



## CHIN CHUTE POWER PLANT

The Chin Chute Hydroelectric Project is an 11-MW facility that is being developed under the Small Power Research and Development Program by Irrigation Canal Power Cooperative Ltd. (IRRICAN) Power). IRRICAN Power is a partnership of the Raymond Irrigation District, St. Mary River Irrigation District (SMRID) and Taber Irrigation District.

Water, which is currently conveyed in the SMRID main canal down Chin Chute and into the Chin Reservoir, is diverted through a penstock and powerhouse and then out to Chin Reservoir.

While the project has an allocated capacity of 11 MW, the turbine will produce up to 13 MW (17,000 hp). The energy produced would be enough to serve 6,400 homes.

Notice to proceed with the detailed design of the project was given by IRRICAN Power in February 1992. The full operation date of the project was May 17, 1994.

The main elements of the project are:

- An intake channel
- A cast-in-place concrete intake structure.
- A 3.5 m (11.5 ft) diameter buried steel penstock 13 mm (0.5 inch) wall thickness, bedded on and surrounded by washed pea gravel.
- A cast-in-place reinforced concrete powerhouse housing the turbine-generator and associated electrical and mechanical equipment.
- A cast-in-place reinforced concrete tailrace structure to control tailwater elevations during low water levels in Chin Reservoir.
- A Synchronous Generator Nameplate Capacity 11.7 MW at 13.8 KV

