

TESLA load forecasts continued to outperform those of the System Operator for December 2016

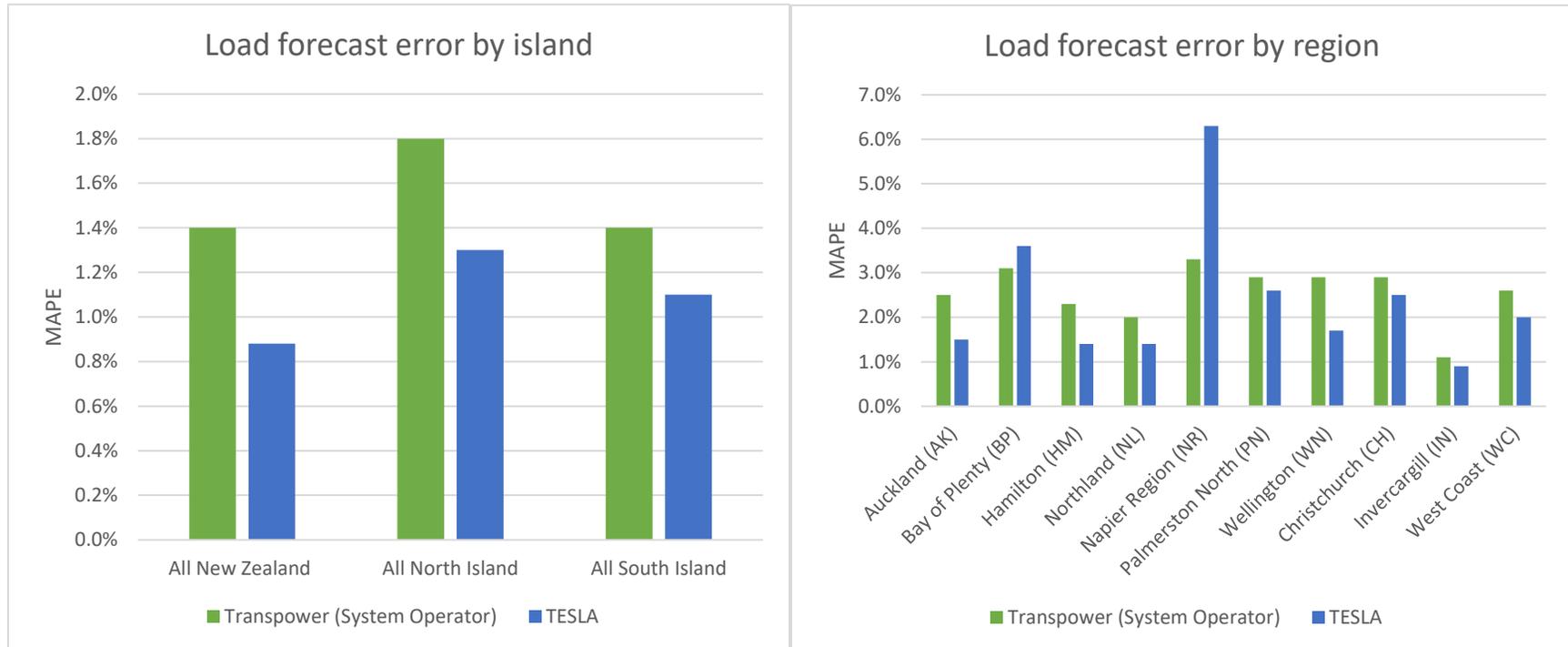
This report compares both the load forecasts provided by TESLA via EMS' em⁶ and the System Operations load forecast (at 2.5 hours ahead of real-time) against actual load observations. As does the report released by Transpower, this report aggregates conforming and non-conforming load.¹ Future reports released by Transpower may look to separate these components as EMS' report does. EMS provides a detailed load forecasting accuracy analysis to all Load Forecast users on a monthly basis.²

Load Forecast Accuracy

ALL TRADING PERIODS ACCURACY FOR DECEMBER 2016		
	Transpower (System Operator)	TESLA
	MAPE (%)	MAPE (%)
All New Zealand	1.4%	0.88%
All North Island	1.8%	1.3%
Auckland (AK)	2.5%	1.5%
Bay of Plenty (BP)	3.1%	3.6%
Hamilton (HM)	2.3%	1.4%
Northland (NL)	2.0%	1.4%
Napier Region (NR)	3.3%	6.3%
Palmerston North (PN)	2.9%	2.6%
Wellington (WN)	2.9%	1.7%
All South Island	1.4%	1.1%
Christchurch (CH)	2.9%	2.5%
Invercargill (IN)	1.1%	0.9%
West Coast (WC)	2.6%	2.0%

¹ The System Operator's load forecast accuracy report can be found here: <https://www.transpower.co.nz/sites/default/files/bulk-upload/documents/201612%20Load%20Forecast%20Accuracy.pdf>

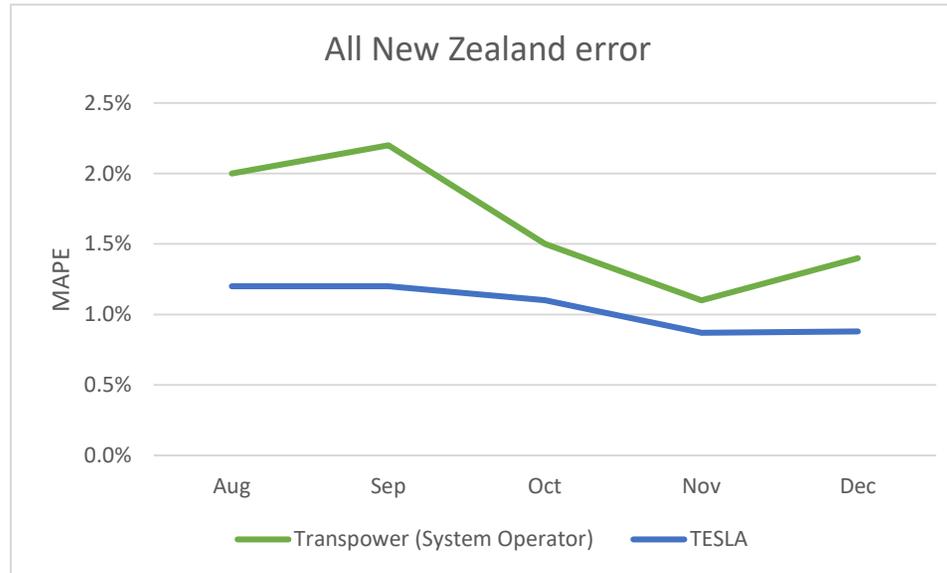
² For more information on the em⁶ Load Forecast: <http://ems.co.nz/portfolio/energy-information/loadforecast>



This report confirms that the TESLA load forecasts via em⁶ significantly outperform the load forecasts published by the System Operator. As these load forecasts both use the MetService’s weather forecasts, the deviation can be explained by differences in model error between the TESLA and System Operator systems.

High variances within the non-conforming loads were responsible for the elevated forecast errors in the Bay of Plenty and Napier regions. TESLA’s 2.5 hour ahead MAPE was 2.4% for conforming loads and 45.5% for non-conforming loads within the Napier region in December 2016. For the Bay of Plenty region, TESLA’s 2.5 hour ahead MAPE was 2.5% for conforming loads and 6.6% for non-conforming loads in December 2016.

The graph below shows the comparison of the TESLA and System Operator load forecasts since August 2016. The TESLA forecasts are shown to be both stable and improving over time.



A free trial is available for industry participants to assess the added value of the TESLA load forecasts over the System Operator's. Please contact TESLA Asia Pacific for more information: asiapacific@teslaforecast.com +64 (0) 9 551 5039