## **Senate Standing Committee on Economics**

## ANSWERS TO QUESTIONS ON NOTICE

Innovation, Industry, Science and Research Portfolio Budget Estimates Hearing 2011-12 30 May 2011

## **AGENCY/DEPARTMENT:** COMMONWEALTH SCIENTIFIC AND INDUSTRIAL RESEARCH ORGANISATION

**TOPIC:** Batteries for Renewables

**REFERENCE:** Question on Notice (Hansard, 30 May 2011, E35).

**QUESTION No.:** BI-20

**Senator MILNE:** Perhaps we can just move on to the batteries to supplement renewables—so storage capacity for renewables. I hear what you say about testing the extent to which that can be scaled up, but what are you thinking in terms of a reasonable level of storage? What is the scale that you think it is achievable at and the time frame for that?

**Dr Clark:** I can provide those technical details on notice. Certainly, the large-scale ultrabattery for use in renewables has market potential, and we have been testing it. Its advantage in the market is its lower cost compared to other potential options. We see that as having potential, particularly in the wind market. But we are still exploring those options. In terms of your question on the technical specifications, we can provide those.

## **ANSWER**

CSIRO has been successfully testing modules (batteries) at the 200kWh scale. Trials for both renewable energy smoothing and electricity grid support are being installed at megawatt hour scale in Australia and the USA in 2011 for performance evaluation.

Multi-MWh commercial installations are being planned by industry based on MWh scale modules.