



## Business Feedback Results

**Q1. Given what you know and what you have learned this morning, how well do you feel you understand the role that WNH plays in the electricity system, including where revenue comes from and what portion of your bill relates to WNH?**

	Frequency	Percent
Completely	18	56.3
Somewhat	14	43.8
Total	32	100.0

**Q2. How well do you feel you understand the cost drivers that Waterloo North Hydro is responding to?**

	Frequency	Percent
Very well	14	43.8
Somewhat well	18	56.3
Total	32	100.0

**Q3. System Renewal projects focus on replacing aging equipment in poor condition. In your opinion, is this proposed overall level of future system renewal expenditures too low, just right, or too high to meet the objectives of safety, reliability and cost**

	Frequency	Percent
The proposed overall level of future capital expenditures seems to be too low	3	9.4
The proposed overall level of future capital expenditures seems to be appropriate	27	84.4
Don't know / Did not answer	2	6.3
Total	32	100.0

**Q4. With regards to System Service projects, how important do you feel it is for WNH to invest in modernizing the grid?**

	Frequency	Percent
Very important	23	71.9
Somewhat important	9	28.1
Total	32	100.0

**Q5. Can you help WNH better understand the cost of power outages to your business? For power outages over the last year (2019), can you tell us: the number of outages experienced by length of outage?**

	Frequency	Percent
Don't know	10	31.3
1 x "1 min to 10 min" outage	3	9.4
1 x Momentary outage (less than 1 min)	3	9.4
4-5 x Momentary outages (less than 1 min)	2	6.3
~6 x Momentary outages (less than 1 min) and 1 x "over 60 min" outage	1	3.1
1 to 2 x "10 min to 60 min" outages	1	3.1
1 x "1 min to 10 min" outage and 1 x "10 min to 60 min" outage	1	3.1
1 x "10 min to 60 min" outage	1	3.1
1 x "10 min to 60 min" outage and 1 x "over 60 min" outage	1	3.1
1 x "Over 60 min" outage	1	3.1
2 x "1 min to 10 min" outages	1	3.1
2-3 x "1 min to 10 min" outages	1	3.1
3 x Momentary outages (less than 1 min)	1	3.1
4 x Momentary outages (less than 1 min) and 1 x "1 min to 10 min" outage	1	3.1
5-6 x Momentary outages (less than 1 min) and 2-3 x "1 min to 10 min" outages	1	3.1
8 to 10 x Momentary outages (less than 1 min) and 1 or 2 x "1 min to 10 min" outages	1	3.1
N/A - We have a generator that comes on immediately if the power is out. It does click on periodically.	1	3.1
N/A for now.	1	3.1
Total	32	100.0

**Q5a. Cost per outage to your business?**

	Frequency
N/A	2
Few Thousand, transformer went down the street.	1
Minimal	1
Need 30 minutes to restart machines	1
Need 30 minutes to restart the laser machine	1
No cost - back up generators.	1
No financial cost, but interrupted our public gathering / meeting, creating frustration and distractions	1
No Smart Meters Yet	1
None	1
Not significant	1
Recent hire, sorry don't know.	1
Rolling brown outs	1
Server access.	1
Unknown	1
We are a renewable energy generator - lost revenue of \$1,000 per hr of power outage	1
Worldwide - server access	1

**Q6. Please rank in order of priority preference the following five reliability outcomes. One ("1") represents your highest priority through to five ("5") being lowest priority.**

	N	Mean
Q6. Reducing the overall number of outages.	31	2.55
Q6. Reducing the overall length of outages	29	2.69
Q6. Reducing the number of outages during extreme weather events.	29	3.28
Q6. Reducing the length of time to restore power during extreme weather events.	29	3.03
Q6. Improving the quality of power, as judged by momentary interruptions in power that can result in the flickering or dimming of lights.	29	3.34

**Q7. Given your responses, is there anything you would like to add regarding power outages?**

	Frequency
Going through the transition into becoming a digital company, power quality is becoming more important in impacting operations	1
Momentary outages, depending on when they happen, can cause damage or accelerate wear on some of our sensitive electronics and projection systems	1
None	1
Notify customers via an app or text message regarding time to get system back up.	1
Power Flickers damage our control drives on our slicers at \$5,000 to \$10,000 a pop, our slicers have 4 to 9 each.	1
Power outages and the quality of power affect our operations, and we need to provide equipment to protect our variable frequency drives (VFDs) from burning out.	1
Power outages don't affect us to great extents.	1
The number of outages at our locations is virtually none so cost to business is negligible	1
When power is not stable, our machine will not shut down the right way.	1
When the power is interrupted momentarily, it can cause issues with our electronic systems. We have installed power supply batteries to mitigate this.	1
Would love to receive text msg as discussed in meeting, this would be easy for us to identify to who issue it is and pass off to staff, please make people aware when this takes place.	1

**Q8. In order to operate efficiently and better serve our customers, WNH needs IT systems to manage the grid and its customer information, as well as proper facilities to house its staff, vehicles, and tools. In your opinion, is this proposed overall level**

	Frequency	Percent
The proposed overall level of future capital expenditures seems to be too low	3	9.4
The proposed overall level of future capital expenditures seems to be appropriate	26	81.3
Don't know / did not answer	3	9.4
Total	32	100.0

**9. Customers said they are looking to WNH to provide environmental alternatives and focus on connecting or investing in renewable energy solutions or new technologies. However, the costs of these types of upgrades are higher than traditional infrastructure. Which of the following do you prefer?**

	Frequency	Percent
Invest more money in renewable energy, ex. solar, battery storage, and electric vehicle stations (at additional costs)	6	18.8
Invest more money in new technologies, ex. online customer service tools or grid automation tools (at additional costs)	5	15.6
Both of the above (ie. Investments in both renewable energy and new technologies)	18	56.3
Continue investing in traditional infrastructure	2	6.3
Unsure / did not answer	1	3.1
Total	32	100.0

**Q10. List your top 3 innovative technologies that WNH should invest in. (From Question 9, or other). FIRST MENTION**

	Frequency
Solar	5
Grid Automation	4
Renewables	2
Assisting customers with flat roof buildings	1
New technologies - Grid Automation	1
Power outages - technologies to identify	1
Renewable	1
Safety, Reliable	1
Self-healing Smart Switches	1
Smart Grid	1
Smart Grid Tech	1
Solar Photovoltaic	1
Solar Power	1

**Q10. List your top 3 innovative technologies that WNH should invest in. (From Question 9, or other). SECOND MENTION**

	Frequency
Battery	1
Battery Storage	1
Customer Dashboards	1
Customer Incentives to install Solar, EV	1
Customer Monitoring (by the customer)	1
Customer Service Tools	1
EV Charging	1
EV Charging Station	1
Green Button or equivalent software for seamless data transfer	1
Grid Automation	1
Monitoring for companies w/ multiple buildings - that is the company can monitor consumption - share savings (ie. solar), etc.	1
Net Metering	1
Outage Alert System	1
Renewable energy - solar, electric vehicles	1
Renewable Sources	1
Solar - make it more affordable for business	1
Virtual Net Metering (especially an owner with multiple buildings)	1
Virtual Net Monitoring	1
Wind	1

**Q10. List your top 3 innovative technologies that WNH should invest in. (From Question 9, or other). THIRD MENTION]**

	Frequency
Grid Automation	2
Battery Storage for "cleaning" the grid	1
Car Chargers	1
Customer Service	1
Electric Cars	1
Electric Vehicle Stations	1
Energy Incentive Programs for installation of Renewable Resources	1
Renewable Resources	1
Renewables / DER / Microgrids	1
Smart Meters	1
Solar	1
Traditional	1
Virtual Net Metering	1

**Q11. In your opinion, has WNH focused on the right areas for capital investments?**

	Frequency	Percent
Yes	28	87.5
Unsure / did not answer	4	12.5
Total	32	100.0

**Q11a. If No/Unsure, what would you suggest to ensure WNH focuses on the right areas for capital investments?**

	Frequency
Renewables / DER / Microgrids	1
Total	1

**Q12. Do you currently receive an e-bill from WNH?**

	Frequency	Percent
Yes	15	46.9
No	8	25.0
Unsure / did not answer	9	28.1
Total	32	100.0

**Q13. Did you know the cost of receiving a paper bill is \$1.05 per month per customer or \$12.60 per year? With that in mind, what is preventing you from registering to receive an E-bill? Please select one.**

	Frequency	Valid Percent
We were not aware that the cost savings of e-billing help offset future cost increases	5	27.8
Receiving the bill by mail is a reminder to pay	3	16.7
It is more convenient to receive the bill by mail	3	16.7
I don't deal with bill payments	1	5.6
I am new, not sure how bills are received	1	5.6
Need to confirm with accounts	1	5.6
Redistribution	1	5.6
Old ways in Finance, need to communicate	1	5.6
Change in ownership	1	5.6
Unsure / did not answer	1	5.6
Total	18	100.0

14. What kind of customer service tools or assistance would you be interested in? Select all that apply.

**Q14a. Online Customer Portal to monitor usage**

	Frequency	Percent
Yes	21	65.6
No	11	34.4
Total	32	100.0

**Q14b. E-Billing**

	Frequency	Percent
Yes	16	50.0
No	16	50.0
Total	32	100.0

**Q14c. Bill Consolidation**

	Frequency	Percent
Yes	11	34.4
No	21	65.6
Total	32	100.0

**Q14d. Electronic Payments**

	Frequency	Percent
Yes	15	46.9
No	17	53.1
Total	32	100.0

**Q14e. Outage Communication**

	Frequency	Percent
Yes	23	71.9
No	9	28.1
Total	32	100.0

**Other, please specify:**

	Frequency
My Account	1
Not my authority	1
Outage communication should be to a central email (versus a person)	1
Real-time notification when spikes occur	1

**Q15. Are you interested in utilizing the expertise of WNH Key Account Managers for future programs and incentives to help your company with energy and cost saving initiatives?**

	Frequency	Percent
Yes	22	68.8
No	7	21.9
Don't know / did not answer	3	9.4
Total	32	100.0

**Q15b. Would your company utilize the Key Account Managers for detailed energy advice at an additional cost?**

	Frequency	Percent
Yes	10	31.3
No	14	43.8
Possibly / maybe	3	9.4
Unsure / did not answer	5	15.6
Total	32	100.0

**Q16. Does your company foresee any increase in electricity load in the next 3 years?**

	Frequency	Percent
Yes	10	31.3
No	22	68.8
Total	32	100.0

**Q17. How well do you think Waterloo North Hydro is planning for the future?**

	Frequency	Percent
Very well	23	71.9
Somewhat well	9	28.1
Total	32	100.0

**Q18. Considering what you know about the local electricity distribution system, which of the following best represents your point of view?**

	Frequency	Percent
The rate increase is reasonable	10	31.3
I don't like the idea of a rate increase, but it is necessary	20	62.5
The rate increase is unreasonable	1	3.1
Don't know / did not answer	1	3.1
Total	32	100.0



**Q19. Why do you feel that way?**

	Frequency
Although we have made a great effort to reduce our energy consumption (and we have), we do not seem to be ahead of the game. The "Global Adjustment" has nearly doubled on our bill, from Oct 2018 to Oct 2019, while our actual electricity consumption has been halved.	1
Competent leadership	1
Cost increase hit the bottom line, however an important / critical infrastructure.	1
Cost is there	1
Costs increase - that's life.	1
Costs increase. Like to hear that WNH goes to bat on our behalf.	1
Customer communication, very easy to talk to, very engaging and helpful staff	1
Energy is by far our largest utility. As a non profit, it is an increase that could have an impact on us.	1
I understand that costs increase but hydro is a major cost to our operations.	1
It covers operation and mandatory costs, but lays a huge impact on customers	1
It needs to be done, and investments need to be made.	1
It would make more sense to average the increase over more years instead of a large increase every five years.	1
Need money for improvements	1
No one likes higher bills, however costs go up for everything.	1
No one likes to spend more money.	1
Stability.	1
The cost of electricity is quite high and probably shouldn't be; we are also paying additional costs for connections of DER which are quite high	1
We need to invest in infrastructure, new technology, expertise, efficiency.	1

**Q20. Is there anything in particular that Waterloo North Hydro can do to improve its service to you?**

	Frequency
Better notice of planned shutdowns; Better coordination of shutdowns with Hydro One; Plan shutdowns in off-peak times (nights / weekends)	1
Customer Incentives - which I know affect the bottom line. -- It was mentioned that the increase is to cover over-expenditures in current term. Which means you're behind -> should always budget ahead...	1
Energy efficiency incentives when available	1
More communication to understand WNH	1
No power flickers	1
No.	1
Reduce connection cost for DERs	1
You currently do an excellent job. Thank you.	1

**Q21. How well did Waterloo North Hydro's plan cover the topics you expected?**

	Frequency	Percent
Very well	26	81.3
Somewhat well	6	18.8
Total	32	100.0

**General Impression: Overall, what did you think of this information session?**

	Frequency
An informative presentation!	1
Excellent! Thank you.	1
Good Knowledge.	1
Good.	1
Great information, great venue and food, well presented!	1
Great Presentation!	1
Great.	1
Helpful - had good conversation at the table with Herb - he gave us some good ideas around future planning for infrastructure repair and replacement	1
I found it educational.	1
I found it interesting and was glad to understand what is involved in setting rates.	1
Informative	1
Informative and clearly delivered.	1
informative, easy to understand	1
Informative.	1
Quite well informed.	1
This was very informative and I'm glad I attended!	1
Very good.	1
Very good. Especially for a new business starting our electric conversion.	1
Very informative	2
Very informative. Thank you.	1
Very insightful. Thank you.	1
Very interesting	1
Well done! Good venue. Key points mentioned in presentation and questions.	1
Staff friendly and engaged. Thanks!	
Well worth my time. Lots of info and look forward to getting the slide deck to share w/ Finance for budgeting purposes.	1
Total	32