















ecofreeze - innovation for the future

A Smarter, More Cost Effective, Environmentally Friendly Way Forward

Less energy. Lower emissions. Smarter ownership. A breakthrough by CGS and Carrier, redefining cold chain sustainability.

CGS Hybrid Cooling System







Drive Efficiency

Reduce Costs By %32

Lead Sustainably



ecoFreeze, 30% LIFE CYCLE COST REDUCTION

Advanced Refrigeration for Efficient Transport

ecoFreeze is a diesel-electric Eutectic refrigeration system designed for efficient frozen goods transport—perfect for both last-mile and long-haul delivery. Its compact eutectic tube design maximizes cargo space while minimizing power use. With 8 hour temperature reserve and built-in real-time tracking, ecoFreeze ensures reliable performance and total product protection.





ECO INNOVATION



Reduced Running Hours



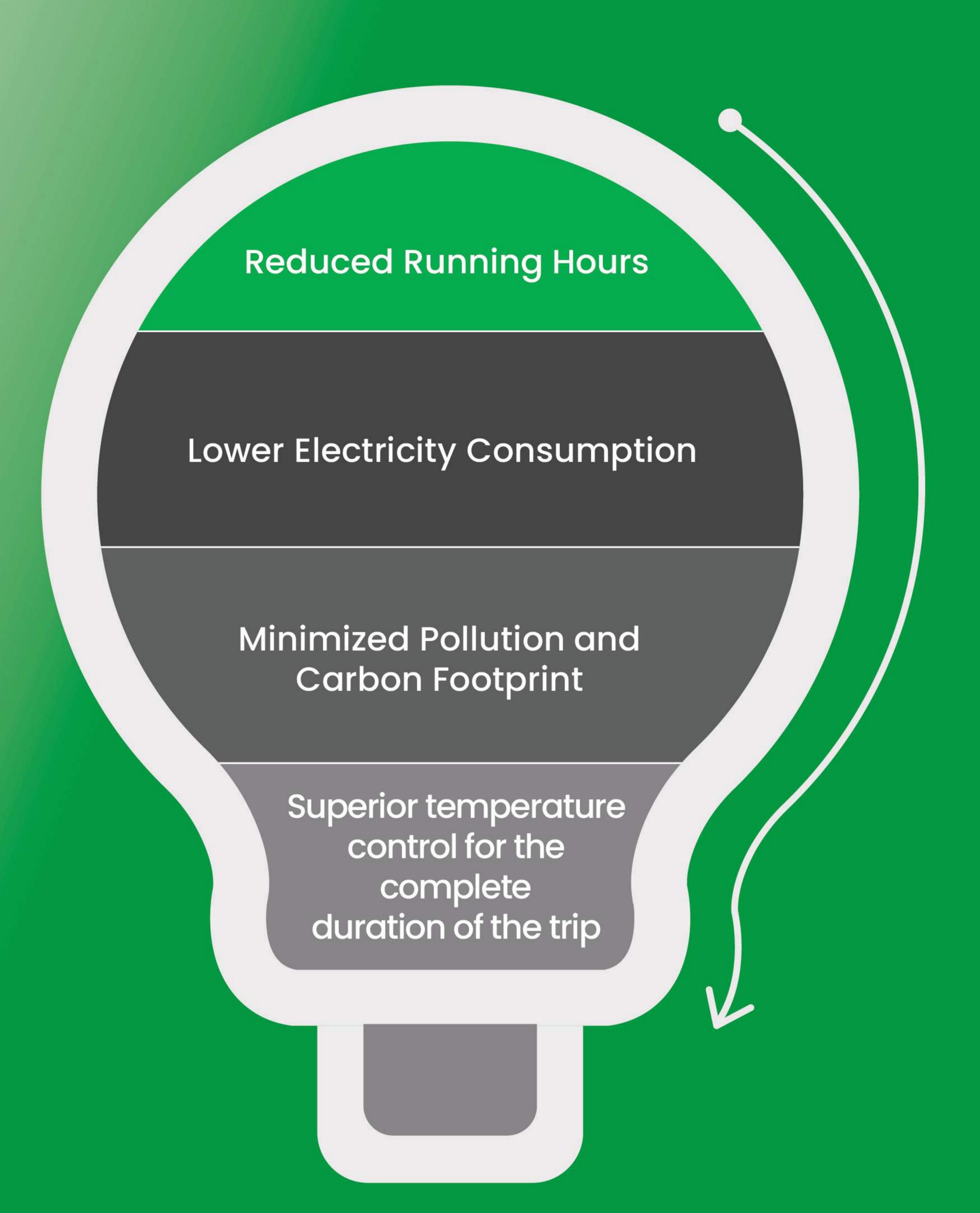
Minimized Pollution and Carbon Footprint



Lower Electricity Consumption



Superior temperature control for the complete duration of the trip





COMPARISON

ecoFreeze vs Conventional/ Diesel Unit –

Running Hours Comparison Condition

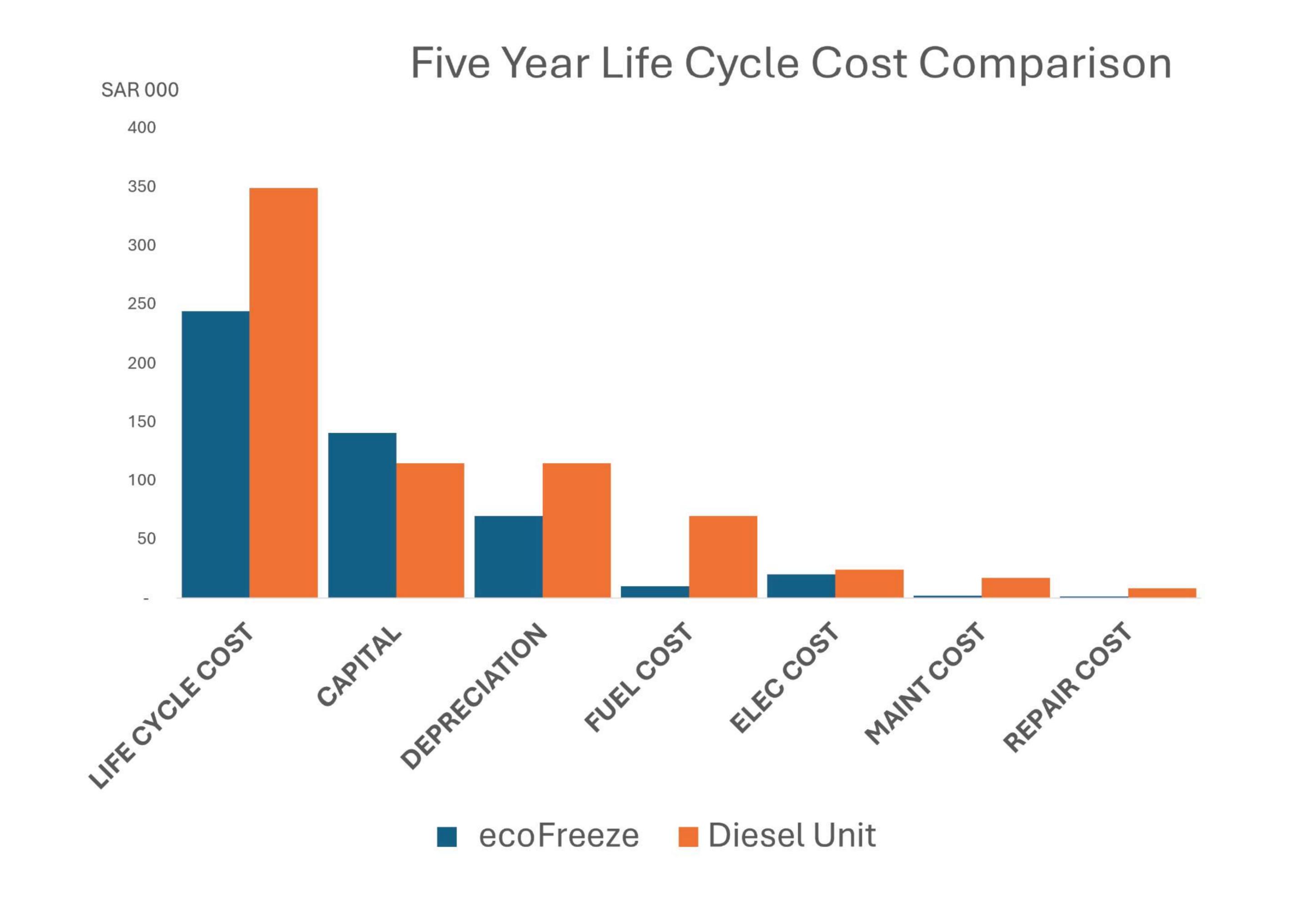
Daily Running Hours (Standby, 14 hr/day)

Daily Running Hours (Diesel Engine, 10 hr/day)

Annual Running Hours (Standby, 312 days)

Annual Running Hours (Diesel Engine, 312 days)

ecoFreeze	Conventional Unit / Airflow Unit	Reduction with ecoFreeze
6 hours	11.66 hours	48.5% less
2.5 hours	6.6 hours	62.11% less
1,872 hours	3,638 hours	48.5% less
780 hours	2,059 hours	62.11% less



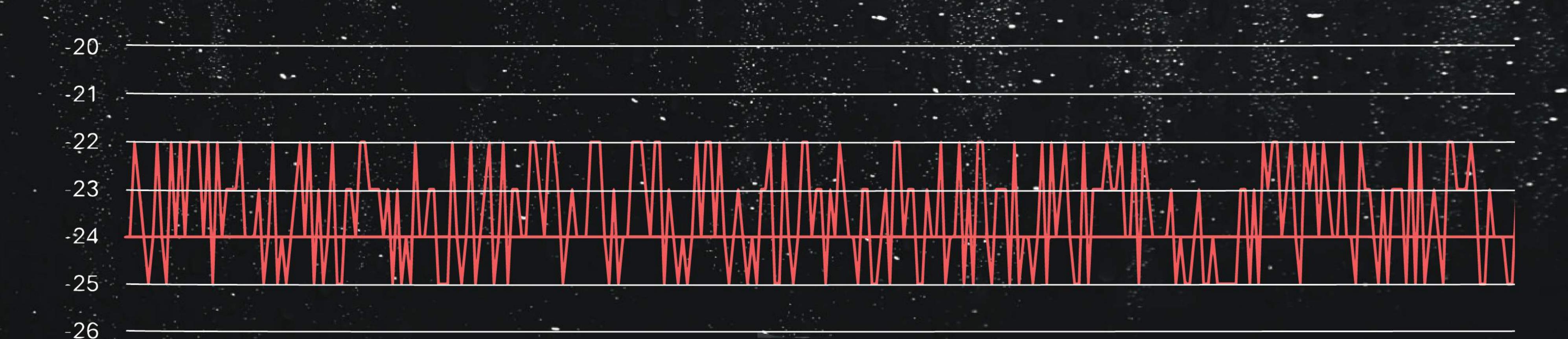


TEMPERATURE STABILITY

Efficient Heat Transfer:

- Superior to standard airflow systems.
- Enhanced by large cooling energy stored in cotectic plates.
 Special eutectic evaporator with long ceiling-mounted beams ensures uniform temperature distribution.

ecoFreeze box temperature over 7 days operating Set point -24c





BUILT IN SMART TECHNOLOGY

IOT Asset Management System

Track temperature, service, routes, and alarms in real time—ensuring complete control and proactive performance management.

24/7 Operation Ready

Tailored for frozen food and ice cream deliveries—ensures reliable, continuous cooling without excessive energy consumption.

Automatic Diesel Restart

Ensures seamless operation during electrical outages, reducing the risk of spoilage and downtime.





COOLING REDEFINED

Even cooling with Hybrid Technology

- Unique Hybrid layout.

- Ensures uniform temperature distribution through the Load.
 Enhances product safety by maintaining consistent cooling.
 Maximizes usable loading space for efficient storage and operations

Consistent Temperature Control

Maintains optimal storage, never dropping more than 2°C below set point—ideal for temperature-sensitive goods.



ENERGY EFFICIENCY

Efficient Heat Transfer:

The secondary refrigerant absorbs and releases heat efficiently through phase changes (freezing/melting).

Reduced Energy Consumption:

- Minimizes the need for continuous operation of the refrigeration unit system.
- Maintains a stable temperature for extended periods.
- Reduces wear and tear on mechanical and refrigeration components.

Energy Storage:

- The Eutectic system stores a large amount of cooling energy.
- Ensures continuous cooling even during temporary failure of the unit.

Product Protection with built in safety factors:

Maintains temperature for up to 8 hrs reserves.



WHY CHOOSE CGS HYBRID TECHNOLOGY

Lowest total cost of ownership and life cycle costs of ANY transport refrigeration unit

Reduced Running Hours

Optimized operations significantly lower equipment wear and tear, reducing maintenance and extending lifespan—delivering long-term cost savings and greater reliability.

Minimized Maintenance & Downtime

With 70% less unit runtime and fewer moving parts, maintenance needs are drastically reduced, ensuring smoother operations and less service disruption.

Lower Electricity & Fuel Consumption

Engineered for energy efficiency, the system minimizes power usage—cutting utility and diesel costs while supporting sustainable, cost-effective performance.

10-Year Operational Lifespan

Designed for longevity with 70% fewer running hours—achieving a significantly lower lifecycle cost (LCC).





PERFORMANCE ON THE ROAD

Lower Center of Gravity

Enhances stability, safety, and reduces rollover risk—even at high speeds or tight turns.

Reduced Air Resistance

Streamlined design improves fuel efficiency and driving performance

Extended Tire Life

Better weight distribution and road grip lead to reduced tire wear and truck maintenance.





ENVIRONMENTAL & FINANCIAL IMPACT

75% Reduction in Carbon Emissions

Lower emissions support corporate sustainability goals and help meet environmental regulations.

Sustainability Without Compromise

Fuel efficiency, reduced pollutants, and long-lasting components lower your environmental footprint and operational costs.





PEACE OF MIND GUARANTEED

3-Year Warranty & Support

Backed by a comprehensive warranty and expert service for three years—ensuring confidence, uptime, and protection for your investment.





ALL IN ONE SYSTEM

Efficiency. Reliability. Sustainability

Experience a game-changing shift in cold chain logistics with CGS Hybrid Cooling where innovation meets cost-efficiency and eco-conscious operation.

