

Dispatch 1: Huntly Power Station and Rotowaro Coal Mine

This trip commenced with everyone gathering up in the Auckland airport around 12 pm on 4th of April. Then the group was loaded into 2 vans with the mission of reaching the Huntly power station and Rotowaro coal mine for that day.

After an hour of driving the destination of Huntly power station was reached and a tour of site was conducted with the supervision from one of the head engineer from Huntly. Huntly power station is the largest power station in New Zealand and is owned and operated under Genesis Energy. Currently it provides roughly 12% of New Zealand's electricity generation. The plant consists two 250 MW coal-gas steam turbine units, 50 MW gas peaking plant and a 403 MW combined cycle gas turbine plant. In December of 2012, Genesis Energy placed one of the four Huntly Power Station's 250 MW coal-burning units into long-term storage. While in 2013, a second coal-fired generating unit was placed into storage, and was permanently put out of commissioned in June of 2015. While electricity will be continued to be generated at the Huntly site from the two-existing gas-fueled units, the 400MW Unit 5, and the smaller 48 MW open cycle Unit 6.



Figure 1: Overview of Huntly Power Station

Genesis announced in 2018 that the coal fire plants will be operational till 2025, and after that the company would stop using coal, except in the case of energy shortages, and a date of 2030 to stop using coal entirely. One of the coal providers for the is the Rotowaro coal mine which was the subject of our second visit for the day.

The Rotowaro coal mine is located about 10 km west of the Huntly power station. The mine was established in 1978 and was closed down for production in 2018. In its heyday the mine was 20 hours a day out of 6 days a week. It used to employ around 100 onsite personal. It used to produce around 1.3 million tonnes of sub-bituminous coal every year which made about 2nd largest opencast mine in the country. The majority of the coal was bought by the Glenbrook steel mill and Genesis. Since the mine is in a very low operation state, it only provides coal to the Huntly power station.



Figure 2: Rotowaro Coal Mine