Newsletter

The National HVDC Centre

Issue 8: January 2017

This is the eighth Newsletter for The National HVDC Centre, which aims to keep stakeholders informed of our progress and developments.

In this edition, we focus on: the grand opening of The National HVDC Centre, the new Centre team and the RTDS® Simulator.

Grand Opening Event – 26th April 2017

The National HVDC Centre, 20 December 2016

The much anticipated opening ceremony of The National HVDC Centre will be held on Wednesday 26 April 2017. This is the culmination of a large amount of work over the last few years and we are very excited to see this all come together.

This also marks the start of the operation of the Centre, where we will conduct state-of-the-art simulation and testing of HVDC systems across Great Britain (GB).

The following day, 27 April 2017, we are hosting the next HVDC Operators' Forum. Representatives from organisations that own and operate (or are planning to own and operate) HVDC schemes in GB can come together to share their knowledge and experiences.

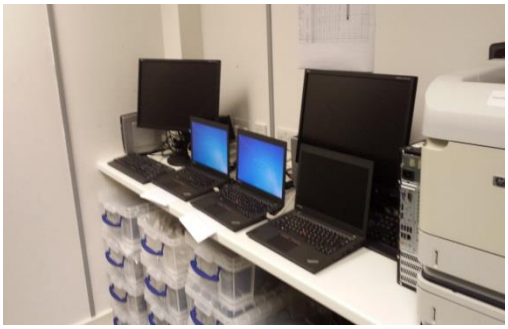
Keep an eye on our website for the most up-to-date news on our opening event!

Vicky Gilford
Stakeholder and Communications Manager

New Hardware

With only 2 months to go until we start fitting out The National HVDC Centre, we've started to take delivery of the IT equipment.

The Centre's server infrastructure has already been setup, and over the next couple of weeks we'll be busy configuring the training laptops, network switches, routers, firewalls as well as the Apple Mac workstation that will be used to create training videos and podcasts.



Colin Cameron
ICT Engineer

6-Month Progress Report

The project's latest 6-Month progress report has been published and is available on our website: www.hvdccentre.com/library/public

Meet us

We will be attending and participating at the ACDC 2017 Conference *(Manchester, 14-16 February 2017).*

Look out for Simon and Yash who will be presenting.

HVDC Operators' Forum

The next event will take place on 27 April 2017 (the day after our Grand Opening). Please contact us if you'd like to attend.

Twitter

Why not follow us on Twitter @SSEN_FN where we will be tweeting live updates using #NationalHVDC

W: hvdccentre.com
E: info@hvdccentre.com

The National HVDC Centre

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Progress on Site

Here is a collection of photographs taken on site on 20 December 2016. Check out the time lapse video on our website: www.hvdccentre.com/2016/10/time-lapse-video/

View of the Auditorium

View of the Main Entrance

View of the Control Room

View of the Replica Room

View of the Office

Building the Team

Our recruitment process is complete; having externally recruited two more Simulation Engineers to join Tarun:

- Ian has recently joined us and has wide experience in Power System Analysis; and
- Patrick also has deep Power System modelling experience and will start with the team in March.

Colin, Simon and Yash have also accepted roles and will all begin working at the Centre in April.

This completes our initial team, but we expect the number staff at the Centre to grow in the future.

We are all very excited about starting to work together at the new Centre.

Simon Marshall
Centre Manager

Colin Cameron *Ian Cowan* *Patrick McNabb* *Simon Marshall* *Tarun Sharma* *Yash Audichya*

Testing of Multi-Terminal VSC based HVDC Controllers using RTDS® simulator

The Scottish Mainland network is modelled on the new RTDS® Simulator as a Reduced AC equivalent model using RSCAD® software.

Factory system testing of the Caithness Moray HVDC link uses Hardware-in-the-loop testing of VSC based HVDC controllers in the multi-terminal configuration.

This allows the controller response and performance to be validated for the worst case network disturbances and dynamic analysis of the AC–DC system interactions.

This equivalent model is divided into 6 subsystems due to the number of nodes and power & control system components. Each subsystem is simulated on individual racks and interconnected via cross-rack components to run as a whole system.

The model is compiled and loaded onto the simulator for validation of the steady state performance in Runtime Console against the actual full AC network of the Scottish Mainland in PSSE.

Tarun Sharma
Simulation Engineer

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