

**Senate Standing Committee on Environment and Communications
Legislation Committee**

Answers to questions on notice
Environment and Energy portfolio

Question No: 226
Hearing: Supplementary Budget Estimates
Outcome: Outcome 2
Program: International Climate Change and Energy Innovation Division (ICCEID)
Topic: Renewable Energy Cost Effectiveness
Hansard Page: n/a
Question Date: 24 October 2016
Question Type: Written

Senator Lambie, Jacqui asked:

Which renewable energy is the most reliable, cheapest and cost effective out of large scale wind, solar and hydro?

Answer:

Power reliability is a result of the operation of the whole energy system. The energy system can operate reliably with intermittent power (such as wind, solar, tidal and wave generation) when several generation sources operate in a complementary manner to provide consistent output.

Hydro electric power is not intermittent and has the advantage of being dispatchable; stored water can be released to generate electricity at the time of optimal price and demand. On this basis, it can be considered more reliable in the short-term; however, reductions in water supply through drought can reduce reliability when measured over longer time scales.