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March 22, 2021 **VIA E-MAIL**

Christine E. Long
Board Secretary and Registrar (registrar@oeb.ca)
Ontario Energy Board
Toronto, ON

Dear Ms. Long:

Re: EB-2020-0290 – Ontario Power Generation 2022-2026 Payments
Interrogatories of the Vulnerable Energy Consumers Coalition (VECC)

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

Yours truly,

Mark C Garner

Digitally signed by Mark C Garner
Date: 2021.03.22 18:26:24 -04'00'

Mark Garner
Consultants for VECC/PIAC

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REQUESTOR NAME	**VECC**
TO:	**EB-2020-0290 – Ontario Power Generation (OPG)**
DATE:	**March 22, 2021**
CASE NO:	**EB-2020-0290**
APPLICATION NAME	**2022-2026 Payments**

EXHIBIT A

A1-VECC-1
Reference: Exhibit A2-01-01

a) Please file the Prescribed Facilities of Ontario Power Generation Inc. Financial Statements for December 31, 2020. If these are not available please explain when they are expected to be completed.

A1-VECC-2
Reference: Exhibit A2-02-01_Attachment 1, page 38

a) Are any of OPG's regulated assets subject to federal or provincial carbon-related regulations? If yes please describe the materiality of any potential financial impact on these assets.

A1-VECC-3
Reference: Exhibit A2-02-01_Attachment 3, page 2
"*OPG selects a number of complex or high value projects to undergo a comprehensive PIR* [post implementation review] *within each business planning period*."

a) Please provide a list of the projects which underwent a PIR within the last busines period.
b) Please provide the PIRs.

EXHIBIT B

B1-VECC-4
Reference: Exhibit B1, Tab 1, Schedule 1, Table 2 Prescribed Facility Rate Base - Nuclear ($M)

a) Please revise Table 2 to show the variance from nuclear rate base forecast in in EB-2016-0152 as compared to actuals for the 2017 through 2021 period.

b) In the revised table please add rows showing the rate base adjustments made for: (1) the lower depreciation expense due to the extension of the accounting EOL dates for the Pickering station;(2) the timing difference in the return to service of unit 2 in 2020.

B1-VECC-5

Reference: Exhibit B1-01-01, Chart 2 & Chart 3, pages 7-8

Summary of Year End Inventory – 2016 to 2026

Line No.	Types	Units	2016 Actual	2017 Actual	2018 Actual	2019 Actual	2020 Budget	2021 Budget	2022 Plan	2023 Plan	2024 Plan	2025 Plan	2026 Plan
			(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)
1	Uranium Concentrate	K$	53,548	53,038	46,528	35,894	40,600	54,885	44,626	35,278	38,688	41,685	34,253
2		MgU	312	324	326	305	380	483	379	288	288	288	225
3		$/KgU	171.48	163.78	142.87	117.78	106.72	113.71	117.71	122.30	134.12	144.51	152.23
4	Uranium Dioxide[1]	K$	13,312	11,457	11,098	13,165	7,005	7,634	13,172	13,307	7,684	7,312	7,052
5		MgU	74	63	65	86	50	51	86	85	45	40	37
6		$/KgU	180.39	182.94	170.02	153.62	141.03	148.32	153.41	157.25	172.49	184.67	192.25
7	Finished Bundles	K$	204,783	195,879	190,136	142,321	131,789	128,388	157,648	144,589	129,035	136,480	119,150
8		MgU	767	738	740	568	566	556	665	595	508	505	426
9		$/KgU	267.0	265.6	257.0	250.7	232.7	230.8	237.8	242.8	253.8	270.3	279.6
10	Fuel Oil	M$	4.2	4.9	4.8	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5
11	**Total**	**M$**	**275.9**	**265.3**	**252.6**	**196.9**	**184.9**	**196.4**	**220.9**	**198.7**	**180.9**	**191.0**	**165.9**

Targeted Inventory Gross Growth Rates

	2022	2023	2024	2025	2026
PNGS	(5.21)%	(10.33)%	(17.35)%	(32.79)%	(44.11)%
DNGS	4.27%	3.17%	1.99%	0.00%	1.52%
All Facilities	**(0.24)%**	**(2.83)%**	**(5.86)%**	**(11.69)%**	**(10.94)%**

a) Please explain how the fuel inventory forecast is impacted by the scheduled shut down of the Pickering facilities by the end of 2025. Specifically, identify the annual reductions related to that site (from the 2019 bases case) over the rate period.

b) What is the estimated value of inventory materials and supplies related to the Pickering Operations that are expected to be written off in 2025 when the site shuts down power production?

B1-VECC-6
Reference: Exhibit B1-1-2, page 4

"*Navigant determined it was appropriate to include interest on long-term debt in the cash working capital calculation as it represents a cash expense for the business and has been included as an expense lead in all previous cash working capital studies conducted by Navigant*."

a) Was interest on long-term debt included in the previous lead-lag studies performed for OPG?
b) Has Navigant included long-term debt interest in any of the lead-lag studies it has undertaken for Ontario distributors?
c) What is the financial impact of excluding/including interest on long-term debt?

Exhibit C

C1-VECC-7
Reference: Exhibit C1-1-1, Attachment 1 Concentric Report

Please provide the evidentiary basis for the following statements:

a) "*As the OEB has traditionally accounted for differences in risk through the deemed equity ratio for each regulated utility under its jurisdiction, rather than the authorized return on equity*" (page 1)
b) "*On the equity side, and notwithstanding the low government bond yields discussed below, sustained volatility in publicly traded equity markets in both Canada and the U.S. has made investors more risk-adverse and safety conscious*.." (page 6) . Specifically, please define "*safety conscious*" in terms of measurable and observable market activity.

C1-VECC-8
Reference: Exhibit C1-1-1, Attachment 1 Concentric Report

a) What empirical evidence do the authors rely upon to support the theory that shedding older Pickering assets and relying on refurbished Darlington Assets creates a perception of increased risk by market participants?
b) Is it Concentrics's view that companies that restructure to eliminate older less productive assets while investing in refurbishing newer ones are viewed by investors as becoming riskier? If so please provide examples of this phenomena.

C1-VECC-9
Reference: Exhibit C1-1-1, Attachment 1 Concentric Report, page 58

a) Other than the antidotal event provided at page 58, what empirical evidence do the authors have that climate change is: (1) leading to a warming trend in Lake Ontario; (2) that if so this trend will lead to more algae blooms; and (3) that an increase in algae blooms in Ontario increases the risk of shutdown of OPG's nuclear fleet?
b) Given the extraordinary safety engineering of a nuclear plant please explain why it is not more likely that climate change will reduce nuclear production risk vis-à-vis investments in carbon based or other energy type production?
c) Assuming climate change is leading to increased demand/desirability of non-carbon-based energy why is it not likely that government climate change will lead to <u>less</u> risk for owners of nuclear energy production.
d) What empirical evidence is Concentric relying on to support the notion climate change leads to a comparative risk increase to OPG's nuclear fleet assets?

C1-VECC-10
Reference: Exhibit C1-1-1, Attachment 1 Concentric Report

"*Concentric believes OPG's financial risk will increase in the period from 2022 to 2026, as illustrated by the pressure on, and potential decline below current credit rating thresholds of, key credit metrics in the earlier years of the period. The credit metrics will be impacted by rate smoothing outcomes in the upcoming rate application*."

a) Is it Concentrics's view that implementation of OPG's proposed rate smoothing plan will lead to change in credit ratings for the utility?
b) Is it Concentrics's view that implementation of OPG's proposed rate smoothing plan increases the financial or business risk of OPG? If so please provide the quantity of that change in risk and how that is calculated.

C1-VECC-11
Reference: Exhibit C1-1-1, Attachment 1 Concentric Report, page 44-

a) Concentric presents the hypothesis that legislative protections such as O. Reg 53/05 do not provide risk reduction vis-à-vis comparisons to U.S. regulatory jurisdictions. The antidotal example given is with respect to the overturning of the *Base Load Review Act* in South Carolina. What legal analysis did Concentric carry out on that case to compare it to Canadian and Ontario laws and precedents? Please provide that analysis.

C1-VECC-12
Reference: Exhibit C1-1-1, Attachment 1 Concentric Report, page 62- / Appendix A

"….*OPG's stand-alone credit profile under both the S&P and Moody's frameworks suggests that its stand-alone business and financial risks are higher in comparison to peers*…"

a) Please clarify if the S&P and Moody reports referred to are those filed by the Applicant at A2-03-01? If not, please provide the reports the authors are relying on.

C1-VECC-13
Reference: Exhibit C1-1-1, Attachment 1 Concentric Report, page 62- /

A2-03-01 Attachment 10, S&P Global Ratings July 30, 2019:
"*The negative outlook reflects the potential for limited cushion in OPG's credit metrics and weak financial measures as a result of recent acquisitions. Furthermore, the negative outlook also reflects the potential for additional acquisitions during our outlook period that could further stress credit metrics and the execution and integration risks associated with the transaction. During our two-year outlook period, we expect FFO to debt of about 13% from 2019-2020*."

A2-03-01 Attachment 3, DBRS April 16, 2019:
"*OPG additionally acquired Eagle Creek in November 2018 for USD 298 million. DBRS views the business risk profile of Eagle Creek to be weaker than OPG as it is not regulated and not all of its facilities operate under long-term contracts, resulting in higher volume and price risk.* "

a) OPG has embarked on a strategy of acquiring (or increasing its share in) a significant number of merchant generation assets including Eagle Creek, Cube Hydro. As shown in the above excerpts some market analyst believes these acquisitions could impact OPG's risk profile. How has the impact of OPG new strategy been factored into Concentrics's analysis and projection of OPG's regulated assets risk profile? Specifically, what adjustments have the author's made to account for credit reports which consider the Company as a whole?

C1-VECC-14
Reference: Exhibit C1-1-1, Attachment 1 Concentric Report, page 63-64

"*Our analysis of comparable regulated utilities with significant regulated generation assets indicates that OPG's current deemed equity thickness is low relative to comparable companies, despite OPG falling towards the upper end of the spectrum of risk profiles established by the proxy companies. Taken together, the analyses support an equity ratio of no less than 50% for OPG*."

a) Figures 14 and 15 which the above reference refer to show numbers ranging between 45.7% to 55.9%. Given that range how to the author's then conclude an equity ratio of "*no less than 50%*." Is warranted?

C1-VECC-15
Reference: Exhibit C1-1-1, Attachment 1 Concentric Report, page 67

a) Please provide the proportion of total OPG electricity revenue generated by only regulated assets in each of 2017 through 2020?
b) What is the forecast proportion of total revenues that will be generated from regulated assets in each of the years 2021 through 2026?

C1-VECC-16
Reference: Exhibit C1-1-1, Attachment 1 Concentric Report, Figure 16, page 70

a) How many companies own or operate nuclear generation in North America and are not included in the list at Figure 16?

C1-VECC-17
Reference: Exhibit C1-1-1, Attachment 1 Concentric Report, page 79

a) Please provide the Georgia PSC Order Docket 42516 (footnote 130).

C1-VECC-18
Reference: Exhibit C1-1-1, Attachment 1 Concentric Report

a) Did the authors analyze bond yield spreads in their comparative analysis of other utilities? If so please provide that analysis.

EXHIBIT D

D2-VECC-19
Reference: Exhibit D2-01-02, Table 4a

a) Please update Table 4a to show the 2020 actuals.
b) What is the current forecast total variance of Nuclear Operations Capital from OEB approved for the period 2017 to 2021?

D2-VECC-20
Reference: Exhibit D3-01-02, Table 5a

a) Please update Table 5a to show 2020 actuals.
b) What is the current forecast total variance from OEB approved for support services for the years 2017 – 2021?

Exhibit E

E2-VECC-21
Reference: Exhibit E2-01-01, page 12

Chart 4 Darlington
Forced Loss Rate

	2014	2015	2016	2017	2018	2019	Avg.
FLR-Actual (%)	1.5	4.9	2.3	1.7	1.1	4.8	2.7
FLR-Forecast (%)[1]	1.3	1.0	1.0	1.0	1.0	1.0	1.1

[1] **EB-2016-0152, Ex. E2-1-2, Table 1**

a) Over the 2014 to 2019 period the Darlington Forced Loss Rate (FLR) was significantly below the EB-2016-0152 average. What was the consequence on executive compensation for failing to meet FLR targets? Please describe any other compensation impacts that were a result of failing to meet set targets.

E2-VECC-22
Reference: Exhibit E2-01-02

a) OPG systemically under forecast its nuclear production in EB-2016-0152. The under forecast ranges from approximately 6% to over 12% in any given year. In no year did OPG produce less than its forecast. What changes has OPG made to its forecasting methodology which would argue against making a reduction in the proposed nuclear forecast in this proceeding?

EXHIBIT F

F2-VECC-23
Reference: Exhibit F2-01-01 Attachment 1 Prior Initiatives

a) For the six initiatives described in attachment 1 please provide the estimated annual savings for each year 2017 to 2020 and the annual projected savings for 2021 through 2026.

F2-VECC-24
Reference: Exhibit F2-01-01 Table 1 Operating Costs Summary

a) Please revise Table 1 to both actual and Board approved amounts for the period 2017 to 2021.

F2-VECC-25
Reference: Exhibit F2-03-01, page 3

a) Is the Fuel Channel Life Extension project required by the CNSC? If yes, please describe the requirement that must met for the Pickering plant to operate over the next 4 years and the estimated budget for that project.
b) Was the amount built into the previous budget (i.e., as presented in EB-2016-0152) for Pickering Extended Operations the same as the $307M now being projected for this project in 2021? If not what is the new projected total cost?

F2-VECC-26
Reference: Exhibit F2-04-01, Table 1

a) OPG makes the point that "[O]*utage OM&A costs will vary year over year depending on the number and scope of outages and therefore cannot be trended over time*." However, a review of Table 1a appears to show that with two exceptions (Pickering in 2018 and 2020 Budget) OPG overestimated the annual cost of outage OM&A costs. Please explain what changes have been made to OPG's forecasting methodologies which would suggest a more accurate forecast over the new plan term.

F2-VECC-27
Reference: Exhibit F2-08-01, New Nuclear

a) Please provide the shareholder directive authorizing OPG to begin work on a SMR project.
b) Please provide the Board of Director approval for this project.
c) Has OPG provided a 5- year budget for this project in this proceeding. If so please provide that reference, if not please provide the budget?

F3-VECC-28
Reference: Exhibit F2-1-1 Attachment 2, page 6 Table 1 Plant Level Performance Summary

a) Please update Table 1 to show 2020 results.
b) Please provide the historical amounts for 2017 and 2018.

F3-VECC-29
Reference: Exhibit F3-01-03

c) Are any of the regulatory costs of this application being amortized over the price term period 2022-2026?

F3-VECC-30
Reference: Exhibit F3-02-01 Table 2

a) Information Technology Asset service fees have increased by approximately 65% when compared to 2017 actual costs ($29.4) and 2022 planned costs ($48.5). These costs continue to increase throughout the term of the plan. What are the main drivers of these increases?

F4-VECC-31
Reference: Exhibit F2-03-01 & F4-3-1 Attachment 1 (FTEs)

a) Does the management category of employees have a similar 'Term' classification as PWU and Society and which has limited severance and no pension benefits? If yes, using the Table at Attachment 1 please show the number of Management 'Term' FTEs for the years 2016 through 2026.
b) Please explain how OPG is limiting its costs for executive and senior management expected to be made redundant after the closure of the Pickering site.

F4-VECC-32
Reference: Exhibit F2-03-01 & F4-3-1 Attachment 2 WTW Study

a) Please show the categories used for compensation benchmarking in the prior proceeding (EB-2016-0152) and compare them to that used by WTW in this proceeding.
b) Please explain why it was not possible to use the prior job categorizations.
c) Please provide a list of the job categories that were aggregated into the two categories of "Standard" and "Nuclear Authorized".

F4-VECC-33
Reference: Exhibit F2-03-01 & F4-3-1 Attachment 2 WTW Study

d) Please explain how US compensation data is normalized for health care benefits when used as a comparator to Canadian firms (and OPG specifically).

F4-VECC-34
Reference: Exhibit F4-04-01 & Table 2a

a) Please explain why the performance incentives in each year 2017-2020 were significantly higher than the Board approved amounts.

F4-VECC-35
Reference: Exhibit F4-04-01 page 4

a) Please provide any correspondence from OPG's insurers which support the over 40% increase in OPG-Wide Insurance.
b) What is the current (2021) OPG-wide insurance cost based on current premiums?
c) Please provide the same as a) and b) for Nuclear Insurance.

EXHIBIT G - Non-Energy Revenues

G2-VECC-36
Reference: Exhibit G2-01-01, Table 1, G2-01-02, Table 2a

a) Please confirm that 2019 actuals are meant to be redacted.
b) During the 2017-2021 period, other than for the year 2019, OPG has underestimated Other Revenues. Please explain what changes the Utility has made to its forecasting methodologies to more accurately estimate other revenues?

Exhibit I1

I1-VECC-37
Reference: Exhibit I1, T1, Schedule 1, Table 1 /Tab 2, Schedule 1, Table 1

a) The Application notes that the revenue requirement is net of a stretch factor. We are unable to locate evidence on OPG's proposed stretch factor. Please provide the stretch factor for each year of the plan and the formula which calculates the dollar sum of the stretch factor (line 24).
b) Please describe which parts of the OPG revenue requirement the stretch factor is applied to.
c) Please explain how the proposed revenue requirement request for the 2021 to 2026 period is indicative of an incentive price plan. Specifically explain which parts of the OM&A and Capital budgets a stretch factor or other incentive factor is being applied to.

I1-VECC-38

Reference: Exhibit I1, Tab 2, Schedule 1, page 2

Chart 1

Actual and Forecast ROE

	2017	2018	2019	2020	2021	Average
OPG ROE	5.91%	10.69%	15.61%	13.03%	10.24%	11.10%
OEB-Approved2	9.16%	9.16%	9.16%	9.16%	9.16%	9.16%

a) Please revise the table to show actual 2020 results and currently projected 2021 results.

I1-VECC-39

Reference: Exhibit I1, Tab 3, Schedule 2, Chart 3

Chart 3: Smoothing Alternatives – Outcomes

	A	B	C	D	E (OPG Proposal)
2022-2026 Change in WAPA[16]	0.0%	1.0%	2.0%	3.0%	Y1: 4% Y2-5: 1% AVG: 1.6%
2027-2036 Change in WAPA[8]	3.4%	2.2%	0.9%	(0.4)%	0.9%
Peak RSDA Balance ($B)	$3.0	$2.3	$1.6	$1.2	$1.5
2022-2026 Interest ($M)	$318	$271	$222	$173	$205
Total Interest ($B)	$1.05	$0.84	$0.62	$0.40	$0.60
Interest Cost / Deferred Revenue Ratio	0.5	0.6	0.7	0.7	0.7
Lowest Cash Flow from Operations Pre Working Capital to Debt Ratio (2022-2026)	10.9%	11.3%	11.5%	11.7%	12.0%
Lowest Funds From Operations to Debt Ratio (2022-2026)	10.9%	10.8%	10.7%	10.6%	10.7%
Nuclear Payment Amount Transition Impact Post 2036 ($/MWh)	$(7.03)	$(3.38)	$0.37	$4.21	$0.46
Average Annual Bill Impact (2022-2026)[17] in %	0.00%	0.22%	0.45%	0.68%	0.36%
Average Annual Bill Impact (2022-2026) in $	$0.00	$0.25	$0.51	$0.79	$0.41
Average Annual Bill Impact (2022-2036) in %	0.29%	0.26%	0.24%	0.21%	0.24%
Average Annual Bill Impact (2022-2036) in $	$0.33	$0.30	$0.27	$0.24	$0.27

a) For each of the smoothing alternatives please provide OPG's estimated total carrying charges over the duration of the plan.

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