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WTIA National Diffusion Networks
Project (NDNP) funded by the
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Governments and industry



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SUCCESS STORY NUMBER PE04: QUICK WORK SAVES THE DAY – *Commissioning of the SEA Gas – Adelaide Interconnect gets the gas flowing just in time for Sth Australia.*

Quick Work Averts Major Disruption

Work carried out by WTIA's Welding Engineer based in Adelaide, South Australia, Greg Terrell, was instrumental in ensuring that disruption to the capital's gas supplies was minimised at the time of a major fire at Santos' Moomba gas processing facility in the early hours of New Year's Day 2004.

Greg had been contracted by Origin Energy, a Member of the WTIA's NDNP and Gas Pipelines Industry Sectoral Project, to supervise shop fabrication and site welding of the pipework for the new SEA Gas – Adelaide Interconnect project. Greg supervised and controlled the main contractor as well as pipe fabrication at Origin Energy's Brompton workshops.

The project included five specialised hot tapping procedures needed to join the new incoming pipeline from Victoria to the existing supply line from Moomba in the State's north. The work was completed ahead of schedule in late December 2003, with the plan to commission the pipeline over the next 4 months.

Potential Saving of \$40million

This early completion of commissioning work enabled the \$500 million SEA Gas pipeline to come on-line early to offset the loss of supply from Moomba.

At the time of the Moomba gas plant fire, the expected financial cost of the damage and loss of supply was estimated by the Australian Financial Review to be in excess of \$40million. Gas supplies were expected to be affected for at least a 2-month period, with possible compensation claims by businesses.

SEA Gas pipeline

The SEA Gas pipeline – a joint venture between equal equity participants International Power Australia, Origin Energy and TXU – transports natural gas gathered from offshore fields in Victoria, including Minerva in the west and Yolla in the east, to

Hot Tapping

This specialised engineering process allows work to be conducted on live pipelines carrying potentially explosive materials such as gas, whilst maintaining the integrity and operation of the pipeline.

Hot tapping applies to the process of welding and cutting into a pipe for the purpose of repair and tee-branch connection. The operation involves attaching a split fitting to a pipeline and completing two longitudinal and two circumferential welds.



Hot tapping process

meet the needs of a range of energy providers in South Australia. About 50 per cent of South Australia's electricity is generated from gas. It is distributed through the SEA Gas Interconnect at Dry Creek.

Work began on the 690-kilometre pipeline in October, 2002 with three to four kilometres of pipeline being constructed per day by laying and welding up to 200 18-metre lengths of pipe every 24 hours. The Interconnect project included over 80 full penetration girth welds, each of which was 100% radiographed to ensure the highest quality joints.

The NDNP in South Australia

The activities of the NDNP are supported in South Australia by the Department of Trade and Economic Development which is the South Australian Government's key agency for economic and industry development policy.

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