



Specialist Consultants  
to the Electricity Industry

# PSC NEWS

News and Views from the team at PSC

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## IMO WEMS and GBB Market Systems Support Contract Awarded to PSC

PSC Australia is proud to announce it has been awarded a three year contract to support the Independent Market Operator's (IMO) Wholesale Electricity Market Systems (WEMS) and the Gas Bulletin Board (GBB).

The IMO is an industry-funded organisation whose role is to develop, operate and evolve the WEM for the South West Interconnected System (SWIS) and the Gas Information Services Project (GISP) in Western Australia.

PSC have been successfully providing support and development services for the IMO's WEMS systems since July 2008, following the completion of the initial warranty period following market systems implementation by ABB in 2006. Support is primarily covered by two onsite market systems engineers,

while a variety of development, testing and project management services are performed using PSC's pool of market systems specialists in Perth.

PSC have been involved in a number of significant enhancements with the IMO in recent times, with the highly challenging and successful implementation of new competitive intraday markets for Balancing and Load Following Ancillary Services in the WEM standing out above the rest. PSC are currently working with the IMO to develop the GBB systems, which we will

begin to support in August 2013 when the GBB systems are launched.

PSC would like to thank the IMO for their continued confidence, support and trust in PSC. We look forward to the journey ahead. For more information, please contact PSC's WA Regional Manager Steve Black, [steve.black@pscconsulting.com](mailto:steve.black@pscconsulting.com)



Back: PSC Australia CEO Les Brand, IMO Group Manager - Operations and Technology Martin Maticka, PSC WA Regional Manager Steve Black.  
Front: PSC Chairman and Co-founder Tony Armstrong, IMO CEO Allan Dawson

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## PSC Transmission Lines Engineering Team

PSC's transmission lines engineering team brings extensive experience and specialist knowledge within the electricity industry. We are committed to focusing this expertise to deliver excellence in the design and analysis of transmission line networks and structures.

Ahsan Siddique as principal lines engineer leads the PSC team and has over 10 years of experience, firstly in the Power Grid Company of Bangladesh, followed by three years in ElectraNet and most recently with Western Power and Worley Parsons. Supporting Ahsan is senior electrical engineer Dan Watt and senior civil and structural engineer Alex McDonald.

Dan Watt has had more than seven years of experience in the power industry and is a chartered professional engineer (CPEng). Alex McDonald has joined PSC and brings over six years of experience in civil and structural design, most recently with Transpower New Zealand. The fourth member of the team is Tim Drake with six years of experience in ALS survey. Tim supports the team in PLS-



*Ahsan Siddique*

CADD and line design quality assurance activities.

PSC can deliver technical design, analysis and investigation services for transmission lines utilising the latest industry accepted software including the

PLS range of software packages (PLS-CADD®, PLS-TOWER® and PLS-POLE®). Our transmission line engineering services include:

- Transmission line modelling, engineering analysis and design.
- Transmission line structure and foundation design.
- Structural design for utility buildings and retaining walls within the power industry.
- Integrated use of line and structure PLS suites for optimum design of transmission lines.
- Independent review of transmission line and support structure design.
- Technical investigation and analysis.
- OPGW specification.
- Audits and network reviews.
- Quality assurance reviews.
- New technology investigations.

Having our complete team based in the PSC Adelaide office allows PSC to take on larger projects and respond to small projects rapidly. For more information please contact our Transmission Lines Manager Les Brand, [les.brand@pscconsulting.com](mailto:les.brand@pscconsulting.com) or Principal Lines Engineer Ahsan Siddique, [ahsan.siddique@pscconsulting.com](mailto:ahsan.siddique@pscconsulting.com)



*Dan Watt, Alex McDonald and Tim Drake in the PSC Adelaide office*

# Completion of ElectraNet ALS

PSC in partnership with Opten and Geodigital International, have successfully completed the aerial laser surveying (ALS) of ElectraNet's entire transmission network in South Australia (about 5600km of 132 kV and 275 kV transmission lines and 65 selected substations) over the course of four separate survey projects.

Aerial laser surveying of transmission lines is conducted by a helicopter fitted with a high accuracy laser system. The laser scans a swath under the helicopter's flight path, detecting conductors, towers, the ground plane, and other features such as roads, buildings and vegetation.

The survey is only part of the story, PSC and Opten have provided a complete end to end solution by processing the survey data into a series of PLS-CADD models and custom engineering schedules for transmission line clearances.

This information has allowed ElectraNet to make important thermal rating and bush fire risk decisions while optimising the network and maintaining the required levels of safety. The documentation and level of accuracy of the data supplied by PSC and Opten has allowed ElectraNet to verify their compliance with state regulations and planning for their asset management plan. David Boyce of ElectraNet said



"ElectraNet has been very pleased with the project delivery outcomes and the support PSC has provided to ElectraNet over time to achieve this milestone."

With highly skilled and experienced staff, PSC and Opten will continue to offer the best ALS service to transmission service providers throughout Australia and

New Zealand, and Opten's Orion Laser unit has been based in Adelaide for the summer period.

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## PSC assisting Meridian to upgrade their Generation Control System

Meridian Energy Limited, New Zealand's largest renewable electricity generation company, owns and operates wind farms and hydro-electric power stations across New Zealand. This generation capability is monitored, coordinated, controlled and dispatched by means of a sophisticated Generation Control System (GCS).

Meridian has initiated a project to upgrade the computer equipment and application software along with other aspects of the overall GCS infrastructure.

The upgraded GCS is scheduled to go into service during 2014.

PSC's Control and Market Systems team provided Meridian with consultancy and design services during the planning and initiation stages of the project and will be providing a range of services throughout the execution of the upgrade project. These services include project management, installation design, system integration, testing, training, problem resolution and support and will involve

PSC team members based in Auckland, Wellington, Christchurch and Twizel.

PSC's Control and Market Systems team has considerable experience with generation, transmission, distribution and substation management systems and is proud to be working closely and collaboratively with Meridian, Siemens and Fujitsu to ensure the successful execution of the GCS upgrade project.

# PSC Welcomes New Staff

## Ellis Gentle

Ellis Gentle has joined PSC Australia as a Principal EMS Consultant. Ellis was the Manager EMS Development for AEMO and has 30 years' experience in the electricity industry which includes over 20 years of expertise in the IT systems for power system operation, with particular emphasis on Alstom Grid SCADA, EMS and DTS systems. He has project managed major projects including several SCADA / EMS upgrades, an OSISoft PI historian, online transient stability analysis on the EMS, voltage stability analysis using Powertech VSAT and automatic generation of market constraints based on contingency analysis. Ellis will be working on SCADA projects for our clients in Australia and New Zealand.



## Alex McDonald

Alex McDonald has joined PSC Australia as a Senior Civil and Structural Engineer. He has a Bachelor of Engineering degree in civil engineering from the University of Auckland in New Zealand and has previously worked for Transpower and Meridian Energy. He has worked on foundation design for several new and existing transmission line projects in New Zealand and was also involved in site civil contract management for the construction monitoring and quality control for two windfarm projects in New Zealand. Alex will be based in the PSC Transmission Line team in Adelaide.



## Tim Miles

Tim Miles joins the PSC HVDC Group in June as a Principal Engineer – HVDC & Electrical Engineering and has extensive experience managing multi disciplined teams involved in the high voltage electricity industry. He has a Bachelor of Engineering degree in Mechatronics from Sheffield Hallam University and has worked on many substation projects in the United Kingdom where his responsibilities have included project management and site commissioning for plant ranging from control and protection equipment to high voltage switchgear and transformers. His most recent project has been the Commissioning Coordinator for the East West Interconnector Project, a 500MW HVDC Light VSC link between the United Kingdom and Ireland. Tim will be based in the United Kingdom and working on project delivery for our clients across Europe.



## Increasing Demand for our Specialist Skills

PSC welcomes new staff, and is continuing its recruitment of industry leading people. This is in response to increasing demand for our specialist skills in the areas of HVDC and EMS upgrade/integration projects in Australia, New Zealand, United Kingdom and North America. PSC continues to build an outstanding team of passionate professionals.

## New Projects on the go

PSC Canada has been selected to assist **British Columbia Hydro and Power Authority (BC Hydro)** with the planning and requirements analysis for their Energy Management System (EMS) Upgrade Project. BC Hydro is the third largest electric utility in Canada.

PSC Australia has been awarded a contract by **Stanwell Corporation**, a Queensland Government owned electricity generator in Australia; to undertake a Scoping Study for the extension of their Plant Information Management System (PIMS) which is based on the OSISoft PI platform.