

City of Lebanon, OR UF Modifications

PROPOSAL #

REVISION # 0

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SUBMITTED TO

City of Lebanon, OR

SUBMITTED BY

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SECTION 1 – SUPPLIER INFORMATION

H₂O Innovation is a complete water treatment solutions company, providing custom-designed water treatment systems along with operating and maintenance solutions.

 H_2O Innovation designs, develops, produces and integrates custom-built water treatment systems for multiple markets in the United States, Canada and abroad. Whether it is for the **production of drinking water**, the **treatment of wastewater**, or for use in **industrial processes**, our solutions combine the best expertise with the most advanced membrane technology products.

Our reliable, eco-friendly solutions streamline costs and optimize treatment. As renowned membrane filtration specialists, we provide counsel and solutions that result in efficient and reliable systems that perform and last, whatever the need and application.

1.1 GENERAL COMPANY INFORMATION

H₂O Innovation consists of several legacy companies focused on water treatment using membrane process technologies in various market segments, such as municipal, oil & gas, power generation, ethanol, and food & beverage, among others. These legacy companies include Darv-Eau, Inc. (Ham-Nord, QC, Canada), Itasca Systems (Brooklyn Center, MN, USA), Sigma Environmental Solutions (Calgary, AB, Canada), Membrane Systems, Inc. (San Diego, CA, USA) and others. Since its inception, it has been staffed with experts in membrane separation and system technologies who possess proven records of performance in their respective specialties. H₂O Innovation designs, manufactures and installs water treatment systems for a wide range of applications. The systems incorporate ultrafiltration, nanofiltration and reverse osmosis membrane technologies with other conventional water treatment technologies to meet diverse needs of municipalities, industries, government agencies, commercial institutions, utilities and agriculture. System applications include potable water, industrial process and rinse water, food and beverage mix, boiler feed water, wastewater reuse and reclamation.

On July 1, 2010, H₂O Innovation merged its three U.S. operating subsidiaries, including Itasca and Membrane Systems, and adopted the H₂O Innovation name for all U.S. operations.

In Canada, H₂O Innovation's head office is located in Quebec City with a manufacturing facility in Ham-Nord, Quebec. H₂O Innovation USA's main office is located in Vista, California with sales, service, engineering, commissioning and project management. The office in Calgary, Alberta houses project managers, service, sales and commissioning personnel and serves the oil and gas market along with Western Canada. US manufacturing, including project managements, service, commissioning and engineering is located in Champlin, Minnesota and an engineering office is located in Burlington, Ontario. All of the process engineering and design, project management, procurement, manufacturing and assembly, testing and after-sales service are performed from these locations.

Additionally, H_2O Innovation provides leading products and services to maintain and operate municipal, industrial, as well as commercial ultrafiltration and reverse osmosis (RO) systems. We offer a unique line of sustainable speciality chemicals for membrane systems, including water additives such as antiscalants, antifoulants and membrane cleaners.

 H_2O Innovation's line of speciality chemicals for membrane filtration is marketed under the name Professional Water TechnologiesTM (PWT). PWT provides a complete line of UF and RO treatment and maintenance products, comprehensive analytical, membrane autopsy, and technical capabilities and a progressive research and development group. Professional Water TechnologiesTM offers solutions to maximize the efficiency and economy of UF or RO operations.



1.2 BUSINESS PHILOSOPHY

Recognizing what is at stake for the environment and the importance of providing solutions that meet and even exceed the standards imposed on water treatment, H₂O Innovation's mission is to develop, produce and market safe, integrated, customized and environmentally friendly products for the production of drinking water and industrial process water, the reclamation of water and the treatment of wastewater.

H₂O Innovation's approach is to first fully understand and review customer's needs, before a single recommendation is made. This includes a complete analysis of the problems and consideration of all possible solutions, with emphasis on technical suitability, capital and operating costs, energy savings, and maintenance and equipment amortization. Full attention is paid to the technical specifications in the development of proposal and during the execution of the project. In the absence of technical specifications, proposals are prepared jointly with the customer and customer's engineer, who becomes a key partner in the design. Our systems utilize standard replacement parts such as valves, motors and switches that are available easily from well-known manufacturers. Technical submittals for approval are prepared in conformance with the requirements of the specifications and presented for ease in the evaluation by the engineer. Any deviation and/or exception to the specifications are clearly identified.

 H_2O Innovation has acquired a unique know-how in the sector of membrane filtration and applies it in the development of highly efficient solutions. The Company possesses a broad line of products serving various customers in the municipal, commercial, institutional, industrial, oil & gas, mining and energy markets. We are able to build complex and highly specified projects for a variety of applications, as exemplified in this video: <u>http://vimeo.com/61737449</u>. As of today, the company has over 550 employees.



SECTION 2 – SCOPE OF SUPPLY

2.1 SCOPE OF SUPPLY- SLOW DRAINING RETROFIT

Tables below lists the equipment and services included in H_2O Scope of supply. To provide clarity on the scope of supply we have proposed for the system, please see the table below.

Slow Drain Infrastructure	Quantity of Equipment	By H₂O	By Others
Skids/Frames			
Positioners	4	\checkmark	
Revision to Control Narrative	_	\checkmark	
Reissue the P&ID	_	\checkmark	
Commissioning	_	\checkmark	

The positioners will allow the control the rate of draining of the modules and continue air scouring during the process proving a deeper performance restoration step. The equipment will be accompanied by the programming and process updates to allow this to happen automatically.

2.2 SCOPE OF SUPPLY- ULTRAFILTRATION SYSTEM EXPANSION

Tables below lists the equipment included in H_2O Scope of supply. It also identifies equipment to be supplied by others and required for completing the system. To provide clarity on the scope of supply we have proposed for the system, please see the table below for each piece of equipment. All equipment not described below is entirely by others.

Ultrafiltration System	Quantity of Equipment	By H₂O	By Others
Toray pressurized hollow-fiber UF modules, HFU-2020N	96	\checkmark	
Couplings	384	\checkmark	
Spools	192	\checkmark	

The added membranes would allow the system to run at a lower flux, the proposed number of modules is sufficient to fill the 4 trains to 80/80 modules from the current 56/80.

2.3 WARRANTY

All equipment supplied by H₂O Innovation is guaranteed one (1) year, parts and workmanship (costs for travel of experienced H₂O technician or shipping of problematic parts not included).



SECTION 3 – COMMERCIAL OFFER

3.1 PRICING

H₂O INNOVATION USA INC. IS PLEASED TO SUBMIT OUR LUMP-SUM FIRM PRICE FOR THE SCOPE OF WORK DESCRIBED ABOVE:

Items	Total Price
Slow Drain Infrastructure	\$50,923
UF System Retrofit – Includes Installation	\$393,183
Total	\$444,106

- Shipping is not included
- Price validity is 30 days
- Lead time is 6-8 weeks
- Price is exclusive of any amount for federal, state, local, sales, use, property, in-country, import, VAT or similar taxes or duties

3.2 PAYMENT TERMS

H2O Innovation proposes the following milestone payment that are negotiable:

- 30% payment upon fully executed PO
- 60% payment upon receipt of equipment
- 10% payment upon completion of installation

Payment terms shall be net 30 days.