

# Scorecard - North Bay Hydro Distribution Limited

9/29/2019

Performance Outcomes	Performance Categories	Measures	2014	2015	2016	2017	2018	Trend	Target		
									Industry	Distributor	
<b>Customer Focus</b> Services are provided in a manner that responds to identified customer preferences.	<b>Service Quality</b>	New Residential/Small Business Services Connected on Time	100.00%	100.00%	100.00%	100.00%	100.00%		90.00%		
		Scheduled Appointments Met On Time	100.00%	100.00%	99.90%	100.00%	100.00%		90.00%		
		Telephone Calls Answered On Time	78.40%	82.10%	83.60%	86.56%	91.13%		65.00%		
	<b>Customer Satisfaction</b>	First Contact Resolution	4	6	14	6	4				
		Billing Accuracy	99.92%	99.88%	99.70%	99.74%	99.72%		98.00%		
		Customer Satisfaction Survey Results	A	A	85%	85%	89%				
<b>Operational Effectiveness</b> Continuous improvement in productivity and cost performance is achieved; and distributors deliver on system reliability and quality objectives.	<b>Safety</b>	Level of Public Awareness		81.00%	81.00%	81.00%	81.00%				
		Level of Compliance with Ontario Regulation 22/04 <sup>1</sup>	C	C	C	C	C			C	
		Serious Electrical Incident Index	Number of General Public Incidents	0	0	0	0	0			0
			Rate per 10, 100, 1000 km of line	0.000	0.000	0.000	0.000	0.000			0.000
	<b>System Reliability</b>	Average Number of Hours that Power to a Customer is Interrupted <sup>2</sup>	1.65	1.10	2.29	1.11	1.95			2.10	
		Average Number of Times that Power to a Customer is Interrupted <sup>2</sup>	1.13	0.88	1.98	0.94	1.40			1.99	
	<b>Asset Management</b>	Distribution System Plan Implementation Progress	87%	94%	106%	118%	112%				
	<b>Cost Control</b>	Efficiency Assessment	3	3	3	3	3				
		Total Cost per Customer <sup>3</sup>	\$659	\$675	\$659	\$672	\$695				
		Total Cost per Km of Line <sup>3</sup>	\$27,926	\$28,297	\$27,680	\$28,233	\$29,208				
<b>Public Policy Responsiveness</b> Distributors deliver on obligations mandated by government (e.g., in legislation and in regulatory requirements imposed further to Ministerial directives to the Board).	<b>Conservation &amp; Demand Management</b>	Net Cumulative Energy Savings <sup>4</sup>		20.96%	102.04%	129.07%	146.00%			20.26 GWh	
	<b>Connection of Renewable Generation</b>	Renewable Generation Connection Impact Assessments Completed On Time									
<b>Financial Performance</b> Financial viability is maintained; and savings from operational effectiveness are sustainable.	<b>Financial Ratios</b>	Liquidity: Current Ratio (Current Assets/Current Liabilities)	1.84	2.07	2.09	1.92	1.84				
		Leverage: Total Debt (includes short-term and long-term debt) to Equity Ratio	0.81	0.94	0.95	1.01	1.00				
		Profitability: Regulatory Return on Equity	Deemed (included in rates)	9.85%	9.30%	9.30%	9.30%	9.30%			
			Achieved	7.17%	10.65%	9.01%	8.56%	10.17%			

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

2. The trend's arrow direction is based on the comparison of the current 5-year rolling average to the distributor-specific target on the right. An upward arrow indicates decreasing reliability while downward indicates improving reliability.

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

4. The CDM measure is based on the 2015-2020 Conservation First Framework. 2018 results are based on the IESO's unverified savings values contained in the March 2019 Participation and Cost Report.

**Legend:**

5-year trend  
 up down flat

Current year  
 target met target not met

## 2018 Scorecard Management Discussion and Analysis (“2018 Scorecard MD&A”)

The link below provides a document titled “Scorecard - Performance Measure Descriptions” that has the technical definition, plain language description and how the measure may be compared for each of the Scorecard’s measures in the 2018 Scorecard MD&A:

[http://www.ontarioenergyboard.ca/OEB/ Documents/scorecard/Scorecard\\_Performance\\_Measure\\_Descriptions.pdf](http://www.ontarioenergyboard.ca/OEB/ Documents/scorecard/Scorecard_Performance_Measure_Descriptions.pdf)

### Scorecard MD&A - General Overview

In 2018 North Bay Hydro Distribution Ltd. (“NBHDL”) once again met or exceeded all performance targets, continuing the 5-year trend that consistently shows an efficient, stable business meeting industry objectives.

- ✓ In 2018 NBHDL achieved 146% of its 2015-2020 Conservation and Demand (“CDM”) target. A significant driver of this achievement is the leading edge, technologically advanced cogeneration plant that went into operation in late 2015 at the North Bay Regional Health Centre. This project continues to be a great success for all partners involved. NBHDL’s strength is in its CDM team and its foundation.
- ✓ NBHDL continues to be a leading example of how locally based LDCs play a critical and unique role in the distributed energy future Ontario is embracing and the delivery of energy efficiency programs. Continuing with the forward-thinking approach, NBHDL continued development on the first microgrid of its kind in Canada on the local Community Energy Park, which went into operation in late May of 2019. This project will be a significant example to LDCs looking to provide green energy and resiliency to its communities.
- ✓ NBHDL continued to work in collaboration with other LDC’s through the CustomerFirst framework to jointly plan and implement CDM programs. The CustomerFirst team includes Greater Sudbury Hydro, Northern Ontario Wires, PUC Distribution, Espanola Hydro, Newmarket-Tay Hydro, and NBHDL. This partnership allows utilities to design and deliver more cost effective CDM projects resulting in greater savings for customers.
- ✓ Following improvements in our 2017 social media campaigns for higher level engagements, we continued to press on to expand our audience. Efforts to enhance the detail of posts that may assist our community through available programs, conservation and general outreach were visibly successful through a 135% growth in followers to our social media accounts.
- ✓ NBHDL conducted its bi-annual customer satisfaction survey and continues to score well relative to provincial and national averages. This is something NBHDL takes pride in and will look to improve going in to its 2021 COS.
- ✓ The tree replacement initiative continues to be an encouragingly well-received program that results in an annual waiting list. In an effort to promote a Green Canopy and to give back to customers affected by NBHDL’s vegetation management work, staff have planted over 100 trees/shrubs throughout the City. This brings the program total to 492 since it began.
- ✓ NBHDL has delivered on another successful year while addressing the considerable challenges of an aging workforce, a trend seen across the industry. 2017 represented the start of a significant transition in the senior management team that continued through 2018 as the company executed on a succession plan that had been in development over the last several years.
- ✓ NBHDL continues to participate in many community-based events, made possible because of our presence in North Bay and the significant relationships NBHDL has fostered at the local level. The positive outreach, commitment and dedication found through these opportunities, such as bucket rides at the annual Christmas walk and safety presentations at local children centres, ensures that NBHDL continues to be an integral part of our City.

The details provided in this report on service quality, customer satisfaction, safety, system reliability, asset management, cost control, CDM results, and financial ratios confirm NBHDL’s continuing strong performance in 2018.

## Service Quality

- **New Residential/Small Business Services Connected on Time**

In 2018 approximately 47 eligible low-voltage residential and small business customers were connected to the system within the five-day timeline prescribed by the OEB, 100% of the time. NBHDL has achieved results above the industry target of 90% since 2009 and has done so through a continued commitment to customers and through adherence to processes in place to meet the five-day window.

Where feasible, NBHDL coordinates connection activities with other planned construction activities undertaken by the utility and throughout the City of North Bay. NBHDL attends the annual utilities meeting held by the City's engineering department and is involved on the City Development and Review Team ("DART") where representatives from all utilities, City departments (Public Works, Parks and Rec, Economic Development Office (EDO), Fire, etc.) and local agencies (MTO, North Bay and Mattawa Conservation Authority, etc.) review applications put forth to the City that involve new development/servicing, zoning changes, and site plan and control. A strong relationship exists between NBHDL and the EDO and this provides the City with the ability to easily obtain information that helps in attracting new development into the NBHDL service territory.

- **Scheduled Appointments Met On Time**

Approximately 3,600 appointments were scheduled with customers in 2018 for various activities including, but not limited to, work requested by customers, conservation and demand management initiatives, providing underground locate services, meter access and investigation when requested by customers. NBHDL also meets with customers regarding the tree trimming program that includes not only discussing the program itself, but addressing customer concerns and questions and obtaining the proper permissions for tree removal or trimming. NBHDL met all of these appointments on time, exceeding the industry target of 90%. NBHDL strives to maintain this high standard and has maintained a 99.9% average since 2009.

NBHDL maintains routine appointment scheduling for different activities (ex; service spots are completed every Thursday) and strives to meet appointments on time at all times. If the appointment is initiated by NBHDL, customers are contacted and scheduled at a time that best meets their schedule. An automated system handles underground locate requests which flow through Ontario One Call; once a customer calls into Ontario One Call an email is sent to NBHDL and a work order is automatically created and sent to mobile units in the field. Field staff schedule the work within a 5 day window. This automation has created a very efficient process for both customers and employees and, unlike many utilities, NBHDL completes this program with in house staff for quality assurance and flexibility to respond to requests.

- **Telephone Calls Answered On Time**

In 2018 Customer Service Representatives ("CSR") handled over 21,000 in-coming calls from customers; over 91% of those calls were answered in 30 seconds or less. This result exceeds the OEB mandated 65% target for timely call response. NBHDL has averaged over 25,200 calls per year to its Customer Service Centre over the last 5 years and has consistently performed ahead of the OEB's target while experiencing improvement in the performance metric resulting in 2018's best result, over 20% ahead of the industry target for the second year in a row.

NBHDL's Customer Service department is centralized to handle all inquiries; customers can call and speak with a representative that is able to handle all types of inquiries or concerns eliminating the need to transfer customers to different individuals or departments – a one-stop shop. It is important to note that, though not a statistic the OEB measures, CSRs handled over 8,500 outbound calls in 2018.

## Customer Satisfaction

With the exception of Billing Accuracy, specific customer satisfaction measurements have not been defined across the industry. The OEB has instructed utilities to review and develop measurements in these areas and begin tracking with plans to review information provided by utilities over the next few years and implement a commonly defined measure for these areas in the future. As a result, each utility may have different measurements of performance until such time as the OEB provides specific direction regarding a commonly defined measure.

- **First Contact Resolution**

First Contact Resolution can be measured in a variety of ways and further regulatory guidance is necessary in order to achieve meaningful comparable information across electricity distributors.

Due to customer demand, NBHDL is one of few utilities to still offer counter service to walk-in customers and front line staff are trained to resolve customers' issues directly, both on the phone and in-person. For NBHDL, First Contact Resolution is measured based on the number of customer concerns that are escalated formally to NBHDL's President or directly to the OEB. NBHDL's CSRs endeavor to resolve all customer concerns directly, however, calls can be escalated to department managers either by customer request or in cases where management input is required. Much like the front line staff, management makes every attempt to resolve the concern in a matter that satisfies the customer and meets internal policies. As a customer centric service provider, NBHDL staff and management are typically able to resolve customer issues, however, in 2018 four (4) concerns were escalated; one (1) to the President and three (3) to the OEB. This represents less than .02% of NBHDL's 24,000 customers.

A large proportion of customer complaints are related to the overall cost of hydro, which is a real concern for everyday people and businesses across the Province. NBHDL recognizes the impact costs have on customers and we strive to find on-going and sustainable efficiencies within the business, however, NBHDL is only responsible for approximately 20% of the total bill for residential customers; the remaining 80% of costs are collected by NBHDL on behalf of various provincial entities. NBHDL is the frontline for the broader electricity sector and with this position comes the responsibility for answering customers' questions and concerns that are the result of the actions of other sector participants and outside the scope of NBHDL's direct control. This can be both challenging and frustrating for customers.

In all instances of customer concerns the issue is addressed directly and every attempt is made to ensure the proper processes and policies are in place, and followed, to prevent future escalations and to ensure fairness to all customers and NBHDL while delivering an efficient customer service experience.

- **Billing Accuracy**

After consultation with electricity distributors, the OEB has prescribed a measurement of billing accuracy which must be used by all utilities. An industry target of 98% billing accuracy was established.

In 2018 just over 303,000 bills were issued to customers and NBHDL achieved a billing accuracy of 99.7%, exceeding the prescribed OEB target of 98%. Over the last four years, NBHDL has averaged 99.76% in this metric and continuously monitors its billing accuracy and processes to identify opportunities for improvement and to ensure accurate bills are produced for customers.

- **Customer Satisfaction Survey Results**

The OEB introduced the Customer Satisfaction Survey Results measure beginning in 2013. At a minimum, electricity distributors are required to measure and report a customer satisfaction result at least every other year. At this time the OEB is allowing electricity distributors' discretion as to how they implement this measure.

Regardless of the OEB's formal introduction of Customer Satisfaction Survey Results customer engagement has always been important to the success of NBHDL, the purpose of which has been to focus on addressing issues of concern raised directly by customers. NBHDL is both proactive and reactive in its customer engagement consultations, the majority of which provide helpful insight into the day to day operations of NBHDL. Historically NBHDL has relied on direct, day-to-day, real time interactions with customers to inform decision making, to advise of issues important to customers and to address communication and customer service needs.

For the 2018 filing, NBHDL once again engaged the commonly used UtilityPULSE for the bi-annual formal customer satisfaction survey. This survey is widely utilized among LDCs in Ontario and the results of the survey contribute to benchmarking scores from electric utility customers across Canada. The survey covers a wide range of issues relating to customer satisfaction, service levels, business operations, reliability, conservation, smart meters and smart grid. The survey provides information that supports improving customer care at every level of the business. In addition to providing NBHDL customer responses to a variety of questions, both provincial and national results were provided to give NBHDL a sense of not only where the company stands in terms of customer perception, but how NBHDL fares across other LDCs in Ontario and across the board in Canada.

The results of the survey provided a snapshot of performance based on customer responses on 6 categories: Customer Care (Price/Value), Company Image (Corporate Leadership/Stewardship) and Management Operations (Operational Effectiveness/Power Quality & Reliability). As the statistic evolved, NBHDL has determined that a percentage (%) result would be more informative, aligned with the other scorecard metrics and provide for easier comparability. NBHDL believes one of the key metrics within the UtilityPULSE survey is the 'Customer Experience Performance rating (CEPr) score'. This is an effectiveness rating and is affected by many dimensions of service. Every touch point with customers on the phone, website or in-person influences what customers think and feel about the organization. NBHDL was able to improve on its 2016 result (85%) and scored 89% on this metric, exceeding the Ontario LDC average of 83% and the National average of 84%. Considering the delicate nature of the province's energy portfolio and the public perception thereof, NBHDL takes pride in knowing its customers have had improved perception year over year. NBHDL believes that this metric provides an overall picture of customer experience and satisfaction and will use this result for future comparisons until such time as the OEB determines a measure across the industry. For comparison purposes with the 2014-2015 scorecard results, NBHDL was once again graded with an overall "A" compared to an Ontario and National average of "A" and "B+" respectively.

NBHDL undertook some new metrics in the most recent survey. Specifically focusing on the ability to effectively communicate with its customers, and the overall convenience of service delivery. With respect to communications, UtilityPULSE aggregated an overall Communication Score in which NBHDL scored an 82% as compared to a provincial aggregate of 79%. This focused on both general communications and communications via the customers' preferred methods (email, phone, etc.). On the convenience front, UtilityPULSE inquired about a variety of customers services and whether or not they were satisfied with the access and convenience. For all measurable comparatives, NBHDL scored better than the provincial average, though it is clear that the online experience can be approved upon.

NBHDL sets a high standard for performance when it comes to customer care and is especially proud of this result considering the increase in customer concerns over pricing and value across the Province. NBHDL strives to deliver customer excellence and value and believes this is shown in the various results of the survey including the category of demonstrating credibility and trust, where NBHDL exceeded 85%. In fact, the customer satisfaction results of the survey increased from 92% to 93% after customers went through the entire survey. NBHDL takes great pride in this. We feel that once customers see the big picture of what happens at the local level, within the community, the value of the work we do to provide safe and reliable power and excellent customer service becomes more apparent.

NBHDL will continue to use the bi-annual survey results to benchmark improvement and to identify additional opportunities to enhance customer satisfaction. On-going, daily interactions that leave the customer with the information they need will remain NBHDL's highest priority.

## Safety

NBHDL is committed to protecting our workforce, customers, the public and the environment. In addition to achieving compliance with applicable laws, we strive for excellence in our environmental, health and safety performance through adopting good management practices and setting clear objectives and targets for achieving continual improvement. To achieve this, we ensure that environmental, health and safety management accountabilities and responsibilities are clearly defined and understood, that our employees are competent and effectively trained, and that appropriate resources are made available.

NBHDL has a Joint Health and Safety Committee that meets monthly or as determined by the Committee. Multiple safety training sessions are held for staff throughout the year. While formal meetings and training programs are important, safety is a daily focus and practice for all employees. NBHDL makes every effort to eliminate accidents/incidents in the workplace and should an accident/incident occur, it is investigated for cause(s) and recommended action(s) are put in place when necessary to prevent a reoccurrence.

In 2018 NBHDL had a single lost time incident. While the incident was not due to electrical contact and did not result in a serious injury NBHDL took the situation with the utmost seriousness. NBHDL undertook an extensive investigation and re-evaluated the current practices, made recommendations, and implemented those recommendations by reviewing the incident with all staff and retraining qualified personnel on the safe use all equipment. This reinforces our new safety culture established in 2017 as it instills awareness, involvement, accountability, and continuous improvements in order to ensure that similar incidents are avoided and every worker returns home safely every day

- **Public Safety**

The OEB introduced the Safety measure in 2015. This measure looks at safety from a customers' point of view as safety of the distribution system is a high priority. The Safety measure is generated by the Electrical Safety Authority (ESA) and includes three components: Public Awareness of Electrical Safety, Compliance with Ontario Regulation 22/04, and the Serious Electrical Incident Index.

- **Component A – Public Awareness of Electrical Safety**

In order to gauge overall electrical safety awareness amongst the general public, the ESA was tasked with developing standardized survey questions and methodology in consultation with the Ontario Energy Board and key stakeholders, including distributors. The survey is intended to measure the level of public awareness, within the distributor's service territory, of electrical safety information and precautions related to distribution system assets and 2015 was the first year that the data for this component of measure was shown on utility scorecards. The 2<sup>nd</sup> bi-annual survey was conducted in early 2018 resulting in a score of 81%, remaining steady as compared to the 2015 survey. It's important to note that this survey is not focused on utility customers only; it is completed by randomly-selected residents, 18 years or older, residing in a utility's service territory. In our case, the survey was conducted by telephone among a representative sample of 400 residents of the City of North Bay. NBHDL's score indicates that the public in our service territory have good knowledge about electrical safety, though we believe there is always room for improvement, especially when it comes to safety.

Six core questions were developed and an index score was applied to each response to allow comparability of utilities across the Province. The categories deemed significant to public safety awareness were the likelihood to call before you dig, the impact of touching a power line, the safe proximity to overhead power lines, the danger of tampering with electrical equipment, the safe proximity to a downed power line, and actions taken in vehicle in contact with wires. During February 2018 a random sample of 400 residents of the City of North Bay were contacted by a reputable research group, working on behalf of NBHDL, and asked to complete the public awareness survey. The general public's responses are an impressive benchmark for NBHDL to monitor and compare and NBHDL is proud to see residents maintaining a high level of safety awareness.

Slightly less than half of the respondents (48%) would definitely call before digging while another 18% are 'most likely to call'; NBHDL reminds customers that is it the

LAW to call before you dig! A high number of respondents (87%) think touching a power line is very dangerous (we agree!), but we would remind all of this simple fact: it is very dangerous to touch an overhead power line with your body or any object. Close to 1-in-4 respondents (24%) believe you should maintain a distance of 3 to 6 metres (while more than half (53%) believe you should maintain a distance of 6 metres or more). A high number of the public (83%) know that tampering with equipment is very dangerous, but this should be 100%. Please stay away from all electrical equipment, it is incredibly dangerous to touch or tamper with and the consequences could be irreversible. A majority (78%) believe you should maintain a distance of 10 metres or more from downed power lines, and a strong majority (86%) believe you should stay in the vehicle until power has been disconnected from the line. Always remember, should your vehicle come in contact with power lines, staying in the vehicle is your best and safest option until the power is disconnected.

After calculating the Public Safety Awareness Index Score, in accordance to OEB parameters, North Bay Hydro had an overall score of 81% for general public awareness. The City of North Bay's public awareness result is one that NBHDL is very proud of and we will continue to do the best job we can to get the message of electrical safety out to the public. While respondents did not pick the 'best' answer for the safe proximity to overhead lines (3 to 6 meters), NBHDL will always caution the public to stay as far away as possible from power lines and encourages a distance of 6 meters or more – you can never be too safe when it comes to electrical safety.

While not a formal component of the scorecard, NBHDL engages the public on the importance of safety through several avenues. An annual school program for grade school students provides an overview of electrical safety, safety messages, dangers in the home, safety tips and what to do, how to stay aware, and hazards – a dill pickle gets electrocuted in the process! NBHDL's website includes a page dedicated to safety. The information provides the hazards and tips on generator safety, what to do when the power goes out, indoor electrical safety, outdoor safety, safety tips for kids, and safety information related to vegetation management. NBHDL also promotes the "Call Before You Dig!" campaign with Ontario One Call.

- **Component B – Compliance with Ontario Regulation 22/04**

Over the past five years, NBHDL was found to be compliant with Ontario Regulation 22/04 (Electrical Distribution Safety). This was achieved by the company's strong commitment to safety, and adherence to company procedures & policies. Ontario Regulation 22/04 - *Electrical Distribution Safety* establishes objective based on electrical safety requirements for the design, construction, and maintenance of electrical distribution systems owned by licensed distributors. Specifically, the regulation requires the approval of equipment, plans, specifications and inspection of construction before they are put into service.

- **Component C – Serious Electrical Incident Index**

NBHDL has not had any serious incidents due to contact with its infrastructure by the public over the last five years.

## System Reliability

As a percentage of total sustained outages in the NBHDL system, the majority causes continue to be attributed to the following OEB categories: Foreign Interference, Tree Contacts, and Defective Equipment. Since the NBHDL system is predominantly overhead with a substantial portion running through rural areas, trend data will always correlate with the number and severity of storms that roll through the City each year.

Outages that are caused by tree contacts are mitigated with a cyclical Vegetation Management Program. NBHDL's goal is to achieve a new standard of a 5-year cycle, by changing from primarily trimming/topping to performing full removals in order to address the high number of large trees located in close proximity to live conductors. Once all areas within NBHDL's service territory are completed to the new standard, it is expected that the overall number of tree related outages will be reduced and in turn, since trees will be at a much greater separation from poles and high voltage lines, there will be a reduction in the potential of animal contact situations (reducing foreign interference outages). In addition, the new standards will help reduce tree related damage in storm situations and make the system safer for the general public and Power Line Maintainers.

As a proud and active member of the North Bay community, NBHDL has committed to doing its part in restoring the tree canopy in the urban part of the City. As such, NBHDL has continued to maintain efforts to re-green the City while addressing the need for safe tree clearance with respect to power lines. In 2018, NBHDL planted over 100 new trees as part of the re-greening campaign, bringing the total since inception to 492.

Outages involving defective equipment are mitigated through periodic inspections of the distribution system, regular maintenance activities, and system renewal and rejuvenation projects. NBHDL is committed to reducing outages caused by equipment failure and continues to invest in upgrading its system and rebuilding its aging infrastructure.

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

During normal hours of operations, NBHDL's control room can remotely manage the local grid rerouting power and dispatching crews to respond to outages quickly and efficiently. Outside hours of operations, NBHDL maintains an emergency response crew on call to restore power as quickly as possible at all times.

In 2018, NBHDL's average number of hours in which power to a customer was interrupted (outage hours not including cause code 2) was 1.95 and below the target range of 2.10. NBHDL's goal is to have its system reliability trend in an improved manner over a five-year period; however, it is important to note that in any given year, outage hours will correlate with storm occurrences and severity. In 2018, Tree Contact and Foreign Interference related outages accounted for a combined 29% of the hours in which power to a customer was interrupted, while Defective Equipment was responsible for 52%. While the increase in Defective Equipment is significant compared to 2017 (17%), it is due to a relatively small number of incidents that effected larger quantities of customers.

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

In 2018, NBHDL's average number of customer interruptions (i.e., frequency) was 1.40 and well below the target range of 1.99. As stated above, occurrence of storms is a significant factor in annual reliability statistics. Foreign Interference and Tree Contact related outages accounted for 22% of the number of times in which power to a customer was interrupted while Defective Equipment was responsible for 40%. While the increase in Defective Equipment is significant compared to 2017 (11%), the circumstances as above are the cause.

As explained below in the Asset Management section, NBHDL has put together an extensive plan to address aging infrastructure that addresses old and high risk defective equipment. This plan provides a proactive, balanced approach to distribution system planning, infrastructure investment and replacement programs to address immediate risks associated with end-of-life assets; manage distribution system risks; ensure the safe and reliable delivery of electricity; and balance ratepayer

and utility affordability. NBHDL has a largely overhead supplied system and as a result, power lines are more exposed to the elements. While this leads to more outages than underground supplied systems, the trade-off is lower costs to customers. NBHDL will be transitioning to an automated system for the tracking of reliability metrics, including the analysis of worst performing feeder information and is implementing this project in a further effort to improve reliability.

## Asset Management

### • Distribution System Plan Implementation Progress

Distribution System Plan (DSP) implementation progress is a performance measure instituted by the OEB in 2013. Consistent with other new measures, utilities were given an opportunity to define it in the manner that best fits their organization. The DSP outlines a utility's forecasted capital expenditures, over a five year period, required to maintain (and for some utilities expand) the distributor's system to serve its current and future customers. This measure is intended to assess NBHDL's effectiveness at planning and implementing the DSP.

NBHDL owns and operates seventeen (17) municipal stations, has almost 600,000 meters of overhead lines and underground cable circuits and there are fifty-seven (57) distribution feeders, eight (8) substation feeders, and 4,026 distribution transformers. A significantly large percentage of the assets employed on NBHDL's distribution system have been in service for much longer than their typical useful life and the main focus of the capital program is investments in system renewal. Specifically, NBHDL has been adhering to a plan to complete a voltage conversion program that began in 1977/1978 – the completion of this project will harmonize the entire system to one distribution voltage for optimal efficiency. An Asset Condition Assessment was utilized in the development of the DSP which uses data related to the health and condition of assets, including asset age, results of testing and visual inspections to determine the risk of asset failure in order to find the right balance between capital investments in new infrastructure and operating and maintenance costs so that the combined total cost over the life of the asset is minimized.

NBHDL has based the DSP implementation progress as a percentage (%) of budgeted gross capital spending compared to actual spending. NBHDL achieved 112% of the DSP forecasted budget of \$5.9M in 2018. NBHDL is aligned with total DSP spending to date as variances to budget in a given year are typically addressed in the overall picture of the 5 year plan spending. Given the dynamic nature of the business, a number of issues emerge over the course of a year that require the management to postpone, re-prioritize or otherwise amend the capital work plan adopted at the start of the year. External factors such as extreme cold weather and a deep frost line are the type of elements that can have an impact on the ground when executing the work and cause delays that are outside NBHDL's control.

Significant construction work, totaling just over \$3M, continued in the city in 2018. The McIntyre, Ferguson, and Fraser projects were part of the final aspects of the City-wide voltage conversion project to standardize and harmonize the system. A section of Ski Club Road was rebuilt to revitalize two major 44kV sub-transmission circuits. Substation work of nearly \$2M included the new build of municipal substation (MS) #23 at the Community Energy Park, rehabilitation of MS #10 (Marshall Ave), in addition to other technology upgrades. Customer demand work, and general operational requirements such as building upgrades, IT requirements and planned updates to the fleet also occurred in 2018.

NBHDL makes every effort to maximize the utilization of assets without compromising reliability or safety and will continue to do so in the future while executing on the DSP. In an effort to manage costs and keep rates low, NBHDL anticipates that capital spending will remain reasonably stable and paced for the 2015 - 2019 planning horizon. Throughout 2019 and 2020, NBHDL will be working on the completion of a new DSP; this will cover the upcoming 5-year period (2020-2025) and will be a guide to maintaining a safe and reliable distribution system that incorporates appropriate planning, pacing and cost effectiveness.

## Cost Control

- **Efficiency Assessment**

The total costs for Ontario local electricity distribution companies are evaluated by the Pacific Economics Group LLC (PEG) on behalf of the OEB to produce a single efficiency ranking. The electricity distributors are divided into five groups based on the magnitude of the difference between their respective individual actual and predicted costs. In 2018 for the seventh year in a row NBHDL was placed in Group 3, which is defined as having actual costs within +/- 10% of predicted costs. Group 3 is considered “average efficiency” – in other words, NBHDL’s costs are within the average cost range for distributors in the Province of Ontario. In 2018, 41% (26 distributors) of the Ontario distributors were ranked as “average efficiency”; 40% were ranked as “more efficient”; 19% were ranked as “least efficient”. A core objective of NBHDL is to maintain in Group 3.

- **Total Cost per Customer**

Total cost per customer is calculated as the sum of NBHDL’s capital and operating costs and dividing this cost figure by the total number of customers that NBHDL serves. The cost performance result for 2018 is \$695/customer which is a \$23 (3.4%) increase per customer over 2017. The average increase over the last 5 years is approx. 2.56% per year. This total cost figure does not reflect NBHDL’s actual costs. Rather, these figures represent econometric values derived by the PEG model in order to rank Ontario utilities on a comparative “same size” basis. The total cost used in these measures reflects the mature state of development seen in Northern Ontario and in North Bay; an aging population with increased demands on service.

NBHDL continually strives to manage costs without unduly affecting service to customers or creating significant rate increases while addressing increasing customer expectations of an interactive, value added service provider. NBHDL understands that the service we provide is an essential part of daily life for customers and increasing bills are a concern for all. NBHDL’s costs account for approximately 28.6% of a typical residential customer’s bill and the company actively monitors costs against prudent budgets set for both capital and operating costs which are aligned with NBHDL’s most recent Cost of Service rate application in 2015. Operating costs are those associated with the maintenance, inspection and operation of the system and those associated with metering, billing and collections. NBHDL has experienced a significant increase in its OM&A workload as a result of increased demand by customers for services and has managed this substantial increased workload without a major change to staffing levels. This has been done primarily through productivity improvements. NBHDL intends to continue managing workload increases in this manner and expectations are for a consistent staffing level in the future. NBHDL’s capital program is explained in the Asset Management section.

From the fall of 2013 through to the fall of 2015 NBHDL was actively involved in a Cost of Service Application that detailed all operating and capital costs of the company from 2010 through to a forecast of 2015. The 2015 costs then form the basis of rates for the next 5 years. Staff at the OEB and intervenors, representing various customer groups, go through thousands of pages of evidence supporting NBHDL’s case for rates and test that evidence for reasonability, prudence and justification. Similar to most utilities in the province, NBHDL has experienced increases in its total costs required to deliver quality and reliable services to customers. Province wide programs such as Smart Meters and Time of Use pricing, growth in wage and benefits costs for employees, increased customer engagement, an extensive overhaul to the vegetation management program, increased information technology costs supporting new regulated and internal business processes, as well as investments in the renewal of the distribution system, have all contributed to increased operating and capital costs at NBHDL.

NBHDL will continue to seek cost savings and improve efficiency while maintaining quality customer service and effective asset management as detailed throughout the 2015 rate application that set out the capital and operating investment needs of the business for the next 5 years.

- **Total Cost per Km of Line**

This measure uses the same total cost that is used in the cost per customer calculation above, but the total cost is divided by the kilometers of line that NBHDL operates to serve its customers. NBHDL's 2018 rate is \$29,208 per Km of line, a \$975 (3.45%) increase over 2017; with an average increase of 3.06% per year over the last 5 years. NBHDL's capital focus is asset renewal which is simply replacing (and in some cases reducing) the same Km of line, not increasing total Km; this results in increasing renewal costs each year, but with the same (or lower) total Km of line. NBHDL also experiences a low level of growth in its total kilometers of lines due to a low annual customer growth rate.

The City of North Bay has experienced limited growth typical of municipalities in Northern Ontario. Utilities situated in or clustered around the GTA have growth both in customers and lines to service these customers, which are often built by developers. Their metrics can be different than areas or communities served more remote from Toronto. NBHDL uses multiple measures, beyond those used by the OEB to compare 'same size' utilities, to monitor the efficiency of the business and strives to manage costs while delivering on capital and maintenance programs, and will continue to do so.

## Conservation & Demand Management

- **Net Cumulative Energy Savings (Percent of target achieved)**

NBHDL was committed to helping our customers understand their energy usage by offering programs that enable them to become more energy efficient. We have a history of excellence in Conservation and Demand Management (CDM) program delivery and results and this includes exceeding each of our annual targets in the Conservation First Framework years of 2015, 2016 and 2017. The strong program results continued in 2018, having achieved 146% of its 2020 persistent energy savings target. NBHDL was one of only ten LDCs to have exceeded 100% of its energy target, with 77% of its energy savings coming from the non-residential sector.

In 2018 NBHDL was able to demonstrate the value of locally owned and operated LDC's by assisting in the development of a second cogeneration project, working together with many partners including the City of North Bay. This project had a number of technical challenges to overcome, but NBHDL was able to innovate with its partners to overcome problems unique in the north.

NBHDL was very pleased with the strength of its CDM team in building relationships with its customers through local delivery of the residential and business programs, and recognizes this as the perfect delivery mechanism for continued success. NBHDL has been innovative and progressive in developing and delivering pilot programs to its business and residential customers. Residential customers could participate in the new Instant Savings Program (ISP), the new Pool Pump Program (PPP) along with existing programs; Deal Days, the Heating and Cooling Incentive and the Home Assistance Program. NBHDL continued to engage residential customers out in the community through public outreach events. Reaching out to customers at these events to discuss conservation, give tips on how to reduce their consumption and hear stories from customers about their electricity conservation successes. NBHDL has had strong participation by local commercial customers in our retrofit and energy efficient lighting programs. The combined efforts of all such programs and participants from both residents and businesses made the achievement of substantial energy savings possible. We continued to engage with them in support of application assistance and program updates through multiple channels.

NBHDL also recognizes that collaborations are a key component to our overall success. To help meet NBHDL's conservation goals under the Conservation First Framework that was introduced in 2015 by the Independent Electricity System Operator (IESO), NBHDL worked with other Utilities in the province through a collaborative group called CustomerFirst to design and deliver cost effective conservation programs for our customers. The six participating utilities in the CustomerFirst group continue to perform above average on energy savings and operate under their allocated budget. By working together, CustomerFirst utilities have found efficiencies in the delivery of conservation and this led to further cost savings for electricity customers.

NBHDL was committed to providing our customers with cost effective conservation programs to help them save electricity and lower their electricity bills. All sectors and customer types are covered in the joint plan and customers did have access to multiple province-wide, local and pilot programs. The joint CDM plan includes pilot programs that were developed and launched to meet the local needs of our customers. Through the CustomerFirst joint CDM Plan, NBHDL continued to work collaboratively with the other CustomerFirst utilities to find efficiencies and reduce costs. The group shared resources and working together in all areas of CDM including sales, marketing, customer and project support to provide value to ratepayers.

Though in the spring 2019, the provincial CDM framework was altered to be more centralized, NBHDL continues to actively engage and collaborate with our CDM partners to ensure the previously defined projects are fulfilled.

## Connection of Renewable Generation

Ontario runs two renewable generation programs. FIT (“Feed-in Tariff”) applicants are those customers setting up solar or other renewable generation equipment to generate more than 10 kW of electricity at a time. MicroFIT applicants are those customers applying to generate electricity at a level less than or equal to 10 kW of electricity at a time. NBHDL encouraged customers to participate in the FIT and microFIT programs, and has been able to meet all timelines for assessments and connections. The microFIT program stopped accepting applicants at the end of 2017.

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

Electricity distributors are required to conduct Connection Impact Assessments (CIAs) within 60 days of receiving authorization from the Electrical Safety Authority. There were no CIAs in 2017. NBHDL has three (3) FIT installations with generating capacity of 1.89 MW, including the Merrick Landfill.

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

In 2018, NBHDL connected 1 new micro-embedded generation facility (microFIT projects of less than 10 kW) within the prescribed time frame of five business days. The minimum acceptable performance level for this measure is 90% of the time. The workflow to connect these projects is very streamlined and NBHDL works closely with its customers and their contractors to tackle any connection issues to ensure the project is connected on time. NBHDL has forty-eight (48) MFIT installations with generating capacity of .41 MW.

## Financial Ratios

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

As an indicator of financial health, a current ratio that is greater than 1 is considered good as it indicates that the company can pay its short term debts and financial obligations. Companies with a ratio of greater than 1 are often referred to as being “liquid”. The higher the number, the more “liquid” and the larger the margin of safety to cover the company’s short-term debts and financial obligations. NBHDL’s current ratio decreased from 1.92 in 2017 to 1.84 in 2018 primarily due to a decrease in cash reserves. NBHDL’s current ratio in subsequent years is expected to remain at current levels or slightly increase with future borrowing and continual management of accounts receivable and liabilities.

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

The OEB uses a deemed capital structure of 60% debt, 40% equity for electricity distributors when establishing rates. This deemed capital mix is equal to a debt to equity ratio of 1.5 (60/40). A debt to equity ratio of more than 1.5 indicates that a distributor is more highly levered than the deemed capital structure. A high debt to equity ratio may indicate that an electricity distributor may have difficulty generating sufficient cash flows to make its debt payments. A debt to equity ratio of less than 1.5 indicates that the distributor is less levered than the deemed capital structure. NBHDL held relatively stable in 2018 where the exchange of new debt was offset by a comparatively lower dividend which is reflected in the ratio of 1.00 in 2018 as compared to 1.01 in 2017.

NBHDL manages its liquidity and debt to support its financial obligations and execute its operating and capital plans as well as maintain capacity and access to capital to support future development of the business. NBHDL’s liquidity and leverage ratios are strong compared to the required covenant levels imposed by lenders.

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

NBHDL’s last Cost of Service application was finalized in November 2015 and approved rates included an expected (deemed) regulatory return on equity of 9.30%. The OEB allows a distributor to earn within +/- 3% of the expected return on equity. When a distributor performs outside of this range, the actual performance may trigger a regulatory review of the distributor’s revenues and costs structure by the OEB.

- **Profitability: Regulatory Return on Equity – Achieved**

NBHDL’s achieved return in 2018 was 10.17%, which is within the +/-3% range allowed. Productivity improvements and operational efficiencies continue to be a priority for the business. NBHDL will continue to seek process improvements, find efficiencies and manage costs while delivering on the operational and capital programs that have been put before the OEB. NBHDL will continue to deliver electricity to its customers in a safe, reliable and efficient manner that provides good value for money while being responsive to customer and community needs and contributing to provincial and local public policy objectives.

## Note to Readers of 2018 Scorecard MD&A

The information provided by distributors on their future performance (or what can be construed as forward-looking information) may be subject to a number of risks, uncertainties and other factors that may cause actual events, conditions or results to differ materially from historical results or those contemplated by the distributor regarding their future performance. Some of the factors that could cause such differences include legislative or regulatory developments, financial market conditions, general economic conditions and the weather. For these reasons, the information on future performance is intended to be management's best judgement on the reporting date of the performance scorecard, and could be markedly different in the future.