



DISTRICT OF HUDSON'S HOPE
AGENDA – SPECIAL COUNCIL MEETING

Council Chambers

Wednesday, March 11, 2020, 5:00 pm

1. Call to Order

2. Adoption of Agenda by Consensus

3. Staff Reports

SR1 Water Treatment Plant Upgrade – RFP Evaluation and
Award

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18. Adjournment

REQUEST FOR DECISION

RFD#: 2020MR07	Date: March 8, 2020
Meeting#: CM031120	Originator: Mokles Rahman
RFD TITLE: Water Treatment Plant Upgrade – RFP Evaluation and Award	

RECOMMENDATION / RESOLUTION:

THAT Council accept the proposal for the Design Build received from The Industra Group for the upgrade of the Water Treatment Plant.

THAT Council approve the award of the Design Build contract to The Industra Group and authorize the Mayor and CAO to sign a contract with The Industra Group, subject to budget approval by BC Hydro.

BACKGROUND:

The Proposal period for the Water Treatment Plant Upgrade closed on February 19, 2020 And four (4) proposals were received within the deadline. All proposals significantly exceeded the budget approved by BC Hydro.

The Water Treatment Plant Upgrade project is a BC Hydro funded project. The District previously signed an agreement with the BC Hydro for this project.

Per the Purchasing Policy, District Council will consider all tenders by resolution where the value of the tender exceeds \$50,000.

DISCUSSION:

Proposals were received from the following proponents:

Proponent	Price	Maintenance Cost	Evaluation Score
The Industra Group	\$ 3,486,158	\$ 2,402,312	87.9 / 100
Filtrum Construction	\$ 4,438,100	\$ 1,502,911	84.7 / 100
Knappett Group	\$ 4,581,788	\$ 3,151,779	82.0 / 100
Canadian Western Mechanical	\$ 3,428,400	\$ 4,207,360	81.8 / 100

Canadian Western Mechanical is the lowest in price, but their maintenance cost is the highest among the four (4) proponents. The Industra Group is the 2nd lowest in price and maintenance cost.

A letter dated Mach 8, 2020 from L&M Engineering Limited provided a more detailed summary of the proposal received, the evaluation process and recommendations which have been provided to District Staff.

L&M Engineering Limited and its sub-consultants, Tetra Tech, find that The Industra Group proposal is compliant with the requirements of the RFP, scores the highest of all proposals in technical evaluation and provides the best combination of construction value and long-term maintenance costs. The District

Staff agree with the evaluation by the consultants. The price proposed by the Industria Group exceeded the budget by over \$1.9 million.

It was confirmed with The Industria Group that they will be able to meet the deadline for completion of the project, which is October 15, 2020.

The following is a summary of overall project cost.

Project Components	Cost
Installation and production of 2-250mm diameter Production Wells – Final Cost	\$443,421
Monitoring Well - Final Cost	\$ 33,920
Western Water – Agreement Value – Final Cost	\$ 60,000
L & M , NRS, Tetra Tech Eng (to end of February) – Final Cost	\$215,156
Western Water -Change Order	\$ 17,000
Design Build Proposal - (Industria Group bid, excluding provisional items)	\$3,486,158
BC Hydro Service Connection Cash Allowance	\$ 10,000
Contingency Item 3.1 (10%)	\$348,616
Engineering	\$150,000
District Staff time for inspections & communications	\$ 10,000
Water License Application Fee	\$ 5,000
Spare Parts (Provisional Item)	\$ 2,542
Day Rate for Training (Provisional Item)	\$ 5,263
Total Cost	\$4,787,075

Before GST.

BUDGET:

The budget approved by BC Hydro in September 2019 for the upgrade of the Water Treatment Plant was \$2,865,900.

The option of re-tendering the project has been superseded by the urgency of the project completion date, which is October 15, 2020. There is no guarantee that we will get a better price if we re-tender. We got a very good response from the contractors as we received 4 proposals.

BC Hydro is fully aware about the status of the tender result and is aware about the requirement of remaining funds to award this tender.

BC Hydro is also aware that the District does not have any matching contribution (budget) for this project.

Prepared by:

A handwritten signature in blue ink, appearing to read 'Mokles Rahman', written over a horizontal line.

Mokles Rahman, Director of Public Works

Approved by:

A handwritten signature in blue ink, appearing to read 'Chris Cvik', written over a horizontal line.

Chris Cvik, CAO



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District of Hudson's Hope
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Date: March 8, 2020
L&M Project: 1012-35

Attention: Mr. Mokles Rahman
Director of Public Works.

Reference: Evaluation and Recommendations
Water Treatment Facility - Request for Proposals

Dear Mr. Rahman,

L&M Engineering Limited has prepared this letter summarizing the evaluation, results and recommendations for Award following the closing of the Request for Proposal (RFP) period for the District of Hudson's Hope Water Treatment Facility.

1. Evaluation of Requests for Proposals (RFP) Submissions

We received four responses to the Request for Proposal. These proposals were evaluated as per the requirements of the RFP for Mandatory and Technical Criteria. The evaluation was performed independently by L&M Engineering Limited and our nanofiltration sub-consultant, Tetra Tech Engineering. The independent evaluations were then compared for significant deviation, discussed and finally averaged into final scores.

The following is a brief summary of the bids received, the final technical evaluation scores and the main non-technical consideration.

1. The Industria Group.
 - a. Evaluation Score: 87.9/100.0
 - b. Low Construction Cost/Midlevel Maintenance Costs.
 - c. Proposed deviation from desired water quality.
 - d. Limited explanation of temporary treatment methodology.
 - e. Limited explanation of exterior piping requirements.
 - f. Incorrect presentation of Nanofiltration Project experience.

Industria Group's lack of adequately expressed Nanofiltration project experience reduced their Technical Score. Even with this loss of points, their Proposal achieved the highest score of all four submissions and passed all mandatory criteria.

2. Filtrum Construction.

- a. Evaluation Score: 85.7/100.0
- b. High Construction Cost/Low Maintenance Cost.
- c. Exceeded Project Completion Date.
- d. Failed Tetra Tech's evaluation for technical criteria (Mandatory).

Filtrum Construction achieved the second-highest score with an overall strong proposal. However, Filtrum failed the mandatory minimum technical score due to a stated project period that would extend at least two months past the required completion date.

3. Knappet Industries.

- a. Evaluation Score 82.0/100.0
- b. High Construction Cost/High Maintenance Costs
- c. Significant Exclusions
- d. Only using one well, losing the desired redundancy.
- e. Proposes deviation from desired water quality.

Knappet Group's Proposal contained significant statements of exclusions and qualifications. They also proposed to utilize only one well for treatment with the second well being identified for bypass water only.

4. Canadian Western Mechanical.

- a. Evaluation Score 81.8/100.0
- b. Low Construction Cost/High Maintenance Costs.
- c. Significant Exclusions
- d. Proposed not to perform the required 14 Day Test.
- e. States being unable to satisfy the warranty requirements.

Canadian Western Mechanical's Proposal contained exclusions and deviations from the requirements of the RFP. In particular, they refer to different testing requirements and an inability to provide warranty within the requested parameters.

The results of the criteria-based evaluation can be found on the attached Evaluation Summary Spreadsheet. The evaluation results were prepared in direct consultation with Tetra Tech.

2. Specific Evaluation of Industra Proposal

Of the four proposals, only the Industra Group Proposal satisfied all technical evaluation criteria of the RFP. However, the Industra Group submission also lacked full information on some components along with deviations from the RFP Statement of Requirements for Water Quality. Following a review of the preliminary evaluation results with the project team, a decision was made to consider the Industra bid as the strongest bid and proceed with directly obtaining clarifying information.

1. Proposed Deviation from Desired Water Quality.

The Request for Proposal asked for a level of water quality that was beyond the regulatory requirements but closely resembled the aesthetics of the existing treated river source water. In the responses that were received, all proponents failed to meet all desired water aesthetic objectives or provide documentation of their finished water quality. Receiving similar commentary from all bidders on this matter leads us to consider that Industria's opinion of obtainable water quality is accurate. The parameters that were not met were associated with Water Hardness and Sodium Levels.

Industria Group provided two options for water quality, as shown in Table 1 below. The options are based on proposed rates of blending treated water with untreated. Based on the information provided, we consider Option 2 - 70 GMP blending preferable. This blending rate offers a good balance of all water quality parameters. The proposed blending also reduces the volume of water being treated, resulting in less wastewater being discharged.

Option 2 proposed a blending of 70 GPM, resulting in a proposed pH of 7.4 and alkalinity of 130 mg/L. With these parameters, the water will be neutral and neither corrosive nor depositional (scale forming). The proposed hardness of 75 is near the existing hardness of the current treated river water, so the taste and feel of the water during bathing/showers should be very similar for the residents.

The proposed Sodium levels at 36 mg/L is slightly above the very low limit of 20mg/L suggested by Health Canada for people on sodium-restricted diets. However, 36mg/L is still well below the 200mg/L suggested by the Northern Health Authority (NHA) and Health Canada. The same level is also well below the 60mg/L level when Sodium becomes detectable by some people.

Industria's Option 2 will provide the residents of Hudson's Hope with water that closely resembles their current water quality and exceeds all drinking water regulations. Table 1 below compares the primary water quality characteristics between the existing treated water and Industria's two options.

Table 1 – Comparison of Industria's proposed Water Quality

Parameter	NHA Guidelines	Districts Current Water	RFP Requirement	Option 1: 30gpm blend	Opt: 70 gpm blend
TDS	500	133	200	110	220
Hardness	250	122	80-122	33	75
pH	7-10.5	7.7	7-8.5	7.1	7.4
Sodium	200	1.64	20	20	36
Alkalinity	500	95	25-300	70	130
Resulting LSI				-1.6	-0.6

All Values are mg/L

TDS – Total dissolved solids. LSI – Langelier Saturation Index (scaling potential)

We note that this "reduction in water quality" does not represent a reduced value to the District. Instead, it may represent an overly ambitious expectation. The quality of water proposed by the Option 2 70 GPM blend will, in our opinion, provide an acceptable, quality water source for the District of Hudson's Hope.

Also, the proposed quality has a reduced treatment requirement leading to some project cost savings, reduction in discharge volumes for the treatment facility and likely reduced long term operational cost due to a reduction in the actual water being processed by the Nanofiltration trains.

2. No Classification of Building Associated with Two-Stage Degasification Process.

Industra proposed a two-stage degasification process that allows methane removal following nanofiltration. Their Proposal did not identify any change of building classification that may be required if entrained methane is to be put through the nanofiltration (possible explosive hazard).

Industra has provided additional information on the degasification process; however, they still have not explicitly addressed if building reclassification is required. The level of detail provided for an explanation of the proposed degasification process will suffice for the Award. However, Industra will be needed to confirm before the Notice to Proceed stage that they understand they can not claim for any additional cost resulting from any building reclassification.

3. Limited Explanation of Temporary Treatment Methodology.

Industra's Proposal did not provide a clear explanation of their approach to the temporary treatment of water during construction. Additional information was requested. Industra clarified they intend to implement a phased approach to installing new components while maintaining portions of the existing treatment facility to provide treatment at all stages of the Project.

Our assessment of this methodology is that it seems reasonable. While Industra has not refined the details of this procedure for staging, timing and NHA approvals, the level of explanation will suffice for Award. Also, they have proposed and added the ability to set up the first nano filter skid outside the building as a backup approach should the first approach fail for some reason.

Industra will be required to confirm before Notice to Proceed that they understand they will have to submit their staging of the work for approval. And that if their planning is not acceptable, they could not claim for an additional cost.

4. Limited Explanation of Exterior Piping Requirements.

Industra's Proposal contained a limited explanation of exterior piping works. In the submission of supplemental information, Industra confirmed their intention to follow the general layout for exterior works that were provided within the R.F.P. Industra provided markup of the RFP layout drawings with some minor modifications to piping layout within their supplemental information.

5. Incorrect Presentation of Nanofiltration Project Experience.

Industra's Proposal did not correctly present their Nanofiltration project experience. Projects listed were not Nanofiltration projects; however, personnel resumes contained Nanofiltration experience. This lack of proper Nanofiltration project presentation in their Proposal lowered their overall score. Nanofiltration experience is considered an essential requirement and they were asked to provide further information. Industra has now provided clarification that they have appropriate project experience.

6. Limited Project Reference Information.

Industra's Proposal did not present full contact information for project references; only email was provided. Industra has now provided complete reference information.

7. Assumptions on Treatment Facility Discharge.

Industra says in their Proposal that the treatment facility's concentrate discharge will require them to work with the Ministry of Environment to satisfy regulatory requirements. Further, they say that satisfaction of the regulatory process is unlikely to be completed within the project construction window. They state their intention is to proceed on the basis that they will be able to obtain a temporary approval to discharge while regulations are being addressed

Industra does not state permitting is required, and we are in agreement in this matter. In our correspondence with the Ministry of Environment (attached), they say there is no permit to be issued for this type of waste stream. However, the Ministry of Environment also state due diligence has to be applied by the proponent, and a demonstration obtained that after an initial dilution zone, there will be no water quality guideline exceedances.

Based on the full, unmodified treatment parameters, as stated in the RFP, the anticipated discharge from the treatment facility is anticipated to be acceptable, except for Barium levels. Barium in the waste stream may exceed the BC Aquatic life working guideline. Preliminary estimates are that barium in the waste stream maybe 5 mg/L, and the working aquatic life guideline is 1 mg/L. For a waste stream to not be allowed, it would be necessary for the waste stream to be acutely toxic outside of the initial dilution zone. Given the significant size of the

Peace River/Reservoir in this area, and the massive dilution potential for a relatively small waste stream volume, acute toxicity is unlikely. Therefore it is reasonable to conclude that the Project will be able to meet the required level of due diligence.

The Project and owner should recognize that Industria's stated plans to obtain a temporary approval to discharge holds a risk that the temporary approvals (if required) may not be provided. To further discuss this risk, L&M Engineering made contact with Industria's proposal representative Randy Brown, on March 6, 2020. Mr. Brown indicated that Industria's investigations into this matter indicate that there is precedent for such temporary approvals and that there has been some correspondence with the Ministry of Environment on their end to confirm the approach. He also relayed that further investigation and contingency planning for this risk would be a priority of detailed design.

We also discussed conceptual options for mitigation, including dilution of the waste stream, waste stream diffusion at the outlet, or indirect discharge that so that the waste stream is not directly entering the river/reservoir.

The cost of these potential mitigations are not identified at this time. It is likely the proponent could incorporate the mitigation methods directly into the design with no change to project cost. However, if, for example, diffusion of the waste stream were to be required, the proponent might expect to incur a cost of approximately \$5000.

Industria also provided a comment that if their proposed water quality was to be accepted, the volume of water being processed by the treatment facility would be reduced. This would result in a reduction of concentrate volume, meaning less wastewater being directed to the discharge.

It has been noted that in the owner's group's correspondence to date with the Ministry of Environment (as attached) they state that "the Ministry is not the only agency that may have input into the proposed discharge. Fisheries and Oceans Canada and Ministry of Forests, Lands, Natural Resource Operations and Rural Development will have interests related to the discharge, if it is to surface water, and should be contacted. Also, engagement with Local First Nations would be advisable"

In our March 6, 2020 phone call, Industria Group confirmed that notifications, self-assessments and other works required to satisfy the regulatory requirements of the Ministry of Environment Fisheries and Oceans Canada and Ministry of Forests, Lands, Natural Resource Operations and Rural Development are included in their Proposal.

Significant First Nations engagement is not included in the Industria proposal and was not a requirement of the Request for Proposals. It is possible that this comment was provided by the Ministry of Environment as standard advice provided on the basis that First Nation engagement is a common aspect of many projects that the MOE are involved in. At this time, the consultant

group is not aware of any requirement for engagement of First Nations with respect to this type of waste stream.

3. Schedule

Industra Group provided a schedule for construction based on the Award of Project occurring on February 27, 2020. With that date now passed, the anticipated timeline for client approval of the Notice of Award is March 15, 2020.

Industra confirms in a March 6, 2020 email from Randy Brown that with a Notice of Award on March 16, 2020, and a Notice to Proceed received by March 29, 2020 that their Substantial Completion date of October 16, 2020, as stated in the RFP response can be maintained, with the following qualifications.

1. Shop drawing review durations must be as identified in the schedule.
2. Discharge approvals received in a timely manner such that the schedule is not impacted.
3. Any delay to the assumed Notice to Proceed date will delay the Project.

The updated Industra Group Schedule is attached to this letter.

4. Recommendation

Based on the evaluations performed, the strength of the Proposal and supplemental information provided by Industra and for the reasoning as presented in this Letter, L&M Engineering Limited recommends that the District of Hudson's Hope proceed with Industra Group as the preferred Bidder on this RFP.

We additionally recommend that other bidders be notified of this decision; however, their bid security should be maintained. We do not recommend identifying a second-place bidder at this time. All bidder proposals remain valid for the 60 days from the date of RFP closing.

The path forward for proceeding with Industra Group as a preferred bidder is outlined as follows:

1. Provide Notice of Award.
2. Receive Budgetary Approval, BC Hydro.
3. Receive Council Approval.
4. Satisfy Prerequisite requirements as below.
5. Issue Notice to Proceed.
6. Sign and Execute Contracts.

5. Project Budget at Time of RFP Evaluation

The following is a summary of the overall Project Budget utilizing the Industra Groups bid.

Project Component		Cost (\$)
Costs to Date		
1.1	Installation and Production - 2 - 250mm Diameter Production Wells - Final Cost	443,421.00
1.2	Monitoring Well - Final Cost	33,919.84
1.3	Western Water - Agreement Value - Final Cost	60,000.00
1.4	L&M, NRS, Tetra Tech Engineering (to end of February) - Final Cost	215,155.90
	Section Total,	752,496.74
Pending Change Orders		
2.3	Western Water - Change Order Including Archeological	17,000.00
	Section Total,	17,000.00
W.T.P. Design-Build		
3.1	Design-Build Proposal - (Industra Group bid, excluding provisional items)	3,486,158.15
3.2	BC Hydro Service Connection Cash Allowance	10,000.00
3.3	Contingency Amount on Design-Build Proposal - Item 3.1 (10%)	348,615.82
3.4	Engineering - E.O.R., Owners Representative & QA Role	150,000.00
3.5	Staff time for inspections & communications during construction	10,000.00
3.6	Water License Application Fee	5,000.00
	Section Total,	4,009,773.97
Provisional Items		
4.1	Supply Only - Spare Parts (Schedule of Prices Item 7.5)	2,541.75
4.2	Day Rate for Training beyond the requirements of item 8.2 (Schedule of Prices Item 8.3)	5,262.54
	Section Total,	7,804.29
	Total Project	4,787,075.00

Values do not
include GST.

6. Notice of Award:

With the District of Hudson's Hope agreement to the recommendation of this letter, we would propose to prepare a Draft Notice of Award for this Project. The Notice of Award informs a Bidder that the District of Hudson's Hope intends to proceed in good faith to allow the Project to continue pending successful completion of a negotiation period.

Please note that a Notice of Award does not establish a contractual relationship between the District of Hudson's Hope and the contractor. However, we do not recommend the issuance of a Notice of Award for this Project if there is a high certainty that the Project may not proceed.

The Notice of Award will outline the requirements for additional information, documentation and statements currently identified as a prerequisite to the issuance of a Notice to Proceed. As follows:

Required Documentation for Notice to Proceed.

1. Performance Bond and a Labor Bond. Each in the amount of 50% of the total contract price.
2. An Updated Project Construction Schedule.
3. A valid and current Clearance Letter from Work safe BC.
4. Copies of all Insurance Policies in place for this Project.
5. A Measurement and Payment Schedule

Required Industria Commitments for Notice to Proceed:

1. Industria is required to confirm they understand the requirement to submit their staging of the work for approval. And that if their planning is not acceptable, that there is no opportunity to claim for any additional associated cost.
2. Industria will be needed to confirm before notice to proceed that they understand could not claim for any additional cost resulting from any building reclassification.

Required District of Hudson's Hope Commitments for Notice to Proceed:

Within the Notice of Award we also propose to state the District's prerequisite approvals and conditions as follows:

1. Confirm the documentation provided by the proponent is acceptable.
2. Obtain approval of Project Budget
3. Obtain District of Hudson's Hope Council approval.
4. Obtain BC Hydro Approval.

5. Confirm in writing, the parameters of any acceptable deviation to the proposed water quality.

7. Summary

In our letter, we have attempted to outline the evaluation and recommendation process fully and present all information that has been requested to allow the District of Hudson's Hope to make an informed decision on the Award of this Project. However, if additional information is required, please do not hesitate to contact us.

Yours very truly,

L&M ENGINEERING LIMITED



Luke McDonald, P.M.P., ASCT.
Contract Administrator

Enclosures: Industra Revised Project Schedule- March 6, 2020
 Evaluation Summary.
 Project Budget Summary.
 Project Budget Comparison.
 November 8, 2019 Email Correspondence- Trevor Hamlin, Ministry of
Environment



Hudson's Hope Water Treatment Facility Design-Build
Proposed Project Schedule R1
March 6, 2020

