



Ref: OIA 2024-032

[REDACTED]  
[REDACTED]

09 August 2024

Kia ora [REDACTED]

Thank you for your request of 18 July 2024 seeking the following information:

*"I am doing some modelling in support of assessing the emissions at our Maui facility, and trying to derive the net (macro) emissions impact of electrification of some of our process heat.*

*As a reference I am using the modelling data available here:*

*[Modelling and data: Consultation on emissions reduction target and emissions budgets » Climate Change Commission \(climatecommission.govt.nz\)](#)*

*In particular, the Electricity Market modelling, and the spreadsheet data set provided.*

*This dataset has summary emissions forecasts under various scenarios, and it includes the forecast emissions as a function of electricity generation and generation mix.*

*I was hoping that someone could provide the Emissions factors assumed for each type of generation in the mix, to give the overall emissions."*

The Commission has considered your request in accordance with the Official Information Act 1982 (the Act).

### Response

It is important to note that the detailed electricity modelling the Commission uses is generated for us by [EnergyLink](#) and it models each individual power generation project each with its own emissions intensity.

The table on the following page shows the average emissions intensity factor for each type of electricity generation by year until 2050 based on the modelling provided to us by EnergyLink.

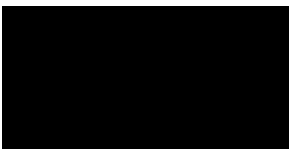
If you have any questions about this information or would like to discuss this further, you may directly contact Rachael Young, Senior Analyst from the Industry & Energy Team. Her email address is [rachael.young@climatecommission.govt.nz](mailto:rachael.young@climatecommission.govt.nz).

<b>Emissions intensity (gCO<sub>2</sub>e/kWh)</b>					
	<b>Geothermal</b>	<b>Coal</b>	<b>Diesel</b>	<b>Gas</b>	<b>Cogen</b>
<b>2023</b>	102	860	758	457	728
<b>2024</b>	95	860	758	405	716
<b>2025</b>	82	860	758	413	716
<b>2026</b>	79	860	758	409	716
<b>2027</b>	78	860	758	407	716
<b>2028</b>	76	860	758	408	716
<b>2029</b>	76	860	758	413	716
<b>2030</b>	76	860	758	412	716
<b>2031</b>	76	860	758	414	716
<b>2032</b>	71	860	758	442	716
<b>2033</b>	68	860	758	442	716
<b>2034</b>	68	860	758	442	716
<b>2035</b>	68	860	758	442	716
<b>2036</b>	66	860	758	442	716
<b>2037</b>	63	860	758	469	716
<b>2038</b>	61	860	758	469	716
<b>2039</b>	61	860	758	469	716
<b>2040</b>	61	860	758	468	716
<b>2041</b>	60	860	758	468	716
<b>2042</b>	59	860	758	468	716
<b>2043</b>	59	860	758	468	716
<b>2044</b>	59	860	758	468	716
<b>2045</b>	59	860	758	468	716
<b>2046</b>	59	860	758	468	716
<b>2047</b>	59	860	758	468	716
<b>2048</b>	59	860	758	468	716
<b>2049</b>	59	860	758	468	716
<b>2050</b>	59	860	758	468	716

You have the right to seek an investigation and review of this response by the Office of the Ombudsman, in accordance with section 28(3) of the Act. Contact details for the Ombudsman can be found on their website at: [www.ombudsman.parliament.nz](http://www.ombudsman.parliament.nz)

Please note that the Commission proactively releases its responses to requests made under the Act. This is to help ensure others can also have access to this information. As such, this letter will shortly be published on our website with your name and contact details redacted to protect your privacy.

Ngā mihi



Astrid Nunns  
General Manager, Strategic Operations