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Maximising system efficiency and managing load with new SVCs

In 2008/09 Powerlink installed three new Static VAR Compensators (SVCs) at our Woolooga, South Pine and Greenbank substations, increasing the capacity of the transmission network in South East Queensland.

SVCs are highly complex pieces of equipment that facilitate fast-acting reactive power compensation on the network.

A key feature of this type of plant is that the power electronics allow the device to continuously support the capacitive and inductive needs of the network. Through stabilising and controlling the voltage, they allow existing lines to operate more efficiently, thus giving increased capacity to transmission lines.

The SVCs in the Powerlink transmission network help stabilise power across Queensland and into New South Wales via the Queensland/New South Wales Interconnector.

Powerlink's Manager Engineering, Brian Pokarier, said the delivery and commissioning of the three new SVCs in 2008/09 was the culmination of comprehensive planning, design and construction management carried out by a multi-disciplinary team.

"The new SVCs give additional flexibility of control and support the substations' vital role in transforming, switching, measuring and controlling supply across the network."

Manager Engineering, Brian Pokarier

"Powerlink's grid planners identified the need for the SVCs, while our SVC specialist engineers and engineering project managers oversaw the design, factory testing and construction of the SVCs," Brian said.

"In the meantime, our substation design teams and project managers prepared to locate the SVCs within our substation sites. Once the equipment arrived, each SVC project demanded significant ongoing collaboration between our construction managers, commissioning engineers, substation teams and the manufacturers."



Brian Pokarier, Manager Engineering, and Tuan Yu, SVC Project Manager, at the Greenbank SVC



Brian Pokarier, Manager Engineering, at the Greenbank SVC