



Endless energy right under our feet.



#changematters

## The challenge

Nature's Flame's current boiler wasn't able to meet the energy required to run its plant at full capacity.

## The solution

A new heat plant to transfer geothermal heat from Contact's existing supply to Nature's Flame dryers, allowing Nature's Flame's plant to run at its full design capacity and contribute to improving the Taupō airshed, through lower particulate emissions as a result of the switch to geothermal energy.

## The results

The plant now has boundless energy on tap, contributing to an increase in production, a positive effect on the local economy and a reduction in air pollution.

## August 2020

### Nature's Flame manufacture wood pellet fuel from FSC certified sustainable forest residues, a product that is considered carbon neutral.

Since the Taupō Plant was developed in 2005 it used a biomass boiler to provide heat for drying the product. However, this boiler could not meet the energy required to run the plant at full capacity.

### Finding a solution underground.

Nature's Flame engaged with Contact to convert the plant to run on geothermal energy, in order to allow it to reach full capacity and to significantly expand its business.

Initial discussions with Nature's Flame (then a subsidiary of Solid Energy) started back in 2009 and restarted with Norske Skog in 2015, with a final energy supply agreement signed in 2019.

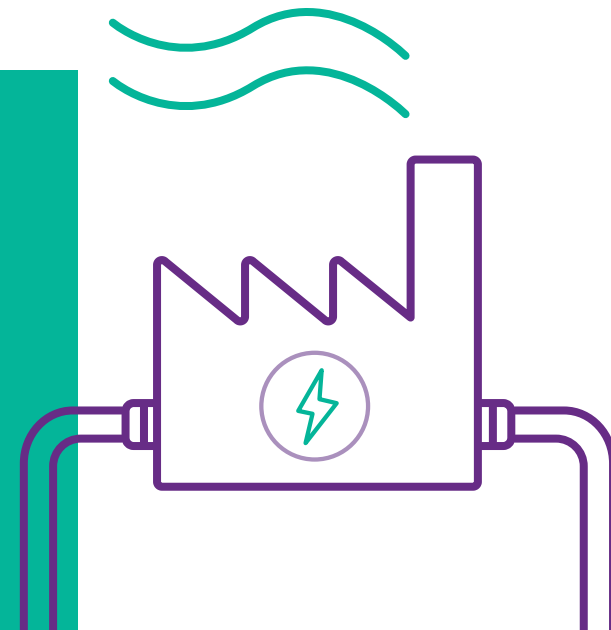
### Putting endless energy to work.

This agreement involved the construction of a new heat plant to transfer geothermal heat from Contact's existing Tenon Clearwood sawmill supply to freshwater, which is then transferred 700 metres to the Nature's Flame dryers. The freshwater is recirculated back to the geothermal heat exchanger to be reheated (to 150°C).

Once the heat has been utilised, the fluids are re-injected back into the geothermal reservoir at a depth of about 700 metres.

The energy supply system was commissioned in late October 2019.

**“Our boiler was literally running out of steam.”**



## Drilling deep, but aiming high.

There were a number of goals for the conversion including increasing production, supporting the local economy and making the air cleaner.

All these objectives were met. Optimising the use of the energy available allowed Nature's Flame's production to increase to 85,000 tonnes of pellets a year.

And supporting a local business and local employment by providing a low cost, renewable and reliable energy supply.

Contact is also delighted to support a business which helps us to export geothermal energy.

## Opening up new opportunities.

Nature's Flame now now enjoying having 'boundless energy on tap'. If they need more heat they can get it instantly, without having to wait for their old boiler to fire up.

Providing geothermal energy to the plant has allowed them to get up to full capacity, and confidently enter into long term supply agreements to export their pellets to Japan and Korea.

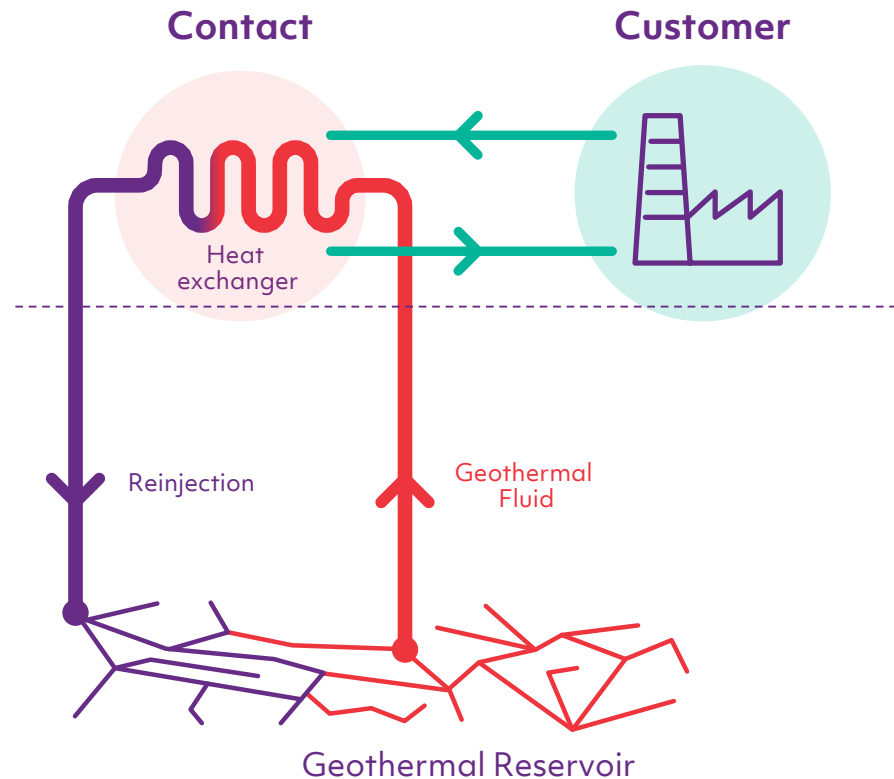
Also, in early 2020 Fonterra announced the conversion of their Te Awamutu Dairy Factory from coal to wood pellets supplied exclusively by Nature's Flame.

All thanks to this limitless heat source right below our feet.

**Now that's a change that matters.**

**#change  
matters**

## How it works.



**If you're ready to start your #changematters journey get in touch with James Carberry, Head of Sustainable Opportunities: [james.carberry@contactenergy.co.nz](mailto:james.carberry@contactenergy.co.nz) M: +64 27 304 7720**