

19 January 2022

Nancy Marconi, Registrar
Ontario Energy Board

VIA RESS AND EMAIL

Dear Ms Marconi:

Re: EB-2021-0002 – EGI 2022-2027 DSM – GEC/ED IRRs to EP Interrogatories

Please find interrogatory responses filed by GEC-ED in response to IRs from Energy Probe on the evidence of Energy Futures Group.

Sincerely,

A handwritten signature in black ink, appearing to read 'David Poch', with a stylized flourish at the end.

Cc: All parties

GEC/ED Responses of Energy Futures Group to EP Interrogatories

10-EP-1-GEC/ED.1

Ref: Ex. L.GEC/ED.1 page 5

Preamble: Enbridge's proposed plan will actually produce lower average annual savings than the Company achieved between 2017 and 2019.

- a) Please provide the Comparison that this statement is based upon.
- b) Does EFG agree that in most Sectors, particularly the residential sector, the ratio of savings (m3/\$) are declining? Discuss the reasons for this.
- c) Does EFG suggest the answer is to ramp up DSM budgets? If so what additional programs/measures for the residential sector would EFG propose e.g. exterior insulation wrap for older homes? Estimate the annual and 5-year cost for each proposed program/measure addition.

Response:

- a) See the discussion on p. 8 and Figure 1 on p. 9 of our report.
- b) The answer depends in part on what savings metric is being used, the period of time over which comparisons are being made and whether spending is being adjusted for inflation to enable a more apples-to-apples comparison. As the following table shows, the forecasted number of first year m3 saved per dollar spent in 2023 is not appreciably different, on an inflation adjusted basis, than the actual experience in 2017 through 2020.¹ For the residential sector, Enbridge's actual savings yields improved very slightly from 2017 through 2020 in inflation adjusted terms, but are forecasted to be about 10% lower in 2023 than the 2017 through 2020 values. EFG has not conducted an analysis to assess the reasons for such a reduction.

¹ The savings and spending per sector in 2017, 2018, 2019 and 2020 are from the summary tables of the independent Evaluation Contractor's annual verification report. The 2023 budget is as proposed by Enbridge in Exhibit D, Tab 1, Schedule 1, p. 11 and the 2023 savings are as proposed by Enbridge for its 100% target in Exhibit D, Tab 1, Schedule 3, p.4

Sector	Spending (million nominal \$)					1st Year Savings (millions m3)					1st Year m3 per 2021 \$				
	2017	2018	2019	2020	2023	2017	2018	2019	2020	2023	2017	2018	2019	2020	2023
Residential	\$49.7	\$53.1	\$55.2	\$49.6	\$40.8	16.5	17.4	17.9	16.3	14.8	0.30	0.31	0.31	0.32	0.28
Low Income	\$18.7	\$21.4	\$24.3	\$20.9	\$23.0	6.9	8.7	9.4	7.5	7.9	0.34	0.38	0.37	0.34	0.31
Com/Ind	\$33.0	\$32.0	\$32.2	\$27.4	\$43.1	81.1	74.2	81.3	59.0	74.7	2.24	2.16	2.39	2.06	2.16
Large Volume	\$2.6	\$2.8	\$3.1	\$3.3	\$2.8	9.5	8.1	7.0	12.2	9.3	3.29	2.66	2.17	3.50	2.60
Energy Perf.	\$0.0	\$0.0	\$0.0	\$0.0	\$1.2	0.0		0.0		0.0	n.a.	n.a.	n.a.	n.a.	n.a.
Beyond Codes	\$8.4	\$9.3	\$9.3	\$8.2	\$8.4	0.0		0.0		0.0	n.a.	n.a.	n.a.	n.a.	n.a.
Low Carbon	\$0.0	\$0.0	\$0.0	\$0.0	\$4.6	0.0		0.0		0.0	n.a.	n.a.	n.a.	n.a.	n.a.
MT	\$2.8	\$3.1	\$2.9	\$2.0	\$0.0	0.0		0.0		0.0	n.a.	n.a.	n.a.	n.a.	n.a.
Other	\$0.4	\$0.2	\$0.4	\$0.1	\$0.0	0.0		0.0		0.0	n.a.	n.a.	n.a.	n.a.	n.a.
Portfolio	\$11.4	\$13.3	\$11.0	\$7.6	\$18.4	0.0		0.0		0.0	n.a.	n.a.	n.a.	n.a.	n.a.
Total	\$126.9	\$135.3	\$138.4	\$119.0	\$142.3	114.0	108.4	115.7	95.1	106.7	0.82	0.75	0.79	0.76	0.79

- c) Yes, at least in part. While some increase in savings could be achieved by reallocation of the total annual budgets proposed by Enbridge. Increases on the order of magnitude necessary to ramp up to savings levels of North American leaders will also require absolute increases in total budgets.

It should also be noted that a growing DSM program cost per unit of gas savings is not necessarily a “problem” that can or should be “fixed”. Savings yields per program dollar can decline for a variety of reasons, including the elimination of a lower cost source of savings as a result of government codes or standards, an increased focus on more comprehensive treatment of efficiency opportunities, an increased focus on serving harder to reach customers, a significant increase in the level of savings being achieved, poor performance by program planners and delivery staff, etc.² If savings yields are declining because of poor performance, that would obviously be a problematic. On the other hand, there are many other potential reasons lower yields can be reasonable and acceptable given market conditions and policy objectives. EFG has not conducted the kind of detailed analysis necessary to offer comprehensive recommendations for modifications to Enbridge’s proposed program portfolio. See response to 6.OEB.Staff.2.GEC/ED.1 for some higher-level recommendations.

² Savings yields can also increase for factors not attributable to utility. This could occur, for example, if the federal government implements its promised \$40,000 zero-interest loans for green investments such as retrofits.

10-EP-2-GEC/ED.1

Ref: Ex. L.GEC/ED.1 page 5 Figure 1 and Figure 2

Preamble: As Figure 1 shows, that is lower than the average savings captured from 2017-2019 of 112.7 million m³.¹ Moreover, none of the projected annual savings from 2023 through 2027 is expected to exceed the savings achieved in 2019.

- a) Please provide a version of Figures 1 and 2 for the Residential sector.
- b) Please provide a chart that shows the ratio of historic DSM budget spend, to savings for the Residential Sector.
- c) Please provide a projection based on the 2022-2027 EGI DSM Plan.
- d) Does this indicate to EFG that the “low hanging fruit” in the residential sector has been “picked”? Please discuss, including potential solutions with associated costs and benefits.

Response:

- a) EFG has not assembled all of information necessary to create the Figures just for the residential sector. In fact, we would note that Enbridge has not actually provided savings estimates by sector for 2024 through 2027. That said, see our response to 10-EP-1-GEC/ED.1 for data we assembled on spending, savings and savings yield (first year m3 savings per 2021 dollar) for 2017 through 2020 and for 2023.
- b) See response to part “a”.
- c) It is not clear what “projection” the question is requesting.
- d) We are unclear about the evidence the question appears to be referencing. As noted in response to 10-EP-1-GEC/ED.1, residential savings yields per inflation-adjusted dollar did not decline from 2017 through 2020. Enbridge’s proposed yield for 2023 is about 10% lower than those years, but it is not clear why that is the case.

10-EP-3-GEC/ED.1

Reference: R-4169-2021 Energir/HQD Bi-Energie Program Quebec

Preamble: The proposed Energir/HQD Bi-Energie Program is a gas/electric fuel Substitution Program in Quebec.

- a) Does EFG know of similar programs in other jurisdictions? If so provide a list and references.
- b) Is gas/electric energy substitution an option for Ontario? Please discuss, including potential costs and benefits.

Response:

- a) As part of its climate plan, Vermont Gas is launching (on February 1, 2022) an effort to help its customers electrify some of their current gas consumption. For example, it is leveraging existing electric utility funded rebates for efficient electric heat pump water heaters, both with a bonus rebate for low to moderate income customers and an option to lease the equipment for any of its customers.³ EFG is not aware of similar programs in other jurisdictions but has not conducted a detailed jurisdictional review on this topic.
- b) If the question is asking whether fuel-switching from gas to electricity is a viable technical and economic option for Ontario, the answer is yes. In fact, it is a necessity if the province is going to successfully decarbonize the buildings sector. There simply is not enough renewable biogas available – let alone at an affordable cost – to come close to offsetting current fossil gas consumption. The relative cost-effectiveness of such electrification today will depend on the buildings being addressed, whether electrification is full or partial, the region within the province and likely other factors.

³ See <https://www.vermontgas.com/heat-pump-water-heaters/>.