



Specialist Consultants
to the Electricity Industry

PSC NEWS

News and Views from the team at PSC

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PSC Reconfirms Major Sponsorship of EEA Conference

Following on from the success of last year's EEA Conference, PSC New Zealand has confirmed its major sponsorship of the 2012 Electricity Engineers' Association Conference & Exhibition to be held in Auckland from the 20th - 22nd June 2012.

EEA Conference 12

Operating for over 75 years, the EEA provides the New Zealand electricity supply industry with leadership, expertise and information on technical, engineering and safety issues affecting the electricity industry.

PSC, as a specialist consultant to the electricity industry, is passionate about the same issues and as a result we are proud to continue this sponsorship for the second year running. The sponsorship is also a reflection of PSC's ongoing commitment to the New Zealand industry and fostering best practice.

The 2012 conference is the premier power engineering event for the New Zealand electricity supply industry. The aim of the conference is to provide a national forum for engineering practitioners and technical experts to examine and discuss industry issues, developments and technologies in the field of power engineering. This year the conference format moves to a three day event to provide more time and

opportunity for industry representatives to attend presentations and exhibitions.

The theme for this year's conference 'Delivering New Zealand's Renewable Future' underpins what should be a strong driver for power systems engineering in New Zealand where growth and development in all aspects of modern life continues to present challenges for all aspects of the electricity industry.

A team of delegates from PSC will be in attendance at the conference and we hope those of you also attending will make yourselves known to us.

For further information on PSC in regard to our electrical engineering capability or follow-up information from the EEA Conference, please contact Barry Ireland our New Zealand Electrical Engineering Manager - barry.ireland@pscconsulting.com

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PSC Plays Key Role in the Implementation of PJM's Advanced Control Center

PJM Interconnection operates the largest electric power grid in North America and administers the world's largest competitive wholesale electricity market. The PJM region includes 60 million people, 62,600 miles of transmission lines and 185,600 megawatts of generating capacity. Annual billings are \$36 billion.

In November 2011, PJM went live with its new Advanced Control Center (AC²) based on Siemens' Spectrum technology and Alstom's e-terramarkets suite of applications.

The \$215M AC² Program resulted in two fully redundant control centers that operate the grid individually or in parallel with each other – with standard operation being both sites running in dual-primary mode for core energy management system (EMS) functions and selected market pricing functions. The EMS, market management systems (MMS), innovation and legacy



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applications also utilize an enterprise services bus based on the PJM/Siemens developed Shared Architecture Platform that provides common, reusable business service processes and messaging formats.

John O'Hehir and Jeff Shandorf from

PSC played key roles in the EMS and market pricing deliverables under the AC² Program from the beginning of 2010 through until go-live in November 2011.

John O'Hehir provided program management support to PJM's AC² leadership team and to PJM's EMS manager, John Baranowski. O'Hehir actively managed the workflows for software releases, testing and defect management between PJM and Siemens. He also was a member of the PJM Business Integration Leadership Team providing daily management direction to the PJM EMS team members, who were building and testing the incrementally delivered software.

Fran Barrett, PJM's AC² program director, noted that "both PJM and Siemens were pushing schedule and

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Watching site switchover from behind the scenes – Lee Rosenberg (Siemens PM), John O'Hehir (PSC USA), Tom O'Brien (PJM VP of IT)

technology boundaries, which could cause tension at times, and John did an outstanding job of focusing the teams toward the resolution of challenges, dynamic priorities and helping the teams put emotions aside to enable achievement of overall program objectives.”

John’s deep industry knowledge coupled with his project and relationship management skills connected the various staff, vendors and contractors into a cohesive team driven to quality and successful implementation.

Jeff Shandorf also made key contributions to the program and provided Siemens Spectrum Power 3 technical and development support, testing and debugging for the Core EMS area, which included SCADA, Web-based UI, and the sophisticated

System Synchronization (SS) functionality to keep both control centers coordinated. PJM’s dual control center requirements called for use of Siemens’ Multi-Site Products and further required development of new System Synchronization functionality to permit real-time update of applications and databases. Moreover, the SS functionality provides unique capabilities to enable SSAE #16 auditing of “data of record” data for market pricing and settlements as well as monitoring, failover, switchover and rapid recovery of systems, communications and telemetry links.

By mid 2011, final system-wide checkout was underway, which included functional tests, performance and reliability tests, and disaster recovery readiness. On November 8, the EMS, MMS, innovation

and legacy applications went live. According to Barrett, the system had the lowest level of post go-live issues of any project he has been involved in - a testament to the hard work of all involved including the PSC team.

The principle services provided by the PSC team included: program management; EMS interface to the software vendors; testing coordination for EMS, market pricing and system synchronization functions; management reporting, scheduling and work planning; technical support of core system testing; complex problem investigation and management of defect resolution processes.

PSC USA Completes AltaLink EMS Upgrade

In a joint effort with AltaLink, PSC has completed an EMS upgrade to Alstom’s *e-terraplatform*. The PSC USA and PSC Canada teams are pleased to announce the successful upgrade and cutover of AltaLink’s EMS system in November, 2011.

Running just 7 short months, this upgrade was completed on schedule to ensure operations prior to the end of year holidays.

The upgrade consisted of the EMS servers at the main and backup sites along with two DTS environments, a Corporate Data Server, a data

concentrator, new operator consoles, and a new modeling environment based on *e-terrasource*.

The PSC team consisted of a mix of PSC USA and PSC Canada staff. They were fortunate to be working with a highly experienced AltaLink technical team. The two teams were also supported by

Alstom to help resolve issues as they came up.

PSC is looking forward to working with AltaLink on additional system updates in 2012.

PSC Incorporates in Canada

PSC is pleased to announce the incorporation of PSC Canada. According to Alex Boyd, the President and CEO of PSC USA and PSC Canada, “the incorporation in Canada is recognition of our growing business in Canada and PSC’s desire to make our international expertise available locally to our Canadian customers.”

PSC Welcomes New Staff

PSC welcomes new staff, and is continuing its recruitment of industry leading people to meet the growing demand for services in the specialist areas that we support.

Errol Bebbington

Errol Bebbington has joined PSC Australia as a Power Systems Engineer. He has recently completed a Bachelor of Engineering degree with honours in electrical and electronic engineering at the University of Canterbury. During his university studies he received several industry scholarships and prizes for his project work and outstanding academic results, including the PSC Undergraduate Scholarship. Errol initially worked in the automotive industry for 10 years. He has a strong practical background and is focused on developing a career in the power industry. Errol will be based with the Electrical Engineering team in our Brisbane office.



Feng Tu

Feng Tu has joined PSC USA as a senior network applications developer. His highest degree is a PhD in electrical engineering from the Illinois Institute of Technology and he has over 14 years experience as an architect, developer and analyst of power system network applications. He has worked at Alstom Grid, American Electric Power, Luminant Energy and has worked as a power engineering research assistant in the US and China. Feng also has strong knowledge of service oriented architecture, CIM and various software development methodologies. He is currently working on Alstom Grid's network applications.



Hugo Medeiros

Hugo Medeiros has joined PSC USA as an EMS engineer. He comes to PSC from the Netherlands where he worked for Stedin B.V., A Dutch electricity and gas utility and has six years experience working with Energy Management Systems, Substation Automation and utility communications during all phases of project implementation. Hugo holds a Bachelor of Information Technology and Media from The Hague University. His first project with PSC is working with ISO New England on their Alstom Grid EMS upgrade.

PSC Account and Job Management System

The PSC head office administration team in Wellington are implementing a new account and job management system provided by NetSuite. NetSuite is the world's leading provider of web-based business application software solutions.

This new system is cloud based giving greater reliability and security while eliminating the need for on-site hardware and software.

The NetSuite system will be used by all PSC companies on a worldwide basis and is ideally suited to PSC operations where we have staff working remotely in multiple locations.



Rebecca Marsh and Fredericka Ryan in the PSC Brisbane office

PSC welcomes Fredericka Ryan who has joined Rebecca Marsh in our Brisbane office to provide office and project administration for PSC Australia. Fredericka has previously worked for Transpower New Zealand.

PSC also welcomes Cindy Vonthoff who has joined the PSC team in Adelaide to assist with project and office administration.