



Energy Efficiency and
Corporate Communications

WATERLOO NORTH HYDRO INC.

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Independent Electricity System Operator
120 Adelaide Street West, Suite 1600
Toronto, ON M5H 1T1

RE: Waterloo North Hydro Comments on the draft Scope of Work for the 2019 Achievable Potential Study

To Whom It May Concern:

Waterloo North Hydro Inc. (WNH) has reviewed the draft Scope of Work (SOW) for the 2019 Achievable Potential Study (APS) and has the following comments:

- (1) Approach – The approach outlined in the SOW is a measures based approach, where a lengthy list of measures is developed and then applied to sectors and sub-sectors. Although this approach is common and comfortable, WNH believes this approach fails to take into account several factors including:
 - a. Technology –The measures based approach uses known and potentially a small percentage of fringe or future measures and applies them to the sectors and sub-sectors, thereby developing the achievable potential. With technology changing rapidly and it is very difficult to speculate where different technologies will be in 2021, let alone 2038 and therefore the measures fail to identify the true savings potential.
 - b. Behaviours – The measures based approach can provide the technical, economic, and achievable potentials, but it fails to take into account the different behaviours and operating conditions under which sectors and sub-sectors conduct business and make decisions. For example, a school board may accept a project with a simple payback of six years, whereas a manufacturing facility competing in the automotive sector may not accept a project that has a simple payback greater than two years. Furthermore, the measures approach force fits measures rather than naturally looking at what measures are suitable for and affect sectors and sub-sectors based on the operating requirements within each sector and sub-sector.

WNH recommends taking a data and comparison approach, an approach that focuses on the potential in buildings, facilities, etc. based on comparing the top performing buildings and facilities with poorly performing buildings and facilities within sectors and sub-sectors. This approach shows the achievable potential that exists in each building and facility within sectors and sub-sectors, rather than the achievable potential based on savings from specific measures.

The approach is not focused on specific technologies and measures, but rather the potential savings that various buildings and facilities can provide regardless of technology, and as a



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result reduces the focus and fitting of specific technologies to sectors and sub-sectors. In addition, a data and comparison approach includes potential from measures such as retro-commissioning, and behavioural, etc. that are very difficult to apply in a measures based approach. Although an approach of this nature has not been taken within the industry, it would certainly provide the Province of Ontario the opportunity to demonstrate its leadership in the energy efficiency and demand side management markets.

- (2) Deliverables – The SOW noted that the results were going to be broken down into the 10 IESO zones and 4 natural gas zones. Although a breakdown by IESO and natural gas zones does provide a better level of visibility into what the achievable potential would be as compared to a provincial achievable potential, there are still significant differences in the makeup and communities within each of the 10 IESO zones and 4 natural gas zones.

WNH feels it would be far more valuable to increase the level of granularity by which the results and dynamic model be based beyond the proposed 10 IESO zones and 4 natural gas zones. For example, having the results broken down into smaller zones, such as local distribution company (LDC) distribution territories would not only provide a more refined and useful APS, but would also allow for LDC and community specifics to be integrated into the study and modified in the dynamic model. This deliverable not only provides increased resolution and a more useful APS, but also provides greater ratepayer value as it would avoid a potential situation where a consultant approaches each LDC after the fact to provide LDC specific APS's. Furthermore, this deliverable would also help to inform future conservation and demand management and demand side management frameworks.

Should you have any questions, concerns or require any clarifications, please contact Jeff Quint by email at jquint@wnhydro.com or phone at 519-888-5596.

Sincerely,

Jeff Quint
Manager, Energy Efficiency and Corporate Communications
Waterloo North Hydro