

Barriers to Effective Climate Change Adaptation Productivity Commission LB2 Collins Street East Melbourne Vic 8003

members' experiences of barriers to adaptation.

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Dear Commissioners,

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Further to the Investor Group on Climate Change Australia/New Zealand ('IGCC')'s submission to the Public Inquiry, the IGCC would like to submit the following comments on the Draft Report "Barriers to Effective Climate Change Adaptation". The IGCC, as an industry association of institutional investors, is concerned about the physical impacts of climate change on its members' assets, which include significant property and infrastructure investments. In addition to the comments below, the IGCC has provided the Commission with case studies to illustrate its

- Climate change message (Overview chapter, p.2): One of the key points of the Report is that, within limits, the impacts of gradual climate change should be manageable, given Australians' long history of coping with climate variability and structural change. The scope of the Commission's enquiry was, however, limited to regulatory and institutional barriers to effective adaptation. It did not measure the social and economic costs associated with climate change, which may be significant if mitigation steps are not accelerated. The IGCC is concerned that the Commission's statement may be interpreted as underplaying the possible extent of climate change, which could undermine mitigation efforts.
- Flexible land-use planning (p. 16, 20 & 152): The reform of land-use planning regulations to ensure greater flexibility is included under lower priority reforms (p. 16), but is also indicated to be a high priority (p. 20 and p.152). The IGCC is of the opinion that an early adoption of flexible planning practices would prepare governments to deal better with future climate impacts, as well as existing ones. Given the co-benefits of a more inclusive planning process, these reforms should be a high priority.

We agree with the Commission that regulated planning conditions may not be desirable. In IGCC's opinion, it is desirable for local authorities to be using common inputs to adaptation decision making, such as data regarding expected physical climate impacts and that methodologies for decision-making, for example, guidelines on how to weight and compare various climate impacts when determining planning constraints, would be highly desirable. Exactly how this common approach is achieved requires further consideration.

• Guidance on infrastructure adaptation (Chapter 9, p. 179): The Report states that considerable guidance appears to be available on climate change risks to infrastructure, in particular through guidance by Standards Australia (under development) and the Australian Green Infrastructure Council. Although these documents are of some assistance, investors find that it is difficult to discern certain information on the extent of likely local impacts from such information sources, making investment decisions difficult. IGCC also notes gaps in the information available, relatively poor usability for non-

technical audiences and frequent contradictions in the available information on sector specific adaptation issues.

- Information on climate impacts (Chapter 6, p. 103-105): The Report states that the more specific information is, the more likely the benefits are to be concentrated and that the information will be privately provided if sufficiently valued. The Report acknowledges, however, that broader use of down-scaled climate change projections can usefully expand adaptation information. The IGCC wishes to emphasise the need for better down-scaled information to inform adaptation decisions (We note that if the provision of relatively certain downscaled information is technically difficult, guidance on how to apply higher scaled information in local conditions may be appropriate). Although climate change information at a relatively fine scale could serve private interests, it would also contribute towards building a more resilient society. Government should therefore play an active role in developing and disseminating down-scaled information.
- National repository of information (Chapter 6, p. 105-106): The IGCC does not agree
 with the Commission's view that a national repository of information would not provide
 significant benefits over present arrangements. In the IGCC's experience there is a
 demand for a repository (or directory) of climate and information to improve the
 accessibility of dispersed information and tools.
- Managing climate change risks for existing infrastructure (Chapter 8, p 160-162): IGCC notes the lack of guidelines, regulations, development approval processes or incentives that either encourage or require private property owners undertake actions to mitigate climate change impacts to existing property. While not necessarily advocating for regulation in this area, we note that a range of asset development planning processes, for example requirements to update Master Plans for social infrastructure assets and Environmental Impact Assessment processes for significant development of existing assets, do not typically include requirements to consider and plan for environmental impacts on the asset. In a sense these planning processes create barriers to adaptation investment by virtue of their silence on the issue of physical climate impacts.
- National Construction Code (Chapter 8, p. 160): The IGCC takes note of and supports
 the Commission's recommendation that the National Construction Code and associated
 standards should be amended to take climate change impacts into account.

The IGCC remains open to continue discussions with the Commission during the finalisation of the Report. Two case studies are provided below that address elements of the draft report and we are willing to facilitate further consultations between the Commission and IGCC members, where this could assist the Commission's work.

Yours faithfully,

Nathan Fabian Chief Executive Investor Group on Climate Change

Case study 1: A property investor

Guidance on infrastructure adaptation (Chapter 9, p. 179):

A property company recently undertook a climate change risk assessment of their property portfolio assets. Following are extracts and reflections based on that assessment.

There is not a direct link between adaptation and building design or more specifically, between development applications and designing for physical climate change impacts. Besides regulatory planning requirements (e.g. mandatory landscaping, permeable surfaces requirements that may be in place) there are no requirements to design in climate change adaptation.

Building owners are not incentivised outside their own mitigation strategies to build climate change resilient buildings. Such strategies may include designing for low energy, low water use, reducing heat load. These changes are designed to make assets more efficient assuming future resource availability and cost constraints rather than to address direct physical impacts on assets.

As a responsible owner we will be developing an effective, flexible adaptation strategy to reduce the impacts of climate change on our portfolio. We are working to educate and encourage awareness of the associated benefits of adaptation e.g. energy and water efficiency across our business.

A number of adaptation opportunities have been recommended in our Building Climate Change Action Plans but as yet, insufficient incentive exists to undertake retrofitting opportunities that do not also have an energy or water saving benefit. We will continue to work with our development teams to understand the drivers for climate change adaptation and for us as a business to recognise the financial savings. While we accept that expectations of physical climate impacts should influence decisions associated with future development, maintenance, replacement and refurbishment of assets1 but quantifying the benefits of these changes over long time frames remains difficult.

If incentives existed as part of the development application, encouraging owners to design for greater resilience, we would expect to see building designs change. An example of an incentive would be that local councils with land within the impacted area of the Queensland floods may provide a subsidy system for owners to locate distribution boards and other sensitive plant in less likely to be impacted areas of the building.

Precinct wide solutions could also be utilised if regulation caught up and owners and developers were incentivised to develop them.

Limited availability of reliable and understandable data on climate change impacts

Our recent Climate Change Risk Assessment Report contained a limitations section due to data not being readily available for all local authorities where our buildings were located. Informally, our consultants advised us they were working directly with a number of councils on climate change planning and adaptation, however much of this information is not released publically to assist the private sector with investment opportunities.

Report Extract:

- The assessment approach used in this study is intended to be a high level initial risk assessment of the impact of
 climate change on the property portfolio. The outcomes of this assessment are intended to provide a methodology
 to assess the risks posed by climate change and should be used to inform further more detailed studies high risk
 properties. There are a number of limitations associated with this assessment approach including:
- There is inherent uncertainty associated with climate change projection data. The best available information was used at the time of writing. This information is continually being updated and this should be considered when undertaking future assessments
- Best available property information was used at the time of writing, however some information was not available
 and could not be incorporated into the assessment
- The results of this assessment should not be used to make investment decisions, rather they should be used as part of the decision making process when considering investing, divesting or refurbishing assets.

¹ By 2030, design criteria for extreme events are likely to be exceeded more frequently and decisions associated with future development, maintenance, replacement and refurbishment should consider future climate conditions (NCCARF 2009).
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Case Study 2 - Bromelton Intermodal Freight Logistics Hub

Shifting climate and changing weather patterns have the potential to influence Australia's sources of agricultural output as well as its patterns of distribution. Forecast changes in distribution patterns are starting to influence transport infrastructure development plans. Despite this influence, valuing the benefits of new infrastructure with production and distribution drivers related to climate change, can be difficult for both governments and private investors. This is complicated by uncertainties over policy responses to reduce emissions and the implications for modes of transport in future. The opportunity to ensure that highly efficient and reliable freight and passenger transport, designed to respond to climate drivers, allows both population and freight movements to occur in such a way that mitigates potential economic loss, is therefore at risk.

In its February 2011 discussion paper, Infrastructure Australia has identified the need for a "National Land Freight Network Strategy" which should increase the interoperability between rail and road freight logistics with the introduction of more "intermodal terminal/freight cluster sites".

The future Intermodal Freight Logistics Hub planned for Bromelton, has been identified as the most appropriate site in South-East Queensland to locate the future inter and intra state rail and road hub to service South East Queensland.² The site is 840Ha in size and has a rail design capable of handling 2km long trains. The site has direct access to both the National Standard gauge and the QLD narrow gauge rail lines.

Based on expected changes in demand for freight and population transport, influenced for example by location of and demand for agricultural production, without significant investment in rail infrastructure and in a network of intermodal sites, freight users will be restrained in their access suitable transport services. Sites such as Bromelton would facilitate a likely shift in transport mode, capacity and interoperability to appropriately positioned rail infrastructure.

However, given the scale of such a project as Bromelton, the quantum of capital required to deliver the site, the long project development timeframe involved and some uncertainty over the strength of climate related drivers, there are a number of market failures that act as barriers to private investment in intermodal sites. These barriers are informational: infrastructure assets of this scale, which are relying in part on climate related drivers to make them economically viable are outside the understanding of many private investors; the exceptionally long dated investment propositions rule out all but the longest term institutional investors; the level of investment required to make these assets climate resilient in their own right is not necessarily valued appropriately by either co-investing governments or private investors; the social benefits of resilient transport corridors and infrastructure can be difficult for private investors to capture in value terms; and in terms of planning, projects of this scale can require decision making by all three levels of government, which have conflicting views on the priorities for the development.

² Relative to expected future transport costs and potential climate change impacts, the land freight task is currently disproportionately weighted towards road transport. By contrast, approximately 20% of freight is moved by rail between Brisbane and Melbourne, and only 5% between Brisbane/Sydney and Sydney/Melbourne. Investor Group on Climate Change