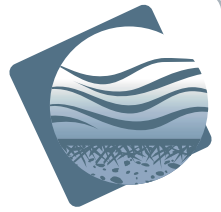




At the Lab. In the Field.
By Your Side.

KINGSFORD SUBSTATION

Sydney, Australia
December 2008



CONCRETE
WATERPROOFING

Page 1 of 2

QUESTIONS: 1-800-267-8280 or www.kryton.com

BACKGROUND

EnergyAustralia is one of the largest energy suppliers in Australia with over 100 years of experience. The company is a leader in providing broad-based energy solutions ranging from electricity to renewable energy alternatives.

EnergyAustralia operates an electricity network of around 22,275 square kilometers – distributing electricity along the east coast of NSW for Sydney, North Coast, Central Coast, and the Hunter Valley regions.

In 2007, EnergyAustralia announced it will be spending \$4.8 billion over the next five years on strengthening its electricity network across its servicing areas by making it smarter, more reliable and equipped for future technologies. Majority of these funds will be spent on establishing over 40 new major substations and upgrading the same amount of existing major substations.

SOLUTION

The Kingsford Substation in Sydney was one of the first projects to take place, starting in early 2008 at a cost of approximately \$32 million. The project includes a further \$9 million to install new underground cables to connect the substation into the existing electricity network. This new major or 'zone' substation will initially serve about 18,800 homes and businesses in Kingsford and 14 other surrounding suburbs.

It was established by Project Engineer, Mr. Jeremy Atkinson, that a concrete waterproofing admixture was to be utilized for the below-grade construction. A competing product had been nominated for these



An artist impression of the Anderson Street view of the new Kingsford substation.



The Kingsford Substation development was designed to blend in with surrounding unit blocks, making it less obvious.



PROJECT CASESTUDY

The Kryton Group of Companies.

1645 East Kent Avenue, Vancouver, BC Canada V5P 2S8 Tel.: 1-604-324-8280 Toll Free: 1-800-267-8280 Fax: 1-604-324-8899 E-mail: info@kryton.com Web: www.kryton.com

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areas, but De Martin & Gasparini, the concrete-placement contractor requested that Krystol Internal Membrane™ (KIM®) be considered, as they preferred the service and continual results produced by this admixture.

After Mr. Atkinson and Construction Manager, Mr. John Copas, from EnergyAustralia both reviewed the KIM technical literature provided by Krystol Pty Ltd, distributor of the Krystol Waterproofing System, they were more than impressed with what they saw and approved the product for the project's requirements.

KIM was used in the lower cable pits, connecting cable pits and base slabs, below ground walls, transformer pits, and oil containment pits. In total, 1000m³ of KIM concrete was poured. In addition, Krystol Bari-Cote™, a fast-setting waterproof grout for concrete and brick designed to repair leaking cracks, holes and joints, was used to repair over 400 tie bolt holes.

EnergyAustralia has scheduled the substation to be operational in 2009-2010. This project has established a significant place for the KIM admixture on future Sydney based power-supply developments, and most definitely will now be called upon for up and coming substations Australia-wide.



This new major or 'zone' substation will initially serve about 18,800 homes and businesses in Kingsford and 14 other surrounding suburbs.



Base slab of substation consumed over 300m³ of concrete. KIM was utilized here to protect the electrical equipment and cabling from water damage.

LOCATION

33-35 Bunnerong Road, Kingsford NSW
Sydney, Australia

OWNER

EnergyAustralia –
John Copas (Construction Manager -
Building & Civil)

ENGINEERS

Hyder Consulting –
Jeremy Atkinson (Structural Engineer)

CONTRACTORS/ CONCRETE PLACEMENT

De Martin & Gasparini Pty Ltd –
Nicholas Cal (Project Manager)
Fred Hadid (Foreperson)

APPLICATOR/DISTRIBUTOR

Krystol Pty Ltd.

The Kryton Group of Companies.

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