Key Findings

+ Megatrends towards greater international action on climate change continue but at an insufficient pace. For example, weighted average effective carbon prices on energy in OECD countries are currently PPP* $34 per tonne and global clean energy investments, particularly in Asia, remain high and reached $US270 billion in 2012. However, even with current commitments, the world is still on the path to a global temperature rise of 3-4°C, well beyond the risky “guardrail” of 2°C.

+ Countries differ in their ability to prosper in a world moving to limit pollution. The Climate Institute/GE Low-Carbon Competitiveness Index indicates that France, Japan, China, South Korea and the United Kingdom are currently best positioned to prosper in the global low-carbon economy. (Figure 3.0 pp 23-24 of the report)

+ Since the previous update of the Low-Carbon Competitiveness Index, China has leapt ahead and the United States has begun to fall behind. China’s dramatic rise up the Index is the result not only of its major investment in clean energy, but also growth in its high technology exports. China hosted just under half of total global public equity investment in clean energy.

+ Australia has seen a fragile reversal of its score on the Low-Carbon Competitiveness Index. However, Indonesia improved more to overtake Australia, which is now 17th in the G20. The data does not, however, include the impacts of the recently implemented Clean Energy Future package.

Global investment in clean energy

In the aftermath of the 2009 UN Copenhagen meeting, countries continue to implement policies that slow the growth in carbon emissions and encourage investment in clean energy. They are doing this because of concerns about climate change and other self-interested reasons, including addressing local air pollution, improving energy productivity and energy security and building new industries. While the spread and scale of current policy intervention is unprecedented, it is still insufficient to avoid dangerous levels of climate change.

Global investment and positive trends in clean energy and other low emission technology are now likely unstoppable. International negotiations continue, slowly, towards a new legally binding treaty in 2015. Delicate but important progress is being made. The cost of climate impacts is becoming real and increasingly recognised as a danger to economic prosperity.

Despite political crosswinds, these fundamental trends continue and combine to ensure the future global economy will be carbon constrained. How smooth the transition will be and whether it can avoid extremely dangerous climate impacts is in serious doubt. There is no doubt, however, that carbon competitiveness matters now and will matter more in the 21st century.

Not all countries are equally prepared for this reality. Starting six years ago, The Climate Institute/GE Low-Carbon Competitiveness Index has measured the ability of G20 nations to provide prosperity for their citizens in a world that limits carbon emissions.

This year’s Index updates data from 2008 to 2010* and shows that France, Japan, China, South Korea and the UK are the G20 countries best positioned to prosper in the low-carbon economy. France retains its top ranking due to its relatively low emission and energy efficient economy and growth in its high technology exports. Japan, South Korea and the UK all maintain similar scores and positions.

China has leapt up the Index to break into the five countries best positioned to prosper in a low emission world. China’s dramatic improvement in low-carbon competitiveness results from significant increases in the country’s clean energy investment and high technology...
exports. If China had merely maintained its clean energy investment at 2008 levels it would be in eighth place rather than third.

This is indicative of a broader trend: the momentum for climate action has shifted away from Europe and the United States towards the emerging economies of Asia.

China alone accounted for just under half of all new public equity (eg. shares in listed companies) raised in clean energy in 2010. The country now gains as much export revenue from solar panels ($US36 billion in 2011) as it does from shoes.

Meanwhile, among the six countries whose low-carbon competitiveness decreased since 2008, the drop was greatest for the United States. While some of this was due to a decline in public equity investment in clean energy, other key factors were its declining high-tech exports and a major surge in its reliance on air freight.

**Australia**

Australia slightly improved its absolute score on the Low-Carbon Competitiveness Index, reversing its declining carbon competitiveness.

This fragile reversal has been driven by a number of factors along with relative good economic health:

- Increased investment in infrastructure and to a lesser extent education;
- A slight increase in efficiency within the transport sector; and
- An unusual decrease in the depletion of natural resources, which may be short lived.

Australia has not been well prepared to remain competitive in a world moving to emission limits. Our nation’s highly polluting power sector, economic dependence on emission-intensive exports, inefficient use of energy and extraction of natural capital will become greater economic liabilities as the world moves to limit pollution.

The transition to a low-carbon global economy is underway. The competitiveness of carbon intensive economies depends on the degree to which they can adapt to these new parameters.

Key elements of the Clean Energy Future package and the Renewable Energy Target provide a platform for Australia to benefit from this transition. Carbon price signals improve the market competitiveness of cleaner and more efficient alternatives. Absolute limits on most of Australia’s carbon pollution can be tightened in line with greater global effort.

Both major political parties have committed to cut emission by 5-25 per cent by 2020 from 2000 levels. Existing commitments from other major emitters indicate that our fair share of global efforts should already be above the unconditional 5 per cent target. An adequate contribution to a serious effort to avoid the 2°C warming target is at least a 25 per cent reduction by 2020. The ability of Australia to do our fair share and increase pollution targets across the full target range is a key test of strong and effective climate policy. It will also be a key test of whether we help build trust and ambition with other countries.

The next two years will vitally influence the international legal agreement expected in 2015. This agreement will contain commitments for all major economies for post-2020 emissions reductions. Australia’s next government will be responsible not only for Australia’s role and legacy in these critical negotiations, but for Australia’s low-carbon competitiveness in the years and decades to come.

For this country to be a leading player in the low-carbon economy, we should build on our recent improvements. Our international diplomacy must foster the ambitious emission reductions Australia needs to avoid the worst impacts of catastrophic climate change. Our domestic policy framework must drive the carbon and energy productivity so that we can remain competitive in a world inevitably moving to reduce its economic dependence on pollution and to constrain carbon.

---

**2013 Low-Carbon Competitive Index Top Five**

<table>
<thead>
<tr>
<th>Rank</th>
<th>Country</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>FRANCE</td>
</tr>
<tr>
<td>2</td>
<td>JAPAN</td>
</tr>
<tr>
<td>3</td>
<td>CHINA</td>
</tr>
<tr>
<td>4</td>
<td>SOUTH KOREA</td>
</tr>
<tr>
<td>5</td>
<td>GREAT BRITAIN</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>USA</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>17</td>
<td>AUSTRALIA</td>
</tr>
</tbody>
</table>