

## **Q1b - Developing research tasks and leading working groups (2 pages)**

ESC has extensive experience in participating / leading research groups and tasks. For example:

- Leading the Future Power Systems Architecture (FPSA) project to identify the new capabilities required by the UK power system to be fit for purpose in 2030,
- Leading the Energy Data Task Force commissioned by UK Gov. and Ofgem to develop an integrated data and digital strategy to help unlock the opportunities of a modern, decarbonised and decentralised energy system for the benefit of consumers,
- Leading the Energy Digitalisation Task Force focused on modernising the energy system to unlock flexibility and drive clean growth towards net zero,
- Supporting BEIS and FCDO on workshops related to Mission Innovation,
- Running a scoping study, which included extensive research, stakeholder consultation, literature review and gap analysis, to identify gaps in flexibility knowledge and the need for collaborative international research. This was delivered directly to ISGAN,
- Chairing the Electric Vehicle Energy Taskforce (EVET). In this project ESC brought together the energy and automotive industries to plan for the system changes required for mass EV uptake. ESC organised numerous workshops and strategy sessions to gather information on activities and validate findings from over 350 stakeholders, before identifying 10 high-priority actions,
- Organising research and innovation workshops with European partners that focused on power systems and market challenges associated with Net Zero.

All of these projects involved substantial work related to setting up new tasks, identifying research gaps, preparing reports, and chairing or participating in steering boards.

The proposed Alternate Delegate, [REDACTED], also has personal experience of direct relevance. For example, she was seconded to BEIS to act as the UK lead for the Mission Innovation Green Powered Future Mission. Key deliverables of her role included scoping the thematic focus of the UK led pillar on Data and Digitalisation in preparation for the Mission Launch at CEM12/MI6 ministerial, co-leading the development and launch of the Mission Roadmap of global innovation priorities at COP26 and the Action Plan for 2022-2024. [REDACTED] was also involved in ISGAN tasks including the scoping study outlined above. [REDACTED] has:

- Chaired a UK technical advisory group comprising of x-HMG representatives and advisors,
- Chaired an International working group for the UK led Research and Innovation Pillar (Data and Digitalisation) including international organisations, governments, and industry,
- Conducted industry wide surveys, literature reviews and workshops,
- Engaged with and managed stakeholders from governments, academia and industry,
- Representing the UK government Mission Roadmap launch at COP26,
- Conducting innovation needs assessments through consultative processes.

## **Research topics**

The answer to the previous question outlined a few potential research topics:

- Integration of trading with dispatch / monitoring of balancing actions required on a sub-settlement period basis,
- Understanding of actors' (aggregators, consumers, retailers, generators, physical network owners, system operators) requirements for flexibility and the commercial implications,
- A need to identify the different characteristics that different flexibility options provide and how to access them (e.g., active power, reactive power, inertia, responsiveness, duty cycle, repeatability, continuous duration, etc.),