# Smart Grids Forum

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# Smart Grids Forum

Ofgem | DECC

energy industry, technology providers, large customers, academics and other bodies working on smart grid related issues
(19 members)

- Bring together key opinion formers, experts and stakeholders in the development of GB smart grids
- Provide strategic input to help shape Ofgem's and DECC's thinking & leadership in area
- Help provide the network companies with a common focus in addressing future networks challenges
- Focus on the role that the network companies will play, both technically and commercially, in the low carbon transition.

Established 2011

http://www.ofgem.gov.uk/Networks/SGF/Pages/SGF.aspx

# Smart Grids Forum

In 2011 the Forum concentrated on five work streams:

- WS1: Scenarios and assumptions (DECC)
- WS2: Smart Grid Evaluation Framework (Ofgem)
- WS3: Developing Networks for Low Carbon (DNOs)
- WS4: “Closing Doors”
- WS5: Ways of Working

Currently developing programme for second year

# Work Stream 1 – Assumptions and scenarios

- Data on likely penetration of low carbon technologies that will impact the distribution networks in GB
- Consistent with the 4th Carbon Budget (2023-2027) of the Governments Carbon Plan
- DECC has provided data for electric vehicles, heat pumps and solar PV for three scenarios up to 2030
- Data used as an input to the Work Stream 2 evaluation framework
- Provides a vital link between Government policy and the planning processes being developed by the DNOs

# Work Stream 2 - Evaluation framework

- Cost benefit, scenario based model to evaluate benefits of smart grids
- Incorporates three background scenarios, using the work stream 1 scenarios and assumptions
- Allows different ‘smart’ network investment strategies to be compared to a ‘conventional’ base case
- Incorporates a decision point at 2023 where the strategy can be changed so that the option value of decisions at 2012 can be taken account of
- Being taken forward and refined by WS3 (DNOs)
- The results produced DO NOT provide robust answers at this stage but, based on the current data, it provides an initial indication of the benefits of smart grids
- Report published in March 2013

http://www.ofgem.gov.uk/Networks/SGF/Documents1/RPT-SGCBA%20%20STC%20Final%20-160312.pdf

# Work Stream 3 – Developing Networks for Low Carbon

- Initial report: “Developing Networks for Low Carbon” published October 2011
- Qualitative evaluation of the scenarios
- Assesses potential impact on networks and proposes responses that utilise innovative techniques where advantageous
- Forward programme builds on combined outputs from work streams 1 and 2.
- Intention to increase level of detail in the WS2 model, particularly the distribution network modelling and scope of smart solutions available.
- Being developed co-operatively by all the distribution network companies and others within the SGF
- Results due to be published in May

# Work Stream 4 – Closing doors

- Recognises risk that short term policy decisions could close off longer term opportunities.
- Main focus - interaction between smart metering programme and development of smart grids
- Acted as catalyst for discussions between DECC, the DNOs, the Institution of Engineering and Technology (IET) and SGF members
- Has helped the debate about smart meter functionality in the context of network operation and the required performance of the communications infrastructure.

# Work Stream 5 – Ways of working

- Considering how the SGF can best pursue its objectives and communicate effectively with stakeholders.
- The Energy Networks Association (ENA) and Smart Grids GB are jointly developing a programme of activities to make smart grids developments more visible to stakeholders
- ENA is committed to helping the DNOs to share the considerable learning that is being generated by the Low Carbon Networks Fund projects.

# Going forward

- Work stream 2 INITIAL results suggest that:
  - Smart grid solutions are likely to benefit customers as we develop our distribution networks toward 2050
  - More analysis is required to establish when it would be most cost effective to commence the widespread deployment of smart solutions
- The framework is valuable in helping us to better understand what drives the value of smart grids and which planning assumptions we should focus on to improve the outputs
- Work stream 3 is taking this work forward to improve the analysis
- The goal is to get a common understanding between all key stakeholders before the DNOs submit their RIIO-ED1 business plans
- In year 2 the SGF will explore the commercial implications of smart grid development

Report on first year available on website