

1 Q. **Reference: Application, Attachment 1, Page 36, Lines 1 - 2**

2 On Page 36 at Lines 1 - 2, Hydro states:

3 A 5% increase in fuel efficiency was assumed for each new diesel generating
4 station replacement.

5 What data has Hydro used to establish a 5% fuel efficiency assumption?

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8 A. Newfoundland and Labrador Hydro (“Hydro”) used efficiency data that was calculated for the
9 four diesel generating stations in southern Labrador based on historical production data (five-
10 year average from 2015 to 2019). The St. Lewis Diesel Generating Station is the newest of the
11 four diesel generating stations (2006) and it has, on average, an approximately 4.2% higher
12 efficiency than the other diesel generating stations. This number was rounded up to 5% on the
13 basis that new diesel generating stations are expected to be more efficient than the St. Lewis
14 Diesel Generating Station, which is 15 years old. Table 1 provides a summary of the calculated
15 efficiencies for each diesel generating station.

Table 1: Historical Fuel Efficiency (2015-2019) Southern Labrador Diesel Generating Stations

Diesel Generating Station	Fuel Efficiency (kWh/L)	
	(Five-Year Average: 2015 to 2019)	Fuel Efficiency Difference (%)
St. Lewis	3.55	-
Mary’s Harbour	3.32	6.9
Port Hope Simpson	3.48	2.0
Charlottetown	3.42	3.7
Average Difference	-	4.2

1 As outlined Hydro's application,¹ the cumulative net present value analysis is relatively
2 insensitive to changes in fuel efficiency; therefore, the 5% fuel efficiency assumption is not vital
3 to the outcome of the economic analysis.

¹ "Long-Term Supply for Southern Labrador – Phase 1," Newfoundland and Labrador Hydro, July 16, 2021, sch. 1, att. 1, sec. 6.3, p. 44.