

**E1 Responses to Nova Scotia Energy Board (NSEB) Undertaking
NON-CONFIDENTIAL**

Undertaking U-1:

To provide the results using the Program Administrator Costs (PAC) test method and exclude the Host Customer Impacts from the proposed BCA to the analysis of the differences in the screening results as presented on pages 13 and 14 Direct Testimony in Appendix A of Exhibit E-1.

Response U-1:

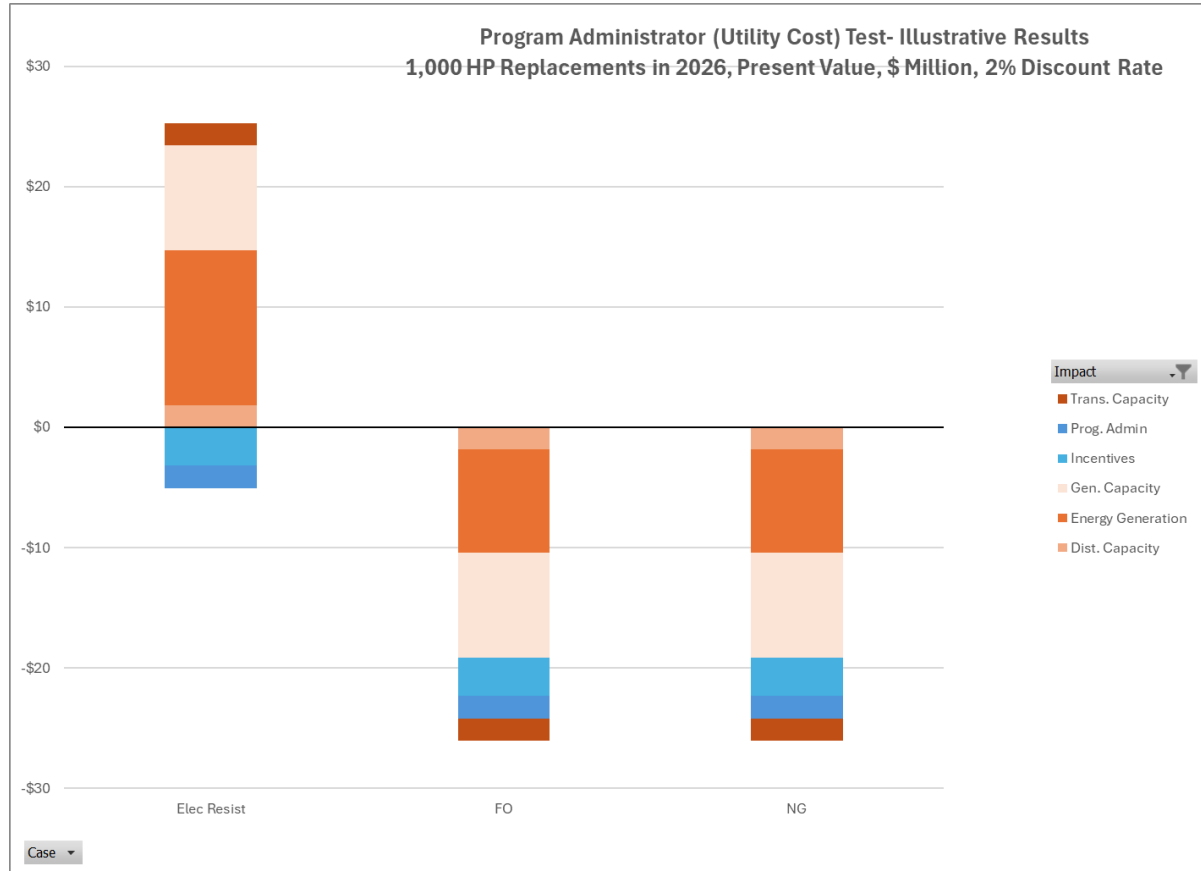
This undertaking response has been provided by Energy Futures Group (EFG).

Figure 1, below, depicts the illustrative example of 1,000 heat pump replacements (for electric resistance, fuel oil and natural gas) as presented in Dr. Hill's evidence on page 13-14 of Appendix A of Exhibit E-1¹ if the Program Administrative Cost (PAC) test is applied.

¹ M12282, Exhibit E-1, E1 Application for Approval of a New Benefit-Cost Analysis Test for Evaluating Demand Side Management (DSM) Plans, May 16, 2025, Appendix A, page 13-14 (page 15-16 of 18).

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1 *Figure 1: Program Administrator Cost Test - Illustrative Results*



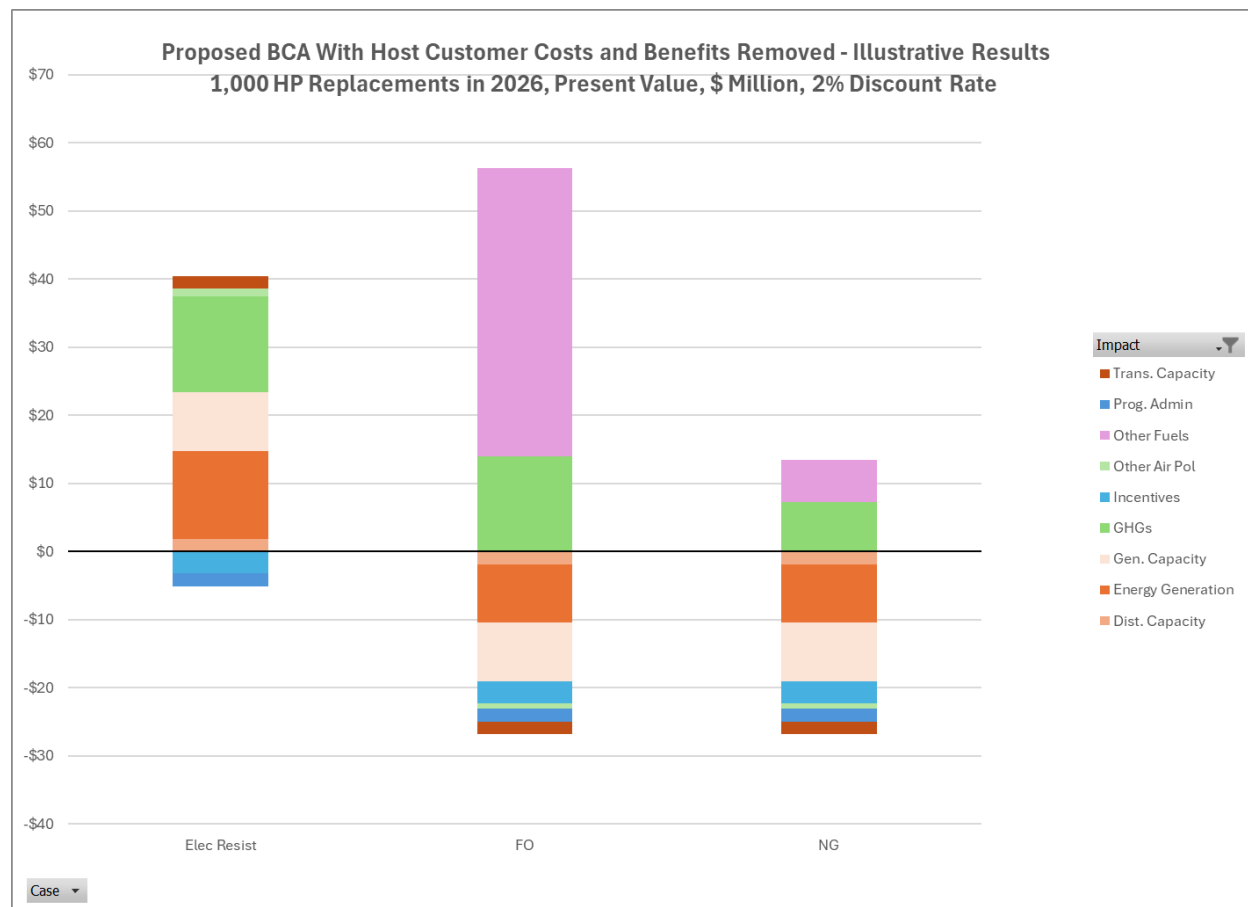
2
3
4 Under the PAC test, the benefit cost ratio for replacement of electric resistance systems is 4.95.
5 Using the PAC test, the benefit cost ratio for replacing fuel oil and natural gas systems is 0.0
6 because there are no utility system benefits to include on the benefits side of the equation.

7
8 Figure 2, below, depicts the illustrative example of 1,000 heat pump replacements (for electric
9 resistance, fuel oil and natural gas) as presented in Dr. Hill's evidence on page 13-14 of Appendix
10 A of Exhibit E-1² using the EfficiencyOne (E1) proposed Benefit Cost Analysis (BCA) test if the host
11 customer impacts, including host customer costs and benefits are removed.

² Ibid.

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1 *Figure 2: Proposed BCA With Host Customer Costs and Benefits Removed – Illustrative Results*



2
3
4 Using the E1 proposed BCA test with host customer impacts removed, the benefit cost ratio for
5 replacement of electric resistance systems is 7.93, the benefit cost ratio for replacing fuel oil
6 systems is 2.10, and benefit cost ratio for replacement of natural gas systems is 0.50. Due to the
7 host customer costs being higher than the host customer non-energy benefits when the host
8 customer impacts are removed from the proposed BCA test, the benefit cost ratios are increased.

M12282 – EfficiencyOne (E1) Application for Approval of a New Benefit-Cost Analysis (BCA) Test for Evaluating Demand Side Management (DSM) Plans

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- 1 The ratios for the proposed BCA test, the proposed BCA test if host customer impacts are
2 removed, and the program administrator cost test, are summarized in Table 1, below.

3 *Table 1: Summary of Ratios for Proposed BCA Test, Modified BCA Test (Host Customer Impacts*
4 *Removed) and the PAC Test*

		Heat Pump Replacing		
		Fuel Oil	Natural Gas	Electric Resistance
Proposed BCA Test	Total Costs	(\$31.66)	(\$31.66)	(\$9.90)
	Total Benefits	\$57.10	\$14.30	\$ 41.26
	Proposed BCA Test Ratio	1.80	0.45	4.17
Proposed BCA Test without Host Customer impacts	Total Costs	(\$26.86)	(\$26.86)	(\$5.10)
	Total Benefits	\$56.30	\$13.50	\$40.46
	Modified BCA Test Ratio	2.10	0.50	7.93
PAC Test - Utility System Impacts Only	Total Costs	(\$26.86)	(\$26.86)	(\$5.10)
	Total Benefits	\$0.00	\$0.00	\$25.26
	PAC Test Ratio	0.00	0.00	4.95