

Marty Verry: Building green - Stuart Nash on right side of climate history

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Economic and Regional Development minister Stuart Nash. Photo / Mark Mitchell

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OPINION:

The Government is using its own procurement to show how to build green by using less high-emission materials like concrete and steel.

The lobbyists from those sectors have attacked the move.

History will prove Stuart Nash right.

In June, MBIE published a requirement that government departments must choose the lowest carbon option for any new buildings it procures, leases or funds.

The policy is primarily aimed at the carbon from the materials used, known as "Embodied Carbon". Embodied Carbon has become the big area of climate change focus for building designers and regulators globally because it counts for up to 20 per cent of CO₂ emissions.

Because wood absorbs CO₂ as it grows, and conversely steel and cement emit around 8 per cent of world emissions each, the policy was quickly labelled a "wood first" policy by steel and concrete professional lobbyists.

In effect, that may be so, but it is first and foremost a "planet first" policy. The latest IPCC report established the world is already 1.1C warmer. If it maintains its current trendline it will reach the 1.5C limit in 2032, 18 years ahead of schedule.

Climate Action Tracker and NGO calculates that if all pledges made by governments around the world are enacted, the world will heat by 2.4C. The promise to fulfil these pledges is the sort of thing one would expect on a "Yeah Right" ad.

No, the smart money is on a significant overshoot; it's only a matter of how badly.

Indeed, the IPCC report also covered scenarios where the temperature rises more than 4C this century. Under these scenarios ice sheets collapse, permafrost melts and releases methane, and forest fires release their massive stores of CO₂.

Fires the size of New Zealand already

We are already starting to see signs of this occurring. There are wildfires burning across Canada, Italy, Greece and Turkey, 5700 fires are reportedly raging across California, and in Russia 150 fires now cover an area of 17 million hectares. That alone is the size of the North Island and half the South.

Is it any wonder the IPCC is calling for immediate cuts in emissions. Most models call for emissions to be cut by 45 per cent by 2030 to be on track for the 2050 Paris targets.

So, what does all this mean for the estimated 20 per cent of New Zealand's CO₂ emissions caused by the choice of building materials and what is being done?

The Government has a three-pronged attack.

The first is to lead with its own building procurement policy. As mentioned, this has become a requirement of government departments effective immediately.

The second is to showcase a range of mass timber demonstration buildings in a PGP partnership with Red Stag. The first, a five-storey apartment building made primarily from cross-laminated timber, or CLT, demonstrated that the mass timber used had a lower overall project cost than the concrete and steel comparison designs. It also extracted 82 tonnes of upfront carbon from the atmosphere compared to the approximately 800 tonnes emitted by the steel and concrete options.

Want a building consent? Cut the carbon

The third is to regulate Embodied Carbon. This is pending under the "Building for Climate Change" regulation currently being consulted on. In future, designers will need to measure the Embodied Carbon in a building and then demonstrate it comes in under regulated caps on carbon in order to get a building consent. This is the path many other countries are heading down.

By MBIE publishing a clear timeline for reductions it will send a message to low-carbon material manufacturers to invest in capacity, and to steel and concrete manufacturers to green-up their products. The longer MBIE delays, the more the steel and concrete sectors will think they can lobby their way out of de-carbonising.

Loony lobby logic

As one of the main investors in the wood industry, it has been fascinating sitting in meetings and watching these professional lobbyists try to convince politicians and regulators not to touch the status quo.

The first argument made is that building designers are best positioned to decide on the best materials to use based on the performance of the building. That may be so, but it is also precisely what has led us to a state of climate emergency. Designers think their little project won't add much to climate change if they use the materials they are most familiar with. But collectively they all add up. Around the world, governments are regulating to address this market failure, comforted by the fact there are now high-performing mass timber alternatives.

The second argument is that in 100 years, steel and concrete can be recycled, and so are good for the environment. Translated, they are effectively saying "ignore the damage our products cause this century because they won't be as bad next century".

I know, crazy right. The emission breaks need to come on now, not in 100 years. And in truth, these materials take a lot of emissions to recycle so are dangerous in both centuries.

The latest argument is that with climate change causing more heatwaves and floods, robust materials need to be used. Again, translated, they are effectively saying "our materials have caused this emergency, but the best way to mitigate the damage caused is to use more of them".

Admittedly, I have not heard this argument used since engineers indicated the collapse of the steel-reinforced concrete Miami apartment block may have been due to the weight of the building on ground subsiding because of climate change.

As you can see, there is some loony logic arguing for the status quo. Let's see if the bureaucrats buy it. Certainly Nash isn't and history will prove him right.

• **Marty Verry is CEO of Red Stag.**