



New Zealand Hydro-Electricity Generation, Irrigation & Water Storage Case History Information

The case histories tabulated below represent a cross section of projects undertaken by Altex Coatings over a period of some 25 years.

This list does not encompass all work of this type undertaken by Altex however it does reflect the fully audited projects in many facets of fresh water immersion, principally with major hydro-electric power generators such as Electricity Corporation of New Zealand (ECNZ).

It should be noted that ECNZ, a former State Owned Enterprise, has since been split into four competing generating companies; Contact Energy, Mighty River Power Ltd., Genesis Power Ltd., and Meridian Energy Ltd..

A number of projects listed below were carried out on (then) ECNZ stations but now may be owned by (and listed as assets of) the new state owned enterprise companies.

The success of the Altex proprietary coatings and systems is evidenced by the repeat projects (see listings) carried out from year to year on many sites.

Suited equally to new work as to maintenance, the Altex custom designed systems take full advantage of the individual characteristics of our extensive range of Altex epoxy coatings to maximise life expectancy at minimum practical cost.

Location	Year	Location	Year
Wairarapa Catchment Board Radial Flood Gates	1980	Tauranga Joint Generation Committee Ruahihi Power Station Int./Ext. Penstocks	1980
Hamilton City Council Ruahihi Reservoir	1979	Rotorua District Council Kaituna River Control Gates	1983
Tauranga Joint Generation Committee Lloyd Mandeno Power Station Repair failing C.T.E. lining	1983	Taupo Borough Council Hinemaia A Power Station Replace Penstock lining	1982
Taupo Borough Council Hinemaia B Power Station Int./Ext. new Penstock	1984	ECNZ Waikaremoana Power Scheme Kaitawa Power Station Re-line G6 Penstock	1985
ECNZ Waikaremoana Power Scheme Tuai Power Station G2 Penstock; C.T.E repairs	1993	ECNZ Waikaremoana Power Scheme Tuai Power Station G1 Penstock; C.T.E repairs	1994
ECNZ Waikaremoana Power Scheme Kaitawa Power Station Repaint ext. G6 & G7 Penstocks	1992	Mangatawhiri Irrigation Scheme Int./Ext. pipelines	1991
ECNZ North Waikato Hydro Group Arapuni Power Station Reline Penstock G8	1992	ECNZ North Waikato Hydro Group Arapuni Power Station Reline penstock G1	1993
ECNZ South Waikato Hydro Group Maraetai Power Station Repaint head gates	1991 1992 1993	ECNZ South Waikato Hydro Group Maraetai Power Station Int./Ext. Auxiliary penstock	1994
ECNZ South Waikato Hydro Group Ohakuri Power Station Repaint Ext. Penstocks	1989	ECNZ South Waikato Hydro Group Ohakuri Power Station Reline Auxiliary Penstock	1992

ECNZ Tokaanu Hydro Group Mangahao Power Station Ext. Penstock Maintenance	1992	Tauranga Joint Generation Committee Ruahihi Power Station Int./Ext. Canal Replacement Penstock	1982
Bay of Plenty Electricity Aniwhenua Power Station Repair failed CTE Scroll Case	1985	ECNZ North Waikato Hydro Group Karapiro Power Station New Diversion Tunnel Project Line tunnel; coat all gates etc.	1993
ECNZ Tokaanu Hydro Group Tongariro Power Scheme 1. Ext. Wanganui Pipe Bridge 2. Rotating Screens 3. Poutu Intake Gates & Gantry	1993	Head Gates & Stop-Logs; Full Sets ECNZ Whakamaru ECNZ Aratiatia ECNZ Ohakuri ECNZ Maraetai A ECNZ Waipapa ECNZ Arapuni ECNZ Karapiro	1991 through 1993
ECNZ Tokaanu Hydro Group Tokaanu Power Station Reline G5 Scroll Case	1994	Watercare Services, Auckland Int./Ext. Water Pipelines	1989
New Plymouth Energy, Taranaki Mangorei Power Station Int./Ext. Penstocks	1992	King Country Electric Power Board Kuratau Power Station Int./Ext. Penstocks	1990
ECNZ Waikaremoana Power Scheme Piripaua Power Station New Head Gate	1994	ECNZ Waikaremoana Power Scheme Tuai Power Station Lake Tuai Tip Gates	1993
ECNZ Waikaremoana Power Scheme Tuai Power Station Reline G1 & G2 Scroll Cases	1989	ECNZ South Waikato Hydro Group Aratiatia Power Station Surge Chamber Gantry Crane	1993
ECNZ South Waikato Hydro Group Aratiatia Power Station Surge Chamber Gate Structure	1994	ECNZ North Waikato Hydro Group Arapuni Power Station New South End Stop Logs	1993
Kaimai Hydro Power, Tauranga Ruahihi Power Station Repaint Forebay Stop Logs	1993	ECNZ North Waikato Hydro Group Karapiro Power Station Repaint G1 Wicket Gates	1994
ECNZ Southern Hydro Group Roxburgh Power Station Repaint Headgates	1988 1989 1990	ECNZ Southern Hydro Group Cobb Power Station Repaint Ext. Penstocks	1992 1993
ECNZ Waitaki Hydro Group Tekapo A Power Station Repaint Stop Logs	1989	Nelson City Council, Nelson Maitai Water Supply Scheme Int./Ext. Pipelines & Intake Structure	1984
Christchurch City Council Heathcote River Flood Gates	1994	Waihi Hydro Electric Scheme, Wairoa Int. Penstocks and Gates	1986
Kaimai Hydro Power, Tauranga K5 Outfall Generation Project Int./Ext. Penstock, Draught Tube	1994	Rotorua Area Electricity Authority Whaeo Power Scheme Int./Ext. Penstocks	1986
ECNZ North Waikato Hydro Group Arapuni Power Station Interior Lining of Penstock G7	1995	ECNZ South Waikato Hydro Group Maraetai II Power Station Recoat Draught Tube Stop Logs	1995
ECNZ South Waikato Hydro Group Maraetai I Power Station Recoat Diversion Tunnel Head Gate	1995	ECNZ North Waikato Hydro Group Karapiro Power Station & Arapuni Power Station Full maintenance of heat exchanger end caps and assemblies	1994/95
ECNZ North Waikato Hydro Group Arapuni Power Station Re-line G5 Penstock	1995	ECNZ South Waikato Hydro Group Aratiatia Power Station Refurbish Sluice Gates 1 & 2	1996

ECNZ South Waikato Hydro Group Whakamaru Power Station Total repaint Diversion Tunnel Head Gate	1996	ECNZ North Waikato Hydro Group Karapiro Power Station Refurbish No.3 Head Gate	1996
ECNZ North Waikato Hydro Group Karapiro Power Station Refurbish lining for Kaplan Turbine Scroll Casing	1996	Ranfurly, Central Otago, Sth. Is. Hydro Penstock Lining	1980
Dunedin City Council Branch River Water Pipeline	1980	Poverty Bay Electric Power Waihi Hydro Electric Scheme Penstock Linings	1982
ECNZ South Waikato Hydro Group Aratiatia Power Station G3 Scroll Case Repairs	1997	Waitomo Electric Power Board Waiwera Falls Power Station Scroll Case Linings	1987
ECNZ Waikaremoana Power Scheme Kaitawa Power Station Reline G7 Penstock Tunnel & Scroll Case	1996	Richmond Ltd. - Export Meat Works Oringi Plant, Hawke Bay Int/Ext New Potable Water Tank	1995
ECNZ South Waikato Hydro Group Aratiatia Power Station Refurbish No.1 & 3 Scrolls	1996 & 1997	ECNZ South Waikato Hydro Group Aratiatia Power Station Head Gate (permanent immersion)	1998
ECNZ Roxburgh Power Station Repaint No.2 Sluice Gate (upstream face)	1996	Mighty River Power Ltd. Atiamuri Power Station Sluice Gates	1999
Meridian Energy Ltd. Aviemore Power Station G4 Turbine Wicket Gates (20 off)	1999	Mighty River Power Ltd. Waipapa Power Station Head Gates, 3 off (9 sections)	1999
Mighty River Power Ltd. Waipapa Power Station G3 Kaplan Turbine Cover & Scroll	1999	Mighty River Power Ltd. Karapiro Power Station Sluice Gates, 4 off	1998 & 1999
Mighty River Power Ltd. Ohakuri Power Station G4 Penstock lining	2000	Mighty River Power Ltd. Arapuni Power Station G5 & G6 Wicket Gates Draft Tubes & Scrolls	2000
Mighty River Power Ltd. Karapiro Power Station G1 & G2 Head Gates	1999	Mighty River Power Ltd. Ohakuri Power Station G2 Penstock Lining	2001
Mighty River Power Ltd. Ohakuri Power Station Aux. Penstock Lining	2003	Mighty River Power Ltd. Ohakuri Power Station G3 Penstock Lining	2003
Genesis Power Waikaremoana Power Scheme Piripaua Power Station G4 & 5 Scroll Casings Lining	2003	Mighty River Power Ltd. Ohakuri Power Station G1 Penstock Lining	2003
Contact Energy Ltd. Roxburgh Power Station G8 Wicket Gate Set	2002	Mighty River Power Whakamaru Power Station G4 Penstock Lining	2004
Mighty River Power Atiamuri Power Station G4 Scroll Case Lining	2005	Mighty River Power Whakamaru Power Station G1 Penstock Lining	2005
Mighty River Power Arapuni Power Station G5 Draft Tube Reline	2000	Mighty River Power Aratiatia Power Station G2 Penstock Relinig	2005
Mighty River Power Atiamuri Power Station Auxiliary Penstock Reline	2003	Mighty River Power Maraetai B Power Station G7 Scroll & Draft Tube Reline	2006

Mighty River Power Maraetai B Power Station G8 Penstock Reline	2005	Mighty River Power Waipapa Power Station G1 Scroll Case Reline	2006
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Mighty River Power Whakamaru Power Station G4 Penstock Reline	2004		
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