

Geothermal Direct Heat Use in Kawerau, New Zealand



**Tuwharetoa mai
Kawerau ki te Tai**

GRC Annual Meeting 2018

Industrial Geothermal Direct Use in New Zealand



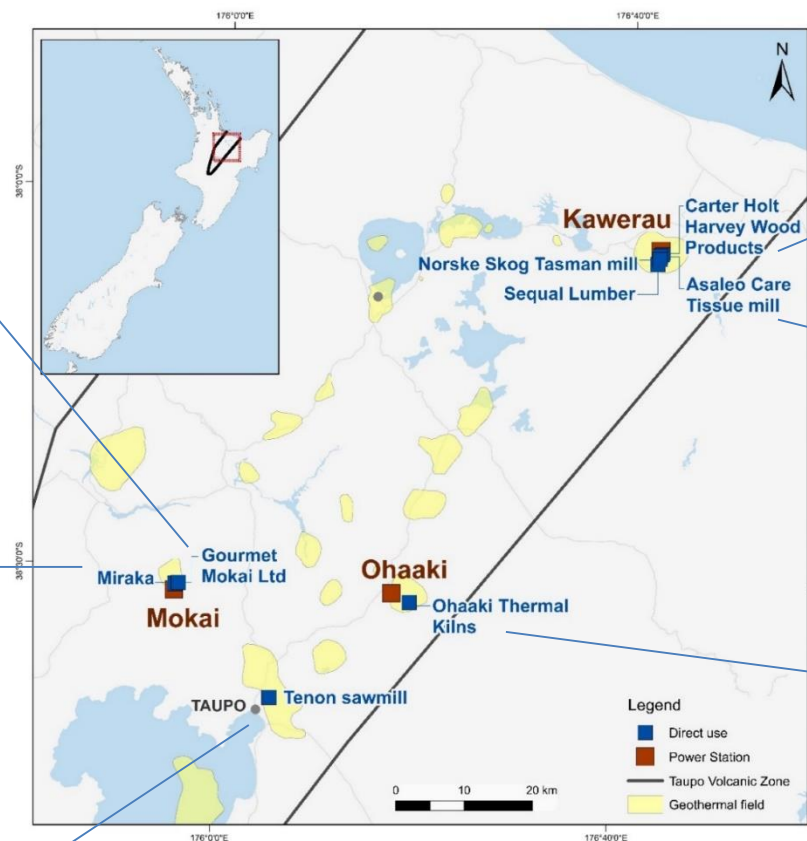
Photo: Gourmet Mokai - Tuaropaki Trust



Photo: Miraka Milk Plant - Tuaropaki Trust



Photo: Tenon Manufacturing



Source: Carey 2018



Photo: Kawerau Industrial Complex

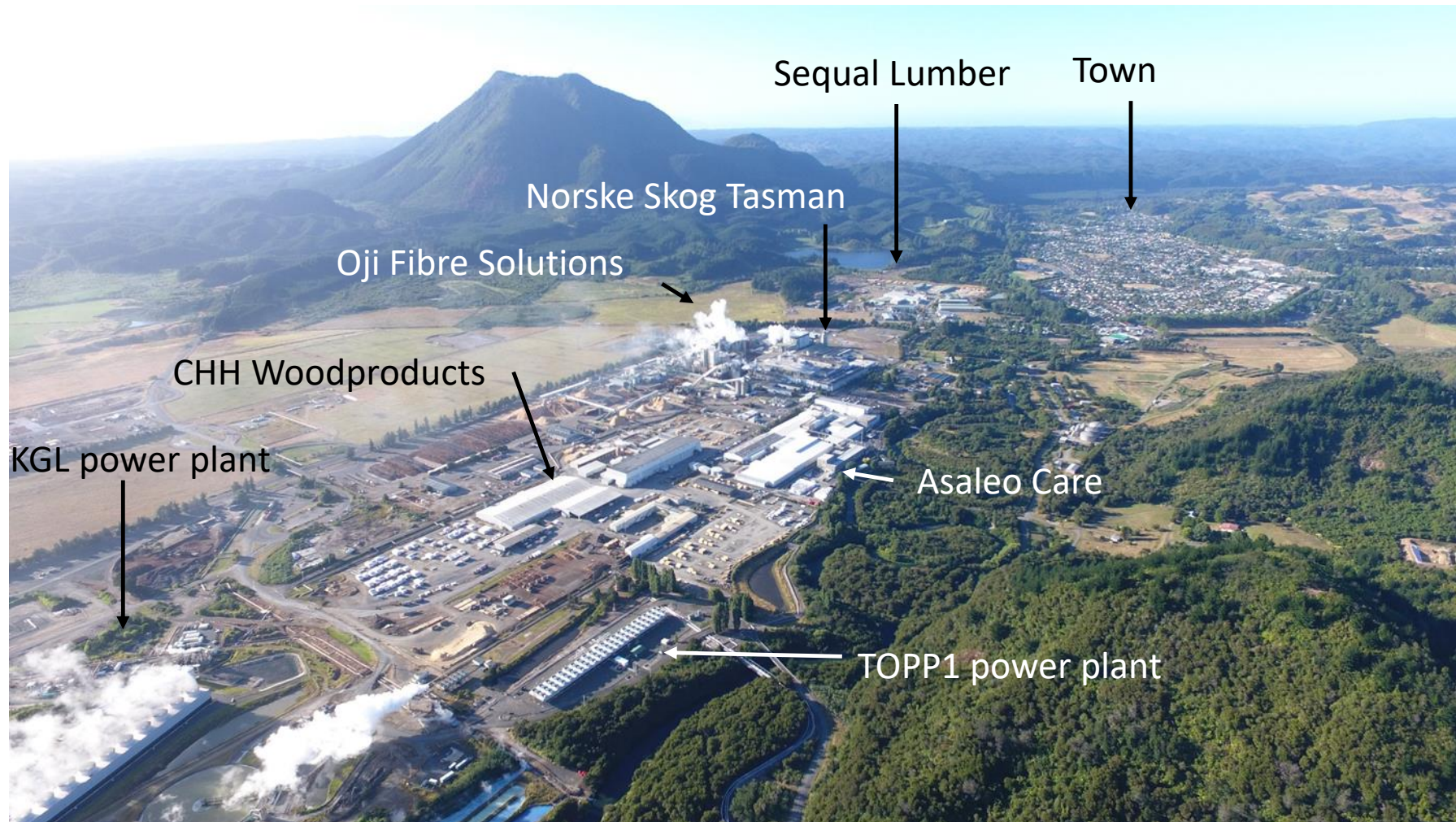


Photo: Asaleo Care

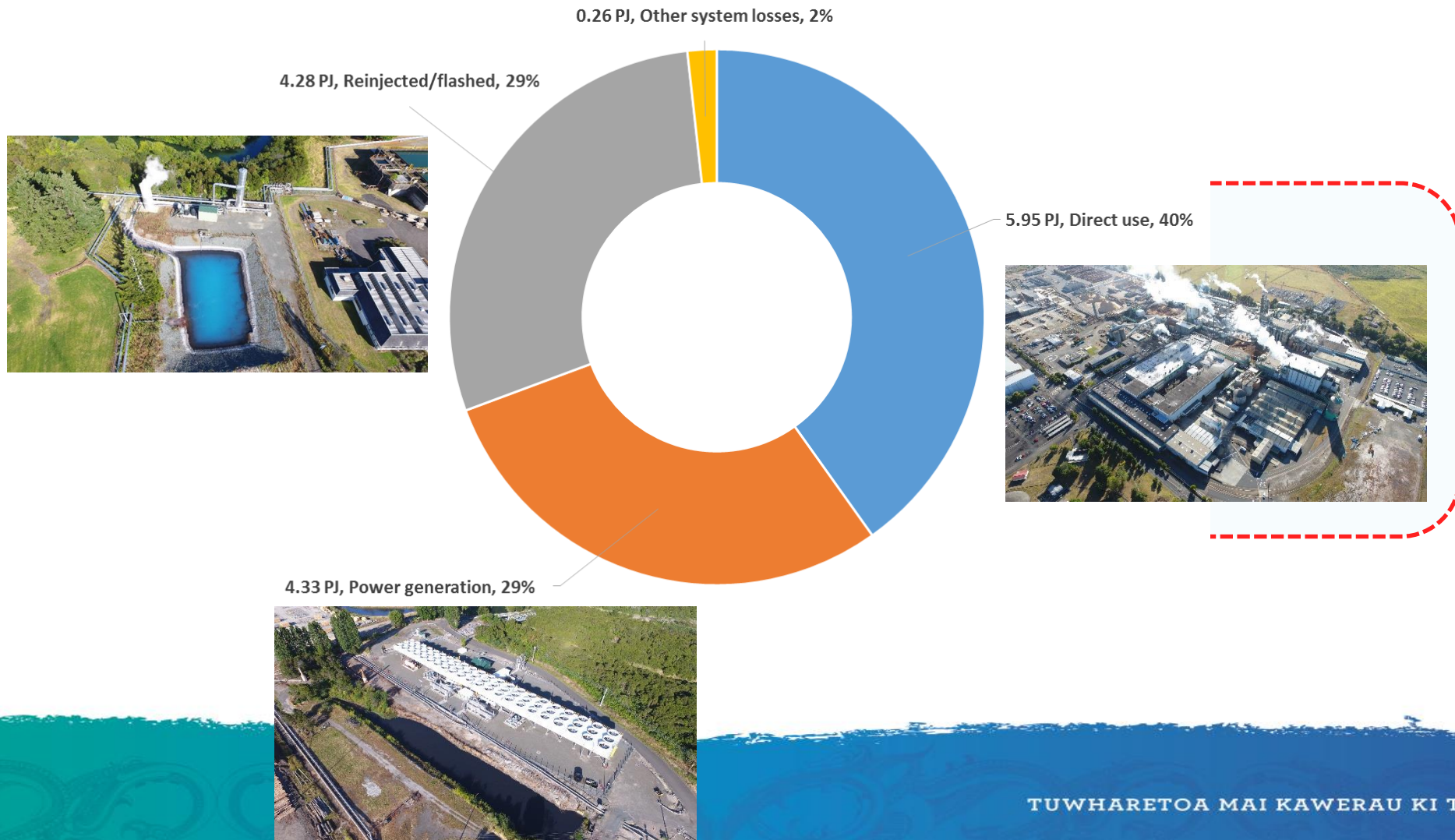


Photo: Ohaaki Heat

Kawerau Industrial Complex

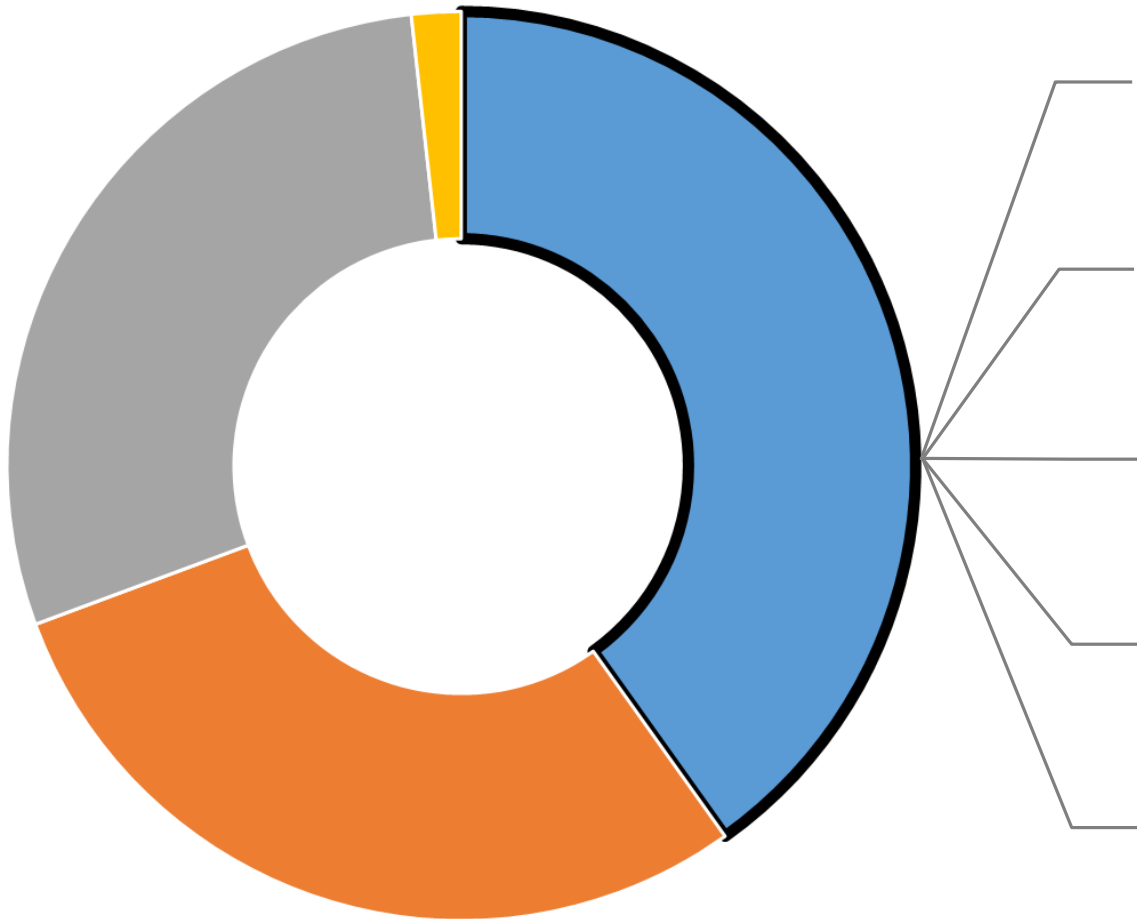


NTGA Operations 2017



Geothermal Benefits

NTGA Geothermal Energy



39% reduction in GHG emissions for Asaleo Care (tissue manufacture)

16% renewable energy for Oji Fibre Solutions (kraft pulp and fibre cement pulp)

61 years of renewable steam supply to Norske Skog Tasman (paper)

Increased value from kiln-dried timber for Sequel Lumber (cut timber)

Supports **sustainable** timber drying at CHH Woodproducts

Kawerau Geothermal Potential

10.7 PJ of consented energy take

4.3 PJ of energy in geothermal process water

Dairy industry

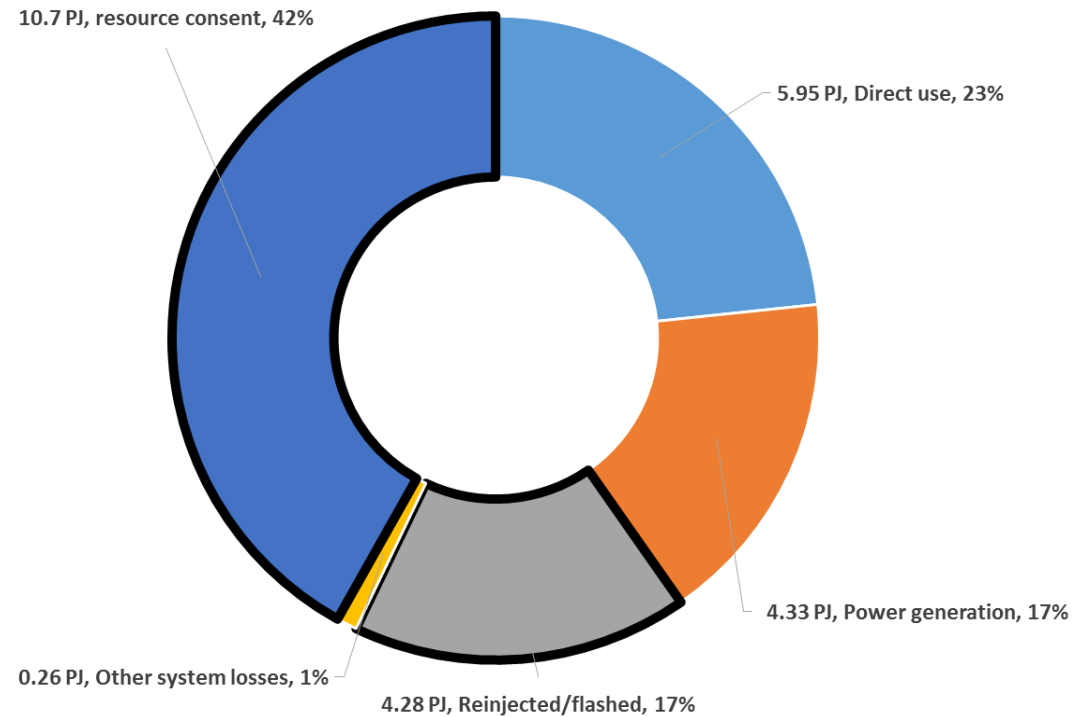
Additional wood processing

Food and beverage industry

Horticulture/aquaculture

Power generation

NTGA Geothermal Energy Potential



New Zealand Geothermal Potential

- The GEOHEAT Strategy seeks to unlock untapped potential, capitalising on interest in renewable geothermal energy, assisting to coordinate efforts and resources of industry and government, to drive increased interest and direct geothermal utilisation.
- Implementing the GEOHEAT Strategy will assist in meeting New Zealand's energy needs and strategic energy targets, contribute to economic and social development, and further New Zealand's commitment to increased renewable and clean energy use.



**GEOHEAT
STRATEGY FOR
AOTEAROA NZ**

2017-2030

Brian Carey
b.carey@gns.cri.nz

Andrea (Andy) Blair
andy.blair@energised.nz

Kia ora!



Source: <http://www.rotoruanz.com/RNZ/media/Image-Library/Tarawera-Falls-exp-Jun-2020-%C2%AEMarkSmith.jpg?width=800>