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

Question No: 94

Hearing: Additional Estimates

Outcome: Outcome 2

Program: Domestic Emissions Reduction Division (DERD)

Topic: Evidence of policy direction of department

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Question Date: 27 February 2017

Question Type: Spoken

Senator Roberts asked:

Senator ROBERTS: Can I then put on notice that I request the empirical evidence upon which your department has based its plans.
Dr de Brouwer: Yes, I am very happy to. I will give you the material from CSIRO and the Bureau of Meteorology, our own scientists in Antarctica and elsewhere that we rely on. I will provide that material.
Senator ROBERTS: The science that is showing that the carbon dioxide from human activity is affecting the climate and needs to be reduced.
Dr de Brouwer: That is the science.
Senator ROBERTS: I just want to be clear: I want the empirical evidence that proves that carbon dioxide from human activity is affecting the level of carbon dioxide in the atmosphere and that it must be reduced.
Dr de Brouwer: Okay.

Answer:

The Government accepts the science of climate change and takes its advice on climate change, the risks posed and projections of future impacts primarily from our national science agencies: the Bureau of Meteorology and CSIRO. The Bureau and CSIRO cooperate with many other scientific and research institutions from around the world.

The advice is that there is overwhelming scientific evidence the climate is changing due to human caused emissions of greenhouse gases. These findings are informed by long term observations of air temperatures, measurements of ocean temperatures, and changes to glaciers, ice sheets and sea ice.

This advice aligns with information provided by respected national and international science organisations. These include the Intergovernmental Panel on Climate Change (IPCC), the Australian Academy of Science, the Australian Antarctic Division, the World Meteorological Organization, the National Oceanic and Atmospheric Administration (NOAA), and the National Aeronautics and Space Administration (NASA).

The peer-review process utilised for scientific research provides a quality-assured and reliable source of information on climate science.

A number of agencies produce summaries or assessments of the peer-reviewed literature. These summaries outline the scientific evidence which supports climate change. The reports also provide extensive references to the peer reviewed literature and data the reports draw on.

Recent such synthesis reports include:

- CSIRO and the Bureau of Meteorology, State of the Climate 2016: www.bom.gov.au/state-of-the-climate/State-of-the-Climate-2016.pdf
- IPCC, Fifth Assessment Report, Working Group I (The Physical Science Basis), Summary for Policy Makers: http://www.ipcc.ch/pdf/assessment-report/ar5/wg1/WG1AR5_SPM_FINAL.pdf
- World Meteorological Organisation, Statement on the State of the Global Climate on 2016: http://library.wmo.int/opac/doc_num.php?explnum_id=3414