



THE CITY OF WINNIPEG

REQUEST FOR PROPOSAL

RFP NO. 1042-2023

**SUPPLY & SERVICE OF TRANSIT FUELING STATION WITH METHANOL TO
HYDROGEN GENERATION**

TABLE OF CONTENTS

PART A - PROPOSAL SUBMISSION

- Form A: Bid/Proposal
- Form B: Prices

PART B - BIDDING PROCEDURES

B1. Contract Title	1
B2. Submission Deadline	1
B3. Site Investigation	1
B4. Enquiries	2
B5. Confidentiality	2
B6. Addenda	2
B7. Substitutes	3
B8. Proposal Submission	4
B9. Proposal (Section a)	4
B10. Prices (Section B)	5
B11. Experience of Proponent and Subcontractors (Section C)	5
B12. Experience of Key Personnel Assigned to the Project (Section D)	6
B13. Project Understanding and Methodology (Section E)	7
B14. Project Schedule (Section F)	8
B15. Operation & Maintenance Plan (Section G)	8
B16. Station Performance (Section H)	9
B17. Disclosure	9
B18. Conflict of Interest and Good Faith	10
B19. Qualification	11
B20. Opening of Proposals and Release of Information	12
B21. Irrevocable Offer	12
B22. Withdrawal of Offers	12
B23. Interviews	13
B24. Negotiations	13
B25. Evaluation of Proposals	13
B26. Award of Contract	14

PART C - GENERAL CONDITIONS

C0. General Conditions	1
------------------------	---

PART D - SUPPLEMENTAL CONDITIONS

General

D1. General Conditions	1
D2. Scope of Work	1
D3. Definitions	1
D4. Contract Administrator	2
D5. Contractor's Supervisor	2
D6. Accessible Customer Service Requirements	3
D7. Unfair Labour Practices	3

Submissions

D8. Authority to Carry on Business	4
D9. Safe Work Plan	4
D10. Insurance	4
D11. Contract Security	5
D12. Subcontractor List	6

Control of Work

D13. Commencement	6
D14. Delivery	6
D15. Critical Stages	7
D16. Total Performance	7

D17. Liquidated Damages	8
D18. Supply Chain Disruption Schedule Delays	8
Control of Work	
D19. Job Meetings	8
D20. The Workplace Safety and Health Act (Manitoba) – Qualifications	9
D21. Safety	9
D22. Site Cleaning	9
D23. Inspection	9
D24. Deficiencies	10
D25. Orders	10
D26. Records	10
Measurement and Payment	
D27. Invoices	10
D28. Payment	11
D29. Payment Schedule	11
Warranty	
D30. Warranty	11
Dispute Resolution	
D31. Dispute Resolution	12
Third Party Agreements	
D32. Funding and/or Contribution Agreement Obligations	13
Form H1: Performance Bond	15
Form H2: Irrevocable Standby Letter of Credit	17
PART E - SPECIFICATIONS	
General	
E1. Applicable Specifications and Drawings	1
E2. Technical Requirements	1
E3. Design Support and Coordination	6
E4. Training and Manuals	7
E5. Testing and Sign-Off	9
E6. Operation and Maintenance Services	10
APPENDIX A – BUS SPECIFICATIONS	
APPENDIX B – LAND, SITE(S), FACILITY(IES)	

PART B - BIDDING PROCEDURES

B1. CONTRACT TITLE

B1.2 SUPPLY & SERVICE OF TRANSIT FUELING STATION WITH METHANOL TO HYDROGEN GENERATION

B2. SUBMISSION DEADLINE

B2.1 The Submission Deadline is 12:00 noon Winnipeg time, March 4, 2024.

B2.2 The Contract Administrator or the Manager of Materials may extend the Submission Deadline by issuing an addendum at any time prior to the time and date specified in B2.1.

B3. SITE INVESTIGATION

B3.1 Further to C3.1, the Contract Administrator or an authorized representative will be available at 421 Osborne Street, Winnipeg Manitoba, R3L 2A2 at 10:00AM on February 12, 2024 to provide Proponents access to the site.

B3.2 Proponents wishing to attend the site tour are required to notify the Contact Person by email a minimum of three (3) Business Days prior to the date of the site tour with each individual's name and company name.

B3.3 The City reserves the right to limit attendees per Proponent Team Member.

B3.4 Attendees for the site tour are encouraged to carpool due to limited visitor parking spots at the site.

B3.5 Proponents are advised that:

- (a) Site tour attendees are expected to bring proper Canadian Standards Association compliant personal protection equipment including, protective footwear and high-visibility vest;
- (b) Temperatures in Winnipeg in January can be cold and Proponents should dress appropriately;
- (c) Photography and video will be permitted on a limited basis under guidelines provided prior to site tour. Any individual not complying with such guidelines will be required to leave the site tour;
- (d) Site tour attendees will be expected to walk, climb and descend stairs during some portions of the site tour. No spaces defined as confined spaces will be examined or entered; and
- (e) Site tours will last approximately one (1) hour. All individuals participating must stay with the tour group during the entire site tour.

B3.6 While the proponent is not responsible for any site development, the proponent is encouraged to view the site to assist with the design and development of equipment layouts and to better understand site accessibility.

B3.7 The Proponent shall not be entitled to rely on any information or interpretation received at the Site investigation unless that information or interpretation is the Proponent's direct observation, or is provided by the Contract Administrator in writing.

B3.8 The Proponent is responsible for inspecting the Site, the nature of the Work to be done and all conditions that might affect their Proposal or their performance of the Work, and shall assume all risk for conditions existing or arising in the course of the Work which have been or could have been determined through such inspection.

B3.9 The Proponent is responsible for determining:

- (a) the nature, quality or quantity of the Plant needed to perform the Work;
- (b) all matters concerning access to the Site, power supplies, location of existing services, utilities or materials necessary for the completion of the Work; and
- (c) all other matters which could in any way affect the performance of the Work.

B4. ENQUIRIES

- B4.1 All enquiries shall be directed to the Contract Administrator identified in D4.1.
- B4.2 If the Proponent finds errors, discrepancies or omissions in the Request for Proposal, or is unsure of the meaning or intent of any provision therein, the Proponent shall promptly notify the Contract Administrator of the error, discrepancy or omission at least five (5) Business Days prior to the Submission Deadline.
- B4.3 Responses to enquiries which, in the sole judgment of the Contract Administrator, require a correction to or a clarification of the Request for Proposal will be provided by the Contract Administrator to all Proponents by issuing an addendum.
- B4.4 Responses to enquiries which, in the sole judgment of the Contract Administrator, do not require a correction to or a clarification of the Request for Proposal will be provided by the Contract Administrator only to the Proponent who made the enquiry.
- B4.5 All correspondence or contact by Proponents with the City in respect of this RFP must be directly and only with the Contract Administrator. Failure to restrict correspondence and contact to the Contract Administrator may result in the rejection of the Proponents Proposal Submission.
- B4.6 The Proponent shall not be entitled to rely on any response or interpretation received pursuant to B4 unless that response or interpretation is provided by the Contract Administrator in writing.
- B4.7 Any enquiries concerning submitting through MERX should be addressed to:
MERX Customer Support
Phone: 1-800-964-6379
Email: merx@merx.com

B5. CONFIDENTIALITY

- B5.1 Information provided to a Proponent by the City or acquired by a Proponent by way of further enquiries or through investigation is confidential. Such information shall not be used or disclosed in any way without the prior written authorization of the Contract Administrator. The use and disclosure of the confidential information shall not apply to information which:
- (a) was known to the Proponent before receipt hereof; or
 - (b) becomes publicly known other than through the Proponent; or
 - (c) is disclosed pursuant to the requirements of a governmental authority or judicial order.
- B5.2 The Proponent shall not make any statement of fact or opinion regarding any aspect of the Request for Proposal to the media or any member of the public without the prior written authorization of the Contract Administrator.

B6. ADDENDA

- B6.1 The Contract Administrator may, at any time prior to the Submission Deadline, issue addenda correcting errors, discrepancies or omissions in the Request for Proposal, or clarifying the meaning or intent of any provision therein.
- B6.2 The Contract Administrator will issue each addendum at least five (5) Business Days prior to the Submission Deadline, or provide at least five (5) Business Days by extending the Submission Deadline.

- B6.3 Addenda will be available on the MERX website at www.merx.com.
- B6.4 The Proponent is responsible for ensuring that they have received all addenda and is advised to check the MERX website for addenda regularly and shortly before the Submission Deadline, as may be amended by addendum.
- B6.5 The Proponent shall acknowledge receipt of each addendum in Paragraph 10 of Form A: Bid/Proposal. Failure to acknowledge receipt of an addendum may render a Proposal non-responsive.
- B6.6 Notwithstanding B4, enquiries related to an Addendum may be directed to the Contract Administrator indicated in D4.

B7. SUBSTITUTES

- B7.1 The Work is based on the Plant, Materials and methods specified in the Request for Proposal.
- B7.2 Substitutions shall not be allowed unless application has been made to and prior approval has been granted by the Contract Administrator in writing.
- B7.3 Requests for approval of a substitute will not be considered unless received in writing by the Contract Administrator at least five (5) Business Days prior to the Submission Deadline.
- B7.4 The Proponent shall ensure that any and all requests for approval of a substitute:
- (a) provide sufficient information and details to enable the Contract Administrator to determine the acceptability of the Plant, Material or method as either an approved equal or alternative;
 - (b) identify any and all changes required in the applicable Work, and all changes to any other Work, which would become necessary to accommodate the substitute;
 - (c) identify any anticipated cost or time savings that may be associated with the substitute;
 - (d) certify that, in the case of a request for approval as an approved equal, the substitute will fully perform the functions called for by the general design, be of equal or superior substance to that specified, is suited to the same use and capable of performing the same function as that specified and can be incorporated into the Work, strictly in accordance with the Contract;
 - (e) certify that, in the case of a request for approval as an approved alternative, the substitute will adequately perform the functions called for by the general design, be similar in substance to that specified, is suited to the same use and capable of performing the same function as that specified and can be incorporated into the Work, strictly in accordance with the Contract.
- B7.5 The Contract Administrator, after assessing the request for approval of a substitute, may in their sole discretion grant approval for the use of a substitute as an “approved equal” or as an “approved alternative”, or may refuse to grant approval of the substitute.
- B7.6 The Contract Administrator will provide a response in writing, at least two (2) Business Days prior to the Submission Deadline, to the Proponent who requested approval of the substitute.
- B7.6.1 The Contract Administrator will issue an Addendum, disclosing the approved materials, equipment, methods and products to all potential Proponents. The Proponent requesting and obtaining the approval of a substitute shall be responsible for disseminating information regarding the approval to any person or persons they wish to inform.
- B7.7 If the Contract Administrator approves a substitute as an “approved equal”, any Proponent may use the approved equal in place of the specified item.
- B7.8 If the Contract Administrator approves a substitute as an “approved alternative”, any Proponent bidding that approved alternative may base their Total Bid Price upon the specified item but

may also indicate an alternative price based upon the approved alternative. Such alternatives will be evaluated in accordance with B25.

B7.9 No later claim by the Contractor for an addition to the Total Bid Price because of any other changes in the Work necessitated by the use of an approved equal or an approved alternative will be considered.

B8. PROPOSAL SUBMISSION

B8.1 The Proposal shall consist of the following components:

- (a) Form A: Bid/Proposal;
- (b) Form B: Prices.

B8.2 The Proposal should also consist of the following components:

- (a) Experience of Proponent and Subcontractors (Section C) in accordance with B11;
- (b) Experience of Key Personnel Assigned to the Project (Section D), in accordance with B12;
- (c) Project Understanding and Methodology (Section E) in accordance with B13;
- (d) Project Schedule (Section F) in accordance with B14;
- (e) Operation & Maintenance Support (Section G) in accordance with B15; and
- (f) Station Performance (Section H) in accordance with B16.

B8.3 Further to B8.1 all components of the Proposal shall be fully completed or provided in the order indicated, and submitted by the Proponent no later than the Submission Deadline, with all required entries made clearly and completely, to constitute a responsive Proposal.

B8.4 Further to B8.2, all components of the Proposal should be fully completed or provided in the order indicated, and submitted by the Proponent no later than the Submission Deadline, with all required entries made clearly and completely.

B8.5 Proposal format, including number of pages, size of pages and, font, etc., will not be regulated, except that the Proposal should contain a table of contents, page numbering and should be in the Sections identified above. Proponents are encouraged to use their creativity to submit a Proposal which provides the requested information for evaluation and other information which illustrates the strength of their proposed solution.

B8.6 The Proposal shall be submitted electronically through MERX at www.merx.com.

B8.6.1 Proposals will **only** be accepted electronically through MERX.

B8.7 Proponents are advised that inclusion of terms and conditions inconsistent with the Request for Proposal, will be evaluated in accordance with B25.1(a).

B8.8 Any cost or expense incurred by the Proponent that is associated with the preparation of the Proposal shall be borne solely by the Proponent.

B9. PROPOSAL (SECTION A)

B9.1 The Proponent shall complete Form A: Bid/Proposal, making all required entries.

B9.2 Paragraph 2 of Form A: Bid/Proposal shall be completed in accordance with the following requirements:

- (a) if the Proponent is a sole proprietor carrying on business in their own name, their name shall be inserted;
- (b) if the Proponent is a partnership, the full name of the partnership shall be inserted;
- (c) if the Proponent is a corporation, the full name of the corporation shall be inserted;

- (d) if the Proponent is carrying on business under a name other than their own, the business name and the name of every partner or corporation who is the owner of such business name shall be inserted.

B9.2.1 If a Proposal is submitted jointly by two or more persons, each and all such persons shall identify themselves in accordance with B9.2.

B9.3 In Paragraph 3 of Form A: Bid/Proposal, the Proponent shall identify a contact person who is authorized to represent the Proponent for purposes of the Proposal.

B9.4 Paragraph 13 of Form A: Bid/Proposal shall be signed in accordance with the following requirements:

- (a) if the Proponent is a sole proprietor carrying on business in their own name, it shall be signed by the Proponent;
- (b) if the Proponent is a partnership, it shall be signed by the partner or partners who have authority to sign for the partnership;
- (c) if the Proponent is a corporation, it shall be signed by their duly authorized officer or officers;
- (d) if the Proponent is carrying on business under a name other than their own, it shall be signed by the registered owner of the business name, or by the registered owner's authorized officials if the owner is a partnership or a corporation.

B9.4.1 The name and official capacity of all individuals signing Form A: Bid/Proposal should be entered below such signatures.

B9.5 If a Proposal is submitted jointly by two or more persons, the word "Proponent" shall mean each and all such persons, and the undertakings, covenants and obligations of such joint Proponents in the Proposal and the Contract, when awarded, shall be both joint and several.

B10. PRICES (SECTION B)

B10.1 The Proponent shall state the lump sum price in Canadian funds for the Work on Form B: Prices.

B10.1.1 Notwithstanding C12.2.3, the price on Form B: Prices shall not include the Goods and Services Tax (GST) or Manitoba Retail Sales Tax (MRST, also known as PST), which shall be extra where applicable.

B10.1.2 The price shall include:

- (a) duty;
- (b) freight and cartage;
- (c) Provincial and Federal taxes [except the Goods and Services Tax (GST) and Manitoba Retail Sales Tax (MRST, also known as PST), which shall be extra where applicable] and all charges governmental or otherwise paid;
- (d) profit and all compensation which shall be due to the Contractor for the Work and all risks and contingencies connected therewith.

B10.1.3 Prices shall not include Environmental Handling Charges (EHC) or fees, which shall be extra where applicable.

B10.2 Payments to Non-Resident Contractors are subject to Non-Resident Withholding Tax pursuant to the Income Tax Act (Canada).

B11. EXPERIENCE OF PROPONENT AND SUBCONTRACTORS (SECTION C)

B11.1 Proposals should include:

- (a) general firm profile information, including years in business, average volume of work, number of employees and other pertinent information for the Proponent and all Subcontractors.
- (b) reference to two projects of similar complexity, scope and value details demonstrating the history and experience of the Proponent and Subcontractors in providing equipment; design, management of construction/installation, commissioning and Operation and Maintenance services.

B11.1.1 Where applicable, information should be separated into Proponent and Subcontractor project listings.

B11.2 For each project listed in B11.1(b), the Proponent should submit:

- (a) description of the project;
- (b) role of the contractor;
- (c) project's original contracted construction cost and final construction cost;
- (d) design and construction schedule (anticipated Project schedule and actual project delivery schedule, showing design and construction separately);
- (e) project owner; and
- (f) reference information (two current names with telephone numbers and email addresses per project).

B11.3 Past Projects of the Proponent's will be evaluated according to the following criteria:

- (a) carried out within the last five (5) years in which the project has reached Final Completion and the warranty period has lapsed;
- (b) turn-key hydrogen generating and dispensing station;
- (c) refueling of heavy-duty transit buses, trucks, or trains with hydrogen fuel cell propulsion systems at a rate of approximately 225kg/day;
- (d) demonstrates company's understanding of the characteristics of hydrogen as a fuel;
- (e) constructed in winter temperatures similar to that of Winnipeg (http://climate.weather.gc.ca/climate_data/daily_data_e.html?StationID=27174) which can be consistently below -20oC for a number of weeks;
- (f) met project schedules and budgets;
- (g) demonstrates a safety health and environmental program is in place; including minimum accidents and lost time accidents;
- (h) demonstrates the project complied with codes and regulations for the fueling of hydrogen or other compressed gases, including codes such as NFPA 2, NFPA 30A, and NFPA 55;
- (i) included integration of IrDA based communications systems for fueling applications; and
- (j) demonstrate experience designing an integrated fuel production and refueling station to support small fleets with the ability to be scaled to support fleet growth, including the ability to readily expand fuel production, fuel storage, and fuel dispensing equipment.

B11.3.1 If the teams have not completed past projects that match the criteria, consideration will be given to projects that most closely match the criteria. For example, if a team has not previously worked on a hydrogen fueling station project but has worked on a compressed natural gas fueling station project, describe that project. Or, if a team has not previously worked on a fueling station for heavy-duty vehicles but has worked on a fueling station for light-duty vehicles, describe that project.

B12. EXPERIENCE OF KEY PERSONNEL ASSIGNED TO THE PROJECT (SECTION D)

B12.1 Describe your approach to overall team formation and coordination of team members.

B12.1.1 Include an organizational chart for the Project.

- B12.2 Submit the experience and qualifications of the Key Personnel assigned to the Project for projects of similar complexity, scope and value, including the Project Manager, Design Manager, Commissioning Manager, Operation and Maintenance Manager as applicable. Include educational background and degrees, professional recognition, job title, years of experience in current position, years of experience in design and construction, and years of experience with existing employer. Roles of each of the Key Personnel in the Project should be identified in the organizational chart referred to in B12.1.1.
- B12.3 For each person identified, list at least two comparable projects in which they have played a primary role. If a project selected for a key person is included in B11, provide only the project name and the role of the key person. For other projects provide the following:
- Description of project;
 - Role of the person;
 - Project Owner; and
 - Reference information (two current names with telephone numbers and email addresses per project).
- B12.4 The Proponent's Team will be evaluated according to the following criteria:
- Experience in a similar role on a project carried out within the last five (5) years in which the project has reached Final Completion and the warranty period has lapsed;
 - Educational background that align with assigned roles and responsibilities and identification of any additional relevant training, seminar, or certifications;
 - Direct experience with hydrogen production and dispensing station projects; and
 - Experience with design, construction and/or operation of equipment in winter temperatures similar to that of Winnipeg (http://climate.weather.gc.ca/climate_data/daily_data_e.html?StationID=27174) which can be consistently below -20oC for a number of weeks.

B13. PROJECT UNDERSTANDING AND METHODOLOGY (SECTION E)

- B13.1 Describe your firm's project management approach and team organization during the performance of Services, so that the evaluation committee has a clear understanding of the methods the Proponent will use in the delivery of this Project.
- B13.2 Methodology should be presented in accordance with the Scope of Work identified in D2.
- B13.3 Describe the collaborative process/method to be used by the Key Personnel of the team in the various phases of the Project.
- B13.4 Proposals should address:
- the team's understanding of the broad functional and technical requirements of the project;
 - the teams approach to design safety including, compliance with applicable codes and standards, hazard identification and mitigation through FMEA, HAZOP or consultation with the Hydrogen Safety Board, approaches to promoting a safe work environment, and other methodologies;
 - the proposed Project budget;
 - the City's Project methodology with respect to the information provided within this RFP and the City's Project Management Manual at <http://winnipeg.ca/infrastructure/asset-management-program/templates-manuals.stm#2> and templates at <http://winnipeg.ca/infrastructure/asset-management-program/templates-manuals.stm#4> ; and;
 - any other issue that conveys your team's understanding of the Works.

B14. PROJECT SCHEDULE (SECTION F)

- B14.1 Proponent shall provide a schedule outlining the planning, design, permitting, procurement, construction, City staff training, testing and commissioning activities, operations and maintenance activities and project closeout in a sufficient level of detail to enable the City to interpret the schedule, facilitate coordination between Parties and monitor the progress of the Works
- B14.2 The Schedule shall outline at minimum the following milestone dates:
- (a) Effective Date;
 - (b) Scheduled Total Performance Date;
 - (c) Scheduled Final Completion Date;
 - (d) Start and completion of Design activities;
 - (e) Submission of design packages for City review;
 - (f) Procurement activities for major equipment and materials, including key dates for purchase and delivery of major equipment and material items;
 - (g) Permits, Licences and Approvals dates;
 - (h) Mobilization activities;
 - (i) Construction/installation activities sequencing as well as start and completion dates;
 - (j) Interfaces and tie-ins with facilities together with planned utility shutdowns;
 - (k) Commissioning activities. functional, systems operational, and performance Testing including start and completion dates for each major system, and process;
 - (l) Start and completion of training; and
 - (m) Start and completion of Operation and Maintenance.
- B14.3 The Proponent's schedule should identify critical dates for review and approval processes by the City and other organizations anticipated during the design and tendering phases of the Project. Reasonable times should be allowed for completion of these processes.
- B14.4 Provide a narrative on how the Proponent's team will actively monitor and mitigate any schedule risks introduced to the project during execution to maintain critical path.
- B14.5 The Proponent's Schedule will be evaluated according to the following criteria:
- (a) Demonstrates an understanding of Project scope, including all key tasks and milestones related of the major design components identified in the Scope of Work;
 - (b) Demonstrates an understanding of project critical path and ability to effectively manage the schedule; and
 - (c) Confirms the Proponent's commitment to delivering equipment by the end of calendar year 2024 and Total Completion by February 28, 2025.

B15. OPERATION & MAINTENANCE PLAN (SECTION G)

- B15.1 Proponent shall provide a detailed description of its service plan describing the operation and maintenance activities that will be undertaken to ensure that the Hydrogen Fueling Station maintain all performance expectations laid out in this RFP, including strategies with respect to scheduled and unscheduled maintenance and repair activities.
- B15.2 Unscheduled Maintenance Support
- (a) including a description of the Proponent's approach to:
 - (i) Response Time for service calls placed;
 - (ii) Resolution Time for service call placed;
 - (iii) diagnostics and troubleshooting;

- (iv) Warranty work; and
- (v) spare parts.

B15.3 Scheduled Maintenance Program

- (a) Proponents should provide an in-depth description of their maintenance program for all components of the recommended solution. The explanation should include, but not be limited to, the following:
 - (i) Preventative Maintenance Schedule;
 - (ii) Availability of replacement parts;
 - (iii) labour;
 - (iv) equipment consumables;
 - (v) software updates/upgrades and firmware updates;
 - (vi) software licensing fees; and
 - (vii) Diagnostic and Specialist Support Services for all components of the recommended solution.

B15.4 Provide a detailed description of the training program proposed for the recommended solution including timing, resources, training aids and materials.

B16. STATION PERFORMANCE (SECTION H)

B16.1 Proponents should provide overview of the Technical Requirements and performance of the proposed Works. The description should include, but not be limited to the degree of compliance with Section E2 Technical Requirements and the following:

- (a) The maximum fueling speed and maximum fill rates from fuel authorization through fill complete under various environmental conditions;
- (b) The maximum State of Fill under various environmental conditions;
- (c) The number of back-to-back fueling of multiple buses based on 24kg and 36kg fills;
- (d) Ability to provide communication fills using SAE J2799 protocol and the IrDA system;
- (e) Achieving and maintaining SAE J2719 fuel quality standards, including a description of any purification systems needed;
- (f) Station generation output and energy use, methanol, and water consumption per kilogram of hydrogen;
- (g) Station hydrogen and methanol storage equipment and capacity;
- (h) Ability to expand production capacity in the future; and
- (i) Delivering real-time station monitoring and recording of performance metrics.

B16.2 Proponents should include any supporting graphics or drawings needed to clarify the Proponents proposed design and to demonstrate how the proposed design meets or exceeds the City's requirements for the Works.

B17. DISCLOSURE

B17.1 Various Persons provided information or services with respect to this Work. In the City's opinion, this relationship or association does not create a conflict of interest because of this full disclosure. Where applicable, additional material available as a result of contact with these Persons is listed below.

B17.2 The Persons are:

- (a) Azolla Hydrogen, Budgetary pricing, Product information;
- (b) Kaizen Clean Energy, Budgetary pricing, Product information;
- (c) Element 1, Product Information; and

(d) GT Leasing, Product Information.

B18. CONFLICT OF INTEREST AND GOOD FAITH

B18.1 Further to C3.2, Proponents, by responding to this RFP, declare that no Conflict of Interest currently exists, or is reasonably expected to exist in the future.

B18.2 Conflict of Interest means any situation or circumstance where a Proponent or Key Personnel proposed for the Work has:

- (a) other commitments;
- (b) relationships;
- (c) financial interests; or
- (d) involvement in ongoing litigation;

that could or would be seen to:

- (i) exercise an improper influence over the objective, unbiased and impartial exercise of the independent judgment of the City with respect to the evaluation of Proposals or award of the Contract; or
 - (ii) compromise, impair or be incompatible with the effective performance of a Proponent's obligations under the Contract.
- (e) has contractual or other obligations to the City that could or would be seen to have been compromised or impaired as a result of their participation in the RFP process or the Project; or
- (f) has knowledge of confidential information (other than confidential information disclosed by the City in the normal course of the RFP process) of strategic and/or material relevance to the RFP process or to the Project that is not available to other proponents and that could or would be seen to give that Proponent an unfair competitive advantage.

B18.3 In connection with their Proposal, each entity identified in B18.2 shall:

- (a) avoid any perceived, potential or actual Conflict of Interest in relation to the procurement process and the Project;
- (b) upon discovering any perceived, potential or actual Conflict of Interest at any time during the RFP process, promptly disclose a detailed description of the Conflict of Interest to the City in a written statement to the Contract Administrator; and
- (c) provide the City with the proposed means to avoid or mitigate, to the greatest extent practicable, any perceived, potential or actual Conflict of Interest and shall submit any additional information to the City that the City considers necessary to properly assess the perceived, potential or actual Conflict of Interest.

B18.4 Without limiting B18.3, the City may, in their sole discretion, waive any and all perceived, potential or actual Conflicts of Interest. The City's waiver may be based upon such terms and conditions as the City, in their sole discretion, requires to satisfy itself that the Conflict of Interest has been appropriately avoided or mitigated, including requiring the Proponent to put into place such policies, procedures, measures and other safeguards as may be required by and be acceptable to the City, in their sole discretion, to avoid or mitigate the impact of such Conflict of Interest.

B18.5 Without limiting B18.3, and in addition to all contractual or other rights or rights at law or in equity or legislation that may be available to the City, the City may, in their sole discretion:

- (a) disqualify a Proponent that fails to disclose a perceived, potential or actual Conflict of Interest of the Proponent or any of their Key Personnel;
- (b) require the removal or replacement of any Key Personnel proposed for the Work that has a perceived, actual or potential Conflict of Interest that the City, in their sole discretion, determines cannot be avoided or mitigated;

- (c) disqualify a Proponent or Key Personnel proposed for the Work that fails to comply with any requirements prescribed by the City pursuant to B18.4 to avoid or mitigate a Conflict of Interest; and
- (d) disqualify a Proponent if the Proponent, or one of their Key Personnel proposed for the Project, has a perceived, potential or actual Conflict of Interest that, in the City's sole discretion, cannot be avoided or mitigated, or otherwise resolved.

B18.6 The final determination of whether a perceived, potential or actual Conflict of Interest exists shall be made by the City, in their sole discretion.

B19. QUALIFICATION

B19.1 The Proponent shall:

- (a) undertake to be in good standing under The Corporations Act (Manitoba), or properly registered under The Business Names Registration Act (Manitoba), or otherwise properly registered, licensed or permitted by law to carry on business in Manitoba, or if the Proponent does not carry on business in Manitoba, in the jurisdiction where the Proponent does carry on business; and
- (b) be financially capable of carrying out the terms of the Contract; and
- (c) have all the necessary experience, capital, organization, and equipment to perform the Work in strict accordance with the terms and provisions of the Contract.

B19.2 The Proponent and any proposed Subcontractor (for the portion of the Work proposed to be subcontracted to them) shall:

- (a) be responsible and not be suspended, debarred or in default of any obligations to the City. A list of suspended or debarred individuals and companies is available on the Information Connection page at The City of Winnipeg, Corporate Finance, Materials Management Division website at <https://www.winnipeg.ca/matmgt/Templates/files/debar.pdf>

B19.3 The Proponent and/or any proposed Subcontractor (for the portion of the Work proposed to be subcontracted to them) shall:

- (a) have successfully carried out work similar in nature, scope and value to the Work; and
- (b) be fully capable of performing the Work required to be in strict accordance with the terms and provisions of the Contract;
- (c) have a written workplace safety and health program, if required, pursuant to The Workplace Safety and Health Act (Manitoba); and
- (d) have the knowledge and resources to administer the requirements of The Workplace Safety and Health Act (Manitoba) during the construction works associated with this Contract;
- (e) undertake to meet all licensing and regulatory requirements of the appropriate governing authorities and associations in the Province of Manitoba; and
- (f) have completed the Accessible Customer Service online training required by the Accessibility for Manitobans Act (AMA) (see B19.5 and D6).

B19.4 Further to B19.3(c), the Proponent shall, within five (5) Business Days of a request by the Contract Administrator, provide proof satisfactory to the Contract Administrator that the Proponent/Subcontractor has a workplace safety and health program meeting the requirements of The Workplace Safety and Health Act (Manitoba), by providing:

- (a) Written confirmation of a safety and health certification meeting SAFE Work Manitoba's SAFE Work Certified Standard (e.g., COR™ and SECOR™) in the form of:
 - (i) a copy of their valid Manitoba COR certificate and Letter of Good Standing (or Manitoba equivalency) as issued under the Certificate of Recognition (COR) Program administered by the Construction Safety Association of Manitoba or by the Manitoba Heavy Construction Association's WORKSAFELY™ COR™ Program; or

- (ii) a copy of their valid Manitoba SECOR™ certificate and Letter of Good Standing (or Manitoba equivalency) as issued under the Small Employer Certificate of Recognition Program (SECOR™) administered by the Construction Safety Association of Manitoba or by the Manitoba Heavy Construction Association's WORKSAFELY™ COR™ Program; or
 - (b) a report or letter to that effect from an independent reviewer acceptable to the City. (A list of acceptable reviewers and the review template are available on the Information Connection page at The City of Winnipeg, Corporate Finance, Materials Management Division website at <http://www.winnipeg.ca/matmgt/>).
- B19.5 Further to B19.3(d), the Proponent acknowledges they and all Subcontractors have obtained training required by the Accessibility for Manitobans Act (AMA) available at <http://www.accessibilitymb.ca/training.html> for anyone that may have any interaction with the public on behalf of the City of Winnipeg.
- B19.6 The Proponent shall submit, within three (3) Business Days of a request by the Contract Administrator, proof satisfactory to the Contract Administrator of the qualifications of the Proponent and of any proposed Subcontractor.
- B19.7 The Proponent shall provide, on the request of the Contract Administrator, full access to any of the Proponent's equipment and facilities to confirm, to the Contract Administrator's satisfaction, that the Proponent's equipment and facilities are adequate to perform the Work.

B20. OPENING OF PROPOSALS AND RELEASE OF INFORMATION

- B20.1 Proposals will not be opened publicly.
- B20.2 After award of Contract, the Contract amount and the name of the successful Proponent and their address will be available on the MERX website at www.merx.com.
- B20.3 The Proponent is advised that any information contained in any Proposal Submission may be released if required by The Freedom of Information and Protection of Privacy Act (Manitoba), by other authorities having jurisdiction, or by law or by City policy or procedures (which may include access by members of City Council).
- B20.3.1 To the extent permitted, the City shall treat as confidential information, those aspects of a Proposal Submission identified by the Proponent as such in accordance with and by reference to Part 2, Section 17 or Section 18 or Section 26 of The Freedom of Information and Protection of Privacy Act (Manitoba), as amended.
- B20.4 Following the award of Contract, a Proponent will be provided with information related to the evaluation of their submission upon written request to the Contract Administrator.

B21. IRREVOCABLE OFFER

- B21.1 The Proposal(s) submitted by the Proponent shall be irrevocable for the time period specified in Paragraph 10 of Form A: Bid/Proposal.
- B21.2 The acceptance by the City of any Proposal shall not release the Proposals of the other responsive Proponents and these Proponents shall be bound by their offers on such Work until a Contract for the Work has been duly formed and the contract security have been furnished as herein provided, but any offer shall be deemed to have lapsed unless accepted within the time period specified in Paragraph 10 of Form A: Bid/Proposal.

B22. WITHDRAWAL OF OFFERS

- B22.1 A Proponent may withdraw their Proposal without penalty prior to the Submission Deadline.

B23. INTERVIEWS

B23.1 The Contract Administrator may, in their sole discretion, interview Proponents during the evaluation process.

B24. NEGOTIATIONS

B24.1 The City reserves the right to negotiate details of the Contract with any Proponent. Proponents are advised to present their best offer, not a starting point for negotiations in their Proposal Submission.

B24.2 The City may negotiate with the Proponents submitting, in the City's opinion, the most advantageous Proposals. The City may enter into negotiations with one or more Proponents without being obligated to offer the same opportunity to any other Proponents. Negotiations may be concurrent and will involve each Proponent individually. The City shall incur no liability to any Proponent as a result of such negotiations.

B24.3 If, in the course of negotiations pursuant to B24.2, the Proponent amends or modifies a Proposal after the Submission Deadline, the City may consider the amended Proposal as an alternative to the Proposal already submitted without releasing the Proponent from the Proposal as originally submitted.

B25. EVALUATION OF PROPOSALS

B25.1 Award of the Contract shall be based on the following evaluation criteria:

- (a) compliance by the Proponent with the requirements of the Request for Proposal or acceptable deviation therefrom: (pass/fail)
- (b) qualifications of the Proponent and the Subcontractors, if any, pursuant to B19: (pass/fail)
- (c) Total Bid Price 40%
- (d) Experience of Proponent and Subcontractor; (Section C) 5%
- (e) Experience of Key Personnel Assigned to the Project; (Section D) 5%
- (f) Project Understanding and Methodology (Section E) 10%
- (g) Project Schedule. (Section F) 15%
- (h) Operation and Maintenance Plan (Section G) 10%
- (i) Station Performance (Section H) 15%

B25.2 Further to B25.1(a), the Award Authority may reject a Proposal as being non-responsive if the Proposal is incomplete, obscure or conditional, or contains additions, deletions, alterations or other irregularities. The Award Authority may reject all or any part of any Proposal, or waive technical requirements or minor informalities or irregularities if the interests of the City so require.

B25.3 Further to B25.1(b), the Award Authority shall reject any Proposal submitted by a Proponent who does not demonstrate, in their Proposal or in other information required to be submitted, that they are qualified.

B25.4 If, in the sole opinion of the City, a Proposal does not achieve a pass rating for B25.1(a) and B25.1(b), the Proposal will be determined to be non-responsive and will not be further evaluated.

B25.5 Further to B25.1(c), the Total Bid Price shall be the lump sum price shown on Form B: Prices.

B25.6 Further to B25.1(d), Experience of Proponent and Subcontractors will be evaluated considering the experience of the organization on projects of similar size and complexity as well as other information requested, in accordance with B11.

- B25.7 Further to B25.1(e), Experience of Key Personnel Assigned to the Project will be evaluated considering the experience and qualifications of the Key Personnel and Subcontractor personnel on Projects of comparable size and complexity, in accordance with B12.
- B25.8 Further to B25.1(f), Project Understanding and Methodology will be evaluated considering your firm's understanding of the City's Project, project management approach and team organization, in accordance with B13.
- B25.9 Further to B25.1(g), Project Schedule will be evaluated considering the Proponent's ability to comply with the requirements of the Project, in accordance with B14.
- B25.10 Further to B25.1(h), Operation & Maintenance Support will be evaluated considering the Proponent's strategy for delivering schedule and unscheduled maintenance support and training, in accordance with B15.
- B25.11 Further to B25.1(i), Station Performance will be evaluated based on the overall technical performance of the proposed station and its ability to meets or exceeds the City's operational requirements, in accordance with B16.
- B25.12 Notwithstanding B25.1(d) to B25.1(i), where Proponents fail to provide a response to B8.2(a) to B8.2(f), the score of zero may be assigned to the incomplete part of the response.
- B25.13 Proposals will be evaluated considering the information in the Proposal Submission and any interviews held in accordance with B23.
- B25.14 Where references are requested, the reference checks to confirm information provided may not be restricted to only those submitted by the Proponent, and may include organizations representing Persons, known to have done business with the Proponent.
- B25.15 This Contract will be awarded as a whole.

B26. AWARD OF CONTRACT

- B26.1 The City will give notice of the award of the Contract, or will give notice that no award will be made.
- B26.2 The City will have no obligation to award a Contract to a Proponent, even though one or all of the Proponents are determined to be qualified, and the Proposals are determined to be responsive.
- B26.2.1 Without limiting the generality of B26.2, the City will have no obligation to award a Contract where:
- (a) the prices exceed the available City funds for the Work;
 - (b) the prices are materially in excess of the prices received for similar work in the past;
 - (c) the prices are materially in excess of the City's cost to perform the Work, or a significant portion thereof, with their own forces;
 - (d) only one Proposal is received; or
 - (e) in the judgment of the Award Authority, the interests of the City would best be served by not awarding a Contract.
- B26.3 Where an award of Contract is made by the City, the award shall be made to the qualified Proponent submitting the most advantageous offer.
- B26.4 The City may, at their discretion, award the Contract in phases.
- B26.5 Further to B26.4 the City reserves the right to negotiate and award future phases to the successful Proponent.

- B26.6 Further to Paragraph 7 of Form A: Bid/Proposal and C4, the City may issue an award letter to the successful Proponent in lieu of execution of Contract Documents.
- B26.7 Following issuance of the award letter a document package comprising the Contract Documents will be provided to the successful Proponent electronically.
- B26.8 Following the award of contract, a Proponent will be provided with information related to the evaluation of their Proposal upon written request to the Contract Administrator.
- B26.9 If, after the award of Contract, the Project is cancelled, the City reserves the right to terminate the Contract. The Proponent will be paid for all Services rendered up to time of termination.

PART C - GENERAL CONDITIONS

C0. GENERAL CONDITIONS

- C0.1 The *General Conditions for the Combined Provision of Goods and Services (2020-01-31)* are applicable to the Work of the Contract.
- C0.1.1 The *General Conditions for the Combined Provision of Goods and Services* are available on the Information Connection page at The City of Winnipeg, Corporate Finance, Materials Management Division website at http://www.winnipeg.ca/matmgt/gen_cond.stm
- C0.2 A reference in the Request for Proposal to a section, clause or subclause with the prefix “**C**” designates a section, clause or subclause in the *General Conditions for the Combined Provision of Goods and Services*.

PART D - SUPPLEMENTAL CONDITIONS

GENERAL

D1. GENERAL CONDITIONS

D1.1 In addition to the *General Conditions for the Combined Provision of Goods and Services*, these Supplemental Conditions are applicable to the Work of the Contract.

D2. SCOPE OF WORK

D2.1 The Work to be done under the Contract shall consist of:

- (a) Item 1. Hydrogen Generation and Dispensing Equipment on Form B: Prices consisting of the design, supply, installation, and commissioning of a hydrogen generation and dispensing station, including a methanol reformer for generation; and
- (b) Item 2. Fueling Station Operation & Maintenance Services on Form B: Prices consisting of ongoing operation, service and maintenance of the Fueling Station for a period of 1 year following Substantial Completion.

D2.2 The major components of the Work are as follows:

- (a) Design, procurement, installation and commissioning of equipment for the recommended Hydrogen Fueling Station solution;
- (b) Design support to the City's selected engineering design consultant and construction contractors for associate electrical, mechanical, and civil works required for the station;
- (c) Training and Manuals;
- (d) Testing and sign off; and
- (e) Operation and Maintenance program.

D2.3 The Contractor shall have complete responsibility to perform all of the Works to deliver the Infrastructure so as to provide hydrogen generation and dispensing Infrastructure that:

- (a) is complete and operational;
- (b) achieves and maintains SAE J2719 fuel quality standards; and
- (c) is in compliance with all applicable standards, licenses, approvals, etc., including, but not limited to NFPA 2 and the building and safety codes of Winnipeg, MB.

D3. DEFINITIONS

D3.1 When used in this Request for Proposal:

- (a) "**Certificate of Recognition (COR)**" means the Manitoba (COR) certificate and Letter of Good Standing as issued under the COR program administered by the Construction Safety Association of Manitoba (CSAM) or by the Manitoba Heavy Construction Association (MHCA), WORKSAFETY™, COR™ program;
- (b) "**Deficiency List**" means the list of items identified by the City Representative upon inspection of the Work in response to an application for Substantial Completion, that do not meet the criteria in the Technical Requirements;
- (c) "**Hydrogen Fueling Station**" means all systems and equipment related to hydrogen generation, storage, compression, and dispensing designed, installed and/or constructed by the Contractor pursuant to the Request for Proposal;
- (d) "**Lock Out – Tag Out Procedure**" or "**LOTO**" means a written, specific step by step description of how to physically lock equipment or a process in a de-energized position including the accompanying labelling process for indicating the equipment or process is locked-out;

- (e) **“Procurement Cost Advance”** has the meaning set out in Section D29.2;
- (f) **“Project”** means the design, supply, installation of a hydrogen generation and dispensing station, including a methanol reformer for generation, and ongoing service and maintenance of the equipment for a period of 1 years following Total Performance and all other work to be completed under the terms of the contract;
- (g) **“Proponent”** means any Person or Persons submitting a Proposal for Goods and Services;
- (h) **“Resolution Time”** means the time from when the user places the service call to the Contractor to the time the service technician resolves the reported issue;
- (i) **“Response Time”** means the time from when the user places the service call to the Contractor to the time the service technician arrives at the user’s location to work on the reported issue;
- (j) **“Safe Work Procedure”** or **“SWP”** means a written, specific step by step description of how to complete a task safely from start to finish;
- (k) **“Site”** means the lands in, under or on, in which the Works is to be performed, and includes the;
 - (i) Winnipeg Transit garage located at 421 Osborne Street, Winnipeg Manitoba, R3L 2A2;
 - (ii) Winnipeg Transit employee parking lot “e”, PayByPhone Location #204476;
- (l) **“Standard Operation Procedure”** or **“SOP”** means a written set of step-by-step instructions to complete a task in accordance with design and facility requirements. The SOPs provide standardized documented guidance to City staff for undertaking key operational procedures;
- (m) **“Substantial Completion”**: means the point in which design, construction and commissioning has been completed in accordance with the Contract and all requirements for Substantial Completion described in D15.2, except those items on the Deficiencies List and any items arising from the provision of C13, have been satisfied;
- (n) **“Supply Chain Disruption”** means an inability by the Contractor to obtain goods or services from third parties necessary to perform the Work of the Contract within the schedule specified therein, despite the Contractor making all reasonable commercial efforts to procure same. Contractors are advised that increased costs do not, in and of themselves, amount to a Supply Chain Disruption; and
- (o) **“Technical Requirements”** means all requirements specified in Section E2.

D4. CONTRACT ADMINISTRATOR

D4.1 The Contract Administrator is:

Erin Cooke
Project Manager – Transition to Zero Emission Bus
Telephone No. 204-226-3557
Email Address. ecooke@winnipeg.ca

D4.2 At the pre-commencement meeting, the Contract Administrator will identify additional personnel representing the Contract Administrator and their respective roles and responsibilities for the Work.

D5. CONTRACTOR'S SUPERVISOR

D5.1 Further to C6.24, before commencement of Work, the Contractor shall identify their designated supervisor and any additional personnel representing the Contractor and their respective roles and responsibilities for the Work.

D5.1.1 Further to C5.5 Contract Administrator may give instructions or orders to the Contractor’s supervisor and such instructions or orders shall be deemed to have been given to the Contractor.

D6. ACCESSIBLE CUSTOMER SERVICE REQUIREMENTS

- D6.1 The Accessibility for Manitobans Act (AMA) imposes obligations on The City of Winnipeg to provide accessible customer service to all persons in accordance with the Customer Service Standard Regulation ("CSSR") to ensure inclusive access and participation for all people who live, work or visit Winnipeg regardless of their abilities.
- D6.1.1 The Contractor agrees to comply with the accessible customer service obligations under the CSSR and further agrees that when providing the Goods or Services or otherwise acting on the City of Winnipeg's behalf, shall comply with all obligations under the AMA applicable to public sector bodies.
- D6.1.2 The accessible customer service obligations include, but are not limited to:
- (a) providing barrier-free access to goods and services;
 - (b) providing reasonable accommodations;
 - (c) reasonably accommodating assistive devices, support persons, and support animals;
 - (d) providing accessibility features e.g. ramps, wide aisles, accessible washrooms, power doors and elevators;
 - (e) inform the public when accessibility features are not available;
 - (f) providing a mechanism or process for receiving and responding to public feedback on the accessibility of all goods and services; and
 - (g) providing adequate training of staff and documentation of same.

D7. UNFAIR LABOUR PRACTICES

- D7.1 Further to C3.2, the Contractor declares that in bidding for the Work and in entering into this Contract, the Contractor and any proposed Subcontractor(s) conduct their respective business in accordance with established international codes embodied in United Nations Universal Declaration of Human Rights (UDHR) <https://www.un.org/en/about-us/universal-declaration-of-human-rights> International Labour Organization (ILO) [https://www.ilo.org/global/lang--en/index.htm](https://www.ilo.org/global/lang-en/index.htm) conventions as ratified by Canada.
- D7.2 The City of Winnipeg is committed and requires its Contractors and their Subcontractors, to be committed to upholding and promoting international human and labour rights, including fundamental principles and rights at work covered by ILO eight (8) fundamental conventions and the United Nations Universal Declaration of Human Rights which includes child and forced labour.
- D7.3 Upon request from the Contract Administrator, the Contractor shall provide disclosure of the sources (by company and country) of the raw materials used in the Work and a description of the manufacturing environment or processes (labour unions, minimum wages, safety, etc.).
- D7.4 Failure to provide the evidence required under D7.3, may be determined to be an event of default in accordance with C18.
- D7.5 In the event that the City, in its sole discretion, determines the Contractor to have violated the requirements of this section, it will be considered a fundamental breach of the Contract and the Contractor shall pay to the City a sum specified by the Contract Administrator in writing ("Unfair Labour Practice Penalty"). Such a violation shall also be considered an Event of Default, and shall entitle the City to pursue all other remedies it is entitled to in connection with same pursuant to the Contract.
- D7.5.1 The Unfair Labour Practice Penalty shall be such a sum as determined appropriate by the City, having due regard to the gravity of the Contractor's violation of the above requirements, any cost of obtaining replacement goods/ services or rectification of the breach, and the impact upon the City's reputation in the eyes of the public as a result of same.

- D7.5.2 The Contractor shall pay the Unfair Labour Practice Penalty to the City within thirty (30) Calendar Days of receiving a demand for same in accordance with D7.5. The City may also hold back the amount of the Unfair Labour Practice Penalty from payment for any amount it owes the Contractor.
- D7.5.3 The obligations and rights conveyed by this clause survive the expiry or termination of this Contract, and may be exercised by the City following the performance of the Work, should the City determine, that a violation by the Contractor of the above clauses has occurred following same. In no instance shall the Unfair Labour Practice Penalty exceed the total of twice the Contract value.

SUBMISSIONS

D8. AUTHORITY TO CARRY ON BUSINESS

- D8.1 The Contractor shall be in good standing under The Corporations Act (Manitoba), or properly registered under The Business Names Registration Act (Manitoba), or otherwise properly registered, licensed or permitted by law to carry on business in Manitoba, or if the Contractor does not carry on business in Manitoba, in the jurisdiction where the Contractor does carry on business, throughout the term of the Contract, and shall provide the Contract Administrator with evidence thereof upon request.

D9. SAFE WORK PLAN

- D9.1 The Contractor shall provide the Contract Administrator with a Safe Work Plan at least five (5) Business Days prior to the commencement of any Work on the Site but in no event later than the date specified in C4.1 for the return of the executed Contract.
- D9.2 The Safe Work Plan should be prepared and submitted in the format shown in the City's template which is available on the Information Connection page at The City of Winnipeg, Corporate Finance, Materials Management Division website at <http://www.winnipeg.ca/matmgt/safety/default.stm>
- D9.3 Notwithstanding B19.4 at any time during the term of the Contract, the City may, at their sole discretion and acting reasonably, require an updated COR Certificate or Annual Letter of good Standing. A Contractor, who fails to provide a satisfactory COR Certificate or Annual Letter of good Standing, will not be permitted to continue to perform any Work.

D10. INSURANCE

- D10.1 Contractor shall provide and maintain the following evidence of insurance from the start of the Project until the date of Total Performance and until the completion of the warranty and maintenance/service periods:
- (a) commercial general liability insurance, in the minimum amount of \$10,000,000 inclusive per occurrence and \$10,000,000 general aggregate. The said commercial general liability insurance shall include coverage for products and completed operations, blanket contractual, sudden and accidental pollution liability with a sub-limit of \$1,000,000, non-owned automobile, employer's liability, cross liability clause, and unlicensed motor vehicle liability. Such policy will add the City, Manitoba and its Ministers, officers, employees and agents, as additional insureds. BellMTS, Manitoba Hydro, Shaw, Telus, Rogers shall be shown as additional insureds, when required by contract;
 - (b) automobile liability insurance on all licensed vehicles owned, hired, leased or non-owned or to be used for or in connection with the Project in an amount not less than \$5,000,000 inclusive per accident;
 - (c) property insurance for Contractors equipment and tools used on the project that may be owned, rented, leased or borrowed; and

- (d) if required, all risks installation floater, carrying adequate limits to cover all equipment, supplies and/or materials intended to form part of the final installation. specify any additional insurance requirements.

D10.2 During the installation, testing and commissioning phase of the Project, the Contractor is to provide evidence of the following:

- (a) All risks Course of Construction insurance including equipment breakdown and testing and commissioning in the amount of one hundred percent (100%) of the total Contract Price, written jointly in the name of the Contractor and the City, at all times during the performance of the Work until the date of Substantial Completion and if all testing and commissioning has not been completed at that time, the policy shall extend until such time as all testing and commissioning has been completed.

D10.3 Deductibles shall be borne by the Contractor.

D10.4 All policies shall be taken out with insurers licensed in the Province of Manitoba.

D10.5 All Subcontractors performing Work on the Project shall provide the Contractor with evidence of comparable insurance as outlined in D10.1(a) and D10.1(b) above and be registered with Workers Compensation Board of Manitoba and maintain insurance and workers compensation coverage throughout the performance of the Work.

D10.6 The Contractor shall provide the Contract Administrator with a certificate(s) of insurance, in a form satisfactory to the City Solicitor, at least two (2) Business Days prior to the commencement of any Work on the Site but in no event later than the date specified in C4.1 for the return of the executed Contract Documents, as applicable.

D10.7 The Contractor shall not cancel, materially alter, or cause the policy to lapse without providing at least thirty (30) Calendar Days prior written notice to the Contract Administrator.

D10.8 The City shall have the right to alter the limits and/or coverages as reasonably required from time to time during the continuance of this agreement.

D11. CONTRACT SECURITY

D11.1 If the Contract Price exceeds twenty-five thousand dollars (\$25,000.00), the Contractor shall provide and maintain contract security until the expiration of the warranty period in the form of:

- (a) a performance bond of a company registered to conduct the business of a surety in Manitoba, in the form attached to these Supplemental Conditions (Form H1: Performance Bond), in the amount of fifty percent (50%) of the Contract Price; or
- (b) an irrevocable standby letter of credit issued by a bank or other financial institution registered to conduct business in Manitoba and drawn on a branch located in Winnipeg, in the form attached to these Supplemental Conditions (Form H2: Irrevocable Standby Letter of Credit), in the amount of fifty percent (50%) of the Contract Price; or
- (c) a certified cheque or draft payable to "The City of Winnipeg", drawn on a bank or other financial institution registered to conduct business in Manitoba, in the amount of fifty percent (50%) of the Contract Price.

D11.1.1 Where the contract security is a performance bond, it may be submitted in hard copy or digital format. If submitted in digital format the contract security must meet the following criteria:

- (a) the version submitted by the Contractor must have valid digital signatures and seals;
- (b) the version submitted by the Contractor must be verifiable by the City with respect to the totality and wholeness of the bond form, including: the content; all digital signatures and digital seals; with the surety company, or an approved verification service provider of the surety company.

- (c) the version submitted must be viewable, printable and storable in standard electronic file formats compatible with the City, and in a single file. Allowable formats include pdf.
- (d) the verification may be conducted by the City immediately or at any time during the life of the bond and at the discretion of the City with no requirement for passwords or fees.
- (e) the results of the verification must provide a clear, immediate and printable indication of pass or fail regarding D11.1.1(b).

D11.1.2 Digital bonds failing the verification process will not be considered to be valid and may be determined to be an event of default in accordance with C18.1. If a digital bond fails the verification process, the Contractor may provide a replacement bond (in hard copy or digital format) within seven (7) Calendar Days of the City's request or within such greater period of time as the City in their discretion, exercised reasonably, allows.

D11.1.3 Digital bonds passing the verification process will be treated as original and authentic.

D11.1.4 Where the contract security is in the form of a certified cheque or draft, it will be deposited by the City. The City will not pay any interest on certified cheques or drafts furnished as contract security.

D11.2 The Contractor shall provide the Contract Administrator identified in D4 with the required contract security within seven (7) Calendar Days of notification of the award of the Contract by way of Purchase Order and prior to the commencement of any Work on the Site.

D12. SUBCONTRACTOR LIST

D12.1 The Contractor shall provide the Contract Administrator with a complete list of the Subcontractors whom the Contractor proposes to engage (Form J: Subcontractor List) at least two (2) Business Days prior to the commencement of any Work on the Site.

CONTROL OF WORK

D13. COMMENCEMENT

D13.1 The Contractor shall not commence any Work until they are in receipt of a notice of award from the City authorizing the commencement of the Work.

D13.2 The Contractor shall not commence any Work on the Site until:

- (a) the Contract Administrator has confirmed receipt and approval of:
 - (i) evidence of authority to carry on business specified in D8;
 - (ii) evidence of the workers compensation coverage specified in C6.14;
 - (iii) the Safe Work Plan specified in D9;
 - (iv) evidence of the insurance specified in D10;
 - (v) the contract security specified in D11;
 - (vi) the Subcontractor list specified in D12; and
 - (vii) The direct deposit application form specified in D28.2; and
- (b) the Contractor has attended a meeting with the Contract Administrator, or the Contract Administrator has waived the requirement for a meeting.

D13.3 The Contractor shall not commence the Work on the Site before April 1, 2024.

D14. DELIVERY

D14.1 Goods shall be delivered on an "as required" basis during the term of the Contract, f.o.b. destination, freight prepaid, to
City of Winnipeg

Winnipeg Transit Fort Rouge Transit Base
421 Osborne Street
Winnipeg, Manitoba R3L 2A2

- D14.2 Initial start-up delivery shall be forty-four(44) Weeks from the date of award.
- D14.3 The Contractor shall confirm each delivery with the Contract Administrator or their designate, at least two (2) Business Days before delivery.
- D14.4 Goods shall be delivered between 7:00 a.m. and 2:00 p.m. Monday to Friday excluding Statutory Holidays observed in the Province of Manitoba.
- D14.5 The Contractor shall off-load goods as directed at the delivery location.

D15. CRITICAL STAGES

- D15.1 The Contractor shall achieve critical stages of the Work in accordance with the following requirements:
- (a) Equipment delivered to the Site prior to December 31, 2024;
 - (b) Substantial Completion by February 28, 2025.
- D15.2 Substantial Completion
- D15.2.1 To achieve Substantial Completion, all of the following must be achieved in relation to the Works:
- (a) all components of the Works related to Item 1. Hydrogen Generation and Dispensing Equipment on Form B: Prices have been designed, permitted, constructed, tested and commissioned, and are substantially complete in accordance with the Technical Requirements;
 - (b) all components of the Works are ready to function as specified in the Scope of Work, subject only to minor deficiencies that, either individually or in the aggregate, do not adversely impact the operation of the Works or the operations and maintenance of the Infrastructure;
 - (c) all applicable Permits, Licences and Approvals required under Applicable Law that are necessary for the continued routine operation of the Works have been duly obtained and are in full force and effect;
 - (d) all training and manuals have been received in accordance with Section E4; and
 - (e) Contractor shall provide a declaration by the Engineer of Record that the Works have been performed in accordance with the Technical Requirements.

D16. TOTAL PERFORMANCE

- D16.1 The Contractor shall achieve Total Performance by February 28, 2026.
- D16.2 When the Contractor or the Contract Administrator considers the Work to be totally performed, the Contractor shall arrange, attend and assist in the inspection of the Work with the Contract Administrator for purposes of verifying Total Performance. Any defects or deficiencies in the Work noted during that inspection shall be remedied by the Contractor at the earliest possible instance and the Contract Administrator notified so that the Work can be re-inspected.
- D16.3 The date on which the Work has been certified by the Contract Administrator as being totally performed to the requirements of the Contract through the issue of a certificate of Total Performance is the date on which Total Performance has been achieved.

D17. LIQUIDATED DAMAGES

- D17.1 If the Contractor fails to achieve Critical Stages in accordance with the Contract by the days fixed herein for same, the Contractor shall pay the City the following amounts per Working Day for each and every Working Day following the days fixed herein for same during which such failure continues:
- (a) Substantial Completion no later than February 28, 2025 – four hundred fifty hundred dollars (\$450);
- D17.2 The amounts specified for liquidated damages in D17.1 are based on a genuine pre-estimate of the City's losses in the event that the Contractor does not achieve critical stages or Total Performance by the days fixed herein for same.
- D17.3 The City may reduce any payment to the Contractor by the amount of any liquidated damages assessed.

D18. SUPPLY CHAIN DISRUPTION SCHEDULE DELAYS

- D18.1 The City acknowledges that the schedule for this Contract may be impacted by the Supply Chain Disruption. Commencement and progress of the Work shall be performed by the Contractor with due consideration to delivery requirements and schedule identified in the Contract, in close consultation with the Contract Administrator.
- D18.2 If the Contractor is delayed in the performance of the Work by reason of the Supply Chain Disruption, the Work schedule may be adjusted by a period of time equal to the time lost due to such delay and costs related to such delay will be determined as identified herein.
- D18.3 A minimum of seven (7) Calendar Days prior to the commencement of Work, the Contractor shall declare whether a Supply Chain Disruption will affect the start date. The Contractor shall provide sufficient evidence that the delay is directly related to a Supply Chain Disruption, including but not limited to evidence related to ordering of Material or Goods, production and/or manufacturing schedules or availability of staff as appropriate.
- D18.4 For any delay related to Supply Chain Disruption and identified after Work has commenced, the Contractor shall within seven (7) Calendar Days of becoming aware of the anticipated delay declare the additional delay and shall provide sufficient evidence as indicated in D18.3. Failure to provide this notice will result in no additional time delays being considered by the City.
- D18.5 The Work schedule, including the durations identified in D14 where applicable, will be adjusted to reflect delays accepted by the Contract Administrator.
- D18.6 Any time or cost implications as a result of Supply Chain Disruption and in accordance with the above, as confirmed by the Contract Administrator, shall be documented in accordance with C7.

CONTROL OF WORK

D19. JOB MEETINGS

- D19.1 Regular weekly job meetings will be held at the Site. These meetings shall be attended by a minimum of one representative of the Contract Administrator, one representative of the City and one representative of the Contractor. Each representative shall be a responsible person capable of expressing the position of the Contract Administrator, the City and the Contractor respectively on any matter discussed at the meeting including the Work schedule and the need to make any revisions to the Work schedule. The progress of the Work will be reviewed at each of these meetings.
- D19.2 The Contract Administrator reserves the right to cancel any job meeting or call additional job meetings whenever they deem it necessary.

D20. THE WORKPLACE SAFETY AND HEALTH ACT (MANITOBA) – QUALIFICATIONS

D20.1 Further to B19.4, the Contractor/Subcontractor must, throughout the term of the Contract, have a Workplace Safety and Health Program meeting the requirements of The Workplace Safety and Health Act (Manitoba). At any time during the term of the Contract, the City may, at their sole discretion and acting reasonably, require updated proof of compliance, as set out in B19.4.

D21. SAFETY

D21.1 The Contractor shall be solely responsible for safety at the Site and for compliance with all laws, rules, regulations and practices required by the applicable safety legislation.

D21.2 The Contractor shall be solely responsible for securing the Site, and any existing facility thereon, and for the proper care and protection of the Work already performed.

D21.3 The Contractor shall do whatever is necessary to ensure that:

- (a) no person, property, right, easement or privilege is injured, damaged or infringed by reason of the Contractor's activities in performing the Work;
- (b) the health and safety of all persons employed in the performance of the Work or otherwise is not endangered by the method or means of their performance;
- (c) adequate medical services are available to all persons employed on the Work and at all times during the performance of the Work;
- (d) adequate sanitation measures are taken and facilities provided with respect to the Work;
- (e) pedestrian and other traffic on any public or private road or waterway is not unduly impeded, interrupted or endangered by the performance or existence of the Work or Plant;
- (f) fire hazards in or about the Work are eliminated; and
- (g) explosion hazards in or about the Work are eliminated.

D22. SITE CLEANING

D22.1 The Contractor shall maintain the Site and the Work in a tidy condition and free from the accumulation of waste and debris, other than that caused by the City or by other contractors.

D22.1.1 As the Work progresses, the Contractor shall remove any Plant and Material not required for the performance of the remaining Work. He shall also remove waste and debris other than that caused by the City or other contractors, and leave the Site and the Work clean and suitable for occupancy by the City unless otherwise specified.

D22.1.2 Total Performance shall not be considered to have been achieved until the Contractor has cleaned up the Site and has removed all Plant, surplus Material, waste and debris, other than that left by the City or other contractors.

D23. INSPECTION

D23.1 Before beginning or resuming operations upon any portion of the Work, the Contractor shall notify the Contract Administrator so as to enable him to arrange for inspection. If the Contractor fails to notify the Contract Administrator, the Contractor shall, if and when required by the Contract Administrator, forthwith take down or expose and redo that portion of the Work required to facilitate inspection. The cost of such taking down or exposure, and redoing, if any, shall be borne by the Contractor.

D23.2 If and when required by the Contract Administrator, the Contractor shall take down or expose forthwith any portion of the Work where the Contract Administrator determines that the Work is not in accordance with the Contract. The cost of such taking down or exposure, and redoing, if any, shall fall upon the City if the taking down or exposure indicates that the portion exposed was properly performed, but if otherwise the cost shall be borne by the Contractor.

D24. DEFICIENCIES

- D24.1 Further to C11.7 the Contract Administrator may order the Contractor to alter or improve their methods, to increase or improve their Plant, to furnish additional or more suitable Material, or to employ additional or more qualified labour if, at any time, the Contract Administrator determines that:
- (a) the Work is not being, or will likely not be, performed satisfactorily; or
 - (b) progress is not being, or will likely not be, maintained in accordance with the work schedule.
- D24.2 If the Work or any part thereof is taken out of the Contractor's control pursuant to C19.1(b), all Plant and Material, and the interest of the Contractor in all licences, powers and privileges acquired, used or provided by the Contractor under the Contract shall be assigned by the Contractor to the City without compensation to the Contractor.
- D24.3 The City shall have the right to take possession of and use any of the Contractor's material and property of every kind provided by the Contractor for the purpose of the Work, and to procure other Plant or Material for the completion thereof.
- D24.4 When the Contract Administrator certifies that any Plant, Material or any interest of the Contractor referred to in D24.2, is no longer required for the purposes of the Work, or that it is not in the best interest of the City to retain that Plant, Material or interest, it shall revert to the Contractor.

D25. ORDERS

- D25.1 The Contractor shall provide a local Winnipeg telephone number or a toll-free telephone number at which orders for delivery may be placed.

D26. RECORDS

- D26.1 The Contractor shall keep detailed records of the goods supplied under the Contract.
- D26.2 The Contractor shall record, as a minimum, for each item listed on Form B: Prices:
- (a) user name(s) and addresses;
 - (b) order date(s);
 - (c) delivery date(s); and
 - (d) description and quantity of goods supplied.
- D26.3 The Contractor shall provide the Contract Administrator with a copy of the records for each quarter year within fifteen (15) Calendar Days of a request of the Contract Administrator.

MEASUREMENT AND PAYMENT

D27. INVOICES

- D27.1 Further to C12, the Contractor shall submit an invoice for Item 1, and monthly invoices for Item 2 on Form B: Prices to:

The City of Winnipeg
Corporate Finance - Accounts Payable
4th Floor, Administration Building, 510 Main Street
Winnipeg MB R3B 1B9

Facsimile No.: 204 949-0864

Send Invoices to CityWpgAP-INVOICES@winnipeg.ca

Send Invoice Inquiries to CityWpgAP-INQUIRIES@winnipeg.ca

D27.2 Invoices must clearly indicate, as a minimum:

- (a) the City's purchase order number;
- (b) date of delivery;
- (c) delivery address;
- (d) type and quantity of work performed;
- (e) the amount payable with GST and MRST shown as separate amounts; and
- (f) the Contractor's GST registration number.

D27.3 The City will bear no responsibility for delays in approval of invoices which are improperly submitted.

D28. PAYMENT

D28.1 Further to C12, payment shall be in Canadian funds net thirty (30) Calendar Days after receipt and approval of the Contractor's invoice.

D28.2 Further to C12, the City shall make payments to the Contractor by direct deposit to the Contractor's banking institution, and by no other means. Payments will not be made until the Contractor has made satisfactory direct deposit arrangements with the City. Direct deposit application forms are at https://winnipeg.ca/finance/files/Direct_Deposit_Form.pdf.

D29. PAYMENT SCHEDULE

D29.1 Further to C12, payment shall be in Canadian funds net thirty (30) Calendar Days after receipt and approval of the Contractor's invoice.

D29.2 Notwithstanding to C12.1, the Contractor shall be eligible for payment for the purchase of certain Material ("Procurement Cost Advance") to compensate the Contractor for procurement costs for same, provided the purchase meets the following conditions:

- (a) limited to supply contracts between the Contractor and a supplier or manufacturer of Material valued at more than \$100,000.00, or with a lead time in excess of six months; and
- (b) relates to specific Material only that can be associated with a specific installation at the Site, and is not general Material that is interchangeable in multiple installations (for example: piping and fittings, cabling, hangers and supports are not eligible, while valves and flowmeters can be eligible).

D29.3 The following schedule will be applied for the Procurement Cost Advance:

- (a) Upon receipt of the Contractor's forwarded purchase order (or equivalent document) confirming purchase of the eligible Material (commercial details may be redacted by Contractor), up to 60% of the Unit Price for the Material portion only, may be advanced; and
- (b) Upon receipt of a record of delivery of the eligible procured Material to the Site and a record demonstrating storage of Material follows manufacturer's recommendations, up to 30% for the Material portion only of the Unit Price for the Material may be advanced.

WARRANTY

D30. WARRANTY

D30.1 Notwithstanding C13, the warranty period shall begin on the date of Substantial Completion and shall expire one (1) year after Total Performance unless extended pursuant to C13.3, in which case it shall expire when provided for thereunder.

D30.2 Further to C13, if a defect or deficiency prevents the full and normal use or operation of the Work or any portion thereof, for purposes of calculating the warranty period, time shall be

deemed to cease to elapse for the defective or deficient portion, and for any portion of the Work whose use or operation is prevented by such defect or deficiency, as of the date on which the defect or deficiency is observed or the use or operation is prevented and shall begin to run again when the defect or deficiency has been corrected or the Work may be used or operated to the satisfaction of the Contract Administrator.

D30.3 Further to C13, any parts taken from the City's inventory to perform warranty work will be replaced under warranty.

DISPUTE RESOLUTION

D31. DISPUTE RESOLUTION

D31.1 If the Contractor disagrees with any opinion, determination, or decision of the Contract Administrator, the Contractor shall act in accordance with the Contract Administrator's opinion, determination, or decision unless and until same is modified by the process followed by the parties pursuant to D31.

D31.2 The entire text of C21.4 is deleted, and amended to read: "Intentionally Deleted"

D31.3 The entire text of C21.5 is deleted, and amended to read:

- (a) If Legal Services has determined that the Disputed Matter may proceed in the Appeal Process, the Contractor must, within ten (10) Business Days of the date of the Legal Services Response Letter, submit their written Appeal Form, in the manner and format set out on the City's Materials Management Website, to the Chief Administrative Officer, and to the Contract Administrator. The Contractor may not raise any other disputes other than the Disputed Matter in their Appeal Form.

D31.4 Further to C21, prior to the Contract Administrator's issuance of a Final Determination, the following informal dispute resolution process shall be followed where the Contractor disagrees with any opinion, determination, or decision of the Contract Administrator ("Dispute"):

- (a) In the event of a Dispute, attempts shall be made by the Contract Administrator and the Contractor's equivalent representative to resolve Disputes within the normal course of project dealings between the Contract Administrator and the Contractor's equivalent representative;
- (b) Disputes which in the reasonable opinion of the Contract Administrator or the Contractor's equivalent representative cannot be resolved within the normal course of project dealings as described above shall be referred to a without prejudice escalating negotiation process consisting of, at a minimum, the position levels as shown below and the equivalent Contractor representative levels:
 - (i) The Contract Administrator;
 - (ii) Supervisory level between the Contract Administrator and applicable Department Head; and
 - (iii) Department Head.

D31.4.1 Names and positions of Contractor representatives equivalent to the above City position levels shall be determined by the Contractor and communicated to the City at the pre-commencement or kick off meeting.

D31.4.2 As these negotiations are not an adjudicative hearing, neither party may have legal counsel present during the negotiations.

D31.4.3 Both the City and the Contractor agree to make all reasonable efforts to conduct the above escalating negotiation process within twenty (20) Business Days, unless both parties agree, in writing, to extend that period of time.

D31.5 If the Dispute is not resolved to the City and Contractor's mutual satisfaction after discussions have occurred at the final escalated level as described above, or the time period set out in

D31.4.3, as extended if applicable, has elapsed, the Contract Administrator will issue a Final Determination as defined in C1.1(v), at which point the parties will be governed by the Dispute Resolution process set out in C21.

THIRD PARTY AGREEMENTS

D32. FUNDING AND/OR CONTRIBUTION AGREEMENT OBLIGATIONS

D32.1 Funding for the Work of the Contract is being provided to the City of Winnipeg by the Government of Manitoba and/or the Government of Canada and accordingly, as required by the applicable funding agreements, the following terms and conditions shall apply.

D32.2 For the purposes of D32:

- (a) **“Government of Canada”** includes the authorized officials, auditors, and representatives of the Government of Canada; and
- (b) **“Government of Manitoba”** includes the authorized officials, auditors, and representatives of the Government of Manitoba.

D32.3 Indemnification by Contractor

D32.3.1 In addition to the indemnity obligations outlined in C17 of the General Conditions for the Combined Provision of Goods and Services, the Contractor agrees to indemnify and save harmless the Government of Canada and the Government of Manitoba and each of their respective Ministers, officers, servants, employees, and agents from and against all claims and demands, losses, costs, damages, actions, suit or other proceedings brought or pursued in any manner in respect of any matter caused by the Contractor or arising from this Contract or the Work, or from the goods or services provided or required to be provided by the Contractor, except those resulting from the negligence of any of the Government of Canada’s or the Government of Manitoba’s Ministers, officers, servants, employees, or agents, as the case may be.

D32.3.2 The Contractor agrees that in no event will Canada or Manitoba, their respective officers, servants, employees or agents be held liable for any damages in contract, tort (including negligence) or otherwise, for:

- (a) any injury to any person, including, but not limited to, death, economic loss or infringement of rights;
- (b) any damage to or loss or destruction of property of any person; or
- (c) any obligation of any person, including, but not limited to, any obligation arising from a loan, capital lease or other long term obligation;

in relation to this Contract or the Work.

D32.4 Records Retention and Audits

D32.4.1 The Contractor shall maintain and preserve accurate and complete records in respect of this Contract and the Work, including all accounting records, financial documents, copies of contracts with other parties and other records relating to this Contract and the Work during the term of the Contract and for at least six (6) years after Total Performance. Those records bearing original signatures or professional seals or stamps must be preserved in paper form; other records may be retained in electronic form.

D32.4.2 In addition to the record keeping and inspection obligations outlined in C6 of the General Conditions for the Combined Provision of Goods and Services, the Contractor shall keep available for inspection and audit at all reasonable times while this Contract is in effect and until at least six (6) years after Total Performance, all records, documents, and contracts referred to in D32.4.1 for inspection, copying and audit by the City of Winnipeg, the Government of Manitoba and/or the Government of Canada and their respective representatives and auditors, and to produce them on demand; to provide reasonable facilities for such inspections, copying and audits, to provide copies of and extracts from

such records, documents, or contracts upon request by the City of Winnipeg, the Government of Manitoba, and/or the Government of Canada and their respective representatives and auditors, and to promptly provide such other information and explanations as may be reasonably requested by the City of Winnipeg, the Government of Manitoba, and/or the Government of Canada from time-to-time.

D32.5 Other Obligations

- D32.5.1 The Contractor consents to the City providing a copy of the Contract Documents to the Government of Manitoba and/or the Government of Canada upon request from either entity.
- D32.5.2 If the Lobbyists Registration Act (Manitoba) applies to the Contractor, the Contractor represents and warrants that it has filed a return and is registered and in full compliance with the obligations of that Act, and covenants that it will continue to comply for the duration of this Contract.
- D32.5.3 The Contractor shall comply with all applicable legislation and standards, whether federal, provincial, or municipal, including (without limitation) labour, environmental, and human rights laws, in the course of providing the Work.
- D32.5.4 The Contractor shall properly account for the Work provided under this Contract and payment received in this respect, prepared in accordance with generally accepted accounting principles in effect in Canada, including those principles and standards approved or recommended from time-to-time by the Chartered Professional Accountants of Canada or the Public Sector Accounting Board, as applicable, applied on a consistent basis.
- D32.5.5 The Contractor represents and warrants that no current or former public servant or public office holder, to whom the Value and Ethics Code for the Public Sector, the Policy on Conflict of Interest and Post Employment, or the Conflict of Interest Act applies, shall derive direct benefit from this Contract, including any employment, payments, or gifts, unless the provision or receipt of such benefits is in compliance with such codes and the legislation.
- D32.5.6 The Contractor represents and warrants that no member of the House of Commons or of the Senate of Canada or of the Legislative Assembly of Manitoba is a shareholder, director or officer of the Contractor or of a Subcontractor, and that no such member is entitled to any benefits arising from this Contract or from a contract with the Contractor or a Subcontractor concerning the Work.

FORM H1: PERFORMANCE BOND
(See D11)

KNOW EVERYONE BY THESE PRESENTS THAT

_____ ,
(hereinafter called the "Principal"), and

_____ ,
(hereinafter called the "Surety"), are held and firmly bound unto **THE CITY OF WINNIPEG** (hereinafter called the "Obligee"), in the sum of

_____ dollars (\$_____)

of lawful money of Canada to be paid to the Obligee, or its successors or assigns, for the payment of which sum the Principal and the Surety bind themselves, their heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

WHEREAS the Principal has entered into a written contract with the Obligee for

RFP NO. 1042-2023

**SUPPLY & SERVICE OF TRANSIT FUELING STATION WITH METHANOL TO HYDROGEN
GENERATION**

which is by reference made part hereof and is hereinafter referred to as the "Contract".

NOW THEREFORE the condition of the above obligation is such that if the Principal shall:

- (a) carry out and perform the Contract and every part thereof in the manner and within the times set forth in the Contract and in accordance with the terms and conditions specified in the Contract;
- (b) perform the Work in a good, proper, workmanlike manner;
- (c) make all the payments whether to the Obligee or to others as therein provided;
- (d) in every other respect comply with the conditions and perform the covenants contained in the Contract; and
- (e) indemnify and save harmless the Obligee against and from all loss, costs, damages, claims, and demands of every description as set forth in the Contract, and from all penalties, assessments, claims, actions for loss, damages or compensation whether arising under "The Workers Compensation Act", or any other Act or otherwise arising out of or in any way connected with the performance or non-performance of the Contract or any part thereof during the term of the Contract and the warranty period provided for therein;

THEN THIS OBLIGATION SHALL BE VOID, but otherwise shall remain in full force and effect. The Surety shall not, however, be liable for a greater sum than the sum specified above.

AND IT IS HEREBY DECLARED AND AGREED that the Surety shall be liable as Principal, and that nothing of any kind or matter whatsoever that will not discharge the Principal shall operate as a discharge or release of liability of the Surety, any law or usage relating to the liability of Sureties to the contrary notwithstanding.

IN WITNESS WHEREOF the Principal and Surety have signed and sealed this bond the

_____ day of _____, 20_____.

SIGNED AND SEALED
in the presence of:

(Witness as to Principal if no seal)

(Name of Principal)

Per: _____ (Seal)

Per: _____

(Name of Surety)

By: _____ (Seal)
(Attorney-in-Fact)

**FORM H2: IRREVOCABLE STANDBY LETTER OF CREDIT
(CONTRACT SECURITY)
(See D11)**

(Date)

The City of Winnipeg
Legal Services Department
185 King Street, 3rd Floor
Winnipeg MB R3B 1J1

RE: CONTRACT SECURITY – RFP NO. 1042-2023

SUPPLY & SERVICE OF TRANSIT FUELING STATION WITH METHANOL TO HYDROGEN
GENERATION

Pursuant to the request of and for the account of our customer,

(Name of Contractor)

(Address of Contractor)

WE HEREBY ESTABLISH in your favour our irrevocable Standby Letter of Credit for a sum not exceeding
in the aggregate

_____ Canadian dollars.

This Standby Letter of Credit may be drawn on by you at any time and from time to time upon written demand for payment made upon us by you. It is understood that we are obligated under this Standby Letter of Credit for the payment of monies only and we hereby agree that we shall honour your demand for payment without inquiring whether you have a right as between yourself and our customer to make such demand and without recognizing any claim of our customer or objection by the customer to payment by us.

The amount of this Standby Letter of Credit may be reduced from time to time only by amounts drawn upon it by you or by formal notice in writing given to us by you if you desire such reduction or are willing that it be made.

We engage with you that all demands for payment made within the terms and currency of this Standby Letter of Credit will be duly honoured if presented to us at:

(Address)

and we confirm and hereby undertake to ensure that all demands for payment will be duly honoured by us.

All demands for payment shall specifically state that they are drawn under this Standby Letter of Credit.

Subject to the condition hereinafter set forth, this Standby Letter of Credit will expire on

(Date)

It is a condition of this Standby Letter of Credit that it shall be deemed to be automatically extended from year to year without amendment from the present or any future expiry date, unless at least 30 days prior to the present or any future expiry date, we notify you in writing that we elect not to consider this Standby Letter of Credit to be renewable for any additional period.

This Standby Letter of Credit may not be revoked or amended without your prior written approval.

Except where they may conflict with the terms and conditions contained in this Letter of Credit, the International Standby Practices 1998 shall apply to this Letter of Credit. This Letter of Credit shall also be governed by and construed in accordance with the laws of the Province of Manitoba and of Canada as applicable therein, except to the extent that such laws are inconsistent with the International Standby Practices 1998. This Letter of Credit is subject to the exclusive jurisdiction of the courts in the Province of Manitoba and all courts competent to hear appeals therefrom.

(Name of bank or financial institution)

Per: _____
(Authorized Signing Officer)

Per: _____
(Authorized Signing Officer)

PART E - SPECIFICATIONS

GENERAL

E1. APPLICABLE SPECIFICATIONS AND DRAWINGS

- E1.1 These Specifications shall apply to the Work.
- E1.2 The *City of Winnipeg Standard Construction Specifications* in their entirety, whether or not specifically listed on Form B: Prices, shall apply to the Work.
- (a) The *City of Winnipeg Standard Construction Specifications* is available on the Information Connection page at The City of Winnipeg, Corporate Finance, Materials Management Division website at <http://www.winnipeg.ca/matmgt/Spec/Default.stm>
 - (b) The version in effect three (3) Business Days before the Submission Deadline shall apply.
 - (c) Further to C2.4(d), Specifications included in the Tender shall govern over *The City of Winnipeg Standard Construction Specifications*.
- E1.3 Proponents are reminded that requests for approval of substitutes as an approved equal or an approved alternative shall be made in accordance with B7. In every instance where a brand name or design specification is used, the City will also consider approved equals and/or approved alternatives in accordance with B7.
- E1.4 The Contractor's proposed model for ongoing maintenance shall be a one cost, all in, annual cost for the recommended solution (including all annual software maintenance or ongoing licensing fees).

E2. TECHNICAL REQUIREMENTS

- E2.1 The Contractor shall provide design, procurement, installation and commissioning of equipment for the recommended Hydrogen Fueling Station solution in accordance with the requirements hereinafter specified.
- E2.2 General Requirements
- E2.2.1 The equipment to be supplied under the Contract shall consist of a turn-key hydrogen generation and dispensing station for heavy duty 40-foot and 60-foot hydrogen fuel-cell buses (FCEBs) including but not limited to:
 - (a) hydrogen generation equipment;
 - (b) hydrogen and methanol storage tanks;
 - (c) hydrogen compressor(s);
 - (d) hydrogen dispenser; and
 - (e) control center.
 - E2.2.2 Contractor shall design the Station in such a way that it is compatible with the following codes and standards, at a minimum: NFPA 2, NFPA 30A, NFPA 55, NFPA 70, ASME, ANSI, CGA 5.5. The Station must also be compliant with recent, applicable SAE standards. Codes with which the Station must be compatible are to be the most up-to-date versions at the time of contract award;
 - E2.2.3 Electrical systems shall interconnect with existing facilities based on specification provided by the Contractor.
 - E2.2.4 Plumbing systems shall interconnect with existing facilities based on specification provided by the Contractor.
 - E2.2.5 All supplied equipment shall be temperature rated for the application, which includes outdoor ambient temperatures from -40° C to 40° C.
 - E2.2.6 Contractor shall ensure that only new materials are incorporated into the Works.

- E2.2.7 The Contractor shall address solutions to minimize the loss of hydrogen fuel with the goal of zero loss except during maintenance or repair of the station equipment.
- E2.2.8 The Contractor shall include provisions for life safety systems, such as fire and gas detection, manually operated emergency stop devices including a remote Emergency Shutdown Device (ESD), and an automated station shutdown in response to continuously monitored safety breaches;
- E2.2.9 The Station shall deliver hydrogen as cost-effectively as possible by:
- (a) selecting high energy efficient equipment;
 - (b) limiting reactive peak demand;
 - (c) minimizing electricity, methanol, and water usage; and
 - (d) minimizing system hydrogen losses to the atmosphere;
 - (i) The station shall incorporate, at minimum, one hydrogen mass flow meter between the reformer and the compressor to more accurately measure production volumes and losses between production and dispensing.
- E2.2.10 Contractor shall ensure no single point of failure will result in a critical aspect or process at the Station that would risk an excursion from or non-compliance with any Applicable Law or requirement of a Governmental Authority.
- E2.2.11 All electrical equipment shall be CSA or cUL approved and all electrical system design shall be in accordance with applicable CSA standards.
- E2.2.12 As far as practicable, all electrical, instrumentation and controls equipment shall be installed within a containerized electrical room provided by the Contractor. Electrical rooms shall be arranged to meet the City operations and maintenance criteria.
- (a) Door selection (door heights, door widths, removable mullions or panels, etc.) shall suit the removal and replacement of equipment.
 - (b) Access paths and doors shall be provided into each electrical room with adequate clearances to allow equipment installation and removal in upright position, and without dismantling it into smaller parts.
 - (i) Egress doors shall open to the outside of the electrical room and shall be equipped with “panic hardware”; and
 - (ii) Electrical room doors shall be provided with security means to prevent unauthorized access;
 - (c) Electrical rooms shall be adequately conditioned to dissipate heat generated by the electrical equipment. Worst case heat dissipation from electrical equipment shall be considered for summer and winter conditions.
- E2.2.13 The Contractor shall provide lockout devices on all electrical and mechanical equipment, equipment controls, valves and hydraulic control elements to protect workers from unexpected energization or start-up of machinery or equipment, or the unexpected release of an energy source, gas or liquid;
- E2.2.14 The Contractor shall provide safety warning and informational signage for all areas of the Infrastructure where risk of personal injury or hazards exist and for the following minimum areas, hazards and equipment:
- (a) area classifications;
 - (b) confined spaces;
 - (c) electrical hazards;
 - (d) hazardous material locations;
 - (e) chemical storage labelling, including maximum chemical quantity stored on site and chemical hazards;
 - (f) fire and explosion hazards;
 - (g) requirements for PPE;

- (h) excessive noise levels, including decibel rating;
- (i) dangerous gases, foul air, or ventilation requirements;
- (j) first aid room location and first aid equipment location;
- (k) fire extinguishers; and
- (l) physical injury hazards.

E2.2.15 Contractor shall provide uninterruptible power supply units for critical loads including:

- (a) critical HVAC systems;
- (b) safety monitoring system;
- (c) all computers, workstations and servers;
- (d) all networking components; and
- (e) other systems as appropriate.

E2.2.16 Contractor is not required to supply back-up power generation equipment for hydrogen generation, compression or dispensing equipment.

E2.2.17 From the Effective Date to the Final Completion Date, the Contractor shall conduct health and safety meetings prior to the commencement of each major work phase of the Works, or monthly, whichever occurs more frequently. These meetings are intended as a review of all aspects of health and safety related to that phase of work. The Contractor shall invite the City to send a representative to attend such safety meetings and shall give reasonable advance notice of such meetings. Meeting minutes for each meeting shall be provided to the City.

E2.2.18 From the Effective Date to the Final Completion Date, Contractor shall also conduct daily safety review sessions prior to the commencement of any on-site work for the day to outline the potential work hazards associated with the work for that day. The Contractor shall allow representatives from the City to attend such safety review sessions.

E2.3 Hydrogen Generation Requirements

E2.3.1 Supplied hydrogen generation equipment shall:

- (a) use methanol to hydrogen reformation technology;
- (b) produce not less than 225 kg of hydrogen fuel in 24 hours at its maximum generation rate;
- (c) Contractor shall include design provisions to expanded production capacity. The location of additional production modules shall be identified in equipment layout drawings;
- (d) seamlessly integrate with the compression, storage, and dispensing system;
- (e) operate at herein stated performance levels in ambient temperatures ranging from -40° C to 40° C;
- (f) meet all reporting and performance requirements stated in Section E2.8 throughout the lifetime of the hydrogen generation system; and
- (g) efficiently use water, methanol, electricity, and labour for operation, service, and maintenance.

E2.4 Storage Requirements

E2.4.1 Supplied hydrogen and methanol storage equipment shall be appropriately sized to meet the performance and resilience requirements specified in Section E2.8.

E2.4.2 The Contractor shall consider the availability of the methanol feedstock in their design and size equipment to minimize the number of feedstock deliveries. The City currently has a contract for methanol supply in which 20 tonne delivery trucks are utilized.

E2.4.3 At least 500kg of 500 bar hydrogen storage shall be provided.

- E2.4.4 Contractor shall include design provisions to expand storage capacity. The location of additional storage modules shall be identified in equipment layout drawings.
- E2.5 Compressor Requirements
- E2.5.1 Supplied compression equipment shall be appropriately designed to meet the performance requirements specified in Section E2.8.
- E2.6 Dispenser Requirements
- E2.6.1 Station dispensing equipment shall be appropriately designed to meet the performance requirements and include:
- (a) include a pressure class H35 (35 MPa NWP) dispenser with a maximum operating pressure of 43.8 MPa;
 - (b) include a WEH TK16 H2 High-Flow fueling nozzle with data interface compatible with the WEH TN1 H2 High Flow receptacle supplied with the bus;
 - (c) rated for a of minimum 3.6 kg/min fueling;
 - (d) rated for dispensing 50kg in a single fill;
 - (e) utilize SAE J2601-5 High-Flow Prescriptive Fueling Protocols for Gaseous Hydrogen Powered Medium and Heavy-Duty Vehicles. Prior to the publication of this standard, a custom fueling protocol aligned to SAE J2601-2 Fueling Protocol for Gaseous Hydrogen Powered Heavy Duty Vehicles can be utilized provided it meets all performance requirements;
 - (f) be CSA/ANSI HGV 4.1 certified; and
 - (g) operates at herein stated performance levels in ambient temperatures ranging from -40° C to 40° C.
- E2.7 Control Center
- E2.7.1 A system interface shall be provided enable City staff to diagnose potential problems and perform remediation action. The system shall provide alerts when the system is not functioning within acceptable operating parameters. The software shall retain specific operating data such as fault codes, system shut downs, performance data, equipment operating hours and etc. for a period of 1 year.
- E2.7.2 A system shall support export of data for the purpose of performance reporting.
- E2.7.3 The system shall be able to be remote accessed by cellular or WIFI connection.
- E2.7.4 The Station shall record and report in real-time, key performance metrics and the operational statuses of the Station and provide Winnipeg Transit with 24 hours per day 7 days per week access to this information.
- E2.7.5 The Contractor is to provide access to the following data streams and reporting metrics via an online portal that is accessible on an always-on basis:

Table 1: Data Streams

Data Stream	Unit	Reporting Frequency
Overall Station Energy Usage	kWh	1 Hz
Electrolyzer Stacks and Balance of Plant Energy Usage	kWh	1 Hz
Water Usage	L	Every minute
Methanol Usage	MT	Every minute
Hydrogen Production	kg	Every minute
Hydrogen Dispensed	kg	Per fueling event

Table 2: Metrics to Report

Category of Metric	Metric	Unit	Detail Level/Report Frequency
Overall Station	Fueling Station Availability During Fueling Window	%	Monthly
	Maintenance Events	Issue, Repair conducted, Time between issue occurring and resolution	Per Maintenance Event
	Peak Power Demand	kW	15 min
	Average Water Consumption	L/kg	Monthly
	Total Operation & Maintenance cost	\$	
	Station Efficiency	kWh/kg	Monthly
	Mean time between failures that prevent fueling	hours of operation	
	Mass of H2 in storage	kg	Real-time
	Storage pressure	BAR	Real-time
	H2 Losses	kg	Daily
Production	Total Hydrogen Produced	kg	Daily
	Cost of Hydrogen Produced	\$/kg	
	Hydrogen Purity	SAE J2719	Annually
	Electrolyzer Operating Hours	hrs	Daily
	Electrolyzer Efficiency	kWh/kg	Monthly
Dispensing	Total Hydrogen Dispensed	kg	Per Fueling Event
	Average Fill Rate	kg/min	Per Fueling Event
	Hourly Fill Capacity	kg/hour	
	Number of fueling events	#	Daily
	Fueling Start Time	Time stamp	Per Fueling Event
	Fueling Stop Time	Time stamp	Per Fueling Event
	Fueling Event Total Duration	Minutes and seconds	Per Fueling Event

E2.8 PERFORMANCE REQUIREMENTS

E2.8.1 The performance requirements to be met in the design of all Infrastructure include requirements in the areas of safety, functionality/serviceability, durability/maintainability, accessibility design, crime prevention through environmental design and aesthetics. The minimum standards for these performance requirements are specified in the Technical Requirements and the appended documents. If a performance requirement is not specified in the Technical Requirements, the performance requirement shall be set to Good Industry Practice.

E2.8.2 The equipment to be supplied under the Contract shall meet the following minimum performance standards:

- (a) production and dispensing capacity of at least 225 kg of SAE J2719 grade hydrogen per 24-hours period;
- (b) ability to generate, store, and dispense over 1575 kg of hydrogen weekly with minimal losses of hydrogen during generation;
- (c) ability to dispense a minimum of 500kg of hydrogen per day;

- (d) the ability to consistently fuels 40-foot and 60-foot buses with type 4 hydrogen tanks to 95% of rated storage capacity or greater by mass as measured by a bus's onboard fuel gauge at a settled pressure of 35 MPa;
- (e) dispense a minimum of 24 kg of hydrogen in 15 minutes or less from the fuel authorization to fuel complete;
- (f) remote real-time monitoring, data reporting, and station control systems;
- (g) standard fills are communication fills via the IrDA system that are compatible with the SAE J2799 Hydrogen Surface Vehicle to Station Communications Hardware and Software protocol; and
- (h) able to provide a default non-communication fill if protocols to enable communication fill are not met.

E2.8.3 The Contractor shall consider the City's performance targets in their equipment selection:

- (a) dispenser fueling accuracy to be within + or – 3%;
- (b) able to initiate a back-to-back fueling of up to 8 buses transit buses with a 2 minute dwell time between fill and an average fill of 24 kg;
- (c) 95% of fills achieve States of Fill of 95% or greater at a settled pressure level of 350 Bar;
- (d) able to complete 95% of 40-foot bus fills of 24kg or less in 10 minutes and 60-foot bus fills of 36 kg or less in 15 minutes regardless of the State of Fill or ambient condition at the start of fueling as calculated from the fuel authorization to fuel complete;
- (e) capable of supervisory control and data acquisition integration; and
- (f) station reliability equivalent to a failure rate less than 0.002 failures per hour or a mean time between failure greater than 500 hours for each major process system (hydrogen production, compression, pre-cooling and dispensing).

E2.8.4 The Station shall include the following resiliency provisions:

- (a) backup power supply to prevent freezing that could lead to system damage in the event of power loss; and
- (b) storage and dispensing system to be able to operate independently of the hydrogen generation system.

E2.8.5 The Contractor shall determine parameters and related design values not listed in the Technical Requirements as appropriate for the design, construction, and operation of the Infrastructure in accordance with the Technical Requirements.

E3. DESIGN SUPPORT AND COORDINATION

E3.1 The Contractor shall provide design support and coordinate with the City's selected engineering design consultant and construction contractors for associated electrical, mechanical and civil works required for the station in accordance with the requirements hereinafter specified.

E3.2 Design support to the City's selected design consultant and construction contractor for associated electrical, mechanical and civil works required for the station, including but no limited to:

- (a) equipment layout details;
- (b) recommended setback distances;
- (c) drawings;
- (d) technical specifications;
- (e) electrical and water connection requirement; and
- (f) equipment mounting details.

E4. TRAINING AND MANUALS

E4.1 The Contractor shall provide training and manuals in accordance with the requirements hereinafter specified.

E4.2 Training Program

E4.2.1 The Contractor shall be responsible for training City staff on the safe and successful operation of the Hydrogen Fueling Station. Contractor shall provide all necessary equipment for the successful completion of the training.

E4.2.2 The Training Program shall:

- (a) be designed to comprehensively train Winnipeg Transit staff to competently operate and maintain the Infrastructure in accordance with Good Industry Practice;
- (b) ensure that each course accommodates plant staff shift schedules by providing multiple sessions covering the same content if necessary;
- (c) be designed to maximize the transfer of learning, utilizing appropriate training methodologies;
- (d) contain both classroom and field training courses, organized in a format to most effectively train plant staff including:
 - (i) the classroom portion should comprise no more than 40 percent of the training time and the field portion at least 60 percent of the training time; and
 - (ii) field training shall be completed on the same day as the classroom portion;
- (e) include ample opportunities for Training Participants to ask questions and have their questions answered; and
- (f) be based aligned with the supplied manuals with complete consistency between the training and the manuals, including Standard Operating Procedures, Safe Work Procedures and Lock-Out – Tag Out Procedures (LOTO).

E4.2.3 The City anticipates the following number of trainees:

Table 3 : Training Requirements

Training Participant Groups	Approximate Number of Personnel	Minimum Number of Sessions	Constraints
Operations Personnel	10	2	Crew and shift schedules
Facilities Maintenance Personnel			
Mechanical Maintenance	2	1	
Electrical and Instrumentation Maintenance	2	1	

E4.2.4 Classroom Training

- (a) Classroom space will be made available at 421 Osborne Street garage for employee training.

E4.2.5 Field Training

- (a) For all field training sessions, Contractor shall:
 - (i) implement the training using the Infrastructure, unless otherwise approved by the City Representative;
 - (ii) provide field training sessions in a manner that all Training Participants can see and hear all demonstrations provided;
 - (iii) arrange for and require plant staff to perform the demonstrated procedures, as part of the Training Participant evaluation requirements; and
 - (iv) ensure all training is in accordance with SWPs and SOPs and include training on their application and use.

- E4.2.6 Contractor shall ensure that the evaluation components are sufficiently detailed to affirm that the Training Participant is qualified to operate and/or maintain the component of the Infrastructure associated with the training course.

- E4.2.7 Contractor shall provide on information session for First Responders, including the local Fire Department and EMT service and provide any information necessary for the development of their emergency response plans related to the Hydrogen Fueling Station. Topics should include: Characteristics of Hydrogen, Hydrogen Fueling System Safety Systems, Potential Safety Incidents and Responses, and Communications Following a Safety Incident.

- E4.2.8 Staff training and first responder information session shall be completed prior to commissioning of the Station.

- E4.3 Manuals

- E4.3.1 Contractor shall provide manuals that provide comprehensive guidance to City staff on the operation and maintenance of the Infrastructure. The Operations & Maintenance Manuals are two separate manuals.

- E4.3.2 The operations manual shall be organize by:
 - (a) discipline (as applicable); and
 - (b) process / system.

- E4.3.3 Contractor shall include the following in the Operations Manual:
 - (a) an introduction;
 - (b) a user guide;
 - (c) an overview of the site services; and
 - (d) Systems Manuals subdivided into:
 - (i) introduction
 - (ii) health and safety;
 - (iii) general process requirements;
 - (iv) mechanical;
 - (v) electrical;
 - (vi) automation;
 - (vii) functional Requirements;
 - (viii) Lubricant Schedule;
 - (ix) settings; and
 - (x) appendices.

- E4.3.4 The maintenance manual shall be organised by:
 - (a) manufacturer and model number (if applicable);
 - (b) if required, model series numbers (or other unique information as applicable); and
 - (c) equipment identifier, where the information is specific to the individual Asset.

- E4.3.5 Maintenance manuals shall provide routinely required information that:

- (a) is useful to introduce City maintenance personnel to the maintenance of the processes, systems and Assets; and
- (b) is likely to be utilized by maintenance personnel on an annual or more frequent basis.

E4.3.6 Where possible the following original equipment manufacture information should be included in the maintenance manual:

- (a) bill of material;
 - (i) warranty information; and
 - (ii) part number;
- (b) lubricants schedule;
- (c) manufacturers' literature;
- (d) settings;
- (e) Shop Drawings;
- (f) special maintenance procedures;
- (g) suppliers;
- (h) FMECA records; and
- (i) health and safety information.

E5. TESTING AND SIGN-OFF

E5.1 The Contractor shall provide testing and sign off in accordance with the requirements hereinafter specified.

E5.2 Contractor shall perform a complete system commissioning on the City's property. The system commissioning procedures include component tests as well as other standard tests, inspections, performance, safety and quality checks. All testing and commissioning shall be conducted in accordance with the manufacturer's equipment specifications and the City's performance requirements.

E5.3 The objectives of commissioning are to:

- (a) commission all equipment, systems and sub-systems at the Infrastructure before being put into continuous operation;
- (b) demonstrate that the Infrastructure meets all the requirements of Applicable Law;
- (c) develop a baseline of data and test results to allow Contractor and the City to optimize and monitor the future performance; and
- (d) provide evidence and documentation to verify that Contractor has met the objectives set out in Section E2 Technical Requirements.

E5.4 The commissioning phases for the Project are as follows:

- (a) Equipment Checkout;
- (b) Functional Testing;
- (c) Systems Operational Testing; and
- (d) Performance Testing.

E5.5 Contractor shall confirm that all data acquisition, process control algorithms, equipment interlocks, alarms, events and notifications, process and monitoring, connections with and communications to the bus, and other data acquisition features are fully functional;

E5.6 During commissioning and prior to fueling a bus, Contractor shall:

- (a) at a minimum, perform all sampling and analysis required to demonstrate that the dispensed hydrogen meets SAE J2719 purity levels as specified in Section E2.8.2(a) of the

Technical Requirements. The Contractor shall collect samples in accordance with ASTM D7606-11 and ASTM D7650-13 or as specified by the testing laboratory;

- (b) use a third-party ISO/IEC 17025 accredited laboratory for the testing of all samples;
- (c) submit analytical test results to the City within 7 Calendar Days of sample collection (or at a different frequency agreed to by the City, acting reasonably); and
- (d) repeat commissioning activities as required to comply with the requirements of this Section E5.5.

E5.7 At a minimum, Contractor shall perform the following activities as part of the Performance Testing:

- (a) operate the hydrogen generation system for a continuous 24-hour period at a power level equivalent to 100% of the systems stated power capacity under operating conditions consistent with those set out in the Technical Requirements;
- (b) demonstrate that the hydrogen generation system is capable of producing at least 225 kg of hydrogen fuel within a 24-hour period with purity that complies with SAE J2719;
- (c) complete four (4) fills of twenty-four kilograms (24 kg) of hydrogen fuel on a back-to-back basis in less than one hour with 40-foot buses having a maximum initial State of Fill of 36%. This test could be performed under any ambient temperature conditions;
- (d) complete four (4) fills of thirty-six kilograms (36 kg) of hydrogen fuel on a back-to-back basis in less than one hour with 60-foot buses having a maximum initial State of Fill of 35%. This test could be performed under any ambient temperature conditions; and
- (e) achieve fills that uniformly provide states of charge as measured by the bus receiving fuel of 95% or greater at a settled pressure level of 350 Bar.

E5.8 Upon completion of system commissioning, system start up, testing and approval by the City, the Contractor shall monitor the system continually until operated 7 consecutive days without a major alarm or shutdown prior to submitting a commissioning report to the City for review and approval for acceptance.

E5.9 The commissioning report shall include, the following as applicable:

- (a) pressure vessel test certificates;
- (b) pressure test certificates;
- (c) fire alarm and life safety test certificates;
- (d) asset pre-commissioning test forms and reports;
- (e) device configuration parameters and settings; and
- (f) equipment commissioning test results and reports.

E6. OPERATION AND MAINTENANCE SERVICES

E6.1 The Contractor shall provide operation and maintenance services for a period of 1 year following Substantial Completion accordance with the requirements hereinafter specified.

E6.2 Operation and Maintenance Plan

E6.2.1 The Proposer shall submit and O&M plan, detailing the activities and intervals at which they will be performed, with their proposal submission. The O&M Plan shall include, at a minimum:

- (a) a list of preventative maintenance tasks covered by the service plan;
- (b) a list of parts and/or equipment that are expected to be replaced under the service plan; and
- (c) a recommended inventory of spare parts to maintain to ensure that equipment downtime is minimized including. This shall include inventory of critical

equipment whose failure will have a significant impact on the performance and Availability of the Infrastructure.

E6.3 Operation and Maintenance Services

E6.3.1 Item No. 2 Fueling Station Service & Maintenance on Form B Prices shall be an all-inclusive program for all components of the Hydrogen Fueling Station, for the term of the contract including, but not limited to:

- (a) All labour;
- (b) All travel expenses
- (c) All equipment consumables;
- (d) All “version” software updates/upgrades and firmware updates;
- (e) All software licensing fees: and
- (f) Diagnostic and specialist support services for all components of the Hydrogen Fueling Station.

E6.3.2 Contractor shall be responsible for providing:

- (a) All labour, equipment, insurance, training, supplies, storage, and facilities required to operate and maintain the Hydrogen Fueling Station;
- (b) coordination, management and control of all activities necessary to ensure the that the Hydrogen Fueling Station maintains the minimum design standard for performance;
- (c) coordination, management and control all activities either remote or in-person to ensure adequate service level, response and resolutions times are maintained;
- (d) methods to improve effectiveness and maximize operational efficiency of the Hydrogen Fueling Station including but not limited to:
 - (i) minimizing the quantity of inputs consumed such as electricity, water and methanol; and
 - (ii) minimizing the amount of hydrogen lost during generation, compression, piping, and storage;
- (e) technical support via telephone, email or videoconferencing to City staff 24 hours per day 7 days per week to answer questions, assist in troubleshooting or report operation issues;
- (f) monthly report identifying all automatically and manually identified faults and related maintenance activities;
- (g) monthly reviews with City staff of station performance metrics, including the cost of produced fuel, fueling speed, maintenance events, equipment Uptime (including reformer, compressors, pre-cooling system, and dispensers), as well as discussions regarding whether changes to station operation and maintenance activities are needed; and
- (h) other reports, either verbal or written, on such other matters relating to the performance of this Design Build Agreement as the City may from time to time reasonably require.

E6.4 Response Time

- (a) If onsite field services are required, they will be dispatched by the Contractor within 24 hours of notification from the City (via automated or manual means) for repairs as necessary to keep the system operational; and
- (b) Any corrective action required to restore the equipment to fully operational status shall be completed within 24 hours of the field services arriving onsite depending on availability of needed parts.

E6.5 Accident Reporting and Investigations

- E6.5.1 Contractor shall comply with all requirements of the WSHA and specifically those relating to Serious Incidents in the Workplace.
- E6.5.2 Contractor shall immediately notify the City Representative of any accident, near miss or Serious Incident:
- (a) occurring within the Site involving its own or any Contractor Parties' vehicles or equipment; and
 - (b) occurring during the period from the Effective Date to the Final Completion Date which involves a death, serious personal injury, or if there is a third-party property damage in excess of \$5,000 or as specified in the WSHA.
- E6.5.3 In the event of a death involving employees of Contractor or any Contractor Party during the Project Term, Contractor shall verbally notify the City Representative within 2 hours of the time when the Contractor first learned of the death, and follow-up with a written notice and summary of circumstances within 24 hours.
- E6.6 Monthly Health and Safety Reporting
- E6.6.1 Contractor shall maintain or ensure that full records are kept of all incidents relating to health and safety during the Project Term. These records shall be available for inspection by the City upon reasonable notice, and Contractor shall present a report of them to the City as and when requested.
- E6.6.2 Contractor shall prepare and submit, with the Monthly Project Reports, a section or separate report covering health and safety. The monthly health and safety report or section shall describe the performance of Contractor compared with the requirements of the WSHA and this Contract.
- E6.6.3 The monthly health and safety report or section shall include, as a minimum:
- (a) summary of statistics of Serious Incidents, accidents, and near misses (Include those involving third parties as well as any external documentation such as police reports);
 - (b) summary of type and quantity of safety meetings and safety review sessions;
 - (c) comparison of performance against targets;
 - (d) results of any required auditing;
 - (e) measures implemented and proposed to be implemented to improve Contractor's health and safety performance;
 - (f) health and safety training completed;
 - (g) the results of the monthly review of Contractor's Health, Safety, and Security Management Plan;
 - (h) any changes to COR status of Contractor, or any Contractor Party or Subcontractor which is required to have COR; and
 - (i) any correspondence with and governmental agency or regulatory body relating to the safety of the Works.
- E6.7 Service & Maintenance Hand-Off
- E6.7.1 Upon completion of the 1-year operation and maintenance period the Contractor shall:
- (a) provide the City all special tools and software recommended by the manufacturer and required to operate and maintain all Infrastructure;
 - (b) provide valid licenses for all software required to operate, maintain, troubleshoot, program and reprogram any component, equipment or systems incorporated in the Infrastructure for the duration of the warranty period;
 - (c) Provide all necessary information such that the City can renew the licenses upon expiry;
 - (d) provide any addition training and manuals to support service and maintenance beyond the warranty period not previously provide in Section E4; and

- (e) supply (2) hard copies of Operation and Maintenance manuals and an electronic copy. Maintenance updates to the Operation & Maintenance manuals shall be sent electronically to the City as they become available for a duration of 5 years.

APPENDIX A – BUS SPECIFICATIONS

APPENDIX B – LAND, SITE(S), FACILITY(IES)