

POWER OWNED BY AND FOR THE PEOPLE OF THE FAR NORTH

OUR NEW GEOTHERMAL POWER STATION IS LIVE!



The electricity coursing through power lines and cables, heating kettles and turning on lights is **now generated in the Far North.**



Community owned Top Energy recently commissioned the Ngāwhā geothermal power station (OEC4) after an intensive three-year construction, well drilling and plant assembly programme.

Despite delays due to COVID-19 the power station was completed six months earlier than planned. A testament to the hard work the company and its contractors United Civil Construction, Iceland Drilling, Culham Engineering and Israel firm Ormat.

One of the largest projects undertaken in Northland, Ngāwhā power station secures an independent, renewable and affordable power supply, ending the region's reliance on the National Grid and electricity being transported from the south.

The new station will generate 32MW of power, considerably more than the 25MW generated by

the two existing power stations combined. The total output will supply the Far North's electricity demand 95% of the year, with excess power exported to the rest of Northland through the National Grid.

Now that OEC4 is generating electricity, Top Energy starts a three year period of monitoring the geothermal field. This is to ensure that the field performs in a similar way to the model prepared by GNS Science in support of the resource consent application. OEC5, the next 32MW station, is already consented, subject to confirmation of the performance of the field but will only proceed if an acceptable business case can be developed. In the coming years the company will monitor market conditions to determine whether OEC5 should proceed. The OEC5 investment will also be subject to a Major Transaction Approval by the Top Energy Consumer Trust.



PROJECT TIMELINE

Planning for the Ngāwhā geothermal power station goes back many years with various regulatory and consenting requirements.



JUL 2017
Final resource consents granted.



OCT 2017
Major transaction approval granted by Top Energy Consumer Trust and Top Energy Board. Enabling works begin onsite.



DEC 2017
Contracts awarded for the well drilling and for the power station construction.



JAN-APR 2018
Construction of drilling pad, water storage and settlement ponds, and first stage of power station complete.



APR-MAY 2018
Drilling begins.



SEP-OCT 2018
Viability of geothermal resource determined.



JAN-SEP 2019
Well drilling and power station platform construction completed. Construction of control room, office, substation and transmission line begins.



MAR 2019
Ancient Kauri discovered during excavations is gifted to Ngāwhā Marae.



OCT 2019-AUG 2020
Construction of power station, pipelines and electricity transmission system continues.



DEC 2019
New control room operational.



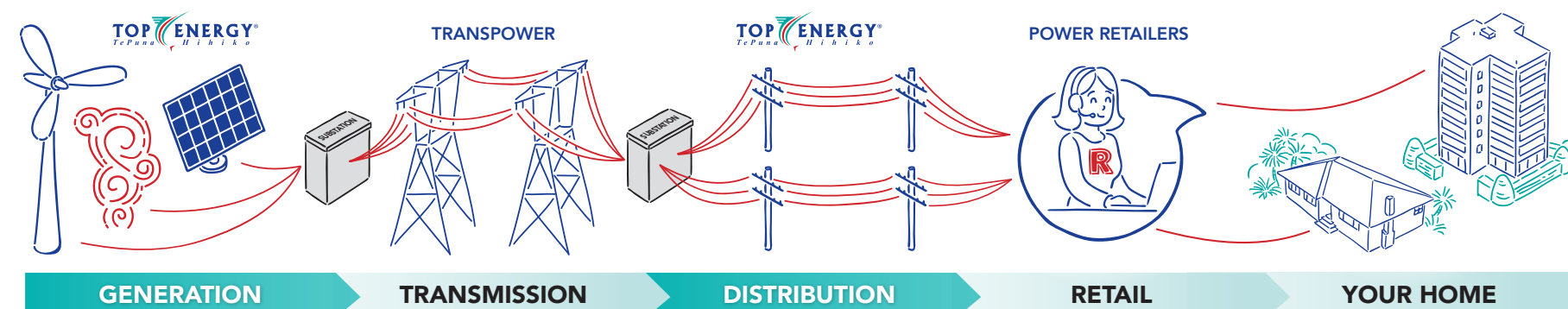
AUG 2020
Commissioning and testing of the transmission line and power station begins.



DEC 2020
Power station is live.

WHERE TOP ENERGY FITS IN THE POWER INDUSTRY

The regulated electricity supply chain has many players and has been structured to protect consumers and ensure that competition exists between generation, transmission, distribution and retail.



DID YOU KNOW...

KEY FACTS

Power generated will create revenue which in turn **WILL DRIVE DOWN THE COST OF DELIVERED ELECTRICITY** to the people connected to Top Energy's network.

Over 1000m³ of geothermal liquid can be processed per hour – enough to fill an Olympic swimming pool in 2.5 hours. This fluid is cycled back into the geothermal reservoir 900m–1500m below ground.

\$185
MILLION

OVERALL COST

32
MW

GENERATES

1M
CUBIC METRES

OF MATERIAL EXCAVATED

OVER 75
KILOMETRES

OF CABLE LAID ON SITE

A LOCAL RESOURCE OWNED BY THE COMMUNITY

Top Energy is owned by the people of the Far North, with their shares held on their behalf by the Top Energy Consumer Trust.

For more information visit:
www.topenergy.co.nz

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