Lowering your emissions through innovation in transport and energy infrastructure

Independent Validation Statement

CoolRun Pods Trial – Freight Innovation Fund Programme

Project Overview

Cenex, the UK's Centre of Excellence for Low Carbon and Fuel Cell Technologies, conducted an independent assessment of the CoolRun Pod system developed by CoolRun Logistics Ltd. The study compared CoolRun Pods to conventional 16-tonne diesel refrigerated vehicles using real-world telemetry data from Pilgrim Foods, operational input from Welch Group, and Cenex's in-house energy and emissions models. The study was part of the Department for Transport's Freight Innovation Fund programme.

Validated Results

- Total Cost of Ownership (10 years): Savings between £19,800 and £51,900, depending on duty cycle and utilisation.
- GHG Emissions Reduction: 29 to 51 tonnes of CO_2e over ten years, with up to 9% additional savings using renewable electricity.
- Operational Performance:
  - Maintained temperature stability during extended trials.
  - Enabled non-refrigerated and electric vehicle use for chilled and frozen deliveries.
  - Reduced diesel use and maintenance costs compared to conventional TRUs.

Conclusion

Cenex's independent analysis confirms that the CoolRun Pod system delivers measurable cost and carbon savings relative to diesel transport refrigeration units. The results demonstrate the technology's potential to support low-emission, energy-efficient cold chain logistics and to contribute to the decarbonisation of the UK freight sector.

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