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Submission to the Senate Economics Reference Committee on Carbon Risk Disclosure

Thank you for the opportunity to comment on this issue.

We provide advice on sustainable business practices, and have worked for more than a decade on projects relating to carbon risk disclosure for both public and private sector clients.

Our experience has included developing strategies and reporting frameworks, and preparing responses for clients' participation in international carbon risk benchmarking programs.

Our submission argues that Australia lacks a national perspective on what carbon risk disclosure approaches would best serve our long-term environmental and economic interests. These include the goal of enhancing our participation in the development of an international climate change policy response.

We conclude that there is a significant opportunity for the Committee not only to explain the value of a comprehensive and transparent carbon risk-reporting regime, but to also identify arrangements that will encourage it to be followed cost-effectively.

The submission was prepared at the time when it was announced that the growth in the global carbon emissions in 2015 was the fastest on record, and February 2016 was the hottest month for the planet since 1880. The Inquiry is therefore timely.

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The context of the Inquiry

The Terms of Reference for the Committee are silent on the purpose of a potential national carbon risk disclosure framework, as well as on its scope.

The silence is understandable. Australia sorely lacks a cohesive and overarching policy position on how we should be addressing the wide implications of the extreme weather threats presented by global warming.

We consider that public risk disclosure within a structured and national regime would offer many advantages for Australian sources of goods and services, as well as for local and international investors in Australian business activities. The added-value gained would be most obvious over the longer term, but the recent apparent acceleration of the planet's heating may very well presage a shrinking planning horizon.

Formalised disclosure would provide a credible mechanism for individual organisations, or even whole industry sectors, to outline how they manage carbon-generated risks that are relevant to their specific circumstances. It would also support those interested in capitalizing on the commercial opportunities that are expected to flow from the widespread moves towards a low carbon world.

We therefore suggest that the Committee adopt a broad view of the concept of "carbon risk disclosure" to cover all of the foreseeable issues that could arise during Australia's transition to a much-reduced reliance on fossil fuels.

Setting the boundaries for the Inquiry.

The interpretation of 'carbon risk' for the purposes of this exercise should include, for example, risks relating to:

- emissions to the atmosphere of carbon dioxide and other gases with significant Global Warming Potential. This is clearly the primary concern in the current world-wide debate. Australia will need to demonstrate that it has the appropriate processes in place to monitor gases released by both point-source and diffuse land-based activities - if it is to be credible within any international assessment process.

- rising costs to business and communities from increasingly hostile weather incidents that threaten personal safety: damage plant and equipment, private assets or public infrastructure; or destroy natural resources and biological systems. Incidents such as wildfires, hazardous storms and flash floods cause substantial direct damage, but the consequential indirect costs can also persist over extended periods when supplies from crippled capital assets are unable to recommence.

- increased chances of reputation loss. A failure to be transparent can lead Australia to be perceived internationally as a captive of fossil fuel producers or users. Similarly, individual businesses that don't adopt contemporary measures to reduce carbon emissions, or adapt to extreme weather-related threats, are becoming increasingly exposed in risk-averse capital markets.

- the additional costs imposed on risk-exposed entities by strengthened corporate governance requirements. Both investors and regulators will seek higher levels of confidence in assurances by carbon polluters on the one hand, and entities with assets that are highly vulnerable to the physical weather impacts on the other.

- Trade exposed entities will be a very visible subset. They could be increasingly called on to provide independent certification that they have addressed climate change risks as part of international trading contracts. Public policy considerations could drive this faster, since trading nations who invest to stimulate low-carbon production will not want to favour imports from economies that are not contributing and who can undercut them on prices as a result.

A wide-ranging coverage such as this is necessary if the culture opposing disclosure in Australia is as entrenched as it often seems. For example:

- In December 2014, Queensland's then Deputy Premier Seeney ordered the Moreton Bay Regional Council in Brisbane to remove the threat of future sea-level rise from its local planning laws. A fascinating decision, noting the significant threat from rising seas faced by the prolific canal-estates in that State (J Bell-James, *The Conversation*, 12 Dec 2014)

- The Federal Environment Minister, Greg Hunt, publicly endorsed a plan to overturn the provision in the *Environment Protection and Biodiversity Conservation Act* allowing green groups to mount legal challenges to environmental approvals. Environmentalists have been able to legally challenge these types of projects since the Howard government introduced it into the Act in 1999. Hunt proposed changes that would restrict legal challenges to be made only by citizens directly affected by a development, and particularly land owners.(E.Harding, Business Review Australia, 27 August 2015)

- On 23 March 2016, The Upper house of the NSW Parliament approved an 18 month-long inquiry into the sustainability of the State's water resources, while leaving out climate change entirely from its terms of reference. The inquiry into the augmentation of water supplies for rural and regional NSW will "examine the suitability of existing water storages, flood risks and technologies available to mitigate flood damage". The Greens and Labor had sought to add the potential for climate change to affect water availability - including altering the intensity of rain events and evaporation rates - to the Inquiry's terms of reference. They also sought unsuccessfully to have the panel examine the impact of mining and gas extraction on water quality and quantity. (P. Hannam Sydney Morning Herald, 23 March 2016)

Choosing performance indicators and benchmarks

A key element in the design of any risk disclosure platform is the quality and relevance of the performance indicators selected when characterizing the type and level of the risks being considered.

In this circumstance, the indicators would need to be relevant to the Australian context; serve the specific purposes of a national carbon risk disclosure regime; and meet the needs of the users of the data collected.

For example, an independent variable in carbon risk-profiling is the nature of specific operational activities carried out by high-carbon-risk entities. Each industry sector faces its own characteristic risk profile by virtue of variables such as:

- the mass-load of their carbon emissions (especially smelters; cement factories and coal fired power stations that release large loads of carbon dioxide per unit of output);

- the sensitivity of a product or service to increasing atmospheric heat-loads (especially horticulture and animal husbandry that suffer loss when temperatures and humidity levels increase unpredictably).

- their vulnerability to asset damage and loss of operations by virtue of the location of their key activity centres. (For example: coast-based operations threatened by rising seas; public infrastructure assets in those areas of the tropical north of Australia exposed to storms with severity levels not yet recognised; and food production in regions affected by severe and prolonged droughts).

A national disclosure regime would therefore need to ensure that the data generated by each reporting entity can be read within the specific context of its operating environment.

- Emissions profiling is perhaps the simplest, since entities can quickly express the carbon intensity of an activity as 'tonnes of carbon dioxide produced by each tonne of output produced'. Similar approaches are available for the services sector as well, with the transport sector for example, measuring CO_2 emissions "per tonne of material moved per kilometre travelled'.

It may be useful for the Committee's analysis to focus on two separate strategic timeframes, namely, initially over the short term (5-10 years), and then on the medium term (10-30 years). Each offers its own set of challenges and opportunities, but collectively they will set in concrete the long-term outcome for the planet (out to 2100).

- The shorter period is likely to witness an intense effort by commerce, industry and all levels of government across the world, if the spirit of the Paris Agreement is to be implemented effectively. Supporting this is the possibility that, if the disconcerting picture of the deterioration of the environment that occurred in 2015 is repeated in 2016, an emergency response may be called for, and well within the decade. (http://climate.nasa.gov 22March 2016). This will no doubt be addressed by the UN IPCC when it releases its next climate change assessment in 2017.

Linkage with corporate responsibility reporting (ESG reporting)

There has been a significant move over the past 10 years towards public reporting by organisations across the world on their social, economic or environmental impacts, and on their corporate governance performance and issues (ESG reporting).

Current guidance on how to disclose non-financial risks can be found in industry-based Codes of Practice; in policy statements by the ASX and ASIC; or by participation by various private or public entities in voluntary international reporting programs. Collectively, this guidance enables those entities wanting to be transparent to be so, while those wishing to conceal a high risk-exposure can easily avoid reporting.

Carbon risk disclosure can essentially be considered as a subset of ESG reporting. Various international voluntary carbon reporting forums exist, and some such as the Global Reporting Initiative (www.globalreporting.org) have become highly influential with the investment community. One development though, has been the rise in interest in seeing carbon risk disclosure included as a key variable in the list of issues discussed in annual company reports.

It has also led to the continuing uptake of reporting within the Carbon Disclosure Standards Board project (www.cdp.net) that adopts the most appropriate aspects of the Financial Reporting Standards Board and the Greenhouse Gas Protocol (www.ghgprotocol.org).

The broad message here is that if the Committee were to opt for a new national carbon risk disclosure regime, it would not need to 'reinvent the wheel', but could instead build on existing programs.

Admittedly, these international forums recognise activities and risks within large organisations, since their contributors are required to provide a large amount of data needs each year and in tightly designed reporting formats. Further effort would be required locally if there were to be interest in applying reporting by smaller entities, and thresholds would need to be set below which an entity's exposure is no significance.

Voluntary reporting is but one option, since it is plausible that the climate change phenomenon may become so contentious that it supports mandatory disclosure. If so, Australia would be is well placed to respond.

The Howard Government developed legislation that provided an excellent framework for carbon emissions reporting and management. This included the *National Greenhouse and Energy Reporting Act* (*Cwlth 2007*) and the *Energy Efficiency Opportunities Act* (*Cwlth, 2006; repealed May 2014*), which together established a sound policy setting as well as comprehensive legal and technical mechanisms for both greenhouse gas emissions disclosure and the country's transition to a low-carbon economy. These not only took account of international requirements, but also picked up the valuable work that had been done in the more progressive Australian States. The outcome is that there is a fertile body of information available locally if there were to be interest in a national policy.

Stakeholder considerations

An Australian carbon risk disclosure framework would need to meet the needs of a number of different stakeholder groups, but it would need to involve a long-term commitment because its credibility would need time to evolve.

Three examples of stakeholder groups who could be relevant are:

Investors

There is a progressive increase in interest by credit and equity investors across the world in methods for determining if a potential target for their funds has a carbon risk exposure that exceeds their tests for acceptance.

Some tests, such as a philosophical opposition to funding fossil fuel production, are qualitative. Others, such as assessing if a target entity or a class of activities may be exposed to extreme weather events, employ quantitative tools that aim to reduce the risk that the most likely returns on their investment will be inadequate.

The list of performance indicators chosen by the investment community across the world for their assessments is very long. Some are generic to all regions and industry sectors, while others are specific to the investment objectives of those who control the funds. The Committee may find it useful to consult the *United Nations Principles of Responsible Investment* which forms the basis for much of the work in this area (www.unpri.org), and perhaps Yale University's "G*lobal metrics for the environment, Environmental Performance Index, 2016 Report* as an example. The latter includes a chapter that discusses international policies and issues associated with climate change metrics.

This group of stakeholders clearly favours highly transparent carbon risk disclosure arrangements, and from a public policy perspective, providing this for them should direct the market to the most

sustainable long-term economic growth patterns. (Perhaps however, not necessarily in the short-term: for example, investments in the burning of emissions-intensive brown coal from old mines using outmoded power generators with a lower *marginal cost,* will give a higher short-term return in the absence of carbon trading or taxes.)

The insurance industry:

A leader in the world-wide debate on climate change has been the global re-insurance industry that supports front-line insurance companies when they seek to reduce their exposure to claims (reinsure). One re-insurer in particular, *Munich Re*, has been very active in studying the type, frequency and distribution of extreme weather events, and has a database that is worth consulting.

The Australian insurance industry could have an important influence on how businesses adapt to the risks as they emerge. There is for example, an emerging commercial trend where insurers charge their clients significantly higher fees for cover if they are located in regions considered vulnerable to damage by extreme weather events. Some have also resisted issuing policies for North Queensland following Cyclone Yasi. If this regional discrimination were to spread, there substantial long-term socio-economic adjustments could follow with significant public policy implications.

Major public infrastructure developers and managers.

The typical reporting entity here is a public sector agency, but increasingly it's a large international company who enters into a partnership arrangement where they share both the development and longer-term operation of the asset.

Public infrastructure assets in this category include major roads; fixed or mobile railway hardware; ports; power supplies or water treatment and delivery systems.

These share four features relative to climate change risk. They:

I. are long lasting, with 40-50 year operational horizons;
II. face unrelenting 24/7 demands for highly reliable service in all weather patterns;
III. require intensive upfront capital outlays.
IV. require sophisticated and structured management of the ongoing service-functions.

Carbon risk disclosure for these assets in Australia is currently limited and fragmented, largely because the analytical tools for doing so are immature, and the horizons for calculating investment risk are distant and uncertain.

However, because most major projects usually have some form of government involvement, the public partner will often carry out a Cost Benefit Analysis (CBA) before deciding on their initial capital outlay.

There is a body of theory describing how CBAs should be designed and conducted to provide a balanced and sensible view on which influences should be taken into account, and how their risks should be costed. The technique has the capacity to quantify investment risks from environmental threats, so the Committee may care to consider if it could be deployed as a useful tool for communicating the carbon risks for major capital asset investments to the relevant stakeholders.

Unfortunately, it appears CBAs are often kept confidential, possibility to underpin the complex political decisions on infrastructure that are usually taken at the Cabinet level. Or perhaps to obscure complex contractual relationships enshrined in the public-private partnership agreements.

One additional area of infrastructure that also appears light-on in its consideration of carbon risks is the residential property sector. Although most States have some form of building and planning requirements that encourage energy efficiency and water conservation, tens of thousands of residential units are being constructed with little apparent climate change risk in mind. Tall apartment towers for instance, often have a direct western influence with little or no sun or heat reduction features. Their design builds in an inherent dependence on air conditioning for a unit to be habitable, which is an interesting trend noting that the life of the structures can comfortably be 30-50 years.

Conclusion

The transition by Australia to a low-carbon economy over the next 10-15 years will require an intensive change process that could be inordinately expensive. A national and cost-effective response will only evolve if there is a properly structured and dynamic profiling and prioritization of all carbon risks across the country - if business planners, investors and public sector strategists are to be able manage their responses properly.

But the picture of the climate patterns expected to apply after 2050 is much more complex. The science is clear on the inevitability of extreme, highly volatile and dangerous weather events, but policy makers have a much-reduced capacity to forecast the consequential social and economic impacts, or the interventions needed to mitigate the worst outcomes.

Issues such as rising seas, dwindling food production and erratic weather patterns are expected to create enormous social disruption in vulnerable regions of the globe. So it is highly reasonable for the country's premier Parliamentary body to emphasise the merits of carbon risk transparency as a tool to aid our preparations. This commitment is presently absent from the Federal sphere, so well-reasoned advice to the Executive should be very timely.