

Distribution Underground (DUCT) Construction

Unit Feedback Conference Call #1 – January 31st, 2018

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QUESTION FROM BC HYDRO	FEEDBACK
1- Is the presentation of the information (scope of work, unit application) clear and useful? How would you suggest changing the format to make each unit's description, etc. more practical and/or easier to work with in the future?	It is clear, however if you have better / more detailed / etc. information at time of RFP will help us create better pricing.
	Everything looks to be in order (regarding the unit list), but there will always be different questions depending on the contractor and their abilities
	More detail within each the specific Unit Price (what is included, how the measurement is to be calculated, etc.) would be helpful.
2- Are there specific unit work scopes that need more clarification? If yes, which ones? Please explain why these unit scopes are unclear and/or any suggestions in how to make them clearer?	As a suggestion, BCH could limit the job scopes to \$20k to allow for units to be priced to that 'complexity' level so units aren't priced, for example, to a \$100K job, when the majority of the jobs are \$15-20K.
	For trenching, you could create different units for pricing that reflect 1-3 metre duct and 4-6 metre duct and so on....
	A 5 metre job, compared to a 105 metre job, is completely different. What is the median unit to use to estimate? The shorter, the more expensive, especially when there are no guarantees of work.
	Ensure it's clear which units are just installation, and which items are purchase and install, and restoration.
	Needs to be clear what is included (i.e. fuel adjustors, LOAs, etc.) in unit and what is not. I see hand excavation and machine excavation have their own unit, but I would have thought that would have been included. Perhaps add a column that lists what's in and what's out to ensure we are all on the same page.

	Hourly and daily equipment costs should be moved to a separate table from the direct work pay units
	Should be a pay unit for completing pre-work locates of the site, and for daylighting known utilities. In our opinion, this work should be completed at the design stage so that the design created meets the needs of the field conditions
	Hand Excavation: The current measurement is based on $\leq$ 1.5m depth. This should be changed to less than 1.2m so this pay item is not unnecessarily burdened with shoring costs
3- What can BCH include in the RFP that would make pricing these units easier?	Historical information on where the work occurred and when, will allow us to provide you with a better price
	A picture, of what has happened in the past, of average jobs historically, would be helpful. Rather than providing historical, put range lengths associated for Units based on 0-25, 25-50, 100+ metres. Adding units to contracts is not an ideal situation, but ranges of trench lengths are a good suggestion.
	Approximate scopes / items in general work order (including measurements) plus a standard deviation so there is an understanding of best case and worst case scenarios.
	Building safety quality training into unit prices is standard. But the quality requirements must be clearly laid out in the RFP so that the overheads required are priced accordingly
	Estimated volumes per zone/month based on historical data to aid the contractor in forecasting operational capacity requirements
	Based on the 3 yr + 2 + 2 model, a forecasted BCH civil construction spend

4- We want to balance the financial risk between BC Hydro and you, the civil Contractors. This means the civil Contractors are asked to factor in their unit labour and equipment costs, and the overhead costs of training, safety and quality programs.

a- Is this a model that your company can use to price units effectively?

b- Are there aspects of the Distribution Underground Construction work that are difficult to price across multiple units? If yes, please explain these aspects.

With respect to pricing materials across multiple municipalities, BCH should know they will receive the higher of the average prices across those municipalities.

A 5 metre job compared to a 105 metre job is completely different. What is the median unit to use to estimate? The shorter, the more expensive, especially when there are no guarantees of work.

5- Are there additional variable units that you feel should be added to address variability in work? For example, regional considerations, seasonal weather fluctuations. If yes, what are they?

For the North Island, including remote regions such as Port Hardy or Renfrew, good sources of gravel are not usually found, especially pretested. Additional quality can be expensive. Trucking, paving, restoration, etc. - Some of these costs may be carried in the variable travel unit.

Consider adding geotech, compaction test, final restoration, different municipalities and their different requirements, layout and BC-One, traffic control and pole holds as additional variable units.

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Maybe a "Variable Unit" could be added to account for managing the time and cost of taking ferries

With respect to aggregate material supply (i.e. hydro-sand), there is lots of variability across regions. Would Hydro entertain removing aggregate supply and instead measuring on metric ton pricing through a variable unit?

Fuel adjustment - this in our opinion is a mute issue. Fuel consumption in this type of work is a minimal daily or yearly expense (<200L per day) in comparison to a manager dedicated to complete this work that may never come to full fruition based on customer requirements. Contract resources are better put to use solving other variables within the contract

It is suggested that using additional work item UPIs would help lower overall installation costs to BCH

- Hydro vac per hr (based on approval)
 - Pole Hold per hr (based on approval)
 - Dump fees per each @ cost plus 10%
 - Shoring installation per m based on =>1.8m depth (1.5x for each additional 1.0m) to include confined space entry requirements
 - Sloping per m3 based on l x w x d of the excavation
 - BC One call FUD package (Foreign utility data) per each
 - Traffic / Municipal permits per each @ cost plus 10%
 - Traffic management plans (TMPs) per each
 - Engineered TMPs per each @ cost plus 10%
 - traffic control person rate per hr ST/OT
 - lane closure technician rate per hr ST/OT
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6- Do you have any additional questions or comments that you would like to share on the Unit List?

Would BC Hydro entertain a separate asphalt/concrete permanent restoration contract?
This is a common practice with other utilities and municipalities

Some type of framework should be put around the 80/20 rule so that if there are disagreements during the contract execution the framework can be consulted and each party can present their case based on such

Desirability's -

- steady work flow / multi-year commitment
- an engaged procurement team that wants a workable and accountable 2 way contract
- Defined repetitive work, that our crews will master and hopefully find efficiencies within

Undesirability's -

- zero dollar commitment
 - carrying fixed resources/costs that are required for the performance of the work, but have no bill units outside of the direct work unit rate tables
 - large projects will still be public tendered
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Estimated overhead costs unit pricing would need to consider are project coordinator/estimator/manager to:

- field the requests for work
 - view the sites
 - determine the resources needed
 - complete the BC one calls
 - dispatch
 - address field situations as they arise
 - manage the safety requirements - near miss, close call, stats etc.
 - manage the QA requirements
 - close out and bill the work
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