



NGATI TUWHARETOA GEOTHERMAL ASSETS LTD

**Connection of
Ngati Tuwharetoa (Bay of Plenty)
with the Kawerau Geothermal Field**

Beverley Adlam and Sue King
Ngati Tuwharetoa Geothermal Assets Ltd, Kawerau, New Zealand

Presenter: Bev Adlam (Chair NTGA)

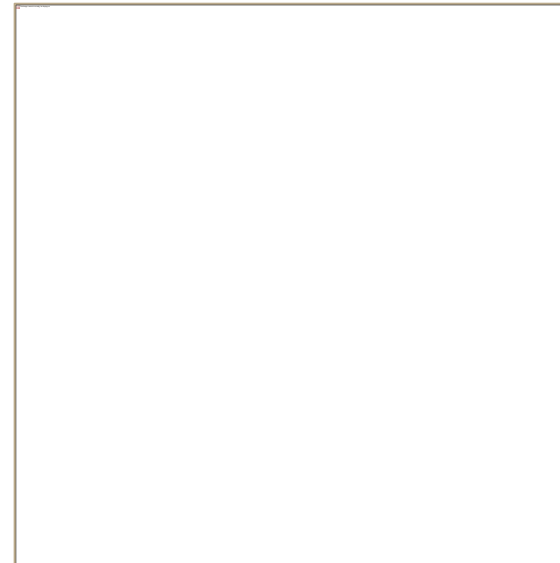
Proceedings World Geothermal Congress 2015, Melbourne, Australia 19-25 April 2015



PRESENTATION OVERVIEW

- 🌀 **Who is Ngati Tuwharetoa (Bay of Plenty) (BoP)**
- 🌀 **Who is Ngati Tuwharetoa Geothermal Assets (NTGA)**
- 🌀 **The first decade**
- 🌀 **Working together**
- 🌀 **The next decade**

LOCATION KAWERAU, NEW ZEALAND



Inset: Kawerau thermal features



WHO IS NGATI TUWHARETOA (BOP)

- 🌀 **Ngatoroirangi**
- 🌀 **Traditional connection to Kawerau**
- 🌀 **Tuwharetoa (the man) 4th generation descendant of Ngatoroirangi, born in the Kawerau area**



GEOHERMAL RESOURCE A TAONGA (TREASURE)

- 🌀 **Geothermal was used holistically for:**
 - healing and recuperation
 - cultivation of plants, especially kumara
 - heating
 - cooking (similar to a hangi)
 - warmth, a breeding ground for eels and morihana
 - sulphur for medicine
 - bathing
- 🌀 **As late as the 1950s (prior to industrial development) Ngati Tuwharetoa people still extensively used the geothermal resource**



CONFISCATION AND ALIENATION

- 🌀 **Treaty of Waitangi dated February 1840**
- 🌀 **Crown Land Confiscation and Alienation**
 - **A period of war between Crown and Maori - July 1863**
 - **Proclamation of Peace 2 September 1865**
 - **Crown confiscation 87,000 acres**
- 🌀 **Statutes**
 - **Geothermal Steam Act 1952**
 - **Geothermal Energy Act 1953**
giving the Crown sole right to “take, tap, use and apply geothermal energy”



DEVELOPMENT OF KAWERAU

- 🌀 **1950s construction of town and mill**
- 🌀 **1952 - first major industrial use of geothermal**
key reason for establishment of Kawerau
- 🌀 **Development funded and built by Government and Fletchers**
- 🌀 **Land acquired by Crown under threat of acquisition (Public Works Act)**



**1954 construction of the
Kawerau mill complex**



THE JOURNEY 1988 - 2005

TREATY CLAIM

- **Wai 62 lodged in 1988: For breaches by Crown of its obligations under the Treaty of Waitangi**
- **Crown apology for breaches of the Treaty**

“Its confiscation of Ngati Tuwharetoa lands was unjust and a breach of the Treaty of Waitangi and its principles”



RECOGNITION OF TRADITIONAL ASSOCIATION

The Ngati Tuwharetoa (BoP) Settlement Act 2005 records:

“The Crown acknowledges the statements made by Ngati Tuwharetoa (BoP) of their particular cultural, spiritual, historical and traditional association with, and use of, the geothermal energy and geothermal water located in the Kawerau Geothermal system...”

“Tuwharetoa was a direct descendant of Ngatoroirangi, who had mana whenua and exercised rangatiratanga over the area. For Tuwharetoa people, the presence of the geothermal resource constantly reaffirmed the existence and authority Kuiuwi, Haungaroa and the gods of fire, Pupu and Te Hoata...”



DEED OF SETTLEMENT

- 🌀 **Deed of Settlement: entered 2003 and settled in 2005, included:**
 - **Cultural redress and fiscal package**
 - **Statutory Acknowledgements over geothermal water and energy**
 - **Right of first refusal of Crown's Kawerau geothermal assets**



WHAT DOES THIS MEAN?

- 🌀 **In recognizing the injustices caused to Ngati Tuwharetoa (BOP) by the Crown's actions, the Settlement enables the people of Ngati Tuwharetoa (BoP) to move forward**
- 🌀 **Enabled the purchase of the Crown's geothermal assets**
- 🌀 **Deed of Settlement structure directed Ngati Tuwharetoa (BoP) Settlement Trust (NTST) to be the governance entity**

OUR STRUCTURE

Registered Beneficiaries

Ngati Tuwharetoa (BoP)
Settlement Trust

Ngati Tuwharetoa Custodial
Trustee Company Ltd

Ngati Tuwharetoa Holdings Ltd

Ngati Tuwharetoa Geothermal
Assets Ltd



WHO IS NTGA?

- 🌀 **2005 “Crown” geothermal business purchase:**
 - Suite of Resource Consents including 44,400tpd take and discharge consents
 - Supply contracts to Norske Skog and NOVA Energy
 - Intellectual property
 - Infra-structure (production and injection wells, separators, pipelines)

- 🌀 **NTGA: a wholesaler of geothermal energy to Kawerau industry**

SUPPLYING KAWERAU INDUSTRY



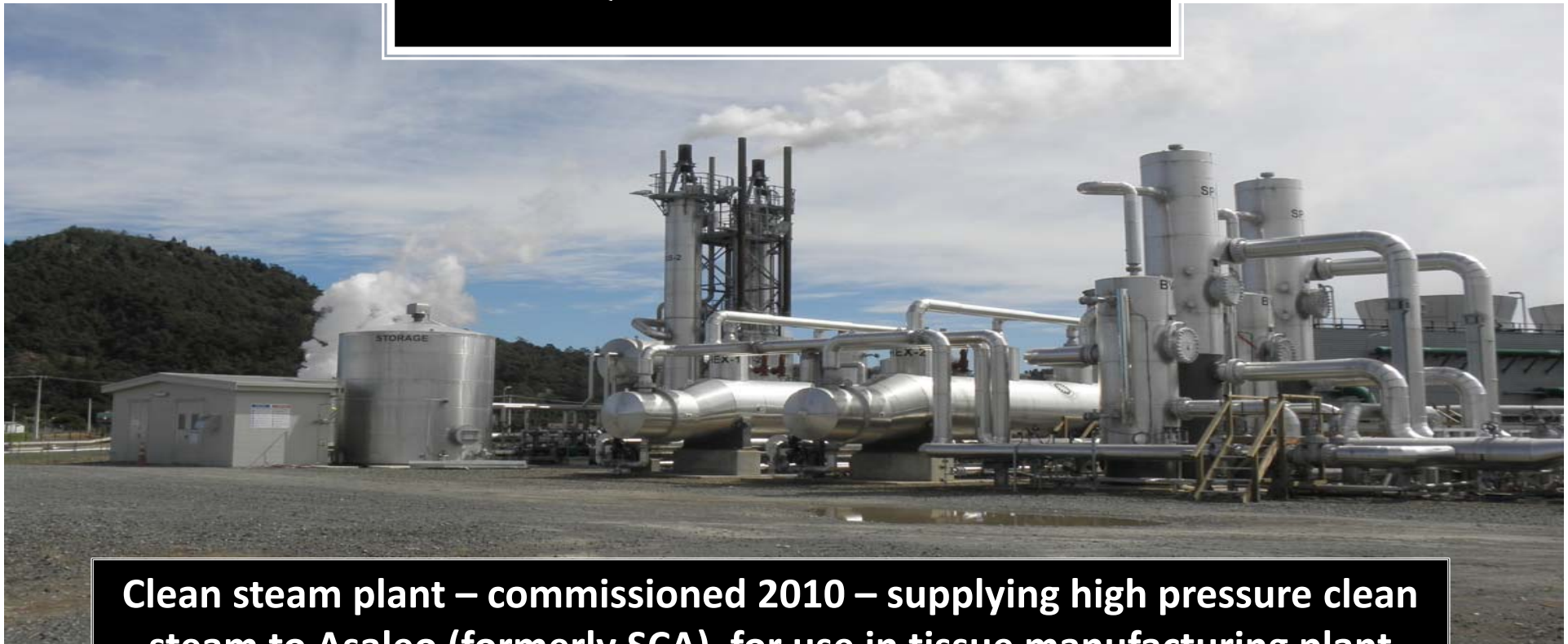
**Kawerau industrial complex from
Mt Putauaki
Norske Skog Mill is left-foreground**



UNIQUE IN WHAT WE DO

- 🌀 **Only NZ geothermal business 100% owned by Iwi**
Business aligns to the principles of NTST
- 🌀 **Sustainable management of reservoir as kaitiaki (stewardship)**
- 🌀 **Only NZ geothermal business predominantly supplying process heat: support Kawerau industry**
- 🌀 **Among the largest direct heat suppliers in the world**
- 🌀 **Provide unique supply solutions for new supplies:**
 - Clean steam plant – to Asaleo Care
 - Sequal Lumber
 - NST power plant

UNIQUE SUPPLY SOLUTIONS



Clean steam plant – commissioned 2010 – supplying high pressure clean steam to Asaleo (formerly SCA) for use in tissue manufacturing plant



THE FIRST DECADE

- 🌀 **Significant investment to improve aged infrastructure**
- 🌀 **Significant investment in new infra-structure**
- 🌀 **Good result, especially given the challenging economic conditions**

**KAWERAU STEAM FIELD
DEVELOPMENT 2013-2014**



**KA49 and KA53 injection well pad
toward Mt Putauaki**



THE FIRST DECADE



GRANTED NEW RESOURCE CONSENT



New 45,000tpd take and discharge consent in 2014

Provides opportunity for increased revenue



Investigating supply opportunities with customers

To fully utilise the consent will require “successfully “ drilling
4 new production and 4 new injection wells



THE FIRST DECADE

ITS NOT EASY DOING BUSINESS

- **Legislation**
- **Gaining credibility – customers, stakeholders, *THE BANK !***
- **Old infra-structure**
- **Cultural versus commercial – governance**
- **Regulatory environment – supportive of electricity**



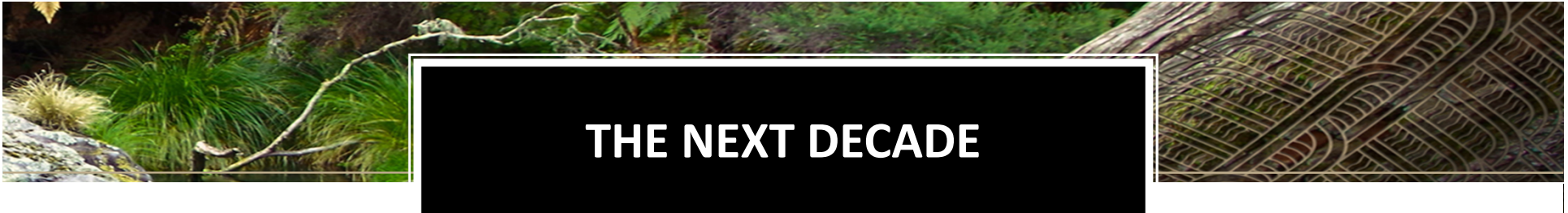
WORKING TOGETHER

- 🐌 **Multi-tapper field – NTGA largest take (89,400 tpd)**
 - Mighty River Power (65,000 tpd)
 - Geothermal Developments Ltd (6,340 tpd)
 - Te Ahi o Maui (15,000 tpd)
- 🐌 **One geothermal reservoir - sustainability**
 - Regional Council – kaitiakitanga (stewardship)
- 🐌 **Geothermal community / NZGA**
- 🐌 **Landowners**
- 🐌 **Customers / stakeholders**
- 🐌 **Ormat**



THE NEXT DECADE

- 🌀 **Capacity building – investment in people**
 - Operations and Maintenance – a first step
 - Scholarships / apprenticeships
 - Jobs for our people
- 🌀 **Continuing investment in infrastructure**
- 🌀 **New customers – utilise 45,000 tpd consent**
- 🌀 **Ngati Tuwharetoa (BoP) development opportunities**
 - Ormat power plant development
 - Direct heat opportunities – glasshouse / milk powder
 - Cascading uses



THE NEXT DECADE

Kawerau is attractive for future geothermal development because:

The Kawerau geothermal field and demand for renewable energy

Neighbouring forests

NZs log harvest industry is set to increase by over 50% in the next decade

Existing and potential wood processing industry

Close proximity to established rail and road links to the Port of Tauranga

NZ Energy Strategy target of 90% NZ electricity generation from renewable sources by 2025



CONCLUSION

- 🌀 **Reconnection with our geothermal resource**
- 🌀 **Well positioned to be a participant in the World-wide goal of 100% renewable energy supply**
- 🌀 **Active participant in our economic development rather than an observer**



NGATI TUWHARETOA GEOTHERMAL ASSETS LTD

E NOHO RA