Investor Group on Climate Change Australia /New Zealand
ABN 15 519 534 459
PO Box H26, Australia Square NSW 1215
Level 9, 255 George Street, Sydney NSW
P: (02) 9255 0290
F: (02) 9255 0299
www.igcc.org.au

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

16th January 2011

Dear Commissioners,

The Investor Group on Climate Change Australia/New Zealand ('IGCC') wishes to make a brief initial submission to the Public Inquiry: Barriers to Effective Climate Change Adaptation.

Introduction

IGCC represents Australian based institutional investors with around $700bn of funds under management and other key participants in the investment community. The group includes industry superannuation funds, retail and wholesale funds managers, property investment trusts and the research houses of global investment banks. Members of IGCC invest in all sectors of the economy, emissions-intensive and low-emissions alike, and are part owners of most of Australia's large companies. Members also hold substantial direct investments in infrastructure and property assets in Australia and around the world.

We recognise that the physical impacts of climate change are likely to materially affect the performance of many of the assets we part own. Despite this, a number of uncertainties reduce our confidence in making adaptation investments.[1] Adaptation investments are subject to usual tests for investment risk and return and are compared to investment alternatives for which risk and return parameters are better understood, or which face fewer investment barriers. The prospect of mispricing risk is a substantial disincentive to invest.

Uncertainties about the extent and timing of climate impacts on physical assets is a significant barrier to investing in adaptation, followed closely by uncertainty around the likely future regulatory responses of governments to climate change impacts. In the absence of relative certainty in these two areas, there are several other investment barriers, which contribute investment risk and therefore dissuade investment in adaptation, they include:

a. constraints on the efficient use of capital;
b. inconsistency in existing regulation at different levels of government;
c. limited availability of reliable and understandable data on climate change impacts;
d. lack of liquidity in insurance markets to manage climate change risks
e. the lack of an agreed benchmark or reporting mechanism to describe asset resilience to investors;

This submission describes each of these barriers in more detail below. The submission initially outlines the types of assets that IGCC members invest in and the types of questions that investors seek to answer when making adaptation investments. IGCC members are happy to collaborate further with Commissioners throughout the consultation phase of this Inquiry.

[1] *Adaptation investments* in this submissions means: preparing new or existing assets for the physical impacts of climate change.

Investment areas

IGCC members invest in several markets (assets) that are likely to be impacted by a changing climate and for which adaptation investment may be required, including:

- Commercial and residential property;
- Transport infrastructure including roads, bridges, airports and ports;
- Social infrastructure including prisons and hospitals;
- Mining and minerals assets and infrastructure including ports and transport;
- Energy generation assets and network infrastructure;
- Agriculture.

In assessing adaptation investments in each of these markets, the following parameters are considered by investors:

- Is the asset new (impacting design and development) or existing (requiring refurbishment);
- What are the type, age and location of the asset;
- With what confidence can the level of local physical climate impact be assessed;
- What level of regulatory constraint exists now and what is expected in future[2];
- How will the proposed adaptive features of the asset impact capital expenditure requirements, operating costs and occupancy/usage rates;
- What are the insurance options likely to be for the asset in future;
- What is the capacity of the asset manager to assess, price and manage the asset relative to the possible physical risks;
- What are the transparency risks with regard to management of the asset;
- What are the taxation implications of alternative financing strategies;

Examples of how these parameters apply to different assets appear in the table below.

Sector	Physical Impacts	Potential Impact on Value
Airports	Increase in extreme heat days or risk of flooding => potential impact on airline movements	Dependent on location (eg Brisbane airport may be affected by flooding => decreased aircraft landing while Perth affected by increase hot days)
Ports	Increase in cyclone weather and flooding leads to increase storm surges	Short-term closure or decrease number of ships docking
Electricity	Increase in physical damage to asset – dependent on location	Potential increase in capex
Toll Roads	Increase in extreme heat days has an impact on roads	Potential increase in capex

Barriers to adaptation investment decisions

[2] Regulatory change related to climate change in an important valuation driver for infrastructure and property assets. Difficulty in interpreting the extent of future regulatory change as a result of climate impact is one of the most significant climate-related, investment challenges facing investors. Investors would at all times prefer clear, transparent and long term regulatory frameworks and climate change adaptation is no exception.

This section of the submission provides some examples of barriers to investment in climate change adaptation. This is an initial list that can be expanded upon during the Inquiry process.

a. constraints on the efficient use of capital - Idle capital in infrastructure assets

In order to prepare assets for the potential impacts of climate change, it is necessary to make assumptions about the extent of those impacts throughout an asset's life. Building in resilience or redundancy for events that may never occur or are less extreme than predicted effectively allocates scarce capital resources to inefficient uses. It is important to note that future refurbishment or retrofitting to protect an asset for future climate change impacts may not be an option due to the scale, complexity and nature of particular assets (i.e. the height of a runway above expected storm surges or seas levels). Therefore there is by definition a level of over investment in the resilience of the asset relative to the absence of certain climate change issues in the initial operating period of the asset. The cost of carrying this additional capital investment in the asset is therefore high relative to its short to medium term impact. These issues are most relevant in long-lived transport and social infrastructure projects such as airports, ports, railways and some road transport.

b. inconsistency in development regulations at different levels of government

Different levels of government and different regulatory instruments have overlapping roles in terms of adaptation planning which poses challenges for investors and insurers. These different roles result in inconsistencies and uncertainties, which raise due diligence costs and increase the likelihood of ineffective adaptation measures being implemented.

For example in New South Wales there are four layers of laws and regulations, which govern council policies on sea-level rise. These are:

1. Environmental Planning and Assessment Act 1979 (NSW) (EPA Act);
2. NSW Sea Level Rise Policy Statement, issued by the NSW Department of Environment, Climate Change and Water (Policy Statement);
3. NSW Coastline Management Manual, issued by the NSW Department of Environment, Climate Change and Water (Manual);
4. Local Environment Plan (LEP), drafted by the relevant council.

The relationship between these four layers is that a council is entitled to draft its own LEPs and is empowered to do so by the EPA Act. When assessing areas for coastal and flood hazards, a council must do so with regard to the planning benchmarks in respect of sea level rises stipulated in the Policy Statement. Thereafter, when drafting its LEPs, a council has a statutory requirement to ensure that the LEPs are consistent with the Policy Statement and Manual.

While the policy statement stipulates that councils must have regard to assumed 50 year (40cm) and 100 year (1m) sea level increases, the individual council can determine how it intends to manage these increases including by use of:

- Buffer zones;
- Voluntary purchase;
- Planned retreat;
- Freeze on development.

Each state has different approaches (or lack of) to forcing consistency, the effect of this regulatory environment is that property investors and developers are faced with understanding a variety of different approaches to managing sea-level rise and erosion, with variance across both state and local government jurisdictions. There is also uncertainty as to the status of existing property and infrastructure, particularly in relation to any obligation on councils to protect existing assets.

A consistent national approach is needed which recognises and allows for the different severities and likelihoods of climate risks in different regions, but which at a national level provides:

- clear protections for private property owners and insurers in order to provide greater investment certainty;
- consistency in the overarching framework, definitions and procedural matters to reduce compliance costs and the risk of errors; and
- policies based on the current scientific understanding of the risks, particularly as hazard maps and other forecasting tools become more sophisticated, so as to ensure that adequate adaptation policies are implemented.

c. limited availability of reliable and understandable data on climate change impacts

Investors who are aware of the physical risks of climate change often experience a lack of risk models, information, and technological resources for investment decision-making. There are a number of issues:

- the geographical scale of analysis is often too large for specific infrastructure or property corridors or development sites;
- analysis that finds a wide range of possible environmental impacts usually opens a wide range of possible investment scenarios and implications, complicating scenario planning;
- Investors are reluctant to interpret analysis of climate impacts and draw specific conclusions for investment decisions.

d. lack of liquidity in insurance markets to manage climate change risks

There limited willingness in insurance markets to provide cover for asset impacts caused by climate change, for example more frequent or larger floods/storms, at a reasonable premium that is justifiable by assets on a business case basis. If insurance markets are not able to provide cover for some physical climate risks some assets are not viable for continued operations or development as the risk/return profile may be skewed beyond the obtainable return rate.

e. the lack of an agreed benchmark or reporting mechanism to describe asset resilience to investors

To our knowledge, there is no commonly agreed guidance for asset developers to assess and demonstrate consideration of climate change risks. Investors in turn find it difficult to assimilate and compare different information.

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

IGCC considers that a comprehensive plan to address market, regulatory, behavioural and cultural barriers, facilitated and where relevant, implemented by Federal Government, will be required to deliver a step change in private investment in climate change adaptation.

Although IGCC has not yet developed a list of priorities to reduce known investment barriers, investors generally favour the following initiatives for reducing investment risk and providing confidence in investment returns: Market incentives, for example accelerated depreciation on building assets; co-investment in the form of direct funding via PPPs or low cost debt financing to reduce the cost of capital; support for innovation in adaptive technologies, for example in construction materials, to reduce capital expenditure needed for adaptation projects; informational support e.g. research to promote understanding of risks and making specific development corridors and adaptation projects more transparent to investors; and, learning from the experience of governments, for example in the form of shared technical information as a result of project due diligence. IGCC can comment on specific initiatives to reduce uncertainties in due course.

Conclusion

IGCC has sought to provide an introductory list of barriers to adaptation investment in this submission. IGCC members also have experience with specific, relevant examples of adaptation investments. Most of the information about these investments is held on a commercial-in-confidence basis and can be provided on these terms to Commissioners for the purpose of this Inquiry.

Yours faithfully,

Nathan Fabian
Chief Executive
Investor Group on Climate Change