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BARRIERS TO EFFECTIVE CLIMATE CHANGE ADAPTATION ISSUES PAPER

APPEA Submission

DECEMBER 2011

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1. INTRODUCTION

The Australian Petroleum Production & Exploration Association (APPEA) is the peak national body representing Australia's oil and gas exploration and production industry. APPEA has more than 80 full member companies exploring for and producing Australia's oil and gas resources. These companies currently account for around 98 per cent of Australia's total oil and gas production and the vast majority of exploration. APPEA also represents over 220 associate member companies providing a wide range of goods and services to the industry. Further details about APPEA can be found at our website, at www.appea.com.au.

APPEA welcomes the opportunity to provide comment on the *Issues Paper* from the Productivity Commission entitled *Barriers to Effective Climate Change Adaptation*.

1.1 General Comments

APPEA supports a national climate change policy that delivers abatement at least cost and facilitates investment decisions consistent with there being an international price on carbon.

Adaptation is an important element of climate change policy response. Adaptation strategies must be used to mitigate the risks that a changing climate may pose.

As part of its consideration of climate change policy responses, APPEA in November 2010 released a series of *Climate Change Policy Principles*. A copy of these principles can be found at Attachment 1 and at www.appea.com.au/images/stories/Publications/ClimateChange_lores.pdf. APPEA has developed these principles to underpin the upstream oil and gas industry's engagement with Australia's policy response to climate change.

Adaptation strategies to mitigate the risks posed by a changing climate should include:

- enhanced climate modelling to provide location specific climate change forecasts;
- research into possible climate change impacts on the Australian environment;
- development of land use and planning guidelines consistent with the available evidence of likely climate change impacts;
- the development of risk management strategies to reflect likely impacts of climate variability current; and
- mitigation measures inconsistent with this national approach should be removed[1].

Within this context, the following sections provide comments on some of the questions posed in the Commission's *Issues Paper*. Note that not every question has been answered. Rather, APPEA's comments focus on key issues from an upstream oil and gas industry perspective.

[1] Existing measures should be assessed against the Council of Australian Government's 29 November 2008 *Complementarity Principles for Climate Change Mitigation Measures* (see www.coag.gov.au/coag_meeting_outcomes/2008-11-29/docs/20081129_complementarity_principles.pdf for a copy of the principles). Only those measures that clearly meet these principles should be considered for retention.

2. EFFECTIVE ADAPTATION

What kinds of adaptation to climate change (and variability) have proven most effective to date?

How can uncertainty be addressed in the context of adaptation to climate change?

Given the location of its operations in Australia (in areas such as the north-west of Australia), the upstream oil and gas industry has a long history of project design that takes account of climate variability as a fundamental aspect of project design.

Such considerations have been a feature of project that pre-dates concerns about climate change and have been incorporated in, for example, environmental impact assessments/statements without a requirement from the relevant regulator.

Climate change adaptation responses can therefore form a component of the overall risk management strategies already employed by the industry.

Uncertainty is a key feature of adaptation debates and adaptation policy design, with information at the local level either unavailable or subject to extreme level of uncertainty.

APPEA has previously called for implementation of an enhanced greenhouse impacts modelling program directed at giving better information on climate impacts (variable, intensity, variability, timing, location) as a key way to address uncertainty in the context of adaptation to climate change.

Once adequate location specific data on potential impacts of climate variability are available, the industry is in a better position to, as appropriate, review (and if necessary adapt) their risk management strategies (encompassing engineering design, safety and environmental assessments) to reflect new learnings on the likely impacts of climate variability.

The industry already, in some cases, considers climate-related issues in project and facility design. For example, the Environmental Impact Statement (EIS) for the Queensland Curtis LNG (QCLNG) Project assesses climate and climate change-related issues in Volume 5, Chapter 2[2]. The data and modelling behind the analysis in this chapter comes from the Commonwealth Science and Industrial Research Organisation (CSIRO)[3].

Government will also need to complement industry action by continuing to develop and refine risk management strategies in areas such as health care, water supply, emergency services and suitable developments in coastal areas and on flood plains. This sort of action planning should give the community greater confidence about how climate change adaptation issues are being addressed.

3. BARRIERS TO ADAPTATION

What is the most useful way to classify, define and identify barriers to adaptation? Are the categories set out above appropriate? Are there other types of barriers?

What market failures could inhibit adaptation in any specific sector or region?

[2] See www.qgc.com.au/01_cms/details.asp?ID=433 for further information.
[3] See csiro.au/science/Changing-Climate.html for further information.

Are there examples of policy or regulatory barriers that could inhibit adaptation? What are these? Could the objectives of these policies or regulations be met in alternative ways that have greater benefits and/or lower costs and distortions?

What other significant barriers (for example, behavioural or organisational) might inhibit adaptation? What effects might these have on decisions about whether and how to adapt to climate change?

The key barrier to adaptation is in many cases the low level of confidence in projections of climate variables at the local level.

The CSIRO and Bureau of Metrology[4] (BoM) appear to be the public organisations with the requisite modelling capability, and so improving the quality of the information that can be provided is clearly dependent on the resources and skills of these institutions. APPEA recommends this be a key area of focus for the Inquiry.

APPEA supports the work of the National Climate Change Adaptation Research Facility[5] and its role in leading the research community in a national interdisciplinary effort to generate the information needed by decision-makers in government and in vulnerable sectors and communities to manage the risks of climate change impacts. A more central role for this organisation may be appropriate.

[4] See www.bom.gov.au/climate/change/ for further information.

[5] See www.nccarf.edu.au for further information.