



IRRICAN POWER GENERAL OVERVIEW

Irrigation development is woven inextricably into the history of southern Alberta and is a major influence on the social and economic fabric of the province. The St. Mary River Project is an extensive irrigation development that collects, stores, and conveys water for approximately 500,000 acres of irrigated agriculture.

In October 1988, the provincial government introduced the Small Power Research and Development Program. The program assured a guaranteed price and market for power thus making small power projects in Alberta viable.

In order to benefit from this program the Irrigation Canal Power Cooperative Ltd. (Irrican Power) was formed to develop hydropower projects on the existing water conveyance infrastructure in southern Alberta. Irrican is a cooperative subject to the laws of Alberta. Its members are: Raymond Irrigation District, St. Mary Irrigation District, and Taber Irrigation District. The common thread between these three irrigation districts is that they all draw water from the St. Mary Main Canal. It is on this canal that the greatest potential for hydropower development exists. The power produced at the three Irrican plants is Eco-Logo certified as green power.

Raymond Reservoir Hydroelectric plant

Located on the St. Mary River Irrigation Project Main Canal at Raymond Reservoir.

Online May, 17, 1994.

Total cost \$26,800,000 Steel Penstock (4.0m diameter, 764m long)

Kaplan Turbine (Nameplate capacity 20.5MW, 24,000hp at 44m head)

Operating Range 400cfs to 2000cfs



Chin Chute Hydroelectric plant

Located on the St. Mary River Irrigation Project Main Canal at Chin Reservoir.

Online June, 10, 1994.

Total cost \$17,800,000 Steel Penstock (3.5m diameter, 209m long)

Francis Turbine (Nameplate capacity 11.4MW, 15,000hp at 40.5m head)

Operating Range 400cfs to 1100cfs



Drops 4,5 and 6 Hydroelectric plant

Located on the St. Mary River Irrigation Project Main Canal west of the Town of Raymond

Online July, 2, 2004.

Total cost \$14,800,000 Concrete Penstock (4.1m diameter, 40m long)

'S' Type Kaplan Turbine (Nameplate capacity 6.9MW, 9,000hp at 15.2m Head)

Operating Range 400cfs to 1,800cfs

