



London Hydro Inc.

# Request for Proposals Smart Metering Installation Services

**PROPOSAL NO. T2009-N-12**  
V1.1

July 31, 2009  
London Hydro Inc.  
111 Horton Street  
P.O. Box 2700  
London, Ontario  
N6A 2T7

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APPENDIX A	Ministry of Energy (MoE) Functionality Specification for an Advanced Metering Infrastructure Version 2 (Dated July 14, 2007)
APPENDIX B	Safety Documents / Procedures
APPENDIX C	Pricing and Compliancy Spreadsheet
APPENDIX D	Meter Demographics
APPENDIX E	London Hydro Standard Terms and Conditions

## Section 1: Introduction

Due to the tight timeframes, customer impacts, billing system interfaces, safety concerns and the high volume of meter installations required from an early point in this project, London Hydro requires Bidders to have demonstrated significant Electrical Smart Meter Installation experience. The Bidder **must** have demonstrated experience installing Electrical Smart Meters in the Province of Ontario, and **must** have demonstrated experience installing over 400,000 Electrical Smart Meters, managing the project through a dispatch centre/call centre using Work Force Automation tools.

### 1.1.1 Background

London Hydro Inc. has over 135,000 legacy meters installed in the City of London.

London Hydro Inc. has been working through the planning and preparation stages for the Smart Meter Initiative and is nearing completion of a trial implementation phase involving several thousand installed Smart Meters.

London Hydro Inc. wishes to procure Installation Services from a qualified Bidder at a firm, fixed price; this documentation sets out the procedural and technical requirements of London Hydro for their Advanced Metering Infrastructure (AMI) System Installation service requirements.

### 1.1.1 Provincial Context for Project

In order to fulfill its obligations under the commitment made by the Ontario Government, London Hydro is planning to replace all meters that need to be replaced with a Smart Meter by the end of December 2010.

### 1.1.2 Local Context for Project

London Hydro intends to use a qualified contractor to install approximately 130,000 Smart Meters while London Hydro staff will install approximately 2,000 meters that are transformer rated and polyphase types. As the project progresses and if jointly agreeable, a percentage of polyphase meters may be installed by the Bidder. The installer will be expected to provide a range of services related to the management and coordination of the project that supplement the physical meter exchange as outlined in Section 6.

London Hydro's plan is to evaluate Bidders as objectively as possible with the end goal of selecting the best-fit service provider for implementation services, thereby allowing London Hydro to achieve our goals, as well as those of the provincial smart meter mandate.

London Hydro values Customer Service and Safety.

### 1.1.3 London Hydro Smart Meter System Overview

London Hydro has awarded a contract to KTI Ltd. for a Sensus Flexnet Metering System and supply of Smart Meters. The system consists of nine antennae sites located throughout the City of

London communicating with the meters in the 900MHz range. These Advanced Metering Regional Collectors (AMRC's) are known as TGB's (Tower Gateway Base Stations). London Hydro is using its own licensed frequency.

The TGB's will communicate over a fully redundant wireless backhaul network operating in the 5.8GHz range to the Advanced Metering Control Computer (AMCC) known as the RNI (Regional Network Interface) at the London Hydro offices. London Hydro is hosting the metering data on its own servers. London Hydro has also recently upgraded to an SAP Customer Information System (CIS). Automated workforce management tools will be required to interface with this system for purposes such as Billing and Inventory.

Meters will be expected to be initiated as part of each install using a Sensus handheld device supplied by London Hydro.

Please refer to the **Demographic Summary in Appendix D** for information regarding customer count, meter count, etc.

#### **1.1.4 Terminology**

Terminology as defined by the Ministry of Energy in their Functional Specification for an Advanced Metering Infrastructure Version 2 (dated July 5, 2007), Section 3, Definitions will be used for this RFP. This document has been included as Appendix "A". Other terms that have been utilized in this document, which have not been defined in the aforementioned document, have been defined in Section 1.1.5 Other Terms.

#### **1.1.5 Other Terms**

**Bidder** shall refer to the vendor proposing a solution to this RFP document by submission of a Proposal.

**Costs and Price.** Within this document, the terms "Costs" and "Price" are used interchangeably.

**Proposal** shall mean the Bidder's written response provided to London Hydro in accordance with this RFP. The Proposal shall include all written material submitted by Bidder as of the date set forth in the Key Dates (Section 2.1 Key Dates).

**Unsafe Meter** shall mean meters, meter bases, or other infrastructure which creates an unsafe situation for the meter installer or for the general public. This can include situations where access to the meter for the purpose of meter exchange poses a safety risk (i.e. confined spaces). The manner in which Unsafe Meters are to be dealt with has been detailed in Section 3.2.2 Unsafe Meter Bases.

**Refused Access** shall refer to situations where the customer is present at the location where a meter exchange is required, but refuses access to the meter. It is expected that the Installer would accommodate unique situations such as Refused Access through the policies and procedures which London Hydro have requested in Section 7: Customer Communications.

**Non Installable Account** is the term used by the Bidder to indicate that the Bidder has been unable to install a Smart Meter at a required location for reasons that are defined in Section 6.1.2.

**Installer** shall refer to the successful Bidder. The term Installer will be used when stating future requirements to be performed by the successful Bidder.

**Field Service Representative (FSR) or Field Service Personnel** shall refer to the employees of the Installer which are actually performing the work.

**Electrical Contractor** shall refer to the Electrical Contractor retained by London Hydro for work such as meter base repairs and for other services not included as the Bidder's responsibility.

**Dispatch** is a function carried out by the Bidder's Call Centre including coordinating and

scheduling meter installations.

**TGB** is the Tower Gateway Base Station and will be the term used when referring to the Advanced Metering Regional Collector (AMRC).

**RNI** is the Regional Network Interface and will be the term used when referring to the Advanced Metering Control Computer (AMCC).

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## Section 2: Instructions to Bidders

This Request for Proposals (RFP), establishes the system products and services that London Hydro wishes to acquire. This bid document is the basis upon which London Hydro seeks firm proposals from selected Bidders and upon which proposals will be evaluated.

The **Pricing and Compliancy spreadsheet in Appendix C is explained in Section 2.4.2.** This will be a separate spreadsheet file in MS-Excel format that contains scoring criteria, the compliancy signoff sheet that is to be printed and included with the response, and tabs that allow for entry of pricing information.

The Meter Demographics in Appendix D will be provided in electronic format **and is to be considered confidential.**

### 2.1 Key Dates

Below is the expected timeline that London Hydro will be following during the evaluation of submitted proposals. As can be seen, it is the intention of London Hydro to issue the RFP by July 31, 2009 allow 3 weeks for the vendors to **respond by August 21, 2009** and 3 weeks for London Hydro to evaluate, with the contract being awarded by September 11, 2009.

<b>Installation Services RFP released:</b>	<b>July 31, 2009</b>
<b>Intention to bid:</b>	<b>August 7, 2009</b>
<b>Final Questions Due:</b>	<b>August 12, 2009</b>
<b>Answers to Questions:</b>	<b>August 17, 2009</b>
<b>Time (Proposals Due) 3:00pm:</b>	<b>August 21, 2009</b>
<b>Vendor Presentation:</b>	<b>TBD</b>
<b>Contract Award: By;</b>	<b>September 11, 2009</b>
<b>Anticipated Start Date:</b>	<b>October 1, 2009</b>
<b>Interim Milestone - 80,000 Meters:</b>	<b>March 31, 2010</b>
<b>Required Project Completion Date:</b>	<b>December 31, 2010</b>

### 2.2 Intention to Bid

Recipients of this RFP are asked to inform London Hydro of their intention to bid, by completing the **Intention to Bid Form** found in Section 2.17 Proposal Forms, and by submitting this form by the date shown in Section 2.1 Key Dates (August 7, 2009).

Recipients that express intention to bid will be included in all correspondence (if any) during the bidding process. Please provide full contact information and expression of intention via the provided form to London Hydro contact named in Section 2.4 Submission of Bids (Tom Beacock, Purchasing Coordinator [beacockt@londonhydro.com](mailto:beacockt@londonhydro.com)).

## 2.3 Components of Service

It is the intent of London Hydro to procure a turn-key solution. There are several major components to this turnkey solution. London Hydro reserves the right to award some, none, or all of the components through this process to one or many Bidders.

## 2.4 Submittal

Proposals submitted in response to the RFP will be submitted in hard copy by **3:00 PM Eastern Time on August 21, 2009** (the due date, as per Section 2.1 Key Dates) to:

**Tom Beacock**  
**Purchasing Coordinator**  
**London Hydro**  
**111 Horton Street P.O. Box 2700**  
**London Ontario N6A 4H6**

Bidders are requested to submit bids that are complete and unambiguous without the need for additional explanation or information. London Hydro reserves the right to make a final determination as to whether a bid is acceptable or unacceptable solely on the basis of the bid as submitted, and proceed with the bid evaluation without requesting further information from any Bidder. If London Hydro deems it desirable and in its best interest, London Hydro may, in its sole discretion, request from any Bidder or Bidders additional information clarifying or supplementing any submitted bid.

Proposals received after the due date will remain unopened and will be returned to the Bidder. London Hydro does not currently plan to grant extensions of the proposal due date, but reserves the right to do so. In the unlikely case that an extension is granted, notice of such extension will be provided to all Bidders at least one week prior to due date. Proposals will be submitted in hard copy to the street address above.

### 2.4.1 Submission Requirements

- 1) A complete Proposal will consist of one (1) original and four (4) hard copies complete with all supporting data, and one (1) electronic soft copy complete with all supporting data.
- 2) Accompanying the Bidder's response document should be the **Bid Submission Form** provided in Section 2.17 Proposal Forms.
- 3) The required format of the Bidder's response document is outlined in Section 2.4.3 Proposal Format Instructions
- 4) The **Pricing and Compliancy Spreadsheet** will allow for the Bidder to enter their pricing information in a standard format, as well as allow the Bidders to state compliancy with the appropriate Health and Safety Requirements. Failure to properly complete this document is grounds for disqualification, as highlighted in Section 2.4.4 Grounds for Disqualification.
- 5) The original hard copy shall be clearly identified as "ORIGINAL"; the remainder (i.e. four copies) shall be marked as "COPY". In the event of discrepancy between the copies of the Proposal Submission, the one marked "ORIGINAL" shall prevail. Each Bidder's submission shall consist of the required documents with the required number of copies of all commercial information, including pricing, terms and conditions and exceptions (if applicable). Faxed, emailed or late Proposals will not be accepted. Proposals must be sealed and marked clearly quoting the Proposal Number referred to on the cover sheet of the Proposal Documents. The

- use of any means of delivery of a Proposal shall be at the risk of the Bidder.
- 6) Any Bidder wishing to provide additional information other than what is requested in the RFP Document must provide this information in a separate document or section labeled clearly as “Additional Information”. A tab in the Pricing and Compliancy Spreadsheet in Appendix C allows for optional pricing. Any Additional Information or any unsolicited value-added alternatives may, in the absolute discretion of London Hydro, be given due consideration, or not.
  - 7) London Hydro shall not be liable for, nor shall it reimburse any Bidder for costs incurred in the preparation of Proposals, or any other services or samples that may be requested as part of the evaluation process.
  - 8) The Proposal Forms shall be signed under the Corporate Seal of the Bidder, by the duly authorized signing officer(s). All submitted pages shall be initialed by such officer(s). The authorized official shall certify that all information is true, accurate and complete, and shall further certify that the proposal will remain valid for 120 days from the date submitted, and that upon award of contract all prices shall be firm and valid for the duration of the contract.
  - 9) **Bids shall be accompanied with a certified or cashier’s cheque or Bidder’s bond in the amount of five-thousand dollars (\$5,000.<sup>00</sup>)** and made payable to London Hydro Inc. Said cheque or bond shall be given as a guarantee that the Bidder will, if selected, enter into final contract negotiations. If a Bidder’s proposal is not accepted by London Hydro within the validity period of the contract (120 days), or if the successful Bidder executes and delivers a contract, the certified cheques or bid bonds will be returned.

#### **2.4.2 Pricing and Compliancy Spreadsheet**

The **Pricing and Compliancy spreadsheet**, a Microsoft Excel workbook, has been provided with this document with the file name **London Hydro Installation RFP \_Pricing Sheet\_ July 2009.xls**. The following tabs are included within this Pricing Spreadsheet:

- i)** Compliancy: This tab requires completion by the Bidder, and will act as their compliancy statement according to the requirements of Section 2.4.4 Grounds for Disqualification
- ii)** Pricing 1: This tab requires completion by the Bidder, and is the pricing for the Bidder to provide installation services as outlined within this RFP.
- iii)** Pricing 2: This tab requires completion by the Bidder if the Bidder cannot meet the March 31 interim target or a more uniform implementation schedule would result in a significant price reduction.
- iv)** Optional: This tab is optional and allows the Bidder to provide pricing in an alternative format, should they desire to do so, and are of the opinion that their services are better represented with pricing apart from that outlined on the Pricing\_Option1 tab. Bidders are free to add additional pricing tabs as required should they feel that there are more than one alternative option which may allow for more competitive pricing.  
**Note: All tabs associated with Pricing\_Option1 are mandatory; Pricing\_Option2 and Pricing\_Option3 are optional.**
- v)** Evaluation: this tab is for reference, it is a copy of the table that is shown in Section 2.10 Basis of Award.

### 2.4.3 Proposal Format Instructions

Each Bidder's response will be organized as per the following:

- a) Section 1 of the proposal will contain the **Bidder's Executive Summary**, no more than two pages in length that introduces the Bidder and highlights key features of the proposal.
- b) Section 2 of the proposal will contain the **Statement of Compliance** that is included within the Pricing and Compliancy Spreadsheet, and which is described in Section 2.4.2 Pricing and Compliancy Spreadsheet, subsection i).
- c) Section 3 of the Bidder's proposal will contain the requirements of Section 3 of this RFP Document (Section 3: **Health and Safety**), in the order presented in this document, with the numbering used in this document.
- d) Section 4 of the Bidder's proposal will contain a statement of recognition that the Bidder understands London Hydro's **Schedule for Deployment**, and that they are providing a bid response with the intention of performing the required services for London Hydro. Given that there are Smart Meter deployments occurring across the province, Bidders have the opportunity within this section to demonstrate, through submitted documentation / statements, how they will be able to accommodate the unique requirements of London Hydro (i.e. staffing for the timelines projected).
- e) Section 5 of the Bidder's proposal will contain the requirements of Section 5 of this RFP Document (Section 5: **Bidder Information**), in the order presented in this document, with the numbering used in this document.
- f) Section 6 of the Bidder's proposal will contain the requirements of Section 6 of this RFP Document (Section 6: Installation Services), in the order presented in this document, with the numbering used in this document.
- g) Section 7 of the Bidder's proposal will contain the requirements of Section 7 of this RFP Document (Section 7: Customer Communications), in the order presented in this document, with the numbering used in this document.
- h) Section 8 will contain the summary pages pertaining to the Price Offer, contained within the Pricing and Compliancy Spreadsheet. The Bidder's detailed itemized pricing information for all goods or services is to be contained within the Pricing and Compliancy Spreadsheet which is to be included with the response. Alternative pricing offers may also be included within the Pricing and Compliancy Spreadsheet (tab Pricing2 and Optional Pricing are included for this purpose, as described in Section 2.4.2 Pricing and Compliancy Spreadsheet). All pricing shall be expressed in Canadian currency, exclusive of taxes.

#### 2.4.3.1 Response Requirement Indicators

Within the section or subsection headings found later in this document an indicator has been included to specify whether the Bidder should provide information or a statement of compliancy or both, with respect to the section. Where no indicator is included, a response is not required.

- (I)** When an (I) has been included with the section heading, London Hydro requires Information regarding the proposed system's functionality, and the methodology utilized to satisfy the RFP requirement.
- (C)** When a (C) has been included with the section heading, London Hydro requires a statement of compliancy from the Bidder. Within the proposal documentation, the Bidder is required to state the compliancy with the requirements by stating Fully Compliant, Partially Compliant, or Not Compliant.
- (CI)** When a (CI) has been included with the section heading, London Hydro requires a statement of compliancy, and Information regarding the proposed functionality, and the methodology utilized to satisfy the RFP requirement.

#### **2.4.4 Grounds for Disqualification**

It is a requirement of this RFP document that the Bidders submitting proposals for evaluation complete a compliancy spreadsheet which will attest to the Bidder's compliance with the Health and Safety Policies and Procedures as outlined in Section 3.1 London Hydro.

In addition to having read section 3.1, and all applicable subsections, the Bidder agrees that their company's own Health and Safety Policies will, at minimum, meet London Hydro's Safety Policies, and that their bid response will provide the information to properly satisfy the requirements of Section 3.2 Safety (and applicable subsections), and that the content of the response is consistent with the policies being agreed to here.

**NOTE: Failure to complete these compliancy documents (found within the Pricing and Compliancy Spreadsheet; tab entitled "Compliancy", or where compliancy has been misrepresented, London Hydro reserves the right to disqualify the Bidder from contention of the RFP process.**

#### **2.5 Clarifications**

Upon the issuance of this RFP to Bidders, and continuing through the submission date, all questions or other communications with London Hydro shall be by email only, with London Hydro's authorized representative, whose contact information is provided in Section 2.4 Submission of Bids.

London Hydro will respond to the question in writing, with both the question and response provided to each Bidder that has declared intention to bid according to Section 2.2 Intention to Bid. No response will be made to questions submitted after August 17, 2009 (as per Section 2.1 Key Dates).

#### **2.6 Modifications or Withdrawals of Bids**

A Bidder may modify or withdraw its bid by written declaration, provided that the declaration is received by London Hydro at the above address prior to the time specified for the submission of bids (the due date). Following withdrawal of its bid, a Bidder may submit a new bid, provided that such new bid is received by London Hydro prior to the due date. The last bid received by London Hydro shall supersede and invalidate all bids previously submitted by the Bidder.

London Hydro may modify any provision of the Request for Proposal at any time prior to the due date. Such modifications may be made in the form of addenda, which will be issued simultaneously to all prospective Bidders that have declared their intention to bid. No addenda will be issued within five calendar days of the due date.

#### **2.7 Addenda: Errors and Omissions**

If a Bidder discovers any ambiguity, conflict, discrepancy, omission or other error in this RFP, immediately notify Tom Beacock, in writing, of such error and request clarification or modification to the document. Should London Hydro find it necessary, modification to the RFP will be made by written addenda to the RFP. Such modifications will be given to all parties who have been recorded by London Hydro as having been furnished an RFP. If a Respondent fails to notify London Hydro of a known error or an error that reasonably should have been known prior to the final filing date for submission, the Bidder shall assume the risk. If awarded the contract, the Respondent(s) shall not be entitled to additional compensation or time by reason of the error or its late correction.

## 2.8 Vendor Presentations/Post-Bid Meeting

London Hydro reserves the right to invite any or all Bidders to make an in-person presentation on the proposed smart meter installation services.

## 2.9 Review Criteria

The award, if any, will be made to the best Bidder(s). In evaluating whether a vendor is the best Bidder, the review committee may utilize some or all of the following criteria in addition to any mentioned throughout this RFP:

- Information submitted in the proposal.
- Information obtained from the listed references.
- Technical merit.
- Experience, qualifications, and references of the firm.
- Proposal's responsiveness to the scope of work and minimum requirements.
- Demonstrated experience Electrical Smart Meter install
- Competitive price.
- The quality of the product and services offered.
- The capacity of the vendor to perform the contract or provide the service promptly, within the time specified, and without delay or interference.
- The sufficiency of the vendor's financial resources.
- The character, integrity, reputation, judgment, training, experience and efficiency of the vendor.

Bidders are advised that London Hydro's ability to evaluate proposals is dependent in part on the Bidder's ability and willingness to submit proposals which are well ordered, detailed, comprehensive, and readable. Clarity of language and adequate, accessible documentation is essential.

## 2.10 Basis of Award

The following criteria will be of major importance in making the selection.

**Table 1 Proposal Evaluation Weightings**

• Price	50
• Project Management	20
• Volume/Ability	7
• Quality/Safety	7
• Call Centre Dispatch & Customer Communications	7
• Work Force Management Tools	5
• Corporate Evaluation/Stability	4

London Hydro reserves the right to award in whole or in part, whatever is deemed to be in its best interest.



### **2.11 Award or Rejection**

Issuance of this RFP does not constitute a commitment by London Hydro to award a winning Bidder or purchase products or services offered in response to this RFP. London Hydro reserves the right to reject any or all bids. London Hydro will not reimburse Bidders' costs to respond to this RFP.

### **2.12 Contract and Statement of Work**

The successful Bidder will be required to sign a standard terms and conditions contract issued by London Hydro.

A Bidder may be required to participate in Statement of Work negotiations and to submit any price, technical or other revisions to its proposal which may result from such negotiations.

This RFP and the successful Bidder's response, including all promises, warranties, commitments, and representations made in the successful proposal, shall be binding and incorporated by reference in London Hydro's contract with the successful Bidder.

Any conditions and provisions that a Bidder seeks shall be a part of this proposal. Notwithstanding, nothing herein shall be interpreted to prohibit London Hydro from introducing or modifying contract terms and conditions during negotiation of the final contract.

London Hydro has scheduled no more than ten business days for contract negotiations (if necessary), and expects the successful Bidder to maintain a prompt and responsive negotiation to accomplish and complete final contract agreement within that time period. If contract negotiations exceed an interval acceptable to London Hydro, London Hydro retains the option to terminate negotiations and continue to the next apparent successful Bidder, at the sole discretion of London Hydro. Said interval shall in no event be less than three weeks (15 business days).

### **2.13 Option to Extend Pricing and Terms of Contract to Other Utilities**

The Bidder is asked to comment on the possibility of extending the terms and pricing of this contract to other Utilities that may be interested in sharing and coordinating these services.

### **2.14 Freedom of Information**

Proposals submitted to London Hydro become the property of London Hydro and, as such, are subject to the Freedom of Information and Protection of Privacy Act, R.S.O. 1990, c. F.31, as amended.

### **2.15 Ownership of Data**

London Hydro shall own all data used and/or collected by any systems being utilized to perform the services. Data shall not be used for any purpose without the approval of London Hydro.

## 2.16 Conflict of Interest

The Bidder is required to disclose in its Submission and on an ongoing basis thereafter any conflict of interest, real or perceived, that exists now or may exist in the future, with respect to this RFP, any resulting contract, or in relation to London Hydro or their affiliates.

## 2.17 Proposal Forms

Within this section, there are two forms required for submission

- i) The Intention to Bid Form
- ii) The RFP Submission Form.

### 2.17.1 Intention to Bid Form

Bidders intending to respond to this RFP should notify the contact, using the contact information provided in Section 2.4 Submission of Bids, according to the time line as established by Section 2.1 Key Dates, by sending an email with the following content inserted:

#### INTENTION TO BID NOTIFICATION FORM

##### PROPOSAL NO. T2009-N-12

#### Intention to Bid:

Please allow this email to represent "Insert Company Name Here" intention to respond to London Hydro PROPOSAL NO. T2009-N-12

Contact for communication regarding bid: \_\_\_\_\_

Contact phone number: \_\_\_\_\_

Contact email address: \_\_\_\_\_

We acknowledge the requirement that our company meets the minimum Safety Requirements as outlined in Section 3. Our proposal will include the required compliance statements and documents to properly express our ability to meet these requirements. We also acknowledge the **Submission Deadline is 3:00pm Eastern Time on August 21, 2009.**

### 2.17.2 RFP Submission Form

The procedure to be utilized for the RFP Submission form is to print the following pages, and include them with the RFP submission, which should be addressed to the designated contact listed in Section 2.4 Submission of Bids, and which should be submitted according to the time line as established by Section 2.1 Key Dates.



**London Hydro Inc.**  
**RFP SUBMISSION FORM**  
**PROPOSAL NO. T2009-N-12**

FOR: Installation Services:

THIS PROPOSAL IS SUBMITTED BY: \_\_\_\_\_

ADDRESS: \_\_\_\_\_

\_\_\_\_\_

TELEPHONE: \_\_\_\_\_

FAX NO.: \_\_\_\_\_

BIDDER G.S.T. No.: \_\_\_\_\_

PERSON(S) SIGNING ON BEHALF: (print) \_\_\_\_\_

POSITION(S) OF THE PERSON(S): (print) \_\_\_\_\_

To: London Hydro Inc.

Hereafter called "Owner":

I/WE the undersigned declare:

1. THAT no Person(s), Firm or Corporation other than the one whose signature(s) of whose proper officers and the seal is or are attached below has any interest in this Proposal or in the contract proposed to be taken.
2. THAT this Proposal is made without any connections, knowledge, comparison of figures or arrangements with any other company, firm or person making a Proposal for the same work and is in all respects fair and without collusion. THE Bidder insures that no Owner and or employee of London Hydro Inc., is, or has become interested, directly or indirectly, as a Contracting Party, Partner, Stockholder, surety or otherwise howsoever in or on the performance of the said contract, or in the supplies, work or business in connection with the said contract, or in any portion of the revenues or profits thereof, or of any supplies to be used therein, or in any monies to be derived there-from.
3. THAT the several matters stated in the said Proposal are in all respects true.
4. THAT I/WE have carefully examined the requirement(s), as well as all sections of the document including Instruction to Bidders, Project Overview, Installation Services, Proposal Forms, and Appendices relating thereto, prepared, submitted and rendered available by London Hydro Inc., and hereby acknowledge the same to be part and parcel of any contract to be let for the work therein described or defined.
5. THAT I/WE do hereby Propose and offer to enter into a contract to deliver all work as described or implied therein including in every case freight, duty, exchange, G.S.T. and P.S.T. in effect on the date of the acceptance of Proposal, and all other charges on the provisions therein set forth and to accept in full payment therefore, the sums calculated in accordance with the actual measured quantities and unit prices set forth in the Proposal herein.

6. THAT Addendum/Addenda No. \_\_\_ to \_\_\_ inclusive relate to the said contract and Bidder hereby accepts and agrees to the same as forming part and parcel of the said contract.

7. THAT additions or alterations to or deductions from the said contract, if any, shall be made in accordance with the prices stated in the Schedule of Items of Unit Prices in strict conformity with the requirements of the Contract.

8. THAT this offer is irrevocable and open to acceptance until the formal contract is executed by the awarded Bidder for the said requirement(s) or One hundred twenty (120) working days, and unit prices for as long as stated elsewhere in the document, whichever event first occurs and that London Hydro Inc., may at any time within that period without notice, accept this Proposal whether any other Proposal has been previously accepted or not.

9. THAT the awarding of the contract, by London Hydro Inc., is based on this submission which shall be an acceptance of this Proposal.

10. THAT I/WE also understand that London Hydro Inc., reserve the right to accept or reject all or part of this Proposal or any other and also reserves the right to accept other than the lowest Proposal.

11. **THAT I/WE have attached bid bond of \$5000.00 five thousand dollars** as described in Section 2.4.1 9).

The undersigned affirms that he/she is duly authorized to execute this Proposal.

BIDDER'S SIGNATURE AND SEAL: \_\_\_\_\_

NAME: (Please Print) \_\_\_\_\_

POSITION: \_\_\_\_\_

(If Corporate Seal is not available, documentation should be witnessed)

WITNESS SIGNATURE: \_\_\_\_\_

WITNESS NAME: (Please Print) \_\_\_\_\_

POSITION: \_\_\_\_\_

DATED AT \_\_\_\_\_ THIS \_\_\_\_\_ DAY OF \_\_\_\_\_, 2009.  
(City/Town) (Day) (Month)

## Section 3: Health and Safety

### 3.1 London Hydro Health and Safety Policies and Procedures (C)

Sections 3.1.1 through Section 3.1.6 are requirements for which compliance is required in order for any external Installers to be permitted to provide services to London Hydro. Compliancy for this section includes Appendix B. As such, a Statement of Compliancy pertaining to each section is required, and a form has been provided within the Pricing and Compliancy Spreadsheet as outlined in Section 2.4.2.

Section 3.2 is where the Bidder is provided the opportunity to demonstrate, through the submitted documents, that their own internal Health and Safety Policies, either meet, or exceed those outlined in Section 3.1 London Hydro Health and Safety Policies and Procedures. Bidders that cannot meet, or exceed those requirements outlined in Section 3.1 London Hydro Health and Safety Policies and Procedures, or that do not (or cannot) provide completed Compliancy statements are eligible for disqualification from the evaluation process.

At London Hydro, safety is our first priority. Safety awareness must be part of the daily work routine. Contractors, therefore, are required to comply with the Occupational Health and Safety Act and its regulations in the completion of any work performed under contract. They must also comply with E&USA's safety rules and all other applicable Federal, Provincial and Municipal legislation. Contractors working out of compliance with legislation or with London Hydro's or E&USA's rules and safe work practices risk forfeiting the contract and any future work at London Hydro

It is London Hydro's policy that Contractors follow the same Safe Work Practices as London Hydro's own staff. The London Hydro Supervisor who is responsible for the work being performed by the Contractor must identify the specific Safe Work Practices that the Contractor may need to know to perform the work.

#### Contractor Orientation

1. All Contractors being hired to work on a London Hydro project must attend a safety orientation meeting with the Health and Safety Department prior to commencing work. It is the responsibility of the Supervisor hiring the Contractor to organize a safety orientation meeting between the Contractor's staff and the Health and Safety Department.
2. The Health and Safety Department will set the meeting agenda and have the contract employees sign their names to confirm their attendance. The Health and Safety Department will forward a copy of the meeting notes to the Supervisor, who will keep them on file. The Health and Safety Department will also keep the meeting notes on file.

All new workers brought on after the work has started must also attend a safety orientation meeting with the Health and Safety Department before beginning to work on a London Hydro project.

**No additional compensation will be provided for required orientation and training. London Hydro orientation could be approximately a half day.**

### **3.1.1 London Hydro Health and Safety (C)**

London Hydro proclaims that the Health & Safety of each employee is of vital importance in the successful operation of the utility.

Our objective is to develop a keen sense of health & safety awareness in each and every employee and thereby prevent personal illness/injury and damage to property and equipment.

Management is responsible for providing a healthy and safe work environment and for training employees to ensure that they can perform their duties safely.

It is the duty and responsibility of every employee to work safely with equal concern for themselves, co-workers and the public.

It is our collective responsibility to ensure compliance with legislated requirements of Occupational Health & Safety Act.

It is our commitment to provide a safe and healthy work environment by reducing hazards that cause accidents and injuries.

### **3.1.2 Installer Health and Safety Requirements (CI)**

Based on the nature of the work being procured through this RFP, and in accordance with London Hydro's Health and Safety Policy, the following items shall be received prior to the start of work:

Acknowledgement from the Installer that they are aware of and will provide documentation related to the terms and conditions as follows:

- WSIB Certificate
- NEER firm summary statement
- Liability Insurance (Min \$5M)
- Health & Safety Policy / Program
- Staff Competency List (e.g. Electrical Awareness, CPR, First Aid, etc)
- Confirmation of applicable EUSA training or equivalent.
- Equipment Capability – adheres to provincial MTO requirements.

### **3.1.3 London Hydro Contractor Health and Safety – Specific Procedures (C)**

In accordance with London Hydro's Safe Work Procedure Manual, all Installers personnel performing work, such as that being procured through this RFP shall:

- Be responsible for reporting all hazardous conditions or equipment defects to the supervisor immediately, fill out the proper documentation and assist with corrective action.
- Be responsible to report injuries and accidents to the supervisor immediately. Provide preliminary details, fill out the proper documentation and participate in any investigation as required.
- Be responsible for using and wearing at all times the appropriate personal protective and safety equipment required for the work. Wear Category 2 Flame Resistant Clothing - See Appendix B for additional information on – Protective Clothing
- Wear Class 'O' rubber gloves (and protective covers) for meter removal and installs.
- Wear Hard Hats - see Appendix B for Head Protection details
- Wear Safety glasses - see Appendix B on– Eye Protection
- Wear Safety boots – See Appendix B for Foot Protection
- Ensure meter voltage and type is correct
- Observe safe limits of approach

- Observe wiring to determine if a back feed could be present, e.g. capacitors, standby generator, co-generator
- Not remove meter if meter base is damaged or not secure
- Not remove a meter which has been identified as being under a high load condition which can generally be identified as a meter which is in excess of approximately 25% of the maximum load of a meter. The customer should be asked to switch off the major load devices or the installer should return at another time when the load is found to be within acceptable limits.
- Use meter puller and face shields when required
- Use meter lubricant (as provided by the utility)
- Ensure Traffic Safety – Contractor must comply with Occupational Health and Safety requirements in Section 67

### **3.1.4 London Hydro Health and Safety Policy: Field Service Personnel (C)**

Workers have several general duties under the Occupational Health and Safety Act. A worker must take responsibility for personal health and safety insofar as he or she is able. Under the Act, a worker must:

- work in compliance with the Act and regulations [OHS Act section 28(1)(a)];
- use or wear any equipment, protective devices or clothing required by the employer [OHS Act section 28(1)(b)];
- report to the employer or supervisor any known missing or defective equipment or protective device that may be dangerous [OHS Act section 28(1)(c)];
- report any known workplace hazard to the employer or supervisor [OHS Act section 28(1)(d)];
- report any known contravention of the Act or regulations to the employer or supervisor [OHS Act section 28(1)(d)];
- not remove or make ineffective any protective device required by the employer or by the regulations [OHS Act section 28(2)(a)]; <sup>[6]</sup>
- not use or operate any equipment or work in a way that may endanger any worker [OHS Act section 28(2)(b)]; and
- Not engage in any prank, contest, feat of strength, unnecessary running or rough and boisterous conduct [OHS Act section 28(2)(c)]. Racing powered hand trucks in a warehouse or seeing who can pick up the most boxes are examples of unsafe and unacceptable workplace conduct.

### 3.1.5 Health and Safety Duties of Contractor: Supervisor / Managers (C)

As contained in the Occupational Health and Safety Act (OHSA) the following specific duties is required for workplace supervisors. A supervisor must:

- Ensure that a worker complies with the Act and regulations [OHSA section 27(1)(a)];
- Ensure that any equipment, protective device or clothing required by the employer is used or worn by the worker [OHSA section 27(1)(b)];
- Advise a worker of any potential or actual health or safety dangers known by the supervisor [OHSA section 27(2)(a)];
- If prescribed, provide a worker with written instructions about the measures and procedures to be taken for the worker's protection [OHSA section 27(2)(b)]; and
- Take every precaution reasonable in the circumstances for the protection of workers [OHSA section 27(2)(c)].

### 3.1.6 Health and Safety Legislation That Applies (CI)

London Hydro's number one requirement will always remain the health and safety of its employees, contractors and customers. In addition to stating compliance to London Hydro Health and Safety Policies as outlined in London Hydro Safe Work Procedures Manual, the Installer shall ensure that all installation personnel complete all required training (**including utility specific training**) for meter installation, meter testing, and for the installation and testing of any other endpoint devices to be installed. London Hydro will be expected to work with the Installer to identify specific gaps in training and testing. The Installer will communicate to London Hydro how it will complete all training in advance of any installations taking place. The Bidder's ability to provide the required training according to London Hydro's Health and Safety Management System (Contractor's Package) for successful on-time deployment must be approved and properly documented by London Hydro's Project Manager of Health and Safety.

### 3.2 Safety (CI)

To reflect a similar commitment to Health and Safety, all contracted vendor's policies and procedures manuals will contain comprehensive documentation (as a complement to Completed Training Programs) regarding On-The-Job Safety, Emergency Plans, Accident/Investigation Procedures, and Contact Numbers for any possible incident occurrences, as well as Hazard Assessment Identification and Control, (including (but not limited to) Dangerous Animals, Slips/Trips/Falls, Workplace Violence, Confined Spaces and Unsafe Meter Bases).

Bidders will include with their response a current WSIB Clearance Certificate.

Additionally, all contracted field service employees will provide to London Hydro's designated Health and Safety Officer (prior to commencement of services), proof that contracted employees:

- Hold a valid drivers license,
- Hold valid drivers insurance,
- Have provided a Driver's Abstract to their employer,
- Have provided a Criminal Background Check to their employer.
- Provide proof of WSIB CAD Experience (WSIB Clearance Certificate)
- Provide proof of EUSA Electrical Safety and Awareness Course

- Provide proof of EUSA Electric Power Meters Course
- Health and Safety Training Program
- Conform to Technical, Quality Assurance, and other London Hydro specific training requirements
- Have received WHMIS Training
- Have any necessary First Aid Training/CPR Training
- Have received Customer Service Training
- Have completed In-field Training

Note: There is a requirement (as per Section 2.4.4 Grounds For Disqualification) for Bidders to declare compliancy with the appropriate safety regulations. Failure to do so will make the Bidder's response eligible for disqualification from the remainder of the evaluation.

It is the responsibility of the Bidder to ensure the safety of their staff, and to ensure that the necessary precautions are taken to ensure the security of any required tools.

- i. Bidders shall describe their training and safety program.
- ii. Bidder will provide their Health and Safety Policies and Procedures manual, complete with listing of assigned equipment, and required PPE. Documentation on the competency of staff utilizing PPE will also be provided.
- iii. Bidder will provide the Emergency procedures that are provided to their installation staff; and indication that relevant staff have been trained on the procedures.
- iv. Bidder should provide their Joint Health and Safety Committee meeting schedule/frequency, and membership.
- v. Bidder should provide details on the number of staff that meet the safety requirements as outlined.

### **3.2.1 Safety Policies (CI)**

London Hydro reserves the right to review and approve training materials and methods before the start of deployment. Bidders should note that London Hydro will be conducting their own random audit process on installation staff.

Bidders should provide details on their procedures for the handling of meter sites where installation is delayed by unforeseen circumstances such as required infrastructure upgrade, accident, or customer objection. Bidders will describe notification procedures and method for tracking the status of such sites.

Acceptable security precautions are to be maintained during all installation activities. The Installer will identify, report and resolve unsafe conditions on a daily basis or as they are identified according to established safety policies. In the case of electrical or mechanical hazards, these shall be reported to London Hydro immediately.

### **3.2.2 Unsafe Meter Bases (CI)**

Some meter bases may be identified as having a high risk of failure. These meter bases may be evaluated and deemed to be unsafe. The Installer shall not attempt, at any time, to remove a meter from a meter base that has been deemed unsafe. When encountered, the Installer will be required to identify unsafe meter bases in the WFM handheld device using the appropriate codes and notify London Hydro's Installation coordinator. Bidders shall include, within their response, a description of the procedures that are invoked upon discovery of an unsafe meter base, as well as description of the pre-installation inspection protocols which may result in discovery of an unsafe meter base. Further pre-installation inspection information and identification of unsafe conditions is covered in Section 6.2.

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## Section 4: Project Overview

Section 4 of the Bidder's Proposal shall contain a statement of recognition that **the Bidder understands London Hydro's schedule for deployment** and the deployment territory, and that they are providing a bid response with the intention of performing the required services for London Hydro. Given the diverse nature of the service territory, and that there are Smart Meter Deployments occurring across the province, Bidders have the opportunity within this section to demonstrate, through submitted documentation/statements, how they will be able to accommodate the unique requirements of London Hydro (i.e. staffing across the area, for the timelines projected).

### 4.1 Anticipated Schedule for Deployment (CI)

Section 2.1 Key Dates shows the anticipated start date for deployment, an interim milestone, and the end date required by London Hydro. Within this time frame, the successful Bidder will be required to install the quantity of Smart Meters documented in this Section 4. (The statement of recognition that is required for Section 4: Project Overview should include recognition of these timelines, and the Bidder's ability to accommodate them.) . The Bidder will be expected to meet monthly and quarterly target milestones required to accomplish the entire project.

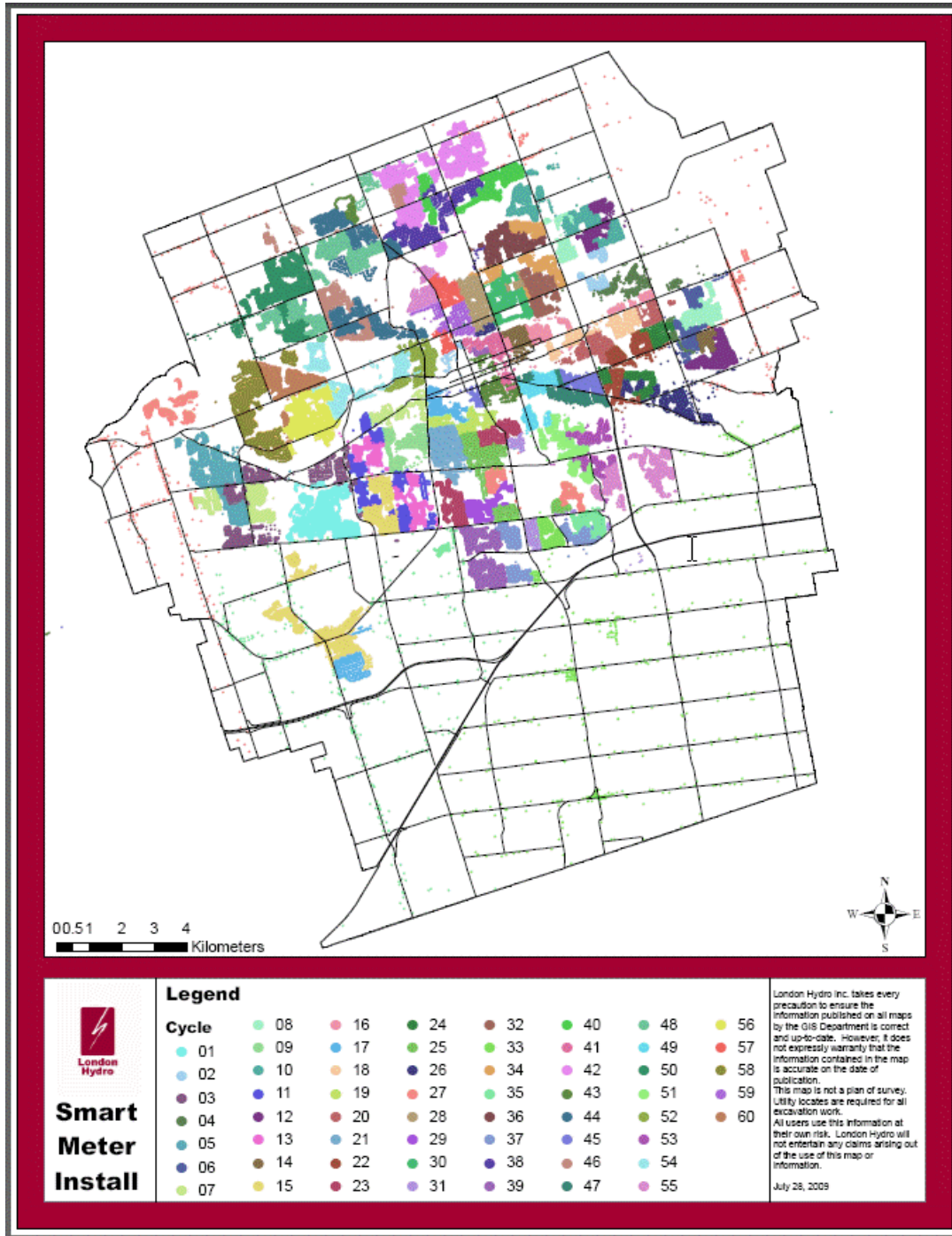
### 4.2 Approved Hours of Installation (C)

Meter installations are to take place between the hours of 8:00 a.m. to 4:30 p.m., Monday to Friday. Extended hours of 8:00 a.m. to 8:00 p.m. Monday to Friday and 9:00am to 5:00pm Saturday can be approved by London Hydro to accommodate the timelines as communicated within Section 2.1 Key Dates, to accommodate customers not available during the day Monday to Friday, or for other reasons that may be identified. No meter installations are to take place on statutory holidays observed by London Hydro. Saturday installs are acceptable with proper planning and staffing of the call center. Arrangements will have to be made in advance with London Hydro staff for any installs outside of the 8:00am to 4:30pm Monday to Friday schedule. The installer would be required to provide a minimum number of Field Service Representatives to maximize productivity for these installs. Working hours and overtime hours are defined in Section 8.12.

The Installer shall develop and maintain an installation schedule to ensure installations are completed on time and on budget without interfering with the meter-reading schedule. The Installer can modify the work schedule with permission of London Hydro to best meet installation goals and project milestones.

### 4.3 London Hydro Deployment Territory and Meter Demographics (C)

Detailed information including full scale maps is included in Appendix D – Meter Demographics. Further meter volume information is in section 4.4 The following diagram is provided in full size in Appendix D.



#### 4.4 London Hydro Installation Volumes (C)

London Hydro projects that of 135000+ total meter installations, with the exception of any reported safety concerns, approximately 130,000 will be replaced with Smart Meters by the successful Bidder. The Table below shows meter populations for London Hydro in 2009. The number of three Phase Form 16S meters that may be installed by the Bidder will depend on the Bidder's abilities, experience and demonstrated safety record.

Table 2 Meter Population

Smart Meter Type description (Form Number)	A base, requires adapter (bottom connected)	S Base (socket connected)	Location Inside	Location Meter Room (inside)	Location Outside
Single Phase (Form 2S)	328	123829	8409	5302	110446
Network (Form 12S)	131	10658	1359	9118	312
Three Phase (Form 16S)	185	5692	5540	25	312

#### 4.4.1 Electrical Contractor

London Hydro shall provide a qualified Electrical Contractor/Contractors to complete repairs to customer plant deemed necessary based on the identified safety concerns.

#### 4.5 Inventory Management (CI)

It is the intent of London Hydro to receive shipments of Smart Meters from KTI/Sensus in bulk lots and to release these bulk inventory lots after being received by London Hydro, to the Installer to manage. The Installer will be responsible for all meters from time of assuming inventory until successful installation or return for valid reason. Meter inventory systems will be required to ensure all meters transferred to the Installer can be accounted for. Meter inventory status requests and audits for meters that have been released to the Installer will be required upon request. At this time London Hydro plans to have on site storage capability for 5,000 to 10,000 meters, with the ability to separate new meter shipments from meters that that have been received and released to the Installer. London Hydro has made a commitment to maintain a specific float or buffer of inventory related to the volumes being installed per week. Additional offsite storage may be required to meet work volumes. Communications regarding projected meter requirements is critical.

For the duration of this deployment, meter installers will be required to pick up, and drop off, their inventory at London Hydro's designated location, between the hours of 7:30 am to 4:00 pm:

**London Hydro Inc.**

111 Horton Street  
London Ontario  
N6B 3N9  
519-661-5800

All pick up and delivery of meters by the Installer shall be at the designated facility for the term of this contract unless otherwise agreed upon. Field Service Personnel shall pick up new meters and equipment and return the removed meters, in the new cartons to a designated location provided by London Hydro. It is expected that the installer would normally obtain inventory once per day. No meter shall be returned without an associated transaction record and must be in actual cartons from new installs duly marked.

London Hydro will consider other proposals and options for managing inventory and would consider the option of an off site inventory solution.

#### **4.6 Office Space**

If required London Hydro will make office space available for the Installer Project Manager, for charging facilities for Work Management devices, and for docking facilities for interfacing the WFM tools to the London Hydro CIS. Although the office space may be in a main building the office space could be in a portable building/trailer. The Bidder should specify office space requirements. Optionally the Bidder may elect for offsite office space to be procured by the Bidder. This may be advantageous if the Bidder also has offsite inventory/warehouse management capabilities. A communication line would then be arranged by London Hydro between London Hydro offices and the remote site.

#### **4.7 Standby and Mobilization Rates (CI)**

For reasons outside of the Bidder's or London Hydro's control, events may occur that result in the Installer being unable to continue working. These could include events such as an interruption in the supply of meters. A standby rate should be provided. This rate should include standby for an individual FSR and standby for the entire operation. Rates should be hourly and daily. Demobilization to a holding state and remobilization costs should also be included. The duration for which standby rates will be paid will have to be evaluated considering the circumstances and demobilization and remobilization costs.

## Section 5: Bidder Information

### 5.1 Bidder's Corporate Information (CI)

London Hydro is interested in ensuring that the company that supplies Smart Meter Installation Services has the financial stability and management leadership to ensure a successful project. London Hydro requires the information listed below to make an assessment:

- i. Profile of the company – Give a brief description of the company.
- ii. Details of years in the business – Give a description of the number of years experience in the relevant line of business.
- iii. Provide information regarding the current size (number of employees), turnover rates for last three (3) years, and location(s) of the Bidder's company. (This may apply to divisions related to relevant work for conglomerates.)
- iv. Financial Soundness – Provide the following information:
  - An annual report for the current and previous two years;
  - Sufficient information to enable the evaluation panel to determine the financial stability of the Bidder such as:
    - audited financial statements for the current and previous two years (financial statements that apply to divisions are adequate for conglomerates); if available.
    - A copy of the most recent credit rating agency (e.g. S&P, B&D, etc.) report.

**Note:** London Hydro recognizes the sensitive nature of such financial information and will take all reasonable measures to ensure that its disclosure is limited to the bid evaluation team. Failure to provide all the above mentioned information may result in the bid being rejected. Bids that are unclear or leave room for interpretation will be considered non-responsive and will not be evaluated.

### 5.2 Experience (CI)

- i. The Bidder should describe the organization and provide an organization chart of the team or department that would have specific resources used in for the deployment Smart Meters. (Include the number of personnel assigned to installation services and project management of the project.). Include a CV or description of the experience for the key team members.
- ii. Identify and describe any AMI/AMR project where the installation schedule has been delayed as compared to the original Statement of Work per the contract when signed and describe the causes, current status and plans to address the delay(s).
- iii. The Bidder shall describe the projects that they have completed in Ontario with respect to Electrical Smart Meter installations and other Electrical Smart Meter installation projects that demonstrate their experience in installing a minimum of 400,000 Electrical Smart Meters.

### 5.3 Project Manager Experience (I)

Provide the specific relevant experience of the project manager who will be dedicated to this project. This would include other large scale Electrical Smart Meter installation projects. This position is considered to be a key component for the success of the project.

#### 5.4 Subcontractors (I)

Does the Bidder intend to subcontract any component, service or support requested in this RFP? If so, indicate which components, services or support and identify the subcontractors.

#### 5.5 References (CI)

Provide a list of at least three (3) references (contact names and phone numbers) from companies that have used the Bidder's proposed services in the past three (3) years. Please indicate the number of meters installed and indicate the number by type if total includes gas or water.

Reference Utility #1:	
Contact Name:	Telephone:
Address:	
City, Province / State, Postal Code / ZIP:	
Date of Installation:	
Type of Equipment Provided:	

Reference Utility #2:	
Contact Name:	Telephone:
Address:	
City, Province / State, Postal Code / ZIP:	
Date of Installation:	
Type of Equipment Provided:	

Reference Utility #3:	
Contact Name:	Telephone:
Address:	
City, Province / State, Postal Code / ZIP:	
Date of Installation:	
Type of Equipment Provided:	

## **5.6 Litigation (I)**

Bidder will indicate if there are any anticipated or pending lawsuits or any litigation within the past five (5) years or bankruptcy filings within the past ten (10) years.

## **5.7 Environmental Policy (I)**

Environmental protection is a key performance indicator for London Hydro. London Hydro not only operates in compliance with, but also strives to exceed all relevant federal, provincial, and municipal environmental legislation. There is a sense of community expectation for London Hydro to be a leader and proactive in matters related to the environment.

The Bidder should indicate if they have a written environmental policy statement, whether the company has documented environmental performance objectives/targets and implementation plans. In addition, Bidders should describe the extent to which employees understand, accept, and share the environmental values of the company, and how the company uses environmentally friendly products in its day-to-day operations.

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## Section 6: Installation Services

With the execution of the province wide mandate, we would stress the importance of providing our customers with the highest level of customer service possible. Bidders will note the requirements for:

- Proper receipt and inventory of meters
- Change out order creation
- Change out order completion
- Workforce management system to update SAP- CIS when orders are completed
- Inventory update to SAP-CIS and Metering systems
- Need for bar coding or digital image of changed meter to prevent disputes
- Ongoing reading of Smart Meter system
- Ongoing maintenance of inventory
- Customer Communications
- Dispatch Functions including Scheduling and Call Backs
- Physical meter logistics

### 6.1 Installation Overview (C)

The Smart Meter installer will be responsible for installing Smart Meters on single phase, network and self contained meter installations. The Installer will not be required to install any transformer rated installations. As the project progresses and if jointly agreeable, there may be the opportunity for certain polyphase meters to be installed by the Bidder. The number of non-transformer rated customer electric meter installations being procured through this RFP can be found in Section 4: Project Overview.

- i. **All Field Personnel must be well groomed, and in full uniform with the required London Hydro photo identification.** Installer will not issue daily assignments to Field Personnel who do not comply with this policy, and the appropriate disciplinary action should follow.
- ii. All Field Personnel will strictly adhere to London Hydro and Bidder's inventory control processes, including the proper use of any associated Workforce Management System.
- iii. All Field Personnel will ensure that any required ancillary meter supplies (seals, rings, etc) are acquired prior to beginning the days' work (to ensure travel time is minimized).
- iv. Meter installations are normally to take place between the hours of 8:00 AM to 4:30 PM Monday to Friday as covered in Section 4.2 Approved Hours.
- v. London Hydro will provide meter seals and other security hardware to be placed on the meter by the Installer when installing the meter. A-to-S Base meter adapters will be provided by London Hydro for A-Base meter change outs.
- vi. As part of providing exemplary customer service, the Installer is expected to handle customer complaints that are related to installation services and provide customer assistance to resolve issues resulting from installation to the satisfaction of London Hydro, ensuring all claims are reported to London Hydro. An update on all claims should be provided weekly to the London Hydro Contract Manager.
- vii. Urgent issues are to be reported immediately to London Hydro Contract Manager.



### 6.1.1 Minimum Requirements for Field Service Personnel (C)

Before installing meters the Installer shall ensure the Field Service Personnel are customer service oriented, have flexible work hours **and are bonded**, and the Installer shall maintain a process to ensure these requirements are met.

The Installer shall operate in adherence with all relevant laws, rules and regulations, including any procedures and rules that London Hydro may identify during any training or contractor orientation. After initial London Hydro contractor orientation or training, it will be the Installer's responsibility to ensure that new employees receive as a minimum the same information and level of training that employees initially were provided by London Hydro.

### 6.1.2 Suggested Installation Procedure (CI)

The Installer shall follow the following process for the installation of all Smart Meters:

- i. The Field Service Representative (FSR), as a minimum, will visit the site as the first attempt to install the Smart Meter.
- ii. Prior to installation, FSR will knock on the door prior to removing the meter to advise the customer of the work to be performed and pending power outage.
- iii. Installer will deliver an information "Drop" package for the customer.
- iv. If the first attempt is not successful due to inability to access the meter, the Installer's Call Centre shall attempt to reach the customer by telephone, to schedule access to the meter.
- v. If necessary, a second telephone attempt shall be made by the Installer's Call Centre at a different part of the day from the first call. (e.g. if first call was made in morning the second call will be in the afternoon).
- vi. If necessary, a third telephone attempt shall be made by the Installer the next day in the evening.
- vii. If a minimum of one(1) visits and three(3) documented phone contacts have been exhausted without successful access to the meter, the Installer *may* declare the account non-installable and refer it to London Hydro for resolution. London Hydro wishes to strongly encourage the Installer to make every effort to maximize the number of successful installs. No additional compensation will be provided for uninstalled meters.
- viii. All customer contact, interaction and communications shall meet London Hydro standards.
- ix. The customer shall be accommodated with a scheduled appointment with a specific day and time within a one (1) hour window arranged and scheduled by the Installer, through their call centre which will be open between the hours of 8:00 am and 8:00 pm.
- x. The utility will provide a list of known customers on Medic Alert as per the Control Centre list. A Non Disclosure agreement specific to this item will be required.
- xi. Installer will ensure the install site is left "clean" (i.e. under no circumstances is the customer site to be left littered with any installation associated debris).
- xii. Should an incident occur at the property (i.e. Broken meter jaws), the Installer shall remain at the property until the site is deemed safe or the contract electrician or London Hydro staff can arrive at the property. The meter shall be deemed safe if the meter can be replaced and secured. The FSR will contact the London Hydro Contract Administrator who will take appropriate action to arrange for a disconnect crew and electrician if required.

If a customer cannot be contacted and the meter is accessible the meter will be changed and a drop package left in a manner to be specified by London Hydro.

When an answering machine is reached the Installer shall indicate that the Meter Install Contractor for London Hydro was attempting to contact them to change the meter and the Installer shall leave

the Installer's direct call back number with the hours they can be reached. The dispatcher/call centre will have sufficient separate lines dedicated for incoming calls. See Section 7.1 Call Centre Services.

With regards to the installation procedure London Hydro is open to discuss procedures that may improve the overall process including the installation field procedures and processes that take place before an account is considered non-installable.

### **6.1.3 Installer Vehicles (CI)**

Installer will provide Field Personnel a vehicle of recent vintage (e.g. 5 years) to be used for installation services. The requirement for a uniform fleet of vehicles is to minimize calls to London Hydro associated with customer inquiries related to the appearance of Field Service Personnel. Field Service Personnel are expected to maintain vehicles in respectable condition (i.e. reasonably clean, presentable and without excessive damage) as well as perform and document a daily vehicle safety check. Vehicles will be properly marked to indicate the company providing services. The meter installation vehicles are to be capable of carrying a minimum of 60 boxed meters (15 boxes) along with PPE and ancillary equipment. Removed meters are to be placed in the boxes that the new meters were shipped in and returned to the utility's designated location.

The Installer shall be responsible for all related parking fines, traffic accidents, traffic violations and parking fees through the course of the Agreement.

London Hydro shall provide their corporate logo and "Under Contract" signage, which must be affixed to all vehicles used by the Installer. The Installer may display its own corporate logo as approved by London Hydro. Preference will be given to vehicles that are otherwise unmarked (i.e. Display no other significant signs or marking such as a rental agency logo).

The Bidder shall provide information regarding fleet condition, type, leased or owned, markings etc.

## **6.2 Pre-Installation Inspection (CI)**

The pre-installation inspection shall include knocking on the door of the customer premise to determine if the site is occupied, and to inform occupants of the imminent, brief power interruption. Meter Installers will utilize the appropriate PPE and Equipment as covered by section 3.1.1, Appendix B and London Hydro safety orientation at all times.

The pre-installation inspection shall discern whether:

- The work site is unsafe to complete the assigned task (unsafe meter base, confined space, etc.)
- There is tampering or energy diversion evident at the meter site
- The existing physical equipment and installation do not conform to applicable codes
- The existing meter base is unsafe
- The existing meter and installation is transformer rated
- An electrical hazard may arise upon installation of the Smart Meter

If ANY of the above (6) conditions exist, the Installer shall perform no work at the site, but shall notify the Installer Project Manager, who shall notify the London Hydro Contract Administrator. It is possible that the pre-installation will fail to detect a hazard, such as tension (frost pull) on the underground secondary service conductor that will move broken meter socket jaws when the meter is removed. The Installer shall comply with London Hydro procedures that apply if, at any time during the Smart Meter process, a serious hazard arises.

### 6.2.1 Tampering (C)

The Installer is responsible for reviewing electric metering facilities for obvious signs of tampering and interference, including jumpers, stopped meters (if not disconnected), un-metered load on the line side of the meter, damage caused by apparent attempts to open the meter, or any other situation where tampering/interference appears to have been involved. If the Installer suspects tampering or diversion, no work (or further work) shall be performed at that site. The Installer shall notify the London Hydro Contract Administrator on a daily basis of all power diversion, tampering or interference-related situations that might impact revenues to London Hydro.

Any meters that are scheduled to be replaced and are disconnected using disconnect sleeves or have a Programmable Service Interrupter unit installed will be re-installed by the Installer after the meter change unless the utility directs otherwise. **All meters that are disconnected with sleeves, must be installed on the new Smart Meter with tabs on the bottom lugs only to ensure the meter will continue to act as a communication hop.**

### 6.2.2 Power Diversion (I)

During the process of installing Smart Meters, London Hydro wishes to discover meter installations (if any) where there is meter tampering, energy diversion, or other issues such as mixed meters.

Bidders are requested to provide any information pertaining to this such as incentive programs which are thought to ensure high service levels from Field Service Personnel.

### 6.3 Scheduling & Coordination (I)

Coordination among the flow of materials, installer labour, customer response/acceptance, and London Hydro utility data updates is a principal determinant of whether the Smart Meter installation proceeds on-time and within budget. A well-coordinated project can run smoothly and finish on time.

The Bidder should propose normal work hours within the hours in Section 4.2 Hours of Work for Meter Installation. Installers are to be available for work on evenings and weekends and for special-need installations. The Bidder should be prepared to modify the work schedule to best meet installation goals and project milestones set by London Hydro.

Bidders are requested to provide information regarding the manner in which work is assigned, including such details as number of outside installs per day assigned, number of indoor installs assigned per day, and the capabilities of the Bidder's WFM system with regards to routing, personnel qualifications to avoid assigning work to the wrong people/trucks, etc. The Installer shall provide a detailed deployment schedule that accomplishes London Hydro's meter installation targets. The Installer is responsible to manage the installation schedule to ensure the satisfaction of London Hydro. The Installer is responsible to design, propose, and possibly implement a plan to advance the installation services timeframe in the event that the project schedule is delayed in any way.

The Installer is responsible for responding to calls from London Hydro regarding the loss of service and other high priority problems associated with installations on an expedited basis. London Hydro will do everything within its control to aid the progress of the Installer in meeting the goals of this Agreement. However, minor delays in productivity due to day-to-day operational issues will occur and are considered typical and normal in the course of regular business. (i.e. Software irregularities, computer downtime, wireless communication gaps or emergencies.)

## **6.4 Project Management (CI)**

The Installer shall designate a Project Manager who shall have the authority to handle and resolve any disputes or contractual issue with London Hydro and shall be available 100% of the time on site.

The Project Manager is expected to spend sufficient time on the project and the project site to identify any areas that are not fully meeting the stated requirements, and manage corrective actions to bring the results within said requirements.

The Project Manager's role will be to coordinate activities among the Installer, the Smart Meter provider and the various functional areas within London Hydro. Problem resolution will be high on the Manager's agenda. The Project Manager will maintain clearly defined levels of installation problem categories and associated escalation levels to facilitate quick recognition and resolution of problems. The Project Manager will involve London Hydro as appropriate of issues in a timely manner.

Section 3.2 Safety and Section 6.1.1 Minimum Competencies requires that the Field Service Personnel meet certain qualifications, and that the installation service provider provide London Hydro with certain documentation. The Project Manager will facilitate satisfaction of these requirements,

Bidders should provide suggested procedures for Problem Resolution / Problem Escalation.

### **6.4.1 Quality Assurance (CI)**

The Installer's policies/procedures shall include an integrated quality control / quality assurance program.

Bidders will describe the proposed approach to staffing the field deployment, including:

- a. Positions to be filled by permanent employees of Bidder
- b. Positions to be filled by temporary employees or contractors
- c. Qualifications of employees or contractors
- d. Training of employees or contractors
- e. **Strategy for monitoring the work quality of employees or contractors and correcting any encountered deficiencies**

London Hydro understands that there may be several AMI deployments occurring concurrently across Ontario to accommodate the Provincial mandate, and requires the Bidders written acknowledgement that the appropriate staff will be dedicated to the requirements of the London Hydro deployment.

### **6.4.2 Installation Field Audit (CI)**

The Installer's Project Manager / Supervisor will conduct random audits of staff in the field to check for safety compliance as well as for the quality of work completed by the meter installers. The Installer's Project Manager / Supervisor will, on a weekly basis, randomly check a minimum of 1% of the sites for quality control. All results are to be reported to London Hydro on a weekly basis. Items to be audited include at minimum:

- Meter rings, security seals installed properly.
- Meters mounted securely and working.

- Smart Meter has been installed properly.
- Meters that were disconnected using disconnect sleeves or have a Programmable Service Interrupter unit installed have been reinstalled properly with tabs on the bottom lugs only to ensure the meter will continue to act as a communication hop.
- The site has been left in clean and safe condition
- Personal protective equipment is being used
- Validation of crossed units, on multi-unit dwellings
- Other items to be specified

All work shall be completed according to the agreed schedule using milestones. Checkpoints and corrective action on slipped timelines shall be assessed on an interval of duration no longer than (2) weeks.

### **6.4.3 Accident Incident Reporting to London Hydro (C)**

In keeping with the stringent safety requirements of London Hydro, as communicated herein, Bidders will strive for no less than zero preventable safety incidents and accidents.

**Failure to report any safety incident or accident to the utility (London Hydro) will put the Installer in breach of the Agreement and may disqualify them from competing for future service contracts and may result in the termination of the present Agreement without a notification period.**

### **6.5 Workforce Management (WFM) System (C)**

The Workforce Management (WFM) system plays an integral role in the success of the project acting as the main system responsible for work order completion, project reporting, task management, and communications ensuring safety for meter installations. Due to the critical nature of the WFM, it is imperative that the installation service provider be comfortable with the functionality of the WFM system. For this reason, London Hydro will require that the Bidder provide their own WFM as part of their service package, and that the Bidder will meet the interface requirements as required by London Hydro. .

It is a critical requirement that the WFM system is in place and interfacing with London Hydro's SAP-CIS system, in a manner approved and tested by London Hydro, prior to the start of mass deployment. London Hydro is interested in the functionality provided as part of the WFM system. Information will be requested as part of Section 6.5 Workforce Management (WFM) System and associated subsections. A compliance statement is required which will have Bidder's acknowledge proficiency and experience with an electronic WFM system, and a commitment to ensuring integration with London Hydro's back office systems prior to project commencement (as per Section 2.1 Key Dates).

**The successful Bidder will be required to integrate their WFM system to London Hydro's SAP-CIS system according to the utility interface specifications.**

#### **6.5.1 Work Force Management (WFM) System Overview (I)**

London Hydro will provide to the vendor, in electronic format, information concerning the locations that will require meter changes/installations (i.e. customer name and contact information, service location address and location number along with an expected completion date etc.). By way of electronic Work Force Management (WFM) the Installer will add to this record, the final

meter read from the mechanical meter at the time of removal. The Installer will also take a photograph of the old meter, showing its dials prior to removal. This photo will be date and time stamped and the file name recorded in the data record associated with the specific installation.

Bidders are requested to describe the functionality for all devices used that are compatible with the WFM software platform. In addition to acquiring the information regarding functionality, London Hydro intends to understand any potential functionality differences between devices being offered as part of a solution. If multiple devices are used it would be important to understand if any functionality is lost in moving from one device to another.

### **6.5.2 Dispatching/Scheduling (CI)**

Bidders are asked to provide detailed information regarding the dispatching and scheduling of work.

The manner in which work orders are sorted/listed (i.e. by customer, location, schedule, etc) is critical in realizing efficiencies with the assignment of field services.

Details are requested from beginning to end on the overall process used by the Bidder. This should include information such as coordinating meter inventories to include meters being changed for other reasons outside of the planned schedule, capturing and coordinating call backs arranged by the Dispatch/Call Centre to minimize travel time, scheduling so as to maximize the number of installs, etc.

London Hydro is also interested in the ability to assign worker qualifications to field staff to assist in the dispatching of orders to only the personnel with the qualifications required to complete the work. For example specific FSP may be approved for work such as polyphase meters and this work could only be assigned to them. Details should be provided regarding all the safety features inherent to the WFM system.

### **6.5.3 Data Management & Integrity (I)**

The Installer shall record and retain the meter identification information and the register read of the removed meter, the meter identification information and the register read of the installed Smart Meter using a handheld WFM system equipped with a barcode reader.

The Installer shall maintain an effective process to assure the quality of the electronic data records and transactions. All field data shall be pre-filled on orders. The Installer shall place emphasis on quality data management, and will remain responsible for correcting errors in data collected during the installation process.

Data quality (including Meter Reads) shall be accurate 99.9% of the time over the course of the project. The Installer shall collect data from specified collection locations and transfer data in a specified electronic file format for use by London Hydro.

### **6.5.4 WFM Handheld Device (I)**

London Hydro would like to understand the device being utilized by the Bidder. Information should include format of device (tablet, PDA, laptop, phone, etc.), how many orders per day the handheld device can manage (i.e. how many can be downloaded), and what the expected daily battery life is of the device, is it a real time device or a batch download and what facilities are required for charging the devices.



### **6.5.5 Digital Imaging (CI)**

The handheld Workforce Management Equipment must be able to take a picture with a resolution no less than 1.3 Mp of the removed meter. The Installer will take a photograph of the old meter, showing its dials prior to removal. This photo will be date and time stamped and the file name recorded in the data record associated with the specific installation.

Digital imaging is performed to mitigate the risk associated with Dispute Resolution. If the WFM system allows for read validation which might be used in conjunction with the Digital Imaging process, Bidder should provide details.

### **6.5.7 GPS (CI)**

In addition to installing the meter, capturing the LAN ID and Meter ID data from the barcode on the installed meter, and the start read, London Hydro desires the update of service location information by having the Bidder capture the GPS coordinates of the installed endpoint. Where meters are located in basements or in areas where satellite signal may not be possible, the closest co-ordinates will be collected once communication has been established.

### **6.5.8 Inventory Control (CI)**

Given the volume of daily meter installations that will be performed, maintaining accurate control of inventory will be critical. All sealed meter deliveries will be sent to London Hydro location and loaded into inventory via an import into CIS. A file will be provided by KTI/Sensus that will also reflect delivered meters in the RNI. Meters shipped that have not been initialized can be identified.

Daily workflows will need to be established that have an assigned point of contact for the Installer to verify and sign-out the meters required each day for installation in the field. At the end of each day or at start of the next shift, the same point of contact will verify the meters that were not installed are recorded in inventory ensuring adequate controls are in place to manage the assets.

Managing the inventory of essential hardware is an important step in keeping the installation process moving while controlling costs.

- i. The Workforce Management system will be capable of utilizing bar code scanning for recording newly deployed meters.
- ii. Bidders will describe methods used to track inventory of all essential ancillary supplies needed to support the deployment including any associated smart meter devices and installation tools, meter seals, meter rings, meter adaptors, security devices, etc. Bidders should provide details on how their company will ensure that accurate data is provided back to London Hydro and their back office system.
- iii. Lost or unaccounted for meters should be documented weekly and with plans identified to mitigate lost meters.

## **6.6 Reporting Requirements (CI)**

The London Hydro Contract Administrator will hold weekly meetings together with the Installer's Project Manager to review status, identify problems, and plan resolution. The Installer shall provide reporting (as per following subsections) to support these meetings. Where possible, reports should be generated from the WFM system, made possible by the daily data transfers identifying sites visited and completed.

Following is a sample of items that might be included in these reports:

- i. Safety Issues;
- ii. Installation problem categories and escalation levels, identifying the point at which London Hydro Project Manager will become involved;
- iii. Inventory status;
- iv. Daily data transfers identifying sites visited and completed and providing work order data;
- v. Automated reports regarding success/failure of daily installation targets;
- vi. Progress reports, including numbers and percentages of meters installed, attempts to complete the installation process, appointments scheduled and completed and other pertinent installation data to London Hydro on a weekly basis (if project plan timeline has been affected, the Installer will provide their plan which will put them back on schedule according to the originally submitted schedule);
- vii. Insurance and complaint resolution status.

It is expected that the successful Bidder will invoice based on the data in the WFM system. Bidder should provide detailed information regarding the reporting functions that are possible through their WFM or other systems.

The Installer will provide all required equipment, along with the trained staff. The Installer shall be required to report all relevant data from the field to the London Hydro Contract Administrator. This includes, but is not limited to meter exchanges that cannot be completed because of access, physical space limitations, or safety reasons.

### **6.6.1 Reporting: Beginning of the Project (C)**

In addition to any other data and reporting requirements outlined, the following report/ information will be required at project commencement:

The Bidder will provide London Hydro with a Project Plan that indicates the number of meter installers per week for the duration of the project as well as the meters to be installed per week. The Plan shall include contingency plans in the event the installation numbers fall behind the milestone schedule required under Section 4.1 Anticipated Schedule for Deployment.

### **6.6.2 Reporting: Daily Reports (C)**

In addition to any other data and reporting requirements outlined, the following reports and information will be required on a daily basis through the duration of the project:

The Bidder will identify, report and resolve unsafe conditions on a daily basis or as they are identified according to established safety policies, and report all tampering / interference related situations that might impact revenues, to London Hydro on a daily basis.



### **6.6.3 Reporting: Weekly Reports (C)**

In addition to any other data and reporting requirements outlined, the following reports and information will be required at weekly interval through the duration of the project:

The Bidder will provide London Hydro with project plan updates which include number of meters installed to date, and number of meters remaining to be installed. If behind schedule, Action Plans will be identified that are being used to bring the installation schedule back on track.

In addition, the Bidder shall provide details related to any identified unsafe conditions, safety issues, customer diversions, tampering.

### **6.6.4 Reporting: Bi-Weekly Reports (C)**

In addition to any other data and reporting requirements outlined, the following reports and information will be required at bi-weekly intervals through the duration of the project:

The Bidder will provide London Hydro Utility with an invoice indicating: The number of meters installed, the number of identified and utility validated power diversions, the number of identified and utility validated unsafe meter installation sites, the month end invoice shall indicate the number of meters that didn't comply with the month-end target milestone installations.

### **6.7 Service Level Agreements (I)**

Bidders should provide their standard Service Level Agreements, citing such measurable performance indicators as:

- i. Outside Urban installation per week
- ii. Inside Urban installation per week
- iii. Installation Error rate
- iv. Customer Claim rate

### **6.8 Installation Warranties (I)**

The Bidder must state term on guarantee of workmanship for all installation work performed under this contract.

### **6.9 Meter Disposal (I)**

A Meter Disposal Vendor must be used to properly, and in an environmentally sound manner, discard the redundant meters. It is London Hydro's goal to have meters, meter components and packaging recycled minimizing waste that may end up in land fill. Should the Bidder desire to provide a Meter Disposal rate, an Optional line item has been added to Pricing Schedule 1 for this purpose. It would be expected that the Meter Disposal vendor would remove the meters and packaging from the London Hydro site.

## **Section 7: Customer Communications**

### **7.1 Call Centre Services (I)**

Installer will be responsible for customer communications associated with gaining access to the customer's meter. London Hydro recognizes that some accounts, despite extensive effort by Installer, may be non-installable for any of many reasons. London Hydro accepts responsibility for installing smart meters at these non-installable accounts although there is a strong preference for the Bidder to minimize the number of non-installable accounts. Bidders will describe the customer communications plan, including;

- i. Call Centre Services Overview (including hours of operation, and policies/procedures)
- ii. Customer contact methods/strategies
- iii. Appointment management (management of multiple sequential (unsuccessful until the last) customer contacts)
- iv. Steps in achieving successful completion of Smart Meter installation
- v. Definition of a non-installable account
- vi. Customer claims administration
- vii. Record keeping and coordination with London Hydro Customer Service representatives (London Hydro is interested in understanding the tracking of Service Quality Indicators (SQIs) which may include (but are not limited to) such indicators as inbound/outbound calls, appointments attempted/made, complaints, call waiting period, etc.)

Call operations shall be maintained from 8:00 a.m. to 8:00 p.m., Monday to Friday, and shall have a provision for taking calls using an automated method outside of the regular operating hours. London Hydro recognizes that the Installer's agents may take calls, other than those for the purpose of appointments, once a phone number is provided to the customer. London Hydro wishes the Installer to transact only those calls related to the appointments to be fielded by their staff, and the dispatcher/call centre operator shall direct all others to London Hydro

The Bidder shall provide in detail:

- i. The scripting for communicating with customers by phone
- ii. A means of managing the collected customer information and appointments (i.e. managing ongoing coordination and customer communications related to the appointment and meter exchange by the Installer)
- iii. The fee structure for managing the customer communications for the expressed purpose of collecting appointment data

#### **7.1.1 Communications Materials (C)**

London Hydro requires that communications materials be provided to the customer by their meter Installer and when the meter is inaccessible contain the phone number of the Installer for future follow-up. The Installer shall manage inbound phone communication to secure appointments for Smart Meter installations using a professional and courteous protocol that shall be approved by London Hydro. Sufficient inbound only lines should be available to take these calls.

#### **7.1.2 Customer Contact (CI)**

Each meter installer shall be responsible for customer communications associated with gaining access to customer meter. Meter installers will be provided with communications materials to be distributed to customers as part of the meter installation process.

Prior to beginning the meter exchange, each meter installer shall attempt to notify each customer

by knocking on the front door and/or ringing the doorbell and waiting a minimum of (1) minute for a response. If the customer does respond, the Installer shall inform the customer of the meter exchange and short power interruption according to the standardized script provided by London Hydro. If the customer does not respond, the Installer shall proceed with the installation of the Smart Meter.

### **7.1.3 Customer Information (C)**

Each meter installer shall provide each customer with communication materials as provided by London Hydro, either in person, in the mailbox or through the mail slot. These materials are not to be left where they are readily visible to passersby or may blow away or damaged (i.e. rain damage). This process will be further detailed by London Hydro.

### **7.1.4 Customer Complaints and Claims Administration (CI)**

The Installer shall have a procedure to process and manage customer claims, arising from the provision of the Services, which will successfully resolve issues in a timely manner. All claims shall be reported to London Hydro once the Installer has been made aware of the incidence. An update on all claims should be provided weekly to the London Hydro Contract Manager. Claims outstanding over (10) days should be considered for resolution by London Hydro. The Installer shall have full accountability for customer claims and complaints, especially for the response to initial reports of half or full power outage following a Smart Meter change. This accountability applies regardless of the time of call and may fall outside business and work hours. London Hydro crews and resources are prepared to aid the Installer in a resolution based on the initial findings of Field Staff if the call ends up being systemic rather than an oversight on the part of the Installer. **Additional compensation shall not be provided by London Hydro to meet the Installer's obligations for after-hour response and site visits that are required to mitigate customer complaints that are not related to the London Hydro system.**

### **7.2 Pre-Canvassing Service (I)**

Pre-Installation Customer Information Packages are to be delivered to customers approximately 2 weeks before the scheduled meter replacement date. Customer Contact and Information Packages would be provided by London Hydro.

Bidders that are able to provide input based on experience regarding suggested processes for Customer Communications that may take place prior to deployment are requested to do so.

## **Section 8: Contract Terms and Conditions (C)**

These terms and conditions cover some of the general conditions required by London Hydro under which the work shall be performed. Additional Contract Terms will be included with the Statement of Work and with Contract Documents.

### **8.1 General**

Bidder shall be aware and acknowledges that the work to be performed may be on or within close proximity to electrical apparatus that may be energized at normal potential and with normal current carrying capacity during the course of the work. This may involve the equipment or facilities being worked on directly, or equipment or facilities adjacent to the actual devices and location being worked on.

### **8.2 Information to Bidders**

Bidder will not rely solely upon any information or representations made or furnished by London Hydro respecting the nature of the site conditions, the work to be performed or the quality of any materials to be used.

Bidder is responsible to be familiar with all laws rules and regulations regarding the proposed work from any and all authorities having jurisdiction.

### **8.3 Approvals**

Bidder shall work closely with the authorities having jurisdiction. Bidder shall satisfy all authorities on specific concerns on work permits. No permit costs have been included in this Agreement. Should the need for any permits arise, Bidder will invoice London Hydro for the costs thereof.

### **8.4 Sub-Contractors**

Bidder shall set out herein, all Sub-Contractors to be employed in the performance of the Agreement. No other Sub-Contractor shall be employed without the approval of London Hydro. Bidders agree that any requirements noted in this document that refer to a Contractor shall also apply to any and all Subcontractors.

### **8.5 Officials in charge**

Bidder shall identify, prior to commencing work, a Project Manager who will be in charge of the work and all work sites, as well as an office official (officer, principle, or senior manager) at his central place of business who will be responsible for the work.

London Hydro's key contacts shall also be identified.

Bidder shall take every step to minimize a change of Project Manager during the course of the work, but when necessary, Bidder will make such change with an individual of similar or greater capability.

## **8.6 Work Protection**

Work protection from electrical hazards, where required, shall be applied for prior to beginning work and shall meet EUSA and London Hydro requirements. Protections shall be surrendered at the end of each working day. In general, daily requests shall be available during London Hydro normal working hours only.

Signaling and traffic protection shall be done according to the Occupational Health and Safety Act, the Highway Traffic Act, and London Hydro requirements.

Only competent personnel shall work within the ten feet limit of approach for apparatus energized over 750 volts. The Bidder will assume full liability in respect of any such personnel. London Hydro reserves the right to deem contract staff incompetent for specific work; however this does not imply approval or liability. Equipment, tools, and protective clothing shall be in accordance with the Electric Utilities Safety Act, London Hydro Requirements, the Occupational Health and Safety Act, and other authorities having jurisdiction.

## **8.7 Site Housekeeping**

During the performance of the work, Bidder shall ensure that the work site is kept as neat and orderly as possible, in keeping with the nature of the work in progress. When work is interrupted for any length of time, or at the completion of the work, all waste material shall be removed and tools, equipment and surplus material shall be removed or stored or secured in a neat and safe fashion.

## **8.8 Schedule**

Bidder shall submit, at such times as may reasonably be requested by London Hydro, schedules which shall show the order in which it is proposed to do the work, with dates showing commencement and completion of the various parts of the work.

## **8.9 Public Relations**

Bidder shall respect private property and do whatever necessary to prevent damage to landscaping, buildings, fences and other appurtenances on private property and where damage results will make restoration to the pre-damaged state. Public lands on rights of way shall be restored to the satisfaction of the authority having jurisdiction.

## **8.10 Identification**

Bidder vehicles must be properly identified. Bidder employees must carry proper identification at all times.

## **8.11 Materials and Labour**

Unless otherwise stipulated, the lump sum price or prices quoted shall include the furnishing of all of the Bidder designated supplied materials, Personal Protective Equipment, supplies and equipment and the providing of all labour, construction tools and equipment, utility and

transportation services necessary to perform and complete all the work required.

All designated material, major or minor, supplied by Bidder must be approved by London Hydro prior to its installation. Any material supplied by Bidder and installed without London Hydro approval will be replaced at Bidder's expense.

### **8.12 Working Hours**

Meter installation will normally take place between the hours of 8:00am and 4:30pm Monday to Friday. In order to meet installation targets and to accommodate customers who are not available within these hours, London Hydro can approve meter installations from 8:00am to 8:00pm Monday to Friday and 9:00am to 5:00pm Saturdays.

If for any reason London Hydro requests the Bidder to furnish any such labour or services on Sundays, Statutory Holidays or outside the hours of 7:30am - 8:30pm local time Monday through Friday or 8:30am to 5:30pm Saturday, overtime will be billed to and paid by London Hydro.

### **8.13 Insurance Obligations (C)**

The successful Contractor(s) shall, at its own expense, obtain and maintain until the termination of the contract and shall provide London Hydro Inc. (London Hydro) with evidence of:

(a) Commercial General Liability insurance on an occurrence basis for an amount not less than Five Million (\$5,000,000.) dollars and shall include London Hydro Inc. and the Corporation of the City of London as additional insured with respect to the Contractor's operations, acts and omissions relating to its obligations under this Agreement. Such policy to include, personal injury, property damage, broad form property damage, contractual liability, non-owned automobile liability, owner's and contractor's protective coverage, products - completed operations, contingent employers liability, cross liability and severability of interest clauses;

(b) Automobile liability insurance for an amount not less than Two Million (\$2,000,000.) dollars covering all vehicles used in any manner in connection with the performance of the terms of this Agreement.

The policies shown above will not be cancelled or permitted to lapse unless the insurer notifies London Hydro in writing at least thirty (30) days prior to the effective date of cancellation or expiry. London Hydro reserves the right to request such high limits of insurance or other types of policies appropriate to the work as London Hydro may reasonably require.

(c) The successful Contractor(s) shall not commence work until such time as any required bond and sureties deposits have been approved by London Hydro and London Hydro's Certificate of Insurance form has been filed and approved by London Hydro. No other document will be accepted. Failure to obtain and maintain such insurance shall be a breach of contract.

(d) The successful Contractor(s) shall indemnify and hold London Hydro harmless from and against all liability, loss, claims, demands, costs and expenses, including reasonable legal fees, occasioned wholly or in part by any negligence or acts or omissions whether willful or otherwise by the Contractor, its agents, officers, employees or other persons for whom the Contractor is legally responsible.

(e) The successful Contractor shall furnish London Hydro with a comprehensive (3D) Dishonesty, Disappearance and Destruction Blanket Position Policy in the amount of \$25,000 per employee. London Hydro shall be shown on the policy as the named Obligee, with respect to incidents arising from work performed under the contract.

(f) The successful Contractor will promptly make all returns and pay all assessments required or levied by the Workplace Safety and Insurance Board in respect of the said work and persons employed on or in connection therewith and shall furnish to London Hydro a certificate of clearance from the Workplace Safety and Insurance Board prior to commencing work and shall maintain that good standing throughout the contract period."

#### **8.14 Workmanship**

Bidder will have all work performed by appropriately trained and experienced personnel in a workmanlike manner consistent with industry standards and applicable law.

#### **8.15 Indemnity**

Bidder agrees to indemnify and hold London Hydro and its agents and employees harmless from all claims for bodily injury and property damages to the extent such claims result from or arise under Bidder's negligent actions or willful misconduct in its performance of the work required under this Agreement, provided that such indemnity obligation is valid only to the extent **(i)** London Hydro gives Bidder prompt notice in writing of any such claims and permits Bidder, through counsel of its choice and Bidder's sole cost and expense, to answer the claims and defend any related suit and **(ii)** London Hydro gives Bidder the authority and reasonable assistance and access to all applicable information in its possession, at Bidder's expense, to enable Bidder to defend such suit. Bidder will not be responsible for any settlement without its written consent, which consent shall not be unreasonably withheld or delayed. Bidder will not be liable for loss or damage caused by the negligence of London Hydro or any other party or such party's employees or agents. This obligation will survive termination of this Agreement

#### **8.16 Terms of Payment**

Progress Payments: It is suggested that the Bidder will invoice monthly for all installation, labour, and services performed. London Hydro agrees to pay the full amounts invoiced, less holdback, upon receipt of the invoice at the address specified by London Hydro.

London Hydro will pay all holdback to Bidder within 30 days after Bidder's work is verified and substantially complete.

#### **8.17 Confidentiality and Privacy**

"Confidential Information" means all information relating to either Party or to such Party's business, products, sales, customers, trade secrets, technology or financial position to which access is obtained or granted hereunder, which when disclosed to the other Party is marked or otherwise designated as confidential, provided, however, that Confidential Information shall not include any data or information which: (i) is or becomes publicly available through no fault of the other Party; (ii) is already in the rightful possession of the other Party prior to its receipt from the other Party as evidenced by documentation; (iii) is independently developed by the other Party as evidenced by documentation; (iv) is rightfully obtained by the other Party from a third party whose lawful right to provide such data or information is evidenced by documentation; (v) is disclosed with the written consent of the Party whose information it is; or (vi) is disclosed pursuant to a Canadian court order or other Canadian legal compulsion.

# Appendix A

**FUNCTIONAL SPECIFICATION**

**FOR AN**

**ADVANCED METERING INFRASTRUCTURE**

**VERSION 2**

**July 14, 2007**

Honeywell Use Only - Digital



**FUNCTIONAL SPECIFICATION  
FOR AN ADVANCED METERING INFRASTRUCTURE  
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Honeywell Use Only Digital

## **FUNCTIONAL SPECIFICATION FOR AN ADVANCED METERING INFRASTRUCTURE**

### **1.0 APPLICATION OF SPECIFICATION**

This Specification sets the required minimum level of functionality for AMI in the Province of Ontario for residential and small general service consumers where the metering of demand is not required. This Specification is not intended to apply to net metering applications.

### **2.0 FUNCTIONAL SPECIFICATION**

#### **2.1 Deployment**

This Specification shall be met regardless of the size or scope of the AMI deployment by a distributor.

#### **2.2 Minimum Functionality**

##### **2.2.1 As a minimum:**

2.2.1.1 AMI shall collect Meter Reads on an hourly basis from all AMCDs deployed by a distributor and transmit these same Meter Reads to the AMCC and MDM/R, as required, in accordance with these Specifications; and

2.2.1.2 A Meter Read shall be collected, dated and time stamped at the end of each hour (i.e. midnight as represented by 24:00).

2.2.2 The date and time stamping of Meter Reads shall be recorded as year, month, day, hour, minute (i.e. YYYY-MM-DD hh:mm).

2.2.3 All meters shall have a meter multiplier of one (1).

2.2.4 Distributors shall provide the MDM/R with the service multiplier for transformer-type meters.

#### **2.3 Performance Requirements**

##### **2.3.1 Collection and Transmission of Meter Reads:**

2.3.1.1 AMI shall successfully collect and transmit to the AMCC and MDM/R at least 98.0% of the Meter Reads from all AMCDs deployed by a distributor in any Daily Read Period.

2.3.1.2 Meter Reads unsuccessfully collected or transmitted shall not be due to the same AMI component (including, without limitation, any AMCD) during any three (3) month consecutive time period.

2.3.1.3 AMI shall be able to collect and transmit Meter Reads during its operating life without requiring a field visit.

2.3.2 Transmission Accuracy: Over the Daily Read Period, 99.9% of the Meter Reads received by the AMCC shall contain the same information as that collected by all AMCDs deployed by the distributor.

2.3.3 AMI shall be capable of providing Meter Reads with a precision of at least 10 Watt-hours (0.01 kWh).

#### **2.4 Technical Requirements**

2.4.1 When an AMI includes AMRCs, the AMRCs shall have the ability to store meter data to accommodate the performance requirements in section 2.3.1.

2.4.2 Time Synchronization:

- 2.4.2.1 AMI shall be operated and synchronized to Official Time, as set by the National Research Council of Canada.
- 2.4.2.2 AMI shall have the capability of adjusting for changes due to local daylight savings time.
- 2.4.2.3 AMI installed within a distributor's service area shall have the capability of accommodating more than one (1) time zone.
- 2.4.2.4 Time synchronization shall be maintained in the AMI to the specified accuracy parameters set out in section 2.4.3.1 following a loss of power.
- 2.4.2.5 All Meter Reads shall adhere to accurate time synchronization processes to ensure an accurate accounting of electricity consumption at each meter.
- 2.4.3 Time Accuracy:
  - 2.4.3.1 At all times, time accuracy in the AMI shall not exceed a  $\pm 1.5$  minute variance from the time established in section 2.4.2.1.
  - 2.4.3.2 AMI shall be able to prove that time accuracy does not exceed the permitted time variance identified in section 2.4.3.1.
- 2.4.4 Loss and Restoration of Power:
  - 2.4.4.1 AMI shall detect and identify the interval in which a loss of power occurred during a Daily Read Period.
  - 2.4.4.2 AMI shall detect and identify the interval in which power was restored following a loss of power.
- 2.4.5 Environmental Tolerances: All AMI components (except the AMCC) shall operate and meet the requirements in these Specifications within a temperature range of minus thirty degrees Celsius ( $-30^{\circ}$  C) to positive sixty-five degrees Celsius ( $+65^{\circ}$  C), and within a humidity range of zero percent (0%) to ninety-five percent (95%) non-condensing.
- 2.5 Advanced Metering Communication Device (AMCD)**
  - 2.5.1 Installation Within the Meter:
    - 2.5.1.1 The AMCD shall not impair the ability of the meter to be visually read.
    - 2.5.1.2 Meters in which an AMCD is installed shall be able to be installed in existing meter sockets or enclosures.
    - 2.5.1.3 AMCD shall meet or exceed ANSI standards to withstand electrical surges and transients.
  - 2.5.2 Labeling:
    - 2.5.2.1 The AMCD shall be permanently labeled with:
      - (1) Legally required labeling;
      - (2) Manufacturer's name;
      - (3) Model number;
      - (4) AMCD identification number;
      - (5) Input/output connections;
      - (6) Date of manufacture; and
      - (7) Bar code for tracking and inventory management.
  - 2.5.3 When installed at a consumer's location, the meter shall visibly display, as a minimum, the AMCD identification number, meter serial number and LDC badge number for the meter.

2.5.4 The AMCD shall be able to be initialized or programmed during, or prior to, field installation.

## **2.6 Transmission of Meter Reads**

2.6.1 All Meter Reads collected during the Daily Read Period shall be received by the AMCC and transferred to the MDM/R no later than 5:00 a.m. local time following the Daily Read Period.

2.6.2 Meter Reads are not required to be transmitted in a single transmission and may be transmitted as frequently as necessary in order to meet the requirements in section 2.6.1.

2.6.3 AMCC shall transfer the information identified in section 2.6.1 using an approved protocol and file structure.

## **2.7 Advanced Metering Regional Collectors (AMRC)**

2.7.1 LAN Communication Infrastructure:

2.7.1.1 The spectrum allocation and wattage of the radio signal used by an AMI shall not impede neighbouring frequencies.

2.7.2 When an AMI includes AMRCs:

2.7.2.1 The AMI shall provide for the continuous powering of AMRCs regardless of their location and placement.

2.7.2.2 All AMCDs shall be able to collect and transmit Meter Reads when one or more AMRC has a loss of power.

2.7.2.3 Memory and software parameters shall be maintained at all AMRC during a loss of power, whether by the provision of backup/alternate power or other solution.

## **2.8 Advanced Metering Control Computer (AMCC)**

2.8.1 Each AMCC shall have the ability to store a rolling sixty (60) days of Meter Reads.

2.8.2 A distributor shall not aggregate Meter Reads into rate periods or calculate consumption data from the Meter Reads collected through its AMI either in its AMCC or any other component.

2.8.3 The AMCC shall be able to perform basic operational verification of Meter Reads received before transmitting these Meter Reads to the MDM/R.

## **2.9 Customer Account Information**

2.9.1 Distributors shall provide initial information associated with customer accounts to the MDM/R on a date to be determined.

2.9.2 On an ongoing basis, distributors shall provide information associated with any change to the initial information identified in section 2.9.1 to the MDM/R at a frequency to be determined.

2.9.3 Information to be provided to the MDM/R pursuant to sections 2.9.1 and 2.9.2 is to be determined.

## **2.10 Monitoring & Reporting Capability**

2.10.1 The AMI shall have non-critical reporting functionality and critical reporting functionality as required in this section 2.10. Information generated from this reporting functionality shall be available to the MDM/R.

2.10.2 Non-critical reporting:

2.10.2.1 At the completion of every Daily Read Period and following a transmission of Meter Reads, the AMCC shall generate a status report that includes information regarding anomalies and issues affecting the

integrity of the AMI or any component of the AMI including information related to any foreseeable impact that such anomalies or issues might have on the AMI's ability to collect and transmit Meter Reads.

- 2.10.2.2 In addition to section 2.10.2.1, the AMCC shall generate reports:
- (1) Confirming successful initialization of the AMCD's installed in the field;
  - (2) Confirming data linkages among an AMCD identification number, LDC badge number, serial number and customer account;
  - (3) Confirming that the MDM/R has successfully received notification of any changes to customer account information;
  - (4) Confirming that the AMCC has successfully made changes to customer account information following receipt of same from the MDM/R;
  - (5) Confirming the successful collection and transmission of Meter Reads or logging all unsuccessful attempts to collect and transmit Meter Reads, identifying the cause, and indicating the status of the unsuccessful attempt(s) pursuant to section 2.3.1;
  - (6) Confirming the accuracy of the Meter Reads received by the AMCC pursuant to section 2.3.2;
  - (7) Confirming that all Meter Reads have a precision of at least 10 Watt-hours (0.01 kWh) pursuant to section 2.3.3;
  - (8) Confirming whether the Meter Reads acquired within the Daily Read Period are in compliance with the time accuracy levels identified in section 2.4.3;
  - (9) Confirming whether time synchronization within the AMI or any components of the AMI have been reset within the Daily Read Period;
  - (10) Identifying the intervals in which a loss of power occurred and at which power was restored, following a loss of power;
  - (11) Addressing the functionality of the AMCD communication link, including status indicators related to the AMCD and AMRC;
  - (12) Identifying suspected instances of tampering, interference and theft;
  - (13) Flagging potential network, meter, and AMCD issues; and
  - (14) Identifying any other instances that impact or could potentially impact the AMI's ability to collect and transmit Meter Reads to the AMCC and/or MDM/R on a daily basis.
- 2.10.2.3 Following a transmission of Meter Reads or at the completion of every Daily Read Period, the information in section 2.10.2.2 (5) shall be stored and used by the AMCC to assess compliance with the requirement specified in section 2.3.1.2.
- 2.10.2.4 The reports generated in sections 2.10.2.1 and 2.10.2.2 shall be made available to the MDM/R with a frequency to be determined.
- 2.10.3 Critical reporting:

Critical events are defined to include any AMI operational issue that could adversely impact the collection and transmission of Meter Reads during any Daily Read Period.

2.10.3.1 The AMI shall identify and report the following to the distributor:

- (1) AMCD failures;
- (2) AMRC failures;
- (3) Issues related to the storage capacity of any component of the AMI;
- (4) Communication links failures;
- (5) Network failures; and
- (6) Loss of power and restoration of power.

2.10.3.2 The reports generated in section 2.10.3.1 shall be made available to the MDM/R.

## **2.11 Security and Authentication:**

2.11.1 The AMI shall have security features to prevent unauthorized access to the AMI and meter data and to ensure authentication to all AMI elements.

## **2.12 Proven Technology**

2.12.1 The AMI shall be a technology that has been proven to reliably comply with these Specifications.

## **2.13 Regulatory Requirements**

2.13.1 The AMI shall meet all applicable federal, provincial, and municipal laws, codes, rules, directions, guidelines, regulations and statutes (including any requirements of any applicable regulatory authority, agency, board, or department including Industry Canada, the Canadian Standards Association, the Ontario Energy Board and the Electrical Safety Authority) (collectively, "Laws"). For greater certainty, the AMI shall meet all applicable Laws that are necessary for the measurement of data and/or the transmission of data to and from the consumers within the Province of Ontario, including Laws applicable to metering, safety and telecommunications.

## **2.14 Water or Natural Gas Meter Reads**

2.14.1 The AMI should be capable of supporting an increased number of Meter Reads associated with the reading and transmission of water and/or natural gas meters through additional ports on the AMCD, through optionally available multi-port AMCDs, or through additional AMCD/AMRC devices that are compatible with operating on the AMI. When procuring AMI, distributors shall obtain an indication of the capabilities of the proposed AMI to read water and natural gas meters, indicating the makes and models of such meters that can be read, and any requirements for retrofitting them.

## **3.0 DEFINITIONS**

Within this Specification the following words and phrases have the following meanings: "AMCC" is an advanced metering control computer that is used to retrieve or receive and temporarily store Meter Reads before or as they are being transmitted to the MDM/R. The information stored in the AMCC is available to log maintenance and transmission faults and issue reports on the overall health of the AMI to the distributor.

"AMCD" is an advanced metering communication device that is housed either under the meter's glass or outside the meter. It transmits Meter Reads from the meter directly or indirectly to the AMCC.

“**AMI**” means an advanced metering infrastructure. It includes the meter, AMCD, LAN, AMRC, AMCC, WAN and related hardware, software and connectivity required for a fully functioning system that complies with this Specification. With some technologies, an AMI does not include AMRCs. An AMI does not include the MDM/R.

“**AMRC**” is an advanced metering regional collector that collects Meter Reads over the LAN from the AMCD and transmits these Meter Reads to the AMCC.

“**consumer**” or “**customer**” means a person who uses, for the person’s own consumption, electricity that the person did not generate.

“**distributor**” has the meaning provided in the *Ontario Energy Board Act, 1998*.

“**Daily Read Period**” means the 24-hour period for collecting Meter Reads, subject to the two periods annually during which changes to and from daylight savings time take place. The Daily Read Period ends at 12:00 midnight of each day.

“**LAN**” means a local area network, the communication network that transmits Meter Reads from the AMCD to the AMRC.

“**meter multiplier**” is the factor by which the register reading must be multiplied to obtain the registration in the stated units.

“**Meter Read**” is a number generated by a meter that reflects cumulative electricity consumption at a specific point in time.

“**MDM/R**” means the meter data management and meter data repository functions within which Meter Reads are processed to produce rate-ready data and are stored for future use.

“**Specification**” means these functional specifications.

“**transformer-type meter**” means a meter designed to be used with instrument transformers.

“**WAN**” means a wide area network, the communication network that transmits Meter Reads from the AMRC to the AMCC or, in some systems from the AMCD directly to the AMCC, and from the AMCC to the MDM/R.



# Appendix B (C)

## Safety Documents & Procedures

### Contractor Requirements

1. Contractors must comply with the Occupational Health and Safety Act and its regulations in the completion of any work performed under contract. They must also comply with E&USA's safety rules and all other applicable Federal, Provincial and Municipal legislation. Contractors working out of compliance with legislation or with London Hydro's or E&USA's rules and safe work practices risk forfeiting the contract and any future work at London Hydro.
2. All Contractors must complete the forms supplied in APPENDIX A1-A4. These forms must be up to date at all times. Contractors are responsible for notifying the London Hydro Supervisor or on-site Inspector of any new staff or equipment and for providing the associated updated forms. It will be up to the hiring Supervisor to determine if additional documentation is required to provide evidence of training or certification.
3. All Contractor staff that work for London Hydro, including those added during the term of the contract, must attend a safety orientation meeting with the Health and Safety Department prior to commencing work on London Hydro projects. At or prior to the safety orientation meeting, the hiring Supervisor will provide the Contractor's Supervisor with a Contractors' Package.
4. Each contract crew must have competent supervision on the jobsite at all times.
5. If Contractors are working on the electrical distribution system, they must notify the Control Room of their location before they begin work each day and must also notify the Control Room when they leave the worksite at the end of each day.
6. The Control Room will provide a Medical Call List to Contractors to ensure the appropriate notification takes place in the event that there needs to be a planned outage affecting a customer dependent on electricity for medical purposes.
7. Each Contractor working on the electrical distribution system should have a radio link (supplied by London Hydro) to the Control Room. In the event that a portable radio is not available, a Contractor supplied cellular phone must be used. The emergency phone number is on the Contact List.
8. Contractors must provide a designated contact person with a phone number for each project and must also provide an up-to-date list of contacts to the Control Room in the event of an emergency.
9. When a Contractor notifies customers of an outage, the Control Room must also be notified.
10. It is the Contractor's responsibility to ensure that the Ministry of Labour's "Project Notification Form" is completed and submitted to the Ministry when required (can be obtained at 217 York St, 5<sup>th</sup> Fl).



# METERING - SAFE WORK PRACTICES

## 1 Electric Meter - General

1. Use suitable signs and guards to keep people away from wiring that is energized in a test, unless a competent worker is present at all times.
2. Place all wires, jumpers, test leads and instruments so that they will not be tripped over, thus breaking connections or doing other damage.
3. Secure the free end of any wires, jumpers or test leads to avoid hazards.
4. Do not connect the free end of a jumper or test lead to its proposed connection point until correct polarity has been established.
5. When it is necessary to open the main disconnect on a large service, disconnect all sub-feeds, where practical, at their disconnects before opening the main switch.
6. When you are ready to restore service, close the main disconnect first. Wear Class 0 rubber gloves and, if possible, use your left hand to close the switch. Turn your head and eyes to the right, away from any possible flash area. Close the sub-feeds, one at a time, after the main disconnect has been closed.
7. When removing a meter that is broken or difficult to remove, use a meter puller.

## 2 Protective Clothing (see also EUSA Safety Rule 113, "Personal Protective Equipment")

1. Wear protective clothing and equipment as listed
  - a. in the Occupational Health and Safety Act,
  - b. in manufacturer's instructions,
  - c. on MSDSs, and
  - d. in specific Safe Work Practices throughout this manual.
2. Do not wear loose clothing, such as neckties, or unbuttoned sleeves, while working near rotating parts. Keep pockets free of rags and other material having loose ends.
3. Do not wear hanging jewellery near rotating shafts, belts or any moving part, and do not wear any jewellery where the metal parts could contact any live electrical parts or circuits. Do not wear personal jewellery under rubber gloves.
4. When working on or near energized electrical apparatus at any voltage, wear outer clothing which is fire resistant, which will provide partial protection from electrical flash, and which has full length sleeves fastened at the wrists.
5. Confine long hair to avoid possible entanglement near any rotating shaft, spindle, gear, belt or any other moving part.
6. See the Employee Policy Manual, section 1-E-1 for more information on London Hydro's Uniform and Fire Resistant Clothing Policy.

### **3 Head Protection**

Approved head protection (hard hats) must be worn whenever the possibility of head injury exists as well as in accordance with the Occupational Health and Safety Act O-Reg.213/91, 22.

### **4 Eye Protection**

1. Wear approved eye protection (CSA standard Z- 94.3 M88; ANSI standard Z87.1) whenever the possibility of eye injury or irritation exists or whenever you need eye protection to cover a specific hazard. Clear lenses made of scratch resistant polycarbonate or CR-39 (plastic) with UV 400 protection are good for all conditions. In bright conditions, lenses with a maximum density rating of 1.7 combined with ultra violet protection are acceptable.
2. Employees must always wear eye protection in accordance with the Occupational Health and Safety Act, O-Reg.213/91, 24.

### **5 Foot Protection**

Employees must always wear foot protection whenever the possibility of foot injury exists as well as in accordance with the Occupational Health and Safety Act, O-Reg.213/91, 23.

### **6 Reflective Vests and Coats**

1. Wear reflective vests or coats when working on or next to roadway projects.
2. Wear reflective vests within the protected zone when working on the traveled portion of the road.

### **7 Safe Practices While Working on Customers' Property**

1. To comply with Workers' Compensation Act regulations, do not remove safety footwear when working on a customer's premises.
2. Announce your presence and state your business when entering a customer's property, when appropriate. Courtesy is an important part of safety. Follow the safe work practices of industrial and commercial customers when entering and leaving their property.

### **8 Safe Limits of Approach**

1. Only competent workers are permitted to work closer to live electrical apparatus over 750V than 3 metres (10 feet). There are some instances in which it is unsafe to allow workers who are not competent, apprentices and casual workers to work even this close to live electrical apparatus.
2. For workers who are not competent, if the voltage is unknown it must be treated as over 750V and the 3-metre (10') rule applies.

## 9 Mayday (911 Emergency Calls)

### Procedures to Follow When Initiating a MAYDAY Emergency

- When staff call on the radio they should say **MAYDAY, MAYDAY, MAYDAY** to notify the Control Room that emergency assistance is required. This message will also signal all users of the radio system to cease radio communication until the Operator gives an all clear.
- The Operator will get the exact location of the accident, what is required (Fire, Police, Ambulance) and any other information that may help in dealing with the emergency.
- The Operator will contact the appropriate emergency personnel utilizing the **HOT LINE** located in the Control Room.
- The Operator will contact the caller of the MAYDAY to confirm that emergency staff has been dispatched.
- The person who called the MAYDAY should try to remain near the radio in case the Operator needs to clarify or ask for further information for the emergency staff who are responding to the accident scene.
- After the emergency is over the Operator can give the all clear so staff can resume normal radio communications.

### Tips to Help Cut the Response Time to a MAYDAY Emergency

- If possible, summon emergency personnel before attempting a rescue. If emergency personnel are on the way to the scene, they may be able to assist with the rescue and any treatment.
- When you arrive at the job site, document your location on a pad of paper that stays near the radio or cell phone.
- In an outdoor situation, provide street addresses. Make a note of the nearest intersection so that emergency personnel can use it as a reference.
- In a large complex, make a note of the system used to determine your location. It may be a sector name, number or colour. Write it down as well as the name/number of the nearest gate or door.
- When possible, provide an escort for the emergency personnel.
- **DO NOT** transport an injured person in a personal vehicle to obtain medical attention. You can do more for the victim if you administer first aid, treat and prepare for shock, monitor vital signs, etc. and advise emergency personnel when they arrive.
- **STAY CALM**; remember that an excited or upset person is often difficult to understand when he or she is calling for help.

## 10 Rubber Glove Work

### Appropriate Ratings

0 – 750 volts

All protective equipment used in work performed on voltages up to and including 750 volts phase to phase must have a minimum Class 0 rating (1,000 volts).

## 11 Rubber Gloves and Fibre Protective Equipment - Inspection and Care

1. Only use rubber gloves that have received initial acceptance tests in accordance with CSA specifications and American Society for Testing and Materials (ASTM) standards.
2. Rubber gloves shall be
  - a. stored and maintained in the best possible condition at all times,
  - b. never worn inside out or without leather protectors,
  - c. laboratory retested at least every 90 days,
  - d. exchanged any time they become damaged or whenever the worker to whom they are assigned has reason to doubt their condition, and
  - e. air tested and the rubber gloves and leather protectors visually inspected prior to use.
3. Only use the covers to protect the rubber gloves and not separately as work gloves.
4. Leather covers must be examined for rips, open seams, and wood and metal splinters.
5. To minimize corona and ozone damage, rubber protective equipment shall not be stored near live apparatus or be allowed to remain in place on energized lines longer than is absolutely necessary.
6. When not in use, rubber gloves must be carried in approved containers and protected from mechanical or chemical damage. They must not be folded or stored in locations where the temperature exceeds 32 degrees Celsius and, if wet, gloves must be dried before storing. For example, do not hang rubber gloves in van windows.
7. Workers must not wear rings or personal jewellery while using rubber gloves when this could result in stress or damage to the rubber gloves.
8. Rubber gloves must be washed with warm water, rinsed well, and dried if contaminated with oils and greases, etc. These materials cause rapid deterioration of the rubber.
9. Rubber and fibre protective equipment shall be tested every year or more often if the equipment becomes suspect.
10. Fibre protective equipment shall be cleaned and visually inspected at least once a year or more often if the equipment becomes suspect.
11. Should any defects, such as cracks, punctures or other abnormality be detected through inspections prior to use, the equipment shall not be used until tested in accordance with CSA specifications.

## 12 Lock to Lock Rubber Glove Rule

Rubber gloves of the appropriate voltage rating must be worn before opening doors and gates, removing covers or panels to enclosures or compartments that will expose energized conductors within falling or reaching distance, and they must be worn continuously while work is being performed in the enclosures or compartments until,

- a. the covers or panels have been replaced and the gates or doors closed and locked; or
- b. the conductors have been de-energized and/or a safe work area has been established.

In such instances a second competent worker must also have rubber gloves on at all times.

# Appendix C

## Pricing and Compliance Spreadsheets

Attached printouts are for illustrative purposes only  
(Please refer to enclosed CD for  
final working copy)

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# Appendix D

## Meter Demographics and Maps

Meter populations related to Maps are on CD

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# Appendix E



London Hydro Inc

## STANDARD CLAUSES INCLUDED IN PROPOSALS

### **RIGHT TO ACCEPT OR REJECT PROPOSAL**

London Hydro reserves the right to reject any and all Proposals, the right to accept other than the lowest Bidder, and also the right to not accept any bid.

London Hydro reserves the right to cancel this Request for Proposal, at any time without penalty or cost. It is recognized that the acceptance or awarding of a bid for the benefit of London Hydro may require authorization by the London Hydro Board of Directors, which has the sole discretion of accepting or rejecting any bid for London Hydro's benefit.

### **PERFORMANCE**

London Hydro has the right to immediately cancel the Contract before the expiration of term and select a different Bidder if there is non-compliance with any laws, rules or regulations of Ontario, or any of the terms outlined in this Request for Proposal.

If the quality of product or service is unsatisfactory or the Contractor fails to comply with London Hydro's requirements, London Hydro shall notify the Contractor in writing (e-mail accepted) of the problem and the Contractor shall respond and correct the problem within twenty-four (24) hours or provide a plan to rectify the problem. The terms of the plan must be agreed upon by London Hydro to constitute its acceptance.

Failure to comply with the above may result in termination of the Contract.

### **PROPOSAL RESPONSE**

Any variation(s) from the information contained in this proposal must be noted on this document. Proposals may include attachments to expand on your service or product. London Hydro reserves the right to contact Bidders for submission clarification purposes during the evaluation process.

The person signing this application shall initial erasures, overwriting or strikeouts.

Failure to provide response to all the information asked for may cause the response to be declared "incomplete". Incomplete responses, unless they are to the advantage of London Hydro, will be disqualified. Your signature of authorization and acceptance of this document is placed herein. This implies you have read, fully understood and agree to abide by all information contained within this document.

This Request for Proposal and the resulting submissions should not be considered a commitment by London Hydro to enter into any contract. As stated elsewhere in this Request, London Hydro reserves the right to reject any and all submissions.

London Hydro will not be responsible for any cost, expense, liability, loss or damage incurred or suffered by a Bidder because of acceptance or rejection of any Proposal, delay in acceptance of a Proposal, or non-award of contract.

### **DELIVERY**

**DELIVERY IS THE SOLE RESPONSIBILITY OF THE RESPONDENT. PROPOSALS MUST BE HAND DELIVERED TO THE EXECUTIVE OFFICE NOTED ABOVE TO ENSURE RECEIPT BY THE CLOSING TIME. PROPOSALS RECEIVED AFTER THE CLOSING TIME WILL BE REJECTED AND RETURNED TO THE BIDDER UNOPENED.**

### **DISCOUNTS**

Please advise what discounts are available for quantity volumes or early payment. Specifically, what discounts are offered for payment within 10 days of receipt of invoice.

### **RELEASE OF INFORMATION**

Respondents to this Request for Proposal are advised that information obtained from respondents would be communicated to the public and the respondents in the following manner and form:

- A public opening of the Proposals will take place at the time and location indicated in the attached Proposal cover letter. All respondents and the general public may attend this public opening of the respondents' submissions. At such opening, information communicated will be limited to the names of the participating respondents and the bid amounts. No other information will be provided to the public at that time. Evaluation and awarding of the contract will not take place at the public opening.
- After the Proposals have been evaluated, a recommendation to award the contract will be presented to London Hydro's Executive or the Board of Directors for approval. The information presented will consist of the respondent's names, the bid amounts and the recommendation to award the contract.
- After the evaluation and awarding of the contract, all unsuccessful respondents will be advised in writing that the contract was not awarded to them.
- Further requests for information from those respondents who have submitted pricing for this Proposal must be received in writing to the attention of the Purchasing Coordinator. Facsimile will be acceptable if signed and the originating facsimile is identified and consistent with the party requesting the information. Electronic E-mail requests will also be accepted. Information provided would be limited to the names of the respondents, the name of the successful Bidder and the range of the prices received from the respondents.

**Municipal Freedom of Information and Protection of Privacy Act (MFIPPA) – PERSONAL INFORMATION PROTECTION**

While performing its services for London Hydro, the Contractor may come into contact with personal information regarding London Hydro's customers, employees or other parties. Such personal information is subject to the requirements of privacy legislation and London Hydro's privacy policy.

The Contractor may not use or disclose such personal information in any way except pursuant to London Hydro's instructions or to the extent necessary to perform its services for London Hydro. The Contractor must use security measures adequate to the sensitivity of the personal information to prevent the unauthorized use and disclosure of personal information both to and by third parties and to and by the employees of the Contractor who have no need to view personal information for the performance of the Contractor's services for London Hydro.

The Contractor must promptly notify London Hydro of any requests for disclosure of personal information by any party and of any accidental or unauthorized access to such information. If the Contractor subcontracts any part of its obligations hereunder it must obtain contractual obligations similar to this letter from the subcontractor.

**CONFLICT OF INTEREST AND COLLUSION**

The following shall be part of Proposal response:

*I/We declare that no person, firm, or corporation, other than the one whose signature, or the signature of whose proper officers and seal are attached below, has any interest in this bid. I/We further declare that this bid is made without any connection, knowledge, or comparison of figures; or arrangement with any other company, firm or person making a bid for the same, and is in all respects fair and without collusion. I/We declare that no employee(s) of London Hydro is, or will become interested, directly or indirectly as a contracting party or otherwise in the supplies, work or business to which it relates or any portion of the revenues or profits thereof, or in any of the monies to be derived there from. I/We further declare that the several matters and representations stated in said bid are in all respects true.*

Please complete the following information:

Company Name: \_\_\_\_\_  
 Business License #: \_\_\_\_\_  
 GST #: \_\_\_\_\_  
 Authorized Signature: \_\_\_\_\_  
 Name (Printed): \_\_\_\_\_  
 Date: \_\_\_\_\_

**RE: ENGINEERING PROPOSALS WITH PERFORMANCE BONDS & HOLDBACKS: HOLD BACK RELEASE**

The Contractor is advised that forty-five days after the date of Substantial Completion, the Contractor, on production of WSIB Clearance Certificate and a sworn statement (CCDC Form 9A – 2001 Statutory



Declaration) that all accounts for labour, subcontracts, products, construction machinery and equipment, and other indebtedness incorporated in the work that London Hydro may in any way be held responsible for have been fully paid, London Hydro shall issue a certificate for payment of the hold back amount. London Hydro shall retain amounts properly retained as a holdback or as identified in dispute.



#### Version Notes:

Version Notes: V 1.1 – Format and Page Number Changes

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