

January 17, 2022

RO Membrane Manufacturer

**Re: Request for Proposal – RO Element Replacement  
Fargo Membrane Water Treatment Plant  
City of Fargo, ND**

Attention: RO Membrane Manufacturer

The City of Fargo, ND owns and operate a 15 million gallons per day (MGD) membrane water treatment plant (MWTP). The Reverse osmosis (RO) membrane system consists of seven (7) 2 MGD RO skids. Each RO skid has thirty-six (36) 8-inch pressure vessels in the first stage and eighteen (18) 8-inch pressure vessels in the second stage. Each pressure vessel holds a total of seven RO element (8-inch diameter and 40-inch long). To ensure the smooth operation of the MWTP, the City of Fargo WTP developed an RO element replacement plan to replace all RO elements in next 5-10 years. We are soliciting proposals for a total of 385 (378+7) RO elements to replace one of seven RO skids in 2022. This Request for Proposal (RFP) generally outlines the technical and non-technical requirements for the Purchase. For your use, enclosed are the following design documents:

Preselection Form:

- Proposal Bid Form to be used by the RO membrane manufacturers to enter and document performance values to be used to complete a lifecycle cost analysis. Please submit the Bid Form in Excel Format.

Specifications:

- 46 63 23 – RO Membrane

Drawings:

- G104 – Fargo MWTP Plant Flow Schematic
- IC105 – RO Skid P&ID

The proposal shall be divided into two sections. The first section shall include a cover letter with proposed scope of work, along with pricing information, and shall be addressed to Qigang Chang at AE2S. The pricing information shall include a completed Proposal Bid Form itemizing the capital and operational set points used to evaluate the system's lifecycle costs. The Proposal Bid form shall include itemized costs based on major supply items.

The second section shall include Technical Information that will be used to review and score the

proposals, and shall include detailed information for the following:

Category 1. **Introduction:** Briefly introduce the RO membrane manufacturer. Include the name, address, telephone number, and email of the authorized contact person(s) for any questions and receipt of clarifications or addenda (if necessary) regarding the proposal. Proposal to also include contact information on local representative and the location of the qualified staff that will provide field services. Include address of closest maintenance shop.

Category 2. **Experience and Qualifications:** Proposal to include a detailed installation list for drinking water application in the last 10 years for size above 1 MGD, including location, size, model of membrane elements, and contact information. Proposal shall include resumes for individuals responsible for after sale technical support.

Category 3. **RO Membrane Performance Projection and Calculations:** Submit RO membrane performance projections for five years based up the RO feed water quality provided. The projection shall include but not limited to feed pressure, flux, recovery, permeate flow, brine flow for each RO element in each stage at the lowest and the highest temperatures.

Category 4. **CIP and Operation Guidance:** The existing RO membrane has been experiencing bio-fouling in the past during summer. Based up the provided water quality and operation setpoints, the RO membrane manufacturers shall provide CIP procedures and bio-fouling mitigation recommendation/plans based upon their experiences for the OWNER consideration.

Category 5. **Warranty:** Provide warranty information, including any prorated or extended warranties that will be offered (refer to the Spec).

Category 6. **List of Exceptions:** A detailed list of any exceptions or discrepancies between the proposed system and the specified requirements or a statement that there are none.

The above referenced information will be used as criteria by the City and AE2S in determining the most effective, quality priced RO membrane element for the Project. The proposals will be reviewed and scored by the City and AE2S in private based on the following criteria:

### Proposal Evaluation Scoring System

ITEM	EVALUATION CATEGORY	POSSIBLE POINT VALUE
1	Costs of RO Element and ancillary	65
2	Life Cycle Cost	10
3	Performance/Warranty/Exception	10

ITEM	EVALUATION CATEGORY	POSSIBLE POINT VALUE
4	After Sale Support/Local Representation	5
5	RO Membrane Element Lead Time and Delivery	10
<b>Total Points</b>		<b>100</b>

Item 1: As provided by RO membrane manufacturer within Proposal Bid Form.

Item 2: As provided by RO membrane manufacturer within Proposal Bid Form.

Item 3: Technical Information provided will be evaluated and points assigned based on information provided under Categories 1 through 6.

Item 4: Will be evaluated based upon the information provided by the proposer.

Item 5: Will be evaluated based upon the information provided by the proposer.

The price proposal provided in response to this RFP will be the firm basis upon which the OWNER will enter into an agreement with the successful RO membrane manufacturer. The RO membrane manufacturer shall agree to deliver shipment of the equipment to the site within sixty days of receiving a purchase order from the OWNER, unless directed by the OWNER to delay shipment to a later date.

Your proposal and related documents must be received by 3:00 P.M. on Thursday, February 10<sup>th</sup>, 2022 at the City Auditor's Office,

City of Fargo, 225 4<sup>th</sup> St N, Fargo, ND.

The City of Fargo reserves the right to reject all submittals.

In addition to printed copy, RO manufacturer should be provided in electronic format with two (2) files in a jump drive. The first file shall contain the bid information Excel format (**identical** to Proposal Bid Form Provided) and a PDF of the Proposal Bid Form. The second file shall contain the Technical Information for review and shall be a single PDF. This PDF shall be bookmarked to match sections noted in the RFP.

For all questions regarding this proposal, please email your questions to Qigang Chang at [Qigang.Chang@ae2s.com](mailto:Qigang.Chang@ae2s.com). All questions must be submitted by **5:00 pm CT on January 27, 2022** to allow for a response prior to the proposal due date. All questions and clarifications will be tabulated and responses provided in tabular format, which will be electronically distributed to all RO membrane manufacturers' for reference purposes. If you have any technical difficulty to open RFP documents, please request a printed copy by **January 20, 2022**.

Sincerely,

**AE2S**

A handwritten signature in black ink that reads "Qigang Chang". The signature is written in a cursive, flowing style.

Qigang Chang, PhD, PE

Enclosure[s]

cc:

Troy Hall, City of Fargo  
Dan Portlock, City of Fargo