2.11 HYDRO (TYPE NO.6)

Type:	Hydro	
Total Population	73	
State Distribution	QLD, VIC, NSW, TAS	
Output Range	70-1500MW	
Sub-Types:	5,	No. 1 Pelton,
		No.2 Francis,
		No.3 Kaplan,
		No.4 Leffel,
		No.5 Waterwheel

2.11.1 Pelton (Sub Type 1)

Table 2.9 Type Profile: Hydro - Sub-Type: Pelton

PELTON - HYDRO			OUTPUT MW							UNITS
Const. Date	Name	State	<10	30-100	101-500	>500	≥2	2-5	6-10	Notes
1895	Gara River	NSW						4		Nothing remains
1895	Thargomindah	QLD					1			Not operational
1897	Mt Bischoff	TAS								Nothing remains
1909	Moorina	TAS	.9MW					3		Operational
1910	Myendetta*	QLD					1			Not operational
1914	Lake Margaret	TAS	8.4MW						7	Operational
1916	Jenolan Caves	NSW	.04MW				2			Decommissioned
1916	Waddamana A	TAS		49MW					9	Decommissioned
1926	Mullumbimby	NSW	.3MW				2			Operational
1926	Rubicon Falls	VIC	.3MW				1			Operational
1928	Rubicon	VIC	9.2MW				2			Operational
1933	Quilpie*	QLD	.008MW				1			Not operational
1938	Tarraleah	TAS		90MW					6	Operational
1944-1949	Waddamana B	TAS		48MW				4		2 units kept on standby
1957	Kareeya	QLD		72MW				4		Operational
1964	Poatina	TAS			300MW				6	Operational
1965	Bedourie*	NSW	.008MW				1			Operational
1973	Fisher	TAS		46MW			1			Operational

* In rural areas Pelton wheels were sometimes installed on farms to harness power from bore water. Information on these is difficult to obtain - generators at Myendetta, Bedourie and Quilpie are examples of these.

Table 2.9 Type Profile | Sub-Type: Pelton

Classes Identified: 3 | Small <10 MW

Medium 30-100 MW

Large >100 MW

Table 3.9 Audit: Pelton Hydro Stations

Table 3.9.1 Audit: Pelton Small <10MW

NAME	STATE	DATE OF CONSTRUCTION	NOTES
Pelton Small <10MW			
Gara River	NSW	1895	Only scattered relics remain at this site.
Thargomindah*	QLD	1895	Single Pelton powered by water from a bore. Not operational. Has been offered to a museum - by the private owner.
Mt Bishoff	TAS	1897	Nothing remains at this site.
Moorina	TAS	1909	Operational 3 x .3MW turbines.
Myendetta *	QLD	1910	Not operational - a single turbine which ran from a bore. Privately owned.
Lake Margaret 1	TAS	1914	Operational - 7 x 1.2MW turbines.
Jenolan Caves	NSW	1916	Last operated in 1984 - 2 x .02MW turbines. The power house also houses operating diesel engines.
Mullumbimby	NSW	1926	Operational - 2 x 0.15MW turbines. The power house also houses operating diesel engines.
Rubicon Falls	VIC	1926	Operational - 1 x .3MW turbine.
Rubicon	VIC	1928	Operational - 2 x 4.6MW turbines.
Quilpie *	QLD	1933	Not operational - Single .008MW Pelton which ran from a bore. Prviately owned.
Bedourie *	NSW	1965	Operational - Single .008MW Pelton powered by water from a bore.

* These single Peltons are examples of small generations which were used (usually privately owned) in rural areas where bore pressure was high enough.

Table 3.9.2 Audit: Pelton Medium 30MW-100MW

NAME	STATE	DATE OF CONSTRUCTION	NOTES
Pelton Medium 30MW - 100MW			
Waddamana - A	TAS	1916	Not operational - 9 x 5.4MW turbines. Since 1988 this station has been operated as a static museum.
Tarraleah	TAS	1938	Operational - 6 x 15MW turbines.
Waddamana B	TAS	1944-49	Operational - two of the four 12MW turbines are kept on standy.
Kareeya	QLD	1957	Operational - 4 x 18MW turbines.
Fisher	TAS	1973	Operational - 1 x 46MW turbine.

Table 3.9.3 Audit: Pelton Large >100MW

NAME	STATE	DATE OF CONSTRUCTION	NOTES
Pelton Large > 100 MW			
Poatina	TAS	1973	Operational - 6 x 50MW turbines.

2.11.2 Small Pelton Hydro

TYPE: HYDRO	SUB-TYPE PELTON
CLASS: SMALL	
Period	1895 to present
State Distribution	NT -, Qld 3, SA -, Tas 3, WA -, NSW 4, Vic 2-.
Output Size	.0001 MW - <10 MW
No. of Units	1-9*
Population Total 12	Notes: This class includes early historic stations for which there may be very little surviving information. It is possible that further examples of this class exist within private rural holdings.

Hydro Pelton Medium

TYPE: HYDRO	SUB-TYPE PELTON
CLASS: MEDIUM	
Period	1916 to present
State Distribution	NT -, Qld 1, SA -, Tas 4, WA -, NSW -, Vic -.
Output Size	30 MW - 100 MW
No. of Units	1-9
Population Total 5	Notes:

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Hydro Pelton Large

TYPE: **HYDRO**	SUB-TYPE **PELTON**
CLASS: **LARGE**	
Period	**1960 to present**
State Distribution	**NT -, Qld -, SA -, Tas 1, WA -, NSW -, Vic -.**
Output Size	**>100 MW**
No. of Units	**≥6**
Population Total **1**	**Notes: Poatina is the only station in this range at present.**

** See Section 3.9 for a more detailed audit of the Hydro Pelton power station Type.