

TIMESCALE

VISOR approved

VISOR is one of the 1st projects to be awarded Network Innovation Competition (NIC) funding



New monitoring and insight

- New monitors installed to detect "sub-synchronous oscillations" in the Grid
- 1st report and workshop present insights delivered by the VISOR WAMS

Delivering Learning

- Annual reviews and workshops on GB system behaviour.
- Power grid interactions observed and investigated
- Cutting-edge grid analysis & monitoring tools demonstrated
- Experience in managing GB WAMS infrastructure
- Industry engagement: CIGRE, PAC World, LCNI

December 2020

December 2013

VISOR Partnership kicks-off

The VISOR partnership is formalised and SPEN, NG, SSEN, University of Manchester and GE begin collaborating in earnest

Demonstration System Deployed

New environment created at SPEN for demonstration and exploration of integrating WAMS with Control Room systems and tools

VISOR Close-Down

Project partners conclude that WAMS will be a "critical part of the solution", and that we have "just scratched the surface"



Roadmap to Rollout

Transmission owners and System Operator work together to plan and implement the integration of WAMS in their business operations, development and governance.



VISOR

Visualisation of Real Time System Dynamics using Enhanced Monitoring

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WHO ARE WE?

We are SP Energy Networks, part of the Iberdrola Group, leaders in sustainable innovation. As a Distribution and Transmission Network Operator we keep electricity flowing to homes and businesses throughout Central and Southern Scotland, North Wales, Merseyside, Cheshire and North Shropshire.

We do this through the network of overhead lines and underground cables which we own and maintain.

Our three regulated electricity licences are:

SP Transmission (SPT)

SP Distribution (SPD)

SP Manweb (SPM)

Our aim is to deliver a safe and reliable electricity supply **24 hours a day, 365 days a year** whilst providing exceptional value for money.

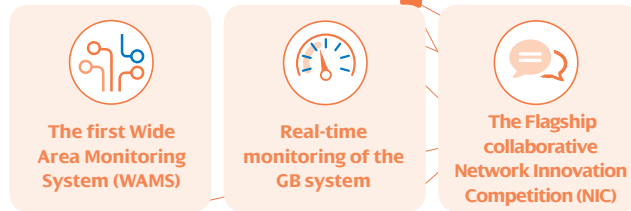
VISOR

VISOR is state-of-the-art technology which has revolutionised the real time monitoring of the GB network.

It is the flagship collaborative Network Innovation Competition (NIC) project, and has involved system designers, operators, developers and researchers. The result is the first Wide Area Monitoring System (AMS) nationwide IT infrastructure.

VISOR combines synchronised measurements from all three GB TOs. The result is real-time visibility of the dynamic system behaviours of the whole network.

As VISOR continues to provide greater visibility and understanding of the network, it will enable more efficient use of existing network assets, and ensure the system remains reliable as the network continues to become more diverse.



PROJECT PARTNERS

Project Partners

VISOR is a collaboration project between the three mainland GB Transmission Owners (TOs) and the System Operator:

- SP Transmission
- Scottish Hydro Electric Transmission
- National Grid Electricity Transmission
- National Grid System Operator

Our other project partners:

- University of Manchester
- GE Grid Solutions

BENEFITS FOR CUSTOMERS

- Play a role in reducing uncertainty of electricity supply by providing synchronised monitoring and instantaneous operating points. This will improve system models and operation.
- VISOR has established a new infrastructure to ensure that potential threats are detected and the electricity system remains secure.
- By improving understanding of the dynamic behaviour, it will provide the System Operator with the means to optimise the full capacity and deliver further capacity release using existing assets.

VISOR paves the way for the future use of phasor data for enhanced control and protection.



- VISOR has allowed operators to optimise existing assets without deteriorating the reliability of electricity supply.
- Through using existing assets, VISOR is helping to keep the costs low for enhancing the electricity infrastructure.
- VISOR paves the way for the future use of phasor data for enhanced control and protection.