

## **National Grid: Call for Proposal**

South East SmartGrid.

The electricity network in the south coast of England is expected to see an increase in connection of transmission connected multi GW High Voltage Direct Current (HVDC) interconnectors, and offshore windfarms.. The distribution networks in this area are also expected to accommodate large volume of Solar PV, small scale renewable generation and an increasing volume of electric vehicles. These changing system characteristics create a great opportunity to develop a smart transmission network that seeks to fully maximise the voltage, thermal and stability capability. We are seeking to develop a network solution that is capable of actively monitoring the behaviour of the system and taking necessary actions to provide an efficient, sustainable and secure solution that facilitate connection of interconnectors and minimise the need for new overhead lines.

National Grid is preparing a project proposal for submission to Ofgem's Network Innovation Competition that includes trialling a wide range of measures such as:

- Application of advanced control systems on HVDCs to enhance system stability,
- Conversion of classical shunt equipment to dynamic shunt equipment, and
- Energy storage

to develop a smart transmission network. This will establish the cost and benefit of developing new control philosophy for the transmission system for future network development.

National Grid invites you to submit an expression of interest to participate in this project, specifically with respect to the work package related to one of the mentioned subjects.

## Return submissions

You are requested to provide the following information with your expression of interest to [box.innovationtransmission@nationalgrid.com](mailto:box.innovationtransmission@nationalgrid.com) by 5pm on 26<sup>th</sup> February 2014:

- A summary description of your proposed approach to develop a control system measuring and acting upon system states and dynamic behaviour,
- Evidence of your organisation's experience in developing analytical solutions. This should not exceed 1 page of A4.
- 1 page CV of the relevant experience of key personnel you propose would undertake the bulk of the work and of the person who would have overall responsibility for timely and cost effective delivery of required outputs.
- A budget of number of full time equivalent months anticipated to be required to complete the work and provide the deliverables.
- An indication of any external funding you can bring to the bid, either direct financial (discounted prices, grant, etc) or in kind (service or facility).
- An indication of your willingness to work under the NIC terms and conditions, specifically related to Intellectual Property Rights.

The following information is relevant and clear understanding of it reflected in your proposal will be one of the evaluation criteria, together with your relevant expertise and experience and budget proposal:

Electricity Network Innovation Competition Guidance Document, Ofgem.

<http://www.ofgem.gov.uk/Pages/MoreInformation.aspx?docid=403&refer=Networks/nic>

Electricity Ten Year Statement (Chapter 5: System Operation – Operational Flexibility)

<http://www2.nationalgrid.com/UK/Industry-information/Future-of-Energy/Electricity-ten-year-statement/Current-statement/>

For more information regarding the technical scope please contact:

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