Ontario Energy Board | Commission de l'énergie de l'Ontario

BY E-MAIL

December 18, 2020

Christine E. Long
Registrar
Ontario Energy Board
2300 Yonge Street, 27th Floor
Toronto ON M4P 1E4

Dear Ms. Long:

Re: PUC Distribution Inc. (PUC Distribution)
2022 Incremental Capital Module Application
Ontario Energy Board (OEB) File Numbers: EB-2020-0249/EB-2018-0219

In accordance with Procedural Order No. 6, please find attached OEB staff's interrogatories in the above noted proceeding. PUC Distribution and all intervenors have been copied on this filing.

PUC Distribution's responses to interrogatories are due by January 11, 2021.

Responses to interrogatories, including supporting documentation, must not include personal information unless filed in accordance with rule 9A of the OEB's *Rules of Practice and Procedure*.

Yours truly,

Original Signed By

Georgette Vlahos
Advisor, Electricity Distribution: Major Rate Applications & Consolidations

Attach.

OEB Staff Interrogatories
2022 Incremental Capital Module (ICM) Application
PUC Distribution Inc. (PUC Distribution)
EB-2020-0249/EB-2018-0219
December 18, 2020

*Responses to interrogatories, including supporting documentation, must not include personal information unless filed in accordance with rule 9A of the OEB's *Rules of Practice and Procedure*.

Staff-1
Capital Module Applicable to ACM and ICM
Ref: Capital Module Applicable to ACM and ICM, Tab 1 – Information Sheet

On November 9th, 2020, the OEB announced the value of the inflation factor for use in 2021 rate adjustment applications (i.e. 2.2%).

(a) OEB staff has updated PUC Distribution's ICM model for the updated value and provided a copy with these interrogatories. Please confirm the accuracy of the updated model.
(b) Please confirm the updated materiality threshold, and maximum eligible incremental capital amounts.

Staff-2
Capital Module Applicable to ACM and ICM
Ref: Capital Module Applicable to ACM and ICM, Tab 2 – Rate Class Selection

As part of the updated ICM model provided in Staff-1, OEB staff has corrected the Residential rate class selection from "Residential R1" to "Residential".

Please confirm the accuracy of the updated model.

Staff-3
Capital Module Applicable to ACM and ICM
Ref 1: EB-2020-0249, Application, Page 38
Ref 2: Capital Module Applicable to ACM and ICM, Tab 3 – Growth Factor – NUM_CALC1
Ref 3: Capital Module Applicable to ACM and ICM, Tab 8 – Threshold Test

On Tab 3 of the ICM model, PUC Distribution entered 2019 actuals since 2020 actuals are not yet available.

OEB staff notes that because this is a 2022 rates request, on Tab 3 the model erroneously noted “2020 Actual Distribution Demand” in the heading, when it should have indicated “2019 Actual Distribution Demand”.

Similarly, because this is a request for 2022 rates, on Tab 8 of the model, OEB staff notes that when calculating growth factor, the model should be factoring in one-year worth of growth as opposed to two.

OEB staff has made the above noted updates. Please confirm the updates to the model as provided in Staff-1 are correct.

Staff-4
Capital Module Applicable to ACM and ICM
Ref: Capital Module Applicable to ACM and ICM, Tab 9b – Proposed ACM ICM Projects

PUC Distribution has provided an estimated 2022 capital budget, including the proposed ICM project, of $33,495,218. The ICM maximum eligible incremental capital is calculated based on this $33,495,218 amount.

(a) How confident is PUC Distribution with regard to its estimate of its 2022 capital budget of $33,495,218?
(b) In 2021, if PUC Distribution revises its forecast of its 2022 capital budget and it decreases, this could reduce the amount ICM maximum eligible incremental capital eligible to be recovered through the ICM. Please discuss how PUC Distribution proposes to address this issue. Will PUC Distribution refile its ICM rate rider calculations based on the revised maximum eligible incremental capital amount in 2021 for the OEB’s approval?

Staff-5
Capital Module Applicable to ACM and ICM
Ref 1: EB-2020-0249, Application, Page 41
Ref 2: Capital Module Applicable to ACM and ICM, Tab 9b – Proposed ACM ICM Projects

PUC Distribution has provided the following table showing the net capital additions and calculations for depreciation and Capital Cost Allowance (CCA).

Table 5: Depreciation and CCA Calculations for Net Capital Expenditure

	Cost of Addition	Contributed Capital	Net Addition	# Years	Deprec Rate	Deprec Exp	Eligible for ACM/ICM (Half Year*Prorated Amount)	CCA Class	CCA Rate	2022 CCA 8%	Eligible for ACM/ICM (Half Year*Prorated Amount)
1820 DS Equipment	$473,156	$116,497	$356,659	40	2.50%	$8,916	$4,458	47	8%	$28,533	$14,266
1830 Poles & Fixtures	$4,745,488	$1,168,400	$3,577,087	45	2.20%	$78,696	$39,348	47	8%	$286,167	$143,083
1835 OH Conductors & Devices	$15,943,059	$3,925,387	$12,017,672	60	1.67%	$200,695	$100,348	47	8%	$961,414	$480,707
1840 UG Conduit/Civil	$399,913	$98,464	$301,449	50	2.00%	$6,029	$3,014	47	8%	$24,116	$12,058
1845 UG conductors & Devices	$799,827	$196,928	$602,899	40	2.50%	$15,072	$7,536	47	8%	$48,232	$24,116
1850 Line Transformers	$7,097,338	$1,747,456	$5,349,882	40	2.50%	$133,747	$66,874	47	8%	$427,991	$213,995
1920 Computer S/W	$1,064,477	$262,088	$802,389	5	20.00%	$160,478	$80,239	12	100%	$802,389	$401,194
1980 System Supervisory Equipment	$2,483,780	$611,539	$1,872,241	20	5.00%	$93,612	$46,806	47	8%	$149,779	$74,890
In Service Dec. 31, 2022	$33,007,037	$8,126,759	$24,880,278			$697,246	$348,623			$2,728,620	$1,364,310

The net capital additions, depreciation and CCA amounts in Table 5 above don't match the entries in the ICM Model. The ICM Model indicates a net CAPEX of $24,828,660, depreciation of $695,799 and CCA of $2,722,959. Please reconcile and update the ICM model or Table 5 as required.

Staff-6
Ref 1: EB-2020-0249, PUC_App_AA15_Cost of Power Forecast_20201029
Ref 2: EB-2020-0249, Application, Page 20, Table 1 – Customer Annual Net Benefit Summary

(a) Please confirm if CBR A and CBR B amounts are embedded into the Cost of Power forecast as provided in reference 1. If not, please provide an updated forecast.
(b) Please calculate the following two scenarios, and use the resulting Cost of Power to show two versions of reference 2:
    I. A calculation of the Cost of Power keeping the RPP constant to PUC Distribution's 2018 rebasing application.
    II. Updating the Cost of Power forecast for the most recent RPP Price Report using a version similar to the OEB's Tab 2-ZB – Cost of Power in the 2021 Chapter 2 Appendices (and ensuring to take into account the updated Ontario Electricity Rebate).

Staff-7
COVID-19 Impacts

Given the ongoing state of the COVID-19 pandemic, and the uncertainly surrounding when it will abate, there is a possibility that economic and financial pressures could continue into 2022. During the unprecedented times of the current COVID-19 pandemic, many businesses and residents that are the customers of Ontario utilities have been adversely impacted.

(a) In preparing its amended application, has PUC Distribution considered the impact on its customers of increasing rates further than what they otherwise would be (notwithstanding any noted potential savings after the SSG Project is "in-service"). If yes, please provide a discussion. If not, please explain why.
(b) Has PUC Distribution made any adjustment to this SSG proposal related to COVID-19?

Staff-8
Ref: EB-2020-0249, Application, Page 9

At the reference above, the application states that PUC Distribution issued a Request for Proposals (RFP) on October 4, 2019 seeking competitive proposals for engineering, procurement and construction (EPC) services for the implementation of the SSG Project.

PUC Distribution elected to award the EPC contract for the SSG Project to Black & Veatch.

The EPC contract was executed by Overland Contracting Canada Inc., a wholly owned subsidiary of Black & Veatch, and PUC Distribution on October 7, 2020.

(a) How was the RFP publicized and how was the decision made with respect to how the RFP would be publicized? Was the RFP posted on an electronic tendering platform? If not, please explain why.
(b) If the project was awarded to Black & Veatch, why was the EPC contract executed by its subsidiary? Please explain the rationale and decision-making process for executing the EPC contract with the subsidiary.
(c) Please clarify the roles and responsibilities of Black & Veatch versus those of Overland Contracting Canada Inc. in the development of the SSG.

Staff-9
Ref: EB-2020-0249, Application, Appendix AA2-1 – Copy of SSG RFP, Page 14 of 37

At the above-noted reference, the application states:

> Each Respondent is requested to attach, in unlocked Word format, an agreement or agreements that they wish to have PUC consider for negotiation purposes. PUC will consider whether the form of those agreements is appropriate for the basis of negotiating the Contract. The attachment of any such forms of agreements in a Proposal shall not be considered to be acceptance by PUC,

either as to form or substance, in whole or in part, of such agreement or agreements.[1]

Did Black & Veatch submit an agreement that it wanted to negotiate and is it the EPC contract that is included in the Amended Application?

Staff-10
Ref 1: EB-2018-0219, Exhibit KTC1_1_PUC Distribution_IRR Correction_20190619
Ref 2: EB-2018-0219, Transcripts_PUC_Technical Conference_20190619, Pages 109-110, Lines 27-28 and Lines 1-3
Ref 3: EB-2020-0249, Application, Page 10

At reference 1, PUC Distribution provided a presentation to City Council on the Sault Smart Grid on July 8, 2019. On one of the slides, part of the Resolution notes:

> **WHEREAS** the PUC Services Board has approved the Smart Grid Proposal as presented on June 26, 2018 subject to the following conditions precedent:
> - Federal/Provincial funding approved (>$9 million)
> - Shareholder approves the project
> - OEB approval for the first two consecutive ICMs in place[2]

At reference 2, in responding to questions regarding whether City Council has approved the ICM proposal (as per the original application), PUC Distribution noted:

> MR. BREWER: So when we presented it we presented possible funding, and as you can see in the resolution under the first bullet, they have required that there be federal or provincial funding approved greater than 9 million for them to approve this project.
>
> So we have met that criteria, because there is $11.8 million in federal funding. So we have met their resolution.[3]

In the current application (reference 3), PUC Distribution notes that:

> With the estimated cost of the SSG Project now reduced further with EPC pricing, pursuant to the NRCan (Natural Resources Canada) agreement the lesser of 25% of total project costs is applied so the total monetary value of the

[1] EB-2020-0249, Application, Appendix AA2-1 – Copy of SSG RFP, Page 14 of 37
[2] EB-2018-0219, Exhibit KTC1_1_PUC Distribution_IRR Correction_20190619
[3] EB-2018-0219, Transcripts_PUC_Technical Conference_20190619, Pages 109-110, Lines 27-28 and Lines 1-3

NRCan contribution will decrease accordingly (now estimated at **$8,126,759 (emphasis added)**, which is 25% of current eligible cost project estimate of $32,507,038 ($33,007,038 less ~$500,000 as estimated ineligible to NRCan program as costs incurred before contribution eligibility period and estimated legal costs)).[4]

(a) In the time between the initial filing and the amended filing, has PUC Distribution brought this version of the proposed SSG Project (i.e. with an EPC Contractor, and the estimated revised federal funding amount) forward to City Council?
(b) Has the amended SSG Project been given Shareholder approval given that federal funding is projected to drop below the $9 million threshold noted in reference 2?
(c) If yes, please provide all relevant documentation of what PUC Distribution brought forth for approval based on the new structure of the SSG Project.
(d) If not, please explain why.

Staff-11
Ref 1: EB-2014-0219, *Report of the Board: New Policy Options for the Funding of Capital Investments: The Advanced Capital Module*, Page 10
Ref 2: EB-2018-0219, Transcripts_PUC_Technical Conference_20190619, Page 201, Lines 11-15
Ref 3: EB-2020-0249, Application, Pages 11-12

The Renewed Regulatory Framework for Electricity Distributors states that distributors are expected to provide documentation on their efforts to engage customers on the necessary capital and operating costs and on the associated cost consequences that will be ultimately impacting customers.

In its original filing[5], PUC Distribution noted that it did not engage its customers specifically on this the SSG Project but asked the relevant questions that would drive the decision on whether to undertake this project.[6] This was done as part of its 2018 Cost of Service Application.[7]

(a) Given the over one-year that has elapsed since the initial application being placed in abeyance and the filing of this amended application, and that this is a community scale project which will drive substantial changes in how PUC Distribution will operate going forward, has PUC Distribution taken the

[4] EB-2020-0249, Application, Page 10, Lines 19-27
[5] EB-2018-0219
[6] EB-2018-0219, Transcripts_PUC_Technical Conference_20190619, Page 201, Lines 11-15
[7] EB-2017-0071

opportunity between its initial filing and amended filing to engage its customers on the SSG Project specifically?

(b) If the answer to (a) is yes, please provide the results of that engagement.

(c) If the answer to (a) is no, please explain why not.

Staff-12
Ref 1: EB-2020-0249, Application, Page 7
Ref 2: EB-2020-0249, Appendix AA12-1 – Project Cost Summary
Ref 3: EB-2020-0249, Appendix AA4-2 – Contribution Agreement, Schedule B – Budget and Eligible Expenditures, Page 9

The total capital cost of the SSG Project from the initial 2019 application was estimated to be $34,389,046. The revised total cost of the SSG Project in this application is estimated to be $33,007,038.

(a) Please describe what makes up the differences in cost between the original $34.3M and the revised $33.0M amount. Is it solely a change in pricing because of the EPC Contract as opposed to the previously proposed P3 structure?

In the amended Contribution Agreement with NRCan, the total cost of the SSG Project is listed at $42,806,000 of which $10,626,500 would be funded by NRCan (reference 3). OEB staff understands that the contribution amount is to be updated to approximately $8.1m (25% of $32,507,038).

(b) Please explain how the total cost of the project was able to be reduced from $42,806,000 to $33,007,038.

Staff-13
Ref 1: EB-2020-0249, Application, Page 8
Ref 2: EB-2020-0249, Application, Appendix AA12-3 – SSG Revised Scope_Proj_Estimate Sum_20201029
Ref 3: EB-2018-0219, Application, Appendix K

In comparing this amended ICM application to PUC Distribution's original ICM application from 2019, PUC Distribution notes that "The scope of the SSG project remains the same."[8]

By comparing the project cost breakdown from the 2019 application to the current application, OEB staff notes several differences.

(a) Given that the scope has not changed, please explain how the cost for Voltage/VAR Optimization (VVM) has decreased from $15,959,480 to $9,463,794.

[8] EB-2020-0249, Application, Page 8

(b) Given that the scope has not changed, please explain how the cost for Distribution Automation (DA) has increased from $14,659,460 to $19,994,966.
(c) Please explain why the unit quantities of some of the line items has changed.
(d) Please explain how PUC Distribution derived the unit costs of each of the line items. How has PUC Distribution ensured that the unit costs listed are the best prices available?

OEB staff notes that the scope of DA includes switches, reclosers and poles.

(e) Does the scope of the equipment being replaced as part of the SSG Project overlap with any of PUC Distribution's system renewal programs? If so, has PUC Distribution removed the costs from the SSG Project?

Staff-14
Ref 1: EB-2020-0249, Appendix AA12-2 – Project Cost Summary
Ref 2: EB-2020-0249, Application, Page 16

The total cost of the SSG Project is $33,007,038. The breakdown of the project costs can be seen in Table 1 of reference 1. Reference 2 notes that the EPC contract is styled as a "maximum price limit" project to ensure cost certainty for this main element of the project costs. EPC pricing has been fixed at $5,086,378 for Step 1 and $22,658,667 for Step 2. The total EPC maximum price is $27,745,044.

Table 2 of reference 1 shows a summary of how the total project cost estimate of $33,007,038 is being broken down by different categories of work for the SSG Project and the percentage of costs that will be spent on each category.

(a) Please provide a breakdown of the costs which make up the difference between the total cost of $33,007,038 and the EPC maximum price of $27,745,044 (i.e. $5,331,994).
(b) Please specify how much contingency is built into the total cost of the project for each component of VVO, DA, and Advanced Metering Infrastructure (AMI) integration.

Staff-15
NRCan Contribution Agreement
Ref 1: EB-2018-0219, PUC_ICM_IRR_20190531, Appendix 1 – Copy of Contribution Agreement
Ref 2: EB-2020-0249, Appendix AA4-2 – Contribution Agreement (amended)

At reference 1, PUC Distribution provided the original NRCan Contribution Agreement. At reference 2, PUC Distribution provides the amended Contribution Agreement.

OEB staff notes that reference 2 ends at section 9.1 Books and Records.

Please confirm if sections 10 to 35 in the original version of the Contribution Agreement are still to be applied as drafted.

Staff-16
NRCan Contribution Agreement
Ref 1: EB-2020-0249, Application, Page 13
Ref 2: EB-2020-0249, Appendix AA4-2 – Contribution Agreement (amended)

An amended NRCan Contribution Agreement with revised Statement of Work, project structure and estimate was executed in December 2019. PUC Distribution notes that it is working with NRCan on a further amendment to update the details of the contribution agreement as a result of a program extension by NRCan (i.e. to March 31, 2023).

PUC Distribution notes that once the OEB rate process is complete, a subsequent amendment will be arranged with updated project estimates and timelines.

(a) Is the amended agreement with NRCan complete with respect to the program extension? If yes, please file it with PUC Distribution's interrogatory responses. If not, please explain why it is not complete, and when PUC Distribution expects it will be completed.
(b) Please explain further what updated project estimates will be amended given the fixed price EPC contract that has already been filed as part of this proceeding which forms PUC Distribution's proposal for OEB approval.
(c) Please explain the $500k of "estimated ineligible to NRCan program as costs incurred before contribution eligibility period and estimated legal costs."
(d) How does PUC Distribution intend to cover the $500k of ineligible costs?

Staff-17
NRCan Contribution Agreement
Ref 1: EB-2018-0219, PUC_ICM_IRR_20190531, Appendix 1 – Copy of Contribution Agreement
Ref 2: EB-2018-0219, Transcripts final_PUC_Technical Conference_20190620, June 20, 2019

The original Contribution Agreement indicates that Canada may reduce or cancel its contribution to the Project in the event that funding levels for the Department of Natural Resources are changed by Parliament during the course of the agreement between NRCan and PUC Distribution. It goes on further to note that if this occurs, the project would be amended to take into account the cancellation or the reduction.[9]

[9] Section 29(2) Appropriation

At reference 2, PUC Distribution noted:

> MR. BREWER: Well, it is our understanding that once there is a contribution agreement, that the funding is locked. But if there was no NRCan funding and if there was no reliability to the NRCan funding, we wouldn't have pursued the project.[10]

(a) Please provide a discussion on PUC Distribution's course of action if funding levels were to drop or be eliminated, given that the funding does not seem to be locked based on the wording in the Contribution Agreement.
(b) If the scope of the project were to change, please confirm that the anticipated benefits of the project would also likely change.

Staff-18
NRCan Contribution Agreement
Ref: EB-2020-0249, Appendix AA4-2 – Contribution Agreement (amended)

Section 3.3 of Appendix AA4-2 states that the "Proponent undertakes to receive approval from the Ontario Energy Board for the Required Rate Adjustment by March 31, 2020."

(a) Is NRCan aware that PUC Distribution filed its application with the OEB in October of 2020?
(b) Please confirm that PUC Distribution is working with NRCan to update the date by which PUC Distribution must obtain OEB approval. What is the date in discussion to qualify for the funding?

Staff-19
NRCan Contribution Agreement
Ref: EB-2020-0249, Appendix AA4-2 – Contribution Agreement (amended)

Section 4.2 of Appendix AA4-2 notes that PUC Distribution shall complete this project by March 31, 2022. As noted above, PUC Distribution is working with NRCan on an amendment to update the details as a result of the extension by NRCan.

Section 6.3 of Appendix AA4-2 notes that in order to receive payment for any remaining portion of the Contribution, PUC Distribution must submit its final claim on or before June 22, 2022.

[10] EB-2018-0219, Transcripts final_PUC_Technical Conference_20190620, June 20, 2019, Page 13, Lines 21-25

Does PUC Distribution expect that the date of June 22, 2022 will be amended given that PUC Distribution expects work on the SSG Project to continue potentially into December of 2022?

Staff-20
NRCan Contribution Agreement
Ref: EB-2020-0249, Appendix AA4-2 – Contribution Agreement (amended)

Section 6.2 of Appendix AA4-2 sets out the Fiscal Year Allocations for the contribution.

How does PUC Distribution expect the Fiscal Year Allocations to be assigned based on a contribution amount of approximately $8M as noted in this application?

Staff-21
NRCan Contribution Agreement
Ref 1: EB-2018-0219, PUC_ICM_IRR_20190531, Appendix 1 – Copy of Contribution Agreement
Ref 2: EB-2020-0249, Appendix AA12-2 – Project Cost Estimate Memo

Reference 1 notes that, to the extent that PUC Distribution derives any profit from the project, it will have to repay Canada for its financial assistance pursuant to the Contribution Agreement. The Contribution Agreement defines "profit" as:

> …the net income of the Proponent received from any product or Intellectual Property derived from the Project, but in no event shall include any return on rate base earned by the Proponent, all of which is as determined whether using Generally Accepted Accounting Principles (GAAP) or International Financial Reporting Standards (IFRS).[11]

(a) Does PUC Distribution expect any profit, as defined above, in relation to the SSG Project?
(b) Does the Project Cost Estimate Memo included in reference 2 include any contingency for any potential repayment?

Staff-22
Ref 1: EB-2020-0249, Application, Appendix AA2-1 – Copy of SSG RFP, Page 22 of 37
Ref 2: EB-2020-0249, Application, Appendix AA2-1, Appendix A – Project Tasks, Pages 28-30 of 37
Ref 3: EB-2020-0249,Application, Appendix AA3-7 - EPC Contract, Appendix A – SSG Scope of Work, Article 5 – Owner's Specific Subcontractors and Materials

[11] Section 1.1

Reference 1 states:

> It is anticipated that PUC will be responsible for a portion of the deliverables pursuant to its labour agreements, as further described in Section 7 below (PUC Services Inc. Staff Engineering and Construction Work).

Reference 2 states:

> The following tables reflect the individual elements of the overall Project. It is anticipated that PUC will be responsible for a portion of the work pursuant to its labour agreements, as further described in Section 7 below (PUC Services Inc. Staff Engineering and Construction Work). These services are listed below under the column titled "PUC".

Reference 3 states:

> The Contractor will be required to engage PUC Services Inc., an Affiliate of the Owner as a Subcontractor for certain line construction work for the contract. The scope of this line construction work will be defined during the Upfront Engineering Services and approved by the Owner but will generally encompass the overhead line construction "make ready" work as well as some new pole installation and framing required to accommodate new equipment to be installed.

(a) Please advise whether the scope of the work to be done by PUC Services has been defined and the estimated cost. If not defined, when is it expected that will be done?
(b) Does PUC Distribution expect that PUC Services can deliver the work for which it is responsible with the current resources or will it need to hire additional resources? If so, what is the estimated cost of doing so?

Staff-23
Ref 1: EB-2020-0249, Application, Page 17
Ref 2: EB-2020-0249, Application, Appendix A3-7 – EPC Contract, Appendix B – Compensation, Pages 8-9

Reference 1 states: "The scope of work will be reduced by PUC Distribution if required to maintain the project capital cost limit set for the project."

A portion of reference 2, Section 6.1 states that "…As set forth in Section 6.3(c), the parties further acknowledge that the description of the *Balance of Work* set out in Appendix A – SSG Scope of Work is preliminary and does not represent a commitment by *Contractor* to deliver such scope of work to *Owner* for the estimated *Balance of Work Fixed Price*."

(a) If it is necessary to reduce the scope, how will PUC Distribution determine the scope to be reduced (e.g. will it be the scope of VVO, DA, or AMI that will be affected)?
(b) How will the reduction in scope affect the amount of benefit PUC Distribution expects to deliver to customers? How will this affect PUC Distribution's "net zero" bill impact objective?
(c) Will the reduction of scope affect PUC Distribution's eligibility for NRCan funding?

Staff-24
Ref: EB-2020-0249, Application, Page 18

The EPC Contract is structured as a two-step process. Step 1 – Upfront Engineering is the engineering stage with a **fixed price for project costs (emphasis added)**. Step 2 – Balance of Work is the detailed engineering, procurement and construction stage with the project costs having a **fixed price limit (emphasis added)**. The EPC structure includes provision for scope of work adjustments so that the fixed price for Step 1 and Step 2 inclusive will not exceed the maximum fixed price limit set for the EPC Contract.

(a) Please clarify if there is a difference between Step 1 and Step 2 based on the wording emphasized above.
(b) Please clarify whether either or both of Step 1 and Step 2 of the EPC contract pricing are fixed and firm, or whether one or both steps are estimates subject to variation.
(c) Is there a possibility that actual costs will be lower than the fixed costs in either Step 1 or Step 2?

Staff-25
Ref 1: EB-2020-0249, Application, Page 31
Ref 2: EB-2020-0249, Application, Appendix 3-7 – EPC Contract, Appendix B – Compensation, Page 13

On page 31, the application notes that Step 1 of the EPC contract is to develop an engineering package to a level of detail (~30%) that would provide enough information to estimate the price for Step 2.

Similarly, reference 2 discusses the "open to closed book" approach to develop a firm price for the Upfront Engineering and Balance of Work steps.

(a) Given that Step 1 has not yet been completed and is subject to change, how did PUC Distribution determine the cost of $22,658,667 for Step 2?

(b) Given that the scope of the SSG Project has not changed, why does PUC Distribution need Step 1 of the EPC contract to develop 30% engineering when the Leidos Report already completed the 30% engineering?
(c) Given that the design is only at 30%, how reliable is the project cost estimate?

Staff-26
Ref 1: EB-2020-0249, Appendix AA3-7, Appendix A, Page 13
Ref 2: EB-2020-0249, Application, Page 20

Reference 1 describes the scope of the SSG Project and the EPC contract. Regarding "Step 1 Engineering," reference 1 notes that "This will evaluate the performance of 48 distribution feeders, how they could be improved with FDIR, the expected improvements, and estimating VVO savings for each distribution feeder…"

(a) Please explain why it is necessary to reassess the impact of Fault Detection, Isolation and Recovery (FDIR) on PUC Distribution's feeders when this analysis was already done in the 30% as part of the Leidos Report.
(b) Please confirm whether the $2,017,000 in estimated reliability savings as noted in reference 2 is subject to change pending the results of the new analysis.
(c) Similarly, given that the new EPC contract is "estimating VVO savings for each distribution feeder," does that mean the 2.7% projected energy savings is also subject to change?
(d) What are PUC Distribution's plans if the new estimate of VVO savings is lower than 2.7% and it is not possible to achieve "no net bill increase"?

Staff-27
Ref: EB-2020-0249, Appendix AA3-7, Appendix A, Page 14

The reference states that "VVO will require load flow and will optimize the following user-selectable objective functions subject to user-configurable constraints…". The reference then lists the following three items: Loss Minimization, Energy Conservation and Revenue Maximization.

Under Revenue Maximization, the reference notes that:

> Revenue Maximization: This objective maximizes the difference between energy sales (price of energy delivered to customers) and cost (cost of production or purchase). Voltage is raised until increased losses start to outweigh increased sales. Where this point falls depends on the actual mix of load types (constant current, constant impedance and constant power).[12]

[12] EB-2020-0249, Appendix AA3-7, Appendix A, Page 14

(a) Please explain how raising the voltage will increase revenues in the way that is described.
(b) The description appears to be referring to commodity prices, which shouldn't affect the revenues of an electricity distributor. Please explain how this objective benefits PUC Distribution.
(c) Please explain how revenue maximization benefits ratepayers.

Staff-28
Ref: EB-2020-0249, Appendix AA3-7, Appendix A

This interrogatory concerns several items within the SSG Project's scope as presented in Appendix AA3-7, Appendix A:

Scope item VO4 (page 22): This item is to produce a report on the adequacy of existing substation SCADA implementations for the purpose of FDIR and VVO applications. Page 22 notes that the report will recommend corrections with an estimate of **additional integration work, new substation equipment, programming, or other required work** if the existing SCADA system is insufficient.

Scope item VO5 (pages 24-31): This item is to evaluate the software options from Survalent and "confirm whether a **software upgrade from the currently installed version** will be required to support the baseline proposal software or any selected options."

Scope item VO7 (pages 32-33): This item is to produce a report "outlining the cyber security requirements for the SSG Project including any **impacts on project scope schedule, or budget**."

Scope item VO10 (page 39): This item is to outline "recommendations for **an enhanced CSR/customer toolset, including any impacts on project scope, schedule, or budget**."

It appears that each of these items evaluate some aspect of the SSG Project. Based on the results of these items, it appears that changes and additions to the SSG scope may be required. For example, VO4 notes that it will provide an estimate of additional work and equipment if the existing SCADA system is insufficient. OEB staff has added emphasis on potential additions to the project scope.

(a) For each of the items above, how will PUC Distribution accommodate the additions in scope and increased costs? Are these potential additional costs already embedded in the total cost estimate of the SSG Project?

i. Will PUC Distribution accommodate the additional costs by reducing the scope of other items in the SSG Project? If so, does that mean the amount of forecasted benefits will decrease as a result?

(b) How was PUC Distribution able to estimate the cost of the SSG Project at $33,007,038 if it has not finalized the scope of the project?

Staff-29
Ref 1: EB-2020-0249, Appendix AA3-7, Appendix A, Pages 39-40
Ref 2: EB-2020-0249, Appendix AA12-1 – Project Cost Summary

VO11 describes a lab facility for implementing and maintaining the SSG.

(a) Please provide a more detailed description of the function of the lab facility and why it is necessary.

OEB staff notes that no lab facility is listed in the project cost summary in Appendix AA12-1.

(b) Is the cost of a lab facility embedded in the SSG Project cost estimate?

(c) If no to (b), how will PUC Distribution pay for the lab facility?

Staff-30
Ref 1: EB-2020-0249, Appendix AA3-7, Appendix A, Pages 41-43
Ref 2: EB-2020-0249, Appendix AA7, Leidos Preliminary Design, Utility Distribution Microgrid: Distribution Automation

Scope item VF1 is to produce a report that documents the historical feeder reliability indices for feeder and sub-transmission circuits. OEB staff notes that the Leidos Report had already performed a similar analysis, albeit with older data.

Please explain why it is necessary to redo this feeder analysis.

Staff-31
Ref: EB-2020-0249, Appendix AA3-7, Appendix A, Pages 43-54

Scope item VF2 is to develop a conceptual design so that the complete scope is understood. OEB staff notes that this item involves design work to detail the number of equipment required to implement the smart grid.

(a) Please explain why it is necessary to develop a new conceptual design rather than use the design provided in the Leidos Report.

(b) Please explain on what basis PUC Distribution estimated the SSG Project costs if it has not yet completed the conceptual design of the smart grid and does not yet know the exact quantity of equipment required.

Staff-32
Ref 1: EB-2020-0249, Appendix AA3-7, Appendix A, Pages 55-58
Ref 2: EB-2020-0249, Appendix AA13, Project Benefits Estimate Memo

Scope item VF3 is to calculate the future reliability indices, FDIR cost and VVO savings.

(a) If PUC Distribution is reassessing the potential future reliability benefits and VVO savings, does that mean the project benefits estimate provided in Appendix AA13 may not be accurate?

(b) How will PUC Distribution proceed if the results of VF3 show that there are not enough VVO savings to achieve "no net bill increase?"

Staff-33
Ref 1: EB-2020-0249, Appendix AA3-7, Appendix A, Pages 65-66
Ref 2: EB-2020-0249, Appendix AA12-1, Project Cost Summary

Scope item VP1 is to obtain quotes for the equipment and software required for the SSG Project. This includes the Survalent software, cellular equipment, field equipment, IVR software and service hardware.

Please explain how PUC Distribution estimated the unit costs of equipment in Appendix AA12-1 if it has not yet obtained quotes for the equipment.

Staff-34
Ref 1: EB-2020-0249, Application, Page 16, Lines 20-24
Ref 2: EB-2020-0249, Appendix AA12-2 – Project Cost Estimate Memo

In reference 1, PUC Distribution states that it acquired the rights to the studies and preliminary engineering works[13] of Infrastructure Energy (IE) that were previously filed with the OEB. Costs for the preliminary engineering are identified in the Project Cost Estimate at Appendix AA12-2.

Page 6 of reference 2 indicates that the costs to purchase the preliminary engineering work was $1,023,695, and is broken down as follows:

- DA: $595,791
- VVM: $331,203
- AMI: $116,701

(a) Please specify which lines item(s) in Appendix AA12-2 these costs are located in.

[13] Filed as Appendix AA7 in this application

(b) Are these costs referring to the Leidos Engineering LLC and Navigant Consulting Inc. Reports? Are there any other costs incurred by IE included in the $1,023,695?
(c) How were the amounts in the three bullet-points above determined?

Staff-35
Ref: EB-2020-0249, Application, Appendices AA7, AA8, AA9, AA10

PUC Distribution last rebased for 2018 rates. The Leidos preliminary engineering reports and the Navigant reports were completed prior to PUC Distribution's 2018 rebasing application.

Please confirm that PUC Distribution has not to date recovered any costs associated with the reports or other costs in relation to the SSG Project from ratepayers.

Staff-36
Ref: EB-2020-0249, Application, Page 20

PUC Distribution notes that customer net benefits achieved through efficiencies in terms of reduced energy consumption and system losses will off-set the additional revenue requirement requested.

Please confirm that if, for example, the SSG Project does not come "into service" until December 2022, the statement above would only hold true beginning in 2023, and customers would be paying the full additional revenue requirement requested in the interim.

Staff-37
Bill Impacts
Ref: EB-2020-0249, Application, Page 57, Table 14: Total Bill Impacts

The above reference is reproduced below:

Table 14: Total Bill Impacts

			With Consumption Savings		Without Consumption Savings	
Class	Consumption (kWh)	Consumption (kW)	Total Bill Increase/Decrease	Total Bill Impact %	Total Bill Increase/Decrease	Total Bill Impact %
Residential	750	0	-$1.21	-1.05%	$1.16	1.01%
Residential	825	0	-$1.44	-1.17%	$1.16	0.94%
Residential	367	0	$0.00	0.00%	$1.16	1.66%
Residential	2,000	0	-$5.15	-1.97%	$1.16	0.44%
GS<50	2,000	0	-$4.92	-1.68%	$2.56	0.87%
GS<50	272	0	$0.00	0.00%	$1.01	1.83%
GS<50	3,000	0	-$7.76	-1.80%	$3.45	0.80%
GS>50	19,740	55	-$62.85	-1.86%	$25.08	0.74%
GS>50	57,220	145	-$194.19	-2.07%	$56.42	0.60%
GS>50	142,465	452	-$487.42	-2.02%	$163.34	0.68%
GS>50	169,620	468	-$585.22	-2.10%	$168.91	0.61%

(a) Please clarify how the bill impacts are calculated. What are the going-in rates used to determine these impacts?

(b) OEB staff would like to see the potential bill impacts effective May 1, 2022. To do so please use PUC Distribution's proposed rates as per its 2021 IRM application, and calculate the bill impacts by applying a 1.90% proxy as the 2022 IPI adjustment and adding in the proposed ICM rate riders for the SSG Project. Please assume all else equal (for example, no deferral and variance account disposition, no change in RTSR rates etc.). Please provide the calculations in live Excel form.

Staff-38
Ref: EB-2020-0249, Application, Page 20, Table 1: Customer Annual Net Benefit Summary

The SSG Project is anticipated to achieve an annual net benefit to PUC Distribution customers of over $616,897. This amount is made up of the following components:

Table 1: Customer Annual Net Benefit Summary

Cost of Power - updated to current estimate	$ 82,512,685	*App [AA15] -Cost of Power Spreadsheet*
Projected % energy savings with SSG implementation	2.70%	*App [AA14] -Energy Savings Spreadsheet*
Projected customer energy savings through SSG	$ 2,227,842	*App [AA14] -Energy Savings Spreadsheet*
Projected system loss energy savings through SSG	$ 105,111	*App [AA14] -Energy Savings Spreadsheet*
Total purchased power savings	$ 2,332,953	
ICM additional revenue from increased SSG asset base	$ 1,754,862	*ICM Model output*
Benefit of reduced capital expenditures witth SSG	($304,390)	*APP [AA17] CAPEX Deferral Spreadsheet*
Additional O & M expenses due to SSG implementation	$ 296,400	*App [AA13] -Project Benefit Estimate Memo*
Operating efficiency benefits due to SSG implementation	($30,816)	*App [AA13] -Project Benefit Estimate Memo*
	$ 1,716,056	
Annual net benefit to customers	$ 616,897	
Annual projected reliability benefit to customers	$ 2,017,000	*App [AA10] -Navigant Report #3 (NPV $33M)*
Total Annual projected benefit to customers w/reliability	$ 2,633,897	

Please replicate the table above with an additional column to show the estimated number of years PUC Distribution expects its customers would continue to receive the benefit of each line item.

Staff-39
Ref: EB-2020-0249, Application, Pages 20 and 38

Page 20, Table 1 (as in the interrogatory above) provides an estimate of the annual incremental O&M expenses of $296,400 and operating efficiency benefits of ($30,816). On page 38, the application states “Ongoing operation and maintenance costs… are estimated at ~$29,250 per month.”

On an annual basis, $29,250 per month is $351,000. OEB staff is unable to reconcile this amount with the amounts noted on page 20. Please reconcile the difference and provide the estimated incremental OM&A and efficiency benefits of the SSG Project.

Staff-40
Ref: EB-2020-0249, Application Page 21-22 – CAPEX Savings Benefits

PUC Distribution notes that CAPEX savings benefits have been identified in industry smart grid projects through distribution automation initiatives. PUC Distribution has provided an estimate of reduced capital spending in its distribution system of $304,390 annually from the reduction of substations and transformer replacements.

OEB staff is interested in understanding what capital expenditures could be deferred or eliminated across the transmission and generation sectors as a result of the SSG Project. At the generation and transmission levels, has PUC Distribution identified capital savings benefits that will arise as a result of the SSG Project? Please explain.

Staff-41
Ref: EB-2020-0249, Application, Page 38

PUC Distribution predicts that ongoing operation and maintenance costs in terms of operating and maintaining the SSG Project, as well as any impacts on operating and maintaining other utility assets, are estimated at $29,250 per month (range of 2.5-4.5 FTEs).

Please confirm that the amount proposed for recovery in this application does not include any amounts relating to incremental OM&A, and that these costs will form part of PUC Distribution's proposed OM&A costs in its 2023 rebasing application.

Staff-42
Ref: EB-2020-0249, Application, Pages 57-58

PUC Distribution indicated that it will record actual ICM amounts in the generic Account 1508 sub-accounts established for ICMs.

(a) Please explain how PUC Distribution will account for the capital contribution from NRCan, including whether PUC Distribution will need a new sub-account to track the capital contribution.
(b) If so, please provide a draft accounting order.

Staff-43
Bill Impacts and Savings – GS>50kW Customers
Ref 1: EB-2020-0249, Application, Page 57
Ref 2: EB-2020-0249, Application, Appendix AA13 – Project Benefits Estimate Memo, Pages 8-9

Table 14 on page 57 shows PUC Distribution's calculated total bill impacts at various consumption levels with or without "consumption savings."

(a) Please confirm: does "consumption savings" refer to the estimated 2.7% reduction in energy consumption for the implementation of the VVO?

At reference 2, PUC Distribution notes that reduced energy consumption only applies to customers drawing energy from PUC Distribution's 12.5 kV distribution system because the VVO only applies to the 12.5 kV system. PUC Distribution noted seven GS>50 kW

sub-transmission customers that are connected to the 34.5 kV distribution system that would not receive any benefit from the VVO.

(b) Please confirm whether the “consumption savings” noted above apply to the seven customers on the 34.5kV system.
(c) If no to (b), please provide total bill impacts without “consumption savings” for the GS>50kW rate class using an average consumption of the seven customers.

Staff-44
Ref: EB-2020-0249, Application, Page 23

PUC Distribution notes that it will be able to utilize the new advanced distribution management system to operate with increased grid intelligence which will be critical in meeting new demands such as increasing uptake in Distributed Energy Resources (DERs) and electric vehicle requirements (EVs). PUC Distribution also notes that the SSG Project provides a platform for power system operating and control flexibility to support renewable energy and technology integration.

(a) Please provide specific examples of how PUC Distribution anticipates its new system will aid in the meeting of new demands related to renewable energy connections, DERs and EVs.
(b) Does PUC Distribution have a forecast of additional DER connections? If so, what is the forecast for DER connections in the next 2 years, 5 years and 10 years?

Staff-45
Ref 1: EB-2020-0249, Application, Page 27
Ref 2: EB-2018-0249, PUC_ICM_IRR_20190531, Response to VECC-24, Page 176

The evidence states that if the OEB does not approve this ICM, PUC Distribution would not proceed with the SSG Project and any NRCan funding would be forfeited.

In the 2019 ICM application, in response to the interrogatory noted in reference 2, PUC Distribution noted that it had spent $535,118 as of March 31, 2019 on the SSG Project - $199,428 for labour and expenses, and $335,690 for external engineering and legal costs.

(a) Please provide an updated breakdown of the project costs to date.
(b) In the event the OEB does not approve this ICM, how will these costs be recovered?

Staff-46
SSG Project Scope of Work and Specifications
Ref 1: EB-2020-0249, Application, Page 36
Ref 2: EB-2018-0219, Application, Page 25

Ref 3: EB-2020-0249, Application, Appendix AA7, Leidos Engineering LLC. Report, Utility Distribution Microgrid AMI Integration, Page 16
Ref 4: EB-2018-0249, PUC_ICM_IRR_20190531, Response to VECC-25, Page 177
Ref 5:

At reference 1, with respect to Data Analytics and Performance Reporting, the amended application notes that this was included in the original application, however PUC Distribution no longer anticipates this to be part of the contract. PUC Distribution notes that it will develop analytics and reporting over the long run.

The original application noted that SCADA, AMI, CIS, OMS, and GIS data will be loaded into a common platform in order to provide system analytics and key performance indicator reporting.[14]

In response to VECC-25 in the original application, PUC Distribution provided a list of initial planned project performance metrics. OEB staff notes that a portion of these metrics are also replicated in Schedule A of the Updated Statement of Work and Updated NRCan Contribution Agreement and Claim Form (Appendix AA4) under Performance Information in the current version of the Contribution Agreement.

PERFORMANCE INFORMATION:

Key Performance Indicators:	
1. GHG emissions reductions	Reduction in greenhouse gas emissions Reduced energy losses from GHG emitting supply (kWh)

2. Improved asset utilization and increased efficiency	Reduction in peak demand on utility assets
	Reduction in energy losses
	$ savings from deferred system upgrades
	$ energy savings to customers

3. Increased reliability and resiliency	# events Fault Location, Isolation and Restoration responded to # customer calls/complaints avoided due to fewer outages $ revenue loss avoided from outages avoided

It is OEB staff's understanding that PUC Distribution is required to provide the results of the above three performance indicators as part of its Contribution Agreement, and an explanation of the methodology for calculating these indicators.

(a) Please confirm that the above three noted metrics will be reported by PUC Distribution as part of its Contribution Agreement with Canada.
(b) Please regenerate the list of performance metrics provided in response to VECC-25 and add a column indicating which metrics PUC Distribution will maintain and

[14] EB-2018-0219, Application, Page 25

which it will not. For each negative, please explain the decision behind not going forward with tracking that metric.

(c) Please confirm if SCADA, AMI, CIS, OMS, and GIS will be loaded into a common platform in order to provide system analytics and key performance indicator reporting in the current iteration of the SSG Project.

(d) Please explain how the removal of data analytics and performance reporting follows the recommendations noted in the Leidos Report, specifically, that for a Utility Distribution Microgrid (UDM) to be successful, clear internal metrics and reports will be required that track performance of the UDM, identify operational issues or inefficiencies and provide supporting detail for design, build and operational stages.

(e) How does PUC Distribution intend to track the success of the SSG Project in the short-term?

Staff-47
Ref 1: EB-2020-0249, Application, Pages 34-37
Ref 2: EB-2014-0219, Report of the Board: New Policy Options for the Funding of Capital Investments: The Advanced Capital Module, September 18, 2014
Ref 3: EB-2020-0249, Application, Page 46

At the pages notes above, in relation to the "Need" criteria for an ICM, PUC Distribution provides a discussion relating to the expectations of customers for cost control, improved reliability and communication and with their utility. PUC Distribution also discusses the increasing importance of the connections of DERs and how PUC Distribution believes the SSG Project will contribute to the four main performance outcomes of the OEB's Scorecard.

Further, PUC Distribution notes that increasing development of distribution connected DER and EVs is expected to continue, and that these factors create requirements for better operational system monitoring, control and access to data. PUC Distribution notes that the SSG Project provides the tools and data to meet these challenges.

OEB staff notes that while the above may be potential outcomes of the SSG Project, the specific driver is unclear.

(a) Please specify what the specific driver(s) is in relation to the "Need" criteria as defined in reference 2.

(b) Did PUC Distribution investigate other technological and smart grid solutions to meet the challenges of DERs and EVs, other than what is proposed in this application? If so, what other solutions were investigated? Why did PUC Distribution select the VVO, DA and AMI Integration as the necessary components of the SSG Project as proposed in this application?

Staff-48
Ref 1: EB-2020-0249, Application, Pages 46-49
Ref 2: EB-2020-0249, Application, Page 24

Please reconcile the “Need” discussion at reference 1 to the statement in reference 2 which states “In the event that the OEB does not approve this ICM, PUC Distribution would not proceed with the SSG Project and any NRCan funding would be forfeited.”

Staff-49
Ref 1: EB-2020-0249, Application, Pages 43-44
Ref 2: Chapter 3 Filing Requirements, May 12, 2020, Page 28

PUC Distribution has calculated the rate riders to recover the ICM amount as follows:

- The residential class rate rider is a fixed charge as per OEB policy
- The remainder of the classes are a combination of a fixed and variable charges

Reference 2 directs distributors to provide rationale for its proposed rider design.

Please provide a discussion on the rationale for the choice of the combination of fixed and variable riders, should the OEB approve the SSG Project.

Staff-50
Ref: EB-2020-0249, Application, Page 50

PUC Distribution notes that it considered three options for the SSG project: A) pursue the project and complete it within two years; B) develop the project over ten or more years; C) not proceed with the project. The application notes that option B would develop the project “…over ten years in order to spread out the costs of the SSG Project on PUC Distribution’s ratepayers.” OEB staff notes that a capital expenditure cannot be added to rate base until the asset is ready to be used.

(a) It appears to OEB staff that deploying the SSG Project over ten years would simply delay the recovery of the costs from ratepayers for ten years until the smart grid is fully functional. Please explain how developing the project over ten years would spread out the costs for PUC Distribution’s customers.
(b) Does option B imply that the SSG Project can be parceled into smaller projects and that it is possible for PUC Distribution to incrementally introduce smart grid technology to its service territory?

Staff-51
Ref: EB-2020-0249, Application, Page 56

The reference notes that, if approximately a 50% reduction was made to the scope of DA coverage, it would reduce project costs by approximately $3-4 million and add $150,000 to $200,000 to the net benefit summary.

Please clarify, where the application says $150k-200k to be added to the net benefit summary, is this saying that the net benefit should be reduced by $150k-200k because of the reduction in DA scope? Or is this saying that, on a net basis, reducing the scope of DA would increase the amount of net benefits that could be realized?

Staff-52
Ref: Appendix AA10, Page 12

In the reference, Navigant describes the cost saving benefit of VVM as reducing energy consumption by reducing the voltage delivered to customers from the VVM system.

Electricity customers don't all receive the same voltage – the household voltage received from the distribution system can range from 110V-125V as dictated by CSA guidelines. Unless there are voltage regulators, it is typically the customers located at the end of a feeder that receive the lowest voltage. Therefore, it is OEB staff's understanding that not all customers will receive the estimated 2.7% reduction in energy consumption. Some customers may experience a higher reduction, while other customers (e.g. those at the end of a feeder already receiving electricity around the lower limit of 110V) may experience less. Please confirm if OEB staff's understanding is correct.

Staff-53
Ref 1: EB-2020-0249, Appendix AA12-1 – Project Cost Summary
Ref 2: EB-2020-0249, Appendix AA12-2 – Project Cost Estimate Memo
Ref 3: EB-2020-0249, Live Excel Model for SSG Revised Scope and Project Summary, PUC_App_AA12-3_SSG Revised Scope_Proj_Estimate Sum_20201029

OEB staff notes that in reference 1, there is a unit quantity of "1" for the "Add'l Scope & Contingency" line item under the AMI Integration breakdown, with a total associated unit cost of $185,277. However, this item is not in the "Total" column.

OEB staff notes that the $185,277 quantum is not noted in references 2 or 3.

Please reconcile.

Staff-54
Ref: EB-2020-0249, Appendix AA13 – Project Benefits Estimate Memo, Page 1

In the reference, PUC Distributions lists $2,017,000 in annual projected reliability benefit to customers. OEB staff is unable to find the calculations for the $2,017,000 in the reference listed (Appendix A10 – Navigant Report #3). Please provide the calculations for the $2,017,000 amount or a reference to the calculations.

Staff-55
Ref: EB-2020-0249, Appendix AA12-2 – Project Cost Estimate Memo, Page 5

Table 4 at the above noted reference provides a list of the items that make up PUC Distribution's engineering scope for the SSG Project. The items in the list are:

- Engineering & Technical Oversights & Approvals
- Regulatory material & equipment approval
- Perform design reviews for EPC Gates
- Regulatory Construction Verification Program
- Asset and GIS records management
- Perf management system oversight/installation

(a) Please describe each item and the work involved.
(b) Please provide an estimate of costs for each item and explain how PUC Distribution estimated the costs.

Staff-56
Ref 1: EB-2020-0249, Appendix AA11 – 2016 Projection for Distribution Capital [JTC 1.13]
Ref 2: EB-2020-0249, Appendix AA5, JTC1.1 – Technical Conference Undertakings from EB-2018-0219

In reference 1, PUC Distribution provided two spreadsheets, one "without UDM" and one "with UDM." OEB staff notes that the scenario "with UDM" shifts most capital expenditures to the 2017-2021 period.

(a) Please confirm that PUC Distribution is proposing to follow the capital expenditures shown in the "with UDM" spreadsheet.
(b) How many of these projects have been completed? For the projects that are yet to be completed, when does PUC Distribution plan to complete these projects?
(c) Are these projects funded through PUC Distribution's base rates?

In the Excel spreadsheet provided as part of JTC1.1, PUC Distribution calculates an annual saving of $304,390 in avoided capital expenditures. The assumptions listed in

the model include: 1) reduction of distribution substation network from 18 to 16; 2) reduction of individual transformer replacement across network by 5; 3) avoided substation rebuilds in years 2025 and 2030.

(d) Given that the SSG Project is expected to help defer distribution station capital expenditures, please reconcile this with Appendix AA11, which suggests that distribution station spending should be accelerated. In particular, do the reductions listed in JTC1.1 include any of the distribution stations listed in Appendix AA11?

Staff-57
Ref 1: EB-2020-0249, Application, Appendix 3-7 – EPC Contract, Page 8
Ref 2: EB-2020-0249, Application, Appendix 3-7 – EPC Contract, Page 12

Subsection (kkk) defines the *Scheduled Completion Date for Upfront Engineering* as "the date on which the *Upfront Engineering Services* are scheduled to be completed, which is the date that falls nine (9) months after the issuance of the *Notice to Proceed with Upfront Engineering*."

Subsection (lll) defines the *Scheduled Final Completion Date* as "the date on which the *Work* is scheduled to achieve *Final Completion*, which will be set out in the *Notice to Proceed with Balance of Work.*"

At reference 2, Article 12.5 states that:

> It shall be a condition precedent of the issuance of the *Notice to Proceed with Upfront Engineering* that the *Owner's* ICM (Incremental Capital Module) application has concluded successfully in respect of rates and revenue recovery, as determined by the *Owner* in its sole discretion. The *Owner* will attest to the satisfaction of this condition precedent in the *Notice to Proceed with Upfront Engineering*, and the *Contract* may rely on such attestation without further inquiry.[15]

Interrogatory responses for this application are due mid-January. Subsequent case steps will follow as determined appropriate by the OEB. If for example, PUC Distribution receives OEB-approval in the Spring of 2021, OEB staff estimates that the *Upfront Engineering Services* would not be complete until late 2021, or early 2022.

(a) How long does PUC Distribution anticipate that Step 2 would take?
(b) What confidence can PUC Distribution provide the OEB that an in-service date in 2022 is reasonable?

[15] EB-2020-0249, Application, Appendix 3-7 – EPC Contract, Page 12

(c) Please explain how PUC Distribution will address any delays in the project milestones.

Staff-58
Ref: EB-2020-0249, Application, Appendix 3-7 – EPC Contract, Page 7

The following definitions are found on page 7 of the EPC Contract:

> (xx) *Owner's Requirements* means the description of the scope, standards, design criteria, *Performance Requirements, Milestones* and the programme of work set out in Appendix A – SSG Scope of Work to be further developed by the *Parties* during the course of the *Upfront Engineering Services*, as amended by any Changes;
>
> (bbb) *Performance Requirements* mean the performance requirements set out in the *Owner's Requirements*;

(a) As part of the EPC Contract, is there currently or will there be a minimum percentage of energy savings that must be achieved upon completion of the project?
(b) If not, what level of comfort can PUC Distribution provide the OEB that the SSG Project will provide customers the level of benefits noted in the current application or a level commensurate with the proposed costs?

Staff-59
Ref: EB-2020-0249, Application, Appendix 3-7 – EPC Contract, Page 19

Article 12.4 of the above noted reference states:

> The *Contractor* shall be entitled to receive a *Change Order* for a change in the *Contract Time*, including the *Scheduled Final Completion Date*, and an adjustment to the *Upfront Engineering Fixed Price* if the *Notice to Proceed with Upfront Engineering* is issued later than December 31, 2020. The Upfront Engineering Fixed Price will be adjusted by multiplying it by the Consumer Price Index, as published by Statistics Canada in Table: 18-10-0004-01 ("CPI Index"), for the month in which the Notice to Proceed with Upfront Engineering is issued and dividing it by the CPI Index for November 2020.

Please confirm the updated Step 1 project costs (currently $5,086,378) given that a *Notice to Proceed with Upfront Engineering* is subject to OEB approval of the SSG Project, and will not be issued, if applicable, prior to December 21, 2020.