

2030: The carbon crunch is coming

The Australian government has legislated at 43% reduction in emissions from the 2005 baseline, by 2030. This, on top of expected disclosure requirements, means that organisations that do not address decarbonisation in their businesses risk being left behind as more and more organisations move on their carbon accountability and reduce their climate risk.

Australia is party to the international Paris Agreement, and is required to publish and commit to carbon reduction targets - with a goal to reach net zero by 2050. And we cannot leave this until the 2040's - there is a need to phase our transition to a low-carbon economy and begin reductions now. The legislation is now in place that will impact all industries and businesses across Australia. What will this look like from a compliance perspective? From a cost perspective? What does that actually mean for business in Australia?

It means your carbon output will be watched.

Carbon will be the subject of audits and soon will be required to provide proof that each business is reducing its carbon footprint in line with the legislation. In line with the Paris Agreement and in line with the 43% reduction across Australia by 2030. And what will the outcome of this be? There will be a monetary cost to producing carbon. There will be those sectors that buy offsets (usually those creating the most carbon with skyrocketing profits, ahem, gas), and then there will be sectors that cannot afford the ongoing operational cost of carbon offsets to comply with legislation. For these sectors and businesses, they must reduce their operational carbon output and begin decarbonisation to remain in business. Here is the crunch - reducing carbon output and decarbonating businesses will cost money - but carbon offsets will eventually cost the business more. It is the same for renovating your house, there is an initial output of money for good insulation, solar panels and high performance windows, but after that, your running cost is low, basically impervious to market rate fluctuations.

In my view, there will develop a sort of 'carbon economy' where each cubic metre of carbon produced will have a cost associated with it. Most likely, that cost will be transferred on to the consumer - companies and organisations that don't begin decarbonisation now will have higher running costs in the future and higher costs for consumers. Economic and social advantage will go towards companies that decarbonise. This month the COP28 summit will shine a spotlight on each country's movements towards carbon neutrality. Hopefully the outcome will garner more movement towards net zero, and provide an update on each countries' carbon footprint as it stands. This 'carbon stocktake' will rationally require each country to provide concrete plans for carbon reduction.

As an architect, I think this issue affects us all. In the built environment, there is an upside to addressing decarbonisation through creating efficiencies, developing an engaged workplace, and gaining a market advantage. There is significant potential to improve efficiencies, reduce cost and reduce your carbon offset burden while improving upon design and preparedness for the climate intensity we are projected to see over the next 6 years to 2030. To tackle this from an architectural perspective I believe the logical areas of the building facilities to consider are:

- Building Services
- Building Fabric
- Natural Resources
- Design Elements
- Landscape Opportunities
- Furniture, Fitting and Equipment

Each of these areas break down into further component parts for analysis of carbon production. For example, Building Services is made up of power supply, gas, water sewerage and the like. Each of

these components have their own carbon footprint. I argue it is the job best suited to an Architect to analyse and assess where most carbon emissions emanate, to then devise sensible, achievable projects to reduce their carbon impact.

Decarbonisation and going down the carbon neutral/net-zero path does mean, more than any other green strategy, that you are measuring, monitoring, and managing emissions as every organisation will need to do within the next few years ahead.