# Submission by [REDACTED] (for role of Alternate Delegate) and Prof [REDACTED] (as Task leader) for Lot 1

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| ***Criterion*** | ***Description*** |
|  | 01b – **Developing research tasks and leading working groups****1. Expertise, for** [REDACTED]  **in Alternate Delegate role**Expertise for [REDACTED] outlined below:[REDACTED]. I have made good relationships with the IEA and other country representatives having attended meetings in Japan and Italy. I have engaged the UK community with the BEIS representative (though this has been slightly hampered given uncertainty of the contract recently), and successfully coordinated the agreement of the TCP for a new UK-led task on medium-duration energy storage. I have a successful track record proposing new research projects as the Principal Investigator, including for:* Energy storage, PI for £5m MANIFEST project funded by EPSRC, 2016 - 2021
* Industrial decarbonisation (leading a project funded by the Industrial Decarbonisation Research and Innovation Centre, IDRIC)
* The use of Whole Energy System Analysis in decision-making across scales

A full list of UKRI-funded projects that I am investigator on is at: <https://gtr.ukri.org/person/B1C9E6F7-2164-4BB9-ADA9-A84B0FEFED88>. In terms of working at high levels, I am a Member of [REDACTED] and I have been [REDACTED]. I have submitted written evidence to Select Committees, and been invited to be a witness, giving oral evidence, twice [REDACTED].As [REDACTED], my role included proposing topics for ERP to address, in consultation with the Chairs. References for Q1a show a number of high-level reports and papers I have led. Two possible research topics for the TCP could be:* Locational dependence of ES value: There is general acceptance that increased deployment of ES will help integrate renewables and meet net zero targets, at a national scale. However, there is less certainty around where such storage could best be located on networks, and how such ES could be coordinated to maximise system benefit. The task would bring together understanding from TCP Members for more granular analysis, including techno-economic modelling, policy and regulatory instruments.
* Developing business cases for long-term energy storage: Interseasonal storage (e.g. of hydrogen, or thermal energy) is likely to be important to meet the UK’s heat demand in winter, yet such low cycling of storage has an impact on developing a viable business case in the current energy market. There are some international examples of such long term storage, and this is likely to be a challenge for other countries that have seasonal imbalances (either for winter heat, or summer cooling), so collected analysis of this issue would be valuable.

**2. Expertise for MDES Annex Leader**[REDACTED] has been principal investigator on >£15M of research grants at [REDACTED] of which ~£4M have been directly connected with energy storage. He served as [REDACTED] and surrendered that role to focus primarily on energy storage work. He remains the [REDACTED]. He has been extremely active in running open events that help to inform the energy systems community. Most relevant here are the following events (for which he has been the main instigator and driver):[REDACTED] He instigated and led the running of [REDACTED] ran each year from 2014-2019 and will run again this year. He has published over 30 journal papers specifically relating to energy storage and its place within future energy systems.  |