

Case Study

SA Water's Zero Cost Energy Future - Phase 1

Project Details

Client name
SA Water

Order date
February 2018

Delivery date
October 2019

Contract Type
Design & Construct

Contract value
Approximately \$4.5 million

Key Personnel
Project Director - Craig Julian
Project Manager- Zach Tariq
Construction Manager (Christie's Beach) - Scott Stevenson

“SA Water have always had a proactive approach to energy reduction and reducing their environmental footprint

The Customer

Owned by the people of South Australia, SA Water is responsible for providing world class water services to more than 1.7 million customers across the state. Employing more than 1,500 people in a range of industries, from engineering to microbiology, they provide safe, clean drinking water. Once this water has been used, it is sent to SA Water's treatment facilities to remove the waste and reduce the environmental impact. The utility manages more than 27,000km of water mains, including 9,266 km in the Adelaide metropolitan area, and works extremely hard to ensure SA's water is high quality, safe to drink and always available.

The Opportunity

Being an immensely energy intensive industry, the main motivation behind the project is to reduce SA Water's staggering electricity bill which came in at over \$80 million for the 18/19 financial year making SA Water one of the state's largest electricity users. Their proactive approach to renewable energy has already seen their electricity bill being reduced each year, but ultimately, electricity SA Water generates and exports to the market will off-set the cost of electricity it draws from the grid and network charges, to achieve the zero net outcome.

The first stage of the project will see three metropolitan SA Water

sites have ground mount solar installed, with Enerven being responsible for the design and construction at all three sites. The initial sites include Hope Valley Water Treatment Plant (1.5MW), Glenelg Waste Water Treatment Plant (1.32MW), and Christies Beach Waste Water Treatment Plant (1.32MW).

The Solution

In February this year, Enerven was awarded the first stage of SA Water's ground mount solar project. The project is the first of its kind for SA Water, and is the initial step in helping SA Water neutralise their energy bills and deliver zero net electricity costs from 2020.

Stage 1 of the project involved solar panels being installed at Christies Beach, Glenelg and Hope Valley. Prior to this, the sites require a large amount of civil works to happen to get them ready for the solar install. All sites are first surveyed for site design, before being levelled and graded ready for the piles and racking to be installed. The sites are also trenched in order for the HV and AC cabling to be laid, which is what connects the solar to the electricity network. Each site will also house a custom-built transformer, as well as a specially designed switchroom, which is essentially the “brain” of the solar array and makes the decisions about how to distribute the energy generated.





The solution continued...

The first stage of the project has been an intense but exciting experience for Enerven. The Enerven team have invested some serious hours to ensure this project is delivered to its tight deadline.

It has taken a huge amount of collaboration and teamwork and it has been inspiring to see the team so willing to go the extra mile to ensure its success. Given the views at some of the locations, it is easy to see why the team are enjoying this project, with Christies Beach boasting some beautiful sunset.

Key Capabilities

This project highlights Enerven's ability to deliver quality design & construction projects through established procurement processes, professional project management, competent engineering, and our ability to collaborate with our customers and contractors to deliver custom solutions.

Why Enerven?

Our experience in the market place, combined with expertise and industry knowledge, makes Enerven attractive to industry leaders such as Oz Minerals, Lendlease, AGL and BHP Billiton for their energy infrastructure needs.

Enerven invest heavily in the latest technology and the professional

development of our staff, which means we combine experience and history with innovation and technology to deliver solutions that address the evolving energy distribution requirements of the community.

With a strong supplier and partner network behind us, our highly skilled staff work closely with you to fully understand your specific needs and vision, and will tailor a solution to suit.

Delivering the highest standard of work in a safe and environmentally sustainable manner is our top priority, and we have an outstanding track record to prove it. We focus on building long-term relationships with our clients, we're committed to working with you for the lifecycle of your project and beyond.

Who We Are

Enerven, an SA Power Networks Company, provides a range of construction and maintenance services, including HV transmission line construction, to clients both within SA and nationally. We believe innovations and technology will continue to drive efficiencies, but no more so than the experience, knowledge and capabilities of our people.

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