

- 1 **Q. (Reference CA-NP-085) It is stated "The Adjusted Costs for the Replacement**  
 2 **Transformers program were relatively consistent from 2019 to 2022 primarily**  
 3 **as a result of a consistent number of transformer replacements." Table 1 shows**  
 4 **that replacements varied from a high of 705 to a low of 461, representing a**  
 5 **variation of 53%. Please explain.**
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- 7 A. Table 1, as provided in the response to Request for Information CA-NP-085, part b), is  
 8 reproduced below. The years 2019 to 2022 are bolded for emphasis.

Table 1 Distribution Transformer Replacements	
Year	Quantity Replaced
2002	2,437
2003	2,769
2004	2,347
2005	1,496
2006	1,194
2007	1,445
2008	1,031
2009	563
2010	466
2011	434
2012	604
2013	537
2014	798
2015	861
2016	742
2017	585
2018	623
<b>2019</b>	<b>705</b>
<b>2020</b>	<b>608</b>
<b>2021</b>	<b>660</b>
<b>2022</b>	<b>461</b>

1 As demonstrated in Table 1, the period from 2002 to 2008 inclusive saw a large  
2 number of transformer replacements in comparison to the period from 2009 to  
3 present. This period was also characterized by a significant reduction of transformer  
4 replacements.<sup>1</sup> Subsequently, the 2009 to 2018 period featured a lower degree of  
5 variation, with annual transformer replacements varying between 434 and 861.

6  
7 Newfoundland Power observes that transformer replacements in the 2019 to 2022  
8 period were consistent with the trend observed from 2009 to 2018.<sup>2</sup>

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<sup>1</sup> To address a large number of corrosion related transformer failures, Newfoundland Power began specifying 316L stainless steel as the tank material for all new pole mounted transformers purchased beginning in 2001. As the stainless steel transformer tanks were deployed, an overall reduction of transformer replacements due to rusting was observed.

<sup>2</sup> From 2002 to 2008, an average of 1,817 annual transformer replacements occurred with a standard deviation of 685. From 2009 to 2018, an average of 621 transformer replacements occurred with a standard deviation of 139. The 2019 to 2022 period had an average of 609 annual transformer replacements with a standard deviation of 106. The 2019 to 2022 period was most similar to 2009 to 2018 based on these metrics.