



SEPTEMBER 2010

Official Newsletter of

Regional Development Australia—Central Coast NSW Inc.

**September
Forum**

**CLIMATE
CHANGE
-
THE
BUSINESSS
IMPACT**

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Sea Level Rise - One of our biggest Community Challenges

Increasing temperatures due to climate change result in sea level rise due primarily to thermal expansion of the ocean water mass and through melting of land based glaciers and ice sheets. Using long-term tide gauges from around the world, global average rise in mean sea level in the period post 1870 is of the order of 20 cm.

The Intergovernmental Panel on Climate Change (IPCC) is the worlds leading authority on the science and impacts of climate change. The IPCC released its first assessment report in 1990. The most recent and Fourth Assessment Report (IPCC, 2007) contain projections for sea level rise based on different greenhouse gas emission scenarios from a range of Ocean-Atmosphere Global Climate Models (OAGCMs) with start dates generally around 1990. The synthesis of IPCC and CSIRO advice indicates global average rise in mean sea level ranging from about 20-90 cm to 2100. Satellite altimetry that has been measuring the planets ocean water surface from space since late 1992, indicates global average sea level rise at around 3 mm/year in line with the upper bound projections for sea level rise this century.

Of all the impacts from climate change, the projected rise in mean sea level is one of the most significant concerns for coastal communities and coastal zone managers. Depending on the rate and scale of sea level rise, the environmental, social and engineering consequences within low lying inter-tidal areas, in particular, could be profound.

In addition to open coast recession and higher inundation levels, salt water penetration and more landward advance of tidal limits within estuaries will, amongst other things, have far reaching implications for aquatic freshwater and saltwater ecosystems. Similarly, existing coastal gravity drainage and stormwater infrastructure systems may become severely compromised over time as mean sea level

rises. Waterfront properties with ambulatory boundaries (referenced to the mean high water mark) will also be impacted as the boundary feature moves successively landward over time with the land becoming increasingly more vulnerable to inundation. Seawalls and other coastal defence systems will also have to be incrementally upgraded over time to address the increasing threat from larger storm surges and inundation at higher projected water levels.

At present there are numerous developed margins throughout coastal NSW situated within close proximity to tidal waterways. The threat posed by steadily increasing rise in the rate of mean sea level this century needs to be understood and factored into the longer-term strategic planning and management of the NSW coastal zone as a matter of urgency. In November 2009, the NSW Government released the NSW Sea Level Rise Policy Statement, amongst other things, providing a commitment to supporting communities to adapt to sea level rise and advocating sea level rise planning benchmark figures of 40 and 90 cm to 2050 and 2100, respectively, relative to 1990 levels.

Phil Watson
Principal Coastal Specialist
Department of Environment, Climate
Change & Water



The Carbon Economy and SME's

Carbon is a complicated matter. It is the source of a whole new set of acronyms: CO2e, CPRS, ETS, NGER, NCOS, MEEDS, to name a few. Further, carbon science is based on modelling, so no one is certain how bad things will get. One thing we do know, carbon will have an impact on your business.

Emissions trading or some form of carbon tax is inevitable. Take the European Union. It has had an emissions trading regime since 2005. New Zealand has commenced one this year. Other countries are set to follow. With our new government we will also have a cost on carbon in the near future. Big energy users will pay the price. For SME's there are two choices: use less energy, or pay more for the cost of doing business.

SME's are certain to feel the supply chain pull. Nice-to-have environmental credentials have become necessity. If you want to deal with the top end of town, sustainable practices are now almost mandatory. This is certainly the case for SME's with government contracts, from local right up to federal. For example, state and federal departments will only rent space in buildings with an energy rating of 4.5 stars or above.

Certainly going green has seen its share of issues. "Green washing," or misleading claims of carbon neutrality is one. In response, the federal government introduced NCOS (National Carbon Offset Standard). NCOS now gives businesses and consumers certainty as companies must comply with strict criteria.

What should your business do?

Early energy reductions do not need to be complex. For example, you might consider staff behavioural change, a no cost exercise that everyone can undertake at work and home.

What is certain is that doing nothing will cost more than doing something. The carbon economy will mean a scramble for companies who have not already acted. When demand increases, like everything, it will cost much, much more.

How we help businesses

Pangolin Associates works with businesses across Australia in the carbon economy. Put simply, we help you increase efficiencies and reduce carbon and other environmental impacts.

Our team has comprehensive experience in the environmental sector. Our services include comprehensive greenhouse gas (GHG) assessments, also known as carbon footprints, energy efficiency audits, staff engagement training, and advice on carbon offsetting.

Iain Smale

Pangolin Associates



QUESTIONS & ANSWERS

Q & A

Each Focus on the Coast forum gives the community the opportunity to ask questions of the presenters and other members of the forum. Some of the questions and answers are printed in our newsletter. For all questions and answers from the forum please visit our website www.rdacc.org.au

Q: Will we get a larger variation of tidal movement with warmer seas?

The height and timing of tides are principally governed by the position of the Earth in relation to the Moon and to lesser extent, the Sun. Thus tides are not in themselves affected directly by warmer seas. However, indirectly the extent of the penetration of tides inside an estuary are predominately governed by the configuration of the estuary and the frictional effects. If increasing mean sea level results in the entrance becoming more hydraulically efficient over time, this might result in the tidal range actually increasing within parts of the estuary. However, these additional impacts are far less certain or well understood at this point in time.

Phil Watson
DECCW

Q: Is efficiency not a concern if we use renewable energy?

Absolutely not, there is currently a limited supply of renewables on the grid, around 2% and a constant demand for more energy so any energy efficiency initiatives will decrease the load on polluting power stations and the requirement for more power stations. Efficiencies will also lead to power savings, typically in

the tens of thousands for most SME's.

Iain Smale
Pangolin Associates

Q: How much does it cost small/medium businesses for a review/audit of energy saving recommendations?

Taking a small service based business, single site as an example, say a legal firm with about 50 staff. Typically a comprehensive GHG (Greenhouse Gas) Assessment would be in the order of \$4,000 to \$6,000 ex GST and an Energy Efficiency Audit around \$3,500 to \$4,000 ex GST. Various factors can effect the cost so this is just a rough guide.

Iain Smale
Pangolin Associates

Q: In what ways is the Australian economy falling behind in the carbon economy by dragging the chain on a carbon price?

Australia is per capita one of the highest, if not the highest, emitters in the world. This is due to our high dependence on fossil fuels such as coal and oil along with cheap, easily accessible local supply of coal. The only way to reduce this is through a market mechanism such as an Emissions Trading Scheme

or a direct tax on carbon. The longer we leave action the more expensive this is going to be for our economy. For example, if we set a target for 2020 and don't action till 2014, we will only have 6 years to spread the costs over versus taking action now and spreading over 10 years.

Iain Smale
Pangolin Associates

Q: Do you expect the cost of L.E.D replacements for fluoro tubes to come down to an economic level?

Like any new product once it hits mass production, consumption prices will drop. China is investing heavily in LED manufacturing capacity and we will see better designs with more options at a lower cost point over the next few years. Bear in mind LED's have an extremely long life, up to 25 years in domestic situations, so should be considered as part of any retrofit.

Iain Smale
Pangolin Associates





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An Australian Government Initiative



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FOCUS ON REGIONAL COMMUNITIES

Regional Development Australia Central Coast (RDACC) is facilitating Focus on the Coast forums to provide local residents with the opportunity to participate in a consultative process that identifies priorities, aligns resources and promotes solutions. These forums will enable the community to provide input to governments about issues and opportunities in our local area.

FUTURE FORUMS

21 October 2010

Health Services

18 November 2010

TBC

To register your interest call Elizabeth Westrup on 4349 4949
or email elizabeth.westrup@rdacc.org.au