THE UNIVERSITY OF SYDNEY

Sydney, 17th July 2012

Australian Government Productivity Commission
Dr. Wendy Craik
Presiding Commissioner
Climate-adaptation@pc.gov.au

Re.: Submission to the Inquiry into Barriers to Effective Climate Change Adaptation

Dear Dr. Craik

We thank you for the opportunity to make a submission to the Inquiry in response to a request from Brad Ruting during the Sydney Hearings of July 10.

To provide you with some context, we will describe our own research and where this overlaps and differs from the PC inquiry. Following that we will briefly discuss some aspects of the more relevant case study companies in our sample, with a particular focus on the bank case study. Although our research scope is different from the PC, we believe that it is possible to draw some practical insights that are also relevant to your own inquiry, and we have included these in this submission.

Key points

- Unless there are clear and specific commercial imperatives, companies will neither mitigate nor adapt to climate change.
- The insurance and banking sectors can play a critical role in providing clear and specific commercial imperatives that encourage adaptation before a disaster strikes. These signals can come from, for example, insurance pricing, policy exclusions, or lending criteria that impose an 'adapt or pay' pressure on their business customers.
- In contrast to the role of insurance companies, the role that banks can play in climate change adaptation appears underexplored in the draft report.
- The role of both banks and insurance companies in emergency response also appears underexplored in the draft report. This includes their role during the immediate aftermath of a disaster, but also during the critical 6-12 months period after the event.

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Research scope

A research team from the University of Sydney Business School is currently conducting an Australian Research Council funded project into business responses to climate change. As part of this we are conducting a small number of detailed organisational case studies of changed business practice related to environmental sustainability and climate change. The case studies are based on over 50 interviews during 2011 and 2012, as well as extensive document analysis. A series of follow up interviews will commence later this year. We explore these initiatives in a range of industry contexts in order to capture the diversity of business responses and the contingent contextual factors that influence effective organisational change in this area.

The overlap between the PC inquiry and our research appears to be mainly in the area of business responses to the physical risk from climate change or related policies and regulation. However, this would still have to be translated into the regulatory and policy barriers to business responses. Although we did not explicitly include questions about such barriers in our interviews, these did occasionally come up directly or indirectly in our interviews or the documents collected. This submission captures some of our early and tentative findings, which are potentially relevant to the PC.

Examples of adaptation

Insurance company

Our in-depth case study of an insurance company largely confirms the observations and conclusions of the draft report in regards to insurance companies, and the comments from the Insurance Commission Australia during the hearing in Sydney on July 11, 2012. For example, the insurance company included in our research recognizes the impact of the signals it sends to its customer base through pricing of the increase of risk; the role it can play in prioritizing adaptation efforts by sharing information with relevant government bodies and building standards organisations; the political sensitivity of this information in term of e.g. real estate values; and the criticality of its emergency response to disasters to the survival of particularly SMEs.

These activities and the associated regulatory and policy barriers are already extensively covered in the draft report and will not be repeated here. Nevertheless, we felt it might be helpful to offer some 'triangulation' and confirm the insights of your draft report based on our in-depth case study.

The broad range of responses observed in our insurance company case study can all be related to its commercial imperatives. The most obvious one is that it needs to get its pricing of risk right to manage its exposure to climate change events. However, ongoing escalation of insurance premiums may undermine the health of the insurance market altogether, which drives its interest in mitigation and adaptation to the physical impact of climate change. Its emergency response to extreme weather events is critical to the protection of its client base and its reputation. Lastly, its own energy efficiency activities provide a less critical but still worthwhile economic return.

Bank

The bank we analysed had conducted extensive country, sectoral, and company analysis to identify and quantify the risks that an industry may be exposed to as a result of changes in climate change. This analysis had been translated into for example its lending criteria; officers of the bank had received extensive training into how to apply these changed criteria; and specialists provided further support when appropriate to assess the climate change risk of individual borrowers. The lending criteria cut across the full range of risks that an organisation might be exposed to, e.g. physical risks (flood, hail, drought, storm surge, wind, bushfire, etc.), regulatory risks (particularly exposure to carbon pricing), market risks (whether the demand or competition for this company's products and services is at risk), and reputational risk. The physical risk consideration does not only consider the direct impact on an organisation's own offices and plants, but also the broader infrastructure that the company relies on to deliver its products and services (e.g. railway submersions, power cuts etc.).

Lending criteria provide immediate signals to the bank's customers as they are required to provide risk management, emergency response and business continuity plans: for example, what processes do they have in place to manage an increased frequency of extreme weather events?

The bank's emergency response also illustrates adaptation efforts by the bank itself. These include access to bridging finance, a 6-month holiday on mortgage repayments, and the establishment of a mobile branch network (e.g. tents, EFTPOS terminals). Efforts by the bank should therefore be seen as ongoing development of the adaptation capability of both the bank as well as that of its customers. According to a Senior Manager in the bank,

> "[we are] actually able to deliver most core banking services in a war zone now, these days ... the emergency response teams swings into action at the drop of a hat these days and it's, yeah, the kinds of things they can deliver from a tent in the middle of a bushfire/ flood/ earthquake zone are pretty amazing."

According to the bank, emergency banking services faced a range of regulatory barriers that hinder the flexible delivery of these services. No specific examples of such barriers were explored.

The resilience of SMEs was identified as a particular issue following a major disaster. The main risk for SMEs appears to be not during the immediate aftermath but 6-12 months down the track when there is 'an enormous upswing' of SMEs that go under. They may get through the initial 6 month rebuilding phase, but the fundamentals have been so severely shocked that they have no customers, and any reserves they may have had will be exhausted. An increased frequency of such events makes it increasingly difficult for the bank to provide finance to help the SME manage its cash flow as the time between extreme events will increasingly be insufficient for the SME to recover. In terms of lending:

> "do we take into account what steps that they've taken to increase their resilience to physical events, in terms of them being a safer bet? Because we know that they're more likely to be less damaged, have lower cash flow impacts, more likely to survive the six-month downturn. Do we reward companies for that or is that unintentionally unfair on the ones that don't? Because, you know, every time you reward someone for doing the right thing, you're punishing people who don't. So all those sorts of, you know, what's

> generally lumped under adaptation issues, are [laughs] things that we're still working out how the hell we do them.

As with the insurance company, the bank's responses can be related to its own commercial interests. Emergency response activities by the bank protect the client base, and internal energy efficiency activities save money. Further, risk assessment of its portfolio of products and services plays a major role in protecting profits. In addition, the development of new climate change related products provides access into new and growing markets of financial services.

Energy company

Although significantly impacted by and responsive to climate change *policy*, we did not observe many activities that are relevant to the scope of the PC inquiry. The majority of activities in the energy company case study relate to climate change mitigation and associated mitigation policies, in particular carbon pricing. These include the development of new products (e.g. renewable energy products, energy efficiency services), investments in a less carbon-intensive generation fleet (e.g. hydro, wind, PV, coal seam gas), and participation in the climate change (mitigation) debate through research papers. The commercial imperative for the energy company was to achieve an early mover advantage in a decarbonising economy.

The main direct adaptation to first order climate change impacts appears to be the need to deal with higher variability of energy demand as a consequence of increased weather variability. However, this was not brought up as a significant issue and no regulatory or policy barriers to this or other climate change *adaptation* were identified. This needs to be differentiated from the regulatory and policy barriers related to climate change *mitigation* policy in its implementation of carbon pricing. These barriers, and particularly the lingering uncertainty due to the lack of bipartisan support, are seen as significant.

Other case studies

We did not observe other significant adaptation activities with our other case study companies. A global manufacturer in our sample exhibited many other climate change related activities. Most were in response to what it saw as commercial opportunities for its products created by for example energy companies wanting to build wind farms, car companies wanting to build electric cars, and all companies trying to reduce their use of increasingly expensive energy. The relation to climate change is in this sense secondary, following the (anticipated) climate change response of its customers.

Similarly, our sixth organisational case study, a major media company, had developed a strategic response to climate change that was mainly driven by cost saving goals through energy efficiency. Once these savings were locked in, the focus of management seemed to dissipate. The editorial responses to climate change within the media company are outside the scope of our submission.

Discussion

What our research confirms is that, *unless there is a clear and specific commercial imperative, companies will not respond to climate change*. Our case study companies have many passionate supporters of climate change action who demonstrated their personal motivation to act on climate change in their private lives. Nevertheless, unless they could translate the need to respond into clear and specific commercial imperatives, they would not be able to mobilize the support and build the momentum necessary for an appropriate organisational response.

Although related to mitigation rather that adaptation, this was clearly demonstrated when the Clean Energy Future Legislation was passed in 2011, and overnight changes to conversations between our case study companies and their customers were observed. Until October 2011 the conversations had been more broadly about the outcome of different political scenarios. However, the commercial imperative of a price on carbon changed the conversations to detailed and practical conversations about how to respond operationally. For example, a sales manager of the energy company identified an increase in conversations about energy efficiency, and a senior manager of the bank noted that meetings with customers now frequently included their people from treasury to discuss hedging risk, managing cash flow impacts, or emission permits.

Whereas a price on carbon can assist climate change mitigation efforts, clear and specific commercial imperatives will be equally critical to climate change adaptation. We see from our early research into business responses to climate change at least two major sources for such imperatives that can help adaptation, i.e. the insurance and banking sector. *Both insurance and banks play a critical role in signalling the importance of climate change adaptation as they guard their own commercial imperatives. Insurance companies can do this through insurance pricing and exclusions, while banks can provide signals with their lending criteria*. This imposes an 'adapt or pay' pressure on their customers and encourages adaptation before a disaster strikes. As such, these organisations can provide adaptation incentives that complement regulation or policy from councils, states (or territories) or the federal government.

It seems reasonable to assume that the signals from these sectors will increasingly provide commercial imperatives to their customers across all other sectors of the economy and encourage adaptation. Similarly, it is likely that they will provide significant flow-on effects as for example business continuity planning by customers extends along their own supply chains.

Based on the above, we see the extensive attention to the role of the insurance industry in the draft report as appropriate, but *we would encourage more recognition of the similar role that the banking sector can play*.

Similarly, we note that the extensive attention to emergency response of governments and specialized agencies (e.g. SES, fire, police, ambulance services) in the draft report. *The draft report does not address the critical role of banks and insurance companies in emergency response during* *the immediate aftermath, but also during the critical 6-12 months period after the event*

Although our research is not aimed at the identification of policy and regulatory barriers, the above does suggest a guideline for effective policy. This is that *regulations and policy should encourage market pricing signals or other clear and specific commercial imperatives that encourage timely adaptation to the impacts of climate change*. An example of the latter could be the inclusion of criteria in significant government contracts, similar to banking lending criteria, which assess a company's climate change adaptation. Second, *policy and regulatory barriers that hinder the effectiveness of an emergency response by banks and insurance companies need to be reconsidered and, where appropriate, removed to improve resilience*.

Conclusion

In conclusion we congratulate the PC in laying out a comprehensive framework for policy development in regards to climate change adaptation in its draft report. It complements existing frameworks for climate change mitigation, and has already been helpful to our own conceptualisation of business responses to climate change. In return, we hope that our submission can make a small contribution to the final report.

Kind regards

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