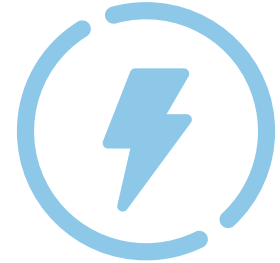




Dairy for life

# Hihiko



Milk collection: Zero emissions tankers



# Why EV milk tankers?



## Our customers are asking for it

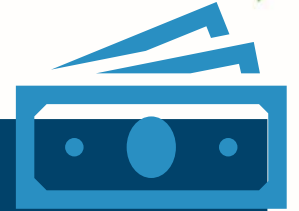
Our biggest customers and ultimately the end consumers are demanding products that are better for the climate.

**Gives us a license to operate**





## Reduce our emissions

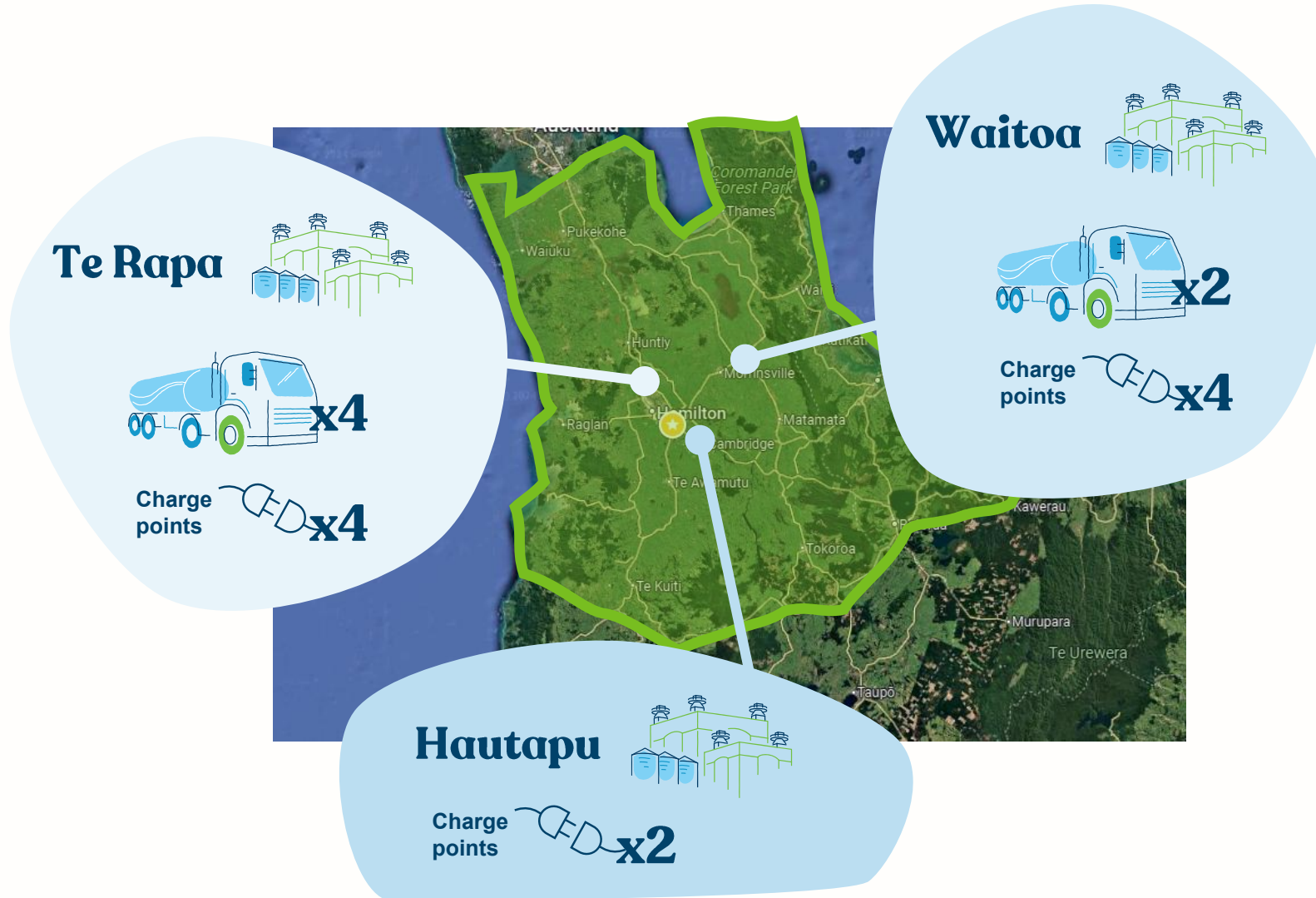
Build on our existing work to reduce fuel burn when driving and VKT reductions. The diesel fleet makes up 10% of Fonterra's direct emissions.



## Reduce our operational costs

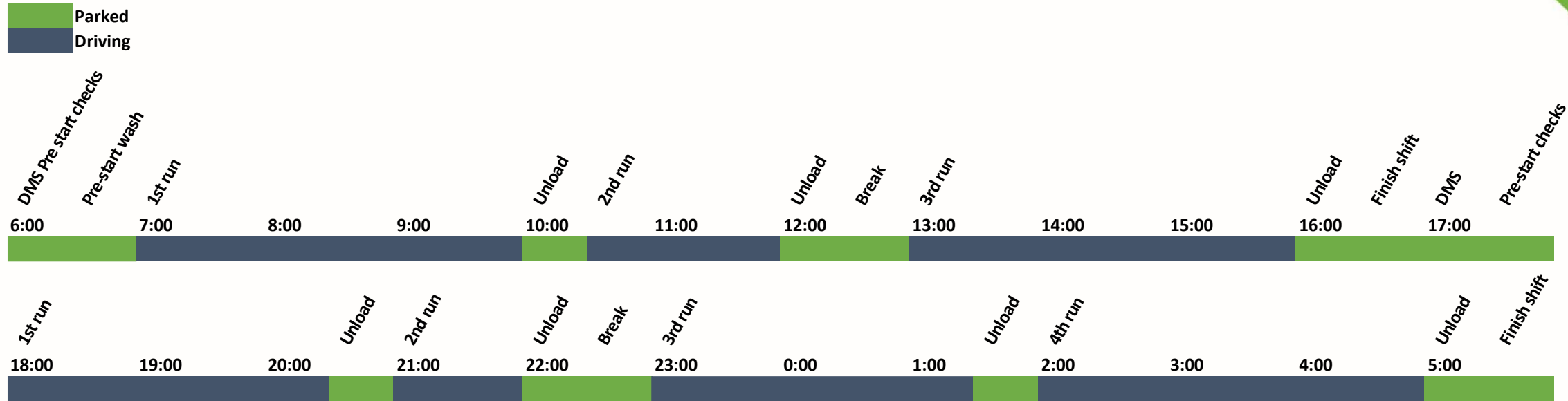
	Energy cost
	\$0.30 /km
	\$0.70 /km

# What, where, when?



- **Milk tankers with battery and motor** in place of fuel tank and engine
- **Charging instead of refuelling**
  - **Where?** Onsite in unload bays and truck parking
  - **When?** Bite sized during unloads (+20-30km), breaks (+70-100kms) and end of shift. Charging speeds expected to increase in coming years which would increase the amount of kms gained per charge.
- **Trucks on road from Q2 2026**

# Shift Parked vs Driving (Charging Opportunity)



Day Shift	Duration mins	Count of	Total mins
DMS	15	1	15
Pre-start checks	15	1	15
Wash	25	1	25
Unload	10	3	30
Break	40	1	40
Idle/ changeover	60	1	60
<b>Total Charge Opportunity</b>			<b>185 mins</b>

Night Shift	Duration mins	Count of	Total mins
DMS	15	1	15
Pre-start checks	15	1	15
Wash	0	0	0
Unload	10	4	40
Break	40	1	40
Idle/ changeover	40	1	40
<b>Total Charge Opportunity</b>			<b>150 mins</b>

# Truck spec & charger design



**4X** Volvo FM  
Electric 6x4 Rigid

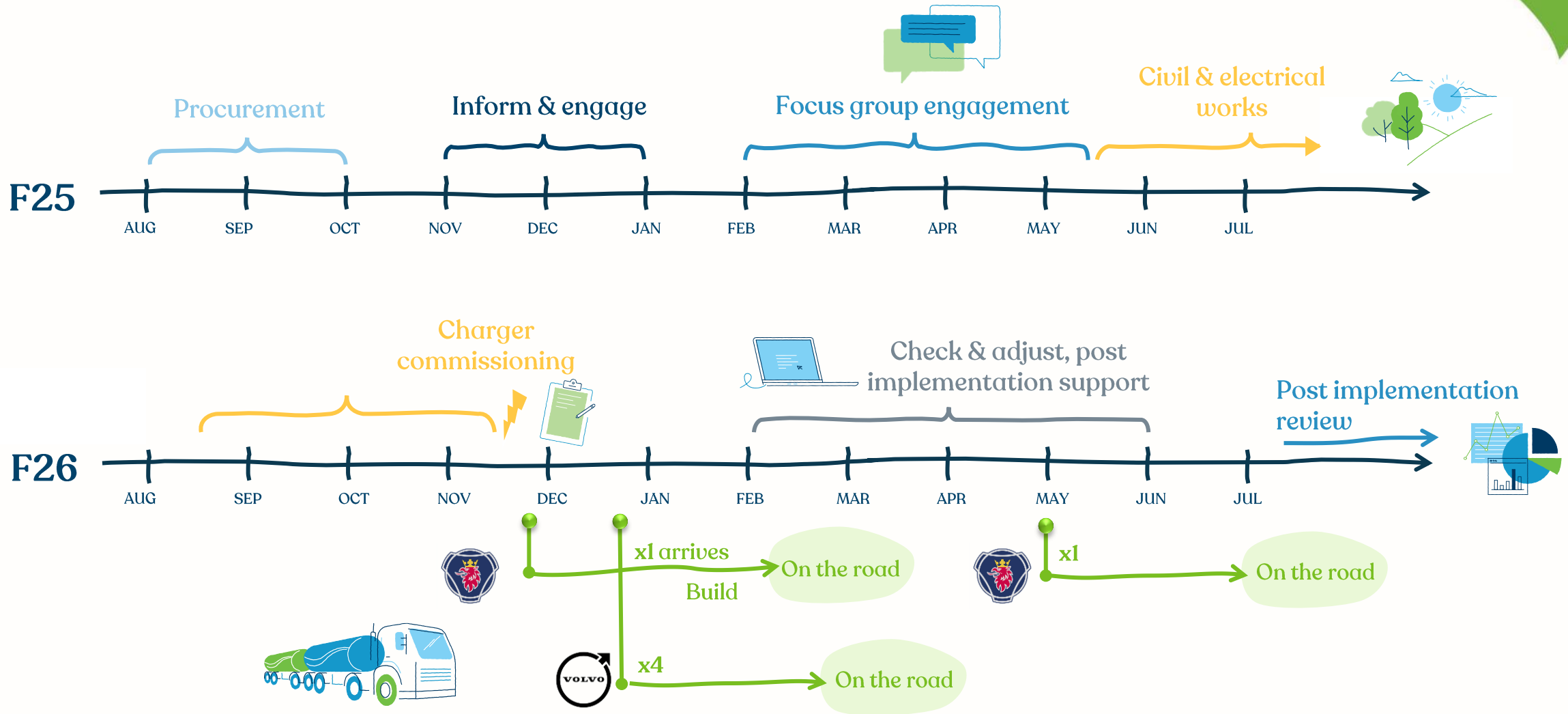


**2X** Scania P 400E  
8x4 Rigid (rear steer)



**Charging  
infrastructure**

# Hihiko Engagement timeline



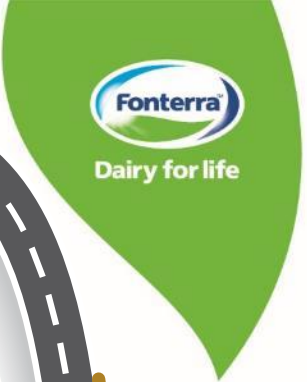
# Opportunity Charging - Unloading



# Depot Charging



# Our EV tankers journey to now



**AUG 22**  
**Sustainability Steer-co endorsement**

BEV hubs project put forward to the sustainability steer co for endorsement. Project successfully endorsed.



**NOV 22**  
**Milk-E first Collection**

Trial and assess the performance of a Battery Electric Vehicle, with battery swap technology.



**DEC 22**  
**McKinsey decarb tech scan**

Endorsement of our approach to decarbonisation of our milk collection operation, balanced against the rest of NZM activity and external studies.



**AUG 23**  
**Understanding the big picture**

Engaged Aurecon to carry out high level costing and pathway for 100% fleet electrification.



**SEP 23**  
**Charging design study**

Engaged Ergo for basis of design and site-based engineering estimates for installation.



**Nov 24**  
**Pilot kick off**  
Received approval to for pilot project to go ahead from senior leadership

