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December 18, 2020

VIA E-MAIL

Ms. Christine Long
Registrar and Board Secretary
Ontario Energy Board
2300 Yonge Street, 27th floor
P.O. Box 2319
Toronto, ON M4P 1E4

Dear Ms. Long:

**Re: EB-2020-0249 – PUC Distribution Inc. ICM Application
Vulnerable Energy Consumers Coalition (VECC) Final Submissions**

Please find enclosed the interrogatories of VECC in the above-noted proceeding. We have also directed a copy of the same to the Applicant.

Yours truly,

(Original Signed By)

John Lawford
Counsel for VECC

Copy to: Pina Pacione, PUC Distribution Inc.

EB-2020-0249

EB-2018-0219

PUC Distribution Inc. ICM Application

**Application for electricity distribution rates and other charges
effective May 1, 2022**

**VECC Interrogatories
December 18, 2020**

VECC-1

Ref: ICM Application P6

The Sault Smart Grid (SSG) project was being developed using a P3 project finance structure using a special purpose vehicle known as Sault Smart Grid Inc. ("SSG Inc."). The SSG project was initially going to be funded through the North American Grid Modernization Fund, which is currently managed by Stonepeak Infrastructure Partners and Infrastructure Energy LLC ("IE"). The SSG Project funds were to flow through SSG Inc.

Please summarize the roles of SSG Inc., North American Grid Modernization Fund, Stonepeak Infrastructure Partners and IE in the amended SSG project.

VECC-2

Ref: ICM Application P8

PUC indicates the scope of the SSG project remains the same.

- a) Is the volume of work the same? Please discuss.
- b) Is the coverage of PUC's Distribution System the same? Please discuss.

VECC-3

Ref: ICM Application P9

PUC indicates proposals were received in response to the RFP in late 2019.

- a) How many proponents were invited to respond to the RFP?
- b) How many proponents responded?
- c) What were the qualification scores for each proponent?

VECC-4

Ref: ICM Application P12

PUC indicates in the first quarter of 2014, the City of Sault Ste. Marie City Council passed a resolution supporting the concept of developing a smart grid in PUC's Distribution Service Areas.

- a) Please provide all correspondence to Sault Saint Marie City Council regarding the amended SSG project.
- b) Please provide a copy of any City Council resolutions related to the amended SSG project.

VECC-5

References:

Appendix AA7 Leidos Preliminary Design

Appendix AA8 Navigant Report #1 – Review of Business Case for Smart Grid Project for PUC Distribution

Appendix AA9 Navigant Report #2 – Review of Project Costs for Smart Grid Project

Appendix AA10 Navigant Report #3 – Community Microgrid Business Case Review Report

Appendix AA11 2016 Projection for Distribution Capital [JTC 1.13]

For each of the above Appendices, please summarize the key findings in each report that further impacted the design and net benefits of the amended SSG project.

VECC-6

Ref: ICM Application P13

PUC indicates that following the Navigant Reviews, PUC concluded it needed to de-scope the smart grid project to lower costs. Accordingly, PUC set out to modify the project scope, for instance, by eliminating station upgrades and to seek funding through various grants.

Please discuss if this de-scoping of the smart grid project is consistent with the amended SSG project.

VECC-7

Ref: ICM Application P16

The application states "Various EPC contractors were invited by PUC Distribution to submit proposals for the SSG Project's EPC services. Amongst the invitees was the project development partner, IE (also known as Energizing, LLC), that was involved in the Original Application. However, IE did not submit any proposal to PUC Distribution Inc."

Please explain why IE did not submit a proposal.

VECC-8

Ref: ICM Application P16

PUC indicates the costs for IE's preliminary engineering are identified in the Project Cost Estimate Memo at Appendix AA12-2.

- a) Please confirm IE's preliminary engineering costs.
- b) Please provide a breakdown of costs to date by year for the SSG project.

VECC-9

Ref: ICM Application P20 Table 1

PUC indicates the Projected % of Energy Savings with SSG Implementation is 2.70%. At Appendix AA14, PUC shows the derivation of this percentage as a CVR factor of 0.9 multiplied by Voltage Savings of 3 volts.

Please confirm the origin of the CVR factor of 0.9 and the Voltage Savings of 3 volts.

VECC-10

Ref: ICM Application P20 Table 1

Please provide the Benefit to Cost ratio for the amended SSG project from a billing perspective.

VECC-11

Ref: ICM Application P20 Table 1

The Customer Annual Net Benefit Summary includes a "Benefit of reduced capital expenditures with SSG in the amount of \$304,390 with details at Appendix AA17 CAPEX Deferral Spreadsheet.

VECC was unable to locate Appendix AA17 Capital Deferral Spreadsheet. Please provide a hard copy and excel version of Appendix AA17.

VECC-12

Ref: ICM Application P22 Table 2

Please provide the residential consumption (kWh) that corresponds to a positive total bill impact (%).

VECC-13

Ref: ICM Application P22 Table 2

- a) Please provide Table 2 based on Distribution bill impacts.

VECC-14

Ref: ICM Application P24

Please provide the forecast ROE for 2020, 2021 and 2022.

VECC-15

Ref: ICM Application P38

PUC indicates preliminary forecasts for operation management of the smart grid forecasts are include din the range of 2.5 to 4.5 FTS. The project net benefit analysis used a 3 FTE forecast.

Please provide the impact on the project net benefit analysis if a 4.5 FTE forecast is used.

VECC-16

Ref: ICM Application P49

PUC has three options regarding its pursuit of the SSG project:

- Option “A” is for PUC Distribution to pursue and develop the SSG Project over two (2) years following OEB approval, as contemplated in this ICM.
 - Option “B” is for PUC Distribution to pursue and develop the SSG Project over ten (10) or more years in order to spread out the costs of the SSG Project on PUC Distribution’s ratepayers.
 - Option “C” is to not pursue or develop the SSG Project at all.
- a) Did PUC carry out any customer engagement on the amended SSG project regarding customers’ preferences between the three options? If yes, please provide the results. If not, why not.
- b) Did PUC advise City Council of the amended SSG project and the options? If yes, please provide all correspondence and any resolutions. If not, why not.

VECC-17

Ref: ICM Application P54

PUC states “After internal discussion the decision to not overly rely on non-bill savings such as reliability improvements but focus on the customers’ main perspective “the bottom line on their bill”, a strong theme from customer engagement was reaffirmed and the “no net bill increase” became the primary metric for success using energy savings criteria for customers directly plus system losses savings. Please summarize PUC’s position with respect to achieving reliability improvements as an indicator of success for the project.

VECC-18

Ref: ICM Application P55

The evidence states “The scope of the Distribution Automation (DA) in the SSG Project has been recognized by PUC Distribution as the area of project implementation that would be prioritized and reduced if needed to ensure an overall “no net bill increase” project benefit target so it has been considered in this context.”

Please discuss and quantify the impact on reliability benefits if the scope of the DA work component was reduced by 50%.

VECC-19

Ref: Appendix AA7 Leidos Preliminary Design

Please discuss the involvement and role of Leidos Engineering LLC in the amended SSG Project.

VECC-20

Ref: Appendix AA8 Navigant Report #1 – Review of Business Case for Smart Grid Project for PUC Distribution P1

The UDM's overall system design, architecture and system components are comparable with DA and VVM systems that Navigant has reviewed or analyzed throughout the U.S. and Canada. The proposed solution for PUC however is a very comprehensive solution. Relative to PUC's service territory the proposed feeder coverage for DA and VVM, 84% and 68%; higher than many other systems Navigant has encountered.

- a) Please provide the current coverage of DA and VVM in PUC's service territory.
- b) Please provide the proposed feeder coverage for DA and VVM in the amended SSG project.
- c) How has PUC evaluated and verified that the amended SSG project proposal represents the optimal economic level of VVM and DA?

VECC-21

Please explain how PUC and its customers are protected from significant cos overage, scheduling issues, delays and lower than expected benefits for some segments of the system.

VECC-22

Please provide PUC's proposed performance standard metrics for the project.

VECC-23

Please provide all correspondence to PUC's Board of Directors regarding the amended SSG project.

VECC-24

Ref 1: Appendix AA5 - Appendix 4 JTC1_18 Copy of PUC SSM UDM Business Case Analysis_FINAL 20160504

At reference#1, Navigant indicates it reviewed the following documents during the business case review.

1. Leidos BCA model
2. Reliability Statistics - METSCO
3. Distribution Load Forecast – METSCO
4. Ontario Energy Board Guidelines for Distribution System Planning
5. Infrastructure Ontario – Alternative Financing and Procurement
6. Infrastructure Ontario – Assessing Value for Money
7. ECo – UDM Project Bill Impact and CAPEX Offset Analysis
8. ECo – Cost Allocation & Evaluating Value of Risk-Transfer for UDM Project
9. Illume Advising - Customer Outreach Plan
10. ECo – PUC Board Brief
11. ECo – UDM Project Financial Analysis
12. Leidos – Technical Substantiation and Design Documents
13. Overview of Regulatory Framework and Rate-making process
14. Review of Project Costs for Smart Grid Project for PUC Distribution
15. UDM Project Review (Review of Leidos Technical Design documents)
16. Term sheet for the Provision of UDM Technology and Services to PUC Distribution Inc.
17. PUC Asset Management Plan via METSCO Energy Solutions
18. Parker Venture Management Inc. – Smart Energy Strategy

Ref 2: Appendix AA8 Navigant Report #1 – Review of Business Case for Smart Grid Project for PUC Distribution P41

At reference #2, Navigant states “To assess the business case for the project, we have used information provided by Leidos and ECo to identify the costs and savings for the project, reviewed the reasonableness of those estimates based on other SG experience and identified potential areas of risk or uncertainty.

Please provide the following documents from the above list that Navigant reviewed during the business case review:

2. Reliability Statistics - METSCO
7. ECo – UDM Project Bill Impact and CAPEX Offset Analysis
9. Illume Advising - Customer Outreach Plan
15. UDM Project Review (Review of Leidos Technical Design documents)

VECC-25

Ref #1: AA5

At the Technical Conference, VECC requested undertakings JTC2.16, JTC2.17, JTC2.18 for PUC to provide copies of the following reports from the list of documents in VECC- that are not on the record.

8. ECo – Cost Allocation & Evaluating Value of Risk-Transfer for UDM Project below
10. ECo – PUC Board Brief
11. ECo – UDM Project Financial Analysis

In each undertaking response PUC states “Not applicable. PUC Distribution is no longer using P3 type project structure for the SSG Project and therefore the undertaking is now irrelevant to its ICM Application.”

Ref 2: Appendix AA8 Navigant Report #1 – Review of Business Case for Smart Grid Project for PUC Distribution P41

At reference #2, Navigant states “To assess the business case for the project, we have used information provided by Leidos and ECo to identify the costs and savings for the project, reviewed the reasonableness of those estimates based on other SG experience and identified potential areas of risk or uncertainty.

Please provide the requested reports above provided by Eco that Navigant used to assess the business case for the project.

VECC-26

Ref: Appendix AA3-5 Project Schedule

- a) Please provide the date of the Project Schedule.
- b) Please provide and explain any task variances to date.

VECC-27

Ref: Appendix AA12-1

Please provide the date of the Project Cost Estimate.

VECC-28

Ref: Appendix AA12-3

- a) Please explain how the contingency of \$462,846 related to VVM was derived.
- b) Please explain how the contingency of \$844,036 related to DA was derived.
- c) Please explain why there is no allocation of contingency for AMI Integration.

VECC-29

Ref: EB-2018-0219 ICM Application P33 Table 8

Please update Table 8.

VECC-30

Ref: EB-2018-0219 CCC-16 Updated 20190619

a) Please update Appendix 2-AA and from PUC's Distribution's 2018 COS Application to include 2018 and 2019 actuals.

b) Please provide Appendix 2-AA for the years 2020 to 2023.

VECC-31

Ref: EB-2018-0219 VECC-1

a) Please update the Table in part (a) to include data for the years 2019 and 2020.

b) Please update the Table in part (b) to include data for the years 2019 and 2020.

c) Please provide PUC's SAIDI and SAIFI results for the years 2009 to 2020.

d) Please provide PUC's SAIDI and SAIFI results for the years 2009 to 2020, excluding Major Event Days and Loss of Supply.

VECC-32

Ref: EB-2018-0219 VECC-1

In the response to part (c), PUC indicates the annual reduced interruption frequency and duration projections (refer to Appendix 7 page 11) resulting from the SSG Project are:

- SAIFI reduced by 37%
- SAIDI reduced by 46%
- CAIDI reduced by 16%

a) Please explain how the above annual reliability projections are utilized in the reliability savings calculation.

b) Please provide the corresponding reductions in SAIFI and SAIDI resulting from the above reliability reduction projections.

VECC-33

Ref: EB-2018-0219 VECC-15

Please update the response to part (a) resulting from implementation of the amended SSG Project in 2021 and 2022.

VECC-34

Ref: EB-2018-0219 VECC-23

Please update the response to VECC-23.

VECC-35

Ref: EB-2018-0219 VECC-30

The response to VECC-30 indicates PUC proposed a conservative 25% valuation of calculated reliability benefits in benefit estimates.

Please confirm PUC used the same proposed conservative 25% valuation of calculated reliability benefits in benefit estimates for the amended SSG project.