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THE PUSH FOR DECARBONISATION

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# Net Zero Guidelines – A Global Approach to Achieving Net Zero Emissions

At COP27 conference, held in Egypt, the **International Organisation for Standardisation** (ISO) released new net zero guidelines.

Unlike other ISO standards, the guidelines are available with open access. ISO states that this has been done because "competing approaches" and concepts for net zero sow confusion", and that these guidelines will act as common reference for collective efforts across the globe.

The new net zero guidelines provide principles and recommendations for the state, regional, city, and organisational levels to drive for net zero emissions by 2050.

The guidelines advise specifically on strategy for net zero, referring to drastic reductions of all greenhouse gases emitted into the atmosphere, such as methane (CH4), nitrous oxide (N2O) and other hydrofluorocarbons. Net zero also implies a deep commitment to decarbonisation, offsetting only a small amount of residual emissions.

Achieving net zero emissions demonstrates a commitment to sustainability and enhances brand reputation. Additionally, it can lead to longterm cost savings through energy efficiency measures and reduced reliance on fossil fuels. Although transitioning to net zero can require substantial time and resource commitment, it also presents opportunities for innovation and market differentiation. By aligning with global climate goals, businesses can stay ahead of regulatory changes, mitigate climate risks, and contribute to a greener and more resilient future.

To achieve this objective, the steps below can be followed.

If your business would like advice on how to best use these guidelines, or what their implications may be for your industry, please contact Cress Consulting here.





**Climate Positive certification is a relatively** new and rigorous standard offered by New Zealand-based organisation Toitu.

It is increasingly gaining international recognition as a symbol of environmental responsibility and sustainability, requiring organisations to go beyond the traditional approach of merely reducing their carbon footprint, instead focussing on creating a net positive impact on the environment.

as well as its efforts to reduce its impact on the environment. Companies that achieve this certification are required to offset their carbon emissions by investing in renewable energy projects, reforestation, or other initiatives that reduce greenhouse gas emissions.

your current emissions status,

baseline, targets and plans.

✓ ✓ ✓

The certification demonstrates the brand's seriousness in reducing its environmental impact, and in aligning with the expectations of its customers. This commitment is particularly important in the fashion industry, a sector notorious for its high levels of waste and pollution. By achieving this certification, Nagnata is setting an example for other fashion brands to follow.



emissions reduction actions

and progress towards goals.

Australian fashion label Nagnata's recently achieved the Toitu Climate Positive certification, a significant milestone for the company and a testament to its commitment to sustainability.

# ΝΑGΝΛΤΑ

Nagnata specialises in creating sustainable and ethically made activewear and apparel, with a mission to use fashion as a tool for positive social and environmental change. Achieving Toitu climate positive certification is a major step towards realising this mission. The certification process involves a comprehensive assessment of a company's carbon emissions, including its direct emissions and those of its suppliers,

This step also acts as recognition of the significant efforts Nagnata continues to make to reduce its carbon impact. The brand has implemented a range of sustainability initiatives, including minimising waste in its production processes compared to the conventional cut-and-sew practices by mainly focussing on flatbed knitwear, focussing on natural renewable fibres, and partnering with suppliers that have strong environmental and social policies by implementing a thorough screening process. Transparency forms an important part of this processes, and Nagnata clearly outlines its initiatives, partnerships, and short-, medium-, and long-term plans publicly available on their website.

Perhaps its most substantial contribution to industry leadership is in its demonstration that sustainable practice is compatible with good business. By investing in sustainability, Nagnata is building a loyal customer base that values environmentally responsible products. This in turn can lead to increased sales, improved brand reputation, and a competitive advantage in a crowded marketplace.

# **Meeting European Emission Reduction Standards**

As the global community takes steps to reduce carbon emissions and mitigate the impacts of climate change, the expectation is for traditionally high-carbon products such as imported meat and dairy to take steps to reduce their emissions.

The European Union has set a target to reduce GHGs from agriculture by 30% by 2030, introducing several policies and programs to support this goal. As a major exporter of agricultural products to the EU, Australia will need to meet these standards to maintain its market access. The European parliament has voted to adopt regulations that would force companies to prove they were not selling products that came from land that had been cleared of forest, or environmentally degraded, dating back to 2020.

The European Union is also considering a carbon tax on imported agricultural products. As countries around the world implement carbon pricing mechanisms and border carbon adjustments, the cost of exporting high-carbon products is likely to increase. This could make Australian agricultural products less competitive in the global market, and may result in decreased exports and reduced revenue for the agricultural sector. In response to these announcements,

Australian Agricultural minister Murray Watt emphasised that:

"Australian agriculture's ability to continue exporting to the world is really tied to our performance on sustainability."

The agricultural sector is a significant contributor to Australia's greenhouse gas emissions (GHG), accounting for 13% of Australia's total emissions in 2020 according to the Australian Government's National Greenhouse Accounts. This includes emissions from livestock, fertiliser use, and land use change. Within these sources lie a range of emissions reductions opportunities, and if done right, the process of decarbonisation presents an opportunity for Australia to gain a competitive advantage in the global market.

The Cattle Council of Australia is the peak body representing Australia's grassfed cattle producers. In 2022, the CCA submitted a renewal of its Carbon Farming Initiative – Beef Cattle Herd Management Methodology, accompanied by a statement underlining that:

"CCA recognises that beef producers are in a unique position to be part of the solution to climate change." The latest State of the Environment report said that between 2000 and 2017, there were 7.7 million hectares of land cleared across Australia. According to government data, 680,688 hectares of woody vegetation was cleared in Queensland in 2018-19 for agriculture.

Reducing Australia's proclivity for land use change is now not only a question of preserving ecosystems and reducing emissions, but an economic imperative to ensure the sustainability of the agricultural sector. The Australian Government must take a proactive approach to support the decarbonisation of the agricultural sector, through policies and programs that encourage the adoption of low-carbon practices and technologies. This will help to position Australia's agricultural sector for future success in the face of global efforts to reduce carbon emissions.

Australian farmers will initially need to lean on carbon offsets to drive for net zero, but the EU's regulations are a formal acknowledgement of the primary need for emissions reductions. Carbon offsets face significant controversy in the EU due to concerns over their legitimacy, but done right they offer a significant opportunity to complement conventional agricultural endeavours to reduce emissions.



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# Assessing Climate Risk, a Practical Step for Local Government

In the face of Australia's changing climate, local governments are confronted with unprecedented challenges that impact communities, staff members, operations, supply chains, economies and infrastructure.

As temperatures rise, rainfall patterns change, and extreme weather events become more frequent and severe, it is imperative that local governments proactively assess climate risks and strengthen resilience. To effectively prepare for the unavoidable impacts, councils must understand the specific challenges posed by climate change and adopt strategies that promote sustainability, profitability, and overall community resilience. events. Adopting a proactive approach to adaptation planning, budgeting, and community engagement ensures efficient allocation of resources to address the most pressing risks. This empowers councils to make informed decisions, prioritise action, and guide decisionmaking processes that promotes long-term sustainability. Moreover, focusing on climate resilience can stimulate local economies by attracting funding, creating jobs, and fostering Consulting offers tailored solutions that equips you with the necessary knowledge and tools to identify, assess and evaluate risks, strategically plan for adaptation, and engage stakeholders effectively. We are committed to helping you manage climate risks, proactively respond to challenges and develop tangible actions over the short, medium, and long term.

With our extensive experience in climate risk and resilience, Cress is ideally positioned to support local governments in navigating the complexities of climate change and laying the foundation for a sustainable and resilient future.

The first practical step in building climate resilience is the identification and assessment of the risks posed by climate change to council assets and services. Given that each region faces unique challenges, it is essential for councils to understand both the current and predicted location-specific changes in climate. Thorough assessments provide insights into the vulnerabilities of communities and infrastructure, enabling the development of targeted strategies for adaptation and risk management.

By understanding the specific risks faced, councils can enhance their preparedness, minimise potential damage and exposure, and reduce the economic burden of climate-related innovation in sustainable practices.

To support local governments in their efforts to assess climate risks and build resilience, Cress



## Australian Energy Decarbonisation – The Future of Biomethane

Biomethane, also known as renewable natural gas, is a form of biogas that has been processed to remove impurities and made suitable for injection into the existing natural gas grid.

Biomethane can be produced from a variety of organic materials such as agricultural waste, sewage, and food waste, making it a promising alternative to traditional fossil fuels for energy production. Biomethane has the potential to greatly reduce total energy sector greenhouse gas emissions by driving a circular economic process.

Renewable gases will be an important element of the energy mix as we facilitate a smooth decarbonisation of the energy market. Blending renewable gases such as biomethane into the gas network has the potential to bolster supply. Australia's existing gas networks and pipelines are readying to deliver renewable decarbonised gas.

Biomethane is not the only renewable gas at our disposal. Hydrogen, or more specifically green hydrogen, is made using renewable electricity to electrolyse water and separate the hydrogen and oxygen atoms. Thus, Australian policymakers have three broad pathways to choose from with regards to decarbonisation of the national gas grid:

Biomethane, provides a carbon neutral equivalent to natural gas.

Green Hydrogen, which produces no greenhouse gases when burnt as a natural gas substitute.

Direct electrification of the grid, converting natural gas uses to electric.

The key challenge is to find the right mix of these pathways to reach net zero emissions while ensuring energy security and minimising the overall cost of the energy system. Higher production and supply costs are pushed onto consumers, meaning everyone has a stake

## Positives

#### Renewable energy source

By replacing fossil fuels, biomethane can help to reduce Australia's carbon footprint and support global efforts to address climate change.

#### Improved energy security

Australia can reduce its dependence on imported fossil fuels, improving its energy security.

#### Better waste management

The production of biomethane requires organic waste materials; a useful outlet for waste that would otherwise be environmentally problematic.

#### Improved air quality

Emissions reduction from transportation as biomethane can be used as fuel for vehicles.

in the method by which the gas network is decarbonised.

In their Gas Vision 2050 report, Energy Networks Australia suggests that "An orderly transition, underpinned by a level playing field across decarbonisation pathways, will work in the best interests of consumers".

Policymaking is a key pillar of the transition to renewable gas, and indeed to a renewable energy sector as a whole. They are responsible for creating the legal and regulatory framework that governs the energy sector, as well as setting policies and incentives that encourage the development and deployment of clean energy technologies. In the case of a transition to a renewable gas network, policymakers have several important responsibilities.

First is the establishment of renewable energy targets. Policymakers can set ambitious targets for the production of renewable gases like biomethane and hydrogen. These targets can provide a clear signal to the market and drive investment in the development of these technologies through strong incentives. Similarly, governments can regulate emissions by setting emissions standards for the energy sector while enforcing penalties for companies

### How does biomethane stack up?

#### Negatives



#### High up-front costs

Biomethane production facilities and the development of the necessary infrastructure can be expensive, potentially deterring investors.



#### Technical challenges

Controlling feedstock quality, impurities in the gas, and the need for appropriate storage facilities can be difficult and costly to overcome.



#### Competition for land

Where crops are used, biomethane competes with agriculture and forestry for land. Where waste is used this is not a factor.

### Limited availablility



The availability of organic waste materials limits the scale of biomethane production and the potential for growth in the market.

that exceed these standards. This ensures the transition to a renewable gas network is done in an environmentally responsible manner.

Policymakers can also provide funding and support for research and development into renewable gas technologies. This can help to overcome technical barriers and drive down costs, making these technologies more accessible and attractive to consumers and businesses.

Another lever available to policymakers is to create financial incentives and subsidies to encourage investment in renewable gas technologies. For example, they can provide tax credits or other incentives for companies that invest in renewable gas projects. While this mechanism can be more costly to a government's hip pocket, it can serve as a very effective means by which to hurry the market's transition.

Lastly is the assurance of grid interconnectivity. Policymakers can promote the development of the infrastructure needed to transport renewable gases from production sites to customers. This may involve upgrading existing pipelines or building new ones to ensure that renewable gases are delivered to where they are needed.

## **Cress** consulting

Cress has the expertise to help identify pathways to a more sustainable, secure future and can help you design and implement strategies to reduce risk and increase self-reliance. As a Group, our sustainability, risk and water specialists are supported by more than 100 engineers and scientists across the world.

Providing expert guidance, we identify sustainability risks in your business, uncovering opportunities for sustainable growth, resource efficiency and water security so you are well informed to make decisions and find ways to maintain profitability and growth in a changing and increasingly challenging environment.

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