

**Senate Standing Committee on Environment and Communications**  
**Legislation Committee**  
Answers to questions on notice  
**Environment and Energy portfolio**

**Question No:** 243  
**Hearing:** Additional Estimates  
**Outcome:** Agency  
**Program:** Bureau of Meteorology (BoM)  
**Topic:** Current temperature rises  
**Hansard Page:** -  
**Question Date:** 2 March 2017  
**Question Type:** Written

**Senator Burston asked:**

The BoM attributes current temperature rises to human industrial activity rather than the historical ebb and flow of global warming and cooling as part of the natural phenomenon of climate change. Is it true that climatologists are looking increasingly at solar activity and natural climate variability to explain the Earth's temperature variations?

**Answer:**

No, it is not true that climatologists are looking increasingly at solar activity and natural climate variability to explain the Earth's temperature variations. Firstly, solar radiation has not increased since satellite measurements commenced in 1978. Secondly, the pattern of observed warming is inconsistent with that which would occur from solar changes (but is consistent with CO<sub>2</sub> increases).

No known form of variability can reproduce the widespread warming of oceans, land, atmosphere and cryosphere that is seen in the climate system. Instead, multiple lines of evidence lead to the conclusion that recent climate change has been dominated by increased atmospheric greenhouse gases. This science is summarised in Chapter 3 of the Climate Change in Australia Technical Report at [www.climatechangeinaustralia.gov.au/en/](http://www.climatechangeinaustralia.gov.au/en/).