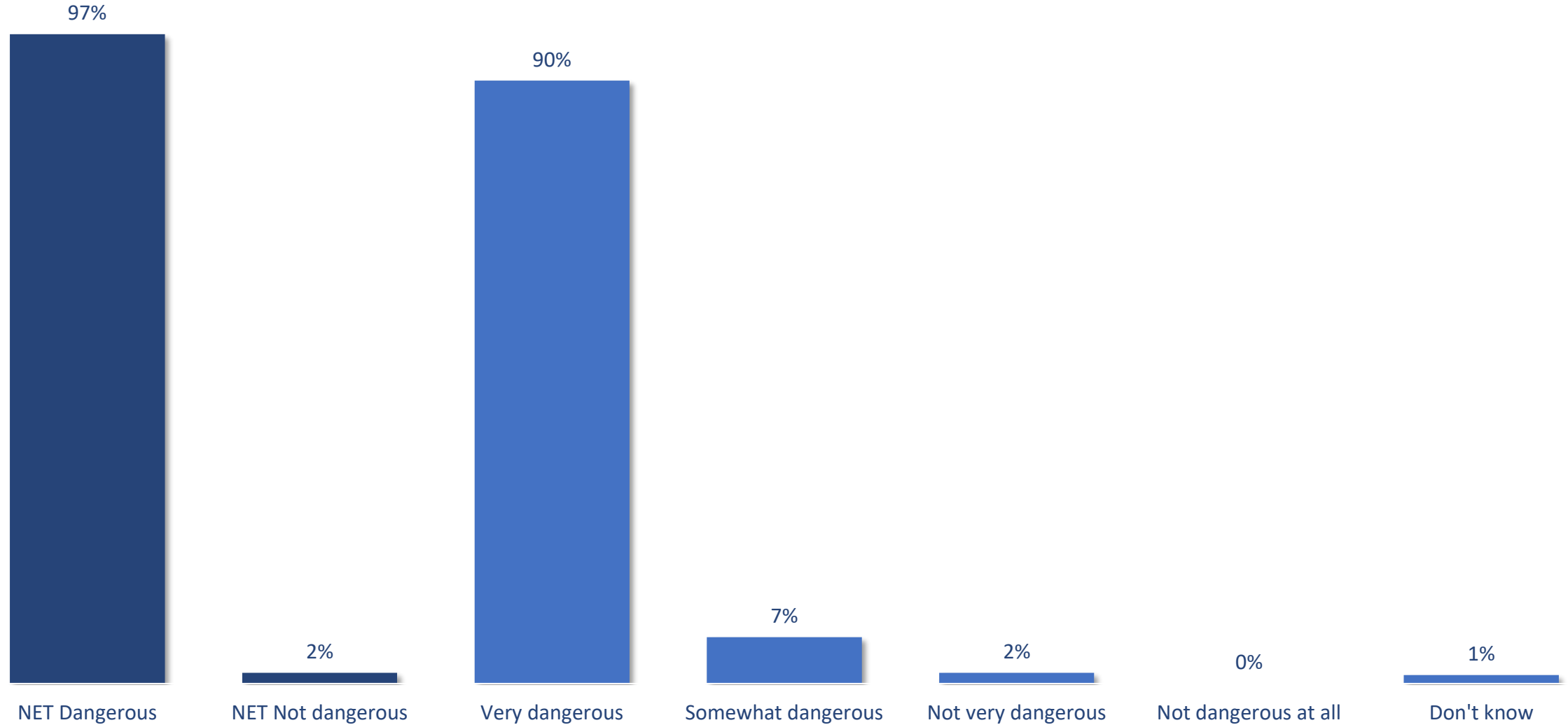
Source: Redhead Media Solutions/Advanis telephone survey of 18-year-old + individuals residing in the service territory, January 4-February 23, 2022, n=400, accurate 4.9 percentage points plus or minus, 19 times out of 20.

b7 - When undertaking outdoor activities, how closely do you believe you can safely come to an overhead power line with your body or an object?



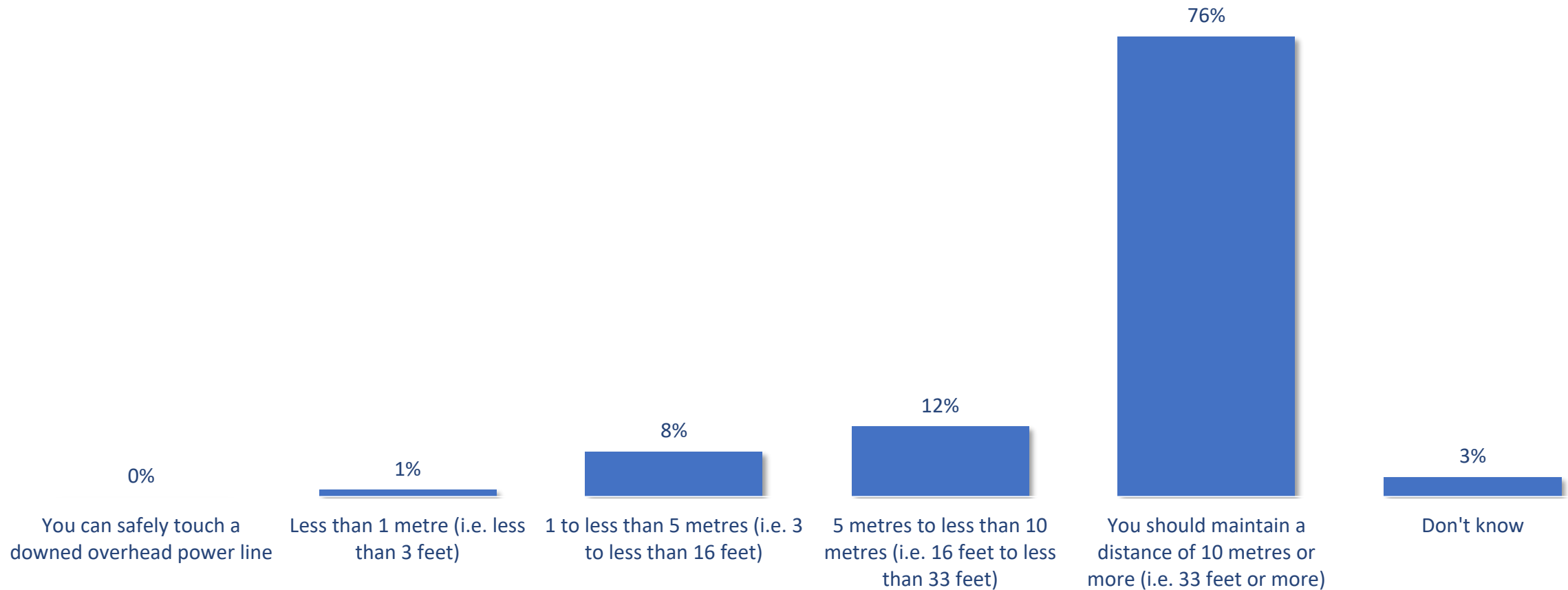
Source: Redhead Media Solutions/Advanis telephone survey of 18-year-old + individuals residing in the service territory, January 4-February 23, 2022, n=400, accurate 4.9 percentage points plus or minus, 19 times out of 20.

b8 - How dangerous do you believe it is to try to open, remove contents, or touch the equipment inside locked electrical utility equipment?



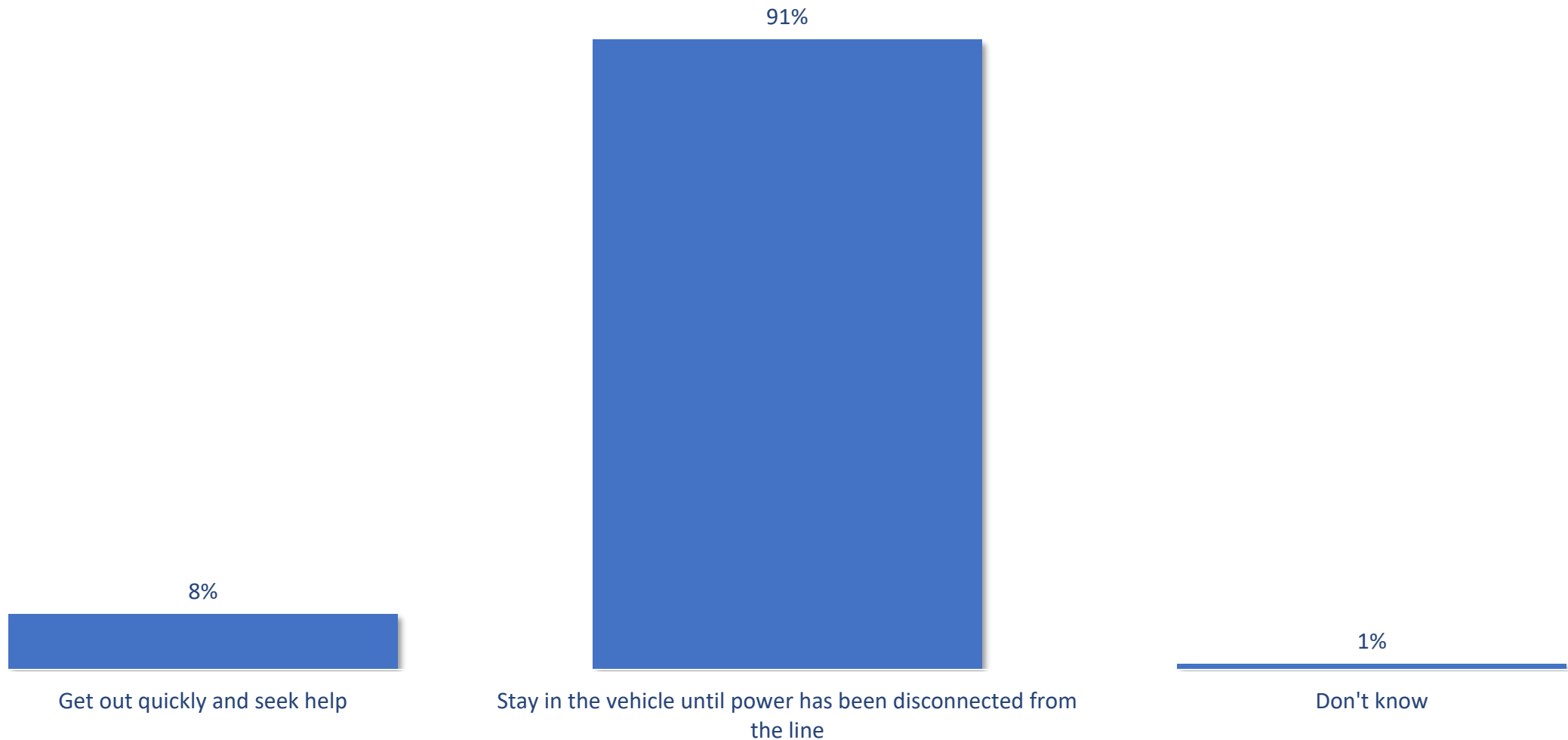
Source: Redhead Media Solutions/Advanis telephone survey of 18-year-old + individuals residing in the service territory, January 4-February 23, 2022, n=400, accurate 4.9 percentage points plus or minus, 19 times out of 20.

b9 - How closely do you believe you can safely come to a downed overhead power line, such as a downed line caused by a storm or accident?



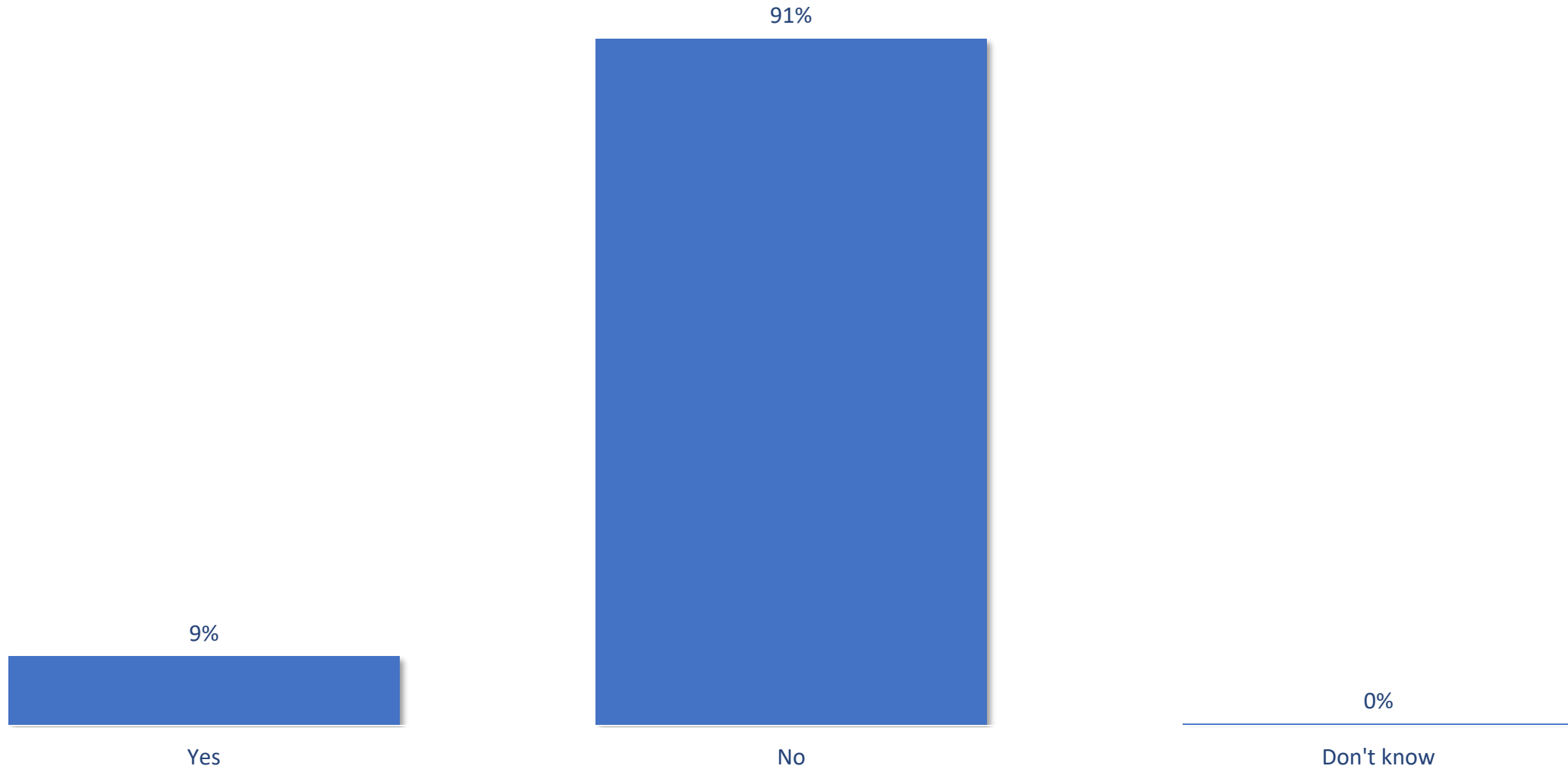
Source: Redhead Media Solutions/Advanis telephone survey of 18-year-old + individuals residing in the service territory, January 4-February 23, 2022, n=400, accurate 4.9 percentage points plus or minus, 19 times out of 20.

b10 - If you were in a vehicle, such as a car, bus, or truck, and an overhead power line came down on top of it, which of the following options do you believe is generally safer?



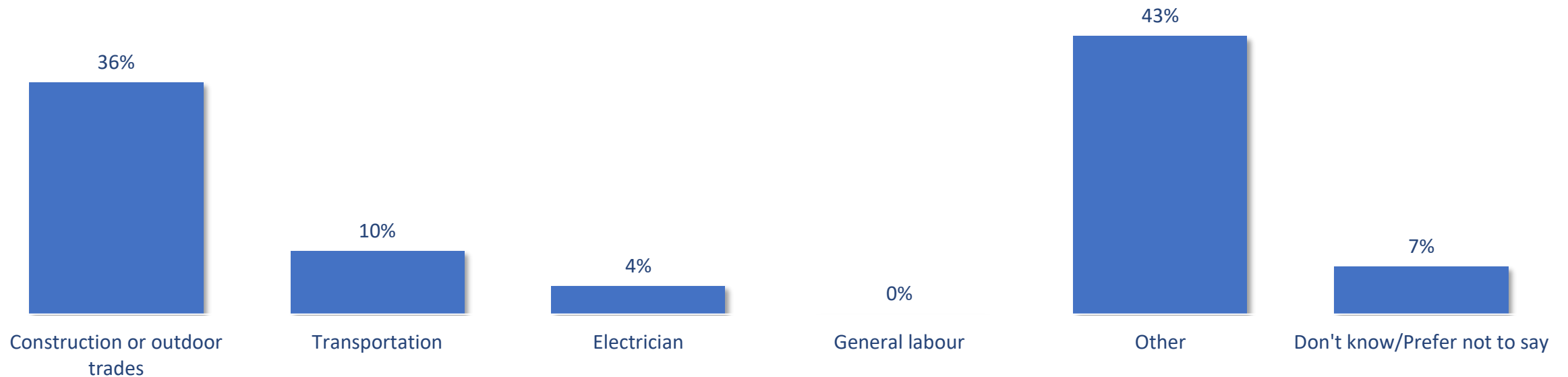
Source: Redhead Media Solutions/Advanis telephone survey of 18-year-old + individuals residing in the service territory, January 4-February 23, 2022, n=400, accurate 4.9 percentage points plus or minus, 19 times out of 20.

b11 - Does your job regularly cause you to come close to energized power lines?



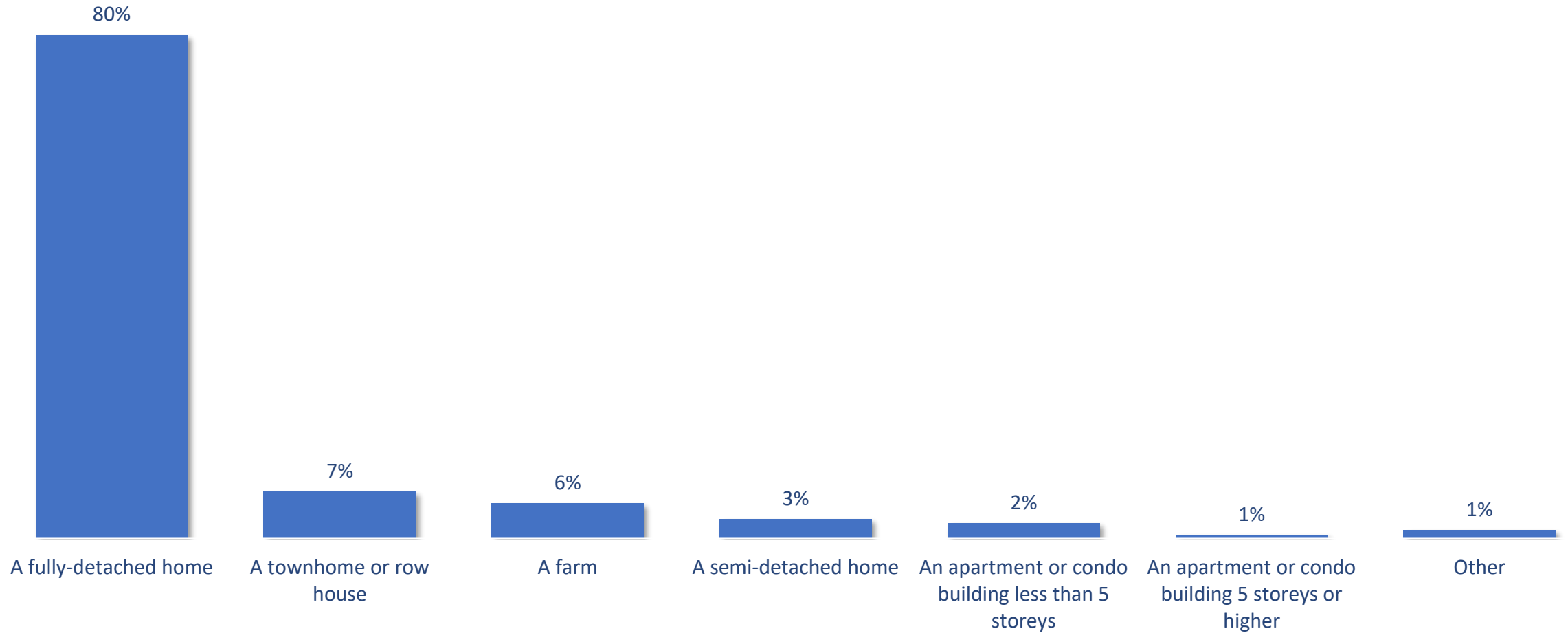
Source: Redhead Media Solutions/Advanis telephone survey of 18-year-old + individuals residing in the service territory, January 4-February 23, 2022, n=400, accurate 4.9 percentage points plus or minus, 19 times out of 20.

b12 - [Among those with a job featuring close contact to energized power lines] Do you work in any of the following fields?



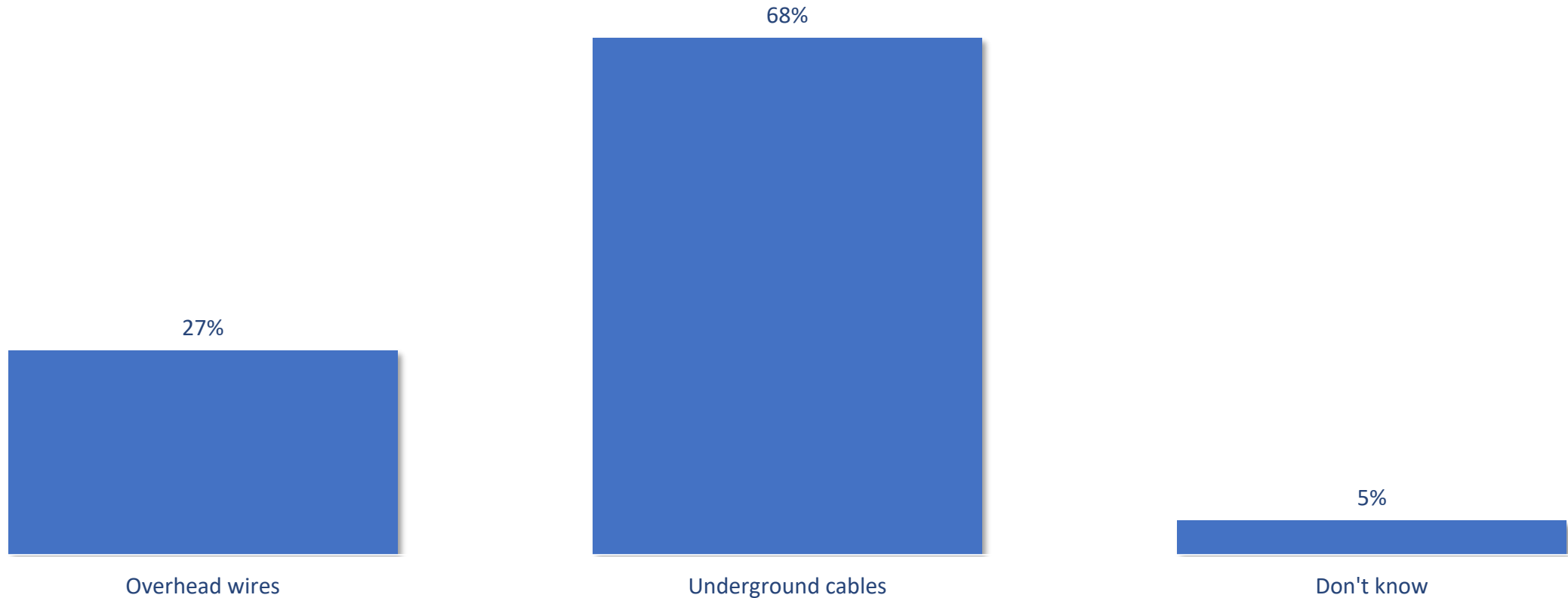
Source: Redhead Media Solutions/Advanis telephone survey of 18-year-old + individuals residing in the service territory, January 4-February 23, 2022, n=39.

b13 - How would you describe your primary residence?



Source: Redhead Media Solutions/Advanis telephone survey of 18-year-old + individuals residing in the service territory, January 4-February 23, 2022, n=400, accurate 4.9 percentage points plus or minus, 19 times out of 20.

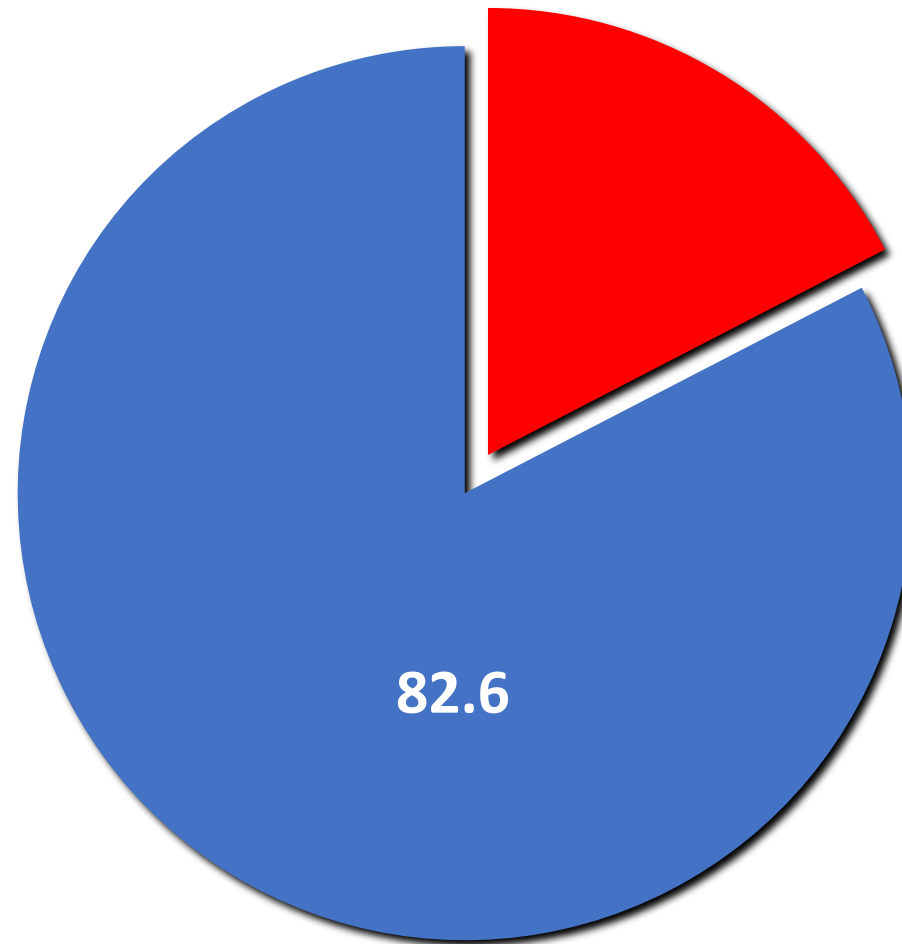
b14 - Does your primary residence receive electricity through overhead wires or underground cables?



Source: Redhead Media Solutions/Advanis telephone survey of 18-year-old + individuals residing in the service territory, January 4-February 23, 2022, n=400, accurate 4.9 percentage points plus or minus, 19 times out of 20.

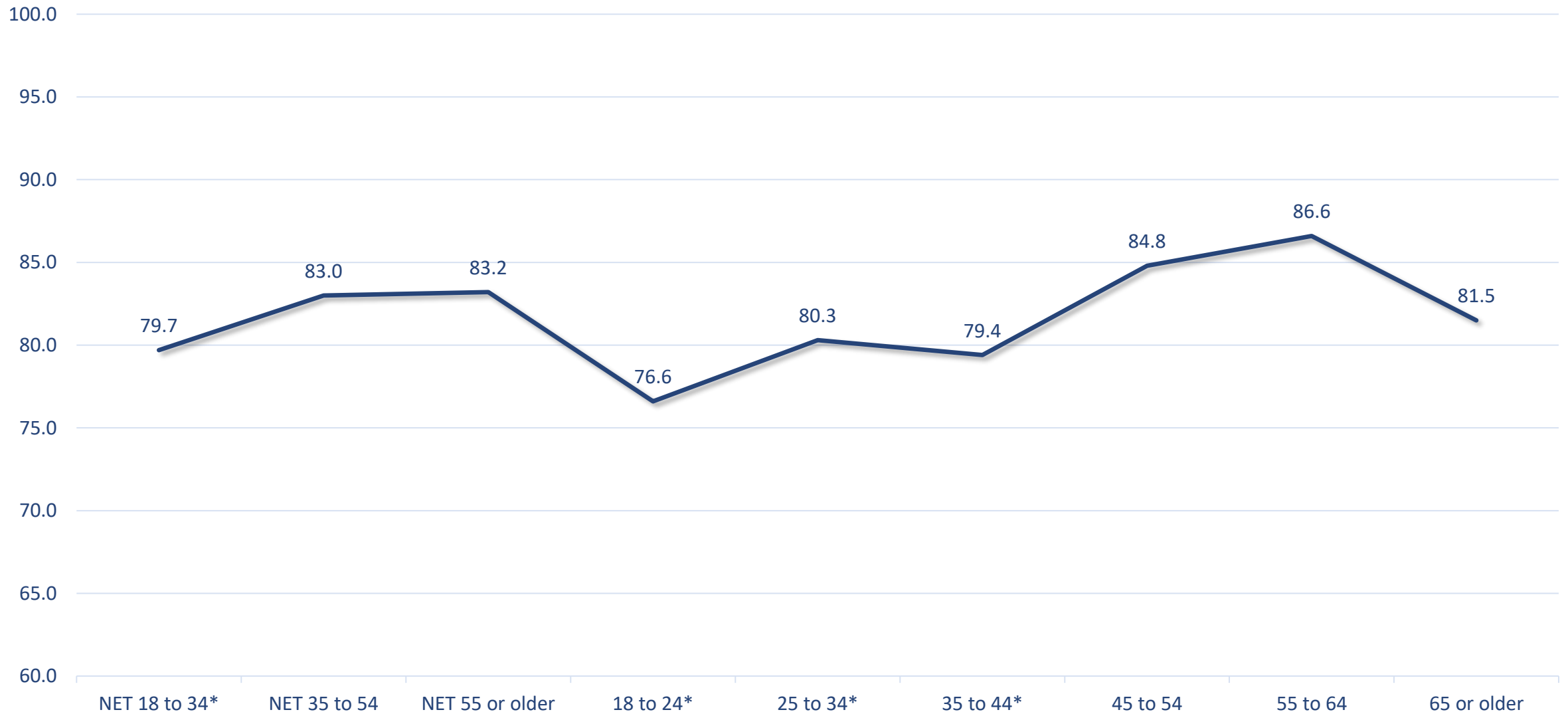
CUSTOMER SATISFACTION INDEX

ESA Index Score



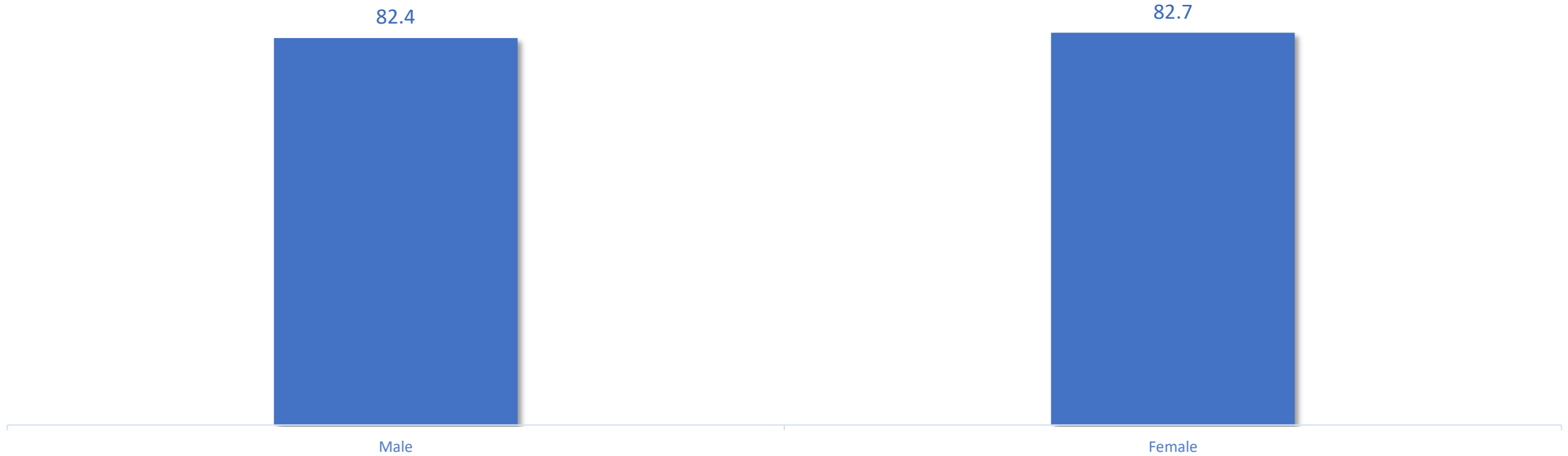
Source: Redhead Media Solutions/Advanis telephone survey of 18-year-old + individuals residing in the service territory, January 4-February 23, 2022, n=400, accurate 4.9 percentage points plus or minus, 19 times out of 20.

ESA Index Score by Age Category



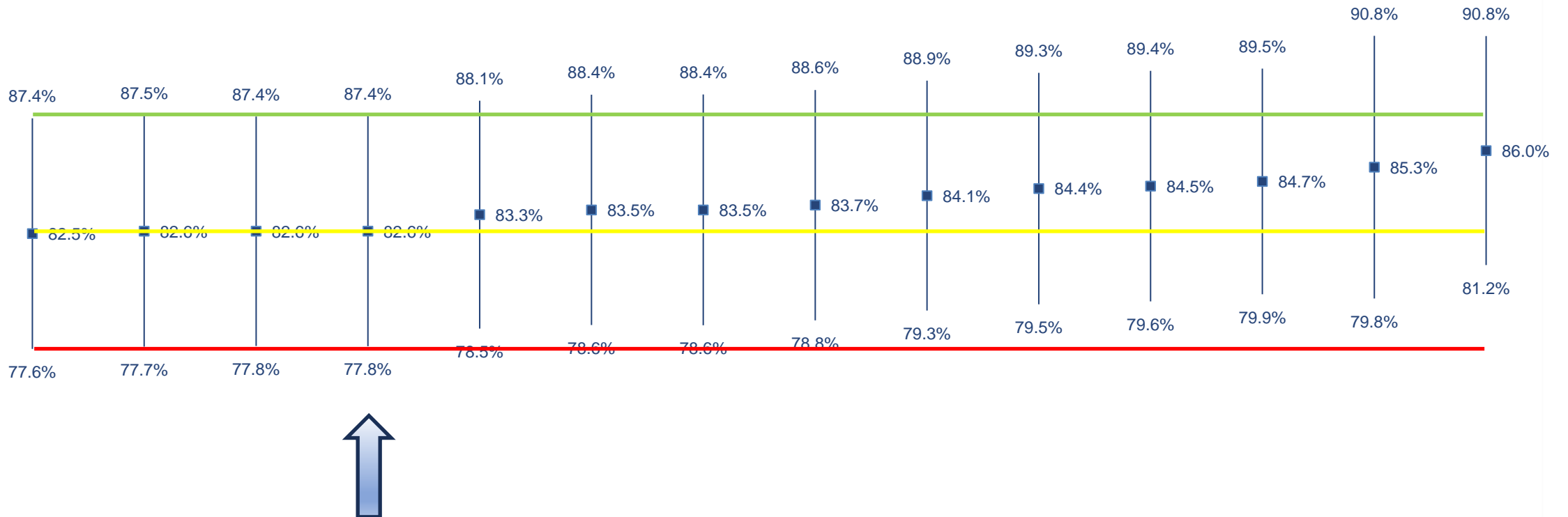
Source: Redhead Media Solutions/Advanis telephone survey of 18-year-old + individuals residing in the service territory, January 4-February 23, 2022, n=400, accurate 4.9 percentage points plus or minus, 19 times out of 20. *Caution base size <50.

ESA Index Score by Gender



Source: Redhead Media Solutions/Advanis telephone survey of 18-year-old + individuals residing in the service territory, January 4-February 23, 2022, n=400, accurate 4.9 percentage points plus or minus, 19 times out of 20.

ESA Index Score Comparison to External LDCs Upper and Lower Bound



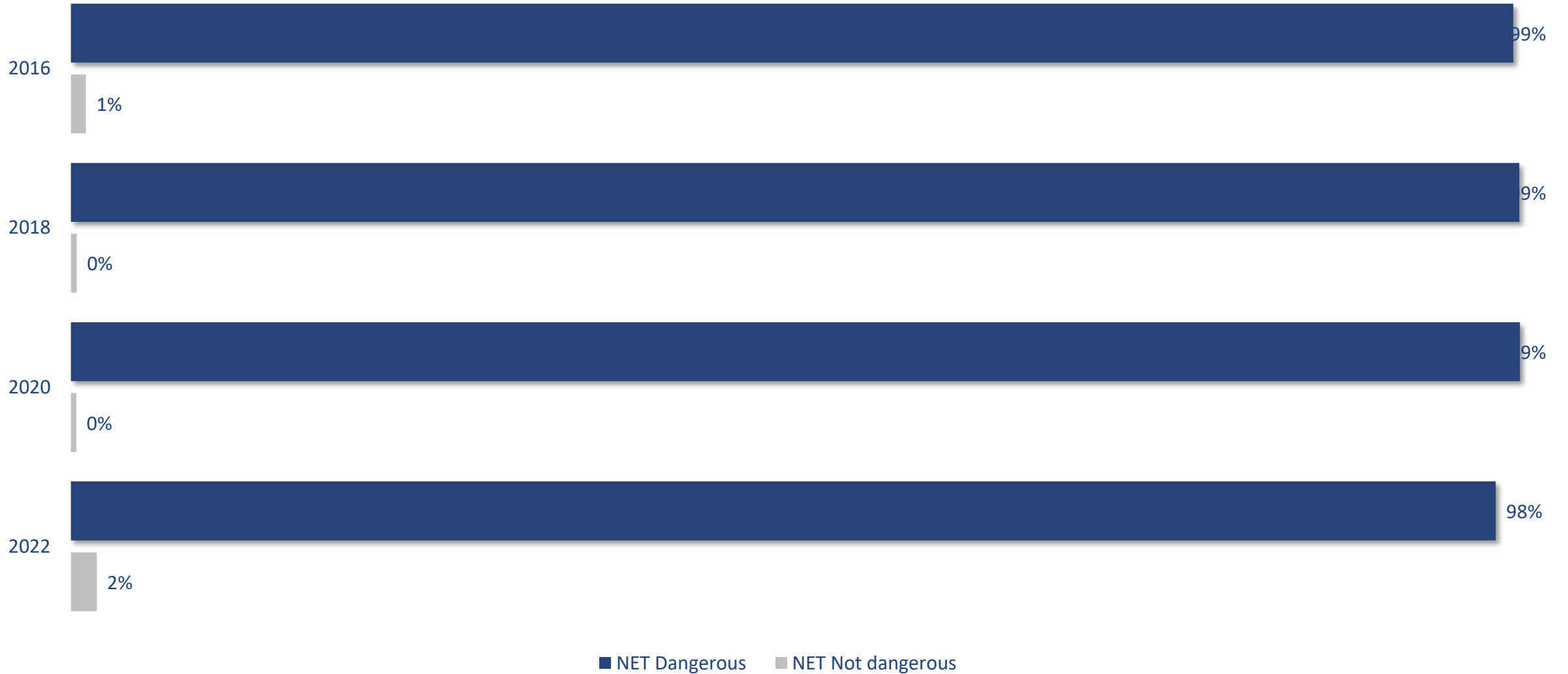
- The lines denote Niagara-on-the-Lake Hydro's upper and lower bound based on the Public Safety Awareness Score.
- All LDCs confidence intervals overlap, similar to 2020.
- CWH overlaps with all other LDCs, indicating statistical uniformity.

CORE COMPARATIVE DATA 2016-2022

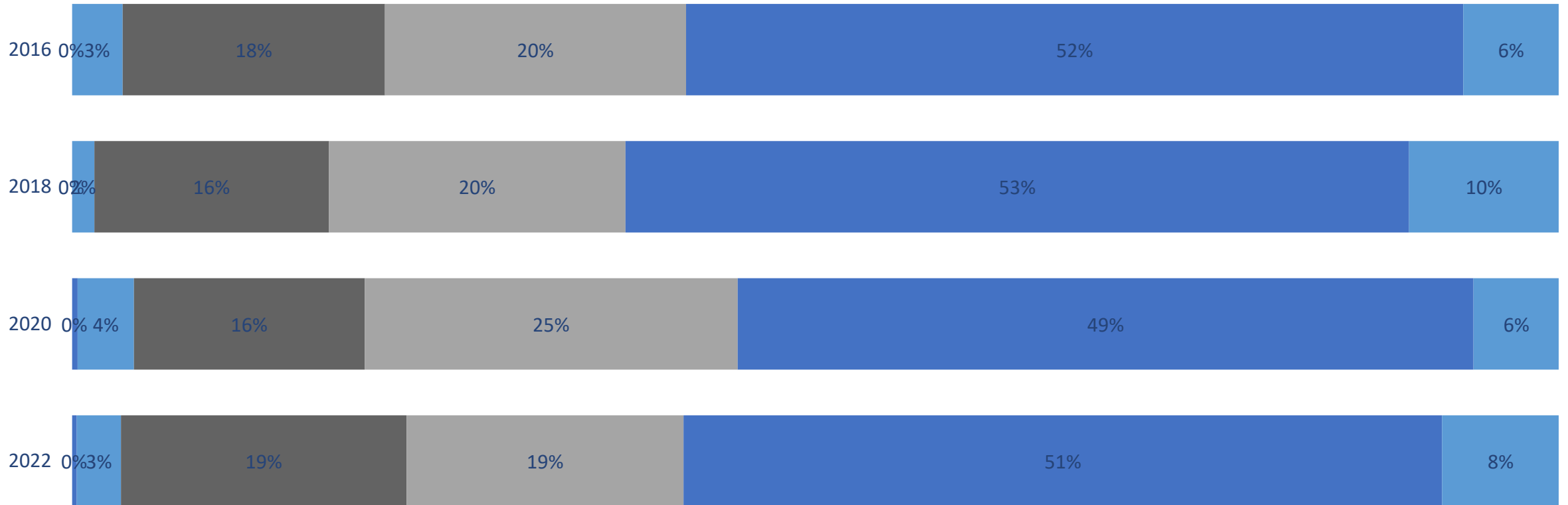
b5 - If you were to undertake a household project that required digging, such as planting a tree or building a deck, how likely are you to call to locate electrical or other underground lines?



b6 - How dangerous do you believe it is to touch - with your body or any object - an overhead power line?



b7 - When undertaking outdoor activities, how closely do you believe you can safely come to an overhead power line with your body or an object?

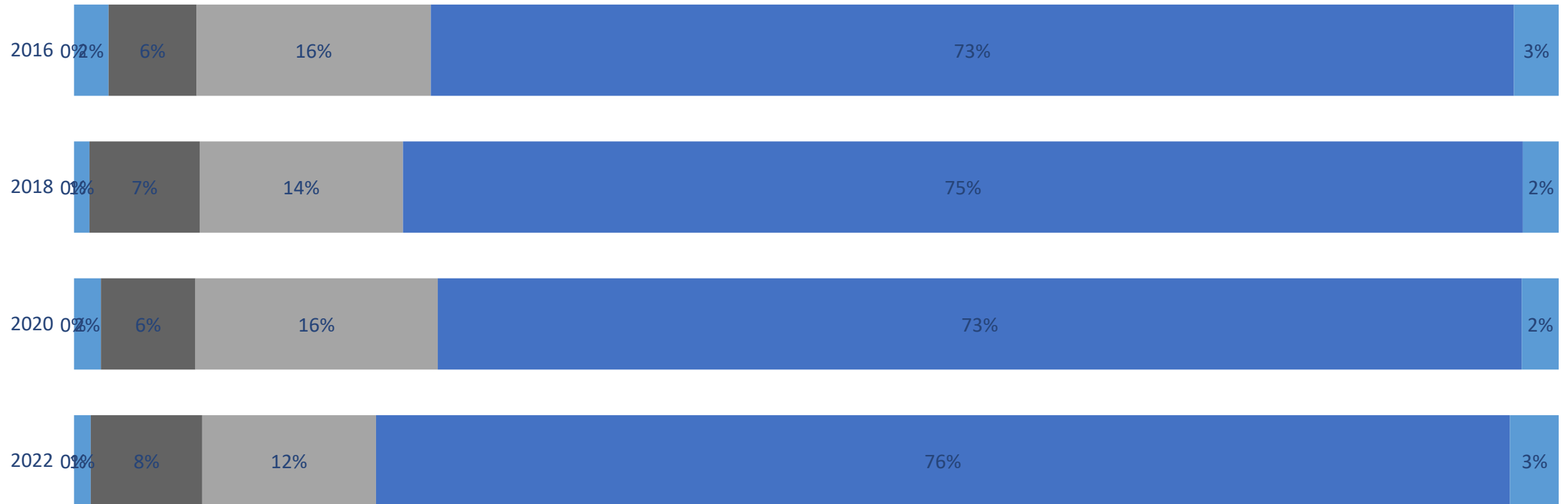


- You can safely touch an overhead power line
- 1 to less than 3 metres (i.e. 3 to less than 10 feet)
- 3 metres to less than 6 metres (i.e. 10 feet to less than 20 feet)
- Less than 1 metre (i.e. less than 3 feet)
- You should maintain a distance of 6 metres or more (i.e. 20 feet or more)
- Don't know

b8 - How dangerous do you believe it is to try to open, remove contents, or touch the equipment inside locked electrical utility equipment?

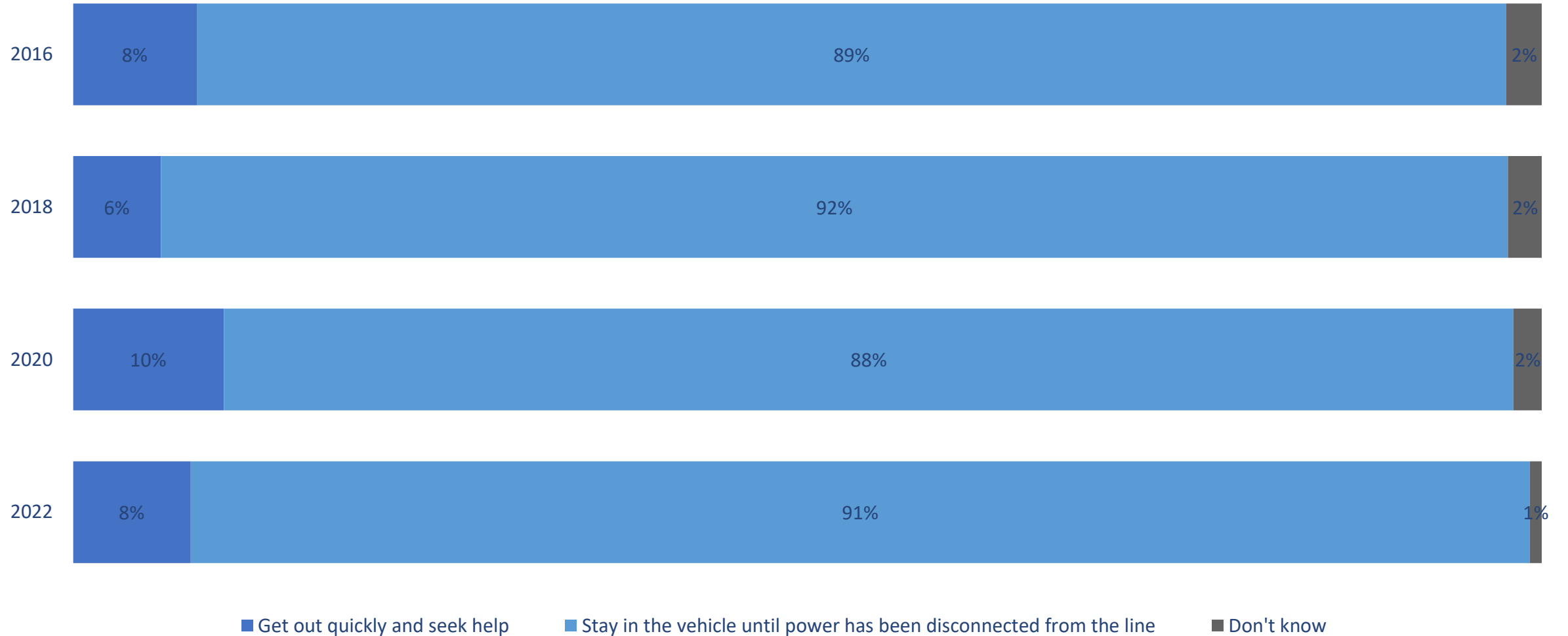


b9 - How closely do you believe you can safely come to a downed overhead power line, such as a downed line caused by a storm or accident?

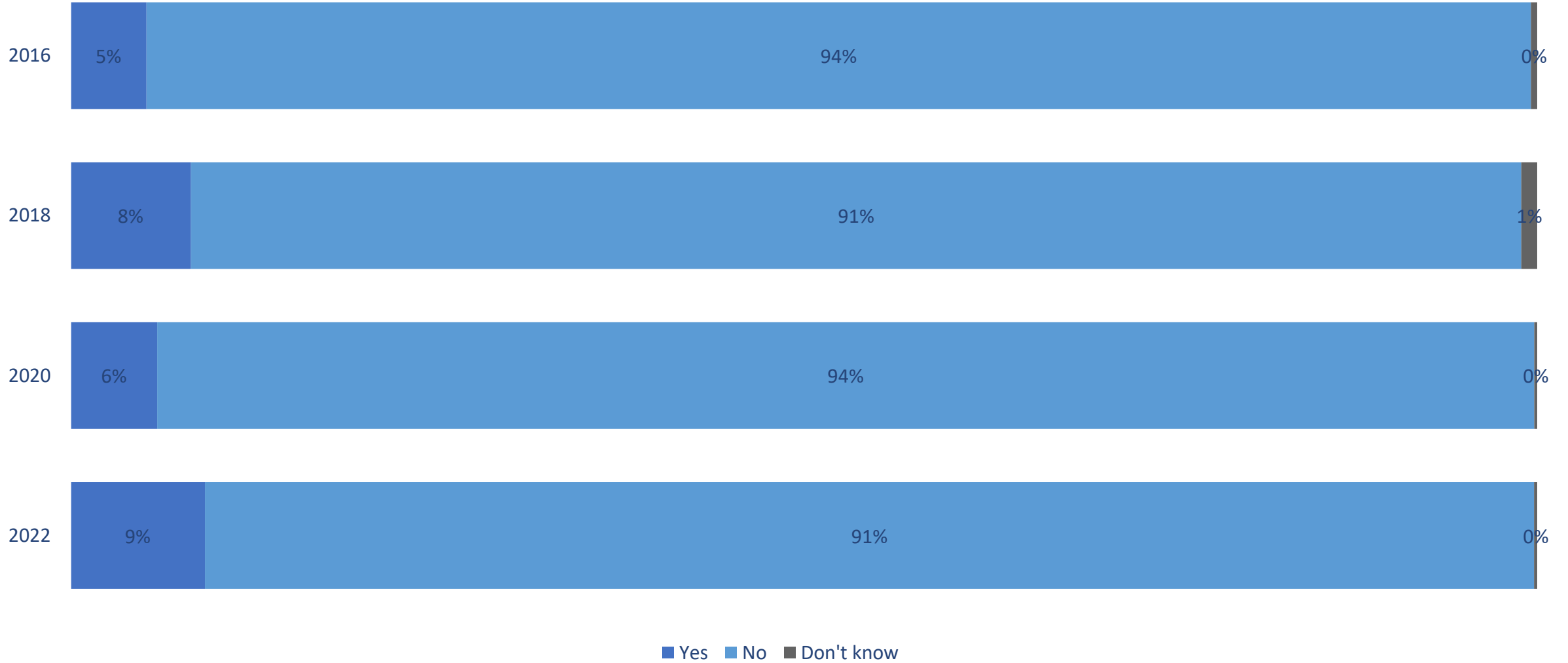


- You can safely touch a downed overhead power line
- 1 to less than 5 metres (i.e. 3 to less than 16 feet)
- 5 metres to less than 10 metres (i.e. 16 feet to less than 33 feet)
- You should maintain a distance of 10 metres or more (i.e. 33 feet or more)
- Don't know
- Less than 1 metre (i.e. less than 3 feet)

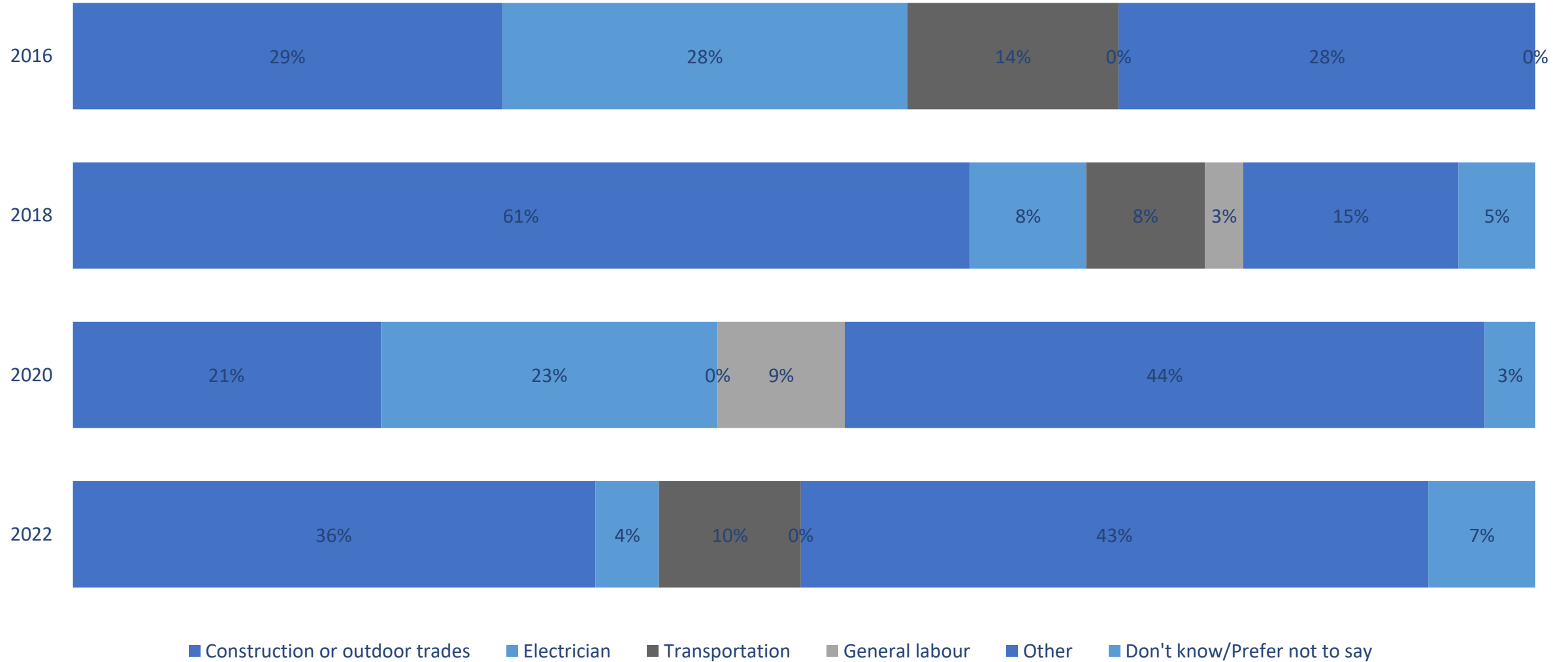
b10 - If you were in a vehicle, such as a car, bus, or truck, and an overhead power line came down on top of it, which of the following options do you believe is generally safer?



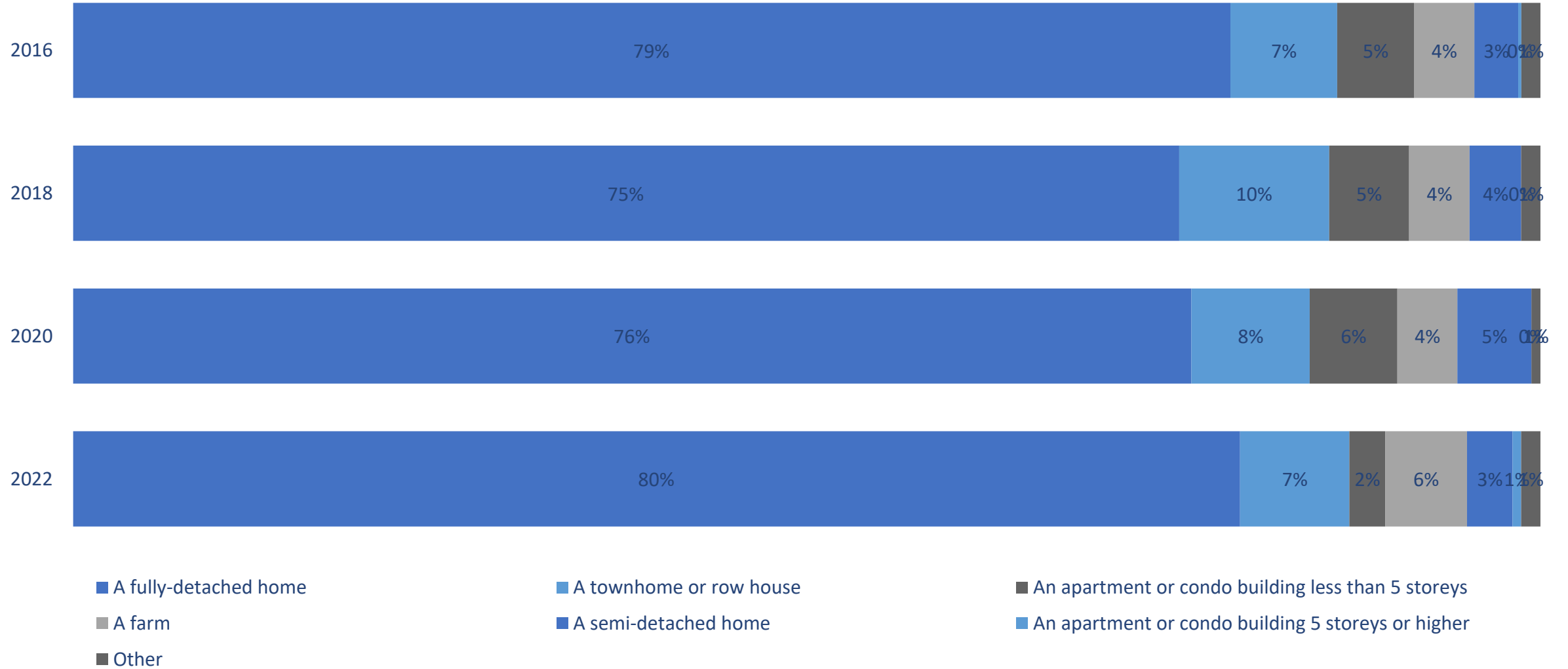
b11 - Does your job regularly cause you to come close to energized power lines?



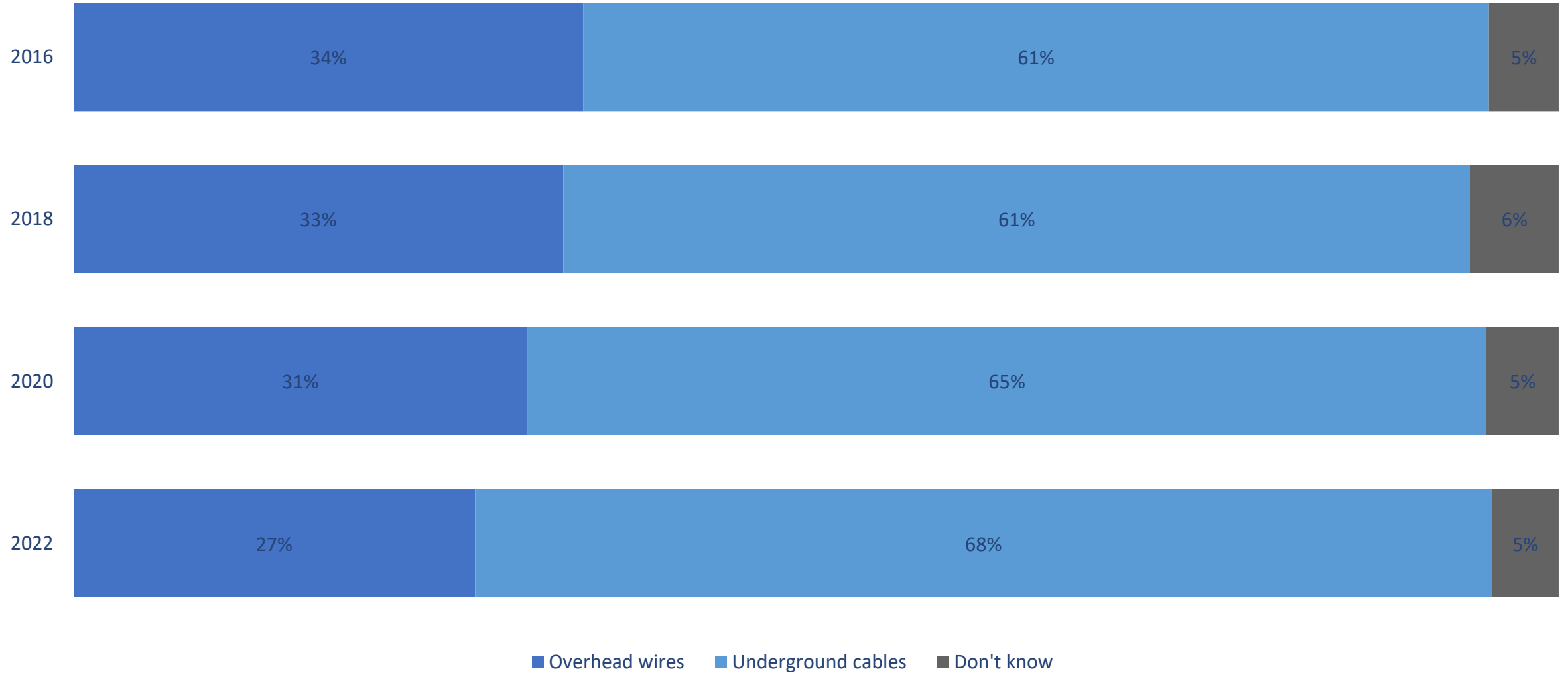
b12 - [Among those with a job featuring close contact to energized power lines] Do you work in any of the following fields?



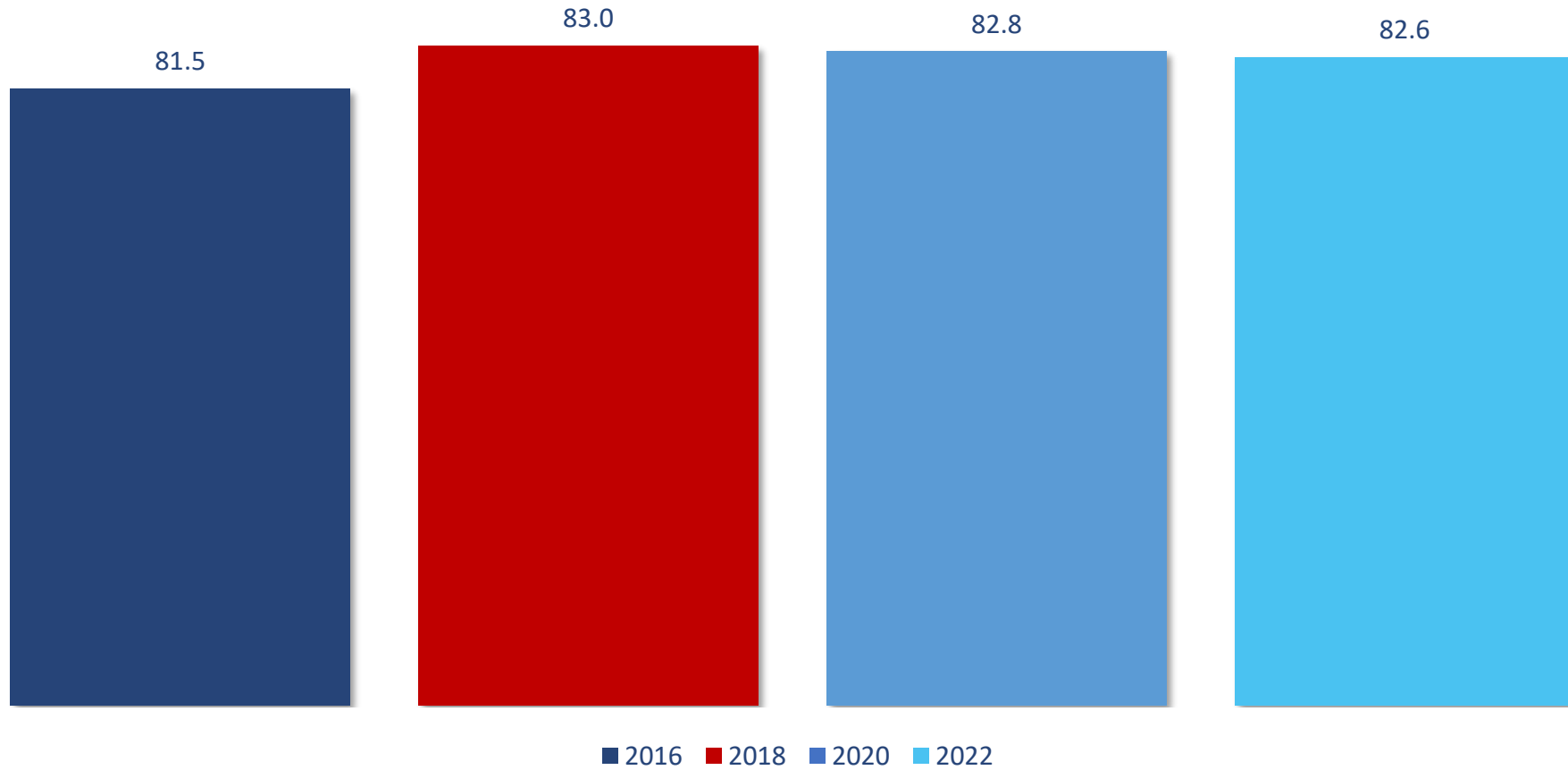
b13 - How would you describe your primary residence?



b14 - Does your primary residence receive electricity through overhead wires or underground cables?



ESA Index Score by Year



METHODOLOGY

Methodology Summary

Commissioned by	Niagara-on-the-Lake Hydro
Sample size	400 18-year-old + individuals residing in the service territory
Margin of error	±4.9 percentage points, 19 times out of 20
Survey mode	Random telephone survey of customer base, CATI data collection
Survey sample	Residents 18 years of age + who reside in the service territory of the Niagara-on-the-Lake Hydro
Time of calling	4PM-9PM ET Weekdays, callbacks scheduled 9AM-9PM ET
In-field dates	January 4-February 23, 2022
Language	English only
Survey author	Innovative Research/Electrical Safety Authority
Question Order	Report shown in order
Question Wording	Questions shown in report as asked
Survey Company	Redhead Media Solutions Inc/Advanis

Methodology Details

Target Respondents

The respondents of the survey were Ontario residents 18 years of age or older who reside within Niagara-on-the-Lake Hydro's service territory. Target areas were determined based on a list of postal codes provided by Niagara-on-the-Lake Hydro.

Sample Size and Statistical Reliability

All margins of error (MoE) are shown at a 95% confidence level.

- E.g., the margin of error associated with a sample size of 400 for a large (infinite) population is ± 4.9 percentage points, 19 times out of 20.
- Because Niagara-on-the-Lake Hydro's service area has a smaller adult (18+) population, and MoE is a function of the relationship between sample size and population, it is appropriate to apply a finite population correction factor when calculating MoE. When sample size is a higher percentage of the population, the MoE may narrow.

Sample sizes were set according to the *Public Awareness of Electrical Safety: Methodology & Survey Implementation Guide*, prepared for the Electrical Safety Authority by Innovative Research (November 2015):

- Where possible, sample size of $n=400$.
- For LDCs with a service territory population of less than 5,000, a minimum sample size of $n=300$ is appropriate.
- For LDCs with a service territory population of less than 3,000, a minimum sample size of $n=200$ is appropriate.

Methodology Details

Sampling Methodology

Redhead was provided service territory postal codes from Niagara-on-the-Lake Hydro. Both landline and wireless sample were used. The landline sample used listed numbers only, the wireless sample was drawn randomly from the most recent working cell phone lists in rate centers in or around the specified area(s). We then sampled from these lists randomly using Advanis' proprietary sample server.

To minimize low response:

- Sample was loaded in batches to ensure the sample was fully utilized before moving onto fresh sample records;
- Calls were made between the hours of 4pm and 9pm ET on weekdays; and
- Call backs were scheduled and honored between the hours of 9am and 9pm ET.

Questionnaire

The survey instrument was provided by the Electrical Safety Authority (ESA) developed in conjunction with Innovative Research. The survey consisted of an introduction, electrical safety core questions and demographic information.

Data Collection

Computer aided telephone interviews (CATI) were conducted from January 4-February 23, 2022.

Methodology Details

Quality Control

The accuracy and integrity of results is of the highest importance for Redhead/Advanis. As such, several controls are implemented to ensure the highest quality output is achieved:

- Advanis, on behalf of Redhead, trained the interviewers to understand the study's objectives;
- Detailed call records are kept by the automated CATI system, and are supplemented by output files to SPSS for productivity analysis (i.e., not subject to human error);
- The survey was soft launched in select markets. The data was then checked before calling began in full for Niagara-on-the-Lake Hydro;
- 100% of all surveys are digitally recorded for potential review;
- Advanis' Quality Assurance team listened to the actual recordings of five percent of completed surveys and compared the responses to those entered by the interviewer to ensure that responses from respondents are properly recorded;
- Team Supervisors conduct regular more formal evaluations with each interviewer, in addition to nightly monitoring of each interviewer on their team;
- Project Managers closely monitored the progress of data collection, including call record dispositions;
- All SPSS code is reviewed by a more senior researcher;
- All Report Builder output is reviewed by a more senior researcher; and
- All values in the report are reviewed by another team member to ensure accuracy.

Methodology Details

Analysis of Findings & Data Weighting

Within each LDC, results were weighted to match corresponding population proportions from the most recent Statistics Canada census data for these six combinations of gender and age:

- Males 18-34
- Females 18-34
- Males 35-54
- Females 35-54
- Males 55 and older
- Females 55 and older

As noted above, the service territory was specified by postal code. Since census data is not available by postal code, Redhead provided Advanis with the municipalities covered by the LDC, and the population numbers for the Census Subdivisions that most closely matched those municipalities were totaled to arrive at the LDC population proportions for each of the six gender/age combinations.

The Public Safety Awareness index scores have been highlighted and were calculated as described below, based on instructions from the Electrical Safety Authority (ESA). The “provided response values” referenced in the description below were also determined and provided by the ESA. Data analysis and cross-tabulation have been conducted using SPSS and Report Builder software.

This index score is calculated using the following formulas:

Step 1: Add each individual respondent's key measurement questions using the provided response values.

	B5
+	B6
+	B7
+	B8
+	B9
+	B10
=	Individual respondent's cumulative score

Step 2:

Individual respondent's cumulative score / # of sections
= Respondent Standardized Score

Step 3:

Summation of all “Respondent Standardized Scores” / n-size (i.e. total sample size)
= Raw Index Score

Step 4:

Raw Index Score × 100 = Index Score (bound between 0-100%)

Methodology Tables

Margin of error

LDC	Completed Surveys	Sample Size as % of population	Assuming Large Population	Using Actual 18+ Population
Niagara-on-the-Lake Hydro	400	2.7%	+/- 4.9%	+/- 4.8%

Sample weighting

LDC	Total Postal Codes in Service Territory	Forward Sortation Areas Covered	Number of Local Delivery Units in Each FSA
Niagara-on-the-Lake Hydro	5	L0S	5

Thank You

We greatly appreciate working on this important project for Niagara-on-the-Lake Hydro and hope we have met or exceeded your expectations.

We are happy to present this data to your staff or Board members upon request. If you wish to do so, please contact us for an appointment.

We look forward to working with you on future projects, including the Customer Satisfaction Survey later in 2022. Please note if you have any other projects that we may be able to help you with, don't hesitate to be in touch.

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Niagara
On-The-Lake
HYDRO

