

Applying a book and claim model to drive decarbonization of heavy-duty trucking

What is book and claim?

Book and claim systems enable organizations to support decarbonized goods and services that are otherwise physically inaccessible due to complex supply chains or limited geographic availability.

With book and claim, a physical good or service is separated, or “decoupled” from its environmental attributes (for example, emission impact) which are then tracked separately from the physical good or service. Similar to renewable energy certificates (RECs), the attributes are *booked* as Environmental Attribute Certificates (EACs) on a registry and can then be transferred to an organization and *claimed* towards a climate target.

How does GMA Trucking apply book and claim to heavy-duty trucking?

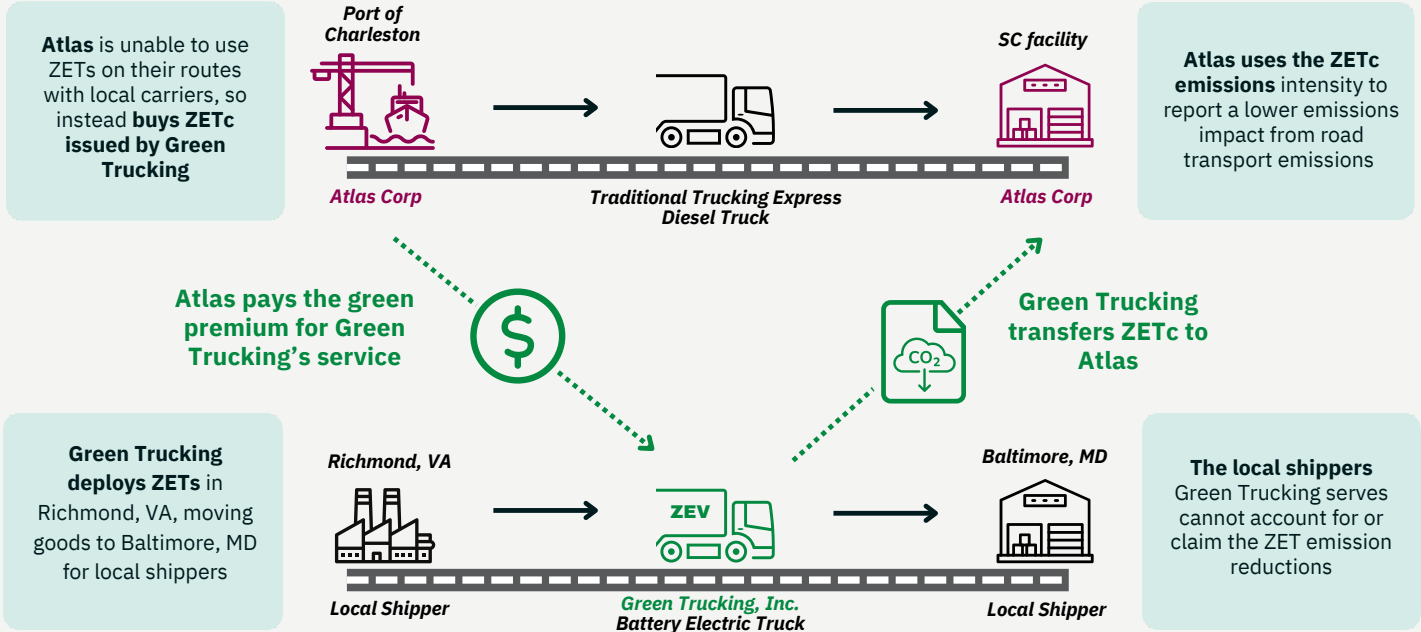
In GMA Trucking’s procurement process, the environmental attributes of zero-emission trucking services — what we call Zero-Emission Trucking Certificates, or ZETc — are decoupled from the physical shipping service. GMA Trucking members that purchase these ZETc can then claim and report the certificates towards their sustainability objectives, and more specifically, their scope 3 road transportation activities.

This same decoupling allows carriers to operate zero-emission trucks (ZET) on routes that are most economically and operationally efficient, offering local shippers trucking services at traditional diesel truck pricing.

To safeguard against double-counting, the physical, local shipper should not claim the environmental benefits of the zero-emission trucking service as that right is assigned to the ZETc purchaser.



EXAMPLE BOOK AND CLAIM FOR TRUCKING MODEL



How are the emission benefits calculated?

Carriers calculate the emission profile in grams of CO₂e reduced per tonne-kilometer (equivalent to moving one tonne of goods one kilometer on a zero-emission truck) in accordance with the Global Logistics Emissions Council (GLEC) framework and ISO 14083.

This unit incentivizes efficient truck utilization by rewarding carriers that maximize distance travelled and payload transported per zero-emission truck, as carriers that ship more goods and have fewer empty hauls generate more ZETc.

What are the advantages of a book and claim system for heavy-duty trucking?

- Enables carriers and partners to deploy zero-emission trucks and charging infrastructure where they are the **most operationally efficient and economically viable**
- Facilitates **maximum utilization** of trucks and charging infrastructure
- Allows buyers to **address their on-road shipping emissions** even when they lack direct access to zero-emission trucking services
- Supports **long-term demand signals** that give carriers the investment **confidence to scale** their zero-emission fleets



FOR MORE INFORMATION
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The Center for Green Market Activation (GMA) is a US-based, globally focused non-profit. Through innovative procurement approaches and sector-specific buyers alliances, GMA catalyzes and scales the uptake of low-carbon goods and services within carbon-intensive industries including aviation, maritime, trucking, cement and concrete, and chemicals. With collective decades of experience in environmental markets and alternative fuels and materials, the GMA team works to standardize new, green markets and forges mutually beneficial partnerships between climate-focused companies, suppliers, and mission-aligned non-profit organizations to channel funding to critical climate technologies in pursuit of accelerated sectoral decarbonization.