



Specialist Consultants
to the Electricity Industry

PSC NEWS

Helping our clients power the world



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PSC TO SUPPORT SIEMENS FOR THE PHILIPPINES ELECTRICITY MARKET SYSTEMS PROJECT

PSC is a leading energy market systems and applications service organisation with support and project teams currently working across multiple clients in the Asia Pacific region including Energy Market Company in Singapore, Independent Market Operator in Western Australia and Transpower New Zealand.

These teams have many years of experience in supporting, enhancing and upgrading custom and commercial energy market systems. PSC works closely with market operators and has built an excellent record for delivering and supporting these specialised systems.

The local subsidiary of German firm Siemens AG in the Philippines has recently been awarded the contract to undertake information technology (IT) and processes improvements in the market management system (MMS) of the Philippine's Wholesale Electricity Spot Market (WESM).

Siemens Philippines has been engaged to undertake the regulator-approved system modifications in the trading platform for the electricity spot market for the WESM operator Philippine Electricity Market Corporation. The revamped trading platform will be based on Siemens' state-of-the-art Energy Market Management System produced by Siemens Smart Grid, headquartered in Minneapolis, Minnesota in the United States of America.

Siemens Smart Grid Solutions offers a complete spectrum of products, solutions and services for the protection, automation, planning, monitoring and diagnosis of grid infrastructure.

PSC is pleased to extend our market systems service by supporting Siemens on this important project by providing technical expertise in development, implementation and testing services.

PSC has an extensive global network of locally based, yet highly mobile consultants who can work on any energy market system project, anywhere in the world. PSC can provide the early stages of project development and feasibility through to engineering and design, software development, applications, testing and commissioning. We also provide operations and maintenance support to our clients.

For more information please contact:
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ALSO IN THIS ISSUE:

PAGE 2

- ▶ PSC supports APEx 2015 Conference
- ▶ ElectraNet EMS Virtualisation and Upgrade Project

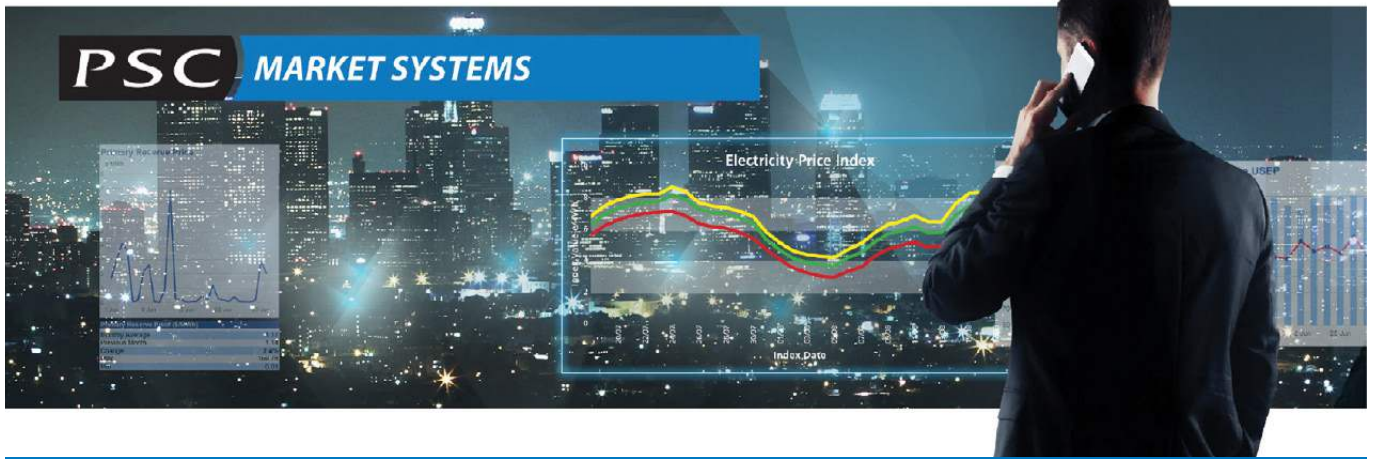
PAGE 3

- ▶ CIDER 2015 – Inaugural Conference on the integration of Distributed Energy Resources
- ▶ Reflecting World Best Practice

PAGE 4

- ▶ PSC Welcomes New Staff





PSC SUPPORTS APEX 2015 CONFERENCE

The Association of Power Exchanges (APEX) was formed to facilitate development and communication of ideas and practices in the operation of global competitive electricity markets. Currently, the members come from Asia, Australasia, Europe, North America and South America.

PSC is a bronze sponsor of the 2015 APEX Conference, to be hosted by the Independent Market Operator in Perth, Australia from the 4th to the 6th of November. This marks the twentieth year of APEX, which coincides with PSC's own 20th anniversary.

The key themes of APEX 2015 include:

- Gas and Electricity market interaction;
- Environmental and renewable policies and the impacts to Power markets;
- Co-optimising Capacity, Energy and Ancillary Service Markets;
- Evolving markets;
- Smart Grids, Smart Meters and Smart Markets; and
- Providing the right economic signal to invest in Transmission

PSC provides consulting services to electricity market operators throughout the world. PSC's services include market systems design, implementation, integration and support. For 20 years, PSC has assisted



in the successful implementation, operations and support of market systems.

PSC is uniquely capable of meeting the challenges faced by today's market operators. By working closely with our clients, our team of market system experts provides the critical resources needed to operate and support electricity markets.

Market operators in New Zealand, Singapore, and Australia rely on PSC for 24x7 support services.

In addition to using PSC's market system consulting services, Independent System Operators (ISOs) and Regional Transmission Operators (RTOs) also utilise PSC's Operations Technology, Power Networks, and HVDC consulting services. PSC provides a wide range of consulting services fully aligned with the needs of our clients.

ELECTRANET EMS VIRTUALISATION AND UPGRADE PROJECT

ElectraNet Pty Ltd (ElectraNet) is the principal electricity Transmission Network Service Provider (TNSP) in South Australia, operating as part of the National Electricity Market. ElectraNet's role is to own and manage the high-voltage transmission lines and substations that connect this State's electricity generation system to numerous distribution bulk supply connection points. They operate an EMS/SCADA system for control of their network.

PSC has a very successful history of providing SCADA/EMS (Energy Management System) services to clients across the world. As part of our SCADA project support services contract agreement with ElectraNet, PSC was selected to assist ElectraNet with their Energy Management System (EMS) virtualisation and upgrade project.

The purpose of the EMS upgrade project was to virtualise and upgrade the current EMS system to take advantage of new features and

enhancements. PSC worked with ElectraNet on the detailed design including test and migration planning, installation and configuration of test systems, production establishment and cutover planning and support. PSC had a team of SCADA engineers based in Adelaide working on this project and also engaged PSC specialist engineers within Australia when required.

The EMS cutover was performed with zero system outage to the National Electricity Market (NEM) or control room operations, reflecting the significant effort by the EMS upgrade team. PSC congratulate ElectraNet on this project that completes a successful migration to a 100% Virtual SCADA/EMS environment.

For further information, contact Andrew Dunn, GM Operational Technologies & Market Systems at: andrew.dunn@pscconsulting.com

CIDER 2015 - INAUGURAL CONFERENCE ON THE INTEGRATION OF DISTRIBUTED ENERGY RESOURCES

As part of our commitment to the electricity industry, PSC maintains a very active role in CIGRE. PSC was pleased to support CIGRE Australia in its role as facilitator for CIDER 2015, the inaugural conference on the integration of Distributed Energy Resources (DER) in the Asia Pacific region. Power industry organisations across the Asia Pacific region are faced with a wide range of technical challenges around the integration of DER.

This conference was held in Brisbane, Australia from the 19th to 20th August 2015. Ninety delegates discussed the challenges and issues around the integration of DER into existing and future networks.

CIGRE Panel C6 Distribution Systems and Dispersed Generation has the objective of the ongoing development of fundamental knowledge and skills in the following main areas:

- Dispersed energy resources connection and integration;
- Dispersed energy resources concepts in distribution systems operation and planning (microgrids and active distribution networks);
- Demand management and active customer integration;
- Rural electrification.

PSC Australia had several experienced power systems engineers attend the CIDER 2015 conference who presented two papers. PSC Director of Engineering Ranil de Silva gave a case study presentation on PSC's investigation into charging electric vehicles from distributed solar generation and Tim Browne presented a paper on the effects and mitigation of increasing DER penetration on voltage regulation in LV and Single Wire Earth Return (SWER) distribution systems.



PSC delegates at the CIDER conference (L-R): Stuart Ramsdale, Andrew Robbie, Ranil de Silva and Tim Browne.

REFLECTING WORLD BEST PRACTICE

PSC New Zealand's quality management system is certified to the world's most widely recognised quality system standard, ISO 9001:2008. Key cornerstone concepts of the ISO 9001 standard include the requirement to demonstrate ongoing continuous improvement in the organisation, and the requirement to have a customer focus in the activities of the company.

In July, Telarc SAI Ltd completed a review audit at our Wellington office in Tawa. The assessment was undertaken to determine the status of PSC's management system,

and its level of compliance against internal requirements and those of ISO 9001. The assessment was carried out in accordance with internationally recognised management system auditing practices defined in ISO 17021.

The audit report identified that the company has continued to effectively implement and maintain the prescribed management system. The audit reviewed a project and with no issues raised, the audit report commended the project manager for the effective manner in which the project has been handled.

The audit identified no non-conformances and no areas of concern. This excellent outcome ensures PSC's continued certification with ISO 9001, and indicates that PSC's quality management system compares well to recognised world best practice standards.



PSC WELCOMES NEW STAFF

LUKE FALLA

PSC welcomes Luke Falla who is a Principal Power Systems Engineer and has 20 years' experience in power system studies including load flow, short circuit, dynamic stability and transient studies. After working for TasNetworks (formerly Transend) as a systems studies engineer on the Basslink HVDC project in Australia, he has held various roles at the Australian Energy Market Operator (AEMO), most recently as a principal power systems operations engineer where he had an overview of the operations team for all aspects of real-time system security and market operations impacting on the entire Australian National Electricity Market. Luke will be based in our power networks group in Brisbane.



SHERRY QU

PSC North America is pleased to welcome Sherry Qu, a Senior Power Systems Engineer with over 20 years of electric utility experience in power operations, planning, situation awareness/presentation, standards compliance and industrial control systems, and enterprise data warehousing expertise. She has extensive experience in supporting power system operations, grid management, large scale data repositories, internal and external client relations, emergency response planning, regulatory/reliability/compliance standards, system security, contracts management, procurement and project management in both public and Federal utility environments.



GRANT McCORMICK

PSC welcomes Grant McCormick who has joined the Power Networks team in Europe. Holding a Bachelor of Engineering degree from the University of Auckland in New Zealand, Grant is an accomplished and proactive power systems engineer and project manager with five years' experience in power system analysis and project management of operational and technical projects in the transmission and distribution industry. His work tasks have included power system analysis (contingency, outage planning and voltage stability) for the New Zealand power system through to project management of a team to deliver distribution network connections as part of a major 220kV transmission network upgrade project. Grant will be based in the PSC Reading office in the United Kingdom.



HONG TRAN

PSC welcomes Hong Tran who has joined the Power Networks team in Australia. Hong has nine years' experience as a Senior Design Draftsman and has produced engineering drawings on a variety of platforms, across numerous disciplines including electrical, mechanical, high voltage substations, electricity transmission lines and civil engineering. He has a Bachelor of Mechanical Engineering degree, has worked on many projects in the Asia Pacific region and is experienced in AUTO CAD, PRO STEEL, INVENTOR, PLS CADD and PLS TOWER. Hong will be based in our Transmission Lines engineering group in Adelaide.



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