Geothermal Powers the Agri-Food Sector
1 Terawatt of Geothermal
Electricity Plus
Electricity Generation

ELECTRICITY MARKETS

POWER STATION
Cascade Use
Heat Use

Lindal Diagram, 1973
Industrial Processing
Dairy Operation

Glasshouses

Miraka

Geothermal Power Station

Worm Farm

Native plant Nursery

Hydrogen
Access to water
Food Security
Employment Opportunities
<table>
<thead>
<tr>
<th>Activity</th>
<th>Size of operation</th>
<th>Geothermal Energy Used</th>
<th>Geothermal Field</th>
<th>FTE*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Miraka</td>
<td>Milk processing facility</td>
<td>~2,400t/day clean steam from 2 pre-existing wells</td>
<td>Mokai</td>
<td>~120</td>
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<tr>
<td>Tenon</td>
<td>Timber Drying</td>
<td>Geothermal heat plant with an installed capacity of 27 MW to heat 9 timber drying kilns. Consented take of 4110 tonnes/day of ~209°C fluid</td>
<td>Tauhara</td>
<td>265</td>
</tr>
<tr>
<td>Huka Prawn Park</td>
<td>Aquaculture tourism (Prawns)</td>
<td>450 tonnes/hour (~115°C) cascaded fluid from binary plant</td>
<td>Wairakei</td>
<td>60</td>
</tr>
<tr>
<td>Asaleo Care</td>
<td>Tissue &amp; Toilet Paper Manufacturing</td>
<td>254,510 GJ energy from geothermal steam (2016)</td>
<td>Kawerau</td>
<td>~200</td>
</tr>
<tr>
<td>Norske Skog</td>
<td>Paper production (Newsprint)</td>
<td>3600 tonnes/day consented (~185°C). Including TA3 generator producing 9MW using 140t/hr steam</td>
<td>Kawerau</td>
<td>161</td>
</tr>
</tbody>
</table>

* FTEs = Full Time Equivalents. These numbers include all people working onsite at the operation, and excludes suppliers of steam and other contractors e.g. maintenance etc (Blair, 2018)
**Investment**

- Water access
- Food security
- Decarbonising economy
- Creating employment opportunities
- Increased prosperity of indigenous peoples, women and local communities

You can make reliable electricity from it too!
Raising our voices

Image: Fida Abu Libdeh
‘There is food at the end of my hands’

A person (or people) should use their abilities and the resources around them to create success for them and future generations