

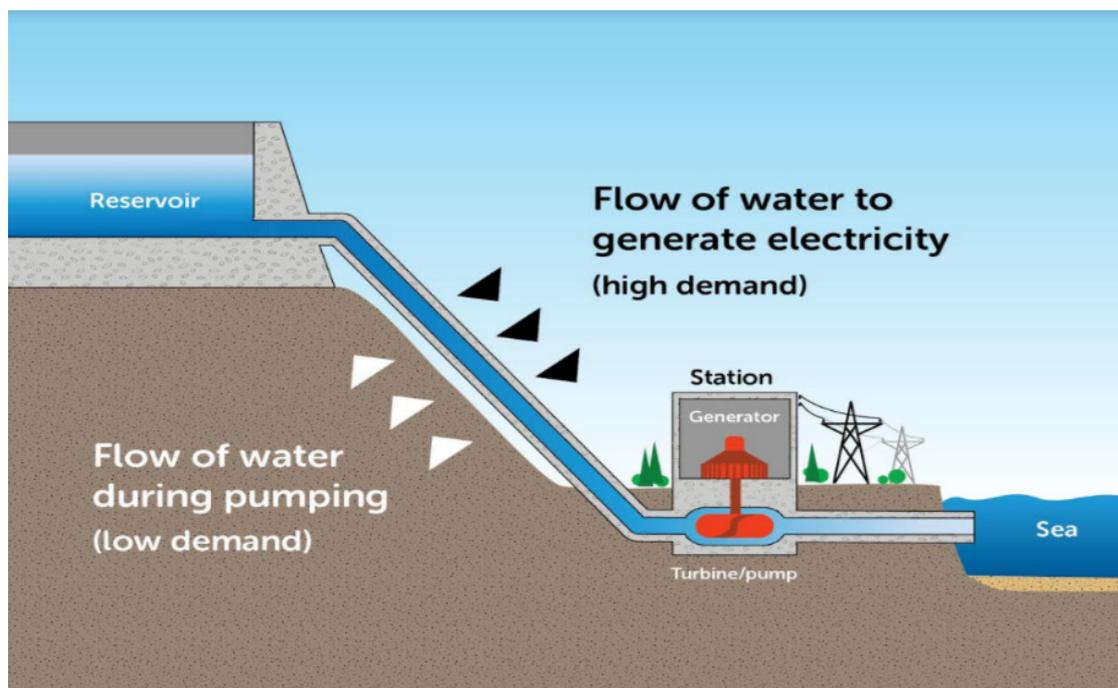
## Fact Sheet: Cultana Pumped Hydro Project

In early 2017, EnergyAustralia and its Consortium partners Arup Group and Melbourne Energy Institute were awarded \$453,000 by the Australian Renewable Energy Agency (ARENA) to facilitate a feasibility study of a new pumped hydro energy storage project using sea water. The potential site is located near Port Augusta in South Australia.

### What is pumped hydro?

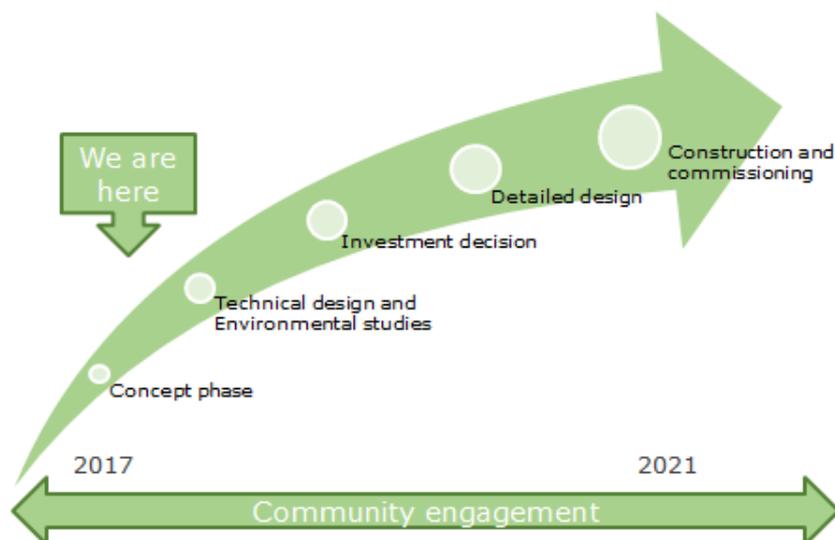
The idea underpinning pumped storage is simple. It works using two bodies or reservoirs of water, one at a high elevation at the top of a hill, and another at a lower elevation at the bottom. For seawater pumped hydro, the lower reservoir can be the sea itself.

To produce electricity from pumped hydro, water is pumped from the lower reservoir to the higher one when energy is cheap. Then, when demand for power is high and prices rise, the water is run down again and put through a turbine to generate electricity. Because the water is reused, this process can be repeated.



The technology has been used for decades in countries including the United States, Japan and China, and Australia already has three pumped hydro systems in operation. It's early days for pumped hydro in Australia, but we think the technology has great potential to play a role in delivering cleaner, reliable and affordable supplies of electricity.

## What is the proposed timeline for the project?



## Will this project go ahead?

The current phase involves the project team looking at the economic feasibility of building a pumped hydro facility between 100 and 250 megawatts (MW) in this location. Projects of this size and complexity must pass a number of feasibility milestones, so at this early stage we do not know if the project will go ahead.

EnergyAustralia and its partners are aiming to have the economic feasibility study complete by late 2017. If this indicates that the project is potentially viable, the project will progress to a more detailed phase of feasibility, including detailed engineering design work, environmental impact statements, grid connection and land access arrangements, with consultation with stakeholders on all aspects to ensure these can be appropriately managed during construction and operation.

Once all approvals are in place and the detailed engineering completed, EnergyAustralia will be able to make a final investment decision on the project. This is expected to occur towards the end of 2018.

## How can I provide feedback?

We want to hear your thoughts on the Cultana Pumped Hydro Project. To provide feedback, please email [pumpedhydro@energyaustralia.com.au](mailto:pumpedhydro@energyaustralia.com.au)

## Project partners

**EnergyAustralia** is one of Australia's largest energy companies, servicing the energy needs of over 2.6 million accounts and approximately 1.7 million customers nationally. EnergyAustralia owns and operates a multibillion dollar energy generation portfolio, including coal, gas and wind assets. For more information, see: <https://www.energyaustralia.com.au>

**Arup** is an independent firm of designers, planners, engineers, consultants and technical specialists, working across every aspect of today's built environment. For more information see [www.arup.com](http://www.arup.com)

The **Melbourne Energy Institute's** research portfolio engages over 300 researchers who help to build capacity to meet the challenges of transitioning towards a low carbon energy system. For more information see [www.energy.unimelb.edu.au/#home](http://www.energy.unimelb.edu.au/#home)