## Update on Ngawha Geothermal Expansion Project

Presentation to NZ Geothermal Conference
Ray Robinson
November 2016



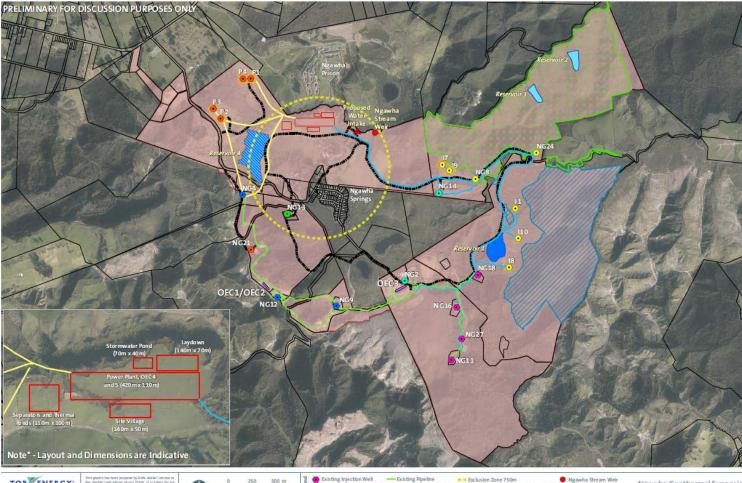


## **Ngawha Expansion**

- Consent for a 50MWe expansion in two 25MWe stages granted in February 2016.
- The design work to produce a cost basis memorandum for the first 25MWe station has started.
- Business case to the Board and Trust in September 2017.
- Assuming approval is granted, enabling works to start November 2017 and production well drilling in March 2018.
- Commercial operation is scheduled for June 2020.









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Data Sources: Aerial Surveys (2013 Aerials), Top Energy, Boffa Miskell, Far North District Council (ONF), UNZ (cadastre)



Existing Production Well Injection Pipe Corridor Proposed Production Well
 Proposed Reinjection Well
 Existing Stations

Resisting Monitoring Well Production Pipe Corridor Proposed OEC4, OEC5 and Associated Proposed Water Intake Ponds and Laydown Area

Ngawha Generation Limited Land Drill Pad ✓ QEII Land

X SNA

Proposed

Existing Reservoir Consented Reservoirs Ngawha Geothermal Expansion Project Overview Plan

Date: 22 July 2016 | Version: E Plan Prepared for Top Energy by Boffa Miskell Limited Author: sandeep.gangar@boffamislell.co.nz | Checked: AB u