CLIMATE LEADERS COALITION

ON A MISSION TO REDUCE EMISSIONS IN NEW ZEALAND

Case Studies

Supporting signatories to meet the new Statement of Ambition

www.climateleaderscoalition.org.nz

Meridian.

Meridian Energy:
Measuring and verifying your emissions

Meridian has been measuring its greenhouse (GHG) footprint since 2001. Its annual GHG inventory practice and scope today reflects its journey since that time.

Meridian's initial inventory focus was on emissions within their direct control (scope 1 and 2), plus a small number of categories relating to crucial services they provided, such as fuel emissions from contractor meter reading (scope 3), and construction of generation assets (for a time they received credits under the Kyoto Protocol from this).

About a decade ago, Meridian investigated their major emissions sources beyond scope 1 and 2 and the GHG categories most material to them, and as a result in 2012 expanded their inventory scope to include emissions across their full value chain. More recently they expanded their scope further into scope 3 to ensure they understood and could focus on significant climate change risks and opportunities in their value chain (e.g. goods and services purchased and on farm emissions at their assets, such as wind farms). This also recognised their opportunity to encourage climate action by others.

Today, Meridian's annual GHG inventory includes quantification of scope 1, 2 and 3 emissions that can be directly attributed to its operations. It provides a vital evidence base to inform action to achieve their 'Half by 30' target.

Their GHG inventory is prepared in accordance with the ISO 14064-1:2018, the GHG Protocol and the Scope 3 Standard. Their GHG inventories are, and have nearly always been, independently assured to a 'reasonable' level assurance. This is a higher standard than 'limited'. ISO and GHG protocol standards are not significantly different in terms of reporting, and their use of both is largely historical.

Meridian's advice to others it to measure your scope 3 emissions when you start and include in your inventory using spend-based data. This will helpfully signpost the biggest emissions sources and GHG categories most material to your business. Anticipating that actual emissions data from suppliers will improve over time and the good decisions you are making as a vendor will increasingly be reflected as this happens.

Meridian also advises others to acknowledge the opportunity to encourage and bring suppliers along on the journey with you to 'shift the dial' together. This could be from signposting to good information, to more wrap-around support.

Check our Meridian's Greenhouse Gas Inventories **here**.

Auckland Transport:
Assessing and prioritising climate change risks and opportunities

In 2021, Auckland Transport (AT) started to identify, assess, and prioritise their risks and opportunities from climate change.

First, they focused on the physical risks and opportunities to their assets, services, customers, and staff. This was their natural starting point as they own more than $22 billion of assets in the Auckland region.

In early 2022, they started understanding their climate change transition risks and opportunities. Transition risks are those related to the transition to a lower-carbon economy which could entail policy, legal, technology, and market changes.

They knew that identifying, assessing, and prioritising transition risks and opportunities had to be approached differently from their physical risk work. For Auckland Transport, physical risks and opportunities is a quantitative data-driven approach while transition risks and opportunities are qualitative, focusing on interconnections and dependencies.

Knowing the approach was different, they commissioned KPMG to run the work. The first step was conversations with a range of organisations and individuals in New Zealand and abroad with experience on transition risks. This step was crucial, as without it, they would have been working in an echo chamber. Next were conversations with Auckland Transport executives across Finance, Risk, Planning, and Stakeholder Management.

The next step, is distilling the conversations into different future scenarios: an orderly transition, a disorderly transition, and no transition (aka hothouse scenario). Each scenario described social, economic, technological, political, and climate futures, as all of these are a source of transition risks and opportunities. For example, under the orderly transition scenario there is rapid and significant change in government policy on climate change; in the no transition scenario, there is minimal change in government policy. Both present different transition risks and opportunities.

Orderly **Net-zero 2050 scenario**	**Disorderly** **Delayed transition scenario**	**No Transition** **Hothouse scenario**
Action on climate change is swift and smooth. The worst impacts of climate change are avoided.	Little action is taken on climate change until 2030 then the change is drastic and swift. Some of the worst impacts of climate change are avoided.	Little action is taken on climate change at all. The worst impacts of climate change are felt, and considerable funds are spent on adaptation.

Taking these scenarios, how each of these futures impacted Auckland Transport through to 2050 was identified through workshops with senior leaders and executives across the business. These impacts were then converted into transition risks and opportunities. For example, under the orderly transition scenario, proactive government policy potentially provides an opportunity to AT of additional support.

Responses to these risks and opportunities are now being developed and will be incorporated into AT's existing risk management framework. The risks and opportunities will form part of their TCFD disclosure in 2022.

The success of this work came from the building of scenarios and understanding their impact on AT. Scenarios may have some similarities across different organisations, but the impacts will be unique for each organisation.

dbreweries

DB Breweries: How to assess your climate change risks and opportunities

In 2020, DB Breweries started its journey to improve climate resilience by identifying and assessing the climate change risks to its business.

It engaged consultancy firm Beca to help assess the physical risks to its supply chain, brewery operations, and national distribution. The assessment focused on the physical risks which were likely to occur in the year 2040 based on a high carbon emissions scenario of **RCP 8.5** for three core elements of DB's operations and supply chain:

- New Zealand sourced agriculture supplies,
- DB's owned operations/infrastructure, limited to production sites in Auckland and Timaru, and
- Inbound and outbound New Zealand national distribution (road, rail and sea freight).

The assessment was done in general accordance with the TCFD framework and highlighted risks including water quality and availability, weather, and environmental events which could cause damage to, or disrupt their supply chain.

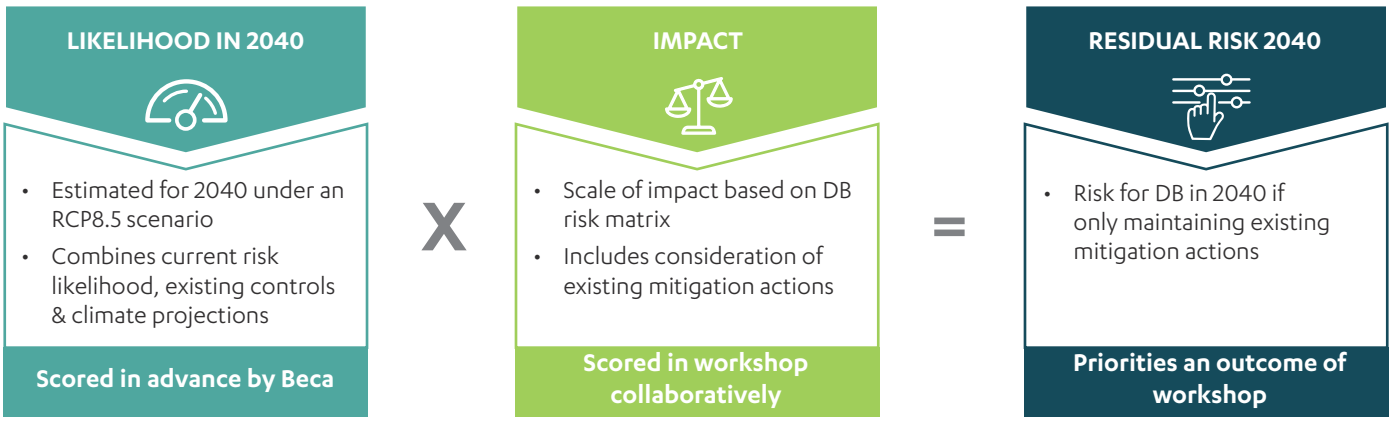
Key documents reviewed were Emergency Response Plans for their sites, Business Continuity Plans, and their Enterprise Risk Matrix. Senior management were interviewed, which included their National Distribution and Warehousing Manager, Procurement Manager, Brewery Managers, and Process and Control Improvement Manager. Interviews were also held with key agricultural suppliers. Literature was reviewed from NIWA, the Ministry for the Environment, as well as council plans and maps.

At a workshop with senior managers, the residual risk was assessed based on the scope and the likelihood of a risk occurring in 2040 along with the impact, which resulted in 15 low risks and seven medium risks being identified.

Now that DB understands the most pressing risks to its operations, it can advance its action plan to future-proof its business, which includes the integration of the higher rated risks into the company's risk register which is regularly monitored and reviewed at a board and regional level.

They have also disclosed their risk assessment findings on their **website**.

The next step is to better understand the risks to their wider business including other production sites as well as overseas logistics and suppliers. They aim to report on their risks and opportunities more directly in line with TCFD which is considered international best practice on climate-related financial reporting.



Meridian.

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Meridian Energy: Nature-based solution to emission removals

Within Meridian's business, they are focused on reducing gross operational emissions by half by 2030 from a FY21 baseline – their 'Half by 30' target. Where they can't reduce, or reduce now, they offset and have done since 2019.

Up until today, Meridian has achieved carbon neutrality for operational emissions* using Gold Standard Verified Emission Reductions (GS VERs), and over this decade will transition to and use removals from their Forever Forests programme.

Meridian committed to Forever Forests in 2019 with a vision to maintain a direct relationship with the atmosphere and remove emissions, investing in permanent forests in Aotearoa that also provided broader biodiversity and social benefits. Meridian's Forever Forest removals are sized to align with their residual operational emissions in FY30, after achieving their 'Half by 30' gross emissions reduction target.

Meridian has adopted a mixed model of exotics and natives, planting predominantly on their own land, and will transition these forests to 100% natives over time. Some highlights have included:

- Securing more than 55% of the land required
- 85,000 stems planted with a further 600,000 ordered to plant in the coming 2022-23 seasons
- Receiving a first tranche of credits from MPI for their first planting projects from 2020, with other planting projects now registered
- Ensuring they involve their people and communities in the plantings. Meridian has had six native-only plantings involving Meridian staff with more to come including the Tui Corridor project in Christchurch. Three partnerships are also in place with private landowners near their wind farms and iwi-based trusts.

Despite all the analysis and modelling, there are still uncertainties with developing a carbon sink as new regulations, markets and pricing are formed. Having an Executive and Board that remain committed to the core principle of a direct relationship with the atmosphere has been paramount.

Practically speaking, ordering seedlings in bulk is critical for any carbon sink programme. Meridian chose to pre-order hundreds of thousands of stems in 2020 – in advance of land being available – in order to ensure it could plant at the earliest opportunity. Exotic and native suppliers are now under tremendous demand pressure as the market rapidly develops.

Meridian also made an early commitment to the Field Management Assessment (FMA) in terms of measuring sequestration on the majority of its projects. Given its carbon sink will scale to around 1,100ha, there was the possibility to break their projects into sub 100ha lots and just use the MPI 'look up' tables in order to save management time and cost. However, Meridian felt this was sub-optimal, and furthermore saw any FMA data being critical in terms of building knowledge and data on sequestration. Contributing directly to core climate change science was seen as a non-negotiable.

Find out more about Meridian's Forever Forests programme on their website here, and about the Tūī Corridor here.