Moving water through the Snowy Scheme

# Water in the scheme

## The Snowy Scheme

Snowy Hydro operates and maintains the mighty Snowy Scheme.

With its 16 major dams and 7,000-gigalitre (GL) storage capacity, the Scheme collects, stores and diverts water westward through tunnels and hydro-electric power stations into the Murray and Murrumbidgee rivers for town water supplies, irrigation and environmental uses.

The Scheme was designed and built:

- to counteract the effects of severe drought and raise productivity in the Murray-Darling Basin.
- to generate large amounts of peak-load, renewable hydro-power.

Jounama Pondage

## Snowy Water Licence

Snowy Hydro does not own the water stored in the lakes, dams and rivers – the water belongs to the state of NSW. The NSW Government issues the Snowy Water Licence, which specifies annual water releases for water users, environmental flows and flexibility for electricity generation.

In relation to the water captured by the Snowy Scheme, the licence arrangements strike the right balance between the competing needs of energy generation and provision of National Electricity Market services by the Scheme, and the interests of downstream water users.

## Water releases

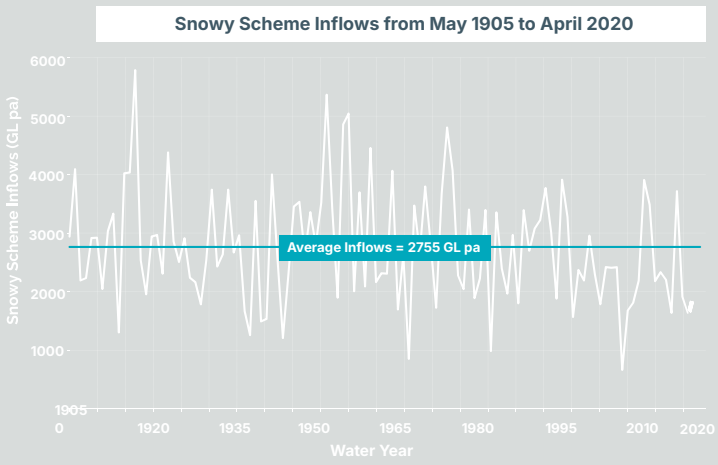
The Snowy Water Licence dictates that Snowy Hydro must make minimum annual water releases to the River Murray and Murrumbidgee River catchments. The NSW Department of Industry and Environment, determines the amount and timing of environmental flows to rivers, including the releases from Lake Jindabyne into the Snowy River.

## Inflows

Inflows into the Snowy Scheme vary from extreme highs to extreme lows, which often have a significant impact on water storage levels.

Over the last 110 years, inflows have ranged from 683GL in 2006-07 during the worst drought on record, to 5,761GL in 1917.

We can expect to receive around 50% of our inflows from a combination of snow melt and rain during spring, so a bad snow season can have a significant impact on the total inflows for the year. Conversely, without a significant amount of rainfall, regardless of the amount of snowpack, we may still receive below average inflows.



# GROSS STORAGE VOLUMES

Lake Eucumbene
**4,800GL**

or about

**9x SYDNEY HARBOUR**

Lake Jindabyne
**690GL**

and its water passes through:

**Geehi Reservoir**

**Murray 1** Power Station **Murray 2** Power Station

OR

**Snowy River** for environmental flows

Tantangara Reservoir
**254GL**

Tantangara is the upper storage for the Snowy 2.0 pumped hydro project.

## Fast fact

Snowy Scheme storage levels are referred to in different measurements:

**'Active storage' and 'gross storage'**

**Active storage** is the water that generally can be accessed by either pumping, or through release via dams, or through power stations.

**Gross storage** is the total amount of water behind the dam wall, including water that cannot ordinarily be accessed due to the design of the Scheme infrastructure.

Talbingo Dam

Talbingo Reservoir