A PATHWAY TO DECARBONISE

Queenstown Lakes' Visitor Economy Decarbonisation Plan

Wānaka

QUEENSTOWN LAKES DISTRICT COUNCIL

Queenstown NEW ZEALAND

This document lays out ten workstreams that focus on the emissions we can directly influence within the district, including electrifying businesses, expanding renewable energy, reducing waste, strengthening food systems, decarbonising supply chains, and shifting visitor behaviour.

The approach has identified five distinct levers; which provides the strategic direction, and 10 workstreams; which are the delivery mechanisms. Our intent is to act decisively on what we can control, while contributing constructively to challenges we can influence.

Aviation is our largest source of emissions and among the hardest to abate. While change is underway globally, solutions sit largely beyond local control or the 2030 timeframe. The pace of change in aircraft technology, sustainable aviation fuels, infrastructure, and policy is accelerating, yet much of it sits beyond local authority and the timeframe of this goal. We name aviation upfront so the full context is transparent; however, we will not allow aviation to overshadow the immediate, high-impact work we can progress now, within our influence.

Our sphere of influence is most powerful in relation to the in-district visitor economy emissions. The focus of this plan is rapid, measurable reduction of in-destination emissions: electrifying transport and buildings; improving energy efficiency; cutting waste; shifting procurement and supply chains; enabling low-emissions mobility and experiences; and strengthening local food systems. We will also shape demand and visitor behaviour - favouring longer stays, lower-carbon itineraries, and market segments with a smaller travel footprint.

Alongside these core efforts, we will engage proactively on aviation emissions: partnering to send demand signals, supporting readiness for new fuels and technologies, and advocating through regional and national processes. For residual, hard-to-abate emissions (including aviation) we will use high-integrity removals/offsets as an interim measure - only after prioritising deep, real reductions, and aligned with recognised best-practice principles.

By setting the scope clearly at the outset - district decarbonisation first, aviation recognised and actively engaged - it maintains collective attention on the actionable levers that deliver emissions reductions today. This balanced approach enables Queenstown Lakes to lead with integrity and credibility, protect what makes this place special, and ensure the visitor economy evolves in line with a thriving, regenerative future.

Queenstown Lakes Destination Management Steering Group

A ONCE-IN-A-GENERATION ECONOMIC OPPORTUNITY

Queenstown Lakes has committed to reaching carbon zero by 2030 in its visitor economy. This monumental commitment will enable a prosperous and thriving future for today's and tomorrow's residents, and for all life.

While there are many challenges ahead, this moment also brings opportunities for innovation and leadership. The carbon zero goal allows Queenstown Lakes to continue its proud legacy of resourcefulness and ingenuity. People here are not afraid to try new things. This is where, in 1886, Aotearoa New Zealand first generated hydroelectricity, an innovation that signalled a new era.

The next era of innovation begins with rapidly decarbonising the visitor economy. Doing so will help tourism businesses lower expenses and support the district's ambition to diversify the economy beyond tourism by supporting local climate solution innovation. It will position Queenstown Lakes as a desirable place to invest, live, and visit for the coming decades, underpinning a prosperous future for the tourism industry. It will also help the district play a part in the most significant investment opportunities of our generation.

ESTIMATED NET BENEFIT OF NZ$671,000,000 TO THE DISTRICT[1]

There are many economic advantages to proactively pursuing climate action. There is compelling evidence that decarbonisation could produce an estimated net benefit of NZ$671 million to the district by 2050.[2] It will also save the district an estimated NZ$46 million[3] from the cost of inaction. If executed with care, decarbonisation can bring positive ripple effects to the economy. Rapidly decarbonising the visitor economy will also bring enormous benefits to many treasured aspects of life in the region and the destination's appeal.

Community resilience

- Greater resilience to floods, landslides and heatwaves.
- The potential for economic diversification and self-sufficiency.
- Increased food security.

Economic opportunities

- Attracting investments such as clean tech.
- Reducing economic leakage.[4]
- Increasing local and regional job creation.
- Savings for businesses through energy efficiency.

Competitiveness as a destination

- De-risking the future of the visitor economy by growing the long-term appeal of the destination.
- Increasing the district's reputation as an innovation leader.
- Attracting new aviation technologies.
- Improving community sentiment towards Queenstown and Wānaka tourism.

Better quality of living

- Health benefits.
- Reduced noise pollution.
- Improvements to natural recreational spaces.

KEY RISKS INCLUDE

While decarbonisation opens up significant opportunities, inaction could lead to growing economic, social, and environmental risks.

- Queenstown may lose appeal due to a decline in its reputation.
- Community support for tourism could decline without visible progress.
- Businesses and visitors may face rising costs from global carbon pricing.
- Reduced productivity from missed investment and funding opportunities.
- Infrastructure may fall behind performance and resilience standards.
- The region may face more severe climate impacts, including flooding and wildfires.

1, 2,3 Deloitte. Aotearoa New Zealand's Turning Point (2023) (Estimated as a proportion of New Zealand's GDP).

4 Tourism economic leakage refers to the portion of tourism revenue that leaves the destination's economy, such as through foreign-owned businesses, imported goods, or repatriated profits, instead of benefiting local communities and businesses.

WHY THIS AMBITION?

Residents of Queenstown Lakes have expressed a shared vision for a thriving destination, which begins with the goal of reaching carbon zero by 2030.

Queenstown Lakes District Council (QLDC), Lake Wānaka Tourism (LWT), Destination Queenstown (DQ), and Destination Think (DT) have been working closely together to develop and implement a plan for the future of tourism in Queenstown Lakes: The resulting regenerative tourism plan, *Travel to a Thriving Future*, reflects the values and desires shared by many community members.

Along the way, our working group confronted a stark reality: **there can be no sustainable or regenerative tourism system without addressing the impacts of the visitor economy on the climate.** That is why reaching carbon zero has become a critical goal. Decarbonisation is a requirement for the type of future that residents can all be proud of. Now it's time to follow through.

In Travel to a Thriving Future, the key enabling goal is for the visitor economy to achieve carbon zero by 2030. Carbon zero is defined as:

When the visitor economy as a whole reaches carbon zero, it will no longer be contributing to the greenhouse effect.

Is reaching carbon zero possible?

Our working group recognises that this has never been done before. We also recognise that although eliminating GHG emissions is the goal, it will most likely be necessary to use carbon removal credits as an interim step on the path to carbon zero. The journey to decarbonise is about working alongside operators to find practical solutions that strengthen their businesses and create long-term benefits for the whole sector. In adopting such an ambitious, world-leading goal, we have kick-started the momentum we need to treat the challenge with the gravity it deserves. And we are sending a signal to Aotearoa New Zealand and the rest of the world: Decarbonising should be one of our highest priorities.

Coordinating actions across interconnected areas of the visitor economy is no small feat. To organise the work, we have defined 10 key workstreams. Each workstream is designed to be executed by a dedicated team with the right expertise, partnerships, and capability. By working in parallel, these workstreams will drive coordinated, district-wide decarbonisation.

The 10 workstreams are as follows:

1. Influencing system-level change
2. Powering the visitor economy
3. Transporting visitors to the destination
4. Transporting visitors around the destination
5. Feeding visitors
6. Building the visitor economy
7. Removing visitor economy waste
8. Stewarding the land and water
9. Decarbonising visitor economy supply chains
10. Removing residual emissions

An overview of each workstream and its goal is described in the 'Implementation: 10 Workstreams' section of the report below, along with examples of success, both locally and internationally. Many decarbonisation initiatives are already underway in Queenstown Lakes, which demonstrates the hard work that has already been done in these areas. In each workstream, the goal is to support and amplify existing efforts before launching new initiatives.

What does carbon zero mean?

Decarbonising the visitor economy means rapidly eliminating the use of fossil fuels across the entire web of activities that comprise the travel experience.

Here are some details about the goal of reaching carbon zero

- Reaching carbon zero requires addressing all greenhouse gases within the scope of the visitor economy, including carbon dioxide and methane.
- For convenience, we use the term 'carbon' interchangeably with carbon dioxide-equivalent (CO2e).
- Focus everyone on eliminating all greenhouse gas (GHG) emissions before using carbon removal for the most challenging emissions as an interim step on the journey towards decarbonisation.
- Carbon removal will be necessary to compensate for leftover emissions. In alignment with The Oxford Offsetting Principles[5], that means transitioning to forms of carbon removal with long-term carbon sequestration and evolving according to best practices.
- Local carbon removal solutions should be prioritised for local economic opportunities and environmental improvement. This can begin with native ecosystem restoration within the district, but the supply here is limited.[6]

TERMINOLOGY:

CARBON REMOVAL, OFFSETS, AND CARBON CAPTURE AND STORAGE

In this document, we use the term "carbon removal" to refer to the process of extracting carbon dioxide from the atmosphere and sequestering it in a durable manner, such as in biomass, soil, oceans, or geological formations. A range of methods is available, including native ecosystem restoration, biochar, rock mineralisation, ocean-based carbon removal, and direct air capture.

While it is true that carbon removal is a type of offset, we have intentionally chosen to use the term "carbon removal" to stay true to the requirement in the destination management plan of removing any residual emissions as close in time and place to the source as possible. This creates accountability to remove the carbon dioxide instead of purchasing avoidance offsets.

It is crucial to distinguish between carbon removal and carbon capture and storage (CCS). CCS refers to the process of capturing CO_2 emissions at the source - typically from fossil fuel power plants, or cement, steel, or chemical manufacturing facilities. This is not what the plan advocates for.

5 K, Axelsson, A. Wagner, I. Johnstone, M. Allen, B. Caldecott, N. Eyre, S. Fankhauser, T. Hale, C. Hepburn, C. Hickey, R. Khosla, S. Lezak, E. Mitchell-Larson, Y. Malhi, N. Seddon, A. Smith, S. Smith. The Oxford Offsetting Principles (2024).

6 George Hooper, Rocky Renquist, Eugene Robson, and Corina Comendant, with contributions from David Taylor and Toby Stevenson. Carbon Sequestration Study (2020).

THE SIZE OF THE CHALLENGE: MEASURING GREENHOUSE GAS (GHG) EMISSIONS

How much carbon do we need to eliminate?

We know how big the challenge is. The table below shows the estimated annual carbon emissions for the Queenstown Lakes visitor economy. It also indicates the source of those emissions.

The visitor economy produced an estimated 665,501 tonnes of carbon dioxide equivalent (tCO_2e) in 2024. This baseline estimate serves as our starting point for decarbonisation.

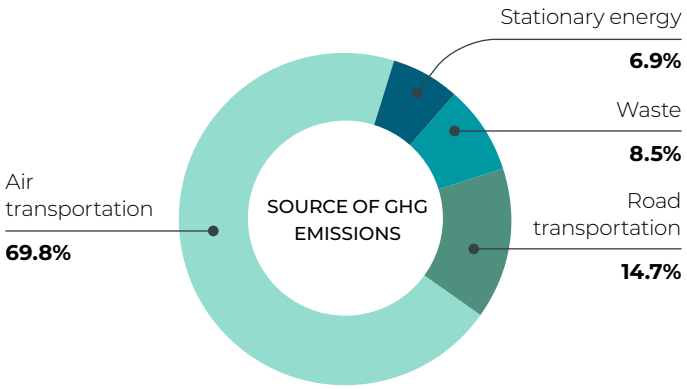


Table 1: Overview of visitor economy emissions sources

	Emissions source	Emissions quantity (tCO_2e)	Emissions proportion (%)
Stationary energy		**46,231**	**6.9%**
	Electricity	27,295	4.1%
	Water and space heating	16,238	2.4%
	Cooking	2,698	0.4%
Waste		**56,513**	**8.5%**
	Landfill	53,530	8.0%
	Wastewater treatment	2,983	0.4%
Road transportation		**98,112**	**14.7%**
	Light passenger vehicles	29,535	4.4%
	Bus, truck and marine	27,946	4.2%
	Light commercial vehicles	40,631	6.1%
Air transportation		**464,645**	**69.8%**
	Domestic flights	79,238	11.9%
	International flights	385,407	57.9%
Total		**665,501**	**100.0%**[7]

7 The figures in this table do not add up to exactly 100% due to rounding.

Where do the carbon emissions come from?

The table above categorises the 665,501 tonnes by type. Visitor-related emissions can be further distinguished by where they occur:

- 24.5% of total visitor-related emissions are generated in the destination.
- 75.5% of total visitor-related emissions are generated in transporting visitors to the destination.

Three-quarters of emissions are generated in transporting visitors to the district, primarily through international and domestic air travel. The emissions produced within the district boundaries are more directly within local control and therefore present immediate opportunities for mitigation.

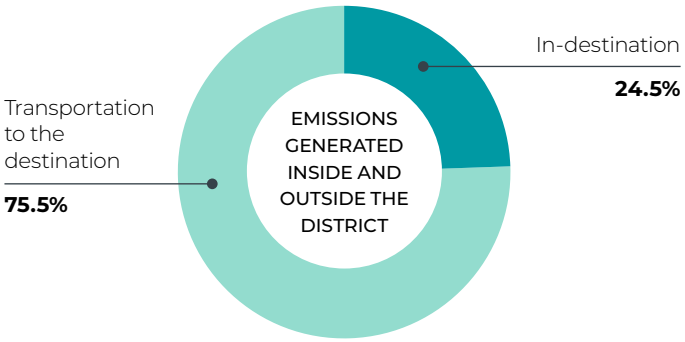


Table 2: In-destination emissions

These are emissions generated by visitor activity in the district:

Emissions source	Emissions quantity (tCO_2e)
Electricity	27,295
Water and space heating	16,238
Cooking	2,698
Landfill	53,530
Wastewater treatment	2,983
Light passenger vehicles (in-destination portion)	10,192
Bus, truck, marine (in-destination portion)	9,643
Light commercial vehicles	40,631
Total	**163,210**

Table 3: Emissions produced by transporting visitors to and from the destination

These emissions occur outside the district as visitors travel to Queenstown Lakes:

Emissions source	Emissions quantity (tCO_2e)
Light passenger vehicles (getting to the destination portion)	19,343
Bus, truck, marine (getting to the destination portion)	18,303
Domestic air transportation	79,238
International air transportation	385,407
Total	**502,291**

*See Appendix A for aviation emissions methodology.

FIVE LEVERS TO DECARBONISE

An analysis of the size and sources of GHG emissions has revealed the five most effective ways to decarbonise Queenstown Lakes' visitor economy. Those five levers of change are:

a. Decarbonise in-destination activities
b. Market mix
c. Length of stay
d. Decarbonise aviation
e. Remove residual emissions

Underneath each lever, we have presented three different levels of ambition that could be pursued, along with their impacts on emissions. When combined, the selected options illustrate a pathway to decarbonisation.

A. Decarbonise in-destination activities

This lever encompasses the entire on-the-ground visitor experience and includes emissions from:

- Powering the visitor economy (e.g., electricity use in accommodation, venues, attractions).
- Getting visitors around the destination (e.g., buses, rental cars, boats, light commercial fleets).
- Feeding visitors (food production, distribution, and consumption).
- Building the visitor economy (e.g., construction of tourism-related infrastructure).
- Removing visitor economy waste (e.g., landfill waste, sewage, and compostables).
- Stewarding the land and water (e.g., land management practices, restoration activities).
- Decarbonising supply chains (e.g., freight, imported goods and services supporting tourism).

Many promising initiatives are already underway across the district, which include electrifying transport, retrofitting accommodation, reducing food and construction waste, and restoring ecosystems. Also, the district's Climate and Biodiversity Plan already outlines a compelling strategy to achieve 44% emissions reductions by 2030.Instead of duplicating efforts, we need to find ways to collaborate and increase ambition and action to decarbonise more rapidly. The table below outlines three options that show what could be pursued through different levels of ambition.

	Option 1	Option 2	Option 3
Description	Reduce all in-destination emissions by 44% by 2030.[8]	Reduce all in-destination emissions by 88% by 2030.[9]	Reduce all in-destination emissions by 100% by 2030.
GHG change (tCO2e)	-71,812 tCO2e	-143,625 tCO_2e	-163,210 tCO_2e
GHG change (%)	-11%	-22%	-25%

Option 2 has been selected for this pathway to decarbonisation. This would reduce total visitor economy emissions by 143,625 tCO_2e, representing a 22% decrease in emissions.

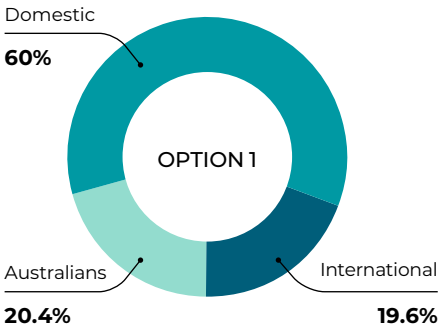
8 The district's current GHG emissions target for 2030. Source: QLDC. Climate and Biodiversity Plan 2022 - 2025 (2022).
9 This represents a doubling of ambition for the district's Climate and Biodiversity Plan GHG reduction target.

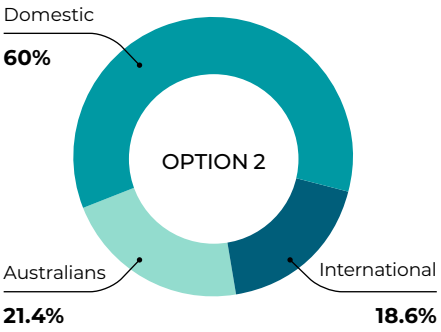
B. Market mix

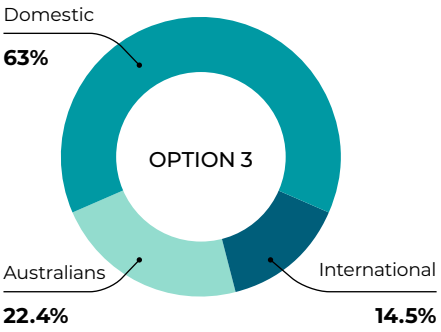
Long-haul travellers generate more emissions than those coming from nearby. By attracting a higher share of visitors from closer markets, particularly Aotearoa New Zealand and Australia, we can substantially reduce the emissions footprint of each visitor without reducing overall visitation.

The following three options explore the impact of shifting the market mix while maintaining a steady total visitation of approximately 3.3 million visitors[10] per year, based on 2024 levels.

Note: While a shift toward short-haul[11] markets may bring visitors with different spending patterns, this presents an opportunity to grow overall value by encouraging longer stays and creating compelling experiences that inspire greater visitor investment in the destination.







	Option 1	Option 2	Option 3
Description	Maintain the current market mix. No adjustments to domestic, Australian and rest-of-world visitors.	A modest rebalancing of the market mix towards short-haul travellers. From a 2024 baseline, maintain domestic visitors, increase Australian visitors by 5%, and decrease rest-of-world visitors by 5%. Which equates to the same number of international visitors overall.	A more ambitious rebalancing of the market mix towards short-haul travellers. From a 2024 baseline, increase domestic visitors by 5%, increase Australian visitors by 10%, and decrease rest-of-world visitors by 26%. Which equates to an overall reduction of total international visitors of 8%.
GHG change (tCO_2e)	0 tCO_2e	-12,257 tCO_2e	-69,447 tCO_2e
GHG change (%)	0%	-2%	-10%

Option 2 has been selected for this pathway to decarbonisation. This would reduce total visitor economy emissions by 12,257 tCO_2e, representing a 2% decrease in emissions.

10 Option 2 has been selected for this pathway to decarbonisation. This would reduce total visitor economy emissions by 122,677 tCO_2e, representing an 18% decrease in emissions.

11 Domestic and Australian markets.

C. Length of stay

Exploring opportunities to extend a visitor's length of stay offers the possibility of generating a similar amount of revenue from fewer trips. Focusing on growing the length of stay (room nights in destination) and dollars spent per visitor can also reduce pressure on local infrastructure while contributing to a positive visitor experience. While this may initially seem difficult, there are proven tactics from other destinations that we can learn from, and opportunities exist within the Queenstown Lakes visitor economy to collaborate and brainstorm creative solutions.

The table below presents three levels of ambition for visitation.

	Option 1	Option 2	Option 3
Description	This option is a business-as-usual projection. It maintains the average length of stay per visitor while increasing annual trips by 13.1% by 2030.[12]	The average length of stay per visitor is increased by 1.8 days, which equates to 25% fewer trips while still maintaining the same revenue and a consistent number of visitors in the destination.	The average length of stay per visitor is increased by 2.9 days, which equates to 35% fewer trips while still maintaining the same revenue and a consistent number of visitors in the destination.
GHG change (tCO_2e)	+73,439 tCO2e	-122,677 tCO2e	-170,298 tCO2e
GHG change (%)	+11%	-18%	-26%

Option 2 has been selected for this pathway to decarbonisation. This would reduce total visitor economy emissions by 122,677 tCO2e, representing an 18% decrease in emissions.

12 QLDC. QLDC Demand Projection Summary (2023). (Using average day visitors and peak day visitors annual growth rate of 2.5% as a proxy for potential annual visitation growth rate, which equates to 13.1% visitor growth over the 5 year period from 2025-2030).

D. Decarbonise aviation

This lever focuses on reducing the amount of emissions produced for each kilometre a passenger travels by air. Decarbonising aviation will require improvements in aircraft design, operational efficiency, and the development of alternative fuels. It also requires investment in next-generation aircraft.

The table below presents three levels of ambition. Each option reflects an average reduction in GHG intensity across both domestic and international aviation.

	Option 1	Option 2	Option 3
Description	Reduce aviation GHG intensity by 5%, which aligns with the International Civil Aviation Organization (ICAO) member countries' 2030 target.[13]	Reduce aviation GHG intensity by 25%, which is in alignment with Air New Zealand's 2030 target. [14]	Reduce aviation GHG intensity by 43%,[15] which is in alignment with modelling conducted by an aeronautics research group exploring potential aviation decarbonisation pathways.[16]
GHG change (tCO_2e)	-18,343 tCO_2e	-91,716 tCO_2e	-157,752 tCO_2e
GHG change (%)	-3%	-14%	-24%

Option 2 has been selected for this pathway to decarbonisation. This would reduce total visitor economy emissions by 91,716 tCO_2e, representing a 14% decrease in emissions.

13 ICAO. ICAO Global Framework for SAF, LCAF and other Aviation Cleaner Energies (2023).
14 Air New Zealand. Air New Zealand announces new 2030 Emissions Guidance in move towards greater transparency (2025).
15 Within their modelling, this represents a medium scenario, with an ambitious scenario leading to aircraft emissions reductions of 80% without increasing costs.
16 Institute of System Architectures in Aeronautics. DLR shows aircraft configurations of the future (2024).

E. Remove residual emissions

This lever addresses the emissions that remain after other viable reductions have been pursued across all areas of the visitor economy. Based on the combination of selected options across the previous four levers, residual emissions are estimated at 295,226 tCO_2e, representing 44% of the visitor economy's total emissions.

These emissions must be removed from the atmosphere through credible, high-integrity carbon removal solutions.

This could include nature-based removals such as native forest restoration, or engineered solutions like biochar or direct air capture, ideally prioritising local and durable approaches according to evolving best practices and the Oxford Offsetting Principles.

The three options below illustrate the potential financial implications of removing these emissions.

	Option 1	Option 2	Option 3
Description	The cost to remove residual emissions is based on the current price of carbon under the New Zealand Emissions Trading Scheme (NZ ETS): NZ$64.00 per tCO_2e.	The cost to remove residual emissions is based on the New Zealand Emissions Trading Scheme (NZ ETS) forecasted 2030 price: NZ$92.60 per tCO_2e.	The cost to remove residual emissions is based on the internationally forecasted 2030 price of carbon removal: NZ$366 per tCO_2e.
Residual emissions	295,226 tCO_2e	295,226 tCO_2e	295,226 tCO_2e
Cost to remove emissions	NZ$18,894,449 or NZ$7.53 per visitor	NZ$27,337,906 or NZ$10.89 per visitor[17]	NZ$108,020,156 or NZ$43.02 per visitor

Option 2 has been selected to complete this one possible pathway to decarbonisation. A next step could be to explore mechanisms for funding or financing carbon removal investments.

17 Based on 3,346,154 estimated annual visitors in 2024.

AN ILLUSTRATIVE PATHWAY TO DECARBONISATION

While there are many significant challenges, this analysis confirms that an actionable path to decarbonisation does exist. All the selected options from the five levers of change are combined in the table below. Taken together, they represent just one example of how the Queenstown Lakes visitor economy could decarbonise by 2030.

Each lever involves difficult trade-offs, and many other combinations of options could also lead to meaningful reductions. This plan does not claim to prescribe the only solution. Instead, it illustrates that strategic action can enable the visitor economy to make measurable progress, even under complex and constrained conditions.

	Option 1	Option 2	Option 3	Proportional (%) and absolute (tCO_2e) change in GHGs
A. Decarbonise in-destination activities	Reduce all in-destination emissions by 44% by 2030. [18]	Reduce all in-destination emissions by 88% by 2030.[19]	Reduce all in-destination emissions by 100% by 2030.	-22% -143,625 tCO_2e
B. Market mix	Maintain the current market mix. No adjustments to domestic, Australian and rest-of-world visitors.	A modest rebalancing of the market mix towards short-haul travellers. From a 2024 baseline, maintain domestic visitors, increase Australian visitors by 5%, and decrease rest-of-world visitors by 5% (which equates to the same number of international visitors overall).	A more ambitious rebalancing of the market mix towards short-haul travellers. From a 2024 baseline, increase domestic visitors by 5%, increase Australian visitors by 10%, and decrease rest-of-world visitors by 26% (which equates to an overall reduction of 8% in total international visitors).	-2% -12,257 tCO_2e
C. Length of stay	This option is a business-as-usual projection. It maintains the average length of stay per visitor while increasing annual trips by 13.1% by 2030. [20]	The average length of stay per visitor is increased by 1.8 days, which equates to 25% fewer trips while still maintaining revenue and a consistent number of visitors in the destination.	The average length of stay per visitor is increased by 2.9 days, which equates to 35% fewer trips while still maintaining revenue and a consistent number of visitors in the destination.	-18% -122,677 tCO_2e
D. Decarbonise aviation	Reduce aviation GHG intensity by 5%, which aligns with the International Civil Aviation Organization (ICAO) member countries' 2030 target.[21]	Reduce aviation GHG intensity by 25%, which is in alignment with Air New Zealand's 2030 target.[22]	Reduce aviation GHG intensity by 43%,[23] which is in alignment with modelling conducted by an aeronautics research group exploring potential aviation decarbonisation pathways.[24]	-14% -91,716 tCO_2e
E. Remove residual emissions	Cost to remove residual emissions is based on the current price of carbon under the New Zealand Emissions Trading Scheme (NZ ETS): NZ$64.00 per tCO_2e.	Cost to remove residual emissions is based on the New Zealand Emissions Trading Scheme (NZ ETS) forecasted 2030 price: NZ$92.60 per tCO_2e.	Cost to remove residual emissions is based on the internationally forecasted 2030 price of carbon removal: NZ$366 per tCO_2e.	-44% -295,226 tCO_2e

18 The district's current GHG emissions target for 2030. Source: QLDC. Climate and Biodiversity Plan 2022 - 2025 (2022).

19 This represents a doubling of ambition for the district's Climate and Biodiversity Plan GHG reduction target.

20 QLDC. QLDC Demand Projection Summary (2023). (Using average day visitors and peak day visitors annual growth rate of 2.5% as a proxy for potential annual visitation growth rate, which equates to 13.1% visitor growth over the 5 year period from 2025-2030).

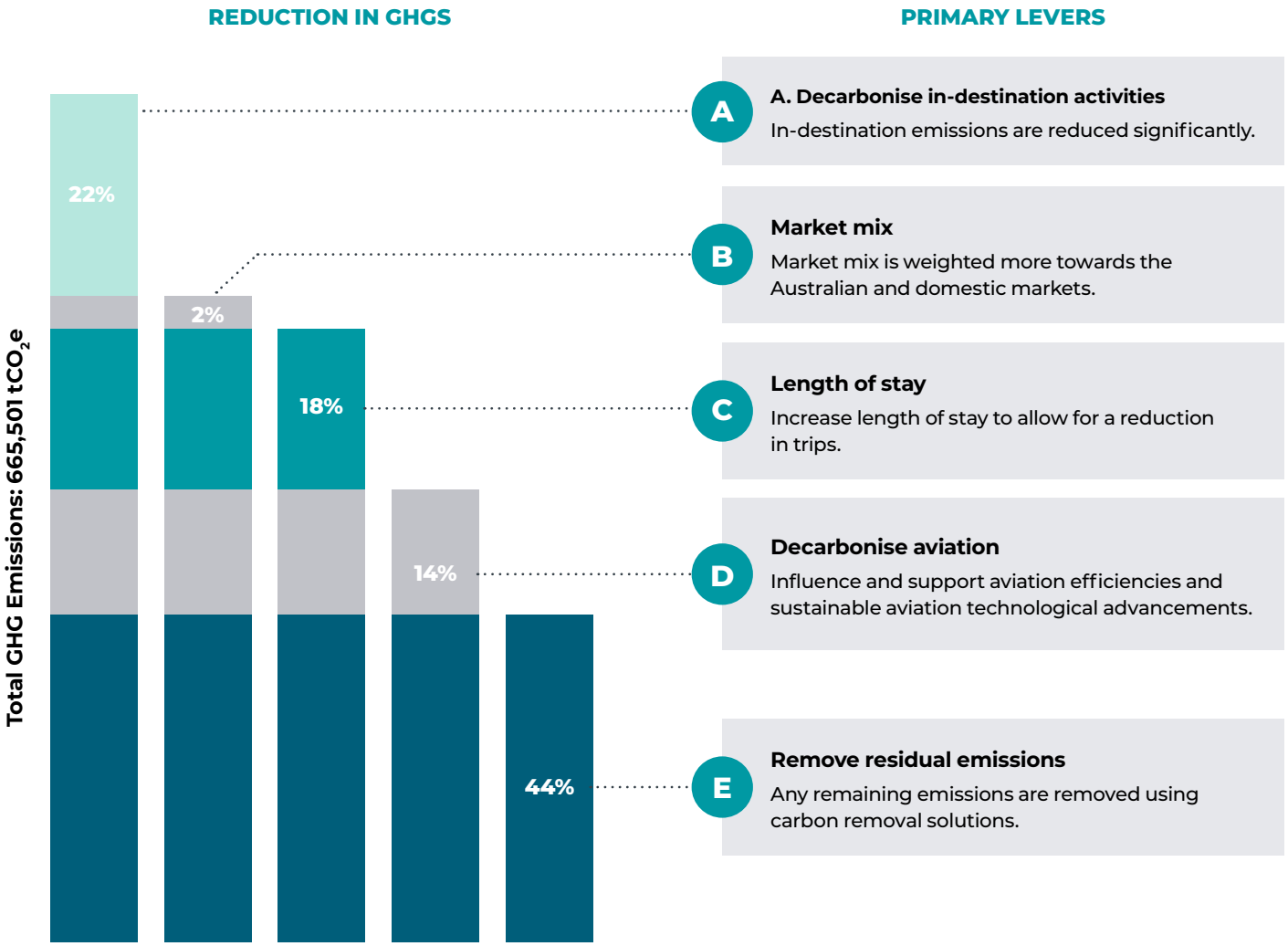
21 ICAO. ICAO Global Framework for SAF, LCAF and other Aviation Cleaner Energies (2023).

22 Air New Zealand. Air New Zealand announces new 2030 Emissions Guidance in move towards greater transparency (2025).

23 Within their modelling, this represents a medium scenario, with an ambitious scenario leading to aircraft emissions reductions of 80% without increasing costs.

24 Institute of System Architectures in Aeronautics. DLR shows aircraft configurations of the future (2024).

The diagram below illustrates the estimated impact of each lever on GHG reductions if the combination of pathways highlighted before were pursued.



IMPLEMENTATION: 10 WORKSTREAMS

The analyses above demonstrate that decarbonisation is possible. Now it is time to take action. Coordinating actions across interconnected areas of the visitor economy is no small feat, but we are guided by the levers of change and the principles behind this plan.

The required activities have been organised into 10 workstreams. Each workstream is designed to be executed by a dedicated team with the right expertise, partnerships, and capability. The workstreams have been prioritised in Appendix B based on three criteria: emissions impact (the magnitude of emissions reduction potential), enabling effect (the ability for it to create the conditions for other decarbonisation to occur), and feasibility/momentum (the ease of implementation and/or existing community support).

The 10 workstreams are as follows

1. Influencing system-level change
2. Powering the visitor economy
3. Transporting visitors to the destination
4. Transporting visitors around the destination
5. Feeding visitors
6. Building the visitor economy
7. Removing visitor economy waste
8. Stewarding the land and water
9. Decarbonising visitor economy supply chains
10. Removing residual emissions

An overview of each workstream and its goal is described below, along with examples of success, both locally and internationally. Many decarbonisation initiatives are already underway in Queenstown Lakes, which demonstrates the hard work that has already been done in these areas. In each workstream, the goal is to support and amplify existing efforts before launching new initiatives.

1. INFLUENCING SYSTEM-LEVEL CHANGE

The goal of system-level change is to create an equitable zero-emissions economy. This will require the development of durable incentives, networks, infrastructure, and institutional systems. This workstream must be driven by coordinated, systemic interventions across multiple layers of governance, policy, and markets, as consistent policies will enable the widespread deployment of innovative climate solutions.

To build national policy, the tourism sector can leverage its purchasing power, partnerships, and reputation to drive change from the ground up. This means influencing suppliers, partners, and industry stakeholders to align with decarbonisation objectives. Effective change management will be necessary to ensure continued community support. International collaboration will also be essential. Strategic partnerships with other leading destinations, global innovation hubs, research organisations, technology solutions, and key industries such as aviation will create shared learning, attract investment, and open access to cutting-edge technology and solutions.

Examples from abroad

- Bhutan limits the number of visitors to 200,000 per year to protect its natural resources and combat climate change. The cap is enforced through a quota system, and each visitor pays a daily fee of NZ$100 that goes towards conservation and development projects.
- The Tribal Parks Allies program (started in Tofino, British Columbia, Canada) encourages over 100 tourism businesses to voluntarily give 1% of revenue to Indigenous land stewards. This program funds more than 10 full-time roles.
- Aspen Skiing Company in Colorado, United States, actively lobbies the government for policies that support climate action, while it also influences its suppliers and energy utilities.

Successful local initiatives

- Queenstown Lakes District Council (QLDC) Climate & Biodiversity Plan 2025–2028: Provides a community-backed framework for integrated climate, biodiversity, and regeneration outcomes.
- Grow Well Whaiora Spatial Plan: Aligns strategic growth with environmental capacity and supports system-wide climate and energy planning.
- Electrify Queenstown Summit: Brings together business leaders, government officials, and financial bodies to advocate for clean energy policies and incentives that are meaningful and impactful for the district.

2. POWERING THE VISITOR ECONOMY

The district will need to phase out existing fossil fuel use and rapidly scale up its clean energy supply. This workstream's goal is to electrify the visitor economy and ensure that the zero-emissions electricity supply meets the increased demand.

This transition presents a significant economic opportunity. In many cases, electrifying operations is now cheaper than continuing to rely on volatile fossil fuel markets.

Shifting to electric solutions can also enhance business resilience, reduce operational costs, and strengthen the region's appeal to climate-conscious visitors and investors. To address rising demands, investments in energy efficiency will be critical. Those include improving building performance, retrofitting accommodation, optimising industrial processes, and reducing energy waste. Energy efficiency measures also offer fast payback periods.

Examples from abroad

- Edmonton International Airport, in Alberta, Canada, is constructing the world's largest solar farm at an airport, with a capacity of 112 megawatts.
- The Tokyo Metropolitan Government has mandated the installation of solar panels on new homes and buildings.
- Gas connections are banned in new residential dwellings built in Victoria, Australia.

Successful local initiatives

- Rewiring Aotearoa and Electrify Queenstown Event / Electrify Wānaka / Electrify Queenstown Accelerator: Led by Rewiring Aotearoa with backing from DQ, QLDC, Ara Ake, and Aurora Energy, these connected initiatives aim to drive heat pump adoption, solar, EV uptake, and resilient energy systems.
- Ratepayer-Assisted Scheme (RAS): A potential council-backed finance mechanism is being advocated to support the installation of heat pumps, EV chargers, efficient appliances, and property upgrades.

3. TRANSPORTING VISITORS TO THE DESTINATION

The goal is to eliminate emissions associated with visitors travelling to the destination, which includes both air and road transportation. Transitioning intercity buses, private vehicles, and short-haul flights to zero-emissions will deliver meaningful reductions. However, the most significant opportunity lies in long-haul air travel.

Reducing emissions from long-haul aviation will require sustained engagement with airlines, airports, regulators, and technology developers across the global aviation sector. There are many promising clean aviation technologies under development; however, their commercial readiness remains several years away. Domestic zero-emissions aviation could be operational within this decade, but international aviation will require a much longer transition period due to technology, safety, regulatory, and infrastructure constraints. Even as technological solutions mature, the scale-up and replacement of global aircraft fleets will be a slow process.

Given these realities, Queenstown Lakes must actively manage both the mix and volume of visitors as a complementary near-term strategy. Prioritising attracting visitors who travel shorter distances, stay longer, and spend more will help reduce emissions while maintaining the vibrancy and resilience of the visitor sector.

Examples from abroad

- Japan has introduced a requirement for all overseas flights to use 10% sustainable fuel by 2030.
- To accelerate sustainable aviation, Norwegian authorities are offering the country's airspace as a test arena for low-emissions concepts.
- Due to national climate legislation, some destinations, such as the Netherlands and Norway, are shifting their focus away from international marketing. Instead, they are promoting tourism to visitors within a 500km radius. These visitors have a lower carbon intensity from travelling to the destination.

Successful local initiatives

- Air New Zealand decarbonisation initiatives: Including SAF integration and next-generation aircraft investments aimed to reduce GHG emissions by 20 – 25 % by 2030, compared to 2019 levels.
- Queenstown Airport Corporation (QAC) efforts: Airport infrastructure upgrades, diesel-free ground operations, partnerships to trial clean aircraft, and achieved level 4+ Airport Carbon Accreditation.
- Public electric vehicle chargers: The Government plans to significantly increase the number of public electric vehicle chargers across New Zealand, aiming for a network of 10,000 public charge points by 2030.

4. TRANSPORTING VISITORS AROUND THE DESTINATION

Visitors and tourism employees need to be able to move around the district without producing GHG emissions.

Instead of simply switching to zero-emissions transportation methods, it would be beneficial to approach the transition holistically. This begins with minimising unnecessary transportation and reducing transportation distances through the creation of well-designed neighbourhoods. This aligns with the Queenstown Lakes Spatial Plan[25].

Active transportation, such as walking or biking, can also be improved throughout the district, despite seasonal weather challenges. Making shared modes of transportation available offers an opportunity to reduce both operational and personal vehicle emissions.

Examples from abroad

- Norway has been building their electric vehicle infrastructure, and the country now has 25,000 charge points.
- Copenhagen, Denmark, has successfully implemented electric commuter ferries.
- Shenzhen, China, is the world's first major city to operate an entirely electric bus fleet, with taxis to follow.

Successful local initiatives

- Wakatipu Active Travel Network (WATN): An ORC-QLDC partnership delivering walking, cycling, and micro-mobility routes and facilities.
- Queenstown Trails Trust: Creating more interconnected bike networks and trails across Queenstown.
- Cable car project (Southern Infrastructure): Planning to build an electrified public transportation infrastructure.
- Frankton Marina: Ambition to become New Zealand's first fully electric marina.
- Gogo electro (Lightfoot): Free trial to test e-bikes for commuting needs.
- Active8 (Lightfoot): supports businesses in enabling their employees to travel via shared or active commuting, resulting in a reduction in workplace transport emissions.
- Better Transport (WAO): Community-led work programme to encourage mode shift towards active travel.

25 Queenstown Lakes District Council. The Queenstown Lakes Spatial Plan (2021).

5. FEEDING VISITORS

This workstream aims to ensure that the visitor economy's food and beverage production and consumption are part of a zero-emissions system. The food and beverage industry intersects with many other categories of climate action, including land use, agricultural practices, waste mitigation, energy, and transportation.

The tourism industry has opportunities to incorporate more locally sourced foods and offer a higher proportion of plant-based options. It can also influence a shift towards sustainable agricultural practices through the choices made when purchasing food and beverages, the types of partnerships pursued, and efforts to educate visitors. The industry must also work to reduce food waste.

Examples from abroad

- The Courtauld Commitment 2030 in the UK is a voluntary agreement that enables collaborative action across the entire UK food chain to deliver farm-to-fork reductions in food waste, greenhouse gas (GHG) emissions and water stress.
- British Columbia has enacted the Local Food Supply Act 2015 with the purpose of creating a resilient, sustainable, and strong local food economy.
- Closer to home, Royalburn Station is an excellent example of connecting restaurants to sustainable, locally produced food.

Successful local initiatives

- Southern Lakes Kai Collective: Community-led initiatives increasing local food resilience, regenerative agriculture, waste reduction, and public awareness.
- Destination Queenstown Procurement Project: Working with food suppliers to implement circular economy initiatives into supply chains.
- Forest Lodge Orchard: Has eliminated any use of fossil fuels from the farming and production of fruit, while at the same time reducing costs.
- Lake Hāwea Station: A certified carbon-positive farm (sequestering 2x more carbon than it emits).

6. BUILDING THE VISITOR ECONOMY

This workstream's goal is to ensure that construction and development in the visitor economy do not produce GHG emissions. These are the operational emissions from the infrastructure that visitors use, including roads, buildings, water treatment, sewage systems, and housing for workers.

Operational emissions can be reduced by following sustainable design principles and increasing green building standards, for example. Certain building materials even make it possible to use the built environment as a carbon sink. It is also essential to minimise virgin construction material wherever possible, while finding ways for our built environment to support the surrounding biodiversity.

Examples from abroad

- Vancouver, British Columbia, has implemented The Zero Emissions Building Plan, which aims to achieve zero operational greenhouse gas emissions by 2025, and all new buildings will have zero greenhouse gas emissions by 2030.
- The UK government has provided guidance for developers to pursue biodiversity net gain (BNG), enabling them to contribute to the recovery of nature while developing land.
- The EU has agreed to a deal aimed at reducing emissions from homes and buildings. New buildings must be zero-emissions and have solar panels by 2030, and fossil fuel boilers will be banned by 2040.

Successful local initiatives

- WAO Better Building Working Group: Providing guidance for low-emission, regenerative building methods.
- NZ Green Building Council initiatives: Showcasing high-efficiency building standards in tourism infrastructure.
- Queenstown Lakes Housing Trust: Promoting sustainable, energy-efficient housing solutions that support the visitor workforce and community.

7. REMOVING VISITOR ECONOMY WASTE

The goal is to eliminate waste at the source, reusing and recycling any residual waste.

The district needs to embrace circular economy principles to achieve this. Zero-waste strategies include reducing source material, practising separate collection, composting, and recycling. Best practices indicate that source reduction should be pursued before recycling, and that energy recovery is not an optimal mitigation strategy. Pursuing zero waste will not only mitigate the GHG emissions from the waste management system but will also have positive spillover effects that reduce emissions in other sectors. If implemented effectively, a zero-waste system can be a net negative source of GHG emissions.

Examples from abroad

- Tilos, Greece, has achieved zero waste by eliminating landfills and public bins, sorting at the source, implementing door-to-door collection, composting, recycling and promoting reuse. They have utilised modern technology, and have clear educational systems for visitors and residents.
- The Champions 12.3 network (a coalition of nearly 40 leaders from government, business and civil society around the world) has written a compelling business case for action on food waste prevention in hotels. The industry found hotels saved NZ$7 for every NZ$1 invested in reducing food waste. Key strategies for achieving food waste reduction include measuring food waste, engaging staff, rethinking the buffet, reducing food overproduction, and repurposing excess food.
- Hampton Roads Sanitation District, Virginia, United States, is leading in innovative ways of treating wastewater. They have developed the Sustainable Water Initiative for Tomorrow (SWIFT), which takes highly treated wastewater and subjects it to additional rounds of advanced water treatment to meet drinking water quality standards.

Successful local initiatives

- WOW (Without Waste): District recycling and composting programmes.
- QLDC Waste Management and Minimisation Plan (WMMP): Provides guidance on waste reduction, organics, recycling, and behaviour change.
- Wastebusters 2.0: Expanding reuse and repair programs.
- Waste to Wilderness: A program that provides composting services to 80% of Queenstown's accommodation and large-scale businesses, reducing landfill waste.
- SUC-free Whakatipu and SUC-free Wanaka: Their mission is to rid the region of single-use takeaway cups.
- Sustainable Queenstown DISHrupt program: Helping events to eliminate their waste.
- Enviroschools programme: Supports schools in implementing student-led sustainability projects that foster environmental awareness and positive behavioural change across their communities.

8. STEWARDING THE LAND AND WATER

Successful decarbonisation requires that visitor economy interactions with the land and water do not produce any emissions. It is fundamental that the visitor economy honours the mauri (life force or essence) of the ecosystems it interacts with. The visitor economy can lead to environmental restoration directly and by supporting existing initiatives. Visitor economy stakeholders should pursue and support conservation efforts in the region. It is crucial to protect and rejuvenate the natural environment for its ecosystem services, including its contributions as a natural carbon sink. Visitors with a passion for nature can also get involved in regeneration and care for the ecosystem. Several significant conservation and restoration projects are already underway within the region. The visitor economy must accelerate these initiatives.

Examples from abroad

- The World Economic Commission undertook a study looking into visitors' willingness to pay for community-based marine conservation projects. Respondents expressed strong preferences for funding environmental NGOs or direct payments to local communities. There was less support for paying a levy to national or local governments.
- Closer to home, Zealandia is a great example of how a conservation NGO can be supported by tourism. Currently the second top attraction in Wellington on Tripadvisor, Zealandia is creating opportunities for visitors to directly engage with nature, learn, and contribute to conservation through donations.

Successful local initiatives

- Project Tohu: One of the most significant revegetation projects currently being undertaken in Aotearoa. It regenerates a former QLDC Douglas fir plantation with more than 500,000 indigenous plants across the south-facing slopes of Coronet Peak.
- Upper Lakes Integrated Catchment Group: A collaborative partnership of mana whenua, local and regional government, agencies, and community stakeholders developing an integrated catchment management plan for the entire Queenstown Lakes district.
- Waiwhaakata Lake Hayes Restoration: A mana whenua-led, multi-partner project restoring the water quality and ecology of the Lake Hayes catchment.
- Southern Lakes Sanctuary / Predator Free Wānaka: Coordinated predator control groups to protect native biodiversity.
- Love Wānaka / Love Queenstown: Community-led regeneration initiatives.
- Other Whakatipu Reforestation Trust, Te Kākano, Wāi Wānaka, and Mana Tāhuna Charitable Trust initiatives: Ecosystem restoration, native planting, carbon sink development, and community initiatives.

9. DECARBONISING VISITOR ECONOMY SUPPLY CHAINS

This workstream's goal is to eliminate emissions from the materials, products, and services used in operating the visitor economy's supply chain. Supply chain emissions are a significant component of indirect emissions associated with tourism-related operations. Indirect emissions account for 36% of the global visitor economy emissions[26]. The influence of individual businesses on the supply chain is limited. In addition to changes in purchasing behaviour, support is needed at both the government and system levels. Green government procurement and advocating for policy changes can be impactful tools for achieving necessary change.

Examples from abroad

- Sustainable Hospitality Alliance is a global group undertaking numerous projects to bring the hospitality industry towards a low-impact future. In 2023, they announced a project aimed at strengthening local supply chains in the hospitality sector across eight African countries.
- The BC Tourism Sustainability Network has developed a guide on how businesses can make responsible purchase decisions.
- Iberostar Group has released its roadmap for short-term decarbonisation in operations and supply chain, outlining how the company will achieve carbon neutrality across Scopes 1, 2, and 3 emissions by 2030.

Successful local initiatives

- Supply chain statement of intent: Businesses in the Queenstown Lakes District come together to collectively work towards reducing waste within their supply chains. This project aims to implement an open-source, region-wide procurement policy for the food and beverage sector, with guidelines and expectations for suppliers and stakeholders alike.
- Cardrona supply chain initiatives: Cardrona has shifted to sourcing most food and beverage items from local suppliers, removed single-use packaging, and made other improvements across its supply chain.

26 Lenzen et al. The carbon footprint of global tourism (2018).

10. REMOVING RESIDUAL EMISSIONS

In this final workstream, any emissions that cannot be mitigated are removed. The most challenging types of emissions cannot yet be eliminated and will need to be removed. For example, some technological solutions to reduce aviation emissions, like zero-emissions aircraft, will not be ready before 2030. In scenarios where emissions cannot be mitigated, Carbon Dioxide Removal (CDR) will be needed. Ideally, CDR should occur as close as possible in proximity and time to the emissions source. Local CDR solutions should be prioritised. These provide the most significant benefits to local communities, ecosystems, and economic diversification. In 2020, a carbon sequestration study[27] was conducted for the Queenstown Lakes District Council to estimate the carbon sequestration potential of the district. This study may need to be updated as carbon removal solutions become a greater focus in the approach to 2030.

Examples from abroad

- Airbus has partnered with 1PointFive to bring carbon removals from direct air capture technology to the aviation industry.
- The Keweenaw Bay Indian Community Forest Carbon Project is conserving over 15,000 acres (approximately 6,000 hectares) of tribal forest lands in Michigan, United States, through improved forest management that maintains carbon stocks well above regional baselines.
- For locally impactful carbon dioxide removal (CDR), Boulder, Colorado, United States, has published a best practices guide for local government carbon removal.

Successful local initiatives

- Climate Action Company carbon removal credits: Local carbon credit projects develop high-integrity removals via native reforestation.

27 George Hooper, Rocky Renquist, Eugene Robson, and Corina Comendant, with contributions from David Taylor and Toby Stevenson. Carbon Sequestration Study (2020).

GET INVOLVED

This is an exciting moment for Queenstown Lakes, and we invite you to get involved. Decarbonising the visitor economy by 2030 will be one of the most ambitious and significant transformations our district has ever undertaken. This plan outlines a pathway, but its success ultimately depends on the collective efforts of our entire community, including all residents, iwi, businesses, visitors, and the government.

EVERYONE HAS A ROLE TO PLAY.

Businesses: Lead by example. Electrify your operations, reduce waste, support local supply chains, promote responsible visitor behaviour, adapt your marketing to focus on attracting visitors from nearer markets, and design experiences that encourage longer stays. Use your voice.

Visitors: Travel thoughtfully. Stay longer, be aware of your impact, learn about the culture, land, and customs and give back.

Civic organisations and community partners: Collaborate deeply. Reach out to us to join or support workstream teams that align with your expertise and passion.

Residents: Use your power. Support local, volunteer, and tell your representatives that it's time for policies to support decarbonisation.

Together, we have the chance to show what is possible when a community commits to bold action.

APPENDIX

APPENDIX A: AVIATION EMISSIONS

AVIATION EMISSIONS

Aviation emissions are the most significant contributor to the district's visitor economy emissions. In part, this is because Queenstown Lakes is a popular long-haul destination.

Aviation is one of the most challenging sectors to decarbonise. Technological solutions, such as sustainable aviation fuel and zero-emissions aircraft, are still in early development stages and subject to global market dynamics.

Moreover, Queenstown Lakes has limited control over aviation infrastructure, airline decisions, aircraft research and development, regulation, and fuel standards.

Due to the current lack of technological solutions, our efforts should focus on areas that can be influenced, such as visitor market mix, longer trip durations, supporting early adoption of emerging technologies, advocating for policy, and increased investments in innovation.

CALCULATING AVIATION EMISSIONS

Aviation emissions for a destination's visitor economy can be measured using two distinct methodologies: the refuelling-based accounting approach or the full-journey accounting approach. The method chosen to estimate aviation emissions significantly influences the size of the GHG emissions inventory.

- The refuelling-based accounting estimate is 385,407 tCO_2e.
- The full-journey accounting estimate is 4,259,050 tCO_2e.

There are two main reasons for the difference between the two measurements:

11. Scope of Measurement

Refuelling-based accounting takes responsibility for emissions solely from the first flight in a visitor's itinerary departing from Queenstown Airport on their way home. By contrast, full-journey accounting includes all segments of a visitor's travel, covering the complete round-trip itinerary.

Example: a visitor travels from Los Angeles to Queenstown with a stopover in Sydney. In that case, refuelling-based accounting takes responsibility for emissions from Queenstown back to Sydney upon departure, while full-journey accounting captures the entire route (LA → Sydney → Queenstown → Sydney → LA).

12. Inclusion of Non-CO_2 Effects (Radiative Forcing Index)

The full- journey estimate in the Discussion Paper[28] (Estimate 2) also incorporates a Radiative Forcing Index (RFI) of 1.9[29], which accounts for aviation's non-CO_2 warming effects (such as contrails and nitrogen oxides). This effectively multiplies the emissions estimate by nearly two, reflecting a more comprehensive climate impact.

Ultimately, both estimates lead to similar conclusions when planning how to decarbonise the district.

28 Queenstown Lakes. Discussion Paper: Initial findings in the development of a roadmap to carbon zero by 2030 (2023).

29 GHG Estimate 2 from the Discussion Paper incorporates an RFI of 1.9. This RFI figure is supported by the IPCC and is the most scientifically defensible at this time.

APPENDIX B: PRIORITISATION OF WORKSTREAMS

Achieving carbon zero by 2030 across the Queenstown Lakes visitor economy will require coordinated, cross-sectoral action. However, not all workstreams are equal in their potential impact or readiness. These criteria reflect a balance between ambition, leverage, and practicality.

Table 6: Workstreams ranked by priority score

Workstream	Emissions Impact	Enabling Effect	Feasibility / Momentum	Priority Score
Influencing system-level change	5	5	3	4.3
Powering the visitor economy	2	5	5	4.0
Transporting visitors to the destination	5	4	2	3.7
Transporting visitors around the destination	3	3	4	3.3
Stewarding the land and water	3	2	4	3.0
Removing visitor economy waste	2	2	5	3.0
Feeding visitors	2	2	4	2.7
Decarbonising visitor economy supply chains	2	3	2	2.3
Building the visitor economy	2	2	3	2.3
Removing residual emissions	2	1	2	1.7

HIGH-IMPACT WORKSTREAMS

Influencing system-level change

This workstream is foundational. It enables progress across nearly all other areas by creating the policy, financial, and institutional conditions for decarbonisation. With high impact and strong interdependencies, it deserves immediate attention, even though its feasibility score reflects some political complexity.

Powering the visitor economy

Electrification and clean energy supply are already well underway in the district, making this one of the most feasible and mature workstreams. Progress in this area supports decarbonisation in transport, accommodation, and operations.

Transporting visitors to the destination

While this has the highest emissions impact, it is also one of the most challenging areas. Nevertheless, progress here, especially around market mix and demand-side changes, can have a significant impact on emissions quickly and is critical to the overall decarbonisation goal.

MID-IMPACT WORKSTREAMS

Transporting visitors around the destination

With a reasonable emissions impact and moderate momentum, this workstream presents a good opportunity to demonstrate visible progress through projects like active transport and public transit expansion.

Stewarding the land and water, and removing visitor economy waste

Both workstreams have a high degree of community engagement and clear pathways for action, which makes them promising in the near term.

LOWER-IMPACT WORKSTREAMS

Feeding visitors, decarbonising the supply chains, and building the visitor economy

These are important areas for innovation and engagement, but are less likely to unlock progress in other areas or may require more time to mature.

Removing residual emissions

This is an essential long-term workstream, but by definition, it addresses what cannot be reduced. It should be actively developed alongside decarbonisation efforts, not instead of them.

METHODOLOGY FOR PRIORITISING WORKSTREAMS AND RECOMMENDED ACTIONS

To support effective implementation of the Queenstown Lakes Visitor Economy Decarbonisation Plan, each of the ten workstreams has been evaluated against three criteria. These criteria were selected to provide a balanced perspective on where to focus effort for maximum near-term progress and long-term impact. The criteria are:

Emissions impact

This criterion assesses the potential scale of greenhouse gas (GHG) reductions that can be achieved. Workstreams and actions that address high-emissions sectors such as transportation receive higher scores.

Rationale:

Focusing on workstreams with the greatest emissions reduction potential helps maximise climate impact and ensures alignment with the carbon-zero-by-2030 goal.

Enabling effect

This criterion reflects the extent to which a workstream supports or unlocks progress in other areas. For example, influencing system-level change can create policy, funding, and infrastructure conditions that support every other workstream. Similarly, decarbonising the energy supply has flow-on effects for transport, accommodation, and waste management.

Rationale:

Some workstreams act as multipliers, whereby progress in one area can catalyse progress across multiple others. Prioritising these initiatives helps accelerate system-wide change and reduce barriers elsewhere.

Feasibility / momentum

This criterion assesses the feasibility of progress within the current context. It includes factors such as stakeholder readiness, availability of funding or technology, alignment with existing initiatives, and institutional support. Workstreams already underway or where viable solutions exist score higher.

Rationale:

Focusing on feasible, shovel-ready, or well-supported actions allows the district to build early momentum, deliver visible wins, and build confidence in the transition process.

Each workstream is scored on a scale from 1 (low) to 5 (high) for each criterion. The average of the three scores produced a composite “priority score” used to inform sequencing and resource allocation. This approach ensures that high-impact and enabling actions are prioritised, while still recognising the importance of feasibility in getting started.

JOIN US

“Given who I am, what is my biggest lever on climate change? Where do I have the most power to create large-scale systems change?”

Wānaka QUEENSTOWN LAKES DISTRICT COUNCIL Queenstown NEW ZEALAND