





## The water cycle

The water cycle is a continuous path that all water follows as it moves around Earth in different states. Without this process continually happening there would be no life on Earth.



## Did you know?

The sun has been driving the water cycle constantly for billions of years over and over again. You could be using water that a dinosaur drank!

The water cycle is also known as the hydrologic, or hydrological cycle - the continuous movement of water on, above and below the surface of Earth.







## The water cycle

**DID YOU KNOW?** Water is the only substance that can be found in the three states: solid, liquid and gas.



When the sun's rays warm the oceans, lakes, reservoirs and rivers, the water turns to gas (vapourises) - **evaporation** 



Water vapour cools in the sky and forms water droplets - condensation



The tiny water droplets come together to form clouds and grow bigger and bigger. When the clouds get too heavy, the snow, hail or rain falls to the ground - **precipitation** 

Water seeps into the ground, filling rivers, reservoirs and lakes - runoff

When spring arrives, melting snow and rain combine, adding to the runoff - spring melt



The sun heats up and the water cycle starts all over again

## Generating renewable electricity - the Snowy Hydro water cycle

- The sun causes water to evaporate and rise up into the sky
- The water droplets condense and form clouds
- Snow and rain fall as precipitation
- Spring melt occurs, resulting in runoff
- The runoff flows to streams and rivers and is captured and stored in lakes and reservoirs
- · It travels through a complex network of dams, tunnels, aqueducts and penstocks
- It continues its journey through one or more of our nine power stations and 33 turbines to generate renewable hydroelectricity
- Snowy Hydro operates the Snowy Scheme to first meet its water release obligations and then to maximise electricity market opportunities within the constraints imposed by the Snowy Water Licence
- The electricity travels to a transmission station, to move along power lines to meet the demand for power use by homes and businesses
- Released water into the Murray and Murrumbidgee rivers supports agriculture in New South Wales, Victoria and South Australia
- Snowy Hydro is required to make environmental releases into the Snowy River below Jindabyne Dam and into Murrumbidgee River below Tantangara Dam
- The sun shines and the water cycle starts all over again







