

[REDACTED]

From: [REDACTED]
Sent: January-08-19 10:20 AM
To: [REDACTED]
Subject: Re: Cost of Service - Phase 1 Survey Follow Up - [EXTERNAL]

[REDACTED]

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Good morning [REDACTED]

Please find the updated questionnaire attached for your review. You will notice that some questions needed to be adapted for residential and business customers. Once we receive your approval on these questions, we will program this into the CAWI or online survey engine so you can review, see the skips, format, etc. The survey link will then be available for testing and then for launch.

Here also are our answers to [REDACTED] questions:

(1) Are the questions reasonable and appropriate? Are the questions going to solicit the intended/desired responses /feedback?

We have revised the questions and feel they are ready. We have adapted some for Business / Residential, when applicable.

(2) Do you recommend/do we need to make paper copies of the survey available in our main office?

We would suggest making paper copies available, or perhaps a tablet screen or device where customers can complete the survey.

(3) What is a good sample size for responses?

Anything larger than N=200, although more completes is always better. We would estimate given past experience that 300 to 400 is a reasonable response – but larger is always possible.

(4) The survey needs to collect customer information at the end, should the participant wish to be eligible for a potential incentive. Please confirm you agree with this and this is easy to include.

We have provided a consent section for customers to opt in.

(5) Do you have any recommendations as to what we should provide as an appropriate incentive to entice participating in the survey i.e. multiple versus single, product versus gift card? (I advised him that multiple gift cards would be best, but he wanted a second opinion)

We would also suggest multiple gift cards.

(6) Can you provide detail on how the data and responses will be provided?

We will provide the overall results and cross tabs by demographics in an Excel report. There will also be a written Word executive document that along with tables, charts, and graphs will review, summarize, and analyse the findings and make recommendations.

Thanks [REDACTED] and let me know if you need anything else.
[REDACTED]

On Wed, Jan 2, 2019 at 9:12 AM [REDACTED] wrote:

Good Morning [REDACTED]

I hope you enjoyed the holidays and are rested up and ready to take on 2019.

I received the draft questions for our first survey just before the holidays (see attached) from my [REDACTED]. He is off for another week and a half but would like to release the survey late January/early February. The goal is to have the survey launch from our website. We would also like to test drive the survey with some of our internal customers to make sure the questions are meaningful and the survey is not too long.

Please find below some questions and comments from [REDACTED]

- (1) Are the questions reasonable and appropriate? Are the questions going to solicit the intended/desired responses / feedback?
- (2) Do you recommend/do we need to make paper copies of the survey available in our main office?
- (3) What is a good sample size for responses?
- (4) The survey needs to collect customer information at the end, should the participant wish to be eligible for a potential incentive. Please confirm you agree with this and this is easy to include.
- (5) Do you have any recommendations as to what we should provided as an appropriate incentive to entice participating in the survey i.e. multiple versus single, product versus gift card? (I advised him that multiple gift cards would be best, but he wanted a second opinion)
- (6) Can you provide detail on how the data and responses will be provided?

Thank you in advance [REDACTED] and I look forward to hearing back from you.

Kind Regards,

[REDACTED]

Waterloo North Hydro Inc.

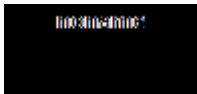
[REDACTED]



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Customer Input Survey

Introduction

Waterloo North Hydro Inc. (WNH) is preparing a Five-Year Business Plan for the years 2021 to 2025. This plan will outline the investments that WNH will make during this period to maintain and upgrade the distribution system. This plan will also form the basis for a rate application to the Ontario Energy Board that will be filed in 2020 for rates effective in 2021.

Your input is invaluable in helping to shape this plan. We want to better understand how customers like you use and manage their electricity, and we need your help. This survey will be used to help us plan our distribution system to meet your needs. This survey should only take about 10 to 15 minutes. If you complete the survey and provide your contact information, you will be entered into a draw for one of six VISA gift cards worth \$250 each. Winners will be drawn at random and will be notified by February 15, 2019.

Please be assured that your responses are confidential and will be reported only in aggregate. Brickworks Communications, an independent research company, has been hired by WNH and will collect the data on behalf of WNH and produce a summary report.

Before we get started, we have a few questions to assure that we reach a wide range of people.

Demographic

1. Customer type
 - o Residential
 - o Small Business (electricity bill is typically less than \$2,500 per month)
 - o Large Business (electricity bill is typically more than \$2,500 per month)
2. How would you describe the type of home you live in?
 - o Detached single family home
 - o Attached single family home
 - o Apartment with multiple units (condominiums)
3. Age Group
 - o 25 and under
 - o 26 to 35
 - o 36 to 50
 - o 51 to 64
 - o 65 and older
4. Employment Status
 - o Working
 - o Retired
 - o Student
5. In which community is your WNH customer account located? (please select one)

- Waterloo
- Woolwich – Urban (Breslau, Conestoga, Elmira, St. Jacobs)
- Woolwich – Rural
- Wellesley – Urban (Heidelberg, St. Clements, Wellesley)
- Wellesley – Rural

6. [NTD]

~~6-7.~~ WNH strives to keep the lights on at all times, however there are times (due to storms, vehicle accidents and equipment failure) when we experience a power outage. On average, power is out about 9.5 minutes per month per customer. How important is minimizing power outages to you?

- Not important
- Important, but at no additional cost
- ~~Very~~ Important, willing to pay more (for example, \$2 to \$3 extra per month)
- Don't know

~~7-8.~~ A Smart Grid senses problems on the power grid and reroutes power automatically. This prevents some outages and reduces the length of those that do occur, and can provide you with detailed information on outages at your home, like when your power is anticipated to be back on. How important is this to you?

- Not important
- Important, but at no additional cost
- ~~Very~~ Important, willing to pay more (for example, \$1 to \$2 extra per month)
- Don't know

~~8-9.~~ Poles, wires and transformers typically last 40 to 50 years. In order to ensure an uninterrupted supply of electricity to you, we need to maintain and replace these assets when their useful life has expired. If assets are not replaced on a timely basis, outages can occur due to equipment failure. How important is this to you?

- Not important
- Important but at no additional cost
- Important, willing to pay more (for example, \$2 to \$3 extra per month)
- Don't know

~~9-10.~~ Electric Vehicles – Do you have an electric vehicle or hybrid electric or are you contemplating purchasing one in the future?

- Do not have one
- Have at least one electric vehicle
- Considering purchasing an electric vehicle in the next five years
- Not considering purchasing an electric vehicle in the next five years.
- Don't know

~~10-11.~~ Rooftop Solar – Solar photovoltaic (PV) systems can be installed on your rooftop to generate electricity for the home. When the PV system produces more electricity than your home uses, the excess flows back into the electric system grid, and your electricity meter credits your bill for the electricity you have added to the grid. This is called “net metering.” A rooftop solar PV system could significantly reduce your electricity bill depending on the amount of power your system generates. Do you have a rooftop solar on your home or are you considering installing one in the future?

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- Do not have one
- Have a rooftop solar
- Will install one if the payback is 5 to 7 years
- Will install one if the payback is 8 to 10 years
- Will install one for environmental reasons
- Will not install one in the next five years
- Don't know

~~44-12.~~ On-site power storage – enables you to store electricity at your home or business using batteries. The battery can be a wall unit, or you could use the battery in an electric vehicle. This technology can provide backup power in the case of a power outage. Are you considering installing battery storage in the future?

- Will consider installing one in the next five years
- Will not consider installing one in the next five years
- Don't know

~~44-13.~~ Electricity Usage Tracking and Alerts - provides real-time information and tips on reducing your usage to help you manage your electric bill and reduce costs where possible. You will receive updates on your home's current electric usage and estimated bill amounts via email, phone, or text message. You could choose to receive these alerts on a daily or weekly basis, or check your usage at any time on WNH's website (customer portal). If you were offered an electricity usage tracking and alert, how interested would you be in signing up for it?

- Not at all interested
- Somewhat interested
- Very interested
- Don't know

~~44-14.~~ Smart Home - connects to the electricity grid via a smart meter and provides better and more frequent information regarding your electricity usage; offers better control over how and when you use your home's appliances, heating and cooling system, lighting, and other devices, which is especially useful as electricity costs vary throughout the day; may generate some or all of the electricity needed (for example, using solar panels), which can increase the electricity reliability for your home and, in the future, serve as an energy resource for our community and helps WNH better manage the supply and demand for electricity in our community. How interested would you be in making your home a Smart Home?

- Not at all interested
- Somewhat interested
- Very interested
- Don't know

~~44-15.~~ Do you have any other priority not listed above? If so, please specify

~~45-16.~~ Do you have any comments or suggestions you would like us to consider?

Waterloo North Hydro - Customer Engagement

[REDACTED]
Fri 10/25/2019 2:38 PM

To: [REDACTED]

Cc: [REDACTED]

 2 attachments (1 MB)

DIB0001; customer engagement survey 2 - 20191025.docx;

Hello [REDACTED]

It was a pleasure meeting you today.

Please see attached our draft content for our Customer Engagement Phase 2 Survey.

Just to note a couple things:

- Feel free to revise the tables and charts
- We will provide you with the numbers (i.e. capital, operating, rate impacts, additional charts (page 20)) by Tuesday
- Within the attachment, you will see areas where we have asked for your suggestions in wording questions. Also, change the wording anywhere you feel can be improved.
- On page 19 you will see in 'red text' about - Summary Statement - Herb is planning on including a similar chart as page 20 and was wondering whether a summary statement is needed or not? The chart represents the four OEB categories discussed earlier as a sum of capital expenditures.

Please let me know if you have any questions.

Thank you.

<< customer engagement survey 2 - 20191025.docx >>

Kind Regards,

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED] attachments, is confidential and intended only for the person(s) named above. This material may contain confidential, privileged or personal information which may be subject to the provisions of the Personal Information Protection & Electronic Documents Act (PIPEDA). Any unauthorized use or disclosure is strictly prohibited. If you are not the intended recipient or have received this message in error, please notify the sender or Waterloo North Hydro immediately and permanently delete the original message including any attachments and copies. Thank you for your cooperation. This message has not been encrypted. Special arrangements can be made for encryption upon request.

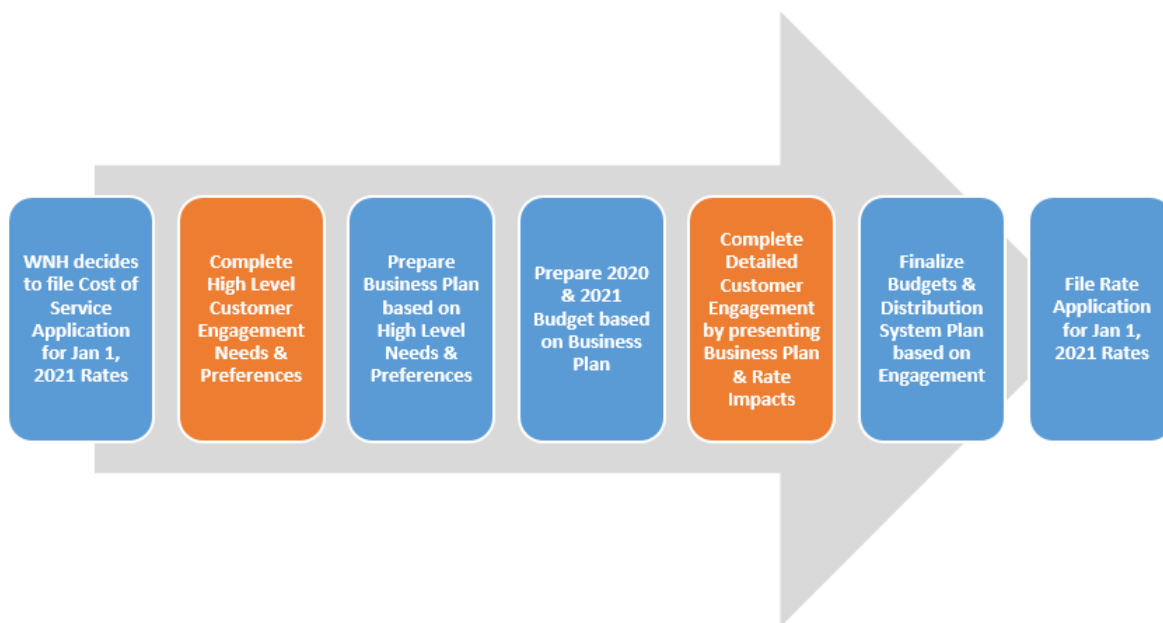
**** PLEASE CONSIDER THE ENVIRONMENT BEFORE PRINTING THIS EMAIL ****

Page 1 – Waterloo North Hydro finalizing it's 5-year plan and we need YOUR feedback!

Our continued priority is to deliver the electricity local homes and businesses depend on, reliably and efficiently. Every year our distribution system ages and part of it deteriorates. With a growing city and surrounding areas, continued investments must be made annually to replace the most vulnerable parts of our distribution system and support growth in the community.

As part of our regulatory process with the Ontario Energy Board (OEB), Waterloo North Hydro (WNH) must consult with customers to determine user needs and preferences and consider these needs and preferences when developing the 5-year plan. This plan ultimately makes up all of the capital investments, infrastructure, system maintenance, emergency response including storms and other outages, customer service and administrative costs that make up WNH's portion of the delivery line on your electricity bill.

In early 2019, WNH completed a brief online survey to gauge high level needs and preferences. WNH then built a plan and budget based on the system needs as well as the results of that survey.



The point of this survey is to complete a 'gut check' to ensure we got our priorities right in our plan as well as to educate and clarify some areas of contradiction that came up in the results.

Customers who complete this survey will be entered into a draw to win _____

Checkbox question to confirm "I am a customer of Waterloo North Hydro"

Are you completing this survey as a residential customer or a business customer?

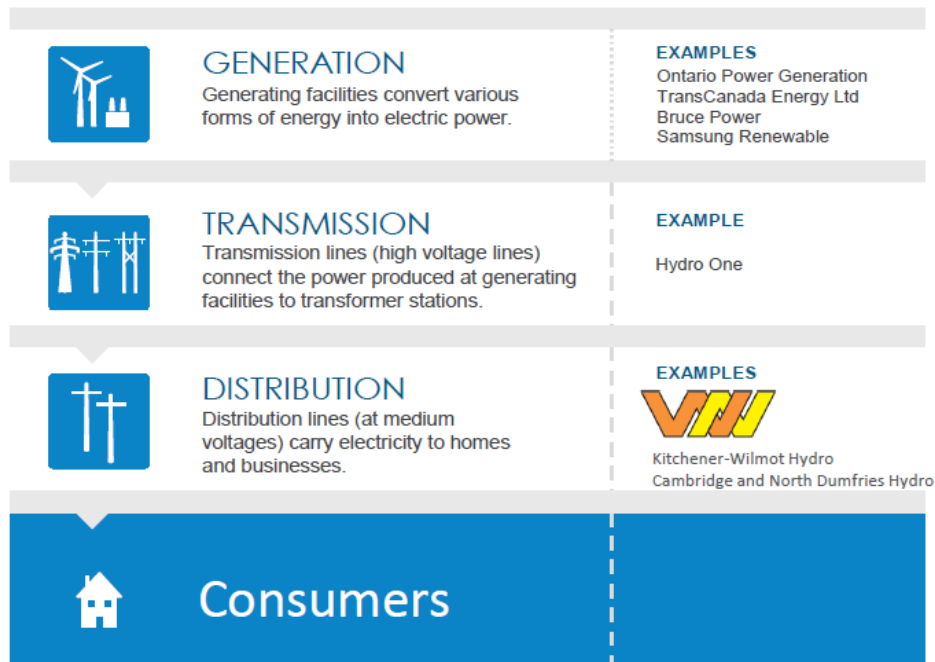
In which community is your WNH customer account located:

- Waterloo, Woolwich-Urban (Breslau, Conestoga, Elmira, St. Jacobs), Woolwich-Rural, Wellesley-Urban (Heidelberg, St. Clements, Wellesley), Wellesley-Rural

Electricity 101

Who Does What in Ontario Electricity System?

Ontario's electricity system is owned and operated by public, private and municipal corporations across the province. It is made up of three components: **generation, transmission and distribution.**

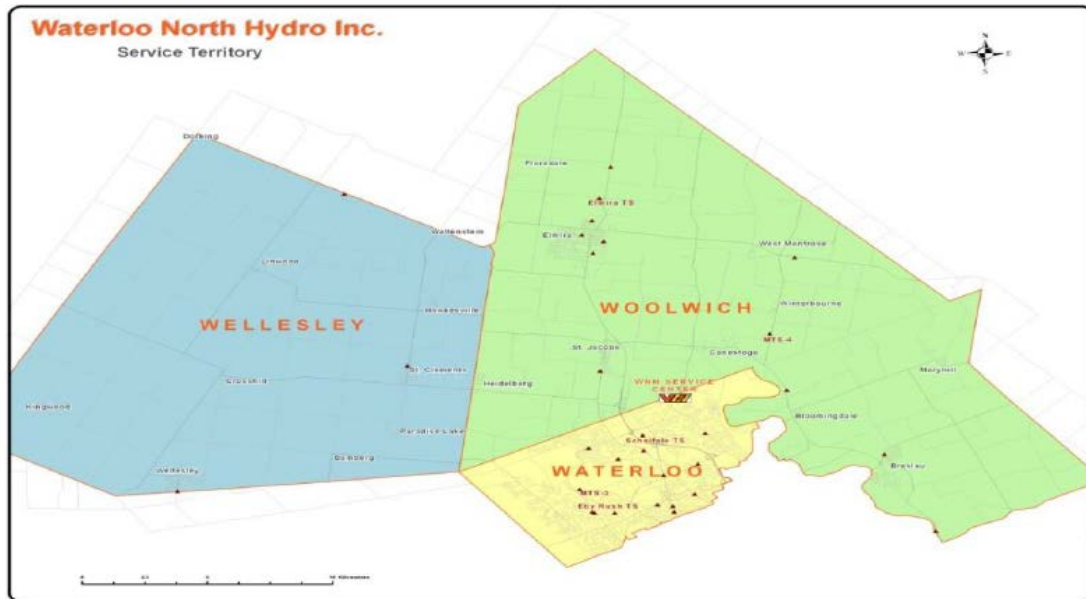


6

Change Cambridge to Energy +

Add under distribution: provide customer service, administration, respond to outages, safety concerns

WNH Electricity System



WNH provides electricity to over 55,000 customers residing or owning a business in the City of Waterloo, the Township of Wellesley and the Township of Woolwich covering an area of 672 square kilometers. WNH is owned by the City of Waterloo, the Township of Wellesley and the Township of Woolwich.

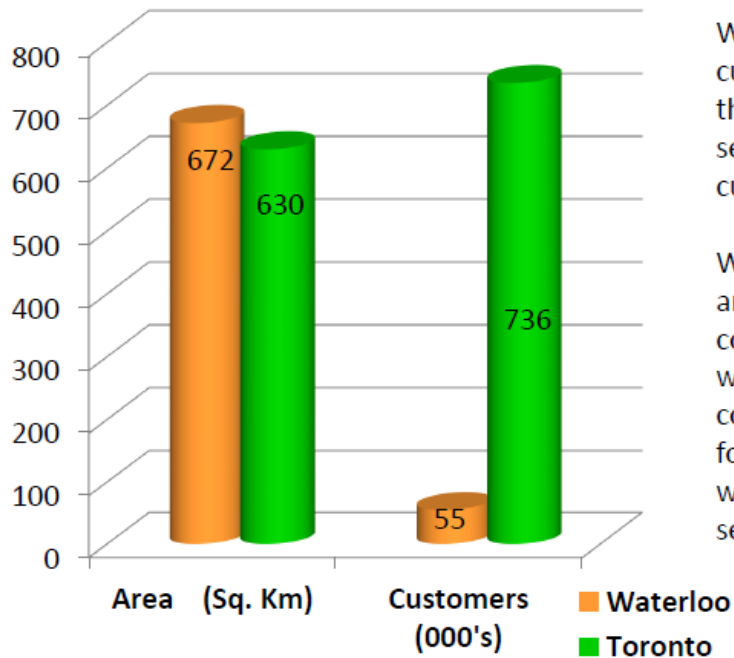
8

Change from 55,000 to 58,000 customers

Change 672 square kilometers to 683 square kilometers

The OEB allows regulated utilities in Ontario to generate a profit based on a target set by the OEB. A portion of this profit is reinvested in the business. The remainder is paid out in the form of an annual dividend to its shareholders.

WNH Electricity System



WNH services 55 thousand customers in an area larger than Toronto Hydro who services 736 thousand customers.

We need to build a strong and reliable infrastructure covering a large service area with fewer customers to cover the cost. We must look for efficient and resourceful ways to provide excellent service with less revenue.

9

Toronto – same square kms, 773K customers

Include Historical Operating Expenses and Capital Investments (TOTEX) Similar to Kitchener:
(add a list of items included in operating and capital)

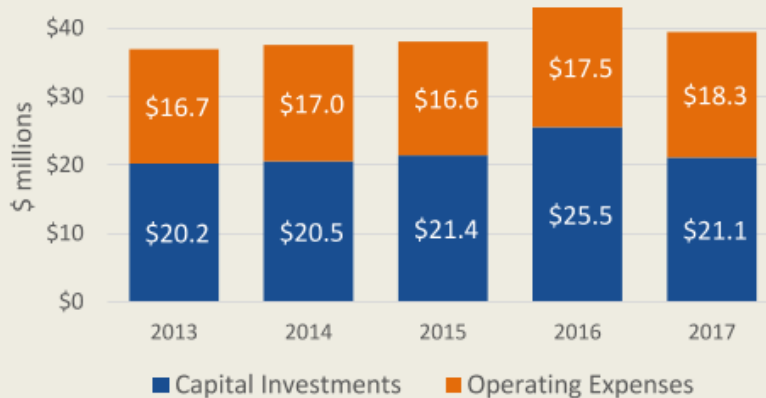
What does it cost to run KW Hydro's distribution system?



Like most businesses, KW Hydro manages its spending in two budgets – an operating budget and a capital budget.

- KW Hydro's **operating budget** covers recurring expenses, such as the maintenance of tools, equipment and assets and the payroll for employees.
- Its **capital budget** covers items that, once purchased, have lasting benefits over many years. This includes much of the equipment that is part of the distribution system, such as poles, wires, cables, transformers, computers and information systems, vehicles and facilities.

Historical Operating Expenses and Capital Investments

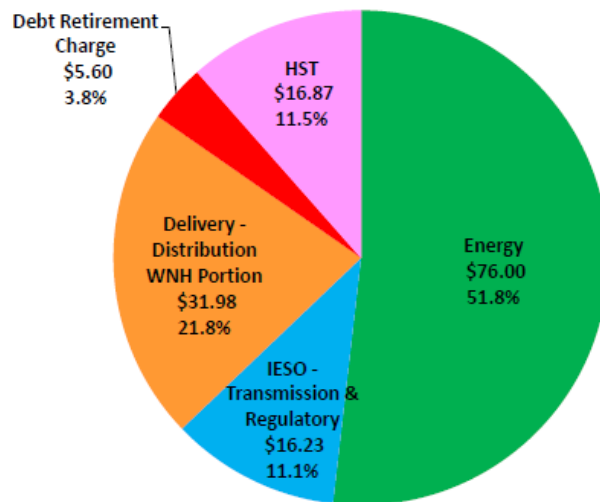


Managing the distribution system requires millions of dollars in maintenance, system renewal and day-to-day operations. In 2017, the combined operating expenses and capital investments of KW Hydro totalled **\$39.4 million**.

Your Electricity Bill

SAMPLE MONTHLY BILL STATEMENT Waterloo North Hydro Inc. - Main	
Account Number:	000 000 000 000 0000
Meter Number:	00000000
Your Electricity Charges	
Electricity (what is this charge?)	
Off-Peak @ 7.700 ¢/kWh	39.42
Mid-Peak @ 11.400 ¢/kWh	16.42
On-Peak @ 14.00 ¢/kWh	20.16
Delivery (Transmission & Distribution)	43.21
Regulatory Charges (what is this charge?)	4.99
Debt Retirement Charge (what is this charge?)	5.60
Total Electricity Charges	\$129.80
HST	16.87
Subtotal	\$146.68
Ontario Clean Energy Benefit (-10%) (what is this?)	(-14.67)
Total Amount	\$132.01

Average Monthly Residential Bill – 800 kWh



12

Similar but need to update numbers and also ensure that transmission is broken out from delivery line (we need to be clear on this)

Also let customers know that WNH does not make any revenue off Energy Consumption – what they pay to us, we pay directly to the IESO.

Common Misconceptions – Based on the comments received in the first round of engagement there were areas of the electricity system that need to be further explained.

- 1) WNH's delivery fee (for residential only) is mandated by the OEB to be fully fixed. This is because whether you use a lot of power or a little bit of power, the cost to service your home (set up a transformer, poles and wires to your home, provide a bill and customer service) do not change based on your usage.
- 2) Some customers noted that delivery cost should already include capital investment costs, ongoing maintenance and repairs to the system. This is true, WNH's delivery cost does already include capital investments, maintenance and repairs. The reason there could be increases in these areas is the cost increases each year due to quantity of assets in the field as well as inflationary increases.

- 3) Some customers wanted changes in Time-of-Use (TOU) pricing or different pricing for students and/or seniors. This is a provincial price plan in which WNH has no control. WNH implements and supports all government mandates.
- 4) Some customers wanted to revert back to bi-monthly billing, do not want smart meters, or do not like the deposit amount required. Again these are provincial mandated billing and customer service rules. WNH works with customer when flexibility allows but follows all of the OEB rules.

Based on what you have read so far, how well do you feel you understand the role that Waterloo North Hydro plays in the electricity system include, where our revenue comes from and what portion of your bill relates to WNH:

- Very well, somewhat well, not very well, I don't understand at all

In addition, there were several areas that contradicted each other which needs further analysis and clarification. Based on the results, the plan may be amended: (looking for assistance on how to present these questions as well as wording)

1 – Customers want electricity usage tracking and alerts but have noted that they have a lower priority for customer service and higher priority for decreasing cost – which is preferred, currently this type of app is not in our plan so costs would increase a bit

2 – Currently our customer service levels are at 92.72% calls answered within 30 seconds and billing accuracy is 99.97%. The OEB has service requirement levels of 65% and 98% respectively. Based on the original survey customer service was ranked the lowest. Would you be willing to take a cut in service levels for less \$? – need to get the \$ amount per month or per year

3 – Customers are looking to improve environmental alternatives and focus on connecting or investing in renewables to the grid, costs for these types of upgrades are higher than traditional infrastructure but this contradicts a lower ranking for investing in innovative solutions over low cost

4 – prefer underground (give cost estimate) vs low cost

5 – Some customers noted that they wanted updated communication channels – ways to contact customer service – such as online forms, chat functionality, notification of outages, service changes, updating social media, improving outage map online, updating WNH website, tips on being more energy efficient - vs cost of these services – could do something similar to the table below:

Chapter 6: Customer Care Operational Improvements

Oshawa Power employees are focused on providing excellent customer care and are well aware that customer expectations about service will continue to rise.

Thinking about the next 5 years, which of the following improvements would you like us to make?



	Make this improvement	Don't make this improvement	Don't know
A smart phone application that allows you to access your smart meter electricity usage information	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Extended office hours	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Automating alerts when electricity usage exceeds a prearranged threshold	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Educating customers about energy conservation	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Reviewing and paying your bill on-line (through the utility's website)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
An outage notification system that automatically sends you a message by phone call, email or text	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Automating alerts to remind you of your bill due date	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Reporting or inquiring about an issue through the website e.g., billing question, outage problem	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Comparing of your electricity consumption with others in Oshawa Power's service territory	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Educating customer and the public about electricity safety	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Access on-line account info for updates, move-outs and move-ins.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Automating alerts to predict what your upcoming bill might be	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Having a web chat feature on the website	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

6 – lower price vs electronic bills, if you are not on ebilling did you know that this is a direct cost of \$1.05 per month per customer or \$12.60 per year. – what is stopping you?– receiving the bill by mail is a reminder to pay, security concerns about receiving electronic billing, customers are not aware of the cost savings of e-billing help offset future cost increases, customers are unaware of the environmental benefit of e-billing, some customer do not have access to the internet, some customers are not

comfortable with technology, it is more convenient to receive the bill by the mail, the current way to sign up for e-billing is too difficult, other _____

7 – tree trimming – there was a variety of responses in this area that contradicted, which most closely aligns with your views:

- 1) don't want to cut trees due to aesthetics and environmental reasons but will to take reduced reliability and longer backup after storms
- 2) Currently WNH's process is to cut less trees but go out more often so cost is higher but aesthetics and environmental concerns are addressed and can manage reliability
- 3) some wanted more trees cut so that less outages occur and do not care about aesthetics and environmental issues
- 4) Other?

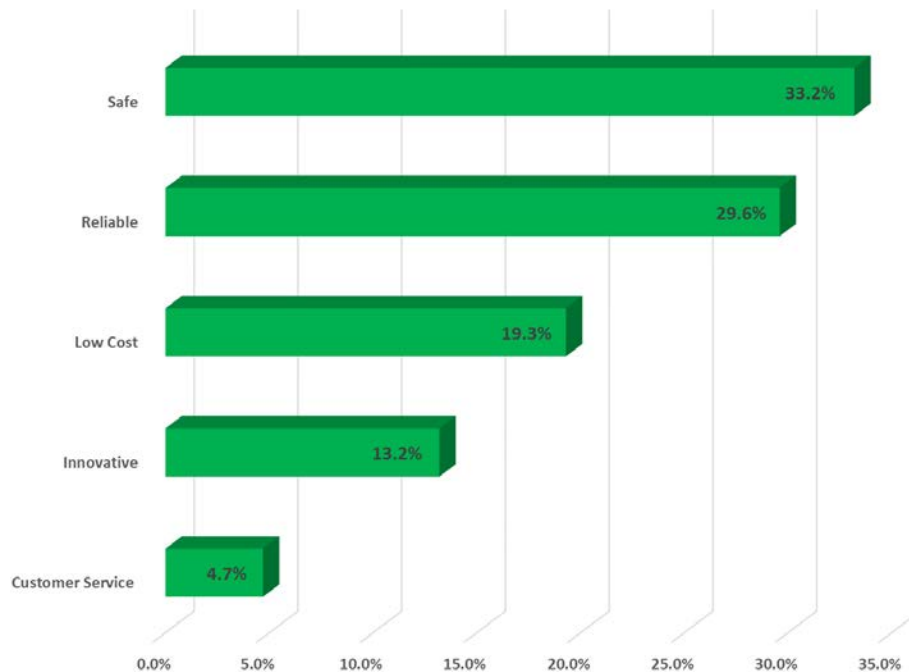
HERB'S QUESTIONS:

A Primer on Waterloo North Hydro's Distribution Plan

Waterloo North Hydro (WNH) is developing a new a Capital Investment Plan (Plan) for the period 2020 – 2025. Capital investments cover items that have lasting benefits over many years. This includes equipment that is part of the distribution system, such as poles, wires, cables, transformers, computers and support items such as information systems, vehicles and facilities.

Corporate strategic imperatives, asset management objectives, and mandated investments form the high-level framework for the Plan. The Plan is also strongly shaped by customer feedback and preferences. The final investment portfolio will be comprised of prioritized investments paced to achieve an acceptable balance between meeting infrastructure needs and the impact on customer rates.

An initial customer engagement was undertaken in February, 2019. Customers indicated their primary priorities as follows.



It is clear that customers are still focused on price but not at the risk of safety and reliability. They are also concerned with innovation and managing their usage but may not want the tools if the cost is too high.

To this end, WNH has developed a draft Plan that sets out to meet aforementioned criteria. This consultation is to determine, from the customer's perspective, "did we get it right ?".

Main Areas of Investment

From 2014 to 2019, WNH invested approximately \$22.1 million annually. The focus of investments then, is similar to that of the current proposed PLAN and clearly aligned with customer expectations.

WNH's proposed Plan involves replacing assets in poor condition before they fail and cause reliability and safety issues; incorporating new innovative technology to improve reliability, customer service and help keep costs in line and enabling the distribution

system to connect new customers, renewable generation, electric vehicles, battery storage devices helps support growth in the community.

WNH's proposed Plan involves investing approximately \$19.6 million annually between 2020 and 2025. This represents an annual reduction of \$2.5 million (-11.3%) in capital expenditures from previous years while maintaining investments in what is important to customers and the infrastructure needs of WNH.

QUESTION #1

Given that Safety, Reliability and Cost are the three most important factors voiced by WNH customers, which of the following statements is closest to your point of view?

1. The proposed overall level of future capital expenditures seems to be too low.
2. The proposed overall level of future capital expenditures seems to be appropriate.
3. The proposed overall level of future capital expenditures seems to be too high.
4. Don't know.

QUESTION #2

Which of the following statements is closest to your point of view? "At a high level, the areas in which WNH is focusing its capital investments..."

1. does not meet my expectations
2. meets my expectations
3. exceeds my expectations
4. don't know

QUESTION #3

If you answered (1) in the previous question, what area of investment do you believe is not being adequately addressed ?

“ _____ ”

Capital investments fall into four investment categories as set out by the Ontario Energy Board. The background and drivers for the proposed capital investments over the years 2020 - 2025 are discussed in the following sections:

1. System Access;
2. System Renewal;
3. System Service;
4. General Plant.

1. SYSTEM ACCESS

System Access investments are primarily additions and modifications to the distribution system driven by external requesting parties (customers). WNH is obligated to provide customers (including generator customers) access to electricity services Ontario Energy Board regulations, other regulatory/government agencies and WNH's distribution license.

Uptown Waterloo has been identified as an urban growth centre in the Places to Grow Act and the Ontario Growth Plan for the Greater Golden Horseshoe (2017). Uptown Waterloo will require new electrical infrastructure to be built with a higher amount being undergrounded to accommodate the development growth. WNH must make investments today to increase distribution system capacity to ensure there is electricity to meet future demand.

Areas of major investment (2020 – 2025)

1. Service new residential subdivisions - approximately 200 lots / year.
2. Connect new commercial and industrial customers
3. Construct new underground distribution lines
4. Relocate distribution lines due to municipal road works
5. Connect Distribution Energy Resources (DERs) ie solar, wind, battery etc.
6. Install new and replacement metering
7. Upgrade customer services

These mandated investments form approximately 33% of WNH's Capital Investment Plans. From 2014 to 2019, WNH invested approximately \$9.0 million annually in System Access projects. WNH forecasts investments from 2020 – 2025 will average approximately \$6.4 million, a reduction of 2.6 million (-28.9%) annually from previous years.

QUESTION #4

(Note to Brickworks - Given that these are non-discretionary investments what question could we ask the customer. Alternatively this section is for information only.)

2. SYSTEM RENEWAL

System Renewal investments involve the replacement of existing assets based on their age, condition, reliability metrics and risk. WNH has developed a comprehensive Asset Management System to capture and examine asset data, estimated time to replacement, consequences of failure, and develop forecast replacement plans and costs.

These investments have varying degrees of flexibility in the staging of their execution allowing WNH to pace these investments in combination with other capital needs to find the right balance between reliability, safety, system performance, risk and cost.

Not completing this work within the determined timeframes will lead to reliability and safety degradation, increased customer complaints and more expensive reactive maintenance and capital replacement.

Areas of major investment (2020 - 2025)

1. WNH's distribution system has more than 685 km of underground cable, 135 km of which is at or nearing end of life during the forecast time frame. The Plan involves replacing approximately 8.5 km / year (6.3%) of this cable which is also 35 to 50 years old.
2. WNH's distribution system has approximately 21,500 poles. Condition assessments shows that 3,700 poles in WNH's distribution system are in poor or very poor condition. The Plan involves replacing approximately 500 poles / year (13.5%) from 2020 - 2025.
3. Replacement of small overhead primary conductor which has a higher tendency to break will be replaced with large conductor increasing safety and reliability.
4. Upgrade selected transformer station equipment, protection and communication systems in poor condition to improve reliability and cyber security

From 2014 to 2019, WNH invested approximately \$9.7 million annually in System Renewal projects. WNH forecasts investments from 2020 – 2025 will average approximately \$8.9 million, a reduction of 0.8 million (-8.2%) annually.

QUESTION #5

Given that Safety, Reliability and Cost are the three most important factors voiced by WNH customers, which of the following statements is closest to your point of view?

1. The proposed overall level of future System Renewal expenditures seems to be too low.
2. The proposed overall level of future System Renewal expenditures seems to be appropriate.
3. The proposed overall level of future System Renewal expenditures seems to be too high.
4. Don't know

3. SYSTEM SERVICE

System Service investments are made to meet performance based objectives such as safety, reliability, power quality, system efficiency and other performance/operational objectives. These investments allow better utilization of the existing capacity of electricity assets, increased penetration of renewable generation, increased the reliability, resiliency and flexibility of the power system, improved cyber security.

Not completing this work will lead to supply constraints preventing the connection of load or generation customers; degradation in system performance and customer satisfaction; and more expensive reactive maintenance and capital replacement.

Areas of major investment (2020 - 2025)

- i) constructing additional distribution lines to relieve load transfer constraints within the distribution system and between stations
- ii) smart grid automation to reduce customer restoration times, improve operational visibility and control, improve reliability.
- iii) distribution loss reduction

From 2014 to 2019, WNH invested approximately \$1.0 million annually in System Renewal projects. WNH forecasts investments from 2020 – 2025 will average approximately \$1.4 million, an increase of 0.4 million (40.0%) annually.

QUESTION #6

Under WNH's current Plan, System Service investments would create a more robust distribution system, and are required to maintain the reliability customers experience

today. Investments in this area from 2015 – 2018 inclusive have saved WNH customers approximately 5,264,807 minutes of interrupted power.

How important do you feel it is for WNH to invest in modernizing the grid?

1. Very important
2. Somewhat important
3. Not very important
4. Not important at all
5. Don't know

QUESTION #7

Among the following reliability outcomes, which are most important to you? While all of these priorities may be important to you, please rank your top 3 priorities – where “1” would be most important, “2” the second most important, “3” the third most important.

Reliability Priority Areas Ranking

Reducing the overall number of outages.	
Reducing the overall length of outages.	
Reducing the number of outages during extreme weather events.	
Reducing the length of time to restore power during extreme weather events.	
Improving the quality of power, as judged by momentary interruptions in power that can result in the flickering or dimming of lights.	

4. GENERAL PLANT

Capital investments in the General Plant category are driven by the need to add, modify or replace assets that support the utility's everyday business operations and administration, improve employee safety, worker productivity and operating efficiency.

As a company, WNH requires vehicles and equipment to maintain its distribution system and IT systems to manage the system and customer information.

Areas of major investment (2020 - 2025)

Computer Software & Hardware

1. Replacement of Enterprise Resource Planning (ERP) Software
2. Enhancements to various corporate systems and hardware

Fleet Vehicles / Rolling Stock

1. Replace ?? large vehicles over the 6 year period
2. Medium sized vehicle replacement
3. Small vehicles replacement

Tools, Equipment & Furniture

1. Replace 30 year old Forklift
2. Replace various tools and test equipment

Facilities

1. Replace aging building equipment
2. Asphalt Repairs

Other

1. Retirement of eight municipal stations (more)
2. Land rights (easements)

From 2014 to 2019, WNH invested approximately \$2.4 million annually in System Renewal projects. WNH forecasts investments from 2020 – 2025 will average approximately \$3.0 million, an increase of 0.6 million (25.0%) annually.

QUESTION #8

As a company, WNH needs vehicles, equipment and tools to maintain its distribution system and IT systems to manage the system, provide customer billing and information. These investments represent approximately 15 % of annual capital investments. Which of the following statements best represents your point of view?

1. The proposed overall level of future General Plant expenditures seems to be too low.
2. The proposed overall level of future General Plant expenditures seems to be appropriate.
3. The proposed overall level of future General Plant expenditures seems to be too high.
4. Don't know

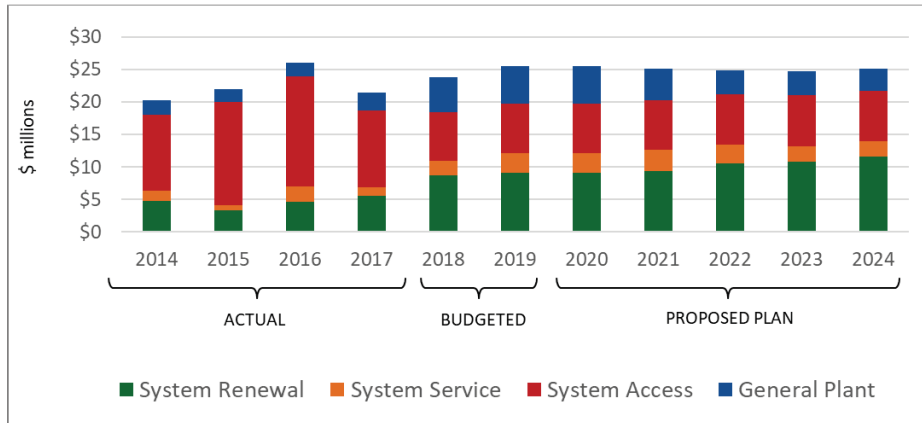
Summary Statement (Needed or not ?)

(Insert chart here)

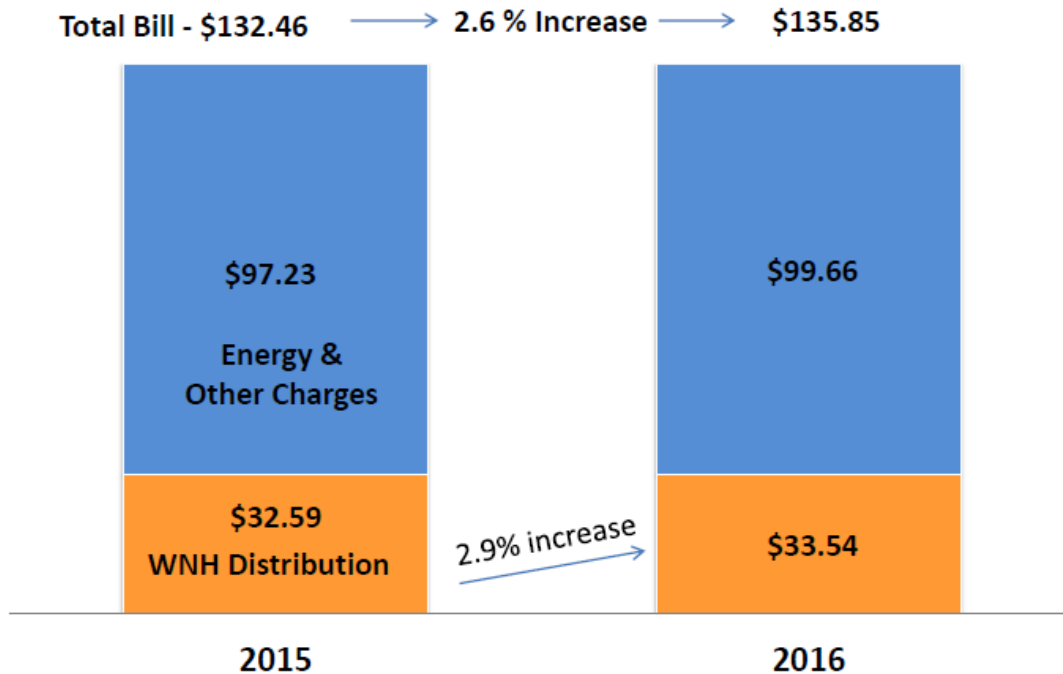
Pacing Investments

The overall amount KW Hydro invests in capital projects remains generally the same year over year, but what does change is where these investments are made. KW Hydro carefully paces spending to ensure it stays as consistent as possible so the impact to customer rates is minimal.

The chart below outlines KW Hydro's spending in past years, and proposed spending for the 5-year period 2020 to 2024. The colours on the chart help identify the categories in which KW Hydro makes its spending investments.



The Impact on Your Bill Average Residential Customer



Please note that these are preliminary estimates and are subject to change as the rate application process continues. Rates estimated for average residential household that consumes 800 kWh per month.

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The Capital Investments for 2015 and 2016 reflect the priorities and needs required as per the DSP. WNH believes that a **proactive** and **consistent** renewal approach is needed to maintain system performance while keeping bill impacts manageable over the longer-term.

The preliminary monthly rate impact to the average residential customer distribution portion is **\$0.95** for an increase of **2.9%** and the total bill is **\$3.39** for an increase of **2.6% for 2016. (These are from 2016 – will get revised numbers next week)**

From what you have read here and what you may have heard elsewhere, does Waterloo North Hydro's investment plan seem like it is going in the right direction or the wrong direction?

- ☐ Definitely the right direction
- ☐ Might be the right direction
- ☐ Might be the wrong direction
- ☐ Definitely the wrong direction
- ☐ Don't Know

How well did Waterloo North Hydro's plan cover the topics you expected?

- ☐ Very well
- ☐ Somewhat well
- ☐ Not very well
- ☐ Not well at all
- ☐ Don't know

How well do you think Waterloo North Hydro is planning for the future?

- ☐ Very well
- ☐ Somewhat well
- ☐ Not very well
- ☐ Not well at all
- ☐ Don't know

Considering what you know about the local electricity distribution system, which of the following best represents your point of view?

- ☐ The rate increase is reasonable and I support it
- ☐ I don't like it, but I think the rate increase is necessary
- ☐ The rate increase is unreasonable and I oppose it
- ☐ Don't know

17. Why do you feel that way?