Low Emission Freight Certificate
Background FAQ's

What is the Low Emissions Freight Certificate (LEFC) system?
The LEFC system is a *Book and Claim* mechanism that separates the physical and environmental attributes of low-emissions freight vehicles. It allows organisations to claim the environmental benefits – such as the reduced emissions - without directly using the physical vehicle, supporting sustainability goals and emissions reporting.

How are customers associated to a low emissions truck?
System is designed to separate physical delivery with the environmental benefits. As such, the customer is not directly associated with a specific truck, but they can purchase the trucks environmental attributes to receive low carbon delivery.

Who can participate?
Participants fall into two categories: Generators and Purchasers.

- Generators are organisations that issue certificates. To qualify, they must:
    - Measure emissions annually in line with the GHG Protocol, and
    - Publicly disclose decarbonisation plans or targets.
- Purchasers are organisations that buy certificates. There are generally no formal requirements for purchasers. However, it's up to the generator to decide who can buy their certificates - whether limited to their customer base, extended to specific organisations, or made available on the open market.

Why was the name changed from Renewable Freight Certificate?
The term “Renewable” was found to be closely associated with renewable energy, which could cause confusion when applied to diverse vehicle and fuel types - such as EVs charged from the grid, biofuels, or dual-fuel vehicles. To better reflect the system's scope, the name was changed to Low Emissions Freight Certificate (LEFC). This more accurately captures the inclusion of all vehicle and fuel types that qualify as low emissions, provided they use an external, non-fossil fuel energy source.

Who has been involved in the LEFC project?
The LEFC project is a freight decarbonisation initiative led by the Sustainable Business Council (SBC). A wide range of organisations have contributed through roles in the steering group, framework development, technical input, and general oversight. Key contributors include: SBC, DETA Consulting, EECA, Chapman Tripp, Ministry of Transport, NZTA, Coca-Cola Europacific Partners, CHEP, NZ Post, Lyttelton Port Company, Hiringa, Team Global Express, Retyna, Toitū, and the Smart Freight Centre (SFC).

What does the LEFC system intend to achieve?
The LEFC system aims to accelerate the decarbonisation of New Zealand's heavy road freight sector by enabling low-emissions vehicles to generate certificates that can be sold to freight users. The two key outcomes are:

- Generators earn revenue from certificate sales, helping fund further decarbonisation efforts - such as investing in additional low-emissions vehicles.
- Purchasers benefit from gross reductions in their Scope 3 freight emissions, supporting their sustainability and emissions reporting goals.

How are emissions reductions measured and verified?
LEFCs are generated, sold, and purchased in units of tonne-kilometres (tkm) - the total weight of freight moved

over a given distance - each associated with a specific emission factor. These measurements must follow calculation methodologies outlined by the GLEC framework[1] and the GHG Protocol[2].
Where possible, actual measurements of freight weight and transport distance should be used. If direct measurements are not available, estimation methods - such as estimated product weight or odometer readings - may be applied. All calculation or estimation methodologies must be documented and made available for external verification, as required. It is anticipated that organisations generating LEFCs will be audited annually to ensure compliance with verification standards.

Why would organisations want to buy a certificate?

The primary reason to purchase certificates is to reduce scope 3 emissions, helping to meet organisational goals, such as corporate responsibility, low carbon product delivery, organisational carbon reductions, exporting requirements (such as those into the EU), mandated reporting and reduction requirements etc. Some organisations will value the certificates, and some won't.

Can I report emissions reductions in my GHG inventory, and will auditors recognise them?

Yes, emissions reductions from LEFCs can be reported in your greenhouse gas (GHG) inventory. Like Scope 2 reporting when applying Renewable Energy Certificate (RECs), Scope 3 emissions should be disclosed using both location-based and market-based methods:

- Location-based: Report actual emissions from freight movements within your Scope 3 operational boundary, using relevant emission factors (e.g. from MfE Measuring Emissions Guide [3]).
- Market-based: Report emissions from freight movements within your Scope 3 boundary, including any gross emissions reductions associated with purchased LEFCs.

While there are currently no enforceable standards for Scope 3 reporting using market-based methods, guidance is evolving and is expected to align with Scope 2 reporting principles under the GHG Protocol[4].

How does the system prevent double counting of emissions reductions?

When a freight vehicle (e.g. a diesel truck) is replaced with a low-emissions alternative (e.g. an electric vehicle), this results in a single Scope 1 gross emissions reduction for the operator and a Scope 3 reduction for the freight reciever. However, because Scope 3 emissions account for upstream and downstream activities within an organisation's operational boundary, multiple Scope 3 reductions may stem from that single Scope 1 change. Scope 1 reductions would be attributed to the freight mover, and Scope 3 reductions attributed to the freight customer/s.

To prevent double counting of emissions reductions, the system includes the following safeguards:

- No double attribution: Assets generating certificates cannot simultaneously assign their low-emissions attributes to specific freight routes or clients.
- Transparent cost sharing: If certificate cost is shared among multiple beneficiaries, this must be clearly stated on the certificate. Only named beneficiaries can claim the associated emissions reductions.
- Accounting verification: All certificate generators must undergo an annual audit to ensure that total tonne-kilometres match the figures disclosed on their certificates. Non-compliance may result in penalties.
- Centralised registry: A robust registry tracks certificate issuance, application, and retirement to ensure accurate and auditable use.

[1] Global Logistics Emissions Council Framework | Smart Freight Centre
[2] Scope 3 Calculation Guidance | GHG Protocol
[3] Measuring Emissions Guide 2025 | Ministry for the Environment
[4] Scope 2 Guidance | GHG Protocol

What mechanism will be used to track exclusive ownership and retirement of certificates?

Certificate generators can choose how their LEFCs are distributed - whether retained within their own customer pool, offered to specific external organisations, or released to the open market.
Regardless of the distribution method, all certificates must be traded and transferred through a central registry. This registry ensures exclusive ownership, tracks certificate retirement, and maintains transparency across the system. All participants will be subject to annual audits to verify compliance with rules and regulations.

How is alignment ensured with international frameworks like the GHG Protocol or ISO standards?

The LEFC system is built on the principles of internationally recognised frameworks, including the GHG Protocol and the Smart Freight Centre's GLEC Framework.
To ensure alignment:

- Transparency is required in how certificates are used in emissions disclosures.
- Dual reporting of Scope 3 freight emissions is mandatory, using both location-based and market-based approaches.
- Participants must adhere to a set of approved calculation methodologies and overarching rules that reflect best practices from these global frameworks.

This approach ensures that LEFCs can be integrated into corporate sustainability reporting and recognised by auditors and stakeholders internationally.

Are LEFCs linked to the Emissions Trading Scheme (ETS)?

No, LEFCs are not linked to the ETS. LEFCs represent gross reductions in Scope 3 emissions by lowering the actual emissions associated with freight activity. ETS units are compliance instruments used within a cap-and-trade system. They do not directly reduce emissions but allow emitters to cover their emissions under a fixed cap. The overall emissions reduction is achieved by lowering the cap over time, resulting in a net reduction at the system level.

What standards or methodologies are used to calculate tonne-kilometres (tkm) and emissions savings?

Emissions calculations must follow the calculation methodologies outlined by the GLEC framework[1] and GHG Protocol[2]. This includes weight and distance measurements to provide a total tonne-kilometre (tkm) metric and assign an appropriate freight emission factor to calculate emissions.

Is third-party verification required for freight providers and certificate issuers?

Yes, third-party verification is required for any organisation generating LEFCs and selling them into the central registry. Verification will be conducted annually to ensure:

- Calculation methodologies align with those outlined in the GLEC Framework
- Total tonne-kilometres match the figures disclosed on certificates
- Environmental attributes of assets are not double-counted or claimed elsewhere
- Use of funds for decarbonisation activities aligns with the organisation's stated commitments
- General rules and requirements of the LEFC system are being followed

How are data accuracy and reporting transparency enforced?

Participants must comply with all current system requirements, as well as any future requirements as the system progresses and matures. Participants that do not comply would face consequences that may include, but are not limited to, certificate cancellation, penalty payments, suspension or removal from the registry.
Generators may face similar penalties if they do not comply with their disclosed use of funds for decarbonisation activities. Where certificates have already been sold/used, there may be cancellations of other certificates held by the generator, or a requirement for the generator to make up revenue spending on disclosed activities.

How are data accuracy and reporting transparency enforced?
Participants must comply with all current system requirements, as well as any future updates as the system evolves. Non-compliance may result in consequences such as:

- Certificate cancellation
- Penalty payments
- Suspension or removal from the central registry

Certificate generators may also face penalties if they fail to follow through on their disclosed use of funds for decarbonisation activities. If certificates have already been sold or used, enforcement actions may include:

- Cancellation of other certificates held by the generator
- A requirement to reallocate revenue toward the originally disclosed activities

These measures are in place to uphold the integrity of the system and ensure transparency and accountability across all participants.

If certificates are purchased, where do the funds go? Does revenue have to be reinvested into further decarbonisation efforts or infrastructure upgrades?

Funds from certificate purchases (minus registry fees) are directed to the certificate generators. While generators are encouraged to reinvest this revenue into decarbonisation initiatives, there is no strict enforcement on how the funds must be spent. However, each certificate must include a disclosure outlining the intended use of funds.

If, during auditing, it is found that the revenue is being used for purposes inconsistent with the disclosed intent, penalties may apply.

To support the system's goal of accelerating the adoption of low-emission freight vehicles and reduce Aotearoa New Zealand's freight emissions, the LEFC framework includes two tiers of certificates:

- Tier 1 – New Assets: For low-emission vehicles (LEVs) purchased after the LEFC registry begins operating. Revenue from these certificates can be used to recoup the costs of acquiring these assets.
- Tier 2 – Existing Assets: For LEVs purchased before the registry launch. Revenue from these certificates must be directed toward additional decarbonisation activities, not used to recover the cost of the asset.

This tiered approach ensures that the system incentivises new investments in low-emission technologies while maintaining integrity and transparency in how funds are used.

Are fund flows traceable and disclosed publicly or to certificate purchasers?
Yes. Certificate generators are required to disclose the intended use of funds on each certificate. This information is publicly viewable and accessible to certificate purchasers through the registry.
If, during auditing, it is found that the revenue is being used for purposes inconsistent with the disclosed intent, penalties may apply. This ensures transparency and accountability in how certificate revenue is used.

What types of freight interventions are eligible (e.g., mode shift, low-emission fuels, electric trucks)?
LEFCs can be generated from any low-emission freight asset that meets the minimum emissions intensity threshold of 0.08 kgCO_2e per tonne-kilometre (tkm) and uses an external non-fossil fuel energy source.
Eligible interventions include:

- Battery Electric Vehicles (BEVs)
- Fuel Cell Electric Vehicles (FCEVs)
- Dual-fuelled vehicles (primarily diesel/hydrogen)
- Biofuels and renewable fuels, where the fuel source meets minimum emissions intensity threshold

Can LEFC be purchased if freight is moved by Rail and/or Coastal Shipping?
No, LEFC's can only be purchased if freight is moved by road vehicles. The system is designed for road freight but the same methodology could potentially be used for other freight modes as long as the certificates are kept within the freight mode.

Is there a cap on how much emissions can be claimed via certificates, versus real reductions in a company's footprint?
Yes. A company can only claim LEFCs up to the total amount of Scope 3 freight emissions they would otherwise report in their annual carbon footprint. This means certificate purchases are limited to the total tonne-kilometres travelled by freight vehicles within the company's reporting period (typically one year).
This ensures that certificates are used to reflect actual freight activity and do not exceed the company's real operational footprint.

Can purchasers use these certificates to support Science-Based Targets or regulatory compliance?
At present, the SBTi does not formally recognise book-and-claim systems for Scope 3 emissions reductions. However, the SBTi is actively reviewing its standards and has introduced draft guidance that explores the use of market-based mechanisms, including book-and-claim, as interim solutions for Scope 3 decarbonisation.

Can certificates be traded or resold?
While certificate generators can choose who is eligible to purchase their certificates, all trading must occur through the central registry. Certificates cannot be traded or resold on any secondary market outside of the registry.

Are emissions savings additional (i.e. wouldn't have happened without the certificate incentive)?
Yes. LEFC system is designed to deliver additional emissions savings - those that would not have occurred without the certificate incentive. We recognise this is instrumental to the success of the system and to avoid greenwashing.

This is achieved through several key mechanisms:

- Encouraging new investment in low-emission vehicles and technologies by reducing the financial burden on freight providers
- Requiring transparency around how certificate revenue is spent

Is there transparency around who is benefiting from issuing and purchasing certificates?
Yes. LEFC system ensures transparency around both issuers and purchasers of certificates.

- Generators benefit from the revenue generated through certificate sales. This revenue is encouraged to be used for decarbonisation activities, such as investing in additional low-emission vehicles. Generators must disclose the intended use of funds on each certificate, which is publicly viewable by purchasers and other stakeholders.
- Purchasers benefit from gross reductions in their Scope 3 freight emissions. If they choose to publicly disclose their emissions reporting, their use of LEFCs can also be viewed and verified by others.

Will LEFC's help Aotearoa New Zealand meet its emissions targets?
Yes, that's the goal. The LEFC system is designed to accelerate the decarbonisation of Aotearoa New Zealand's heavy road freight sector, which is a key contributor to national emissions. By providing financial incentives to freight operators through the sale of certificates, the system encourages the uptake of low-emission vehicles - investments that may not have occurred without this support. This helps reduce emissions in a hard-to-abate sector and contributes directly to New Zealand's ability to meet its national and international climate targets.

How is the price of a LEFC determined?

LEFCs will be priced in terms of freight delivered (i.e. $/tkm). This is because the system is not directly specifying carbon savings, it is taking the environmental attributes of a low-emissions asset and applying it somewhere else. These attributes are calculated as kgCO2e/tkm; therefore, this is what they are sold as.

We anticipate the actual price will be based on the carbon savings of the applied technology used to generate certificates. It is expected that the lower the kgCO2e/tkm figure is for the certificate, the higher the price would be as this correlates to a larger reduction in carbon. As such, the more carbon efficient the vehicle is, the higher the price of the certificates should be.

In reality, the market will effectively set the price of certificates with factors such as data accuracy, technology types, age of asset, etc.

What is the commerciality of the system?

Initial work has been performed as to how much organisations would be willing to pay for the certificates. It is likely that the scheme will not offset the marginal purchase price of the low emission vehicle in its entirety – rather it will be an incentive to help build the financial business case for those implementing low carbon transport. However, it is likely that certain organisations/end users would be willing to pay a significant premium for the benefits of the certificates.

Who will own and run the registry?

That is still to be determined. It is likely that a specific registry company will own and operate it, and there are a number of these in New Zealand and overseas who would be able to do so.

How would the certificates work for organisations who have owner drivers?

The owner driver will have the ultimate ownership of the certificate (as they hold the Scope 1 emissions of the vehicle), however this may be administrated through the 3PL company who they contract to. The owner driver would be listed as the generator on the certificate, with the 3PL company and subsequent freight owners listed as Scope 3 beneficiaries.

Are these carbon credits, what's the difference?

LEFCs are not carbon credits ie offsets. Credits are associated with absorbing carbon that has already been emitted, through such things as planting trees, and are associated with net emissions reductions which typically cannot be used for target setting. Certificates are based on reduced emissions entering the atmosphere in the first place – this enables them to provide gross emissions reduction that can be applied onto customers emission targets.