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LTNPQS NEWSLETTER

Issue 1 October 2009

Welcome to the first LTNPQS newsletter. This newsletter is designed to give the industry an update on the development of the LTNPQS project including significant changes. It is anticipated that this newsletter will be produced every six months.

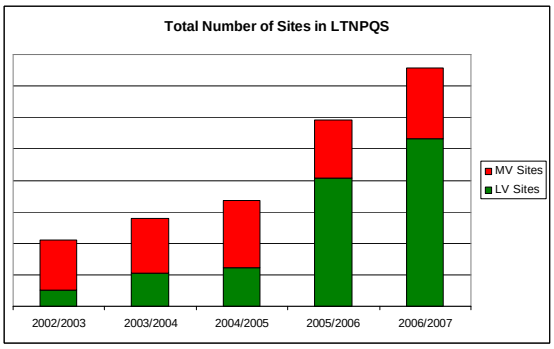
There are some exciting developments for the 2007/2008 and 2008/2009 reports which can be read about below.

LTNPQS Participation

"The 2008/2009 LTNPQS reports will include data from all Australian states"

The 2008/2009 LTNPQS reports will have unprecedented participant levels indicating the strong ongoing industry support for the project. The 2008/2009 LTNPQS reports will include data from all Australian states and as such national data in the LTNPQS will for the first time provide a true indication of PQ performance across Australia. This data provides the strongest indication of the PQ levels achievable across the nation and provides participants with the information necessary to understand power quality best practice and to make informed submissions with respect to standards and regulatory requirements.

In addition to a growth in participant numbers, the number of sites is projected to be close to 1000 for the 2008/2009 report. An identified lack of weak sites (those at the end of low voltage feeders) remains a weakness of the LTNPQS. However, many participants have been actively striving to install measuring devices in these locations and it is expected that a meaningful number of weak sites will be included in the 2008/2009 LTNPQS reports for the first time. Data from these sites will give an indication of the performance of the entire network as opposed to the subset of sites that have been included in the past.



Trend of Site Numbers in the LTNPQS

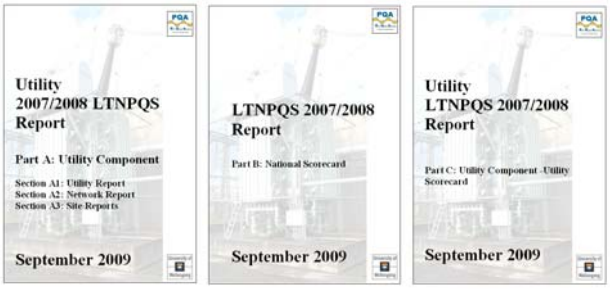
The mass rollout of smart metering technology will result in the largest single step change in potential PQ measurement sites in history. If meters which have PQ functionality are installed, these can be added to the survey resulting in both an increase in total site numbers and an increase in the number of sites with varying characteristics. This will strengthen the survey and ensure statistical confidence.

Report Format

"Major changes have been made to the way in which LTNPQS reports are delivered."

As of the 2007/2008 LTNPQS reports, major changes have been made to the way in which the reports are delivered. These changes have been implemented to address a number of operational issues. Current reports will be delivered in three separate parts with participant only and national data separated. The three report sections are as follows:

- Part A (participant only data) contains reports specific to the results of each participant
- Part B (national data) contains national results
- Part C contains comparisons of participant performance to national performance



Voltage Reporting

"Changes to voltage reporting have been undertaken in order to bring voltage assessment into line with the proposed Australian standard for steady state voltage and to simplify identification of the issues at poor performing sites."

Reporting of voltage has been significantly revamped for the 2007/2008 report. Changes to voltage reporting have been undertaken in order to bring voltage assessment into line with the proposed Australian standard for steady state voltage and to simplify identification of the issues at poor performing sites. These changes were precipitated by the fact that steady state voltage levels (particularly at low voltage) have been consistently identified as the disturbance of most concern.

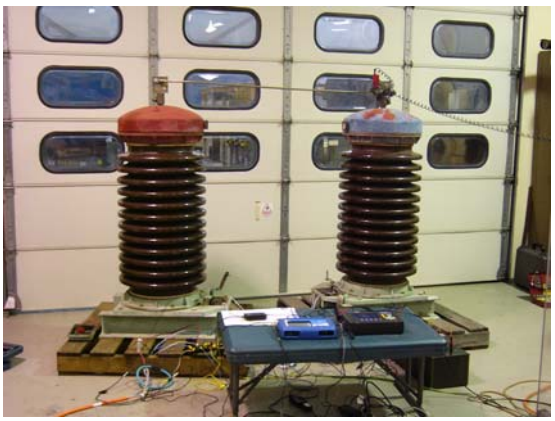
The most significant changes include:

- A revised primary index for medium voltage (MV) sites
- Removal of formal limits for medium voltage sites to reflect the fact that there are a wide range of operational conditions at MV sites.
- Changes to the way in which voltage is presented in the utility and network reporting sections. In the network reporting section of the report, the site reporting table for LV voltage reporting is now formatted such that any voltage index that is exceeding a limit is shaded red. This allows quick identification of problems sites and the causes of the problems.

132kV VT Frequency Response Testing

Power Quality Australia Staff have rare opportunity to perform frequency response tests on 132KV VT

Power Quality Australia staff recently had the very rare opportunity to perform frequency response tests on a 132kV voltage transformer. The results of this testing provides an indication of the impact that measurement transformers have on harmonic measurements. Testing involved energisation of the transformer under test through a second transformer. Test frequencies were supplied by a programmable source. The results of these tests will be published in the near future. Below is a photo of the test setup.



Photograph of 132kV VT Frequency Response Tests