



Specialist Consultants  
to the Electricity Industry

# PSC NEWS

News and Views from the team at PSC

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## IMO Gas Bulletin Board Project

The 1st of August marked an exciting day in the life of the Independent Market Operator of Western Australia (IMO) with the company diversifying into the Western Australian gas market with the implementation of the Gas Services Information (GSI) services and commencement of Gas Bulletin Board (GGB) operations.

It was also a proud day for PSC, with the successful launch of the purpose built GBB systems marking the completion of another high profile industry project and providing transparency to the public on the short and near term natural gas production, transmission and usage throughout the State.

Allan Dawson, CEO of the IMO said "The IMO and PSC have teamed up again to deliver a quality product for our customers. The GBB delivery has emphasised the value of establishing a

long term relationship with a technology partner that understands the IMO business. I congratulate the PSC team on the achievement of delivering the GBB application on time, on budget and to spec".

For the PSC team that worked on the GBB systems, this project provided a refreshing opportunity to create a market system from the "ground-up" without the constraints and limitations that arise from customising and working with existing systems. This allowed the team to "do things right, first-time" using automated processes to build, test and deploy the systems.

Another unique dynamic of the project was the IMO's approach to valuing "quality of delivery" over all other success criteria. This placed a substantial focus on code quality and test coverage, with the team managing to achieve

automated test code coverage of 92%.

PSC would like to say a special thanks to Kate Ryan (GGB Project Director), Mark Brodziak (IT Projects Team Leader), Rebecca Denton (Market Analyst) and Laura Koziol (Market Analyst) at the IMO for their hard work on the project.

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 Services Information (GSI) Services in Western Australia.

For more information, visit <https://gbb.imowa.com.au> or contact PSC's WA Regional Manager [steve.black@pscconsulting.com](mailto:steve.black@pscconsulting.com)

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**PSC** HVDC

## HVDC – Specialist Talent gives PSC the Edge

Since the first HVDC project was commissioned during the 1950s, the use of HVDC technology has gained widespread acceptance. As a result, the number of HVDC projects being developed and commissioned throughout the world increases each year, as do the applications for the technology. These factors have driven a major increase in demand for HVDC expertise.



HVDC projects also sit on the leading edge of technology and often bring with them high profile risks that need to be managed and addressed by experienced people. To meet this challenge, organisations are looking for the best people with the track record to match. PSC is such an organisation.

Les Brand, CEO at PSC Australia and international HVDC lead, is passionate about the leading edge challenges each new HVDC project brings. Les recognises that the technology is constantly evolving but he knows the pool of specialist talent that PSC brings to bear gives his team the edge. The

level of experience, market exposure and collegial culture PSC offers allows the deployment of a highly professional and cohesive HVDC team anywhere in the world.

PSC's HVDC team is involved in all aspects of HVDC development, from the theoretical through to hands-on. We provide specialist advice for the full spectrum of requirements, including concept, specification, engineering and design, manufacture, construction, installation, commissioning, and operation. This experience covers both Line Commutated Converter (LCC) and Voltage Source Converter

(VSC) technologies, as well as various topologies associated with these technologies.

In addition to a team of HVDC experts, PSC has a "deep bench". That is, we offer specialists in the electricity industry in fields commonly associated with HVDC projects – including control systems, telecommunications, IT networks, market systems, civil and structural fields, and high voltage transmission lines. This depth of supporting expertise means that PSC can address virtually all technical issues during the development of a HVDC project.

As to the future, the development of the HVDC technologies is allowing previously unheard of power transfers to occur over vast distances.

The development of the VSC technology means that there are now more applications for HVDC technology. This includes the connection of renewable power sources in remote locations to parts of the network previously considered too weak, such as the connection of offshore wind farms.

For more information, please visit our website - [www.pscconsulting.com/features/lesbrandhvd](http://www.pscconsulting.com/features/lesbrandhvd)

# Snohomish County Public Utility District DMS Project

PSC North America is pleased to announce that we are working with Snohomish County Public Utility District (PUD) to implement their Distribution Management System (DMS). Snohomish PUD is the second largest publicly-owned utility in Washington State in the USA and provides electricity to over 320,000 customers in the Pacific Northwest.

Earlier this year, PSC worked with Snohomish PUD providing business process mapping between their current operating procedures and the DMS. Recently, PSC was awarded a contract for professional services to support Snohomish PUD's Alstom Grid DMS implementation. The PUD's selection criteria includes: our experience in utility operations and support for implementation, upgrades and support engagements, availability of suitable resources to complete the required roles and project requirements, service models that are competitively priced and having strong references from clients utilizing similar services.

The Alstom Grid DMS will enhance grid efficiency and reliability. PSC will support Snohomish PUD on the current phase of the project which includes the implementation of distribution Volt/Var control and Fault Isolation and Service Restoration (FISR) applications and is planned for completion at the end of 2013.



*Paul West, SnoPUD, Sr. Operational Technology Engineering Specialist, Ramona Marino, SnoPUD, Sr. Operational Technology Engineering Specialist, David Taft-Farren, SnoPUD, Student Engineer, Mark Prentice, PSC, Van Conner, SnoPUD, IT Test Lead, Tim Epp, SnoPUD, IT Project Manager, Brian Hurlbert, SnoPUD, Operational Technology Engineering Manager, Feiyu Lu, PSC, Eugene Zak, PSC.*

PSC brings both global experience and local resources to the project and is working closely with Snohomish PUD's highly skilled Operational Technologies Engineering team to apply our expertise in DMS operations and system implementation. According to Randy Berry, Vice President for PSC North America: "the PSC team at

Snohomish PUD is getting high praise for their efficiency, responsiveness, and capabilities including data modeling, user interface, and utility operating procedures." PSC is looking forward to a successful project with Snohomish County PUD and providing future consulting services.

## New Projects on the go

PSC North America is now supporting ISO New England in its review of the HVDC control systems of an independent transmission project proposed for the New England electric system. ISO New England Inc. is the regional transmission organization for New England that operates the region's bulk electric power system, administers its wholesale electricity market and manages the planning processes that address the region's future electricity needs.

PSC North America has been engaged by Trans Bay Cable LLC to provide HVDC engineering and asset management support for its 400 MW submarine HVDC link between Pittsburg, California and San Francisco, California.

PSC New Zealand is assisting Nova Energy with a Control Centre and Network Architecture investigation.

# PSC Welcomes New Staff

## Bradley Nelson

Bradley Nelson has joined PSC North America as a Principal EMS Consultant and will be based in Utah. Bradley has over 25 years of experience in Energy Management Systems (EMS) for the electricity industry and is an expert in Automatic Generation Control (AGC) and Grid Modelling. He has completed the development and delivery of generation scheduling applications with thermal, hydro/pumped storage resources and transmission security constraints. Bradley has also been involved in the development and delivery of generation scheduling and real time dispatch applications for utility clients throughout the world.



## Mark Prentice

Mark Prentice has joined PSC North America as a Principal EMS Consultant. He has over 25 years of experience in the development and implementation of Energy Management Systems and has held senior positions for the research and development of specific areas including data acquisition and data modelling. Mark's role included managing a team of engineers responsible for the planning, architecture, design and development process. He has also been a key person for the delivery of a large Energy Management System project for a utility client in Northern Europe. Mark will be based in the PSC office in Seattle.



## Noby Jacob

Noby Jacob has joined PSC Australia and has 14 years' experience in the design, development and engineering of SCADA systems, communications protocols and software applications for power systems in the electricity industry and the chemical process industry. His most recent position has been a Group Engineering Manager for ABB India. He led a team of 50 engineers in several teams covering control and protection systems, control systems product development and HVDC electrical and mechanical valve design. He also led the development of a FST (factory system test) facility at Chennai. Noby will be based in Australia and working for our clients in Melbourne.



## Sathya Thirunavukkarasu

Sathya Thirunavukkarasu has joined PSC Australia as a SCADA Engineer and has a strong IT background in the power sector which includes more than 10 years' experience working in Real-Time environments. He has very good knowledge in the wider energy industry which includes experience in control systems (SCADA/EMS) and Electricity Market Management Systems applications and databases. Sathya worked on the Transpower New Zealand market system project (MSP) and several EMS projects including SCADA outage scheduler and a VSAT configuration upgrade. Since joining PSC, Sathya has been assisting Power and Water Corporation in Darwin with EMS services.



## PSC achieves Achilles certification

PSC has successfully achieved registered status with Achilles. Achilles is a global leader in supplier management programmes and matches qualified suppliers with relevant buyers. In the UK, major utilities sector companies rely on Achilles to identify, qualify, evaluate and monitor suppliers.

PSC have been registered in the Achilles Utilities sector which supports over 200 large buying organisations and 32,000 suppliers across 6 different communities. The utilities sector represents one of Achilles' largest customer groups and continues to grow - bringing buyers and suppliers together to drive supply chain benefits.

