

### Lake Hawea Irrigation Pumps

Within central Otago, Contact operates the Clutha hydro scheme, including the Lake Hawea dam control structure, the Roxburgh dam and power station, and the Clyde dam and power station.

#### OVERVIEW

At Lake Hawea Contact operates irrigation pumps which supply fresh water from Lake Hawea through an irrigation pipeline to a number of agricultural businesses on Hawea Flat as part of the hydroelectric generation scheme operated on the Clutha river.

The irrigation pumps run seasonally between October and April, operating 24 hours a day, 7 days per week. Irrigation has grown significantly in central Otago over the past decade, and the additional power demand is resulting in parts of the local and national grid nearing capacity limits.



#### DEMAND FLEXIBILITY

The Lake Hawea irrigation pumps are ideally suited to providing reserve capacity due to the negligible disruption which short term power interruption has on overall irrigation flows.

Contact installed its demand flexibility hub at the site. When a national grid under frequency event occurs, the hub sends a signal to the pump's soft starter, which turns the pump load off within 1 second. The pump load is automatically restored at the end of the grid event.

Location:	Lake Hawea
Assets:	2 Irrigation Pumps
Markets:	Reserves

#### BENEFITS

Contact's demand flexibility platform is enabling:

- Revenue to be generated through participation in the reserves market
- Facilitating NZ moving towards a 100% renewable grid by reducing fossil fuels used for reserves
- Potential future participation in markets which manage local and national network constraints