



**THE CITY OF WINNIPEG**

# **REQUEST FOR PROPOSAL**

**RFP NO. 40-2014**

**PROFESSIONAL ENGINEERING CONSULTING SERVICES FOR THE NEWPCC POWER  
SUPPLY UPGRADE**

**Proposals shall be submitted to:**

**The City of Winnipeg  
Corporate Finance Department  
Materials Management Division  
185 King Street, Main Floor  
Winnipeg MB R3B 1J1**

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## **PART B - BIDDING PROCEDURES**

### **B1. CONTRACT TITLE**

B1.1 PROFESSIONAL ENGINEERING CONSULTING SERVICES FOR THE NEWPCC POWER SUPPLY UPGRADE

### **B2. SUBMISSION DEADLINE**

B2.1 The Submission Deadline is 4:00 p.m. Winnipeg time, May 29, 2014.

B2.2 Proposals determined by the Manager of Materials to have been received later than the Submission Deadline will not be accepted and will be returned upon request.

B2.3 The Project Manager 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 The Project Manager or an authorized representative will conduct a Site Investigation tour of the NEWPCC Power transformation and distribution system on May 7, 2014 at 10am prompt.

B3.1.1 Proponents are requested to meet at the reception area of the North End Water Pollution Control Centre located at 2230 Main St.

B3.1.2 Proponents are requested to register for the Site Investigation by contacting the Project Manager identified in D2.

B3.1.3 Registration requests shall identify the Proponent, their contact information, names of intended attendees. Subconsultants shall also be identified along with their intended attendees.

B3.1.4 For safety reasons, there will be no access inside the MB Hydro's perimeter fence during the proposal period.

B3.1.5 Proponents are required to provide their own hardhat and CSA approved safety footwear.

B3.2 Although attendance at the Site Investigations is not mandatory, the City strongly suggests that Proponents attend.

B3.3 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 Project Manager in writing.

### **B4. ENQUIRIES**

B4.1 All enquiries shall be directed to the Project Manager identified in D2.

B4.2 If the Proponent finds errors, discrepancies or omissions in the Request for Proposal (RFP), or is unsure of the meaning or intent of any provision therein, the Proponent shall promptly notify the Project Manager of the error, discrepancy or omission at least five (5) Business Days prior to the Submission Deadline.

B4.3 If the Proponent is unsure of the meaning or intent of any provision therein, the Proponent should request clarification as to the meaning or intent prior to the Submission Deadline.

B4.4 Responses to enquiries which, in the sole judgment of the Project Manager, require a correction to or a clarification of the RFP will be provided by the Project Manager to all Proponents by issuing an addendum.

- B4.5 Responses to enquiries which, in the sole judgment of the Project Manager, do not require a correction to or a clarification of the RFP will be provided by the Project Manager only to the Proponent who made the enquiry.
- B4.6 All correspondence or contact by Proponents with the City in respect of this RFP must be directly and only with the City's Project Manager. Failure to restrict correspondence and contact to the Project Manager may result in the rejection of the Proponents Proposal Submission.
- B4.7 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 Project Manager in writing.

## **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 Project Manager. 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 Proposals to the media or any member of the public without the prior written authorization of the Project Manager.

## **B6. ADDENDA**

- B6.1 The Project Manager 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 Project Manager will issue each addendum at least two (2) Business Days prior to the Submission Deadline, or provide at least two (2) Business Days by extending the Submission Deadline.
- B6.2.1 Addenda will be available on the Bid Opportunities page at The City of Winnipeg, Corporate Finance, Materials Management Division website at <http://www.winnipeg.ca/matmgt/bidopp.asp>
- B6.2.2 The Bidder is responsible for ensuring that it has received all Addenda and is advised to check the Materials Management Division website for Addenda regularly and shortly before the Submission Deadline, as may be amended by addendum.
- B6.3 The Bidder shall acknowledge receipt of each addendum in Paragraph 9 of Form A: Proposal. Failure to acknowledge receipt of an addendum may render a Proposal non-responsive.

## **B7. PROPOSAL SUBMISSION**

- B7.1 The Proposal shall consist of the following components:
- (a) Form A: Proposal (Section A) in accordance with B8;
  - (b) Fees (Section B) in accordance with B9;
- B7.2 The Proposal should also consist of the following components:
- (a) Experience of Proponent and Subconsultant (Section C) in accordance with B10;
  - (b) Experience of Key Personnel Assigned to the Project (Section D), in accordance with B11;
  - (c) Project Understanding and Methodology (Section E) in accordance with B12; and
  - (d) Project Schedule (Section F) in accordance with B13.

- B7.3 Further to B7.1, 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.
- B7.4 Further to B7.2, 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, to constitute a responsive Proposal.
- B7.5 Proponents should submit one (1) unbound 8.5" x 11" original (marked "original") and seven (7) hard copies for sections identified in B7.1 and B7.2.
- B7.6 Proponents should additionally submit on a standard compact disk a duly completed Form B: Fees in Microsoft Excel format (.xls).
- B7.7 Proposal format, including type of binding, total number of pages, size of pages and, font, etc., will not be regulated, except that the Proposal should be presented 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 team.
- (a) Proposal submissions should generally employ a minimum printed text font size of 10 point.
- B7.8 Proponents are advised that inclusion of terms and conditions inconsistent with the Request for Proposal, will be evaluated in accordance with B21.1(a).
- B7.9 The Proposal shall be submitted enclosed and sealed in an envelope/package clearly marked with the RFP number and the Proponent's name and address.
- B7.10 Proposals submitted by facsimile transmission (fax) or internet electronic mail (e-mail) will not be accepted.
- B7.11 Proposals shall be submitted to:  
The City of Winnipeg  
Corporate Finance Department  
Materials Management Division  
185 King Street, Main Floor  
Winnipeg MB R3B 1J1
- B7.12 Any cost or expense incurred by the Proponent that is associated with the preparation of the Proposal shall be borne solely by the Proponent.
- B8. PROPOSAL (SECTION A)**
- B8.1 The Proponent shall complete Form A: Proposal, making all required entries.
- B8.2 Paragraph 2 of Form A: Proposal shall be completed in accordance with the following requirements:
- (a) if the Proponent is a sole proprietor carrying on business in his/her own name, his/her 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 his/her own, the business name and the name of every partner or corporation who is the owner of such business name shall be inserted.
- B8.2.1 If a Proposal is submitted jointly by two or more persons, each and all such persons shall identify themselves in accordance with B8.2.

- B8.3 In Paragraph 3 of Form A: Proposal, the Proponent shall identify a contact person who is authorized to represent the Proponent for purposes of the Proposal.
- B8.4 Paragraph 11 of Form A: Proposal shall be signed in accordance with the following requirements:
- (a) if the Proponent is a sole proprietor carrying on business in his/her 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 its duly authorized officer or officers and the corporate seal, if the corporation has one, should be affixed;
  - (d) if the Proponent is carrying on business under a name other than its 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.
- B8.4.1 The name and official capacity of all individuals signing Form A: Proposal should be printed below such signatures.
- B8.5 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.

## **B9. FEES (SECTION B)**

- B9.1 The Proponent shall utilize and submit Form B: Fees, making all required entries to summarize their Fee proposal for the proposed Services. The Proponent shall be responsible to verify and ensure the correctness of the associated submittals.
- B9.1.1 The Form B:Fees comprises of the following tables:
- (a) Summary of all Fees,
  - (b) Hourly rates – Time Based Fee
  - (c) Allowable Disbursement – Time based Fee
- B9.1.2 Fixed and Time Base Fees shall include Allowable Disbursements as defined in C1.1(b).
- B9.1.3 Notwithstanding C1.1(b), overhead costs or disbursements typically referred to as type 1 disbursements or general expenses shall be included in the hourly rates.
- B9.2 The Proponent shall submit a Fixed Fee for all disciplines and for the following phases as described in the Scope of Services and as listed in Form B: Fees:
- (a) Project Management for B9.2(b) to B9.2(d);
  - (b) Conceptual Design;
  - (c) Preliminary Design; and
  - (d) Procurement Services.
- B9.2.1 In addition to the Form B: Fees, proposals shall **also** include detailed description of the Fixed Fees for all disciplines according to the Scope of Services. Details shall include as a minimum:
- (a) the work activities and deliverables of the proposed Services;
  - (b) the respective number of hours per work activity per task per each proposed individual;
  - (c) name and role of proposed individuals;
  - (d) the respective engineering discipline or management function as applicable;
  - (e) the applicable hourly rates;

- (f) the associated disbursements; and
- (g) Information relating to points (a) to (f) above shall be presented in a Matrix form that allows easy understanding of their connections, and the associated Form B: Fees summaries shall be issued from a direct traceable compilation of the Matrix input.

B9.3 The Proponent shall submit a Time Based Fee for all disciplines and the following phases as described in the Scope of Services and as listed in Form B: Fees:

- (a) Project management for B9.3(b) to B9.3(c);
- (b) Contract administration services; and
- (c) Post construction services.

B9.3.1 The City anticipates that contract administration services and post construction services may occur from 2015 to 2018 and 2018 to 2019 respectively.

B9.3.2 For bid purposes, the Time Based Fee shall be based on the following:

- (a) Thirty six (36) months for the contract administration phase; and
- (b) Twelve (12) months for the post construction phase.

B9.3.3 Notwithstanding C8, the City does not guarantee the number of years or months required during the construction or post construction phase (could be more or less). The number of years or months stated in B9.3.1 and B9.3.2 is for evaluation purposes only.

B9.3.4 In addition to the Form B: Fees, proposals shall **also** include detailed description of the Time based Fees for all disciplines according to the Scope of Services. Details shall include as a minimum:

- (a) the work activities of the proposed Services;
- (b) the respective number of hours per work activity per task per each proposed individual;
- (c) name and role of proposed individuals;
- (d) the respective engineering discipline or management function as applicable;
- (e) the applicable hourly rates;
- (f) the associated disbursements; and
- (g) Information relating to points (a) to (f) above shall be presented in a Matrix form that allows easy understanding of their connections, and the associated Form B: Fees summaries shall be issued from a direct traceable compilation of the Matrix input.

B9.3.5 In addition to B9.3.4, the Proponent shall provide

- (a) A table of hourly rates used for the contract administration services and post-construction services for each year from 2015 to 2019. The table shall include hourly rates for all personnel and categories/titles of personnel expected to work on the project.
- (b) Resident engineer's hourly rates shall be inclusive of all associated Allowable Disbursements.
- (c) An average monthly fee for the Allowable Disbursements (less the Allowable Disbursements for the Resident Engineer) during contract administration services and post construction services for each year from 2015 to 2019.
  - (i) Identify the categories of Allowable Disbursements and estimated cost for each.
  - (ii) Identify the consultant markup percentage that would be applied. The markup will be limited to a maximum of 5%.
  - (iii) Include assumptions and rationale in obtaining the average monthly Allowable Disbursements specified in C 1.1(b).



- ◆ Notwithstanding C1.1(b) the cost to the Consultant for the provision of third party testing, as authorized by the Project Manager, will be reimbursed on a Cost Plus Fee basis.
- ◆ The Consultant shall ensure that selected third party services are provided at competitive market rates.
- ◆ Costs shall be substantiated by the provision of suitable documentation correlated with the applicable submitted daily Consultant report log.

B9.4 Adjustments to Fees will only be considered based on increases and decreases to the Scope of Services. The City will not consider an adjustment to the Fees based on:

- (a) Changes in the Project budget or the final total construction cost; and
- (b) Increases to hourly rates.
  - (i) Proposal shall identify and detail all rate escalations including salary adjustments.
  - (ii) The total fee in the proposal shall include all escalations.

B9.5 If the City requires additional services, the rates to be used will be based on the rates provided in the Proponent's proposal.

B9.6 Manitoba Hydro shall invoice directly to the City of Winnipeg for their Work. Manitoba Hydro's invoices shall not be part of the Consultant's fee and shall not be invoiced through and subject to mark-ups of the Consultant.

B9.7 The City intends to procure and engage the Services of a third party cost estimator during the course of this project for additional and independent cost estimation purposes. The cost for procuring and engaging this estimator shall not be part of the Consultant's fee and shall not be invoiced through and subject to mark-ups of the Consultant.

B9.8 Notwithstanding C10.1, Fees submitted 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.

B9.9 Payments to Non-Resident Consultants are subject to Non-Resident Withholding Tax pursuant to the Income Tax Act (Canada).

## **B10. EXPERIENCE OF PROPONENT AND SUBCONSULTANTS (SECTION C)**

B10.1 The Proponent should submit the experience of their firm and that of their Subconsultants as described in this Section and as listed in Form C: Experience of Proponent and Subconsultants.

B10.2 The Proposal should include general firm profile information, including years in business, average volume of work, number of employees and other pertinent information for the Proponent and all Subconsultants showing their ability to undertake the current work.

- (a) Information submitted relating to B10.2 shall be limited to a maximum of 15 pages total for Proponent and Subconsultant.

B10.3 Proponents and Subconsultants should submit up to a total of five (5) substantially completed projects awarded in the last eight (8) years, demonstrating their experience in projects of similar size, scope and complexity as per the following criteria:

- (a) Construction projects including power transformation and distribution systems of a total installed power identified in the range of 10 to 100 MVA;
- (b) Projects including the construction of electrical buildings and facilities;
- (c) Projects of a total value including power transformation and distribution systems of at least \$10,000,000 (including both design and construction);
- (d) Projects in which the Proponents or Subconsultants had a similar role as the one expected on the current Project, inclusive of RFQs and RFPs preparation for design build projects.

- B10.4** For each project listed in B10.3 the Proponent should submit a Form C with the following information:
- (a) A clear and comprehensive description of the project – include project owner, project objectives; size of electrical power transmission and distribution system, electrical building, assignment outcomes and achievements, and other relevant information demonstrating similarity to project criteria in B10.3;
  - (b) A clear and comprehensive description of the Consultant Services– Provide details of the consultant services and details of the role of the Proponent/ Subconsultants;
  - (c) Original and final cost – provide this information separately for the value of the Scope of the Consultant Services assignment and the construction. Identify the amount of scope changes and the reasons for each of them;
  - (d) Design and construction schedule – include anticipated project duration and actual project delivery duration, showing design and construction separately. Provide explanations if there are discrepancies between the projected and the actual durations; and
  - (e) Reference information (two current names with telephone numbers per project).

**B11. EXPERIENCE OF KEY PERSONNEL ASSIGNED TO THE PROJECT (SECTION D)**

- B11.1** The Proponent should submit the experience of the Key Personnel assigned to this project as described in this Section and in Form D: Experience of Key Personnel.
- B11.1.1** A maximum of two (2) key personnel positions may be assigned to one individual.
- B11.2** The Proponent shall identify the following Key Personnel:
- (a) Owner's advocate project manager;
  - (b) Procurement specialist;
  - (c) Four (4) following key design leaders:
    - (i) Electrical;
    - (ii) Civil works;
    - (iii) Instrumentation and control; and
    - (iv) Building services.
  - (d) Resident engineer, and
  - (e) Non-resident engineer.
- B11.2.1** Using Form D: Experience of Key Personnel, the Proponent should indicate the experience of the Key Personnel as follows:
- (a) Proposed role and responsibilities;
  - (b) Core capabilities and/or technical skills;
  - (c) Educational background, degrees, professional recognitions, job title and years of experience (related to scope of services, in similar role as proposed and with existing employer);
  - (d) At least two comparable projects in which they have played a similar role as proposed for this project. For each project provide the following:
    - (i) Role of the person on the project;
      - ◆ Emphasize roles which are similar to those proposed for this project.
      - ◆ Identify clearly if the key personnel was in charge of the interface with electrical utilities.
    - (ii) Project name and owner;
    - (iii) Description of project;
    - (iv) Responsibilities and achievements; and

(v) Reference information (two current names with telephone numbers per project).

(e) Other required information as indicated in Form D.

B11.2.2 For evaluation purposes, higher scores will be given to Key Personnel with similar role in projects and similar to the criteria defined in B10.3(a) to B10.3 (d).

## **B12. PROJECT UNDERSTANDING AND METHODOLOGY (SECTION E)**

B12.1 The Proponent should describe its approach to overall team formation for the entire project, coordination of team members, and coordination with Manitoba Hydro. In addition, the Proponent should provide an organizational chart that includes all phases of the Project and the entire team.

B12.2 The Proponent should clearly describe their firm's project management approach during the performance of Services. The Proponent's project management approach should be specific to the NEWPCC Power Supply Upgrade project. This approach should address how the Proponent intends to manage the following aspects during the engineering assignment and the construction:

- (a) Communications;
- (b) Cost management;
- (c) Health and safety;
- (d) Human resources – include how the Proponent intends to utilize the project team
  - (i) in compliance with the project constraints identified in the Scope of Services and
  - (ii) during possible periods of construction shut down or when there is minimal work on site;
- (e) Procurement – Design build process and arc flash RFP;
- (f) Project risks;
- (g) Quality management;
- (h) Scope;
- (i) Stakeholders (internal and external); and
- (j) Time management.

B12.3 The Proposal should address the Methodology that the Proponent intends to use to carry out the Scope of Services. Methodology should be presented in accordance with the Scope of Services as follows:

- (a) Work Description – clearly identify and explain work activities in each phase including:
  - (i) Assumptions and interpretations of the Scope of Services; and
  - (ii) Proponents' understanding of the constraints that will affect the work.
- (b) Method for carrying out the work including:
  - (i) Methodology description;
  - (ii) Deliverables including proposed list of drawings and specifications to be submitted with project definition report and preliminary design report;
  - (iii) Associated workshop(s)/presentation meeting(s) or progress meetings etc. and their purpose;
  - (iv) Personnel involved and their job functions;
  - (v) Contract administration services;
  - (vi) The collaborative process/method to be used by the Key Personnel of the team in the various phases of the Project;
  - (vii) Activities and Services to be provided by the City; and

- (viii) Other information that conveys the Proponent understanding of the project requirements.
  - (c) Provide rationale to support the number of hours assigned by the Proponent in the Form B: Fees and the Proponent's Fee matrix for the contract administration services and the post construction services.
- B12.4 The Proponent should indicate activities to be performed outside the City of Winnipeg, either by the Proponent's staff or by Subconsultants. Identify proposed arrangements involving out-of-town staff and Subconsultants to participate in the project to ensure:
- (a) Effective communication;
  - (b) Quality control;
  - (c) Distribution and consolidation of information;
  - (d) Participation in coordination and review functions.

### **B13. PROJECT SCHEDULE (SECTION F)**

- B13.1 Proponents should present the most effective schedule attainable by developing a carefully considered critical path method schedule using Microsoft Project or similar project management software.
- B13.1.1 The schedule should address each requirement of the Scope of Services and be complete with
- (a) Resource assignments (key personnel),
  - (b) Activity durations (monthly timescale), and
  - (c) Milestone submission dates or events for at least
    - (i) Project management plan and updates;
    - (ii) Project definition report;
    - (iii) Preliminary design report;
    - (iv) Procurement services – RFQ and RFP documents and bids evaluation reports;
    - (v) Contract administration services; and
    - (vi) Post construction services.
- B13.1.2 The Proponent's schedule should include:
- (a) Review times and approval
    - (i) A minimum of three (3) weeks for reviews by the City unless otherwise agreed. The review period to be commensurate to the number of pages and complexity of the document;
    - (ii) Reasonable times for third party review (such as Manitoba Hydro) and guidance/approval processes if required;
    - (iii) Adequate time for the award of tender documents by the City - Award of contracts specified in this Request for Proposal may take a minimum of three (3) months after evaluation;
  - (b) Project deliverables and constraints;
  - (c) Deliverable review meetings, workshops and progress meetings. Meetings should be identified in sequential order with other activities and within the relevant phase;
  - (d) Adequate breakdown of each phase to activities:
    - (i) Activities should be grouped and differentiated by deliverables;
    - (ii) Activities should also be group by partners, Subconsultants or member of consortium.
  - (e) Project summary, phase summary and, start and completion dates for the project and each phase;

- (f) A column that indicates the project dependencies; and
- (g) The critical path.

B13.2 The Proponent should provide commentaries supporting the appropriateness of the schedule.

#### **B14. QUALIFICATION**

B14.1 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;
- (c) Have all the necessary experience, capital, organization, and equipment to perform the Services in strict accordance with the terms and provisions of the Contract;
- (d) Have or establish a local presence, through the prime consultant, subconsultant or member of consortium, in Winnipeg for the duration of the Project.

B14.2 The Proponent and any proposed Subconsultant (for the portion of the Services 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 <http://www.winnipeg.ca/matmgt/debar.stm>

B14.3 The Proponent and/or any proposed Subconsultant (for the portion of the Services proposed to be subcontracted to them) shall:

- (a) Have successfully carried out services for the design, management of construction and contract administration for architectural and/or engineering projects of similar complexity, scope and value; and to those required for this Project; and
- (b) Be fully capable of performing the Services required to be in strict accordance with the terms and provisions of the Contract; and
- (c) Have a written workplace safety and health program, if required, pursuant to The Workplace Safety and Health Act (Manitoba);
- (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) Upon request of the Project Manager obtain the Security Clearances as identified in PART E -

B14.4 The Proponent shall submit, within three (3) Business Days of a request by the Project Manager, further proof satisfactory to the Project Manager of the qualifications of the Proponent and of any proposed Subconsultant.

B14.5 The Proponent shall provide, on the request of the Project Manager, full access to any of the Proponent's equipment and facilities to confirm, to the Project Manager's satisfaction, that the Proponent's equipment and facilities are adequate to perform the Services.

## **B15. ELIGIBILITY**

B15.1 Various organizations provided investigative services with respect to this Project. In the City's opinion, this relationship or association does not create a conflict of interest or will not likely create a perception of conflict of interest because of this full disclosure and related information. The organizations are:

- (a) SNC – Lavalin Inc.
- (b) VWNA Winnipeg Inc. (Veolia)

B15.2 Any organization that works on this project (Professional Engineering Consulting Services for the NEWPCC Power Supply Upgrade) as a Consultant, Subconsultant, member of consortium etc., as a result of being awarded the project by the City shall be deemed ineligible to participate in the potential design build contract for the construction of the NEWPCC Power Supply Upgrade.

## **B16. OPENING OF PROPOSALS AND RELEASE OF INFORMATION**

B16.1 Proposals will not be opened publicly.

B16.2 After award of Contract, the names of the Bidders and the Contract amount of the successful Bidder will be available on the Closed Bid Opportunities (or Public/Posted Opening & Award Results) page at The City of Winnipeg, Corporate Finance, Materials Management Division website at <http://www.winnipeg.ca/matmgt/>.

B16.3 To the extent permitted, the City shall treat all Proposal Submissions as confidential. However, the Proponent is advised that any information contained in any Proposal may be released if required by City policy or procedures, by The Freedom of Information and Protection of Privacy Act (Manitoba), by other authorities having jurisdiction, or by law.

B16.4 Following the award of Contract, a Proponent will be provided with information related to the evaluation of its submission upon written request to the Project Manager.

## **B17. IRREVOCABLE OFFER**

B17.1 The Proposal(s) submitted by the Proponent shall be irrevocable for the time period specified in Paragraph 10 of Form A: Proposal.

B17.2 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 Services until a Contract for the Services has been duly executed 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: Proposal.

## **B18. WITHDRAWAL OF OFFERS**

B18.1 A Proponent may withdraw its Proposal without penalty by giving written notice to the Manager of Materials at any time prior to the Submission Deadline.

B18.1.1 The time and date of receipt of any notice withdrawing a Proposal shall be the time and date of receipt as determined by the Manager of Materials.

B18.1.2 The City will assume that any one of the contact persons named in Paragraph 3 of Form A: Proposal or the Proponent's authorized representatives named in Paragraph 11 of Form A: Proposal, and only such person, has authority to give notice of withdrawal.

B18.1.3 If a Proponent gives notice of withdrawal prior to the Submission Deadline, the Manager of Materials will:

- (a) retain the Proposal until after the Submission Deadline has elapsed;

- (b) open the Proposal to identify the contact person named in Paragraph 3 of Form A: Proposal and the Proponent's authorized representatives named in Paragraph 11 of Form A: Proposal; and
- (c) if the notice has been given by any one of the persons specified in B18.1.3(b), declare the Proposal withdrawn.

**B18.2** A Proponent who withdraws its Proposal after the Submission Deadline but before its offer has been released or has lapsed as provided for in B17.2 shall be liable for such damages as are imposed upon the Proponent by law and subject to such sanctions as the Chief Administrative Officer considers appropriate in the circumstances. The City, in such event, shall be entitled to all rights and remedies available to it at law.

## **B19. INTERVIEWS**

**B19.1** The Project Manager may, in his/her sole discretion, interview Proponents during the evaluation process.

## **B20. NEGOTIATIONS**

**B20.1** 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.

**B20.2** 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.

**B20.3** If, in the course of negotiations pursuant to B20.2 or otherwise, 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.

## **B21. EVALUATION OF PROPOSALS**

**B21.1** 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 Subconsultants, if any, pursuant to B14: (pass/fail)
- (c) Fees, Fixed Fee (Section B); 40%
- (d) Experience of Proponent and Subconsultants (Section C); 10%
- (e) Experience of Key Personnel Assigned to the Project (Section D); 20%
- (f) Project Understanding and Methodology (Section E); 25%
- (g) Project Schedule (Section F). 5%

**B21.2** Further to B21.1(a), the Award Authority may reject a Proposal as being non-responsive if the Proposal Submission 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.

**B21.3** Further to B21.1(b), the Award Authority shall reject any Proposal submitted by a Proponent who does not demonstrate, in its Proposal or in other information required to be submitted, that it is responsible and qualified.

- B21.4 Further to B21.1(c), Fees will be evaluated based on Fixed Fees indicated in B9.2.
- B21.4.1 Fees appearing to be inappropriately proportioned between the Fees for the conceptual design, preliminary design, procurement services and associated project management may be determined to be non-responsive and rejected by the Award Authority in its sole discretion acting reasonably.
- B21.4.2 Fees, hours and hourly rates appearing to be inappropriately proportioned between the Fixed Fees and Time based fees may be determined to be non-responsive and rejected by the Award Authority in its sole discretion acting reasonably.
- B21.5 Further to B21.1(d), Experience of Proponent and Subconsultants will be evaluated based on information requested in B10.
- B21.6 Further to B21.1(e), Experience of Key Personnel Assigned to the Project will be evaluated based on information requested in B11.
- B21.7 Further to B21.1(f), Project Understanding and Methodology will be evaluated based on information requested in B12.
- B21.8 Further to B21.1(g), Project Schedule will be evaluated based on information requested in B13.
- B21.9 Notwithstanding B21.1(d) to B21.1(g), where Proponents fail to provide a response to B7.2(a) to B7.2(d), the score of zero may be assigned to the incomplete part of the response.

## **B22. AWARD OF CONTRACT**

- B22.1 The City will give notice of the award of the Contract, or will give notice that no award will be made.
- B22.2 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 responsible and qualified, and the Proposals are determined to be responsive.
- B22.2.1 Without limiting the generality of B22.2, the City will have no obligation to award a Contract where:
- (a) the prices exceed the available City funds for the Services;
  - (b) the prices are materially in excess of the prices received for similar services in the past;
  - (c) the prices are materially in excess of the City's cost to perform the Services, or a significant portion thereof, with its 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.
- B22.3 Where an award of Contract is made by the City, the award shall be made to the responsible and qualified Proponent submitting the most advantageous offer.
- B22.4 The City may, at its discretion, award the Contract in phases.
- B22.5 The City intends to award the entire Scope of Services; however, the conceptual design, preliminary design, procurement services and their associated project management will be authorized at the agreed to Fixed Fee.
- B22.6 The contract administration services and post-construction services shall only proceed at the City's sole discretion.
- B22.6.1 The City reserves the right to negotiate the final details of contract administration services and post-construction services and associated fees based on the terms of this Request for Proposal and the Proponent's submission.



- B22.6.2 The City of Winnipeg, in its sole discretion, after consideration of the Consultant's performance with the work associated with B22.5, may enter into negotiations with the Consultant, to undertake the work associated with B22.6 without a public bid solicitation.
- (a) Negotiations may include the Scope of Services and level of effort. The hourly rates to be applied shall be those submitted in Form B to achieve a "not to exceed price".
  - (b) The City will provide terms and conditions and other details if it initiates negotiations with the Consultant;
  - (c) No compensation will be provided to the Consultant for participating in this negotiation;
  - (d) The City of Winnipeg will be under no obligation to initiate negotiations or enter into subsequent contracts; and
  - (e) The City may choose to issue a public bid solicitation for the Work with respect to contract administration services and post construction services.
- B22.7 Further to Paragraph 6 of Form A: Proposal and C4, the successful Bidder will be provided with Contract documents for execution following issuance of a Letter of Intent.
- B22.8 The form of Contract with the City of Winnipeg will be based on the Contract as defined in C1.1(n).
- B22.9 Following the award of Contract, a Proponent will be provided with information related to the evaluation of its Proposal upon written request to the Project Manager.
- B22.10 If, after the award of Contract, the Project is cancelled, the City reserves the right to terminate the Contract. The Consultant 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 Consultant Services (Revision 2010-10-01)* are applicable to the Services of the Contract.
- C0.1.1 The *General Conditions for Consultant 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](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 Consultant Services*.

## PART D - SUPPLEMENTAL CONDITIONS

### GENERAL

#### D1. GENERAL CONDITIONS

- D1.1 In addition to the *General Conditions for Consultant Services*, these Supplemental Conditions are applicable to the Services of the Contract.
- D1.2 If there is any conflict or inconsistency between the Proposal and the General Conditions for Consultant Services, the General Conditions for Consultant Services shall take precedence.
- D1.3 Further to C.1.1 (b) and C10, the following is applicable to Allowable Disbursements:
- (a) Booking of transportation and accommodations are expected to take place well in advance to obtain optimal discounted rates;
  - (b) The acceptable standard for air travel shall be economy class;
  - (c) Air travel premium fees, such as seat selection premiums etc., will not be reimbursable unless specifically approved by the Project Manager;
  - (d) The acceptable standard for accommodation will be a single room in a safe environment, conveniently located and comfortably equipped;
  - (e) The acceptable standard for rental vehicles shall be mid-size;
    - (i) car rental premium fees, such as prepaid fuel or re-fuelling surcharges etc. will not be reimbursable unless specifically approved by the Project Manager;
  - (f) Meal expenses shall be reasonable and within generally accepted guidelines, costs for alcoholic beverages will not be reimbursable and shall not be claimed;
  - (g) Copies of originating merchant/vendor detail receipts shall be provided as backup documentation when invoicing Allowable Disbursements, credit/debit card receipts or statements are not acceptable as backup;
  - (h) GST is to be removed from the reimbursable value of merchant/vendor invoices.
- D1.4 Notwithstanding C10, five percent (5%) of the assignment value of each phase will be retained until all deliverables have been submitted and accepted for that phase.
- D1.5 Monthly Invoices
- D1.5.1 In addition to C10.7 the consultant shall submit monthly invoices for all phases of the work.
- D1.5.2 Payments for the Fixed Fee aspect of the Scope of Services shall be based on the payment schedule included in Appendix A. Payments shall only be made when deliverables are submitted by the Consultant and accepted by the City.
- D1.5.3 Monthly invoices for the Time Based Fee shall include:
- (a) Activity/ Task Description;
  - (b) Baseline;
  - (c) Cost to Date Previous Period;
  - (d) Cost this Period;
  - (e) Total Cost to Date;
  - (f) Percent Complete;
  - (g) The budgeted cost for work scheduled (BCWS);
  - (h) The actual cost for work performed (ACWP);
  - (i) The budgeted cost for work performed (BCWP);

- (j) Detailed listing of manpower and costs by activity / task/ person as supporting documentation to invoices. The details listing should reconcile to the summary level invoice on a monthly basis; and
  - (k) Disbursements that are grouped, listed with all supporting documents/receipts attached.
- D1.5.4 The Consultant shall provide the Project Manager with an invoice template that is acceptable to the City before the first invoice is issued.
- D1.5.5 Invoices shall be submitted in both paper copies and Native formats.
- D1.6 The Consultant shall not substitute or replace Key Personnel throughout the duration of the Project without the permission of the Project Manager.
- (a) Experience and qualification as specified in B11.2.1 shall be submitted for all requested substitute(s) and replacement(s).

## **D2. PROJECT MANAGER**

- D2.1 The Project Manager is:  
Remi Adedapo, M.A.Sc., P.Eng.  
Email: radedapo@winnipeg.ca  
Telephone No. 204 986-5496  
Facsimile No. 204 224-0032
- D2.2 At the pre-commencement meeting, the Project Manager will identify additional personnel representing the Project Manager and their respective roles and responsibilities for the Services.
- D2.3 Proposal Submissions must be submitted to the address in B7.11.

## **D3. DEFINITIONS**

- D3.1 When used in this Request for Proposal:
- (a) "Consultant" and "Owner's advocate" means the Person undertaking the performance of Services under the terms of the Contract.
  - (b) "CHAIR" means Construction Hazard Assessment Implication Review
  - (c) "HAZOP" means Hazard and Operability Analysis
  - (d) "Native format" means the original format from which a deliverable was generated (e.g. MS Word, MS Excel, AutoCAD etc.)
  - (e) "NEWPCC" means North End Water Pollution Control Center.
  - (f) "OA" means Owner's Advocate.
  - (g) "OAPM" means Owner's Advocate Project Manager.
  - (h) "Preliminary Design Report" means the report at the end of the preliminary design.
  - (i) "Program Team" means the Team consisting of both City of Winnipeg and Veolia personnel.
  - (j) "PDF" means Portable Document Format.
  - (k) "Project Definition Report" means the report at the end of the conceptual design.
  - (l) "RFI" means Request for Information.
  - (m) "RFP" means Request for Proposal.
  - (n) "RFQ" means Request for Qualification.
  - (o) "WSTP" means Winnipeg Sewage Treatment Program

#### **D4. BACKGROUND**

- D4.1 The NEWPCC existing power is provided by Manitoba Hydro through two (2) 66 kV / 4160 V 7.5 MVA and one (1) 5 MVA oil filled transformers. The two (2) 7.5 MVA transformers are owned by Manitoba Hydro while the 5 MVA transformer is owned by the City. The 5 MVA transformer powers the UV disinfection building while the 7.5 MVA transformers power the rest of the plant.
- D4.2 The existing electrical power supply at the NEWPCC requires upgrade because the electrical loads associated with the future NEWPCC upgrades exceeds the current power supply capacity.
- D4.3 More information relating to the existing power supply is provided in Appendix B and C.
- (a) Appendix B - *TM #4 Tie-in 7b Electrical Power Supply* is a technical memorandum that reviewed the feasibility of installing a new power supply at the NEWPCC and without power interruption to existing operation.
    - (i) Appendix B is for information only and should not be used as basis of design.
    - (ii) The intent is not for the Proponent to use the schedule and cost information. The use of the cost and/or schedule by the Proponent is at their risk.
  - (b) Appendix C includes drawings related to the existing power transformation and distribution system, and switchgears requiring replacement.
- D4.4 The 4.16kV switchgears at the digester and at the secondary clarifier processes are obsolete and need replacement. List of drawings and photos of switchgears that require replacement are included in Appendix D.
- D4.5 The City intends to deliver the construction of the NEWPCC Power Supply Upgrade using the design build procurement method. This would be the first design build project for the Water and Waste Department. The City has engaged Veolia Water North America to assist in the delivery of this Project. Veolia will be in attendance at meetings and assisting with reviews throughout the project. This does not relieve the Proponent's obligation as the OA on this project.
- D4.6 The City intends to have a future standing order contract with an arc flash specialist for arc flash work at Wastewater facilities.

#### **D5. SCOPE OF SERVICES**

- D5.1 The City requires the Services of a Professional Engineering Consultant to be the Owner's Advocate (OA) during the design and construction of the NEWPCC Power Supply Upgrade.
- D5.2 The OA shall provide the following Services and as detailed in PART F – Scope of Work:
- (a) Project management;
  - (b) Conceptual design;
  - (c) Preliminary design;
  - (d) Procurement services;
  - (e) Contract administration services; and
  - (f) Post construction services.
- D5.3 Contract administration services and post construction services shall only proceed at the City's sole discretion. Construction area for the project is shown in Appendix E.
- D5.4 Further to C8.5 and D5, the City reserves the right to diminish the work relating to the replacement of the digester switchgears.
- D5.5 The OA shall not be entitled to any claim for damages on the ground of loss of anticipated profit or on any other grounds related to the diminishing of the Scope of Services.

## **D6. PROJECT CONSTRAINTS**

- D6.1 The following are initial constraints identified by the City. Additional constraints may be identified by the Program Team and the OA during the course of the project.
- (a) Manitoba Hydro has indicated that work on live 66 kV voltage lines into the plant can only be carried out in the fall or spring due to MB Hydro's high power demands in the summer and winter. However, modification to the 66 kV voltage lines during the spring is not favorable to the City due to wet weather flows and potential flood issues.
  - (b) The design has to provide for power to be continually provided to the NEWPCC while work is being carried out at the site of the existing two (2) 7.5MVA transformers.
  - (c) Potential environmental issues within and around the fenced area where the 7.5MVA transformers are located.

## **D7. OWNERSHIP OF INFORMATION, CONFIDENTIALITY AND NON DISCLOSURE**

- D7.1 The Contract, all deliverables produced or developed, and information provided to or acquired by the Consultant are the property of the City and shall not be appropriated for the Consultant's own use, or for the use of any third party.
- D7.2 The Consultant shall not make any public announcements or press releases regarding the Contract, without the prior written authorization of the Project Manager.
- D7.3 The following shall be confidential and shall not be disclosed by the Consultant to the media or any member of the public without the prior written authorization of the Project Manager;
- (a) Information provided to the Consultant by the City or acquired by the Consultant during the course of the Work;
  - (b) The Contract, all deliverables produced or developed; and
  - (c) Any statement of fact or opinion regarding any aspect of the Contract.
- D7.4 A Consultant who violates any provision of D7 may be determined to be in breach of Contract.

## **SUBMISSIONS PRIOR TO START OF SERVICES**

### **D8. AUTHORITY TO CARRY ON BUSINESS**

- D8.1 The Consultant 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 Consultant does not carry on business in Manitoba, in the jurisdiction where the Consultant does carry on business, throughout the term of the Contract, and shall provide the Project Manager with evidence thereof upon request.

### **D9. INSURANCE**

- D9.1 The Consultant shall procure and maintain, at its own expense and cost, insurance policies with limits no less than those shown below.
- D9.2 As a minimum, the Consultant shall, without limiting its obligations or liabilities under any other contract with the City, procure and maintain, at its own expense and cost, the following insurance policies:
- (a) Comprehensive or Commercial General Liability Insurance including:
    - (i) An inclusive limit of not less than \$2,000,000 for each occurrence or accident with a minimum \$2,000,000 Products and Completed Operations aggregate and \$5,000,000 general aggregate;
    - (ii) All sums which the Consultant shall become legally obligated to pay for damages because of bodily injury (including death at any time resulting therefrom) sustained

- by any person or persons or because of damage to or destruction of property caused by an occurrence or accident arising out of or related to the Services or any operations carried on in connection with this Contract;
- (iii) Coverage for Products/Completed Operations, Blanket Contractual, Consultant's Protective, Personal Injury, Contingent Employer's Liability, Broad Form Property Damage, Employees as Additional Insureds, and Non-Owned Automobile Liability;
  - (iv) A Cross Liability clause and/or Severability of Interest Clause providing that the inclusion of more than one Insured shall not in any way affect the rights of any other Insured hereunder in respect to any claim, demand, suit or judgment made against any other Insured;
- (b) If applicable, Automobile Liability Insurance covering all motor vehicles, owned and operated and used or to be used by the Consultant directly or indirectly in the performance of the Service. The Limit of Liability shall not be less than \$2,000,000 inclusive for loss or damage including personal injuries and death resulting from any one accident or occurrence.
  - (c) Professional Errors and Omissions Liability Insurance including:
    - (i) An amount not less than \$5,000,000 per claim and \$5,000,000 in the aggregate.
- D9.2.1 The Consultant's Professional Errors and Omissions Liability Insurance shall remain in force for the duration of the Project and for twelve (12) months after total performance.
- D9.3 The policies required in D9.2(a) shall provide that the City is named as an Additional Insured thereunder and that said policies are primary without any right of contribution from any insurance otherwise maintained by the City.
- D9.4 The Consultant shall require each of its Subconsultants to provide comparable insurance to that set forth under D9.2(a).
- D9.5 The Consultant shall provide the Project Manager with a certificate(s) of insurance for itself and for all of its Subconsultants, in a form satisfactory to the City Solicitor, at least two (2) Business Days prior to the commencement of any Services, but in no event later than the date specified in C4.1 for the return of the executed Contract. Such Certificates shall state the exact description of the Services and provide for written notice in accordance with D9.10.
- D9.6 The Consultant may take out such additional insurance as it may consider necessary and desirable. All such additional insurance shall be at no expense to the City.
- D9.7 All insurance, which the Consultant is required to obtain with respect to this Contract, shall be with insurance companies registered in and licensed to underwrite such insurance in the Province of Manitoba.
- D9.8 If the Consultant fails to do all or anything which is required of it with regard to insurance, the City may do all that is necessary to affect and maintain such insurance, and any monies expended by the City shall be repayable by and recovered from the Consultant.
- D9.9 The failure or refusal to pay losses by any insurance company providing insurance on behalf of the Consultant or any Subconsultants shall not be held to waive or release the Consultant or Subconsultants from any of the provisions of the insurance requirements or this Contract. Any insurance deductible maintained by the Consultant or any Subconsultants under any of the insurance policies is solely for their account and any such amount incurred by the City will be recovered from the Consultant as stated in D9.8.
- D9.10 The Consultant shall not cancel, materially alter, or cause any policy to lapse without providing at least thirty (30) Calendar Days prior written notice to the City.

## **SCHEDULE OF SERVICES**

### **D10. COMMENCEMENT**

- D10.1 The Consultant shall not commence any Services until it is in receipt of a notice of award from the City authorizing the commencement of the Services.
- D10.2 The Consultant shall not commence any Services until:
- (a) The Project Manager has confirmed receipt and approval of:
    - (i) Evidence of authority to carry on business specified in D8;
    - (ii) Evidence of the insurance specified in D9; and
    - (iii) Security clearances specified in E1.
  - (b) The Consultant has attended a meeting with the Project Manager, or the Project Manager has waived the requirement for a meeting.
- D10.3 The City intends to award this Contract by August 26, 2014.

### **D11. CRITICAL STAGES**

- D11.1 The Consultant shall achieve critical stages of the Services for this Contract in accordance with the following requirements:
- (a) The Arc Flash RFP shall be posted within 5 months from notice of award; and
  - (b) The Design Build RFP shall be posted within 15 months from notice of award.



## PART E - SECURITY CLEARANCE

### E1. SECURITY CLEARANCE

- E1.1 Each individual proposed to perform the following portions of the Work:
- (a) any Work at the NEWPCC site;
- E1.1.1 Each Individual shall be required to obtain a Criminal Record Search Certificate from the police service having jurisdiction at his/her place of residence. Or
- (a) BackCheck, forms to be completed can be found on the website at: <http://www.backcheck.net/> ; or
  - (b) Commissionaires (Manitoba Division), forms to be completed can be found on the website at: <http://www.commissionaires.mb.ca/> .
- E1.1.2 The original Criminal Record Search Certificate (Form P-253) will be provided by the Winnipeg Police Service to the individual applicant. The original has a validation sticker from the Winnipeg Police Service in the top right hand corner. The applicant shall:
- (a) Provide the original Criminal Record Search Certificate (Form P-253) to the Project Manager.
- E1.2 Prior to the commencement of any Work specified in E1.1, and during the term of the Contract if additional or replacement individuals are proposed to perform Work, the Consultant shall supply the Project Manager with a Criminal Record Search Certificate obtained not earlier than one (1) year prior to the Submission Deadline, or a certified true copy thereof, for each individual proposed to perform such Work.
- E1.3 Any individual for whom a Criminal Record Search Certificate is not provided, or for whom a Criminal Record Search Certificate indicates any convictions or pending charges related to property offences or crimes against another person will not be permitted to perform any Work specified in E1.1.
- E1.4 Any Criminal Record Search Certificate obtained thereby will be deemed valid for the duration of the Contract subject to a repeated records search as hereinafter specified.
- E1.5 Notwithstanding the foregoing, at any time during the term of the Contract, the City may, at its sole discretion and acting reasonably, require an updated criminal records search. Any individual who fails to provide a satisfactory Criminal Record Search Certificate as a result of a repeated criminal records search will not be permitted to continue to perform any Work specified in E1.1.

## PART F - SCOPE OF WORK

### F1. PROJECT MANAGEMENT

F1.1 This phase shall include all project management activities required to carry out the Scope of Work.

F1.1.1 The OA shall carry out the following:

- (a) Direct and coordinate efforts of the OA's team to achieve the objectives of the project and to meet the City's requirements;
- (b) Provide advice, engineering services, consultation, and oversight with respect to the Scope of Services;
- (c) Consult with Manitoba Hydro during conceptual and preliminary design; and oversee the coordination of the design builder with Manitoba Hydro during construction. In addition to coordination efforts, the OA shall hold with the City and Manitoba Hydro a minimum of:
  - (i) Two (2) formal meetings during the conceptual design;
  - (ii) Two (2) formal meetings during the preliminary design; and
  - (iii) Two (2) formal meetings during the procurement phase for the design build RFP.
- (d) Effectively oversee the design-build project in accordance with the preliminary design, the design builder's contract documents and subsequent approved modifications;
- (e) Carry out its Services without relieving the design builder of their contractual and other legal obligations;
- (f) Request or coordinate the request of existing construction, as-built and/or record drawings; and
- (g) Coordinate the design-builder's work with the City's Operations Staff or representative.

F1.1.2 The OA shall represent the City as the Contract Administrator and deliver the duties of the Contract Administrator as contained in the Contract Administration Manual in Appendix F.

- (a) Any conflict between the RFP and the Contract Administration Manual shall be governed by the Scope of Work in this RFP Document.
- (b) The following modifications to the Contract Administration Manual shall apply as follows:
  - (i) Section 15.3.2 - Visitors, the sentence "The Contract Administrator shall obtain prior approval from the City, for Consultants visits of non-resident personnel to the site.", is hereby modified to read: "The Contract Administrator shall obtain prior approval from the City, for Owner's Advocate visits of non-resident personnel to the site."
  - (ii) In all other cases where the terms "Consultant or Consultant's" are used it shall be interpreted as the "design builder or design builder's"
  - (iii) Where the term "contractor" is used, it shall mean "design builder".
  - (iv) Section 6.4 - Inspection and Test Plans (ITP), the first sentence is hereby modified to read: "The Contract Administrator shall obtain Test Plans from the design builder based on the design specifications for construction of the Project."
  - (v) Section 6.5 - Operations and Maintenance Manuals, the last paragraph is hereby modified to read: "The Contract Administrator shall require the O&M manuals (including City's and the Owner Advocate's comments) as a pre-requisite for commissioning and issuance of a Certificate of Substantial Performance."

- (vi) Section 7.1 – Schedule of Work, change last paragraph from “...in conjunction with the City can assess liquidated damages...” to “...shall advise the City to assess liquidated damages...”
- (vii) Delete Section 16 - Owner Supplied Equipment, in its entirety as no Owner Supplied Equipment is contemplated to be provided for this contract.

F1.1.3 The OAPM will be the prime contact with the City's Project Manager for the duration of the program. The OAPM shall be directly responsible for

- (a) Managing the project in accordance with the Project Management Plan;
- (b) Organising, chairing, providing minutes and agenda for monthly project status meetings, workshops and presentations;
- (c) Liaising with the Project Manager on a weekly basis to provide project status;
- (d) Submitting monthly performance reports. The reports should consist of a maximum of six (6) pages and include the following as a minimum:
  - (i) Work carried out in the previous month;
  - (ii) Work in progress;
  - (iii) Work anticipated for the following month;
  - (iv) Variances against baselines for scope, schedule, and cost
  - (v) Percentage completion of the overall project and per phase;
  - (vi) Description, action and mitigation of extreme and high risk(s);
  - (vii) Information request for the following month;
  - (viii) Issues to date;
  - (ix) Schedule and quality performance; and
  - (x) Modifications to the project management plan.
- (e) Coordinating access to NEWPCC through the Project Manager or delegate;
- (f) Coordinating access to the NEWPCC power transformation and distribution system through the Project Manager; and
- (g) Submitting cash flow forecast to the Project Manager at the onset of the Project and then semi-annually (March and September).
  - (i) This shall reflect cost to date as well as revised forecast.
  - (ii) Forecasts shall include both the OA's fees and the design builder's fees.
  - (iii) Forecasts shall be presented by calendar year during the Fixed Fee period and in a monthly format during the Time Based Fee period.
  - (iv) The cash flow format shall be presented in a format agreed to by the City.

F1.2 The OA shall submit a project management plan three (3) weeks after Project award. The project management plan shall be specific to the OA's Scope of Services for the NEWPCC Power Supply Upgrade. The plan shall include the following:

- (a) Details for conceptual design, preliminary design and procurement services;
- (b) Initial planning for contract administration and post construction services. Detailed planning for these services shall be submitted before the award of the Design Build contract.

F1.2.1 The Project management plan shall also include the OA's management plan for integration, stakeholders, cost, communication, quality, procurement, time, scope, risk and human resources including;

- (a) Quality management elements addressing quality planning, quality assurance and quality control. Include design review and approval processes addressing:
  - (i) Engineering practice reviews;
  - (ii) Inter-discipline coordination (IDC);
  - (iii) Design verification / peer review;
  - (iv) Operability and maintainability review;

- (v) Constructability and cost reviews;
- (vi) Design certification; and
- (vii) City of Winnipeg reviews.
  - ◆ Documents to be presented or reviewed in a meeting or workshop shall be issued a minimum of ten working days prior to the presentation unless otherwise stated in the Scope of Work. Comments and/or decisions made at the applicable meeting shall be incorporated into the documents and shall be re-issued for approval.
- (b) Communication management elements. This shall identify and address
  - (i) All interfaces (organizational, technical and interpersonal) and the roles and responsibilities of each stakeholder.
  - (ii) Who needs what information, when it will be needed and how it will be provided.
  - (iii) The use of City templates (Appendix G) for facilitating communication
  - (iv) Liaising with the City throughout the provision of the Services and providing ample opportunity for input and review by the various City stakeholders as applicable. Clearly identify the processes that will be used to achieve this outcome
  - (v) Processes for tracking and monitoring the documents through creation, checking, review, comment, verification, certification and approval processes.
  - (vi) Project meetings, workshops and presentations; and their frequency.
- (c) Processes for updating and submitting the risk register. The risk register (Appendix G) shall be used to document and update risk in various phases of the project;
- (d) Processes for carrying out earned value analysis such that the OA and design build projects' performance can be measured against scope, schedule and cost baselines;
- (e) A deliverable based Work Breakdown Structure (WBS) that identifies major elements relative to how the assignment will be managed and in terms of tangible and verifiable results (including milestones, critical triggers, deliverables, % completion of design, posting to Materials Management site, etc.);
- (f) List of deliverables (drawings, reports, business cases, technical memorandums) planned for each phase and submission deadlines;
- (g) Schedule – shall include information required in B13. The approved schedule will be used as the project baseline;
- (h) Integrated change control process for both the consultant assignment and the design - build contract. Identify and include the documents, tracking system and approval processes necessary to authorize change to the assignment; and
- (i) Include information required in B12 and other relevant information.

### F1.3 Deliverables and Meetings

- (a) The following deliverables shall apply to the Project Management phase during the fixed fee portion of the work:
  - (i) Project management plan with updates at commencement of preliminary design and prior to contract administration services;
  - (ii) Agenda, power presentation slides and meeting minutes;
  - (iii) Cash flow forecasts;
  - (iv) Monthly performance reports; and
  - (v) Monthly project meetings.
- (b) The deliverables expected during the time and material based portion of the work will include the above plus the deliverables required in the contract administration manual.
- (c) Draft copies of the Project Management Plan shall be provided in Native format and PDF while final copies shall be submitted as seven (7) hardcopies.

- (d) Draft and final copies of the cash flow forecast, agenda, meeting minutes and monthly status reports shall be provided in Native format and PDF.

## **F2. CONCEPTUAL DESIGN**

- F2.1 The OA shall provide a conceptual design of the power transformation and distribution system and replacement of switchgears. This shall include but is not necessarily limited to:
- (a) Review of available information including existing drawings to ensure layout is clear of underground infrastructure and as required to complete the Work;
  - (b) Review with the City the required short-term and long-term design loads, and design the Short Circuit Current Protection Systems.
    - (i) Include the transitional period and the upgraded NEWPCC facility.
    - (ii) Coordinate with the NEWPCC Upgrade project for load requirement schedule.
    - (iii) Determine if 5 MVA maximum loading as indicated in the TM #4 – Tie-in 7b Electrical Power supply is appropriate and will be sufficient to operate the existing NEWPCC through the transitional phases ;
    - (iv) Satisfy the requirements of PQS 2000 – Power Quality Specification for Interconnection to Manitoba Hydro’s Electrical System in Appendix H, including:
      - ◆ Power quality assessment report
      - ◆ Power quality benchmark report
      - ◆ Power quality mitigation report
    - (v) Determine adequate redundancy;
    - (vi) Identify the need for backup power during construction; and
    - (vii) Maintain adequate electrical grounding systems throughout the phases of the project.
  - (c) Perform geotechnical, field survey, arc flash studies and other investigations to support the preliminary design;
    - (i) As part of the arc flash study provide and install appropriate labeling on existing equipment within the scope of the NEWPCC Power upgrade project.
  - (d) Assess the feasibility and coordinate with Manitoba Hydro the installation of switching on the existing 66 kV lines to provide construction flexibility;
  - (e) Determine the size, location, materials of construction, architectural, aesthetics, structural and building features to house the new switchgears and appurtenances and any other City requirements;
  - (f) Determine electrical, lighting, HVAC, plumbing mechanical, instrumentation and control and safety requirements;
  - (g) Determine and provide recommendations regarding the capability of the existing electrical buildings receiving possible new replacement cables from the new transformers
  - (h) Determine asbestos abatement requirements within the Scope of this Project. Portions of the NEWPCC Hazardous Material Inventory System (HMIS) Report, particularly for the grit building and electrical rooms in the digester and secondary clarifiers, are provided in Appendix I for information;
  - (i) Provide layout with vehicular access and site requirements;
  - (j) Identify site security and fencing requirements;
  - (k) Identify requirements for fire suppression systems;
  - (l) Identify permits necessary for the project and specify the entity responsible for obtaining the permits;
  - (m) Provide a replacement strategy for the switchgears serving the existing digester and secondary clarifier process areas; and

- (n) Provide class 5 cost estimates in accordance with AACE International Recommended Practice No. 17R-97 and No.18R-97 and provide conceptual level schedule for the design build construction.
- F2.2 Develop business cases including pros and cons, metering concepts, operating and maintenance requirements, training requirements, capital and operating costs (NPV), etc. for the following:
- (a) The transformer ownership i.e. Utility owned vs. City Owned;
  - (b) The location and size of new electrical building for the 2035 and 2067 horizons; and
  - (c) The disposition of the 5 MVA transformer.
- F2.3 Develop a conceptual level Project implementation plan including:
- (a) Construction sequencing plan with associated implementation schedule that takes into consideration seasonal work;
  - (b) Construction impacts with adjacent environment and traffic;
  - (c) Potential tie-ins to the existing system;
  - (d) Maintenance of the operation plan and ability to accelerate construction of key process components that could provide early operational benefits; and
  - (e) Construction staging opportunities and commissioning plan.
- F2.4 The OA shall conduct a risk and opportunity assessment towards the end of the conceptual design as a half day workshop with the Program Team and other City selected stakeholders.
- (a) In preparation for the workshop the OA shall prepare and submit a risk register using the required City template.
  - (b) The risk register shall identify the opportunities, risks and associated mitigation strategies for the Project with emphasis on risks with implication on preliminary design phase.
- F2.5 The OA is required to consult with Manitoba Hydro during this phase of work
- (a) Coordinate with Manitoba Hydro to ensure Manitoba Hydro's work (such as review of OA's design, salvaging of existing equipment, installation of switches on the 66kV lines, etc.) is carried out in a timely manner;
  - (b) Determine Manitoba Hydro requirements and coordinate the design with Manitoba Hydro to ensure design conforms with Manitoba Hydro's specifications;
  - (c) Coordinate and determine the extent of salvage of the existing facilities, and determine the cost impact to the City;
  - (d) Facilitate and coordinate with Manitoba Hydro to determine if there are detrimental environmental conditions due to existing substation and facilitate a timely remediation if required. Determine impact on construction project schedule and costs;
  - (e) Assist the City in reviewing Manitoba Hydro's energy service agreement and demand contract for Manitoba Hydro's aspect of work; and
  - (f) Coordinate with Manitoba to validate the conceptual design.
  - (g) The outcomes are to be captured in a separate technical memorandum
- F2.6 Deliverables and meetings
- F2.6.1 The following are minimum deliverables and meetings that shall apply to this phase of work:
- (a) Technical workshop – a half day workshop to be carried out a month after the kick-off meeting. The purpose of the workshop is to present
    - (i) the project's concept to date;
    - (ii) Information gathered or missing;
    - (iii) reaffirmation of the project needs; and

- (iv) proposed table of content for the final project definition report indicating the material to be included with the 60% submittal.
- (b) Geotechnical investigation report.
- (c) Business Cases' technical memorandum.
  - (i) Disposition of the 5MVA transformer;
  - (ii) Location of the new electrical building; and
  - (iii) Transformer ownership.
- (d) Project definition report submittal – 60% complete.
  - (i) Include in the appendices the three (3) reports identified in F2.1(b)(iv).
- (e) Risk and opportunity workshop.
  - (i) Submit completed risk register prior to the workshop.
  - (ii) Provide meeting minutes of workshop and risk register
- (f) Project definition report – 100% complete.
  - (i) Encompasses all work carried out during the conceptual design.
  - (ii) Include in the appendix the proposed Table of Content for the preliminary design report indicating the material to be included with the 60% submittal.
- (g) Presentation of Project definition report.

F2.6.2 All deliverables shall be submitted in draft and final copies with WSTP comments included in final copies.

- (a) Technical memorandums shall be provided in Native format and PDF.
- (b) Technical memorandums and risk register shall be included in the final project definition report.
- (c) Draft and final copies of reports shall be provided in Native format and PDF; one (1) unbound and six (6) bound hardcopies.

### **F3. PRELIMINARY DESIGN**

F3.1 Preliminary design shall commence with a letter of acceptance of the Project Definition Report from the Project Manager.

F3.2 The preliminary design shall define in more detail the configurations (general arrangement, layouts, requirements and equipment types) of the power transformation and distribution system, location and size of the electrical building and accessories; disposition of the existing 5 MVA transformer; and the replacement of switch gears for secondary clarifiers and digesters, including but not necessarily limited to :

- (a) Details of the structural, electrical, instrumentation and control, HVAC, site works, architectural and other disciplines;
- (b) Arc flash requirements for the project during and after construction; and
- (c) Size and system requirements for the electrical grounding.

F3.3 The following automation and electrical requirements shall be included as follows

F3.3.1 Automation Requirements

- (a) This section identifies certain specific Service requirements associated with automation, controls and instrumentation and is not intended as a limit to the overall general requirements for related OA Services.
- (b) The City has guiding documents for the implementation of the automation systems at the NEWPCC facility. The OA shall completely implement the recommendations in the documents as necessary for the project. Those documents are;
  - (i) Wastewater Treatment Plants Automation Master Plan – Appendix J;
  - (ii) Water & Waste Department Electrical Design Guide – Appendix K; and

- (iii) Water & Waste Department Automation Design Guide, (currently in development).
- (c) The City will have a future standing order with an automation vendor which the OA will be required to use during aspects of the automation.
- (d) The Automation scope of work includes, but is not necessarily limited to:
  - (i) Project specific Automation Design and Implementation Plan. The plan shall identify the OA's proposed design concepts, architectures and implementation strategy that comply with the Automation Master Plan, Electrical Design Guide and the Automation Design Guide where applicable;
  - (ii) The Automation of the NEWPCC Power Supply Upgrade shall be in such a way as to automate the operation of the full system to as far as is practicable;
  - (iii) The Automation of the NEWPCC Power Supply Upgrade Switchgear shall be to the degree that the physical operation of the switchgear can be performed remotely by the operator and maintainer personnel;
  - (iv) The Automation of the NEWPCC Power Supply Upgrade shall use a PLC based system designed by the OA that is capable to be integrated with the future main plant control system, where PLC control and telemetry is utilized, such systems shall comply with the Automation Master Plan and the future Automation Design Guide;
  - (v) All new HVAC equipment associated with the NEWPCC Power Supply Upgrade shall utilize PLC based controls designed by the OA and that is capable to be integrated with the future main plant control system. Commercial-grade HVAC controls will not be accepted;
  - (vi) Appropriate ventilation with consideration to air quality requirements shall be included for the new electrical building to maximize the realised life of the assets;
  - (vii) Where PLC's are used, a separate networking cabinet for the Ethernet networking that encloses the fibre patch panels shall be provided and capable to be integrated with the future main plant control system;
  - (viii) Provide new networking diagrams, including Networking Overview drawings, Networking Details drawings, and Network Cable Routing Diagrams for the automation, monitoring and control systems;
  - (ix) Prepare all P&IDs using "smart" P&ID software to ensure consistency with future projects;
  - (x) Set all new P&ID drawings as new drawings with a drawing number in the P (rather than the A) discipline to ensure consistency with future projects. Supersede all existing P&ID drawings.
  - (xi) Provide system architecture / block diagrams for the entire automation system. Indicate all PLC controllers, remote I/O nodes, and major networked equipment;
  - (xii) Prepare I/O list documents for all PLCs;
  - (xiii) Prepare PLC module lists for all PLCs;
  - (xiv) Prepare PLC I/O module wiring diagrams for all PLCs.

### F3.3.2 Electrical Requirements

- (a) This section identifies certain specific OA Service requirements associated with electrical work and is not intended as a limit to the overall general requirements for related Consultant Services.
- (b) The City has guiding documents for the implementation of the electrical systems at the NEWPCC facility. The OA shall completely implement the recommendations in the Water & Waste Department Electrical Design Guide;
- (c) The deliverables for the electrical requirements are to include, but are not limited to:
  - (i) Design calculations;



- (ii) Incorporation of safety and security requirements as specified by Manitoba Hydro in relation to the safe design and operation of the new 66 kV transformers and distribution system;
  - (iii) Overview single line drawing of the entire new and modified NEWPCC Power Supply Upgrade facility on an A1 or A0 drawing;
  - (iv) Electrical equipment elevations for all new and modified electrical equipment's;
  - (v) Replacement strategy of the existing switchgears within the secondary process area and the digester process. The switchgears that shall
    - ◆ be equivalent to but not less than the existing current and voltage rating;
    - ◆ achieve as practicably possible the lowest arch flash energy available;
    - ◆ be automated to the greatest extent as practicable;
    - ◆ designed to taken into consideration as minimal disruption to the wastewater process and site personnel, and
    - ◆ be carried out, where possible, in conjunction with power outages.
  - (vi) Three (3) line schematics for all switchgear, and specific details within electrical distribution equipment, such as power meters and voltage monitors;
  - (vii) Electrical site plan layouts of all equipment and components. Typical standard of acceptance for the scale is 1:50;
  - (viii) Plan layouts for the electrical room. Typical standard of acceptance for the scale is 1:30; and
  - (ix) Grounding plan and riser diagrams as required to clearly indicate all new dedicated grounding conductors within the facility.
- F3.4 The OA shall provide the following preliminary assessments according to Appendix L and M respectively:
- (a) A preliminary Hazard and Operability Analysis (HAZOP) with select Program Team members and recommended City Operations/Maintenance or other personnel; and
    - (i) The OA shall take on the role of the consultant, facilitator and scribe.
  - (b) Include a Construction Hazard Assessment Implication Review (CHAIR) in the design and require same from the design builder.
- F3.5 The OA shall update the Project implementation plan based on the preliminary design.
- F3.6 The OA shall coordinate and validate the design, implementation plan, and phasing of the works with Manitoba Hydro.
- F3.7 The OA shall provide technical performance elements (performance requirements, performance criteria, performance specification and/or prescriptive specification). These shall include but is not necessarily limited to:
- (a) Standards and minimum requirements for equipment and the works;
  - (b) Equipment lists and requirements, criteria and/or specifications;
  - (c) Minimum sizes, quality, installation requirements, requirements for major equipment, the volume of the building, major architectural elements, the required performance of civil, structural, mechanical, plumbing, fire protection, electrical and other systems;
  - (d) Quality requirements, quality checklists, expectations, tolerances, standards and work performance measurements;
  - (e) Clearly defined commissioning activities and expectations; and
  - (f) Performance based and prescribed criteria for the construction project, including
    - (i) legal description of the site;
    - (ii) survey information concerning the site;
    - (iii) construction impacts on adjacent environment and traffic;

- (iv) geotechnical survey;
  - (v) interior space requirements;
  - (vi) material quality standards;
  - (vii) schematic layouts;
  - (viii) conceptual and preliminary design criteria of the project;
  - (ix) testing requirements;
  - (x) commissioning requirements;
  - (xi) site development requirements;
  - (xii) provisions for utilities; and
  - (xiii) other site requirements.
- (g) Inclusion of CHAIR #2 and #3 workshops in the design builder's Scope of Services.
- F3.8 The OA shall provide a detailed class three (3) cost estimate for the design build project from detailed design to turnover. The estimate shall be in accordance with AACE International Recommended Practice No. 17R-97 and No.18R-97; and include a detailed breakdown with unit cost source listed for each line item. This estimate is a prerequisite to issuing the design build RFP.
- F3.9 The OA shall develop and provide a critical path schedule for the Project covering the design-build operation from detailed design to turnover.
- (a) The level of detail shall be such that it clearly conveys the significant activities related to the various Project components with their inter-dependencies.
  - (b) The schedule shall be configured suitable for use by Microsoft® Office Project 2010.
- F3.10 Preliminary Design Cost Development Document - The OA shall also provide preliminary design cost development document in a single report format. The information provided in the report shall be sufficient for use by a third party cost estimator engaged by the City. This report shall be representative of the preliminary design and as a minimum, consist of drawings and documents identified below.
- (a) Site development design drawings shall be provided that highlight the preliminary concepts related to yard piping, roads, and other major civil works.
    - (i) The drawings shall show pipes and appurtenances, above and underground, greater than or equal to 100 mm in diameter, on plan and to scale.
    - (ii) The OA shall provide an estimating allowance for smaller pipes and appurtenances and minor items not detailed at this stage.
    - (iii) Preliminary electrical site plan shall include above and below ground systems for plant lighting, low voltage power distribution, security system, telephone/communication systems, HVAC power, detection and alarm systems, electrical decommissioning and other miscellaneous electrical systems.
  - (b) The Project's structural requirements shall be provided and conveyed in such a manner that a quantitative take-off of required components, piling, reinforced concrete and structural steel etc. can be performed;
  - (c) The drawings shall provide preliminary architectural plans and building elevations. Typical wall sections shall also be shown;
  - (d) Include heating, ventilation and air conditioning design layouts and criteria including schedule of equipment;
  - (e) Include single line diagrams and area electrical plans, and identify all equipment and building services loads;
  - (f) All information and drawing related to instrumentation and controls;
  - (g) Associated specifications shall be provided as required to convey quality information;
  - (h) Include detailed listings of equipment and instrumentation and electrical loads with equipment data sheets and associated information;

- (i) Provide a list and quantities of any other consumables and spare parts required for the operation of the works;
- (j) Schedule identified in F3.9; and
- (k) Formats of the individual documentation shall be as agreed with the City.

F3.11 The OA shall conduct a risk and opportunity assessment towards the end of the preliminary design phase with the Program Team and other City selected stakeholders.

- (a) The OA shall prepare and submit a risk register using the required City format.
- (b) The risk register shall identify the opportunities, risks and associated mitigation strategies for the design build procurement, construction and post construction phases of the Project.

F3.12 Deliverables and meetings

F3.12.1 The following are minimum deliverables and meetings that shall apply to this phase of work:

- (a) Preliminary design report – 60% complete;
  - (i) Include deliverables identified in F3.3.1 and F3.3.2.
- (b) HAZOP workshop;
- (c) HAZOP technical memorandum;
- (d) CHAIR workshop;
- (e) CHAIR technical memorandum;
- (f) Risk and opportunity workshop ;
  - (i) Submit completed risk register prior to the workshop.
  - (ii) Provide meeting minutes of workshop and risk register.
- (g) Preliminary design report – 100% complete;
  - (i) Encompasses all work carried out during the preliminary design.
- (h) Presentation of preliminary design report;
- (i) Design build technical performance elements;
- (j) Preliminary design cost development documents; and
- (k) Cost Workshop
  - (i) The OA shall facilitate a half day workshop with members of the WSTP together with the City engaged independent cost estimator. The workshop is to facilitate a forum to present the preliminary design cost development documents and provide clarification as needed

F3.12.2 The OA shall commence bi-weekly technical review meetings with the WSTP after the acceptance of 60% preliminary design report until the acceptance of all work in the preliminary design phase.

F3.12.3 All deliverables shall be submitted in draft and final copies with WSTP comments included in final copies.

- (a) Technical memorandums shall be provided in Native format and PDF.
- (b) Technical memorandums and risk register shall be included in the final preliminary design report.
- (c) Draft and final copies of reports shall be provided in Native format and PDF; one (1) unbound and six (6) bound hardcopies.

#### **F4. PROCUREMENT SERVICES**

F4.1 Design Build Procurement

- (a) The procurement process shall comprise of a RFQ and a RFP.

- (b) Prepare tender packages that include the required performance elements (performance requirements, performance criteria, performance specification and/or prescriptive specification), to provide sufficient information for Design-Build Proponents to prepare responses to the RFQ and RFP. Performance elements shall also include the following criteria:
  - (i) Management – this shall include design and construction quality assurance and quality control, safety, traffic control, logistics management, environmental protection, personnel qualifications, qualifications and past performance of organizations and detailed project execution plans;
  - (ii) Submittal requirements;
  - (iii) Schedule – including design and construction schedules and the type of schedule criteria;
  - (iv) Technical Performance Elements – as indicated in preliminary design; and
  - (v) Whole life cost (CAPEX, OPEX & NPV) – forms for bid prices.
- (c) The OA shall use the City's standard RFQ and RFP templates and expand upon as required to incorporate the needs of design build.
  - (i) The intent of the RFQ is to short list 3 to 5 qualified proponents for the RFP stage.
  - (ii) Meet with various City departments (Legal Services, Materials Management, Wastewater Services, Engineering, Insurance etc.) to finalize the procurement documents.
- (d) This phase shall also include the following for the RFQ and RFP:
  - (i) Site meetings, pre-bid meetings and/or site tours;
  - (ii) Review and recommendations on written requests for equals/alternatives;
  - (iii) Preparation of addenda to tender documents;
  - (iv) Review written questions /requests for information received during the tender period and prepare written responses to be issued in addenda;
  - (v) Consultation with Manitoba Hydro;
  - (vi) Submission of bids evaluation report;
  - (vii) Assist the City in developing and coordinating the technical evaluation of the process and plan, including the parameters normally required as part of the preliminary design CHAIR and HAZOP;
  - (viii) Evaluate proposals and provide recommendations;
  - (ix) Assisting with the selection of the successful design build proponent; and
  - (x) Assist in contract negotiations, preparation of debriefing reports and debriefing of bidders.
- (e) Confirm that the Project Schedule developed during the preliminary design phase is realistic.

#### F4.2 Arc Flash Specialist Procurement

- (a) As part of this phase, it is required that an arc flash consultant/specialist be selected through a standing offer contract for the City. The OA shall:
  - (i) Develop an RFP for the procurement of an arc flash specialist for the City;
  - (ii) Assist the City in developing the evaluation process and plan;
  - (iii) Preparation of addenda to tender documents;
  - (iv) Review written questions /requests for information received during the tender period; and
  - (v) Prepare written responses to be issued in addenda.

F4.2.1 The OA is not required to use the services of the successful Proponent of the arc flash RFP for any arc flash work related to the conceptual and preliminary design of the NEWPCC Power Supply Upgrade.

F4.3 All tender packages shall be prepared and posted in accordance with the City of Winnipeg Materials Management Division requirements.

F4.4 Deliverables for this phase shall include

- (a) RFQ and RFP documents, including addenda, for the design build contract.
- (b) RFP documents and addenda for the arc flash specialist.
- (c) Bid evaluation report for the design-build contract.
  - (a) Draft and final documents shall be provided in Native format and PDF; one (1) unbound and six (6) bound hardcopies.

## **F5. CONTRACT ADMINISTRATION SERVICES**

F5.1 The contract administration services shall commence when the design builder receives notification of the contract award from the City.

F5.2 Without relieving the design builder of their contractual and other legal obligations, contract administration services shall consist of resident and non-resident engineering services as detailed below.

F5.3 Non-Resident Engineering Services

- (a) Provide adequate and timely direction to field personnel provided by the Owner's Advocate;
- (b) Review the design builder's design and ensure conformity with the project requirements and budget and administer design changes;
- (c) Monitor and report on the progress of construction activities in relation to established schedule, and assess and document earned value measurement;
- (d) Review and accept submittals supplied by the design builder or supplier to ensure that the submittals are in conformance with the approved project criteria.
- (e) Review and report to the City regarding laboratory, shop and other tests conducted on materials and/or equipment placed or installed by the design-builder to ensure conformance with the approved project criteria, drawings and specifications.
- (f) Review and accept, or reject, subject to prior approval of the City, of alternate materials and equipment submitted by the design builder.
- (g) Review acceptability of inspection and test plans.
- (h) Review and respond to design-builder RFI's.
- (i) Prepare as required field instructions, clarifications and directives.
- (j) Review, comment, approve, or reject, specifications and drawings for proposed design-builder scope changes.
- (k) Identify to the City the impact of proposed changes (on time, quality, cost, scope, risk and human resources), so that the City may make well-informed decisions whether or not to proceed with the proposed changes.
- (l) Provide interpretation of technical aspects of contract.
- (m) Provide technical assistance in development of tie-in protocols, phasing and inspections.
- (n) Oversee the design builder to see that they are
  - (i) Meeting zoning, legal, permit, geotechnical and environmental requirements at all stages of the project; and
  - (ii) Obtaining all required final approvals and inspections, including procurement of an Occupancy Permit.
- (o) Monitor compliance with the Building Code, Health and Safety and other regulations.
- (p) Obtain from the design builder, review, and provide to City:

- (i) Detailed design notes package and calculations including items such as structural, geotechnical, HVAC, electrical, equipment and building services, mechanical, instrumentation and control; and
  - (ii) Approved submittals, including but not limited to, shop drawings, final operation & maintenance manuals, standard operating procedures, and reference submittals, all within two (2) months of Total Performance of the contract. A summary list of all documents provided shall be included.
- (q) Prepare and assist in preparation of regular financial reports identifying expenditures and cost projections to completion.
  - (r) Consult with and advise the City during this phase;
  - (s) Provide to the City complete current report on the Project status on a monthly basis;
  - (t) Provide to the City a current update of revised contract-end cost estimate on a monthly basis, or more frequently if found necessary, with explanation and justification of any significant variation from the preceding contract-end cost estimate;
  - (u) Administer contract changes and make recommendation to the City;
  - (v) Coordinate with responsible parties in resolution of issues;
  - (w) Define and justify estimate of costs for additions or deletions from the contract for authorization by the City;
  - (x) Arrange, attend, chair and produce meeting notes of pre-construction meetings, on-site or off-site design review meetings and construction meetings including CHAIR#2 and #3 meetings.
    - (i) These meetings shall include representatives of the design builder and the City.
    - (ii) Provide the meetings' minutes, details of completion and outstanding action items.
  - (y) Monitor construction and commissioning schedules and budget;
  - (z) Promptly arrange for and take part in a detailed final inspection of the Project with the design builder and the City prior to commencement of the warranty period specified in the contract and provide in electronic format an appropriate recommendation of acceptance of the constructed or partially constructed Project.
  - (aa) Undertake detailed inspections of the Project with the design builder and the City prior to the end of the period of design builder maintenance guarantee specified in the contract for the Project.
  - (bb) Provide a report at the end of 1 year from substantial performance assessing if the project meets the intent of the design or if modifications are required.
  - (cc) Provide certification prior to Total Performance acceptance that the project has been built in accordance with the design and any authorized modifications.
  - (dd) Coordinate all Project related activities.
  - (ee) Provide site inspections by lead designers at appropriate points of construction.

#### F5.4 Resident Engineering Services

- (a) Provide full time construction inspection and acceptance of the work during installation and construction. This shall include but not limited to
  - (i) General excavation and exposing of underground services;
  - (ii) Bedding placement;
  - (iii) All electrical and instrumentation installations and connections
  - (iv) Where required, connections to watermains, sewers, manholes, valves, hydrants, and excavation and/or exposing of underground services, structures, or facilities
  - (v) Component laying and backfilling in respect of installation of buried services and foundations;
  - (vi) Excavations to determine soil adequacy prior to installation of base and subbase courses for buried services, buried structures foundations, roads and sidewalks;

- (vii) Formwork, reinforcing, foundations and piling; and
- (viii) Construction and installations sufficient to ensure that the construction is carried in conformance with the drawings and specifications and provide report.
- (b) Attend, contribute to and produce meeting notes of weekly progress meetings with the design builder and the City.
- (c) Provide for and coordinate third party testing with the design builder
  - (i) Witness testing of materials, structures, equipment and systems including, but not limited to, structural, electrical, instrumentation and controls.
  - (ii) Ensure tested materials conform to the drawings and specifications.
- (d) Provide reference line and elevation control points for the works and check the design builder's adherence.
- (e) Promptly report to the City any significant and unusual circumstances.
- (f) Review, comment and provide oversight of the commissioning work, commissioning plans, training and training manuals.
- (g) Provide the City with the following records weekly in Native format and PDF:
  - (i) Reports and logs of inspections performed the previous day;
  - (ii) Record of work events kept continuously. Including working days and days lost due to inclement weather during the course of the design builder's Work;
  - (iii) Written and photographic records of the construction:
    - ◆ Include construction progress, assessment of the physical condition of adjacent buildings, facilities, and structures;
    - ◆ Include quantity and quality of information to provide valid evidence and relevant testimony in settling any claim involving the City by, any court of law, or any other party for damages arising from the Project.
    - ◆ Photographic records shall have a minimum resolution of three (3) mega pixel along with date and time stamps.
- (h) Prepare, certify and promptly submit progress estimates for construction performed in accordance with the drawings, specifications and as required under the Builder's Liens Act of Manitoba.
- (i) Participate in inspection of the construction along with the design-builder and the City to establish Substantial Performance, Total Performance and Warranty Inspection.
  - (i) Provide an itemized deficiency lists or appropriate recommendation of acceptance of the contract work.
  - (ii) Issue Substantial Performance, Total Performance and Acceptance Certificates for the City and design builder to execute.
- (j) Provide the City with summary timesheets detailing the Resident Services in a format acceptable to the City.
- (k) Comment upon and approve operation and maintenance (O&M) manuals .
- (l) Review completed, or substantially completed, drawings and/or specifications that were in conformance with the original intent of the City or had been accepted by the City;

#### F5.5 Commissioning

- (a) This project is expected to be commissioned in phases. The OA's work shall apply to all phases
- (b) Consult with and advise the City during commissioning.
- (c) The OA shall
  - (i) oversee the development of the commissioning plan. The commissioning plan shall include, but not be limited to training curriculum, schedule, attendees, handouts,
  - (ii) The OA will not be required to attend formal off-site training classes provided by equipment manufacturers or software integrators

- (iii) oversee the implementation of the commissioning requirements and design builder's commissioning plan;
- (iv) log all commissioning issues and provide weekly briefing to the City's Project Manager summarizing commissioning status, and indicating where City's response is required;
- (v) Attend and document all training programs that they have been provided by design builder in accordance with commissioning plan.

F5.6 All deliverables associated with this phase shall be provided in Native format and PDF; and in seven (7) hardcopies, unless otherwise specified.

## **F6. POST CONSTRUCTION SERVICES**

F6.1 The post construction services comprise of one-year warranty and operational advice services

F6.2 The warranty services shall include but not limited to the following:

- (a) Confirm and ensure complete turnover of project documents (Shop drawings, as built drawings, design notes and calculations etc.) to the City by the design builder and that documents are in conformance with the contract.
- (b) Determine if corrective work is part of design builder's warranty;
- (c) Conduct Inspection and approval of warranty work and release of holdback;
- (d) Instructions for correction of deficiencies;
- (e) Review updates to operation and maintenance manuals and resolve deficiencies;
- (f) Respond to requests of the City related to the project;
- (g) Issue acceptance certificates of warranty work; and
- (h) Liaise and coordinate with the design builder to repair defective work.

F6.3 The one-year operational advice service shall be performed on call basis.

F6.4 All deliverables associated with this phase shall be in Native and PDF format and provided in seven (7) hardcopies, unless otherwise specified.

## **F7. GENERAL REQUIREMENTS**

F7.1 The OA shall ensure that the Scope of Services is performed under direct supervision of a professional engineer.

- (a) All drawings, reports, recommendations and other documents involving the practice of professional engineering shall bear the stamp or seal and signature of a qualified Engineer as required by the Engineering and Geoscientific Professions Act of the Province of Manitoba and By-laws of the Association of Professional Engineers and Geoscientists of the Province of Manitoba.
- (b) Other reports and documents not involving the practice of professional engineering, such as letters of information, minutes of meetings, construction progress reports, may be originated and signed by other personnel engaged by the OA and accepted by the City.
- (c) Progress estimates, completion certificates and other reports related to the technical aspects of this project, must be endorsed by the OA in a manner acceptable to the City

F7.2 The OA shall, as a minimum, utilize the most current industry standard sustainable practices in the performance of the Services.

- (a) The Project shall conform to the latest codes, standards, regulations and legislative requirements in effect. The OA shall liaise with the City on the application of codes and standards. Without limiting the preceding, the OA shall comply with
  - (i) the Manitoba Workplace Health and Safety Legislation,



- (ii) National Fire Protection Association Code NFPA 820-Standard for Fire Protection in Wastewater Treatment and Collection Facilities,
    - (iii) Canadian Electrical Code C22.1,
    - (iv) Canadian Standards Association CSA Z320 Building Commissioning and
    - (v) relevant Province of Manitoba building and electrical codes and City of Winnipeg by-laws
  - (b) The OA shall comply with Water and Waste standards indicated in the Scope of Work and the following:
    - (i) Adhering to all City's standardized design basis criteria and discipline specifications developed for the WSTP Projects;
    - (ii) Water and Waste Department Identification Standard (Appendix N) - The OA shall request clarification from the Project Manager should undefined identification requirements be encountered; and
    - (iii) City's drawing numbering system.
- F7.3 The OA shall ensure that all design conforms with PQS 2000 - Power Quality Specification For Interconnection To Manitoba Hydro's Electrical System.
- F7.4 The OA and their partners, Subconsultant and contractors shall be aware of their obligation as stated in the Wastewater Services Environmental Preservation and Compliance Statement in (Appendix O).
- F7.5 The OA shall co-ordinate with applicable agencies (such as Manitoba Hydro) required to perform the OA Services.
- F7.6 The OA shall directly perform the required professional engineering consulting Services including the preparation of associated design, layout, loop, diagram and schematic drawings for the Project.
- F7.7 All documents, including drawings, are to be delivered with a documentation lifecycle approach. Existing drawings shall be modified (or superseded) rather than creating a new drawing. The documents are to be prepared in a manner that is useful for maintenance purposes. For example, partial site plans are not acceptable, but rather the existing site plans should be updated.

## **F8. MANITOBA HYDRO RESPONSIBILITIES**

- F8.1 The following shall be carried out by Manitoba Hydro and /or their contractors
- (a) Design, construction and installation of the 66kV lines and associated equipment to City's owned equipment;
  - (b) De-energizing of Banks 1 & 2 during phasing period;
  - (c) Re-energizing of power to the upgraded power transformation and distribution system;
  - (d) Decommissioning and disposal of existing transformers and associated redundant equipment;
  - (e) Environmental soil assessments and remediation at existing location of power substation; and
  - (f) Asbestos abatement within Manitoba Hydro owned equipment and at existing location of power substation.