

# Highbury Pumped Hydro Electricity Storage Project

**Tilt Renewables is seeking Development Approval for a new pumped hydro energy storage project on the site of the old Highbury Quarry**

## What is pumped hydro?

A pumped hydro storage scheme works by pumping water from a lower reservoir to an upper reservoir during periods of low energy prices. It can then generate power when electricity demand is high, by releasing gravity-fed water from the upper reservoir through generators and back to the lower reservoir, for the cycle to begin again.

## Who is Tilt Renewables?

Tilt Renewables is a leading Australasian renewable energy operator, well known to the South Australian energy market, and active in renewables for more than a decade.

Tilt Renewables owns and operates SA's largest wind farm at Snowtown in the state's mid north which has a combined capacity of 370 MW and has just announced that it will be adding solar and battery technology next to the wind farm. Tilt Renewables CEO Deion Campbell knows the project and the Highbury site well.

"We are committed to sustainable, renewable energy projects and we believe the Highbury pumped hydro project will add real and tangible value to South Australia and potentially enable further wind and solar investment in the state."

## Why here at Highbury?

The site at Highbury where quarry operations ceased in 2009, offers a number of attributes for a pumped hydro development, including existing reservoir and road infrastructure, straight forward connection to the grid and the nearby availability of top-up water. Tilt Renewables is working closely with partner Holcim Australia who currently own the site and has received no government or public money for the project.

## Benefits to SA

The proposed pumped hydro energy storage project would deliver 300 MW of capacity and 1350MWh of energy storage, which could provide a major boost to South Australia's electricity security.

The project has the potential to add a substantial level of security to South Australia's electricity supply, thanks to the energy storage focus and capacity of the project.

Storage has always been a key component of an electricity system and pumped hydro allows renewable electricity to be stored and used when required, without introducing carbon into the equation. The proposed technology of pumped hydro energy storage is mature and proven in many countries.

## HAVE YOUR SAY

An extra open house opportunity has been organised at the **Highbury Hotel** to learn more about the project, ask questions and make suggestions that will help the project move ahead.

**Thursday 8 March**

**4.30pm to 7.00pm**

**At the Highbury Hotel**

Representatives from Tilt Renewables will be in attendance.

There will be further opportunity to comment when the planning application consultation phase is undertaken by the State Commission Assessment Panel (SCAP).

## ENQUIRIES

**Tel: 1300 6606 23**

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## Community Update

Issue # 1a  
19 February  
2018

## Have your say

An extra open house opportunity has been organised at the Highbury Hotel to learn more about the project, ask questions and make suggestions that will help the project move ahead. Representatives from Tilt Renewables will be in attendance. There will also be an opportunity to comment when the planning application consultation phase is undertaken by the State Commission Assessment Panel (SCAP). Drop in anytime between 4.30 and 7.00pm.

**Thursday 8 March 4.30pm to 7.00pm at the Highbury Hotel, 1017 Lower North East Rd**

## Benefits for the community

If the project reaches final investment commitment, it is anticipated the project will generate 300 jobs during construction and will take 24 – 36 months to construct. The project is also expected to open up areas of the 350-hectare site for public recreational use with potential for walking trails, picnic areas and outdoor activities.



**Indicative only: the lower lake looking south could look like this**

## Impact of the work

We expect the decommissioned quarry will be transformed into a visually appealing lake surrounded by lawn and natural bushland along western, Halls Road, site boundary. The pumped hydro powerhouse would be located on the eastern shore of the lower lake and designed to merge into the environment.

It should be noted that the actual turbines will be some 30 to 40 metres below the surface so noise is not expected to be an issue. However, the approvals process will require considerable testing to ensure residents are not impacted by noise.

Looking over the site from the east, the lower lake and the powerhouse building would be visible, but below the Hills Face Zone. The pipeline connecting the upper and lower lakes would follow the route of the existing quarry haul road and would be largely hidden behind the hills and screened by natural vegetation. The facility would connect into the high voltage transmission grid via the existing overhead lines that cross the site.

The upper lake area, the small saddle dam and intake tower structure would not be visible from the immediate surrounding community as these are obscured by hills, and only visible when looking down from the cliffs at the northern end of the site. They would not be visible from Lower North East Road. During construction we will work hard to minimise the impact of the project for the local community, including minimising dust, noise, and traffic, as required under regulations.

We expect most of the ‘spoil’ or dirt from any excavations will be used on site and not removed from the area, reducing truck movements. We will also work during normal construction operating hours, leaving evenings and weekends to residents. We expect once construction is complete for the site to be extremely quiet and peaceful.

Residents may be concerned about the value of their homes once construction starts and when the project is completed. Whilst we cannot predict the impacts on real estate, we believe the amenity of the site will be improved with establishment of the lakes, ensuring access to the site for people wanting to walk or cycle through and enjoy the surroundings in the picnic area. As well, under Tilt Renewables management, we will be caring for the whole site including weed management, tree planting, access and security.

## Next Steps

The project is being supported in principal (**not financially**) by the State Government and development approval will be sought as a project to meet the State Government’s Energy Security Target. The process from here will include:

- Environmental effects studies, for the operational asset and construction phases
- Public open days and community engagement
- Geotechnical and engineering investigations to advance design and cost estimates
- Power system studies and confirmation of operational parameters.

*“We look forward to working with our project partners and the local Highbury community to bring this project to life” Deion Campbell, CEO Tilt Renewables*

Frequently Asked Questions: Tel: 1300 660 623, Email: [info@tiltrenewables.com](mailto:info@tiltrenewables.com) Website: [www.tiltrenewables.com](http://www.tiltrenewables.com)