



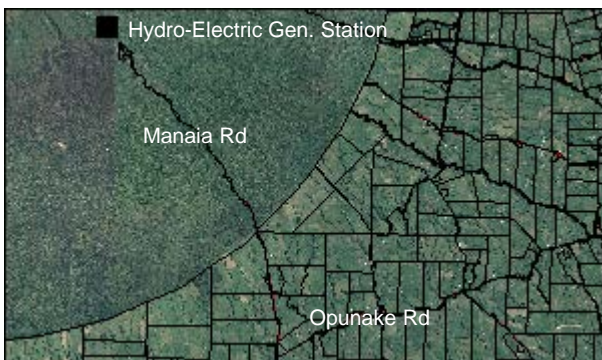
# Dawson Falls Hydro-Electric Generating Station

**Kapuni Stream, National Park**

**1934**

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<b>Use:</b>	Electricity supplier	<b>Historic Value:</b>	4 out of 5
<b>Materials:</b>	Machinery, timber building	<b>Architectural Value:</b>	1 out of 4
<b>NZHPT Registered:</b>	Not registered	<b>Technical Value:</b>	2 out of 2
<b>Legal Description:</b>	Sec 6 Bkll Kaupokonui SD	<b>Symbolic Value:</b>	1 out of 3
		<b>Rarity Value:</b>	2 out of 2
		<b>Townscape Value:</b>	1 out of 2
		<b>Group Value:</b>	- out of 2
		<b>Overall Heritage Value:</b>	11 out of 20



This piece of early hydro-power history is relatively unknown. Stratford is very fortunate in having what is likely to be the longest running Hydro-Electric Generator currently still in use in the world.



As the plaque on the generator machinery testifies, it was built by General Electric Co., Schenectady, New York in c. 1896. It was bought for a Hydro-Electric facility in Launceston, Tasmania, however, they sold it on to the New Zealand Defence Forces in 1914 and records show it was kept at Trentham until 1922. The generator then held an 11 year stint running the Kelburn - Karori Cable Car in Wellington. Thomas Overton was the consulting engineer for the South Taranaki Electric Power Board and consequently, in this role, designed the power station. Due to the limited funds of the Board's committee the lowest bid to build the station was still £600 more than they could afford to pay. This determined the decision to purchase second hand equipment for the venture.

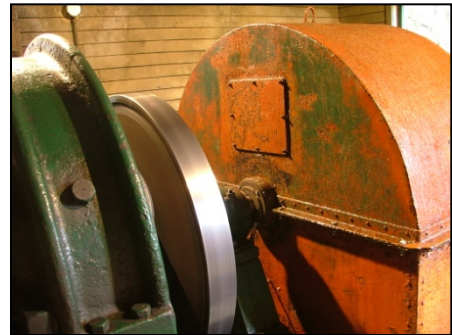
In 1934, after two years of planning, the station was built by a group of unemployed men under the direction of Fred Pettet and it was officially opened 30 June.

However, disaster struck not even a year after its inception. On 21 February 1935, major flooding occurred. Dawson Falls recorded 19.62 inches of rain in 48 hours, and due to the position of the Kapuni River, it bore the brunt of the torrent of water cascading down the slopes of the mountain. The famous twin falls of Dawson became a single fall and this in turn swept through the power station at chest height. Mr. B.E. Murphy, the son of the original proprietor of Dawson Falls Lodge had to go into the partially submerged power house to stop the generator and turn off the main valve to the Pelton Wheel before the extreme floods destroyed the machinery.

Consequently it was decided that the power house would be relocated to prevent such a disaster from recurring. So on 5 July 1935, the rebuilt power house and renovated generator were officially opened by Sir Alexander Young, Minister of Health, 10 metres above the Kapuni Stream.

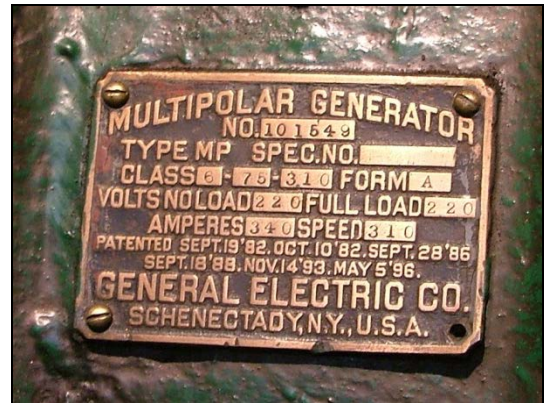


*Machinery of the generator (inside the power house)*



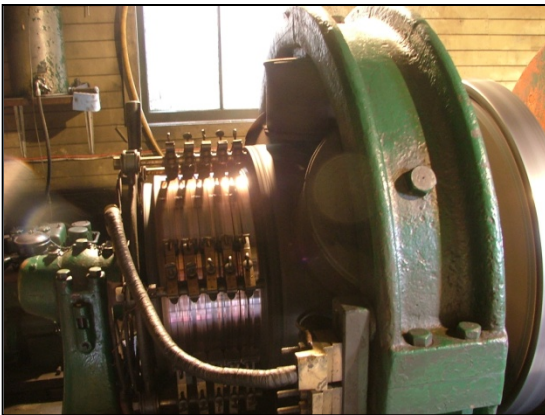
Although no further flooding occurred after moving the station, keeping it clear of debris remained an important job for the proprietors of the lodge. In the 1940s, the lights would begin to dim and owners, waitress's or even an experienced guest would be roped to cross the fast flowing Kapuni to the dam and intake to clear away the leaves and allow water to flow back in.

The generator is powered by water from a dam on a tributary of the Kapuni River. Water-jets from a 635m long, 250mm diameter steel pipe feed the generator from 66.5m above the power house. The pelton wheel has cups on it, similar to a water wheel, and this drives the direct current generator, a governor, flywheel and a small alternator with an output rating of a possible 75kW.



Since 1935, the Dawson Falls Hydro-Electric Power Station has operated continuously as it has been well maintained and serviced.

By 1975, the Station was supplying the Dawson Falls Visitors Centre and Konini Lodge as well as Dawson Falls Lodge. In 1982, mains electricity arrived on the Mountain and soon after the Dawson Falls Lodge became the only building to be using power from the Station.



The most significant upgrade was begun in November 2004 finishing early 2005. \$120 000 was spent on replacing the 585m steel pipe running from the dam to the station and upgrading the penstock, weir, generator, pelton wheel, governor and access track.

### **Bibliography:**

- 'Lodge Generator Was Built Last Century' Taranaki Herald, 8 February 1975.
- 'Old Power Workhorse to get New Lease on Life' The Daily News, 9 August 2004, p4.
- 'New Pipeline for Antique Generator' Stratford Press, 17 November 2004, p17.
- DOC Information Sheets