

Introductory Activities (Engage)

(10 minutes)

In small groups or as a class brainstorm:

1. What does 'environment' mean to you?
2. How important is it to look after the environment?

Collate your ideas on a flipchart, poster or word wall

Lesson 1 (Explore)

(20 minutes)

In this lesson students will explore the Hydro story from the 1990s to 2014, the centenary year, and its vision for the future.

Watch the 'Future Thinking' section of *People of the Hydro* https://www.youtube.com/watch?v=III2U-14_BA (start the video at 22:00 minutes and continue to the end)

Materials	Quantity
Smart board or projector	1
Internet connection	1
People of the Hydro	YouTube or DVD

It is recommended that teachers view and create a precis of the video segment prior to viewing with students.

Ask your students to look, listen and record any:

- Views and/or opinions expressed
- Changes described

Brainstorm

- Explore the statement '*as society all around us changes, the Hydro has gone on that change with the community*'
– What examples of this did you notice in the video
- Explore the statement '*Today, Hydro Tasmania is Australia's largest provider of renewable energy*'
– What is renewable energy <https://www.hydro.com.au/clean-energy/about-renewable-energy>
– Why is renewable energy important? (see student research activity)

Hydro Tasmania mainly generates electricity from water (hydropower and wind).

Both types are generated mechanically, through moving parts. Inside Hydro Tasmania's generators, huge magnets are turned inside massive coils of wire, creating an electric current.

The magnets are turned by a turbine, and the turbine is turned by the force of either water or wind.

Because the force turning the turbines doesn't get depleted when it's used (i.e. the water returns to the lakes and the rivers, and the wind keeps blowing), it's called renewable energy.

Further exploration – sustainable use of water

As champions of renewable energy, Hydro Tasmania seeks a clean, healthy and sustainable future for Tasmania and Australia. As custodians of 60% of Tasmania's freshwater resources and significant hydropower infrastructure, Hydro Tasmania is committed to reducing environmental and social impacts wherever possible.

Explore Hydro Tasmania's environmental programs <https://www.hydro.com.au/environment/environmental-water-management/lagoon-of-islands>

Options for assessment and extension

	Option/s
HASS – Researching Individual Activity	<p>Renewable energy</p> <p>Students research renewable energy and demonstrate their learning in a poster, written piece or presentation to the class.</p> <p>Topics may include:</p> <ul style="list-style-type: none">• Sources of renewable energy• Why is renewable energy important?
HASS – Inquiry and Skills Group / Individual Activity	<p>Local community development</p> <p>In small groups, students plan a development in their local area.</p> <ul style="list-style-type: none">• What are they going to build?• Will the development change the environment? E.g. Flora and fauna• Who uses the area now? E.g. animals, people,)• How might any impacts be minimised?• How will progress be monitored?

Elaborate and Review

As a class group review

The *Timeline of Environmental Change in Tasmania* and discuss the following:

- Why you think people's views of the environment have changed from the past to the present?
- In what ways do significant events bring change?
- Does change improve the way we care for or look after things?
- Are there some negatives surrounding change? Is change always good?