



## Case Study Mt Barker South 275/66kV Substation

### Project Details

**Client name**  
ElectraNet

**Start date**  
January 2011

**Completion date**  
May 2011

**Project Value**  
\$27 Million

**Key personnel**  
Project Manager - Matt Park  
Construction Supervisor TX Line -  
Lawrence Smith  
Construction Supervisor Substation -  
Jason Semmler

#### Overview of key contract successes

- 90,000 man hours of work with zero LTIs;
- Considered environmental issues in the design phase; and
- Project delivered ahead of time and under budget.

**ElectraNet were looking for a turnkey solution in design and construction of a new 275/66kV substation with one 225MVA 275/66kV transformer at Mount Barker South.**

### 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. ElectraNet specialise in asset and project management, contract management and their clients include SA Power Networks, Enerven and large directly connected clients.

### The Opportunity

ElectraNet needed the design and construction of a new 275/66kV substation completed along with one 225MVA 275/66kV transformer at Mount Barker South. This scope would include the design and construction of the new 275/66kV substation bench including bulk earth works, internal roadways, fencing, site drainage, final surfacing and all civil works including an access road, foundations for equipment and buildings, cable trenches, fire walls, oil water separator tank and evaporation pond.

### The Solution

Enerven was able to provide a solution that ticked all the boxes. Not only were Enerven able to deliver the design and construction of the substation, but we also incorporated the design of lighting, lightning protection and insulation coordination, procurement, installation and erection of all electrical

equipment, including plant, plant stands equipment, auxiliary transformers, diesel generator, cables, panels for AC/DC auxiliary supply, lighting and lightning mast with earth grid.

Enerven delivered a review of the earthing system (main earth grid and risers) of Kanmantoo Copper Mine, Murray Bridge-Hahndorf pumping Station No 2 & 3, Mount Barker substations and design, supply and install to mitigate the touch and step voltage hazards inside and outside the substation.

A new radio repeater site at Mount Barker South (Hoefflingers Farm, south of the proposed substation site) was implemented, along with optic Fibre cables installed between Hoefflingers Farm to Mount Barker South substation. OPGW retrofit between Mount Barker South Cherry Gardens substations was also completed as part of the project.

### Key capabilities

This project showcases Enerven's capability to deliver complex electrical infrastructure projects.

Enerven brings a unparalleled understanding of the infrastructure in the region to ensure safe and efficient commissioning of the project.





## Why Enerven?

Our experience in the market place, combined with the expertise and industry knowledge of our team, makes Enerven's offering second to none - which is why industry leaders such as Oz Minerals, AGL and BHP Billiton trust Enerven with their energy infrastructure assets.

We invest heavily in the best equipment 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 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.