Waterloo North Hydro Inc.

2020 and 2021

Operating and Capital

Budget

2020 & 2021
Cost of Service Budget

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1. INTRODUCTION

1.1 Every five years, electricity distributors in Ontario have the option of filing a Cost of Service (COS) application with the Ontario Energy Board (OEB) for approval of new distribution rates. A COS application allows a distributor the opportunity to recover its investment in infrastructure and operating costs and earn a regulated rate of return. The last COS application was for rates effective January 1, 2016 the current COS application will be for rates effective January 1, 2021.

1.2 In order to set rates for 2021, the OEB requires a capital and operating budget for 2020 and 2021. In addition, the OEB has outlined an extensive process of customer engagement and preparation of evidentiary material to support a rate application. The COS application is due April 30, 2020 with a lengthy review and hearing process that could take up to eight months.

1.3 The 2020 and 2021 final capital and operating budgets are the result of a planning exercise that started in early 2019 with a high level survey of customer preferences, a Board strategic planning session in March 2019, the development of a five-year business plan, a preliminary budget with rate impacts, and culminating with a detailed customer engagement exercise that solicited feedback from all customer groups.

1.4 As a precursor to the customer engagement process, we looked at the external and internal forces that are driving the business: the latest economic outlook, pending regulatory changes, plant replacement and upgrades, equipment replacement and upgrades, and the need for better systems and tools to improve efficiency and productivity to better serve our customers.

1.5 This budget package is organized in a manner that mirrors the budgeting process, starting with the environmental scan and customer preferences, the development of the five-year business plan, the preparation of the capital and operating budgets along with key

performance indicators, and then ending with the Board's resolutions for approving the budget in the recommendations section.

2. ECONOMIC OUTLOOK

2.1 The following summarizes the most recent Bank of Canada economic forecast from October 2019:

- The Bank's mandate is to conduct monetary policy to promote the economic and financial well-being of Canadians. Canada's experience with inflation targeting since 1991 has shown that the best way to foster confidence in the value of money and to contribute to sustained economic growth, employment gains and improved living standards is by keeping inflation low, stable and predictable. In 2016, the Government and the Bank of Canada renewed Canada's inflation-control target for a further five-year period, ending December 31, 2021. The target, as measured by the consumer price index (CPI), remains at the 2 per cent midpoint of the control range of 1 to 3 per cent. Canada's inflation-targeting approach is symmetric, which means that the Bank is equally concerned about inflation rising above or falling below the 2 per cent target.

- The Bank carries out monetary policy through changes in the target for the overnight rate of interest. These changes are transmitted to the economy through their influence on market interest rates, domestic asset prices and the exchange rate, which affect total demand for Canadian goods and services. The balance between this demand and the economy's production capacity is, over time, the primary determinant of inflation pressures in the economy.

- The Canadian economy grew at a moderate pace over the past year, supported by a healthy labour market and the recent turnaround in housing. However, global trade conflicts and related uncertainty dampened business investment and export activities, and investment in the energy sector continued to decline. The impact on growth of

both global headwinds and energy transportation constraints is expected to diminish, and the pace of economic expansion should gradually pick up in 2020 and 2021. In 2020 and 2021, Canada's economy is anticipated to grow near potential. Consumer spending is projected to increase at a steady pace, and housing activity to continue its ongoing recovery. Overall, investment and exports are anticipated to grow moderately. In the energy sector, investment is forecast to stabilize, and oil exports should improve as pipeline and rail capacity gradually expands. Consumer price index (CPI) inflation is also expected to remain close to target over the projection horizon.

The following summarizes the most recent TD Bank economic forecast for Ontario from October 2019:

Table 1 – Economic Indicators

Economic Indicator	2019	2020	2021
Real GDP (%)	1.6	1.6	1.7
Employment Growth (%)	2.7	1.0	0.6
Housing Starts (Units)	70,100	75,100	78,400
30 Year Govt. Bond Yield	1.5% to 1.89%	1.5% to 1.8%	1.90% to 2.15%
CPI (%)	2.2	1.8	1.9

The following table shows the economic forecast compared to the assumptions we have taken in preparing the budgets:

Table 2 – Economic Forecast

Economic Indicator	2020 Economic Forecast	2020 & 2021 Budget
Real GDP (%)	2.2	N/A
Employment Growth (%)	1.0	
Customer Growth	N/A	0.8%
Growth in Energy Sales	N/A	0.1%
Housing Starts (Units)	75,100	400
30 Year Govt. Bond Yield	1.5% to 1.8%	3.75% to 4.00%
US $ Exchange	$0.75 to $0.76	$0.75
CPI (%)	1.8	2.0

3. REGULATORY ENVIRONMENT

3.1 New customer service rules came in effect in 2019 with further changes required in 2020. These rules affect LDC operations with respect to customer deposits, due dates, and disconnections and will have a negative impact on cash flow and bad debts.

3.2 The OEB is undertaking a review of the Balanced Scorecard for electricity distributors. The OEB is looking to enhance the Key Performance Indicators by including operational benchmarks that would compare utilities to each other. Ontario has a varied mix of utilities based on size, geography and density which could make utility to utility benchmarking difficult and possibly provide erroneous conclusions.

3.3 One of the campaign promises of the Provincial Conservative government is to make a further cut to the hydro bill by 12.0%. So far, there has been no pronouncements on this matter, however, we are aware that this is still an initiative and the government may be looking to utilities as a source of cost reductions.

3.4 In early 2018, the Minister of Energy established the Ontario Energy Board Modernization Review Panel, to provide advice on opportunities to strengthen the governance and operational framework of the OEB. The panel completed their work in 2018 and made a number of recommendations which included the establishment of a separate Board of Directors and Board Chair, a President, and a Chief Commissioner responsible for adjudication. The Panel also recommended that the President and the Chief Commissioner develop a plan within six months of their appointment to enhance the independence, the certainty and the efficiency of the adjudication process and to develop new KPIs that focus on matters such as decision cycle time, stakeholder satisfaction, and organizational excellence. We view these recommendations as positive in the regulation of LDC operations and rate setting.

3.5 The provincial government discontinued the Conservation First Framework effective March 31, 2019. This was a mandated program where LDCs were required to achieve energy savings for the 2015 to 2020 period. WNH was given a target of 82.38 GWh which has already been achieved by 106%. However, WNH believes that we must continue to assist our customers to use energy wisely and we will have a scaled down conservation department.

3.6 The OEB is commencing an initiative to review its requirements in regard to the connection of Distributed Energy Resources (DERs) by licensed electricity distributors. The purpose of this initiative is to identify any barriers to the connection of DERs, and where appropriate to standardize and improve the connection process. The review will be focused on electricity generation and storage facilities connected to the distribution system, either in front or behind the distributor's meter. This initiative is currently in stakeholder process and WNH through the EDA is heavily involved.

3.7 The OEB is considering the creation of a new customer class for small businesses with an electricity demand of less than 10kW. The OEB believes that these customers are similar in usage patterns to residential customers and should be billed on the same basis with a fixed monthly charge for distribution with no volumetric charge. This initiative is currently on hold pending the modernization review.

3.8 Effective November 1, 2019, the provincial government increased Time of Use (TOU) rates for residential and small business customers and implemented the Ontario Electricity Rebate (OER) of 31.8%. The net effect is an overall increase of 1.8% for the average residential customer. Certain types of multi-unit complexes are specifically excluded from eligibility, such as hospitals, universities, trailer parks and hotels.

4. INDUSTRY OUTLOOK & MARKET SCAN

4.1 Utility Size

The 2018 year-end data from the OEB shows the utility served 57,471 residential, commercial and industrial customers in the City of Waterloo and the Townships of Wellesley and Woolwich. The following chart shows Waterloo North Hydro ranks 14th among the top 20 utilities in Ontario.

Table 3 – Top Utilities

Rank	Distributor	Customers
1	Hydro One Networks Inc.	1,333,601
2	Alectra Utilities Corporation	991,102
3	Toronto Hydro-Electric System Limited	772,624
4	Hydro Ottawa Limited	335,320
5	London Hydro Inc.	159,039
6	Veridian Connections Inc.	121,826
7	Kitchener-Wilmot Hydro Inc.	96,827
8	ENWIN Utilities Ltd.	88,978
9	Oakville Hydro Electricity Distribution Inc.	72,108
10	Burlington Hydro Inc.	67,940
11	Energy+ Inc.	65,402
12	Entegrus Powerlines Inc.	59,186
13	Oshawa PUC Networks Inc.	58,745
14	Waterloo North Hydro Inc.	57,471
15	Guelph Hydro Electric Systems Inc.	55,673
16	Niagara Peninsula Energy Inc.	55,593
17	Thunder Bay Hydro Electricity Distribution Inc.	50,950
18	Greater Sudbury Hydro Inc.	47,626
19	Newmarket-Tay Power Distribution Ltd.	43,524
20	Whitby Hydro Electric Corporation	42,906

5. CUSTOMER SCAN

5.1 Customer Growth and Load Growth

Waterloo North Hydro continues to grow modestly in both number of customers and electricity consumption. This growth has brought a corresponding demand for energy as more individuals and businesses choose to locate in the service territory.

The 2019 Peak Summer Demand was forecasted at 292.2 megawatts. However, with a cool start to the summer season and continued conservation we experienced a peak of only 290.0 megawatts. This is still below the all-time peak of 294.9 megawatts experienced in 2011. We believe that taking conservation measures into account, the peak would have exceeded 300 megawatts. We are forecasting a peak of 295.0 megawatts for 2020 and 299.3 megawatts for 2021.

The following charts show the growth experienced over the last eight years and a projection for 2019, 2020 and 2021:

Chart 1 – Customer Growth

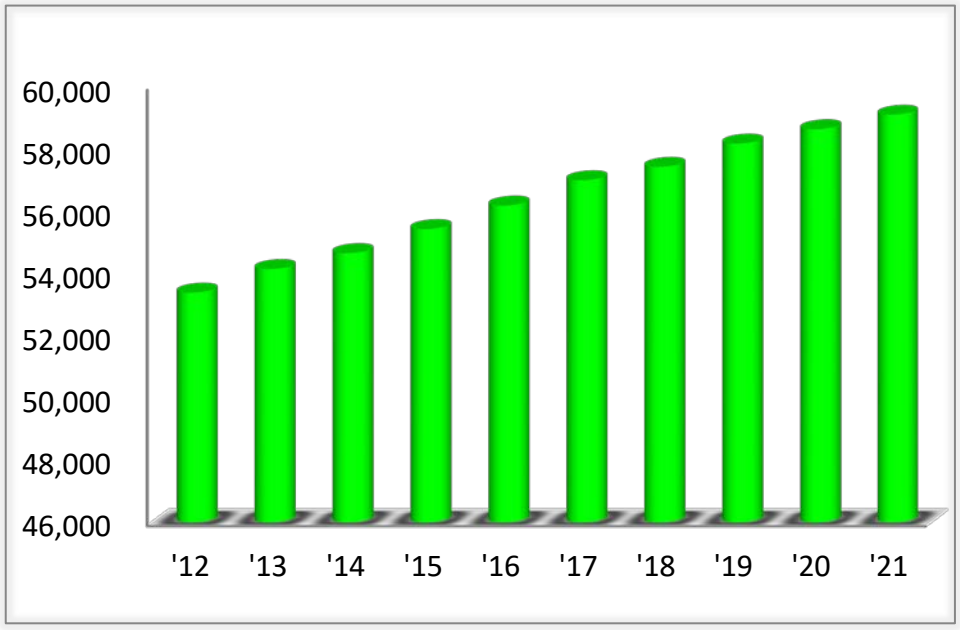
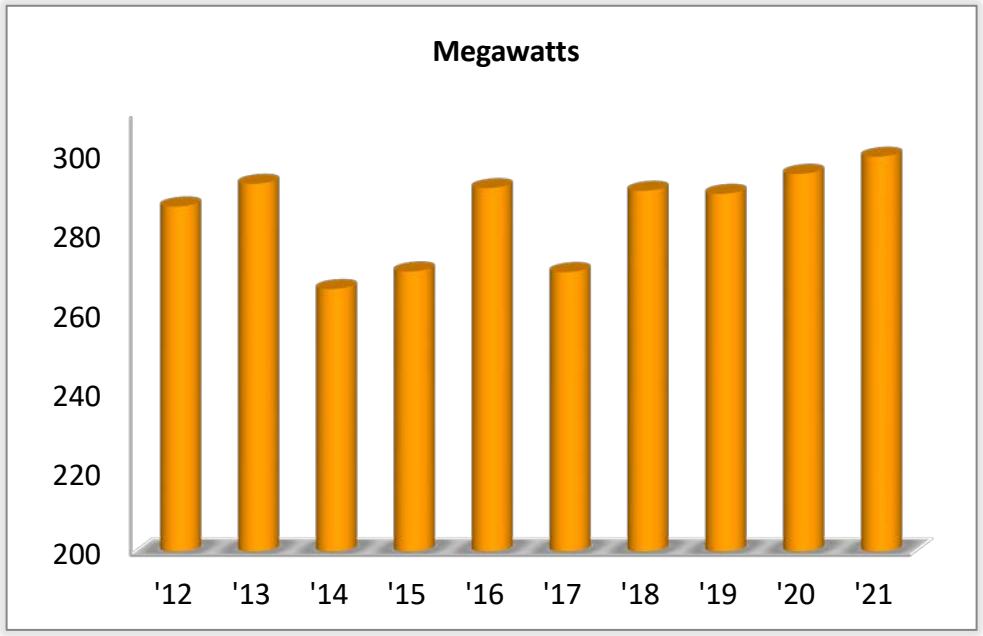


Chart 2 – Load Growth



5.2 Top Customers

The following charts shows our top 25 customers in terms of annual distribution revenues and total annual revenues:

Table 4 – Top Customers

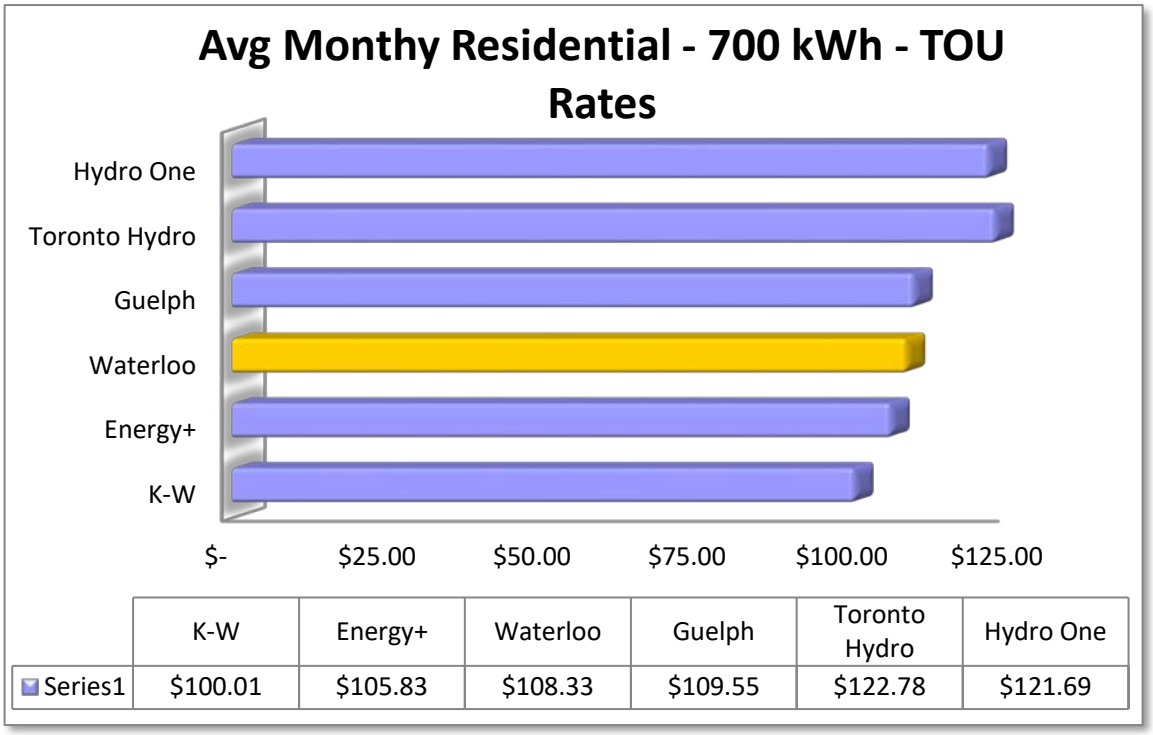
Rank	Annual Distribution Revenue	% of Distribution Revenue	Total Annual Revenue	% of Total Revenue
1	1,253,789	3.5%	9,348,074	5.6%
2	434,866	1.2%	3,378,461	2.0%
3	406,759	1.1%	3,135,739	1.9%
4	379,711	1.1%	3,050,013	1.8%
5	321,091	0.9%	2,238,617	1.3%
6	229,328	0.6%	1,987,127	1.2%
7	209,692	0.6%	2,178,282	1.3%
8	192,458	0.5%	2,480,159	1.5%
9	171,874	0.5%	2,243,206	1.3%
10	155,844	0.4%	1,530,164	0.9%
11	153,950	0.4%	2,164,051	1.3%
12	142,006	0.4%	1,855,429	1.1%
13	134,435	0.4%	1,825,619	1.1%
14	114,169	0.3%	1,664,595	1.0%
15	113,971	0.3%	1,012,901	0.6%
16	111,616	0.3%	1,118,433	0.7%
17	105,672	0.3%	1,418,188	0.8%
18	103,922	0.3%	749,830	0.4%
19	97,223	0.3%	704,060	0.4%
20	93,965	0.3%	947,993	0.6%
21	93,374	0.3%	664,165	0.4%
22	89,057	0.3%	509,813	0.3%
23	87,860	0.2%	949,372	0.6%
24	82,889	0.2%	343,450	0.2%
25	77,791	0.2%	642,578	0.4%
	$ 5,357,314	**15.1%**	**$ 48,140,318**	**28.6%**

The above chart shows that Waterloo North Hydro is not dependent on any single industry or large user. However, with the top 25 customers accounting for only 15.1% of distribution revenues means that the utility is heavily dependent on its residential and small business customers. The unit cost per kilowatt-hour will tend to be higher than utilities with a larger proportion of commercial and industrial load.

5.3 Utility Bill Comparisons

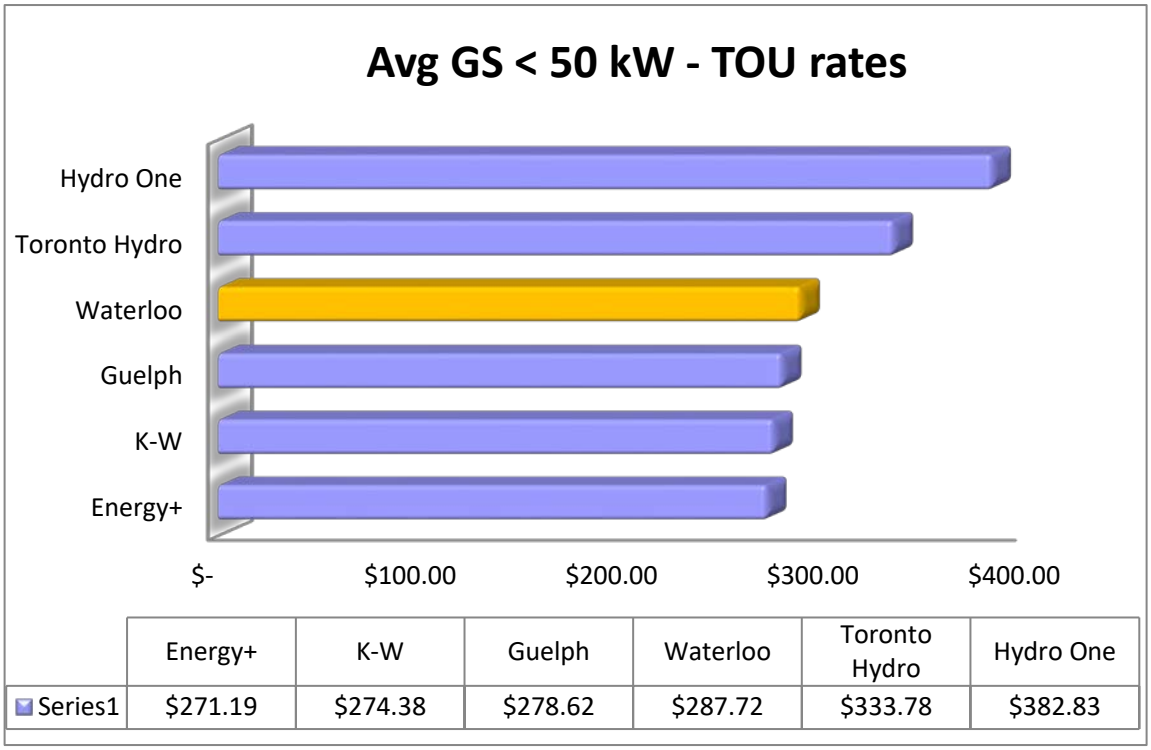
Waterloo North Hydro continues to be competitive with electricity bills for residential and business customers that are middle of the pack of Ontario LDCs. Our residential and small business rates are slightly higher than area utilities and substantially lower than Toronto Hydro and Hydro One. However, at a forecasted cost of power rate of 12.77 cents per kWh, Waterloo North Hydro's large customer bills are one of the lowest in the region. The following charts compare the hydro bills for an average monthly residential customer using 700 kWh, a typical small commercial business using 2,000 kWh, and an average large general service customer with a demand of 250 kW and consumption of 100,000 kWh. Time-of-Use (TOU) rates for cost of power have been used for the residential and small business customers. The large commercial customers have been forecasted using 12.77 cents per kWh as the spot market rate for cost of power. The following charts have been prepared using current time-of-use rates:

Chart 3 – Residential



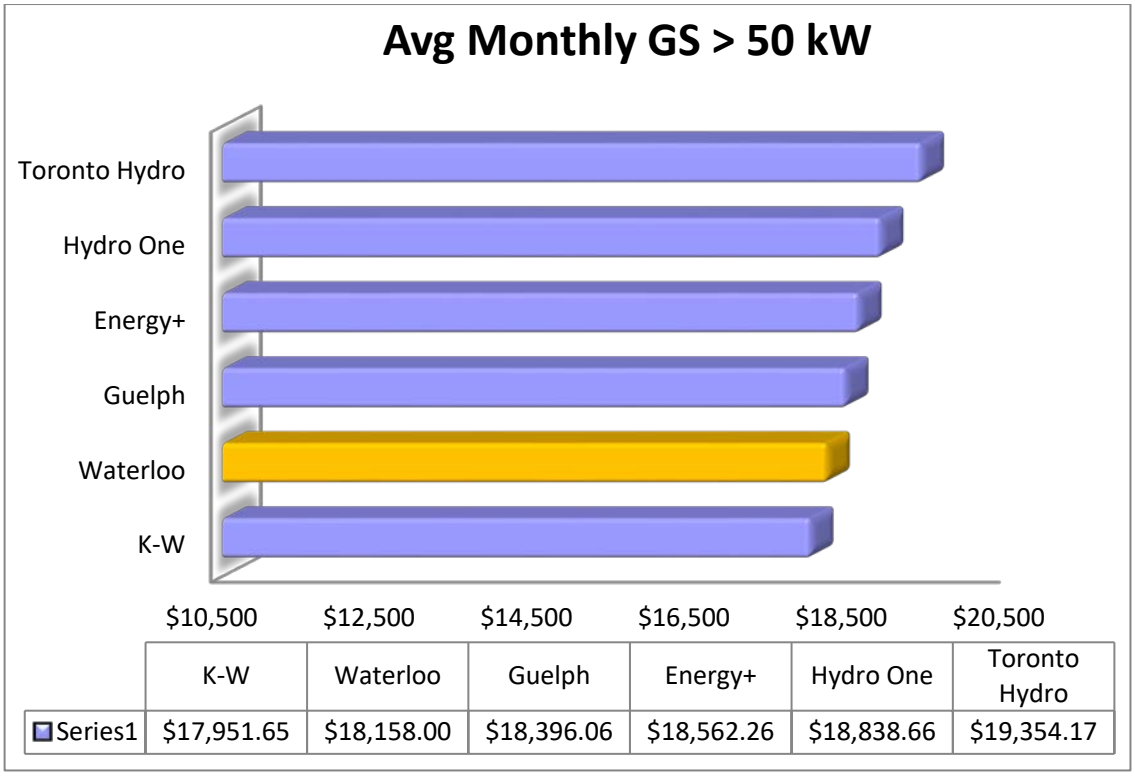
	K-W	Energy+	Waterloo	Guelph	Toronto Hydro	Hydro One
Series1	$100.01	$105.83	$108.33	$109.55	$122.78	$121.69

Chart 4 – Small Business – 2,000 kWh



	Energy+	K-W	Guelph	Waterloo	Toronto Hydro	Hydro One
Series1	$271.19	$274.38	$278.62	$287.72	$333.78	$382.83

Chart 5 – General Service



	K-W	Waterloo	Guelph	Energy+	Hydro One	Toronto Hydro
Series1	$17,951.65	$18,158.00	$18,396.06	$18,562.26	$18,838.66	$19,354.17

5.4 Customer Classes

The utility currently uses four customer classes for the purpose of rates and billing, Residential, General Service <50 kW, General Service >50 kW and Large Users. The General Service <50 kW class includes a wide range of customers including municipal facilities, office buildings, medium and small commercial establishments, apartment and condominium buildings. The General Service >50 kW class is typically comprised of large commercial, and industrial customers. The Large User class consists of one large use customer with an average load approaching fifteen megawatts.

The following table shows the customer classes with the projected number of customers, electricity usage and revenues for 2020 and 2021:

Table 5a – Customer Classes 2020

Class	Total Customers	Total MWh	Revenue ($000,s)
Residential	51,810	408,899	$ 20,009
Gen. Service < 50 kW	6,068	201,280	5,734
Gen. Service > 50 kW	773	753,170	10,127
Large User	1	103,307	836
Street Lighting	5	3,418	149
Total	**58,657**	**1,470,074**	**$ 36,855**

Table 5b – Customer Classes 2021

Class	Total Customers	Total MWh	Revenue ($000,s)
Residential	52,176	399,491	$ 21,090
Gen. Service < 50 kW	6,147	199,331	5,938
Gen. Service > 50 kW	793	767,091	10,815
Large User	1	104,195	1,001
Street Lighting	5	3,234	155
Total	**59,122**	**1,473,342**	**$ 38,999**

6. 2020 to 2025 BUSINESS PLAN

6.1 The Business Plan was developed based on input received from a high level survey of customer preferences and a strategic exercise undertaken by the Board in March 2019. The full Business Plan is presented under Tab #2 and forms the basis for the development of the capital and operating budgets.

7. 2020 and 2021 OPERATING BUDGETS

7.1 Key Elements of the 2020 and 2021 Budgets

- Forecasted growth in electricity demand (peak MW) is 1.7% for 2020 and 1.4% for 2021- we must build and maintain our plant to accommodate the forecasted peak system load

- Revenue growth is budgeted at 2.4% for 2020 and 6.4% for 2021
- Forecasted growth of approximately 0.8% for new customers will bring the total count from 58,196 projected for 2019 to 58,657 customers for 2020 and 59,122 customers for 2021
- Price of energy budgeted at the current Time-of-Use rates for residential and small commercial customers and 12.77 cents per kWh for large customers who are on the spot market price
- Wages and salary increases budgeted at net 1.5% for the year
- Inflationary increase for other expenses budgeted at 2.0%
- Gross Capital Expenditures of $20.7 million and $19.6 million is required to service new development and rebuild ageing infrastructure in 2020 and 2021
- Distribution Revenues of $38.6 million and $41.0 million with Net Earnings after taxes of $6.8 million and $8.1 million in 2020 and 2021
- Payments of $5.7 million and $5.5 million in interest and dividends to the shareholders in 2020 and 2021

7.2 Wage Increases

In 2016, Waterloo North Hydro negotiated a four-year Collective Agreement with the International Brotherhood of Electrical Workers, which covers the period April 1, 2016 to March 31, 2020. Before the expiry of the existing contract, we hope to successfully negotiate a new four-year agreement and we have forecasted a 1.5% across the board increase in wage rates. These wage increases have been included in the budget. The budget also provides for a similar adjustment for the non-union staff effective January 1, 2020. However, if negotiated rates are higher than budget, we will be amending the rate application prior to filing at the end of April.

7.3 Corporate Income & Property Taxes (PILS)

Section 93 of the *Electricity Act, 1998* provides that previously tax-exempt local electricity distributors ("LDCs") are required to make payments in lieu of corporate income taxes ("PILs"). The OEB considers PILs on LDC revenues as an additional expense that LDCs can recover through an increase in distribution rates. The combined federal and provincial corporate income tax rate is currently at 26.5% and this will remain at 26.5% for 2020 and 2021. Property taxes are also included in this category - an amount of $462,000 has been budgeted for this expense in 2020 and $472,000 in 2021. The budget for tax liability for PILs is $280,000 in 2020 and $525,000 in 2021. This is the amount of tax calculated using Capital Cost Allowance which is much higher than depreciation as a write-off for fixed assets. This favourable tax strategy results in an "effective tax rate" of approximately 6.0%. The total tax amount of $742,000 and $997,000 is provided for in the 2020 and 2021 Operating Budget.

7.4 Proposed Operating Budget

The 2020 Proposed Operating Budget is $31.4 million and $32.4 million in 2021, representing an increase of 4.3% for 2020 and 3.2% for 2021. The increases are primarily due to higher depreciation costs and new operating costs associated with retaining some energy efficiency staff that were previously funded by the government's CDM program. We believe that our customers will continue to look at WNH for assistance with their energy bills and conservation efforts.

Table 6 – Operating Budget Summary

	2019 Budget ($000,s)	2020 Budget ($000,s)	2021 Budget ($000,s)
Distribution Revenues	$ 37,650	$ 38,565	$ 41,031
Distribution Revenues	**$ 37,650**	**$ 38,565**	**$ 41,031**
Controllable Costs	$ 14,925	$ 15,575	$ 16,248
Depreciation	10,142	10,657	11,048
Interest Costs	5,090	5,212	5,151
Total Costs	**$ 30,157**	**$ 31,444**	**$ 32,447**
Earnings before Taxes	$ 7,493	$ 7,121	$ 8,584
Taxes	419	280	525
Net Earnings	**$ 7,074**	**$ 6,841**	**$ 8,059**

Please refer to Tab #4 - Operating Budget for a breakdown of the major components.

8. 2020 & 2021 CAPITAL BUDGET

8.1 Electricity distribution is a capital-intensive business. In order to connect and service new customers, WNH invests in plant such as lines, poles, transformers and services to be able to bring electricity to homes and businesses. We forecast a growth of 1.7% in the peak electrical demand for 2020, 1.4% for 2021, and 1.3% through to 2025. This translates into a similar growth requirement for investment in new plant.

8.2 Each year WNH maintains, refurbishes and replaces assets as they age, deteriorate or become obsolete and cannot perform their intended functions in a safe and reliable manner. WNH's proposed investments align with our strategic imperatives and with our Distribution System Plan (DSP) evaluation criteria of efficiency, customer value and reliability.

8.3 WNH maintains a register of its largest and most significant assets. Depending on the asset class, available data can include quantities, age, condition, and inspection data, testing data, operational performance and location.

8.4 Asset Prioritization

At a high level, WNH utilizes the following system of prioritization for capital investments:

- **Mandated** – these projects are required by various government agencies such as the OEB and municipalities.
- **Customer Driven** - projects undertaken to upgrade existing or connect new customers to the distribution system.
- **Condition Based** – these investments fall under WNH's asset condition assessment programs. Deficiencies are identified when asset condition assessments from inspections, testing and maintenance fail to meet established targets.
- **Performance Based** – these investments are the result of failure to meet prescribed (OEB and IESO) performance targets or to address supply constraints. These investments are generally targeted to enhance reliability, improve operational efficiency or improve the amount and flexibility of system capacity.

8.5 Annually, WNH's plan will have a mixture of these various types of investments and all plans receive scrutiny in terms of affordability and impact on customer rates. WNH develops its investment plans by attempting to pace Condition and Performance investments with Mandated and Customer-Driven investments in a strategy to develop executable and sustainable investment plans.

8.6 The total 2020 Proposed Gross Capital Budget is $20.7 million and $19.6 million for 2021. The capital programs outlined in the 2020 & 2021 budget and in the long-range forecast address the need to replace aging infrastructure, maintain appropriate level of safety standards and reliability, and to expand the system to meet customer growth. The capital

investment in the distribution system for new plant to service growth is $6.1 million and $6.3 million for 2020 and 2021. In 2020 and 2021, we plan to spend $12.7 million and $12.1 million to replace and upgrade aging infrastructure. We provide a summary budget as well as a detailed budget for each item showing cost breakdowns in the Capital Budgets.

Table 7a – 2020 Capital Investment

Capital Investment	($000,s)	%
New Plant	$ 6,095	29.4%
Rebuild/Upgrade Plant	12,733	61.8%
Information Technology	1,376	6.6%
Street Light Construction	446	2.2%
Total	**$ 20,650**	**100.0%**

Table 7b – 2021 Capital Investment

Capital Investment	($000,s)	%
New Plant	$ 6,346	32.3%
Rebuild/Upgrade Plant	12,133	61.8%
Information Technology	569	2.9%
Street Light Construction	585	3.0%
Total	**$ 19,633**	**100.0%**

8.7 The 2020 & 2021 Proposed Capital Budget of $20.7 million and $19.6 million will be funded as follows:

Table 8a – 2020 Source of Funds

Source of Funds	2020 ($000,s)	%
Free Cash Flow	$ 6,839	33.1%
Capital Contributions	2,066	10.0%
Contributions from Others	446	2.2%
Borrowings	11,300	54.7%
Total	**$ 20,650**	**100.0%**

Table 8b – 2021 Source of Funds

Source of Funds	2021 ($000,s)	%
Free Cash Flow	$ 8,105	41.3%
Capital Contributions	2,642	13.5%
Contributions from Others	585	3.0%
Borrowings	8,300	42.3%
Total	**$ 19,633**	**100.0%**

As indicated in the above chart, WNH projects inadequate cash reserves and there is a need to borrow $11.3 million and $8.3 million to fund the 2020 and 2021 capital programs. It is important to mention that we will be borrowing 54.7% of the gross capital expenditures in 2020 and only 42.3% of the gross capital expenditures in 2021 compared to the OEB ceiling of 60.0%.

9. 2022 – 2025 FOUR YEAR PLAN

9.1 The four-year long-range forecast includes the four-year capital plan along with forecasted income statements, balance sheets and cash flow statements for the same period.

9.2 The four-year plan has been prepared using the following assumptions:

- IRM rate increase of 1.7% per year through to 2025
- Cost of power increase of 2.5% per year
- Total expense growth of 1.7% per year
- Long term cost of borrowing at 4.0%
- Corporate income tax rate of 26.5%
- Shareholder dividend payout ratio of 50.0%

10. STRATEGIC KEY PERFORMANCE INDICATORS

10.1 The 2020 & 2021 Operating and Capital budgets have been prepared with the goals of the strategic imperatives. The various projects and programs outlined in the Operating and Capital budgets enhance or maintain service levels for the customers of Waterloo North Hydro.

10.2 Corporate (Balanced) Scorecards are used to drive performance and continuously improve operations. Balanced scorecards are also used to measure how well strategic objectives are executed since the scorecard includes both financial as well as non-financial indicators that are critical for corporate success. WNH developed and adopted its first Balanced Scorecard and Key Performance Indicators (KPIs) in 2003. Since then we have used this tool effectively to measure and report results against budgets and targets. This approach has been successful and has led to improvements in all areas of our business.

KPIs are now entrenched in our corporate culture where all departments are now using them in planning and budgeting to improve performance.

The OEB developed a balanced scorecard that LDCs are expected to adopt and to report their performance results annually. The OEB's objective is to encourage distributors to operate effectively, continually seek ways in which to improve their productivity and performance and, importantly, better engage with their customers to understand and respond to their needs, and demonstrate the value that they deliver. These measures are being used by the OEB to assess a distributor's effectiveness in improving its operations and creating value for customers. The OEB scorecard has been merged with WNH's scorecard and presented under Tab #7 – Key Performance Indicators We also highlight certain financial KPIs on a graph that shows historic performance as well as current and future projections. These graphs are particularly helpful in highlighting trends in a meaningful way.

10.3 Return on Equity (ROE)

We project the Net Income for the year 2020 at $6.8 million for an ROE of 6.7%. This rate of return is lower than the OEB ceiling of 9.19% due to capital investments made after the last Cost of Service filing that are not yet earning a rate of return. The current distribution rates provide a rate of return for investments made up to 2016. Investments made after 2016 will not earn a rate of return until the next Cost of Service rates take effect in 2021. The impact is a steady decline in ROE until 2021. The net income of 2021 is projected at $8.1 million for an ROE of 7.6%.

The OEB has lowered the ROE from 9.19% to 8.52% effective in 2020. The OEB has also lowered the borrowing rate allowed for long-term debt to 3.21%. Existing shareholder debt is currently fixed at 6.0% for senior debt and 1.125% above the OEB deemed rate for junior debt. The additional interest cost for shareholder debt is not included in rates and results in a lower ROE of 7.6%.

10.4 Controllable Costs per Customer

This KPI is a measure of a utility's overall operating efficiency on controlling its expenses. All expenses such as operating, maintenance and administration are expressed as a cost per customer. The controllable cost per customer for 2019 is projected to be $261.95 and includes the cost of increased maintenance and higher anticipated bad debt expense. This KPI will increase to $265.53 in 2020 and $274.82 in 2021 and remain at this level for the next four years providing we are able to limit the annual increase (net of customer growth) to less than 1.0%.

10.5 Debt / Equity Ratio

The Debt/Equity Ratio indicates how much of a company's capital is financed by debt. The Ontario Energy Board (OEB) has adopted a capital structure for all LDCs in the province of 60.0% debt and 40.0% equity for ratemaking purposes. We forecast WNH's Debt/Equity ratio at 52.6% for 2020 and 52.2% for 2021. In the five-year plan, we project the Debt/Equity ratio to gradually decrease to 48.5% by 2025. This level of debt is well below the OEB ceiling of 60.0%. Ideally, we would like to see this ratio no higher than 55.0% to allow for future borrowing capacity for unforeseen capital expenditures.

10.6 Shareholder Dividends

The 2020 and 2021 Budgets and the Five-Year Plan includes full interest payment for both the senior and junior debt to the shareholders. In addition, we forecast the ability to make dividend payments each year of at least 50% of Net Income from Operations. In 2020, the net income from operations will yield a dividend distribution of $3,420,000, which is lower than the previous years' dividend. We recognize the shareholders' need for stable and increasing returns and therefore have increased the dividends for the 2020 year to 55.2%. Total returns which include dividends and interest payments for 2020 through to 2025 are highlighted in Tab #7 – Key Performance Indicators.

10.7 Projected Rate Impacts 2020 to 2025

All costs associated with the distribution of electricity need to be recovered from customers in the form of distribution rates that are approved by the OEB. We are targeting rates that are "Competitive" and "Sustainable". Competitive rates that allow our existing customers to continue to prosper and be successful, and to attract new customers. Sustainable rates to allow for reinvestment, maintaining service levels and for healthy shareholder returns. The 2020 and 2021 Capital and Operating budgets will result in an across the board IRM rate increase of 1.7% for 2020 and 4.6% for 2021. The following table shows the rate increase for 2020 and the next five years:

Table 9 – Rate Increases

Year	Rate Increase IRM
2020 (IRM)	1.7%
2021	4.6%
2022	1.7%
2023	1.7%
2024	1.7%
2025	1.7%

In 2020, distribution rates will increase based on the IRM inflationary factor of 1.7%. In 2021, rates will increase by 4.6% based on the Cost of Service filing which occurs every five years. In between COS filings, rates will increase based on the IRM factor which is currently at 1.7%. However, we show what the actual increase would be for the 2022 to 2025 years based on our projected capital and operating budgets. The average rate increase for the 2020 to 2025 period is 2.2% and this is slightly above targeted CPI of 2.0%.

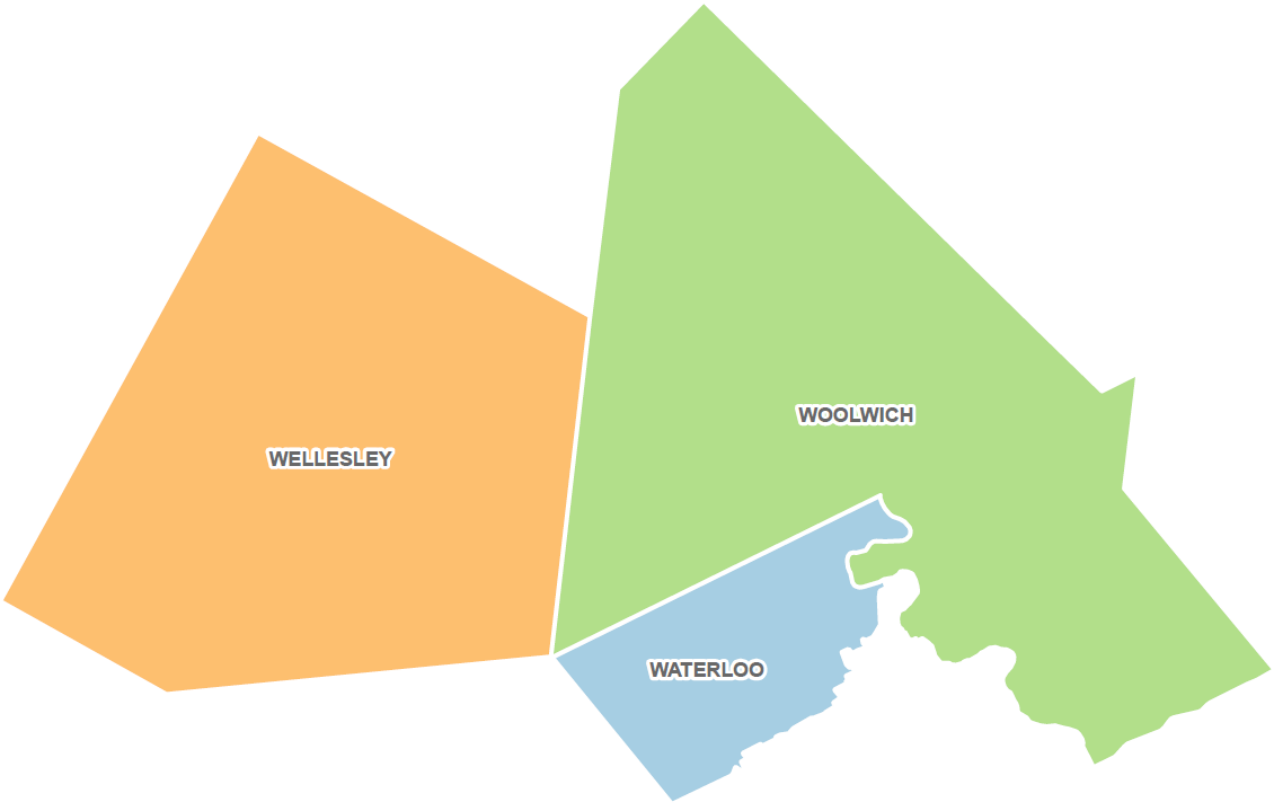
11. ORGANIZATIONAL CHARTS

11.1 The Organizational Charts showing the major divisions and departments within the company are presented in Tab #7. The charts show the reporting structure and the staffing complement for each department.

12. BOARD APPROVALS

12.1 Resolutions required for Board approval of the 2020 and 2021 Capital and Operating Budgets are outlined in the recommendation section. The Five Year Capital Plan does not need to be approved by the Board – only to be received.

Waterloo North Hydro



2020 – 2025 Business Plan

To serve the customers of Waterloo North Hydro

For customer prosperity and growth

Table of Contents

1.0 Executive Summary

As part of its annual budgeting process, Waterloo North Hydro normally develops an annual Capital and Operating Budget with a Five-Year Long Range Forecast. However, with a Cost of Service rate filing for new distribution rates to be effective in 2021 there is a need to develop a business plan that addresses the needs of the utility for 2020 and 2021 in detail as well as 2022 through to 2025. In order to accomplish this, the utility employs the following process:

a) Conduct a survey to gather high level insights, information and feedback from customers.
b) Use customer feedback and input along with current industry trends and an environmental scan to update the Strategic Plan with the Board of Directors and develop key objectives for the next five years.
c) Prepare and present to the Board of Directors a Five-Year Business Plan.
d) Prepare the Capital and Operating Budgets that would outline the financial resources (along with rate impacts to customers) required to achieve the objectives outlined in the Business Plan.
e) Conduct a second level engagement with customers regarding the Business Plan and rate impacts.
f) Amend the Capital and Operating Budgets based on customer feedback and obtain Board approval.

Items (a) and (b) have been completed and item (c) the Business plan is being presented for Board approval.

2.0 Overview of Waterloo North Hydro Inc.

2.1 Core Business

The core business of Waterloo North Hydro Inc. (WNH) is electricity distribution over an area of 683 square kilometers. As at December 31, 2019, WNH distributed electricity to approximately 58,000 residential and commercial customers. WNH owns and operates a local distribution network consisting of approximately 21,500 poles, 7,800 transformers, 1,100 km of overhead lines, and 575 km of underground feeder lines. The network also includes three transformer stations connected to Hydro One transmission circuits and 6 distribution substations. At its local transformer stations WNH transforms electrical power it purchases from the Independent Electricity System Operator to primary distribution voltages and distributes such power to WNH customers through the distribution network. WNH is also supplied by 7 sub-transmission or distribution feeders from neighbouring utilities; 3 from Hydro One's Elmira T.S., one from Hydro One's Fergus T.S., one from Kitchener Wilmot Hydro and one from EnergyPlus.

2.2 Transformer Stations

WNH has four Transformer Stations (TS) on three sites at the locations below. WNH receives supply from Hydro One transmission lines at 115,000 volts (115 kV) or at 230,000 volts (230 kV). Hydro One owns, operates and maintains the transmission lines and right-of-way in the WNH service area.

1. Eby Rush TS (ERTS) – 115kV primary voltage transformed to 13.8 kV (13,800 volts) to supply 8 existing feeders or distribution circuits around the city. Supplies customers in the City of Waterloo.

2. Howard Scheifele TS (HSTS) A&B stations – This is a double station at 230kV primary voltage. WNH has 22 existing feeders at 13.8kV, 2 existing feeders at 27.6kV (27,600 volts), and capacity for 2 future feeders at 13.8kV. These circuits mostly supply customers in the City of Waterloo and some supply to the Townships.

3. MTS #3 – 230kV primary voltage, transformed to 6 existing feeders at 27.6kV, 2 future feeders at 27.6kV, and 2 existing feeders at 13.8kV. These circuits mostly supply customers in the Townships area and some back-up to the City of Waterloo circuits from the other stations.

Eby Rush is the oldest station; however, the station underwent a significant rebuild and replacement of equipment in 1996, and replacement of transformers in 2012/13. WNH rebuilt most of Scheifele A in 2008 except for the original transformers which are from 1969. The transformers were refurbished in 2008, and should continue to operate for a number of years.

Scheifele B has been undergoing a staged rebuild as components reach end of life. The major work is expected to be completed in 2020, except for the original transformers which went into service in 1985. With regular maintenance they are expected to remain in service for a number of years.

MTS #3 is the newest station, commissioned into service in 2001. WNH is taking an approach similar to Scheifele B and incrementally upgrading component systems and equipment as they approach end of life.

WNH is in an excellent position for transformer station supply for a number of years. Our current estimate to need a new TS in service is beyond the 5-year timeframe as our total system effective peak demand load growth rate has decreased from historical levels of approximately 3% per year, to approximately 0.5% per year. However, as parts of our service area grow at different rates, work will be needed to rebalance load between stations.

2.3 Municipal Stations (MS) and Distribution Stations (DS)

Our original distribution systems were constructed and operated at 4.16 kV (4,160 volts, also called 4 kV) in the City of Waterloo and Elmira, and at 8.32 kV (8,320 volts, also called 8kV) in the remainder of the Townships. Many years ago, 13.8 kV and 27.6 kV were only for sub-transmission purposes as distribution transformers at these voltages were not yet feasible to use. Many utilities also used a 44 kV (44,000 volts) sub-transmission voltage as well. WNH had 17 localized municipal substations (MS) that transformed the 13.8 kV and 27.6 kV to 4 kV which was feasible to use as a distribution voltage in the urban areas. In the townships, 9 distribution substations (DS) transformed 27.6 kV and 44 kV to the feasible 8 kV distribution voltage. Over time, the industry developed smaller distribution transformers feasible to use at 13.8 and 27.6 kV, and WNH implemented those voltages as our standard distribution circuits. As distribution lines are upgraded due to failing asset condition, the older systems are converted to 13.8 kV or 27.6 kV circuits as they have a higher capacity and can provide good supply voltage over longer distances. We expect that with the pace of our rebuilding program, the 4 kV circuits will be eliminated by the end of 2021 and the 8 kV circuits and associated DSs over the next few years.

By the end of 2019, there will be nine MS & DS stations out of service. WNH will likely retain one vacant property in St. Clements because of its strategic location for potential radio communication coverage in our service territory, and one in Elmira as it presently hosts radio communication sites for our smart metering and GPS systems. One property in Elmira has been prepared for disposal leaving six stations that will require decommissioning, demolition and environmental remediation before disposal. One additional DS in Wellesley is scheduled to come out of service by 2021.

2.4 Distribution Circuits

WNH has about 600 kms of 27.6 kV circuits, 580 kms of 13.8 kV circuits, and 440 km of 8 kV ccts, with about 11 km of 4 kV and 44 kV circuits; 1,100 kms are overhead and 575 kms are underground circuits. The 4 kV circuits will be replaced or retired by the end of 2019. We maintain a database of age and condition of our assets. Every year we replace those assets that are reaching end of useful life before they become a liability to fail.

2.5 System Operations

The WNH transformer stations and distribution system is monitored and operated by our Control Room 24/7/365. The Control Room is equipped with a SCADA (supervisory control and data acquisition) system from Survalent. This software provides the System Operators real time status

and remote control of transformer station equipment, feeder breakers and switches on the distribution system.

WNH has used the Survalent SCADA platform over a twenty-year period. In 2015, WNH purchased Survalent SmartVU platform (Smart Visual Utility). This SCADA software imports GIS (Geographical Information System) data directly into the geometry for SmartVU such as the topology and connectivity of our circuits including primary and secondary line sections, transformers, generators and smart meters. The integration is efficient and avoids errors in data transfer.

WNH also enabled the SmartVU OMS (outage management system) module. OMS allows System Operators to have visual indication of the feeder and outage area when the power is off. It provides a real time customer count for the number of customers out of power. Additionally, WNH made immediate use of the AMI (Advanced Metering Infrastructure) interface to receive 'Power Off' alarms from WNH suite of smart meters. We are also the first utility to be able to query beyond the 'Power On' indicators to be able to see real time voltage and current at customer locations. This helps to diagnose issues before we roll a truck to respond to customer power outages.

The advent of OMS was a game-changer for System Operators, more importantly WNH customers. The OMS system pushes portrayal of power outages to the WNH web site, viewed on the Public Outage map page, where we report restoration times and causes of outages. The media has adopted a self-serve approach to gathering news updates from the WNH public outage map, which relieves calls to the WNH phone system, and to the Control Room. This allows WNH staff to dedicate their time to diagnosing the problems and restoring power.

By the end of 2019, WNH has installed 97 smart switches on our system to allow better monitoring of the distribution system and remote control of the switches from the Control Room. These switches are used by the System Operators to quickly isolate faulted areas such as might be caused by a vehicle accident hitting our poles, and then restore service to the unaffected areas before they dispatch a crew for necessary repairs to a smaller area of customers.

In 2018, WNH installed FLISR software (Fault Location, Isolation, and Service Restoration) on six of the 40 feeders at 13.8kV and 27.6 kV. The basic idea of FLISR is to quickly identify the location of a fault and then isolate the faulted area as tightly as possible to reduce the impact of the power outage associated with the fault (in terms of both the duration and the numbers of customers affected). FLISR makes use of system

intelligence, remote control devices, and communications networks to achieve this goal in a more optimal way than would otherwise be achievable by the System Operator. FLISR can operate in an automated mode, which we refer to as a "self-healing" grid capability.

The 97 smart grid devices deployed by WNH, along with remotely operable devices and fault indicators have enabled a decrease in restoration time of power outages. WNH will complete it's self healing grid strategy in 2 to 3 years by adding about 30 more smart grid devices with FLISR enabled across all the 13.8 kV and 27.6 kV feeders.

WNH continuously monitors distribution system performance and continues to invest in self healing grid capabilities in a manner that improves reliability to as many customers as possible.

WNH measures the customer outage minutes saved each year to illustrate how the investment correlates to improved customer experience by reducing the duration of customer outages.

2.6 Fleet

WNH owns and operates a fleet of 54 vehicles including ten aerial devices or bucket trucks that range from single buckets at 46' working height to the largest double bucket at maximum 80' working height. We also have five boom trucks for lifting poles and heavy materials. These large trucks range in price from $350,000 to $650,000, however, they last for about 12 years and allow linepersons, in all kinds of weather, to confidently handle live wires energized at up to 27,600 volts. We also have 10 heavy-duty small trucks and 29 passenger vehicles.

2.7 Information Technology Hardware and Software Systems

WNH requires robust systems for our 24/7 operation. We have a small team that operates and maintains a variety of systems in house. We also have several hardware and software environments hosted by third parties.

We have five main physical host servers at the WNH building containing more than 30 virtual servers. The life cycle on the main host servers is approximately five years. Each year WNH replaces one server and moves the replaced production server to the Disaster Recovery (D/R) site located at one of our TS buildings. In turn, each year WNH decommissions the oldest server at the D/R site. We keep the D/R site servers current to production servers in the event we are unable to use the Country Squire Road offices and must resume production from the TS building for business continuity.

All production hardware is on 24/7 Vendor support, and hardware at the D/R site is on similar support with a few exceptions. We also have active 24/7/365 Cyber Security Monitoring and Detection Response Services.

We have similar strategies for desktop PC's and Laptops. The life cycle for desktop PC's (towers) is 5 years and life cycle for laptops is 3 years, depending on usage. We deploy replaced units to elsewhere in the company for PCs/laptops with low and non-production usage.

WNH employs many software systems in an integrated manner across the company. Below are a few of the major software packages:

1. ERP (Enterprise Resource Planning) – software for all financials, work orders, purchase orders and material management systems (first implemented in 2005).

2. CIS (Customer Information System) – new made in Ontario software for tracking all customer information, metering data management and repository (MDMR), billing data, payment information and more. (first implemented in 2017). Receives data from AMI, provides data to ERP, GIS, AMI, OMS and Synergi.

3. GIS (Graphical Information System) – ESRI software used as record keeping tool for the location and characteristics of our assets. Some asset condition assessment data. Receives data from CIS, provides data to Synergi and OMS.

4. AMI (Advanced Metering Infrastructure) – meters and communications systems consisting of several tower located communications repeaters, hosted hardware and high speed fibre connections to download data from all smart meters every day. Provides data to CIS and OMS.

5. OMS (Outage Management System) – Survalent integrated software module, part of SCADA system. Provides visual indication of the feeder and outage area when power is off, plus a real time customer count for the number of customers out of power. Gets data from AMI, CIS, and GIS.

6. EDRMS (Electronic Document Records Management System) – record keeping software for all corporate records such as policies, legal documents, employee records, incident investigations, project info, drawings, contracts, and more.

7. Synergi – Electrical engineering analysis tool for predicting voltages and currents on our system under different operating conditions. Used in

determining protection settings, circuit configurations, and impact of various types of connections to our system (large loads, generation, storage, etc.). Gets data from GIS and MDMR.

8. AutoCAD – Drafting platform for preparation of construction drawings. Supplies data to other systems.

9. SpidaCalc – Engineering structural analysis tool for poles and their support systems (guying, braces, etc.). Imports data from other systems.

10. Cognos – Business Intelligence Reporting platform for mining data out of ERP, CIS/MDM, budget software, MDMR (transformer loading), transformer database, records management, Pillar (Control Room record keeping tool).

WNH implemented other software packages in 2019 to improve data handling and improve efficiency of data analysis.

1. Asset Management – Metsco ENGIN software is a capital planning tool that integrates insights from asset registry information, condition assessments, inspections, and testing to develop asset health indices and help develop asset replacement strategies. The software is also an investment prioritization and optimization tool that allows multiple scenarios to be run under various constraint criteria, to come up with an optimized capital program portfolio.

2. AUD – Automated Utility Design software combines design and standards documentation with rules-driven workflows and analysis for utility distribution design. Integrates AutoCAD drafting platform with ERP work order and material management, as well as GIS and engineering analysis platforms.

2.8 Administration Offices and Service Centre

WNH has only one location for our staff to work from, located at 526 Country Squire Road. Put into service in December 2011, the LEED Silver building houses all our needs for Administration, Customer Service, Engineering, IT Services, Operations, fleet and warehouse. Using geothermal systems for cooling, heating and hot water heating, we continue to upgrade lighting, HVAC and other systems for improved energy efficiency.

3.0 Initial Customer Engagement

In advance of the 2021 cost of service application, WNH collaborated with Brickworks Communications to conduct a survey to gather high level insights, information and feedback from its customers prior to completing its Business Plan. WNH promoted the survey with an e-blast to its customer base. The result was 4,355 customers completed the online survey from February 5th - 22nd, 2019 with 96% being residential, 3% - GS<50 kW and 1% - GS>50kW.

From the results, both quantitative and qualitative, the business plan was developed based on key themes. It also indicated areas where customers needed to be more informed.

3.1 Key Themes

The survey results identified that the number one customer priority is to have “Reliable” electricity, followed by “Safe” electricity.

Priority	Customer Preferences - Next 5 Years
1	WNH provides electricity that is "Reliable" (fewer outages)
2	WNH provides electricity that is "Safe"
3	WNH provides electricity at low cost (at the expense of reliability and customer service)
4	WNH invests in innovative solutions such as smart grid, battery storage, solar and smart home technologies
5	WNH provides excellent customer service

3.2 Quantitative Results

Survey Questions	
How Important is minimizing power outages to you?	**%**
Not Important	11
Important & willing to pay more to keep the lights on (<$1 extra per month on bill)	29
Important but at no additional cost	58
Don't know	2

Smart grid reroutes power automatically reducing the costs by not having to send out hydro crew - how important is this to you?	%
Not Important	8
Important & willing to pay more to keep the lights on (<$1 extra per month on bill)	31
Important but at no additional cost	58
Don't know	3

Outages due to equipment failure therefore require maintenance and replacement of assets to reduce outages - how important is this to you?	%
Not Important	3
Important & willing to pay more to keep the lights on (<$1 extra per month on bill)	31
Important but at no additional cost	64
Don't know	2

Electricity Usage Tracking & Alerts - Interest in signing up for this	Residential %	Business %
Not at all interested	12	14
Somewhat interested	48	50
Very interested	34	28
Don't know	5	8

Customer Future Preference on Smart Grid/DERs	Residential % Yes	Business % Yes
Electric Vehicles - Currently Own	5	7
Considering purchase of Electric Vehicle over the next 5 years	27	19
Rooftop Solar - Currently have one	3	1
Rooftop Solar - For potential customers intent on installation	30	7
Community Solar - Interest in purchasing a share in a community or "shared" installation	40	
On-Site Power Storage - Consider installing battery storage in the next 5 years	36	40
Smart Home - Interest in making your home a Smart Home?	75	-

3.3 Qualitative Results

Customers were asked to provide additional comments regarding any other areas of interest to them. There were 1,134 comments received in total. These comments were then summarized and grouped under common themes and highlighted in the following table:

Topics	%
Cost is too high, don't want increases	19.2
Positive feedback - happy with WNH	11.5
Looking to improve environmental impact, focus on renewables	10.1
Interest in their own generation or alternatives (while reducing cost)	7.5
Delivery should be based on usage, not flat fee	6.5
Not happy with TOU pricing / consider changing / adding different rate for overnight EV charging	6.1
Delivery fee should already include upgrades, maintenance costs, should not require increases	4.3
Would like adjustments to billing practices (easier registration, quicker billing period etc.	4.3
Prefer underground	4.0
Feel that they are unable to change consumption or price - rentals, businesses, seniors	3.6
Would like discounts for certain groups of customers - students, seniors, rentals	3.4
Reduce power outages, do not like momentary outages, remove more trees to limit outages	3.2
Would like more updated communication channels - move away from telephone, better use of website or online tools	3.1
Want WNH App - check usage, pay bills, compare to neighbours	3.1
Miscellaneous improvement suggestions - remove smart meters, more outage protection around poles/transformers from animal contact and vehicles	2.8
Keep utility local, some would like regional amalgamation consideration	2.0
Concerned for privacy of information	1.9
Concerned about Hydro mismanagement, governance, wages	1.5
Issues or questions on survey itself	1.1
Had negative experience with WNH	0.7

4.0 Strategic Planning 2019

Using valuable input and insights from the Initial Customer Engagement Survey and relevant information and studies with respect to the future of electricity distribution, the Board of Waterloo North Hydro Inc. held a strategic planning session in March, 2019. The purpose of the session was to develop the major elements of a strategic plan for the next five years. The Board reviewed and updated the vision, mission and purpose statements as well as the strategic imperatives. The Board also conducted a current state analysis by identifying internal strengths and weaknesses and external opportunities and threats and then defined a desired future state.

Based on this exercise, the following statements were reaffirmed and/or updated.

4.1 Purpose, Mission and Vision

Purpose – Why we exist (the anchor of why were we created)

- Delivering electricity efficiently to our customers

Mission – What business are we in (may change over time but still anchored to purpose)

- To be of service to our customers by delivering electricity to homes and businesses in our communities – reliably, safely, 24/7

Vision – What we want to be like in the future

- Our vision is to be the flexible, sustainable distribution platform for connecting consumers and producers of electricity, and be the trusted energy advisor of choice for our customers. We have earned this reputation by:

1. Improving **customer relations and loyalty**: customers come to us first. They have easy access for changes, questions etc.
2. Becoming a **leading edge energy provider** and we are known as a leader in Ontario in getting to Utility 2.0 and implementing ADMS
3. Successfully **offering and charging for new services:** providing a range of behind-the-meter services, generation and smart home services, supplying energy to our customers regardless of source
4. Having a **high performing and engaged leadership and workforce**: we have the right capabilities that enable us to be agile and responsive
5. Sustaining and **growing the dividend**

4.2 Strategic Imperatives

The following factors are critical to the success of Waterloo North Hydro Inc., and guide our business plans:

Supply & Reliability

We must ensure an adequate and reliable supply of electricity to meet our customers' needs

Safety & Loss Prevention

We must continue to make Safety & Loss Prevention a way of life in our utility

Customer Service

We must deliver on customer expectations and continue to create value and contribute to making our customers more efficient and successful

Employee Relations

We must continue to attract and develop talented people in our utility. We must also help our employees to be personally successful

Environment

We must operate our business with minimal impact on the environment

Productivity & Cost Reduction

We must continue to operate our business efficiently and create a culture of excellence and continuous improvement

Organizational Effectiveness

We must continue to find ways to leverage technology and adopt best business practices to improve organizational effectiveness

System Aesthetics

We will continue to find ways, where it is feasible, to design and construct our system to improve landscape aesthetics

4.3 Current State Assessment

The Board and management developed a current state SWOT assessment.

Current State Assessment	
Strengths	**Opportunities**
1. Location - growing high tech community	1. Management team succession / refresh
2. Nimble - we are big enough and small enough to respond to trends, changing without being bogged down	2. Have an emerging technologies team doing research, environmental scan and investment - use GSC?
3. Operational excellence - how the business is run	3. Revenue generation - traditional utility services in non-regulated space
	4. Energy platform that connects suppliers and customers
Weakness	**Threats**
1. Our customers do not see WNH as their energy advisor for their CDM and DER needs	1. Speed of market changes
2. Lack of bench strength in key areas: sales data scientists	2. Many new and different non-regulated competitors and biggest customers could be stolen
3. Not enough non-regulated activities	3. Regulatory environment…Government policy and changes
4. Too small to gain maximum efficiency and exploit opportunities…don't have excess capacity to do the R&D	4. Lack of available capital from shareholders for riskier propositions

4.4 Priorities in next two years

The Board and Management developed the key priorities for WNH to accomplish in 2020 and 2021.

1. Expand and align skill sets for the future
2. Explore ways to increase available capital
3. Deepen and strengthen relationships with our customers
4. Research and develop new product and service offerings

4.5 Initiatives (by Priority)

Objective	Initiatives in 2019 - 2020
Expand and align skill sets	1. Develop Succession plan for leadership & board to respond to competitive environment
	2. Develop a hiring strategy and timetable
	3. Create a sub-committee with mandate to do 1 & 2
	4. Update business plan to inform choices for management succession and hiring new skill sets
	5. Agree on new organizational structure, roles
	6. Explore what other entities are doing with regards to change, customer relationship building, new product development and emulate
Increase available capital	1. Determine regulatory implications for our organization structure
	2. Explore opportunity for private investment
	3. Borrowing capacity, how much is appropriate and on what terms (debt/equity structure)
	4. Frank discussion with shareholders re: appetite for investment/reduced dividends
	5. Explore mergers to increase revenue/dividends
Strengthen customer relationships	1. Mine current data for efficiencies, quick wins
	2. Pursue data analytics for new opportunities (internal or strategic partnerships) to understand our customers' needs; gaps; asset management; leverage to pursue opportunities for revenues
	3. Market research to understand exactly what customers are looking for
	4. Develop strategy to retain/grow top 25 commercial customers
Develop new product and service offerings	1. Create a team to research and develop new product and service offerings - maybe through GRE, GSC
	2. Strategic alliance (joint venture, strategic partnership, mergers, GRE) on IT/OT to provide new customer services
	3. Market research to understand most appealing product & service offerings
	4. Investigate lessons learned from other LDC's (Oakville, etc.)

5.0 Five Year Business Plan

5.1 Capital Investment Plan Overview

Waterloo North Hydro's (WNH) Capital Investment Plan is developed with a minimum five-year outlook and is reviewed and adjusted annually. Currently, work is underway on a major update to the plan for the period 2020 to 2025 in support of WNH's 2021 Distribution Rate Application to the Ontario Energy Board.

Corporate strategic imperatives, asset management objectives and mandated investments form the high-level framework for WNH's Capital Investment Plan.

The plan is also shaped by valuable input regarding customer preferences obtained from the initial customer engagement survey undertaken in February, 2019. Customers indicated that their primary priorities were Reliability (fewer outages) and Safety. 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.

The final investment portfolio is comprised of prioritized investments paced to achieve an acceptable balance between meeting WNH's infrastructure needs, customer preferences, financial and resource constraints, and the impact on customer rates.

WNH's Capital Investments falls into four categories as set out by the Ontario Energy Board. The background and drivers for the proposed capital investments over the budget years 2020 and 2021, and the forecast period 2022 - 2025 are discussed in the following sections under the OEB investment categories:

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

5.2 System Access

System Access investments are primarily additions and modifications (including asset relocation) to the distribution system driven by external requesting parties (customer or road authority). WNH is obligated to provide a customer (including a generator customer) or group of customers with access to electricity services via the distribution system. These obligations are mandated through OEB regulations, other regulatory/government agencies and WNH's distribution license.

Generally, there is little to no flexibility in the timeframe within which these types of investments must be made; however, when there is, the execution of the work is

paced to balance these types of investments with other high priorities. WNH prioritizes these mandated investments to always form part of WNH's Capital Investment Plans. Completing this work within the prescribed timeframes is a condition of WNH's Distribution License.

Areas of investment include;

1. Distribution system expansions for new customer connections or property development (subdivisions & new distribution lines)
2. Relocation of distribution lines to accommodate road authorities
3. Servicing new residential, commercial and industrial customer connections.
4. Servicing distributed energy resources such as solar, battery, biogas, wind
5. Modifications to existing customer connections
6. Metering customer loads
7. Other mandated service obligations

Investment plans for System Access are developed through;

1. Analysis of historical trends in customer and load growth
2. Consultations with regional utilities, transmitter and IESO on future energy demand
3. Consultations with municipal planning and economic development staff, developers, builders, major customers
4. Current and future municipal development trends

Areas of major investment (2020, 2021);

1. New residential subdivisions - servicing of approximately 200 lots / yr.
2. New underground distribution lines
3. New commercial and industrial services
4. Relocation of distribution lines due to Municipal road relocations
5. Connection of Distributed Energy Resources (DERs) – 7 projects, 8.5 MW combined total
6. New and replacement metering
7. Capacity upgrade to the University of Waterloo

2022 – 2025

Externally driven activities in the areas of major investment 1-6 are largely influenced by local economic development. Project lead-times made available to WNH are seldom more than two years. Unless a major economic decline develops, WNH expects activity and investment requirements to remain relatively consistent throughout the forecast period.

5.3 System Renewal

System Renewal investments involve the replacement of existing assets based on their age, condition, performance metrics and risk. WNH has developed a comprehensive Asset Management System to capture and analyze 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 performance and safety degradation, increased customer complaints and more expensive reactive maintenance and capital replacement.

Areas of investment include;

1. Rebuilding of overhead lines and underground lines
2. Refurbishment of distribution and transmission grid connected transformer stations transformers, switchgear circuit breakers, protection & control systems, SCADA, Outage Management System, batteries, cables
3. Transformers, switchgear circuit breakers, protection & control systems, SCADA, Outage Management System, batteries, cables
4. Individual asset end-of-life replacements, poles, transformers, switches, insulators
5. SCADA system upgrades and enhancements
6. Wholesale metering

Investment plans for System Renewal are developed through;

1. Asset condition assessments
   (a) testing
   (b) regular OEB inspections
   (c) maintenance inspections and repair reports
   (d) performance metrics
2. Asset end-of-life analysis
3. Risk assessments

Areas of major investment (2020, 2021);

1. Underground distribution rebuild, North Lake & Westvale, Waterloo
2. Overhead distribution line rebuilds, Waterloo, Woolwich & Wellesley
3. Removal of small overhead wire #4 / #6 in service territory
4. Replace OH poles due to poor testing results
5. Replace OH line porcelain insulators and reinsulate
6. Decommission distribution DS26 (Wellesley) and repurpose transformer to DS27 (Wallenstein) to replace transformer built in 1947
7. Repurpose DS32 (Breslau decommissioned in 2019) Electronic Vacuum Reclosers to DS31 (Bloomingdale) to retire end-of-life recloser and enhance functionality and monitoring
8. HSTS Bus Duct Refurbishment – life extension project
9. Install infrared inspection windows on grid connected station switchgear
10. MTS #3 upgrade T2 bulk protection relays
11. Implementation of upgrades to mitigate high transmission fault levels at HSTS 'A'
12. Installation of On-Line gas analyzers at HSTS 'A', ERTS
13. Upgrade communications systems to improve reliability and cyber security
14. Replace end of life wholesale meters at transmission grid connected transformer stations

2022 – 2025

System Renewal activities are largely influenced by WNH's asset condition assessments and asset management plan. The 2020 – 2021 project list is indicative of the type of projects to be expected over the 2022 – 2025 time frame. Given the sheer volume and diversity of assets in service, projects are numerous and constantly being evaluated as new condition assessments and performance data is obtained. Lead-times are generally longer for System Renewal activities, allowing for greater flexibility in the pacing of replacement expenditures.

Financial forecasts are developed and investment areas are prioritized / reprioritized on an annual basis so that the assets at highest risk are addressed. Individual projects are developed in detail for the upcoming budget year. WNH expects activity and investment requirements to remain relatively consistent throughout the forecast period.

5.4 System Service

System Service investments are made to meet performance based objectives such as safety, reliability, power quality, system efficiency and other performance or operational objectives. These investments allow better utilization of the existing capacity of electricity assets, increased penetration of distributed generation, increased reliability, resiliency and flexibility of the power system, and 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 investment include;

1. Constructing additional distribution lines to relieve load transfer constraints within the distribution system and between stations
2. Smart grid automation to reduce customer restoration times, improve operational visibility and control, and improve reliability
3. Distribution loss reduction

Investment plans for System Service are developed through;

1. System supply and capacity studies
2. Load flow analysis
3. Voltage profile studies

4. Arc flash studies
5. Asset end-of-life analysis
6. Risk assessments

Areas of major investment (2020, 2021);

1. Distribution Automation to reduce customer outage minutes and increase load transfer capability:

   (a) retrofit Vista switchgear units (27 switching points)

   (b) deployment of new reclosers (10)

   (c) upgrade distribution line switched capacitors to SCADA control

   (d) upgrade HMSTS A&B Transformer condition on-line monitoring

   (e) upgrade RTUs for SCADA Repeaters

   (f) construct dark fiber ring for system control communications – ION TPSS 6 to ERTS, and ERTS to Office

2. Upgrade load transfer capabilities of 27.6kV supply to Wellesley
3. HSA Fault Limiting Strategy
4. Installation of Guarding at strategic locations to reduce animal contact outages

2022 – 2025

System Service activities are largely influenced by historical and forecast system performance metrics. The 2020 – 2021 project list is indicative of the type of projects to be expected over the 2022 – 2025 time-frame. System performance is continually being monitored and analyzed as load and DER customers increase. Projects flow out of the analyses. Lead-times are generally longer for System Service activities, allowing for greater flexibility in the pacing of replacement expenditures.

Financial forecasts are developed and investment areas are prioritized / reprioritized on an annual basis so that performance measures at highest risk of degradation are addressed. Individual projects are developed in detail for the upcoming budget year. WNH expects activity and investment requirements to remain relatively consistent throughout the forecast period.

5.5 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. These assets are not considered part of the distribution system.

Areas of investment include;

1. Software and hardware systems
2. Fleet / rolling stock
3. Tools, equipment & furniture
4. Facilities – non distribution system physical plant such as the administration building and service centre
5. Other including Intangibles such as land rights and capital contributions to other utilities

Areas of major investment (2020, 2021);

Computer Software & Hardware

1. Replacement of Enterprise Resource Planning (ERP) Software. (budgeted for 2021 & 2022)
2. Smart Meter RNI 4.X Upgrade
3. GIS platform Upgrade to Utility Network
4. Settlement Software
5. Asset Management Software
6. CIS-MDM-ODS Enhancements
7. Cyber security investments.
8. Laptop and workstation replacements

Fleet / Rolling Stock

1. Large vehicle replacement

   (a) new 55' single bucket material handling aerial device to Replace R55

2. Medium sized vehicle replacement

(a) new Stations Truck to Replace O51

3. Small vehicles replacement

(a) Y124, Y125, G123, R191

(b) replace Line Supervisor Trucks R 116 & R 128

4. Replace trailer T540

Tools, Equipment & Furniture

1. Forklift Replacement
2. Test equipment

(a) protection relay test set

(b) power Factor Test Set

Facilities

1. HVAC system replacements

(a) BAS Controllers

(b) heat Pump Compressors

2. Audio Visual equipment replacements

(a) projector Replacement – North training room

3. Phone System additional module
4. Asphalt Repairs
5. Camera Upgrades – Run to Failure
6. Skylight Replacement
7. Replace Fuel Filling Station

Other

1. MS/DS (municipal substation / distribution substation) retirements, cleanup and disposal

a) MS #1, 5, Waterloo

b) MS #22, 23, 24, Elmira

c) DS #26, Wellesley, #32 Breslau, #34 South Woolwich

2. Land rights (easements)

2022 – 2025

The 2020 – 2021 project list is indicative of the type of projects to be expected over the 2022 – 2025 time-frame. WNH performs condition/operational assessments on many of the assets in this category. Financial forecasts are developed and investment areas are prioritized/reprioritized on an annual basis. Individual projects are developed in detail for the upcoming budget year. Except for the completion of the ERP software system in 2022, WNH expects activity and investment requirements to remain relatively consistent throughout the forecast period. Replacement lead-times for some of the larger dollar items are generally longer, allowing for greater flexibility in the pacing of replacement investments.

6.0 Conclusions

This Business Plan sets out the initiatives and investments necessary to respond to the needs of our customers, the needs of our distribution system and plant, the vision developed with our Board, of what WNH should be in the future and the evolving business model to deliver that future state.

The input from directly engaging customers, guided and confirmed the areas of focus for future investments by WNH. The plan responds to the Strategic Imperatives approved by the Board of Directors and also responds to the OEB investment categories.

We believe the plan supports the transition to Utility 2.0 for WNH, while balancing the impact on customer rates.

We are seeking approval from the Board of Directors for the 2020-2025 Business Plan.

Waterloo North Hydro Inc.
Statement of Operations
2020 & 2021 Budget
($000,s)

	2019 Budget	2019 Proj. Actual	2020 Budget	2021 Budget
Revenue				
Sales of Electricity	$ 168,373	$ 168,425	$ 211,267	$ 213,589
Distribution Revenue	35,657	35,992	36,855	38,999
Other Revenue	1,993	1,853	1,710	2,032
Total Revenues	$ 206,023	$ 206,270	$ 249,832	$ 254,620
Cost of Power	168,373	168,425	211,267	213,589
Gross Margin	$ 37,650	$ 37,845	$ 38,565	$ 41,031
Controllable Costs				
Distribution	$ 7,965	$ 8,197	$ 8,201	$ 8,479
Billing & Collection	3,272	3,204	3,116	3,263
General Administration	3,235	3,386	3,796	4,034
Property Tax	453	458	462	472
Total Controllable Costs	$ 14,925	$ 15,245	$ 15,575	$ 16,248
Earnings before Int.Taxes & Dep'n	22,725	22,600	22,990	24,783
Depreciation	10,142	9,977	10,657	11,048
Earnings before Interest & Taxes	$ 12,583	$ 12,623	$ 12,333	$ 13,735
Interest Expense	5,090	4,947	5,212	5,151
Earnings before Taxes	$ 7,493	$ 7,676	$ 7,121	$ 8,584
PILs	419	435	$ 280	525
Net Earnings	**$ 7,074**	**$ 7,241**	**$ 6,841**	**$ 8,059**
Return on Equity	**7.2%**	**7.3%**	**6.7%**	**7.6%**

Waterloo North Hydro Inc.
Balance Sheet
2020 & 2021 Budget
($000,s)

	2018 Actual	2019 Proj. Actual	2020 Budget	2021 Budget
Current Assets				
Cash	$ 5,564	$ 42	$ 209	$ 1,577
Accounts Receivable	31,510	32,041	32,681	33,335
Inventory & Others	3,725	3,762	3,799	3,837
	$ 40,799	$ 35,845	$ 36,689	$ 38,749
Fixed Assets	235,222	244,239	252,484	260,111
Intangible Assets	3,278	3,437	4,036	3,710
Total Assets	**$ 279,299**	**$ 283,521**	**$ 293,209**	**$ 302,570**
Current Liabilities				
Accounts Payable	$ 20,561	$ 21,272	$ 21,698	$ 22,132
Current Portion of Long Term Debt	5,964	6,264	5,408	5,694
Customer Deposits	2,862	2,919	2,977	3,037
	$ 29,386	$ 30,455	$ 30,083	$ 30,863
L/T Debt - WNHHC	$ 33,513	$ 33,513	$ 33,513	33,513
L/T Debt - Bank	72,760	72,446	$ 78,055	80,453
Derivative Liability	2,124	2,124	$ 2,124	2,124
Customer Deposits	3,988	4,068	$ 4,149	4,232
Deferred Revenue	24,477	25,930	$ 27,216	29,011
Regulatory Liabilities	2,741	2,895	$ 2,823	2,751
Deferred Tax Liability	6,825	5,112	$ 5,112	5,112
Post Employment Benefits	4,579	4,606	$ 4,698	4,792
Equity	98,905	102,372	$ 105,436	109,719
Total Liabilities & Equity	**$ 279,299**	**$ 283,521**	**$ 293,209**	**$ 302,570**

Waterloo North Hydro Inc.
Cash Statement
2020 & 2021 Budget
($000,s)

	2019 Budget	2019 Proj. Actual	2020 Budget	2021 Budget
Cash, Beginning of Year	$ 1,899	$ 5,564	$ 42	$ 209
Sources:				
Net Income	7,074	7,241	6,841	8,059
Cash From Depreciation	10,811	10,687	11,361	11,749
Deferred Revenue	2,540	2,181	2,066	2,642
Recognized Deferred Revenue	(748)	(728)	(780)	(848)
Billable Capital	552	381	446	585
Regulatory Liabilities	(2,008)	(1,558)	(72)	(72)
Borrowings	9,600	6,000	11,300	8,300
Cash Available	$ 29,720	$ 29,768	$ 31,204	$ 30,624
Applications:				
Capital Expenditures (Gross)	$ 20,122	$ 19,863	$ 20,205	$ 19,049
Street Lighting	552	381	446	585
Working Capital	(1,044)	(308)	21	21
Dividend Payments	3,774	3,776	3,776	3,776
Bank Loan Repayment	6,204	6,014	6,547	5,616
Cash, End of Year	$ 112	$ 42	$ 209	$ 1,577

WATERLOO NORTH HYDRO INC.
STATEMENT OF REVENUES
2020 & 2021 Budget
(000's)

	2019 Budget	2019 Projected Actual	2020 Budget	2021 Budget
Sale of Electricity				
Power	$ 148,964	$ 148,572	$ 191,652	$ 193,666
Wholesale Market Service	5,739	6,111	5,733	5,746
Transmission - Network	9,365	9,597	9,895	10,140
Transmission - Connection	3,656	3,532	3,363	3,413
Low Voltage Charges	234	234	234	234
Smart Meter Entity Charge	415	379	390	390
	$ 168,373	**$ 168,425**	**$ 211,267**	**$ 213,589**
Distribution Revenue				
Residential	$ 19,463	$ 19,466	$ 20,009	$ 21,090
General Service < 50 kW	5,509	5,719	5,734	5,938
General Service > 50 kW	9,711	9,859	10,127	10,815
Large Users	820	792	836	1,001
Street Lighting	154	156	149	155
	$ 35,657	**$ 35,992**	**$ 36,855**	**$ 38,999**
Other Revenue				
Rental	$ 272	$ 280	$ 273	$ 525
Late Payment Charges	160	144	144	144
CDM Incentive	267	268		
Service Charges	406	406	408	417
Disposal of Assets	140	27	105	98
Recognized Capital Contributions	748	728	780	848
	$ 1,993	**$ 1,853**	**$ 1,710**	**$ 2,032**
Total Revenues	**$ 206,023**	**$ 206,270**	**$ 249,833**	**$ 254,620**

WATERLOO NORTH HYDRO INC.
MAJOR EXPENSE CATEGORY
2020 & 2021 Budget
($000,s)

	2019 Budget	2019 Projected Actual	2020 Budget	2021 Budget
Distribution System - Operation Expenses				
Engineering and Stations Administration	$ 964	$ 1,088	$ 1,062	$ 1,247
System Control	1,179	1,189	1,132	1,163
Station Operations (incl. Eng. Stations - Admin)	1,089	1,023	989	1,025
Overhead Lines and Feeders	1,499	1,495	1,587	1,547
Operations Administration	626	637	655	685
Fleet	220	323	315	323
Purchasing and Stores	325	349	353	357
Underground Lines and Feeders	438	440	426	439
Locates	474	493	397	397
Forestry	314	321	405	407
Health, Safety & Environment	427	433	438	437
Metering	410	406	442	452
Total Distribution System Expenses	**$ 7,965**	**$ 8,197**	**$ 8,201**	**$ 8,479**
Billing and Collection Expenses				
Billing	$ 1,367	$ 1,345	$ 1,194	$ 1,262
Meter Reading	504	467	505	525
Collections & Payment Processing	860	910	910	947
Call Centre	541	482	507	529
Total Billing and Collection Expenses	**$ 3,272**	**$ 3,204**	**$ 3,116**	**$ 3,263**
Administration and General Expenses				
Administration	$ 1,264	$ 1,380	$ 1,414	$ 1,636
General Administration Recovery	(644)	(549)	(502)	(610)
Finance / Finance Admin	793	791	835	862
Regulatory	504	494	527	573
Human Resources	223	348	280	269
Information Systems	1,095	922	1,242	1,304
Total Administration and General Expenses	**$ 3,235**	**$ 3,386**	**$ 3,796**	**$ 4,034**

WATERLOO NORTH HYDRO INC.

MAJOR EXPENSE CATEGORY - INTEREST & PILs

2020 & 2021 Budget

($000,s)

	2019 Budget	2019 Projected Actual	2020 Budget	2021 Budget
Interest Expense				
Senior Debt	$ 1,036	$ 1,036	$ 1,039	$ 1,036
Junior Debt	920	920	923	704
Long Term Loans				
Smart Meter - 2011	75	75	29	0
Service Centre - 2012	746	746	711	662
Distribution Plant - 2013	466	466	434	400
Distribution Plant - 2014	453	453	424	394
Distribution Plant - 2015	263	273	256	239
Distribution Plant - 2016	192	192	182	170
Distribution Plant - 2017	326	326	311	290
Distribution Plant - 2018	296	296	283	265
Distribution Plant - 2019	215	33	280	291
Distribution Plant - 2020			209	403
Distribution Plant - 2021				164
Line of Credit	40	72	35	35
Other	62	60	97	97
Total Interest Expense	**$ 5,090**	**$ 4,947**	**$ 5,212**	**$ 5,151**
PILS & Taxes				
Municipal Property Tax	$ 453	$ 458	$ 462	$ 472
Income Tax	$ 419	435	$ 280	525
Total Tax Expense	**$ 871**	**$ 893**	**$ 742**	**$ 997**

Waterloo North Hydro Inc.

2020 & 2021 Capital Budget Summary

	2020 Budget Gross	2020 Budget Contributed Capital	2020 Budget Net	2021 Budget Gross	2021 Budget Contributed Capital	2021 Budget Net
Land and Land Rights	$ 85,233		$ 85,233	$ 85,149		$ 85,149
Buildings: Fixtures and Improvements	688,860		688,860	781,869		781,869
Substation Equipment	126,530		126,530	98,884		98,884
Transformer Station Equipment	955,937		955,937	689,017		689,017
Distribution System - Overhead	7,962,398	$ 687,407	7,274,991	7,755,007	$ 557,227	7,197,780
Distribution System - Underground	4,795,020	618,399	4,176,621	4,319,895	1,343,240	2,976,655
Services	1,955,525	760,000	1,195,525	2,155,862	741,927	1,413,935
Meters	754,793		754,793	670,685		670,685
Office Furniture and Equipment	194,100		194,100	249,200		249,200
Computer Equipment - Hardware	280,053		280,053	224,930		224,930
Computer Equipment - Software	1,096,368		1,096,368	344,310		344,310
GIS System	321,040		321,040	433,274		433,274
Transportation Equipment	716,740		716,740	849,745		849,745
Tools, Shop and Garage Equipment	35,000		35,000	38,000		38,000
Measurement and Testing Equipment	107,800		107,800	73,000		73,000
SCADA Equipment	129,362		129,362	279,701		279,701
Street Lighting	445,500	445,500	-	585,254	585,254	-
TOTAL	**$ 20,650,259**	**$ 2,511,306**	**$ 18,138,953**	**$ 19,633,782**	**$ 3,227,648**	**$ 16,406,134**

Waterloo North Hydro Inc.

2020 Capital Budget Detail

Project Description	Labour	Material	Equipment	Acquisitions	2020 Budget Gross	2020 Budget Cont. Capital	2020 Budget Net
Land Rights	$ 5,233			$ 80,000	$ 85,233		$ 85,233
MS/DS Disposal Costs	8,224		$ 2,320	663,000	673,544		673,544
TS Building Upgrade	9,256		2,060	4,000	15,316		15,316
MS Equipment Upgrade	60,345		26,185	40,000	126,530		126,530
TS Equipment Upgrade	296,321		121,500	538,116	955,937		955,937
OH - Rebuild Lines	1,544,487	$ 2,174,045	375,375	1,104,613	5,198,520		5,198,520
OH - Relocate Lines	474,298	549,857	122,540	306,915	1,453,610	$ 489,214	964,396
OH - New Feeders	237,316	172,979	56,410	259,518	726,223		726,223
OH - Operations Capital	129,693	185,909	44,750	25,500	385,852		385,852
OH - Distributed Generation	48,553		9,640	140,000	198,193	198,193	-
UG - New Feeders	184,560	544,014	46,340	1,116,249	1,891,163	292,774	1,598,389
UG - Cable Replacement	321,649	843,765	208,835	396,695	1,770,944		1,770,944
UG - Residential Sub-Division	132,816	431,664	23,940	56,221	644,641	325,625	319,016
UG - Operations Capital	94,672	244,975	18,925	85,000	443,572		443,572
Services - OH	168,087	165,281	46,530		379,898	60,000	319,898
Services - UG	397,252	896,875	106,500	175,000	1,575,627	700,000	875,627
Meters - Wholesale	10,363		1,160	35,420	46,943		46,943
Meters - Retail - Residential	93,942		21,240	212,995	328,177		328,177
Meters - Retail - C&I	132,300		18,075	229,298	379,673		379,673
Systems Hardware	76,453			203,600	280,053		280,053
Systems Software	220,248			876,120	1,096,368		1,096,368
GIS - Mapping	185,585		420	135,035	321,040		321,040
Vehicles	16,740			700,000	716,740		716,740
Furniture & Equip. - Fleet				35,000	35,000		35,000
Furniture & Equip. - Engineering				13,500	13,500		13,500
Furniture & Equip. - Metering				31,200	31,200		31,200
Furniture & Equip. - Operations				48,600	48,600		48,600
Furniture & Equip. - Stations				107,800	107,800		107,800
S.C. Equipment				145,500	145,500		145,500
SCADA Equipment	50,172		9,040	70,150	129,362		129,362
Streetlight Construction	47,205	331,331	14,280	52,684	445,500	445,500	-
	$ 4,945,770	**$ 6,540,695**	**$ 1,276,065**	**$ 7,887,729**	**$ 20,650,259**	**$ 2,511,306**	**$ 18,138,953**

Waterloo North Hydro Inc.
2021 Capital Budget Detail

Project Description	Labour	Material	Equipment	Acquisitions	2021 Budget Gross	2021 Budget Cont. Capital	2021 Budget Net
Land Rights	$ 5,149			$ 80,000	$ 85,149		$ 85,149
MS/DS Disposal Costs	9,843		$ 2,920	450,000	462,763		462,763
TS Building Upgrade	121,446		29,200	159,400	310,046		310,046
MS Building Upgrade	1,160		400	7,500	9,060		9,060
MS Equipment Upgrade	45,044		17,840	36,000	98,884		98,884
TS Equipment Upgrade	149,292		47,825	491,900	689,017		689,017
OH - Rebuild Lines	2,034,118	$ 2,174,134	547,320	595,418	5,350,990		5,350,990
OH - Relocate Lines	429,083	387,438	83,195	131,180	1,030,896	$ 344,706	686,190
OH - New Feeders	103,077	192,407	17,840	456,113	769,437		769,437
OH - Operations Capital	135,004	185,909	44,750	25,500	391,163		391,163
OH - Distributed Generation	59,801		12,720	140,000	212,521	212,521	-
UG - New Feeders	147,021	658,173	53,240	426,875	1,285,309	874,420	410,889
UG - Cable Replacement	303,839	639,170	181,315	324,553	1,448,877		1,448,877
UG - Residential Sub-Division	181,012	727,857	34,570	138,507	1,081,946	468,820	613,126
UG - Operations Capital	96,363	244,975	18,925	85,000	445,263		445,263
Services - OH	173,905	165,281	46,990		386,176	60,000	326,176
Services - UG	428,101	896,875	69,710	375,000	1,769,686	681,927	1,087,759
Meters - Wholesale	1,687		400	4,000	6,087		6,087
Meters - Retail - Residential	95,037		21,240	214,060	330,337		330,337
Meters - Retail - C&I	133,838		18,075	182,348	334,261		334,261
Systems Hardware	86,330			138,600	224,930		224,930
Systems Software	75,560			268,750	344,310		344,310
GIS - Mapping	205,234		1,240	226,800	433,274		433,274
Vehicles	24,745			825,000	849,745		849,745
Furniture & Equip. - Fleet				38,000	38,000		38,000
Furniture & Equip. - Engineering				13,500	13,500		13,500
Furniture & Equip. - Metering				45,000	45,000		45,000
Furniture & Equip. - Operations				1,700	1,700		1,700
Furniture & Equip. - Stores				130,000	130,000		130,000
Furniture & Equip. - Stations				73,000	73,000		73,000
S.C. Equipment				117,500	117,500		117,500
SCADA Equipment	132,781		28,020	118,900	279,701		279,701
Streetlight Construction	75,028	420,506	23,155	66,565	585,254	585,254	-
	$ 5,253,498	**$ 6,692,725**	**$ 1,300,890**	**$ 6,386,669**	**$ 19,633,782**	**$ 3,227,648**	**$ 16,406,134**

Waterloo North Hydro Inc.
Statement of Operations
Four Year Forecast
($000,s)

	2022 Forecast	2023 Forecast	2024 Forecast	2025 Forecast
Revenue				
Sales of Electricity	$ 218,921	$ 224,393	$ 229,998	$ 235,748
Distribution Revenue	39,973	40,972	41,996	43,045
Other Revenue	2,109	2,186	2,267	2,350
Total Revenues	$ 261,003	$ 267,551	$ 274,261	$ 281,143
Cost of Power	218,921	224,393	229,998	235,748
Gross Margin	$ 42,082	$ 43,158	$ 44,263	$ 45,395
Controllable Costs				
Distribution	$ 8,623	$ 8,770	$ 8,919	$ 9,070
Billing & Collection	3,318	3,375	3,432	3,491
General Administration	4,103	4,173	4,244	4,316
Property Tax	480	488	496	505
Total Controllable Costs	$ 16,524	$ 16,806	$ 17,091	$ 17,382
Earnings before Int.Taxes & Dep'n	25,558	26,352	27,172	28,013
Depreciation	11,520	12,238	12,405	12,159
Earnings before Interest & Taxes	$ 14,038	$ 14,114	$ 14,767	$ 15,854
Interest Expense	5,134	5,190	5,228	5,095
Earnings before Taxes	$ 8,904	$ 8,924	$ 9,539	$ 10,759
PILs	544	546	583	658
Net Earnings	**$ 8,360**	**$ 8,378**	**$ 8,956**	**$ 10,101**
Return on Equity	**7.6%**	**7.3%**	**7.6%**	**8.2%**

Waterloo North Hydro Inc.
Balance Sheet
Four Year Forecast
($000,s)

	2022 Forecast	2023 Forecast	2024 Forecast	2025 Forecast
Current Assets				
Cash	$ 567	$ 435	$ 434	$ 591
Accounts Receivable	34,002	34,682	35,375	36,083
Inventory & Others	3,876	3,915	3,954	3,993
	$ 38,445	$ 39,032	$ 39,763	$ 40,667
Fixed Assets	267,077	273,854	280,408	287,359
Intangible Assets	4,729	5,458	4,894	4,710
Total Assets	**$ 310,251**	**$ 318,344**	**$ 325,065**	**$ 332,736**
Current Liabilities				
Accounts Payable	$ 22,574	$ 23,026	$ 23,486	$ 23,956
Current Portion of Long Term Debt	6,034	6,419	6,724	6,724
Customer Deposits	3,097	3,159	3,223	3,287
	$ 31,705	$ 32,604	$ 33,433	$ 33,967
L/T Debt - WNHHC	33,513	33,513	33,513	33,513
L/T Debt - Bank	81,049	82,138	81,361	80,975
Derivative Liability	2,124	2,124	2,124	2,124
Customer Deposits	4,317	4,403	4,491	4,581
Deferred Revenue	30,813	32,608	34,395	36,175
Regulatory Liabilities	2,679	2,607	2,535	2,463
Deferred Tax Liability	5,112	5,112	5,112	5,112
Post Employment Benefits	4,888	4,986	5,085	5,187
Equity	114,051	118,249	123,016	128,639
Total Liabilities & Equity	**310,251**	**$ 318,344**	**$ 325,065**	**$ 332,736**

Waterloo North Hydro Inc.
Cash Statement
Four Year Forecast
($000,s)

	2022 Forecast	2023 Forecast	2024 Forecast	2025 Forecast
Cash, Beginning of Year	$ 1,577	$ 567	$ 435	$ 434
Sources:				
Net Income	8,360	8,378	8,956	10,101
Cash From Depreciation	12,266	13,030	13,225	13,010
Deferred Revenue	2,710	2,764	2,819	2,876
Recognized Deferred Revenue	(908)	(969)	(1,032)	(1,096)
Billable Capital	585	585	585	585
Regulatory Liabilities	(72)	(72)	(72)	(72)
Borrowings	6,800	7,700	6,100	6,500
Cash Available	$ 31,318	$ 31,983	$ 31,016	$ 32,338
Applications:				
Capital Expenditures (Gross)	$ 20,252	$ 20,536	$ 19,215	$ 19,777
Street Lighting	585	585	585	585
Working Capital	21	21	21	21
Dividend Payments	4,029	4,179	4,189	4,477
Bank Loan Repayment	5,864	6,227	6,572	6,887
Cash, End of Year	$ 567	$ 435	$ 434	$ 591

Waterloo North Hydro Inc.

2022 - 2025 Long Range Capital Investment

Project Description	2022 Forecast	2023 Forecast	2024 Forecast	2025 Forecast
Land Rights	$ 86,852	$ 88,589	$ 90,361	$ 92,168
TS Building Upgrade	300,000	220,000	150,000	175,000
MS Building Upgrade	9,241	9,426	9,615	9,807
MS Equipment Upgrade	50,000	51,000	52,020	53,060
TS Equipment Upgrade	750,000	840,000	885,000	945,000
OH - Rebuild Lines	5,513,734	5,624,009	5,736,489	5,851,218
OH - Relocate Lines	941,479	960,309	979,515	999,105
OH - New Feeders	860,997	878,217	895,782	913,697
OH - Operations Capital	400,624	408,637	416,810	425,146
OH - Distributed Generation	195,000	198,900	202,878	206,936
UG - New Feeders	1,268,796	1,294,172	1,320,055	1,346,456
UG - Cable Replacement	1,894,227	1,932,112	1,970,754	2,010,169
UG - Residential Sub-Division	1,047,939	1,068,898	1,090,276	1,112,081
UG - Operations Capital	454,168	463,252	472,517	481,967
Services - OH	473,168	482,632	492,284	502,130
Services - UG	1,636,503	1,669,233	1,702,618	1,736,670
Meters - Wholesale	6,209	6,333	6,460	6,589
Meters - Retail - Residential	311,168	317,392	323,740	330,214
Meters - Retail - C&I	231,048	235,668	240,382	245,189
Systems - ERP	1,250,000	1,250,000	-	-
Systems Hardware	245,015	249,916	254,914	260,012
Systems Software	504,572	514,663	524,956	535,455
GIS - Mapping	254,729	259,823	265,020	270,320
Vehicles	856,500	937,000	670,000	832,320
Furniture & Equip. - Fleet	38,760	39,535	40,326	41,132
Furniture & Equip. - Engineering	58,500	21,200	21,700	22,000
Furniture & Equip. - Metering	76,460	33,200	33,864	34,541
Furniture & Equip. - Operations	1,734	1,769	1,804	1,840
Furniture & Equip. - Stations	74,460	75,949	35,000	5,000
S.C. Equipment	119,851	122,245	124,689	127,188
SCADA Equipment	340,000	282,000	205,000	205,000
Streetlight Construction	585,254	585,254	585,254	585,254
Billable Work	(585,254)	(585,254)	(585,254)	(585,254)
	$ 20,251,734	**$ 20,536,079**	**$ 19,214,829**	**$ 19,777,410**
Contributed Capital	2,709,839	2,764,036	2,819,317	2,875,703
	$ 17,541,895	**$ 17,772,043**	**$ 16,395,512**	**$ 16,901,707**

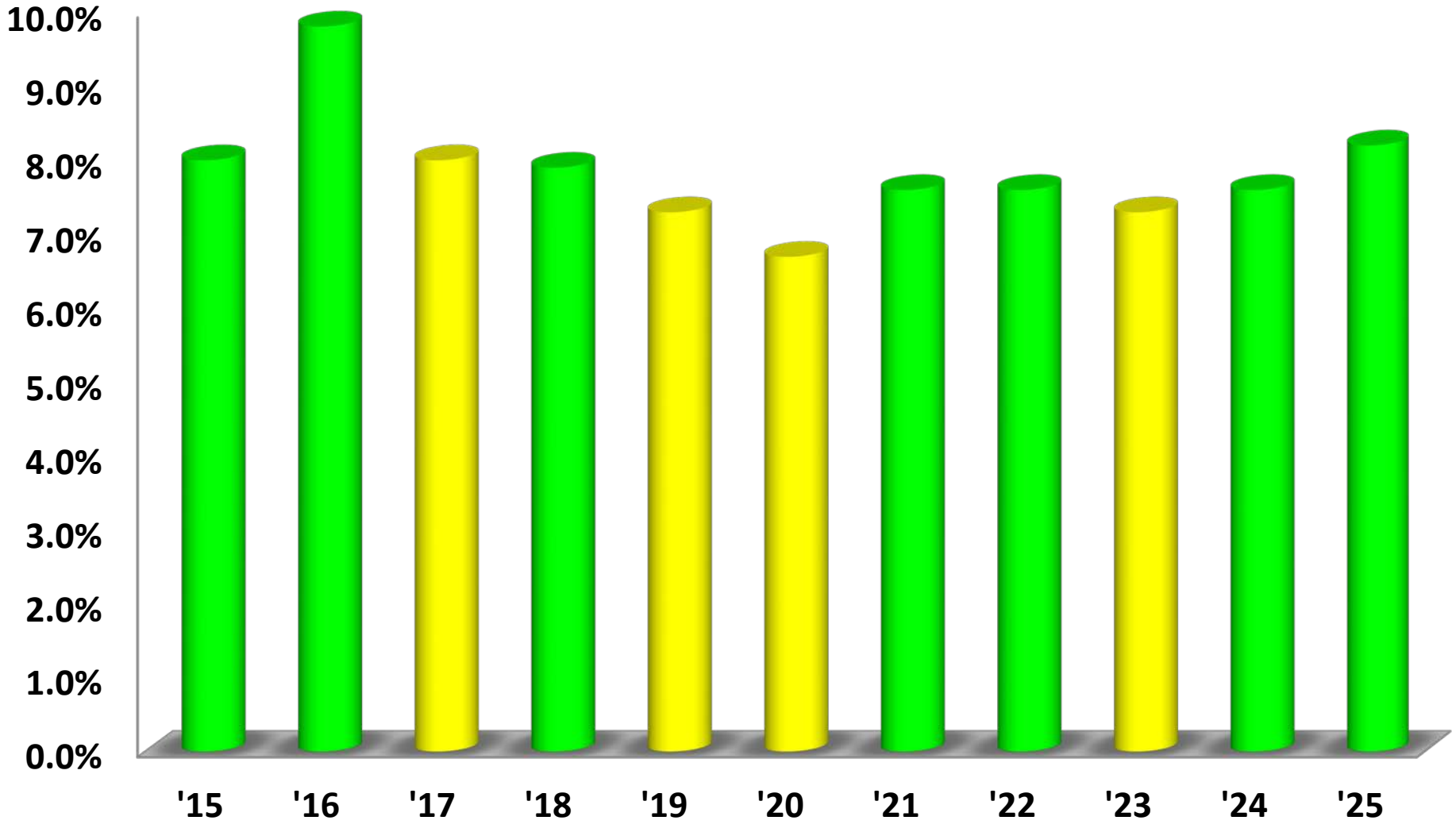
Key Performance Indicators

KPIs	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Profitability											
Return on Equity (ROE)	8.0%	9.8%	8.0%	7.9%	7.3%	6.7%	7.6%	7.6%	7.3%	7.6%	8.2%
Cost Efficiency											
Controllable Costs per Customer	$ 230.16	$ 239.25	$ 248.01	$ 263.17	$ 261.95	$ 265.53	$ 274.82	$ 277.28	$ 279.76	$ 282.26	$ 284.79
Debt Management											
Debt Ratio	55.7%	54.3%	53.7%	53.2%	52.3%	52.6%	52.2%	51.4%	50.8%	49.7%	48.5%
Interest Rate Coverage X	2.52	2.84	2.67	2.64	2.55	2.37	2.67	2.73	2.72	2.82	3.11
Cash Flow Management											
Current Ratio	1.21	1.33	1.41	1.39	1.18	1.22	1.26	1.21	1.20	1.19	1.20
Distribution Rates											
Impact on Rates	2.1%	6.6%	1.6%	0.9%	1.2%	1.7%	4.6%	1.7%	2.4%	1.0%	0.0%
Shareholder Returns											
Dividend & Interest ('000s)	$ 5,650	$ 5,471	$ 6,131	$ 6,131	$ 5,732	$ 5,738	$ 5,516	$ 5,769	$ 5,919	$ 5,929	$ 6,217
Shareholder ROE	4.9%	4.6%	4.9%	4.8%	4.3%	4.2%	4.0%	4.0%	4.0%	3.9%	4.0%

Waterloo North Hydro Inc.

Key Performance Indicators

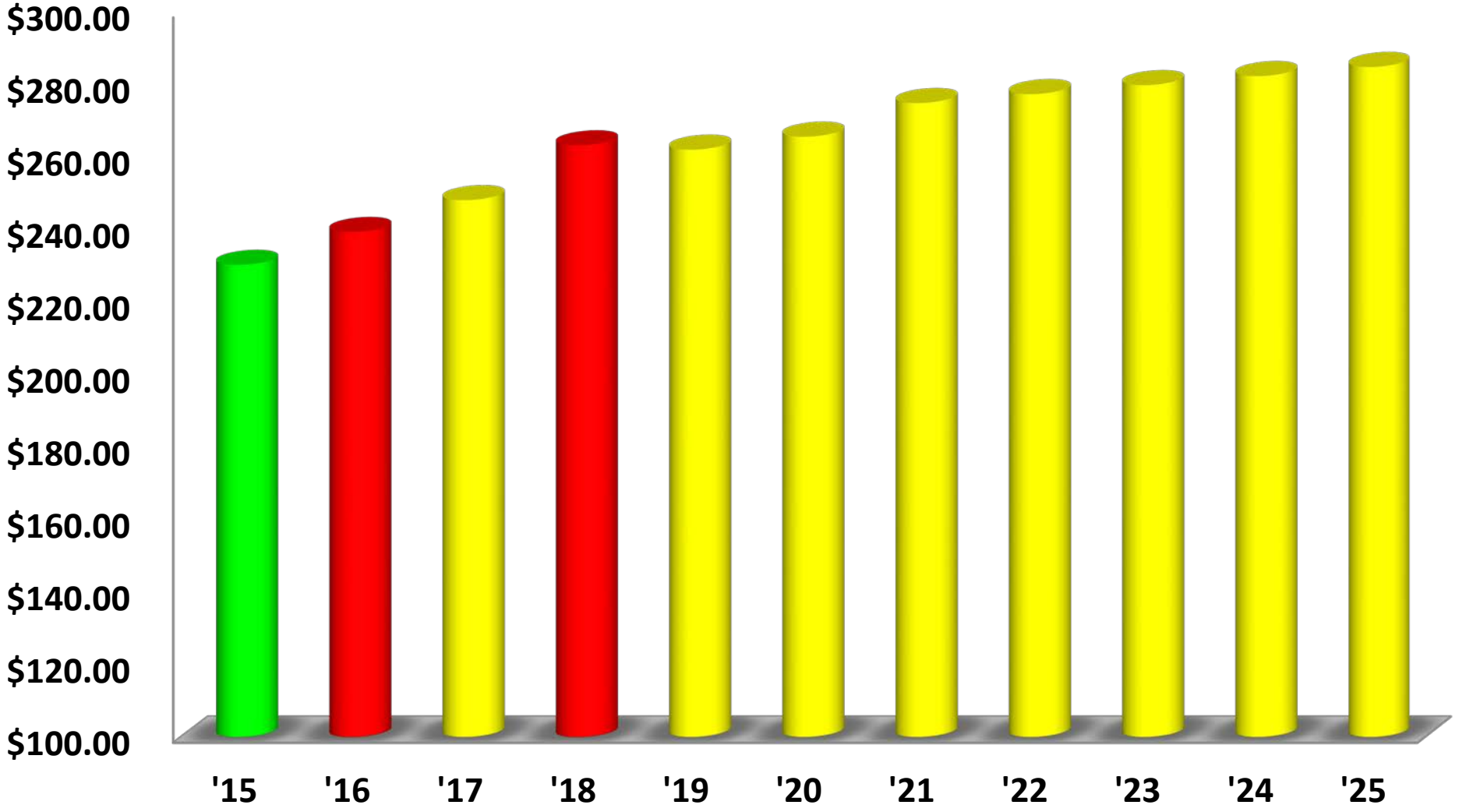
Return on Equity (ROE)



Waterloo North Hydro Inc.

Key Performance Indicators

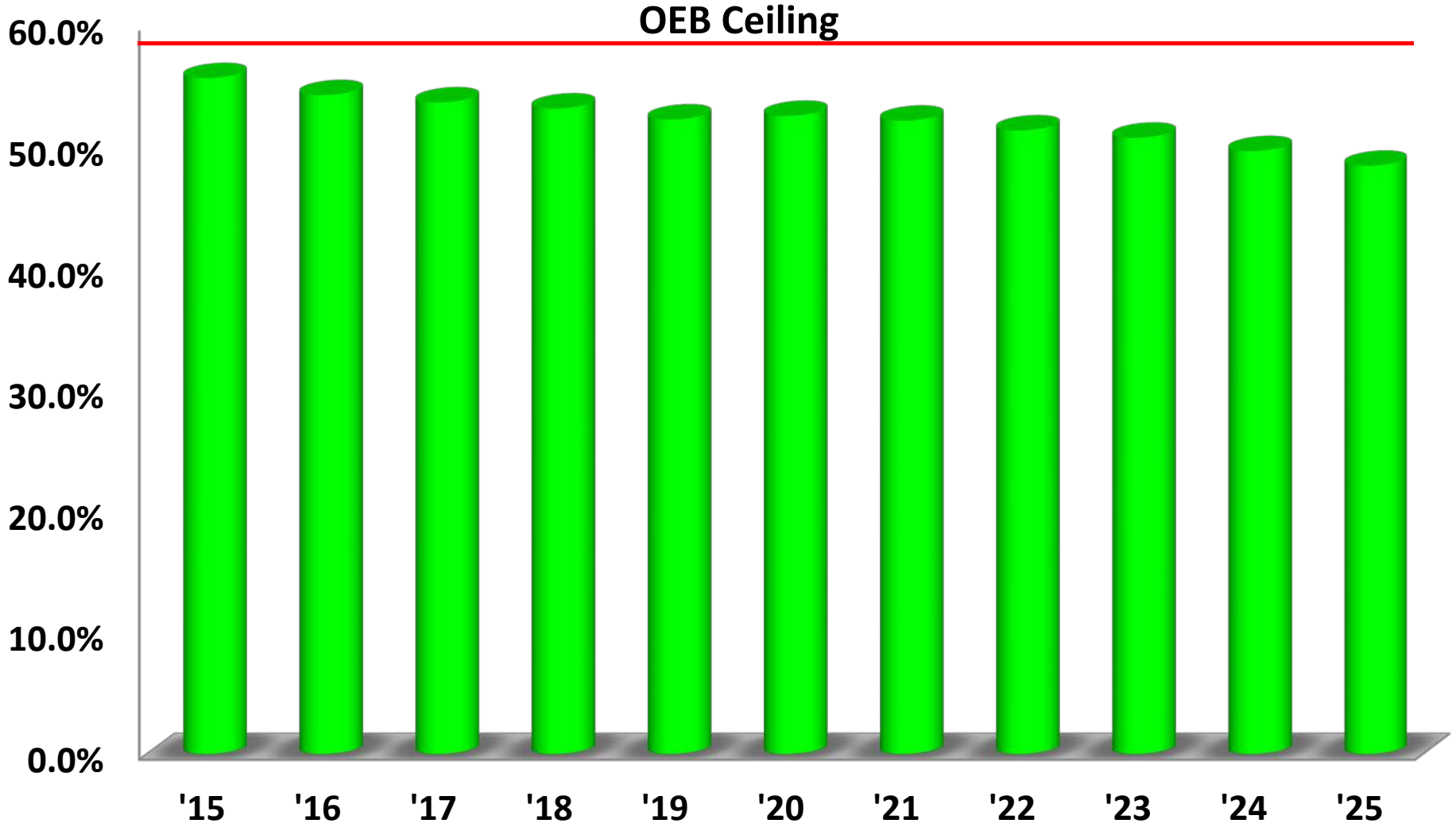
Controllable Costs per Customer



Waterloo North Hydro Inc.

Key Performance Indicators

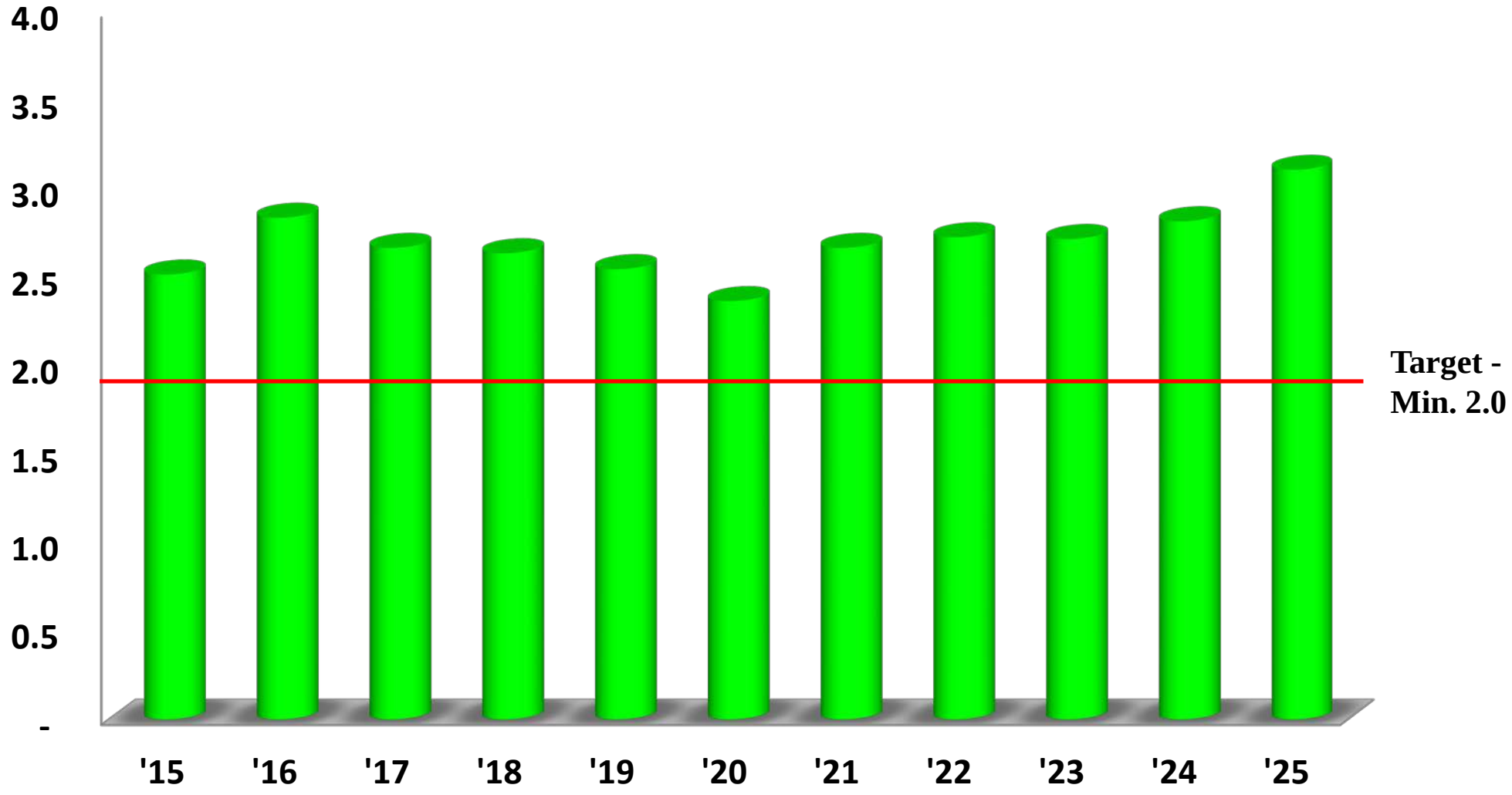
Debt Ratio



Waterloo North Hydro Inc.

Key Performance Indicators

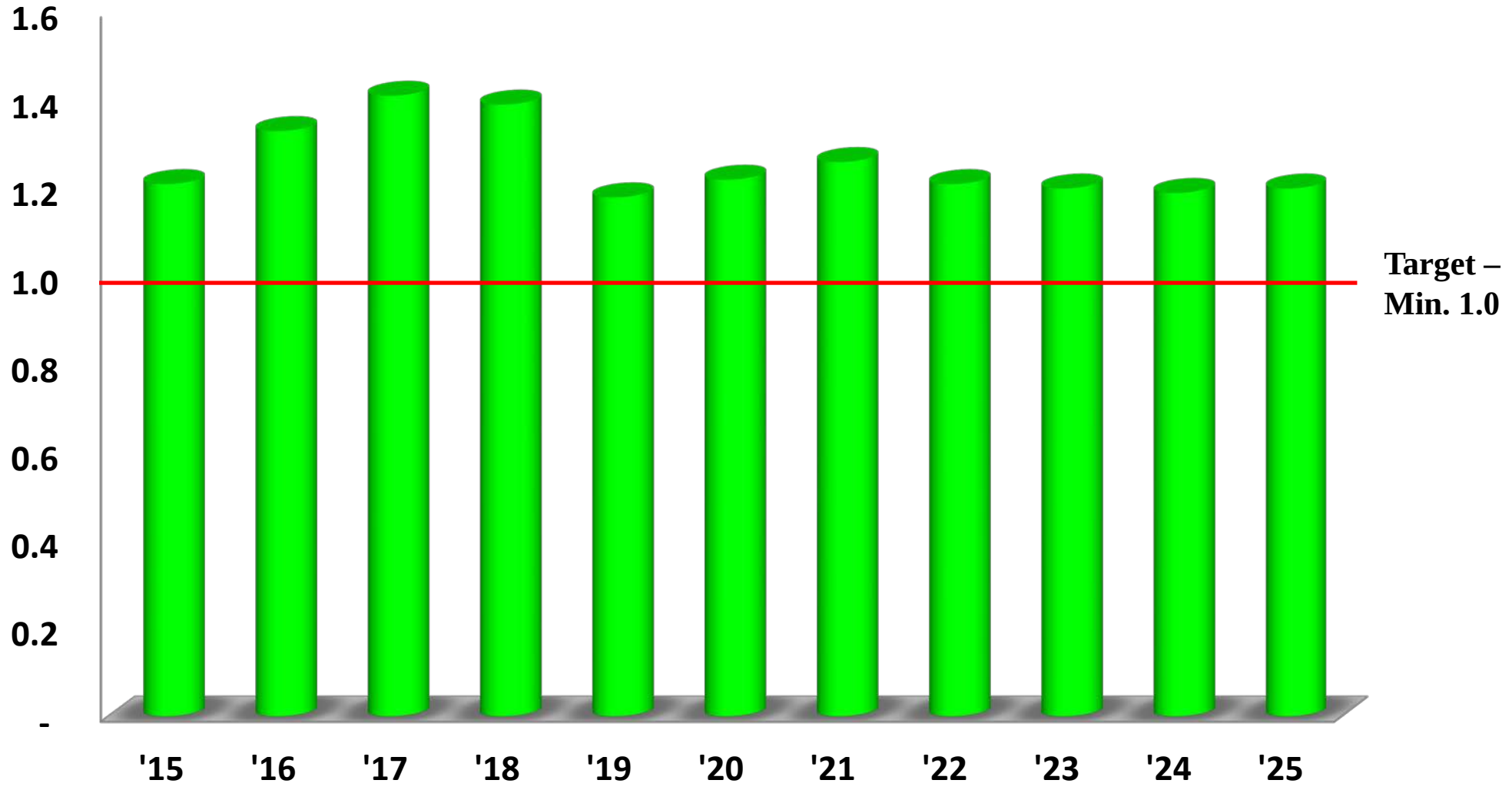
Interest Rate Coverage X



Waterloo North Hydro Inc.

Key Performance Indicators

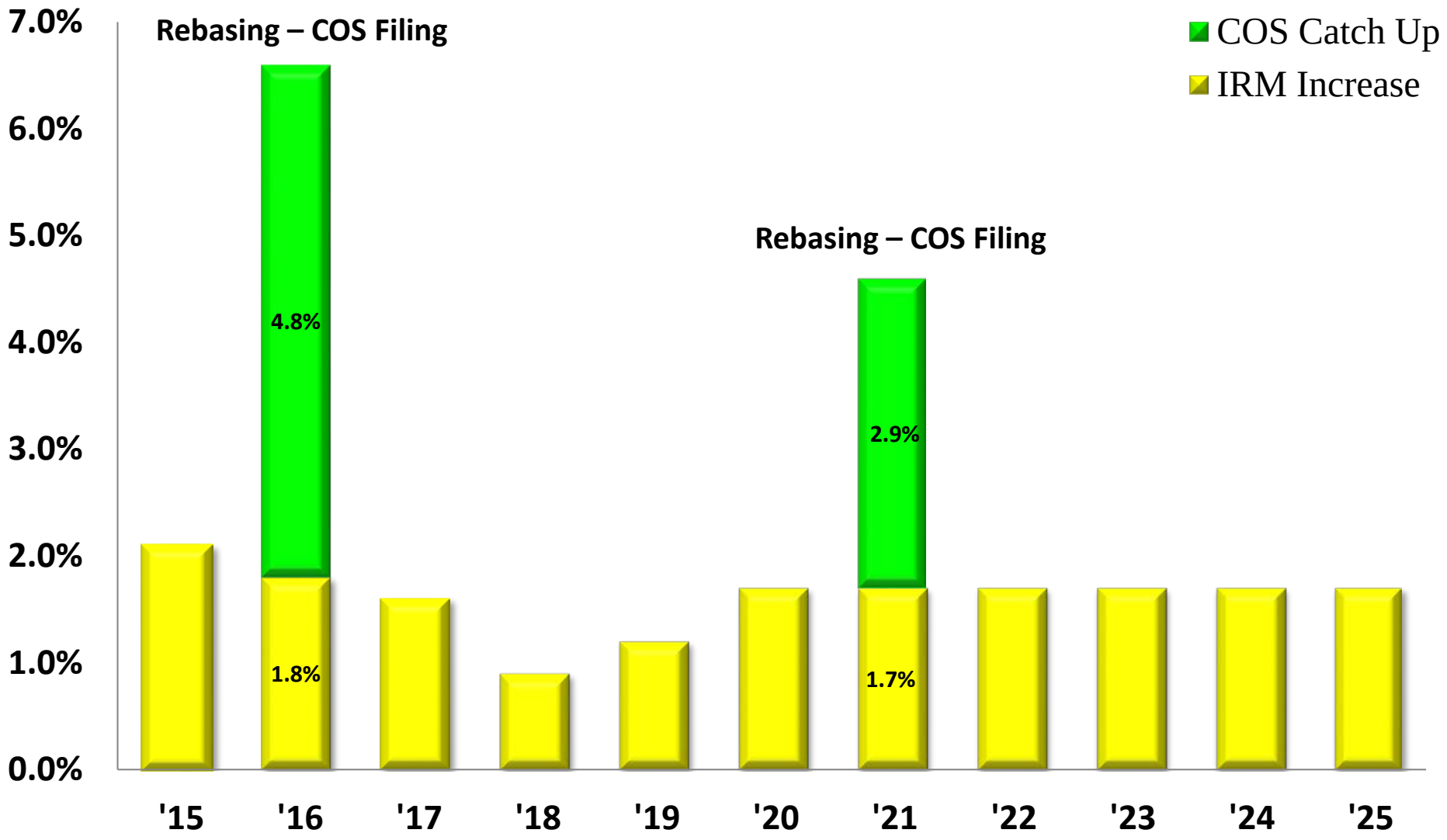
Current Ratio



Waterloo North Hydro Inc.

Key Performance Indicators

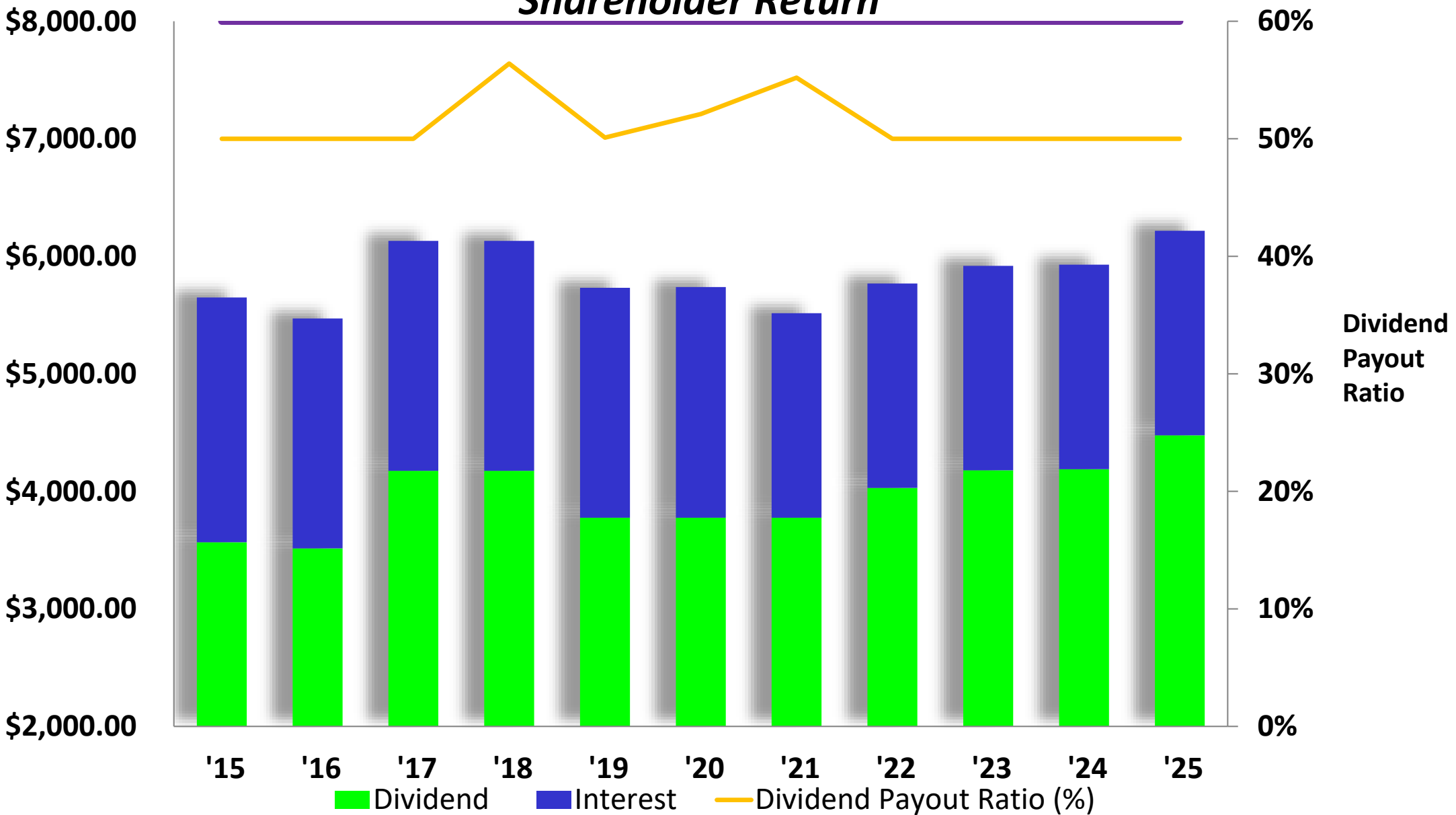
% Increase – Distribution Rates



Waterloo North Hydro Inc.

Key Performance Indicators

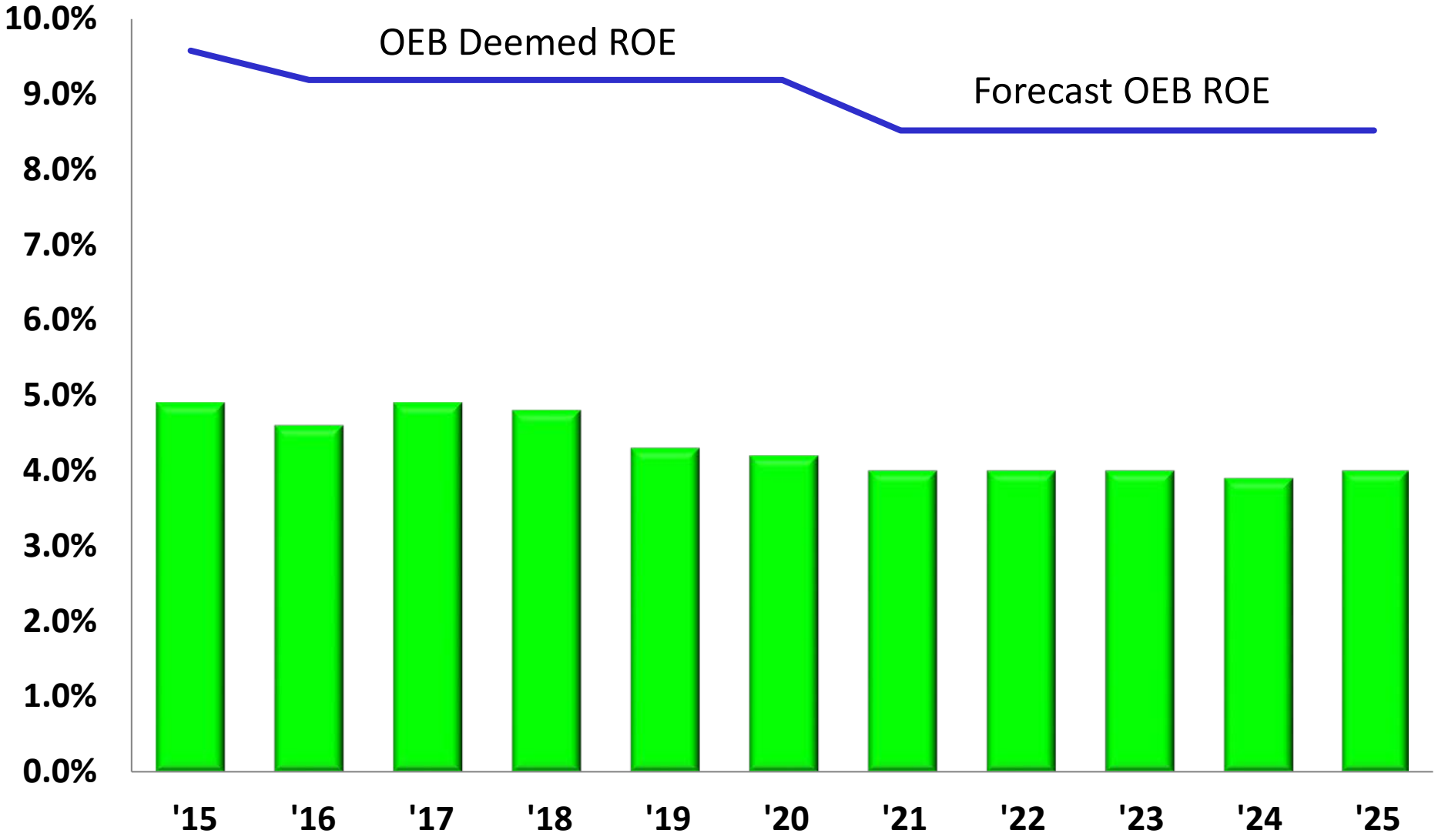
Shareholder Return



Waterloo North Hydro Inc.

Key Performance Indicators

Shareholder ROE



Waterloo North Hydro Inc.

Strategic Key Performance Indicators

Status	
Meets or Exceeds Target	√
Substantially meets Target	!
Needs Improvement	X

Performance Outcomes	Performance Categories	Measures	OEB Target	2020 Budget	2020 Actual	Status
Operational Effectiveness *Continuous improvement in productivity and cost performance is achieved, and distributors deliver on system reliability and quality objectives*	Safety	Public awareness	N/A	N/A		
		Number of general public incidents	1	1		
		Level of compliance with Ontario Regulation 22/04	C	C		
		Accident frequency per 200,000 hours worked *	N/A	Zero		
		Preventable losses as a percentage of revenues *	N/A	0.50%		
	System Reliability	Customer hours of interruption (SAIDI)	0.62	<0.62		
		Average number of times that power to a customer is interrupted (SAIFI)	1.16	<1.16		
		Distribution system loss % *	N/A	< 3.5 %		
		Percentage of budgeted capital investments completed *	100.0%	100.0%		
		Percentage of OEB mandated inspections completed *	100.0%	100.0%		
		Percentage of scheduled maintenance completed *	100.0%	100.0%		
	Asset Management	Distribution system plan implementation progress	N/A	100%		
	Cost Control	Efficiency assessment	3	3		
		Total cost per customer	TBD by the OEB	TBD		
		Total cost per Km of line	TBD by the OEB	TBD		
		Controllable costs per customer *	0.3% Productivity Factor	$265.53		
		Controllable costs per MWh *	0.3% Productivity Factor	$10.59		
	Employees	Employee engagement Index (every three years) *	N/A	>80%		
		Employee Attendance * # of days absent	N/A	< 4.0		
		Percentage of training & development *	N/A	4.0%		
		Percentage of succession plans in place for key management positions *	N/A	100%		

Waterloo North Hydro Inc.

Strategic Key Performance Indicators

Status	
Meets or Exceeds Target	√
Substantially meets Target	!
Needs Improvement	X

Performance Outcomes	Performance Categories	Measures	OEB Target	2020 Budget	2020 Actual	Status
Customer Focus *Services are provided in a manner that responds to identified customer preferences*	Service Quality	New residential services connected on time	90%	90%		
		Scheduled appointments met on time	90%	90%		
		Telephone calls answered on time	65% (withing 30 seconds)	90%		
	Customer Satisfaction	First contact resolution	Determined by the Utility	< 2 per 1,000 calls (99.80%)		
		Billing accuracy	98%	< 1 cancelled bill per 1,000 bills produced (99.9%)		
		Customer satisfaction survey results	N/A	Min. 90.0% of customers basically satisfied		
		Competitive ranking of distribution rates *	N/A	Max. 10.0 % higher than the least rate		
	Conservation & Demand Management	Net cumulative energy savings (percent of target achieved)	82.38 GWh (6 year target)	82.38 GWh (100%)		
	Connection of Renewable Generation	Renewable generation connection impact assessments completed on time	90%	100%		
		New micro-embedded generation facilities connected on time	90%	100%		
	Regulatory	Percentage of regulatory filings completed on schedule *	100.0%	100%		
		Completion of scheduled rate filings *	100.0%	100%		
Financial Performance *Financial viability is maintained: savings from operational effectiveness are sustainable*	Financial Ratios	Liquidity: current ratio (current assets/current liabilities)	N/A	1.0 to 1.25		
		Leverage: total debt (includes short term and long term debt) to equity ratio	60.0%	52.6%		
		Profitability: return on equity	9.19%	6.7%		
		Interest rate coverage *	N/A	> 2.0 X		

Note: * Additional KPIs tracked by WNH

Waterloo North Hydro Inc.
Corporate Structure

President & CEO

Rene Gatien

Executive Assistant

Drina Kurschinski

VP Engineering & Stations

Dorothy Moryc

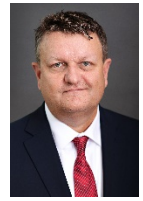
VP Finance & CFO

Albert Singh

VP Information Technology Services

Mark Dillon

VP Operations

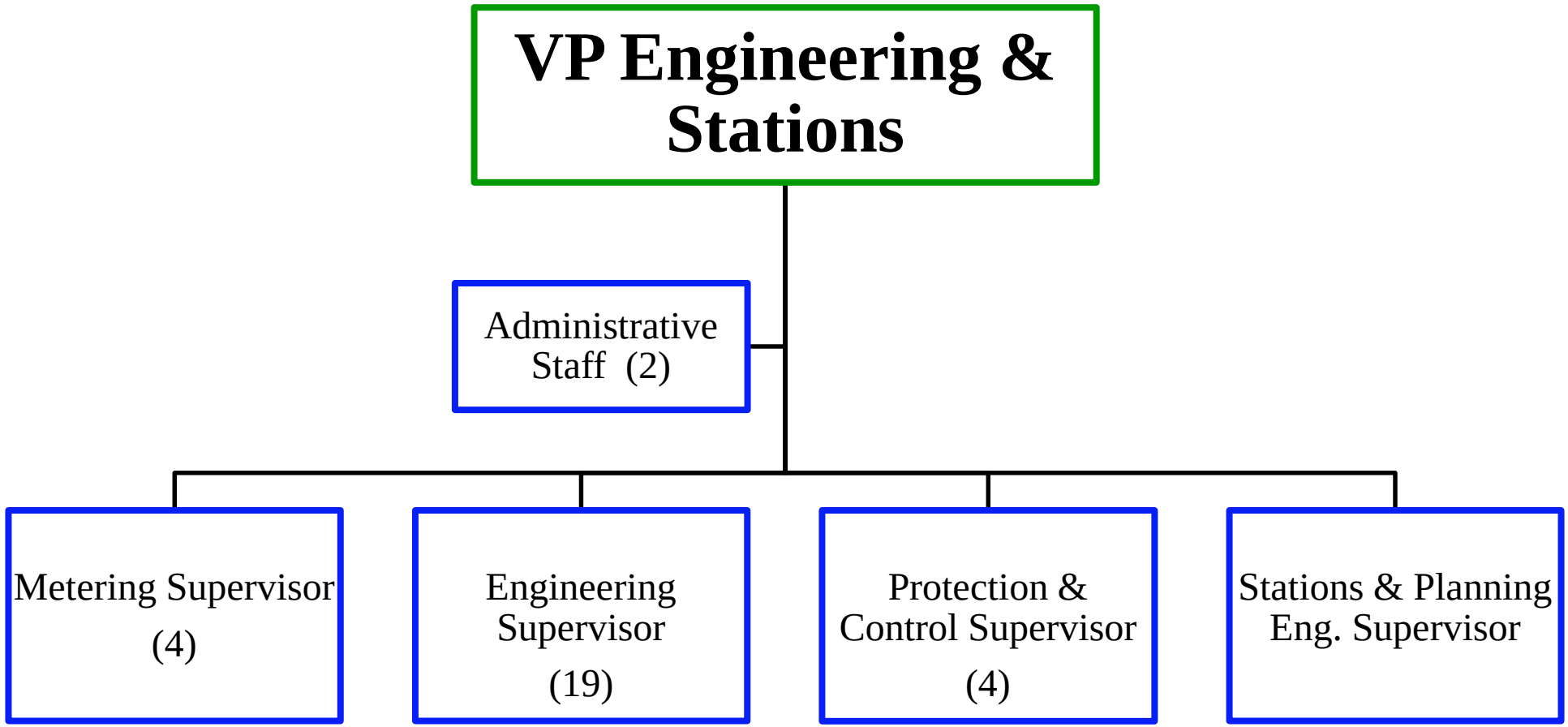


John Stephens

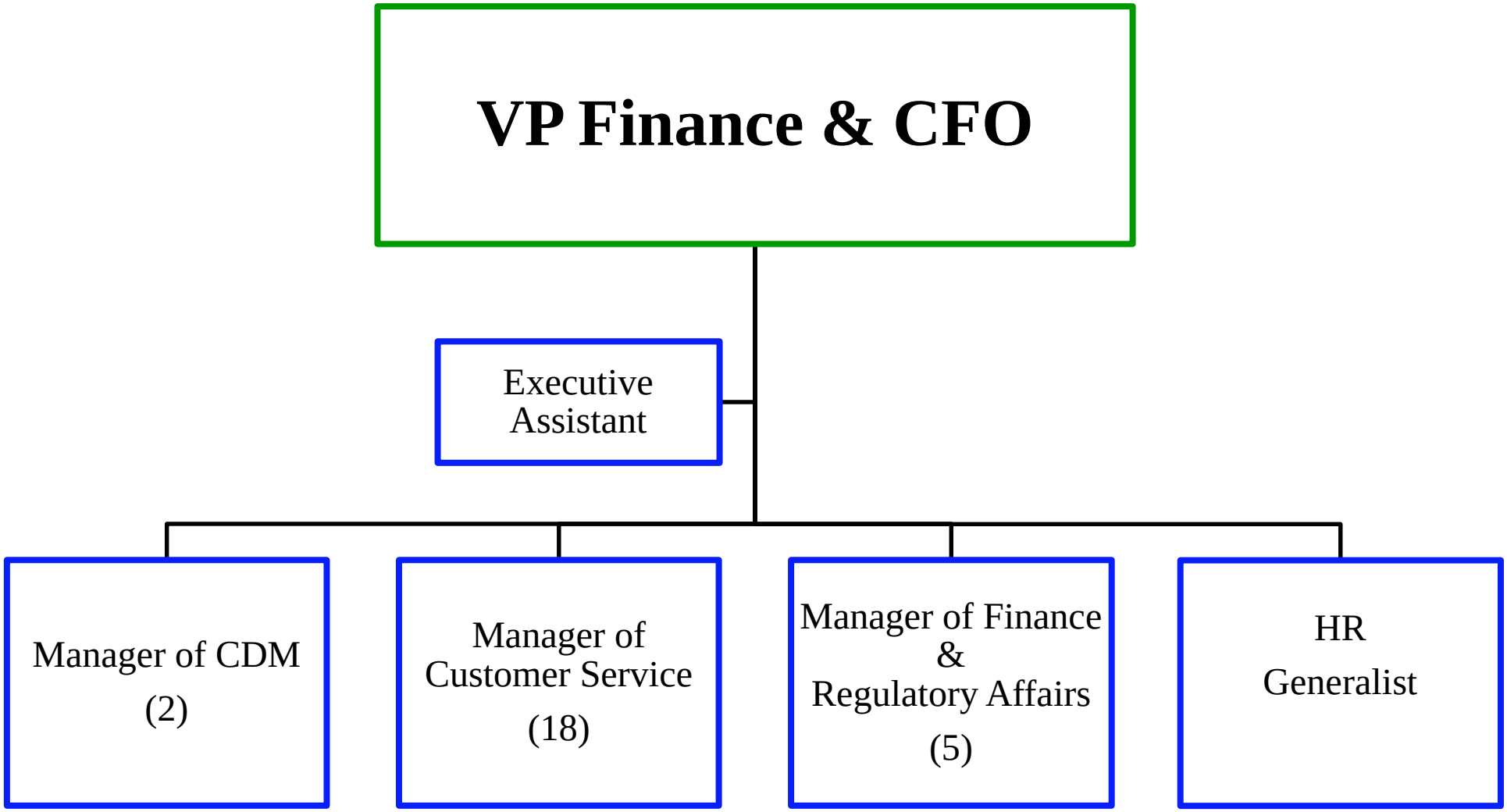
Manager of HSE & Sustainability

Will Stratford

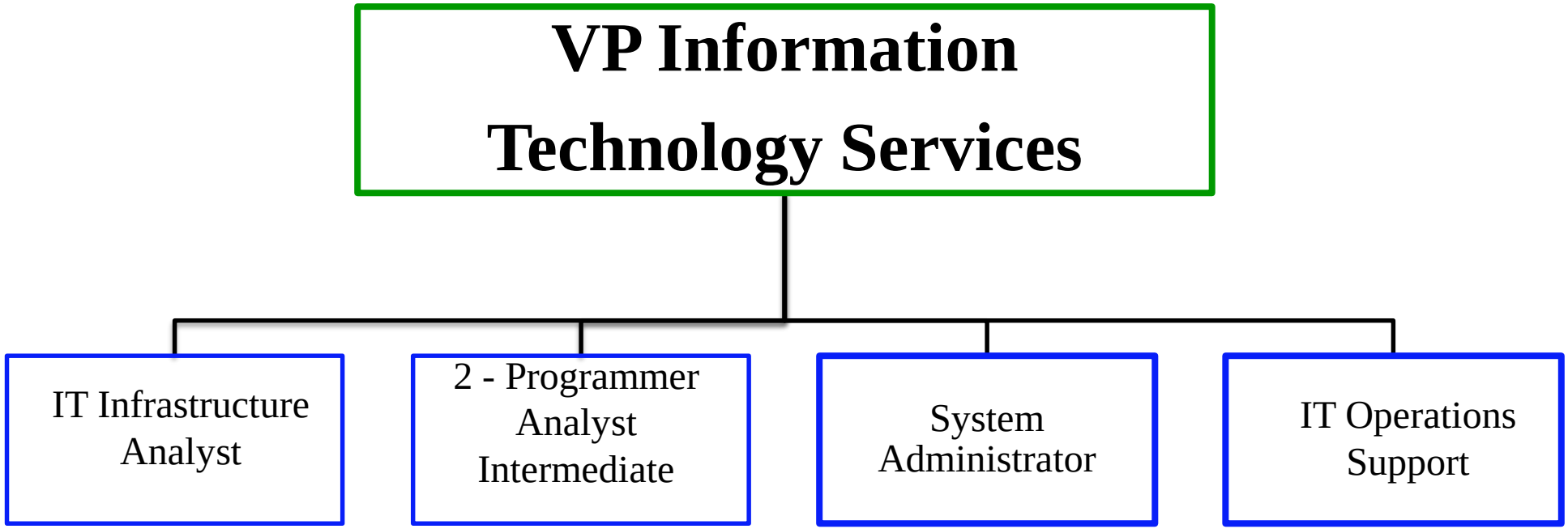
Waterloo North Hydro Inc.
Engineering & Stations



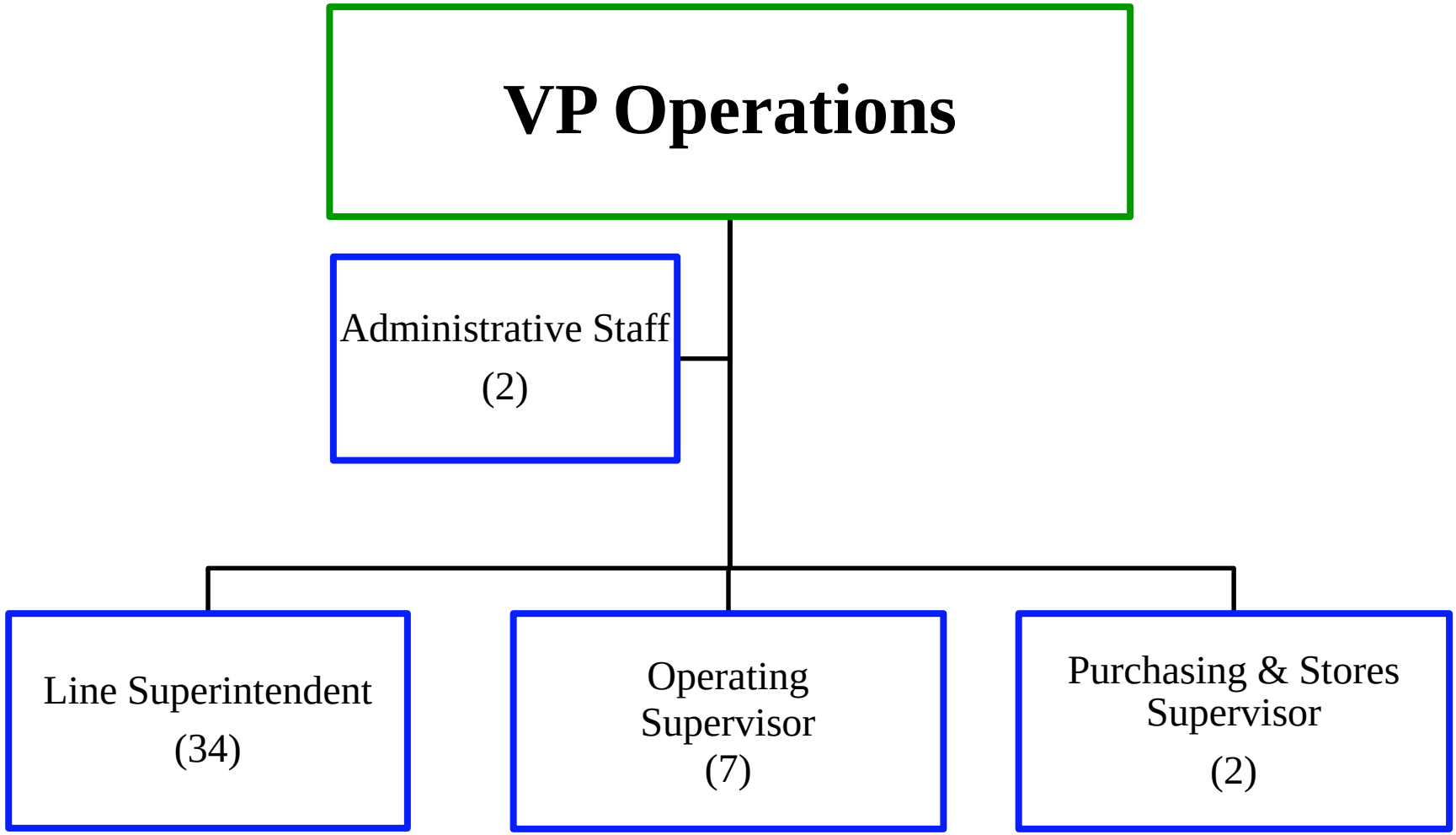
Waterloo North Hydro Inc.
Finance



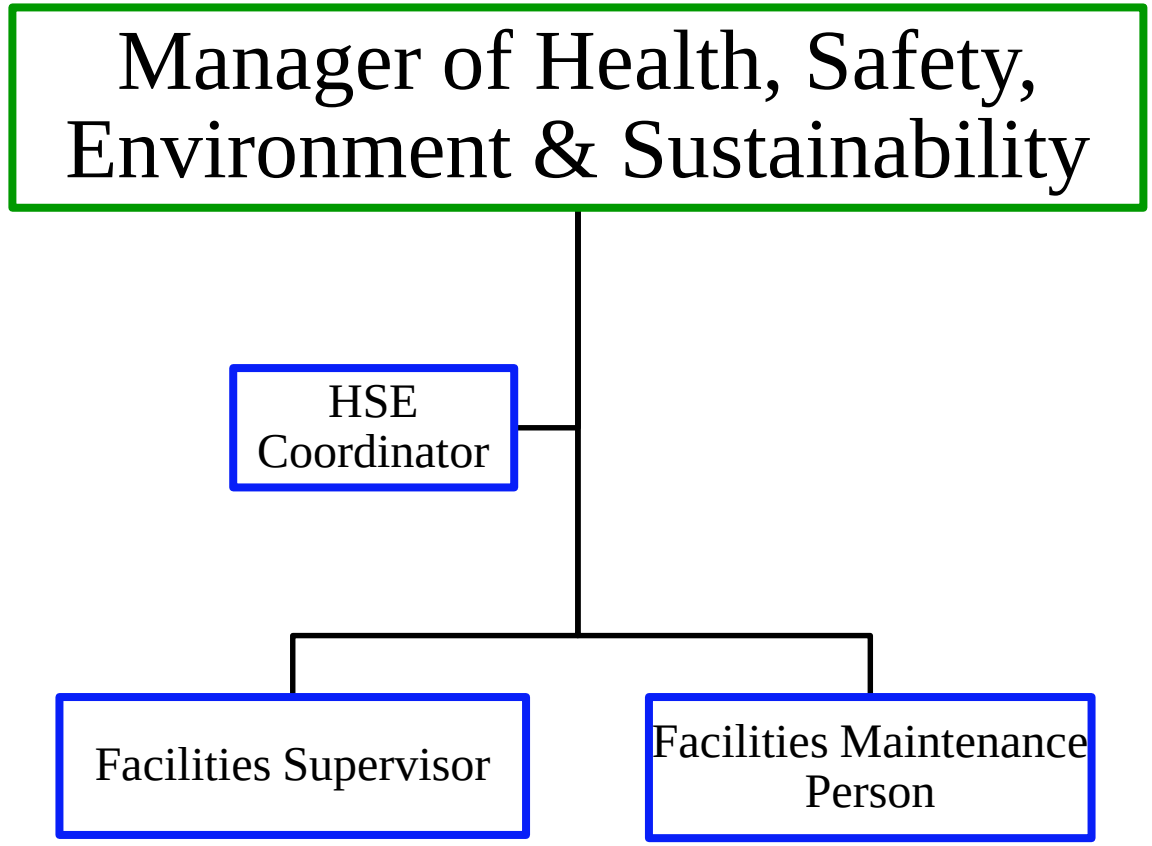
Waterloo North Hydro Inc.
Information Technology Services



Waterloo North Hydro Inc.
Operations



Waterloo North Hydro Inc.



To: Members of the Board:

PROPOSED 2020 & 2021 OPERATING & CAPITAL BUDGETS

The President & CEO and the Vice President, Finance & CFO, in consultation with the Senior Management recommend the following:

1. That the staff report and the presentation of the 2020 & 2021 Operating and Capital Budgets be received;

2. That the 2020 & 2021 Capital Budgets in the amount of $20,650,259 and $19,633,782, respectively, be approved;

3. That the 2020 Operating Budget with Distribution & Other Revenues of $38,565,427, Controllable costs of $15,575,432 and Net Earnings of $6,840,612 be approved;

4. That the 2021 Operating Budget with Distribution & Other Revenues of $41,030,624, Controllable costs of $16,248,008 and Net Earnings of $8,059,101 be approved; and

5. That the 2022 to 2025 Four Year Capital Plan be received.