



## Case Study Robertstown Synchronous Condensers Project

### Project Details

**Client name**  
ElectraNet

**Start Date**  
March 2020

**Completion Date**  
March 2021

**Contract Type**  
Design, Civils, Construction & Commissioning

**Contract value**  
Approximately \$20 million

**Key personnel**  
Project Manager - Farnoosh Shoaeeyan

**“Helping to strengthen our power network creating a secure power supply for South Australians”**

### The Customer

ElectraNet delivers safe, affordable and reliable solutions to power South Australian homes and businesses. Their transmission network is a crucial part of the electricity supply chain and is used to safely deliver electricity throughout South Australia including regional and remote areas.

### The Opportunity

South Australia is leading the way with the implementation of sustainable energy solutions and has rapidly adopted renewable energy generation sources.

This rapid shift in energy generation sources has the potential to impact system strength and create a shortfall because the way in which renewable sources generate and connect to the grid differs from traditional sources, which makes it more difficult to respond to fluctuations in supply and demand.

While the adoption of more sustainable power sources is important for Australia's future, having a secure power supply for South Australians is equally important, which requires both system strength and inertia to be achieved. After investigating various options to improve system strength, ElectraNet received regulatory approval to install two synchronous condensers at Robertstown Substation, 130km north of Adelaide.

### The Solution

Enerven completed the design, construction, and commissioning of the works required to install the synchronous condensers at the Robertstown substation. This required the existing Robertstown substation to be augmented to support the new Synchronous Condensers, extending the substation to include two new parameters, one for each Synchronous Condenser.

Enerven's team has unparalleled experience with complex brownfield infrastructure projects in South Australia and leveraged our comprehensive knowledge and understanding of ElectraNet's infrastructure to deliver this project successfully. The project supported around 100 South Australian jobs and will call upon local contractors from the region to complete the works.

Further to strengthening the grid, from the point of commissioning, the synchronous condensers are also estimated to deliver a net saving to customers equivalent to \$3-\$5 per year on a typical residential electricity bill, and correspondingly more for larger customers. This is due to being able to avoid increasing costs incurred by AEMO in directing and compensating existing gas-fired generators to manage system strength shortfalls.





## 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.

## Proactive, Collaborative, Dependable

Our values are the DNA of our business. They embody what we stand for and focus firmly on our customers' needs to accomplish long term, sustainable improvements that are reliable, maximise profitability and minimise costs.

Further to this, everything we do is underpinned by an unrelenting focus on safety and wellbeing.

**We build our customers' vision. Our driving ambition is to connect you with tomorrow.**

## Who We Are

**Enerven provides construction and maintenance services to clients both within South Australia and nationally, with specific expertise in high voltage infrastructure, and solar and storage infrastructure. We believe innovation and technology will continue to drive efficiencies, but no more so than the experience, knowledge and capabilities of our people.**

## Contact Us

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Enerven is a wholly owned subsidiary of SA Power Networks operating independently and is the business name used by Enerven Energy Infrastructure Pty Ltd (ABN 31 621 124 909)

Enerven is accredited to AS/NZS ISO 14001 and is compliant to all regulatory requirements. We maintain full compliance with Australian Standard AS/NZ 4801 and have achieved the internationally recognised ISO18001 accreditation.