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## Top Energy Loss Factors

In accordance with the Electricity Industry Participation Code, Top Energy has reviewed the Loss Factors applicable to ICP's on the Top Energy Electricity Distribution Network.

Top Energy's customers are metered at low and medium voltage. For each of these voltages a Loss Factor Code is calculated. Table 1 below indicates the Loss Factor values applicable to each Loss Factor Code from 1 April 2022. These have been derived from load-flow modelling of the distribution network including power transformers, sub-transmission circuits, high voltage feeders, distribution transformers and low voltage distribution reconciliation losses.

We have received a number of applications from solar generators to connect large scale solar generation. Prior to commissioning a loss factor will be calculated and this table will be updated.

**Table 1 Loss Factor Codes and Loss Factors for Top Energy's Network April 2022 to March 2023**

Loss Factor Code	Registry Loss Code	Applied to Customer Connected to	Loss Factor
RLF D	GLV	LV Network 230/400V	1.1234
RLF I1 (JNL)	IND1	JNL	1.0273
RLF I2 (AFFCO)	IND2	AFFCO	1.0464
RLF G1 (NGA)	GEN1	Ngawha Generation A (25 MW)	1.0000
RLF G2 (NGB)	GEN2	Ngawha Generation B (31MW)	1.0000

<i>Table 2 Losses on Top Energy Network 2022-2023 forecast</i>							
	ACTUAL			CURRENT	Less IND	NETWORK	BUDGET
kWh	24 Month to Aug 21	Less IND 24 months	Network for 24 months	12 mths to Aug 21	44409	12 mths to Aug 21	12 mths to Aug 22
Total Energy Injected into Network	722,916,291	95,461,202	627,455,089	365,506,917	46,677,579	318,829,338	392,259,459
Total Energy Sold to Customers	648,100,361	92,576,096	555,524,265	329,576,787	45,255,339	284,321,448	349,171,674
<b>Total Losses (kWh)</b>	<b>74,815,930</b>	<b>2,885,107</b>	<b>71,930,823</b>	<b>35,930,130</b>	<b>1,422,240</b>	<b>34,507,890</b>	<b>43,087,785</b>
Loss percentage	10.35%	3.02%	11.46%	9.83%	3.05%	10.82%	10.98%
TLF for Entire Network (Reconciliation) Including ICC	1.1154	1.0312	1.1295	1.1090	1.0314	1.1214	1.1234