

NextBridge Infrastructure (NextBridge) Contractor Questionnaire

Company Name:	Maintenance LP, a partnership between Hydro One and Supercom Industries
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EMR:	

A.	Organization	Reference	Contractor Information
1	Please describe your company's business organization (corporation, partnership, joint venture, etc.) and years founded. Is your company in good standing and is authorized to do business in the Province of Ontario?	SOW Page 4	Maintenance LP is a partnership between Hydro One and Supercom Industries. Hydro One is Ontario's largest electricity transmission and distribution provider with almost 1.4 million valued customers, almost \$27.1 billion in assets and 2019 annual revenues of almost \$6.5 billion. We are one of only six utility companies in Canada to achieve the Sustainable Electricity Company designation from the Canadian Electricity Association. Through Hydro One Telecom Inc.'s extensive fibre optic network, we also provide advanced broadband telecommunications services on a wholesale basis. Hydro One Limited's common shares are listed on the Toronto Stock Exchange (TSX: H).
2	How many years have your company been performing high voltage T/S operations and maintenance work? Please briefly describe your company's work presence in Ontario, total number of employees, number and location of field offices.	SOW Page 4	Hydro One has had a presence in Ontario for over 110 years now. Our team of approximately 8,800 skilled and dedicated employees proudly build and maintain a safe and reliable electricity system which is essential to supporting strong and successful communities. In 2019, Hydro One invested almost \$1.7 billion in its 30,000 circuit kilometres of high voltage transmission and 123,000 circuit kilometres of primary distribution networks and injected approximately \$1.4 billion into the economy by buying goods and services in Ontario. We are committed to the communities where we live and work through community investment, sustainability and diversity initiatives. We operate 5 Lines Operation Centers in general proximity to this Transmission Development with a total staff of 50 including Line Maintainers, Technicians and Managerial Staff. <ul style="list-style-type: none"> • Sault Ste. Marie • Nipigon • Marathon • Geraldton • Thunder Bay
B.	Qualifications	Reference	Contractor Information
3	Does your company meet the minimum qualifications to perform the activities outlined in the SOW? Please provide the average years of experience of field personnel responding to restoration & repair of high voltage lines and equipment.	SOW Page 4	Hydro One staff meet or exceed all standards in the Province of Ontario for work in the electrical trade. Trade's staff are Red Seal Journeypersons with additional specialized training in Hydro One work methods. The average years of experience for field personnel is 15 years.

4	List and briefly describe large T/S projects that you have worked on, preferably in Ontario over the last 5 years.	SOW Page 4	Hydro One owns and operates 98% of the transmission network in Ontario. The company has a capital program delivering projects exceeding \$1.5 billion annually to expand the electricity grid and renew and modernize existing infrastructure. Some of the large recent projects include H7L/H11L Transmission Line Replacement, D6 Line refurbishment and Barrie Area Transmission Upgrade project. We continue to make investments to maintain and upgrade our system. We work with communities to ensure that our transmission system has sufficient capacity to deliver a safe and reliable supply of electricity.
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C.	Safety and Quality	Reference	Contractor Information
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5	Please provide a copy of your company's quality control & safety program for high voltage work.	SOW Page 3 and PGCCW Sec. 21.0	Hydro One owns and operates 98% of the transmission network in Ontario. The company has detailed quality control and world class safety programs for operation and maintenance of the electrical facilities but these documents are considered proprietary in nature. Upon signing an NDA, these documents can be made available for NextBridge's review.
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6	Please provide a copy of your company's procedures for field and work practices and methods for transmission line work.	SOW Page 3 and PGCCW Sec. 21.0	Hydro One owns and operates 98% of the transmission network in Ontario. The company has detailed work methods and practices for operation and maintenance of the electrical facilities but these are considered proprietary in nature. Upon signing an NDA, these documents can be made available for NextBridge's review.
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D.	Experience and Capabilities	Reference	Contractor Information
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7	Please briefly describe the depth of experience of field personnel that would be responding to high voltage T/S operations and emergency restoration callouts.	SOW Page 4	Staff likely to respond to emergency restoration callouts are well versed and experienced in high voltage T/S operations and trouble response. Staff from the local operations centers are accustomed to working on transmission assets of similar construction and in similar conditions i.e. topography, climate, remoteness and access challenges.
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8	Please briefly describe the plan & availability for a quick mobilization and deployment of crews, equipment & resources for an unforeseen storm restoration on the East-West Tie system	SOW Page 5	Hydro One has staff on call in strategically placed work centers to respond quickly to an event. Knowledgeable first response crews communicate extent of damage, local staff are deployed to make safe, establish work protection and provide a detailed account of damage. Appropriate stakeholders (with support of Engineering Design, Technical Services, Grid Control Center) define the plan for response (temporary bypass/permanent replacement etc). The appropriate hardware/towers are shipped and the required resources and equipment are deployed. Support staff are deployed to address real estate, environmental and safety issues.
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9	Please provide a list of equipment availability (bucket trucks, trailers, wire pullers, etc.) and other specialty equipment that you could supply for an unforeseen storm restoration on the East-West Tie system.	SOW Page 5	In total, Hydro One'sTx Lines has 440 heavy equipment units designed and capable for transmission type operations. These include on-road and off-road aerial devices and rbd's, cranes, personnel carriers, augers, drills, excavators, float trailers with tractors, and puller/tensioners. Hydro One Helicopter Services has in total seven A-Star helicopters and one Twin-Star capable of supporting transmission operations plus a network of pre-qualified contractors. Within general proximity to the East-West Tie system is the Thunder Bay hanger with a dedicated pilot and a heli-contractor situated in Wawa. From within the Hydro One operations centers in general proximity to the East-West Tie system there should be ample equipment available to respond to a large scale storm event if prioritized and the provincial fleet network could be accessed if required.
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10	Please briefly describe the electrical operation areas that your company normally performs with its own forces and subcontractors.	SOW Page 5	Hydro One has an extensive network of Transmission and Distribution Assets serving the whole province of Ontario. Maintenance and Construction staff are strategically located in work centers throughout Ontario.
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E	Cost & Schedule	Reference	Contractor Information
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11	Please provide detailed labor & equipment rate schedules. (See tables in tabs below)	SOW Pages 3 & 4	Attached.
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12	Have you met cost & schedule objectives in your previous work engagements? If not, please state the reasons for not meeting those objectives?	SOW Page 4	Yes.
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13	Is your company willing to sign a Non-Disclosure Agreement (NDA) with NextBridge Infrastructure?	PGCCW Sec. 62.0	Yes, subject to review of the specific terms and conditions of the NDA.
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<p>14 Please briefly describe your experience in performing services such as ground patrols and/or comprehensive visual inspections of transmission lines?</p>	<p>SOW Page 4</p>	<p>Hydro One deploys knowledgeable line trade staff to perform cyclic ground patrols as requested by the Asset Management team. A well defined scope has been developed and is executed by the patrol staff. Staff are equipped to correct minor deficiencies during the patrol and to record all the deficiencies along with a priority rating. Defects are assessed and actioned (according to priority rating) following the patrol. Hydro One has been conducting comprehensive visual inspections by helicopter since 1990 with exceptional results. In addition to identifying defects, asset condition ratings for key components are recorded and are utilized by the Asset Management team to define work programs to replace components that are nearing end of life.</p>	
<p>15 Please provide an example of a recent transmission installation and/or repair work for high voltage lines (i.e. conductor, guys, OPGW, insulators, etc.). In addition, describe your experience with access to the transmission ROW.</p>	<p>SOW Page 4</p>	<p>Lines Staff were recently deployed by System Control to respond to an unplanned interruption on a 500 kV Circuit. The fault was a red phase-blue phase-ground. This is indicative of a sub-conductor failure on the top (red) phase. P&C provided a distance to fault and the location of the failure was quickly identified by Lines Staff. The Lines Technician and Line Trade Supervisor assessed the failure and took the following actions: Met with property owner to secure off-corridor access to the fault location. Followed up with Land Use Agent to formalize agreement and make provision to compensate for property damage. Mobilized bucket truck to site. Mobilized general contractor to lay down mats to allow rubber tired vehicles / Bronto to site. Determined wire size/tension and developed rigging plan to make repairs. Deployed staff to retrieve the appropriate conductor, sleeves, presses, dies and rigging. Made repairs. In addition, staff recorded their observations on site, took photos and kept all failed components for further analysis. Following the event Lines Staff, Staff from Engineering Design and Asset Management met to debrief and develop a follow up plan to prevent any similar occurrences. Right of Way access in this case was across privately owned property where Hydro One has a easement and across privately owned property where Hydro One does not have an easement. Hydro One staff are knowledgeable about property rights and respectful to the land owners.</p>	
<p>G. System Emergencies and/or Storm Damage</p>		<p>Reference</p>	<p>Contractor Information</p>
<p>17 Please briefly describe your process in responding to outage situations</p>	<p>SOW Page 3</p>	<p>System control have a well defined dispatch procedure for unplanned work. The appropriate staff (Station Maintenance/Lines/P&C) are deployed based on the protection scheme that has been activated. Responding staff communicate the findings back to System Control and the appropriate actions are taken to resolve the issue.</p>	
<p>18 Please briefly describe how you will respond in the event that EWT transmission line wires and/or structures are down across a major highway, rural areas or across other transmission lines</p>	<p>SOW Page 3</p>	<p>Local (on-call) Lines Staff will be deployed by System Control to respond. P&C will be dispatched to provide a distance to fault if the location of the fault is not obvious. Responding staff will report findings back to System Control. Responding staff will make the scene safe and establish work protection so conductors can be isolated and de-energized. Appropriate stakeholders (with support of Engineering Design, Technical Services, Grid Control Center) define the plan for response (temporary bypass/permanent replacement etc). The appropriate hardware/towers are shipped and the required resources and equipment are deployed. Support staff are deployed to address real estate, environmental and safety issues.</p>	

Maintenance Services

Job Role/Piece of Equipment (Approximate Equivalent)	T&M Rate	Per Diem
ATV/UTV 4X4		
Helicopter for aerial inspections		
Pick-up 4X4		
Snowmobile		
Helicopter Pilot		Included in rate
Mechanic		Included in rate
Lineman		Included in rate
General Helpers		Included in rate
Superintendent/Supervisor/Project Manager		Included in rate
Forester		Included in rate
Subject Matter Expert		Included in rate

Proposed Additional Job Role(s)/Equipment	T&M Rate	Per Diem

Maintenance Activities as a Result of Inspections

Job Role/Piece of Equipment (Approximate Equivalent)	T&M Rate	Per Diem
Helicopter for minor maintenance for insulator replacements, OHGW repairs, etc.		
ATV/UTV 4X4		
Pick-up 4X4		
Snowmobile		
Helicopter Pilot		Included in rate
Mechanic		Included in rate
Lineman		Included in rate
General Helpers		Included in rate
Superintendent/Supervisor/Project Manager		Included in rate
Forester		Included in rate
Subject Matter Expert		Included in rate
Proposed Additional Job Role(s)/Equipment		Per Diem

