



ZeroLoco™ Fiji: Project Summary

Prepared by MLC for FSC, September 2022

Background

Fiji Sugar Corporation relies on costly diesel trucks and locomotives which emit CO₂, to transport sugarcane from the field to the mill.

A ZeroLoco™ fleet will enable FSC's transition to a highly efficient rail transport system which utilises **zero-carbon**, locally sourced & low cost biomass fuel.

Financial Benefits (FJ\$)

- ROI: 24% | Payback: 4.15 yrs (over 50yr lifetime)
- Save 64% on overall costs per tkm
- Save \$2,050 per loco/day (\$367,000 /yr)

Climate Impact

- 96% CO₂-e emissions reduction
- Reduce 147 t CO₂-e per loco/year
- Eliminate 4.9 kt CO₂-e for every \$1m invested (over 50yr lifetime)

ZeroLoco™ Facts

- 240 t load capacity on 1.5% grade
- 400 hp, 60km/h rated speed
- 100 kg of biomass fuel required to haul 100 t of sugarcane to the mill in Fiji
- 26 t loco weight, 6.5 t max. axle load

ZeroLoco™ Pilot Project

1. **Construct** ZeroLoco™ prototype in New Zealand (12 months)
2. **Prototype trial:** ZeroLoco™ to haul cane for FSC during crushing season (6 months)

The pilot will provide data to help inform FSC's decision to implement a ZeroLoco™ fleet.

Funding

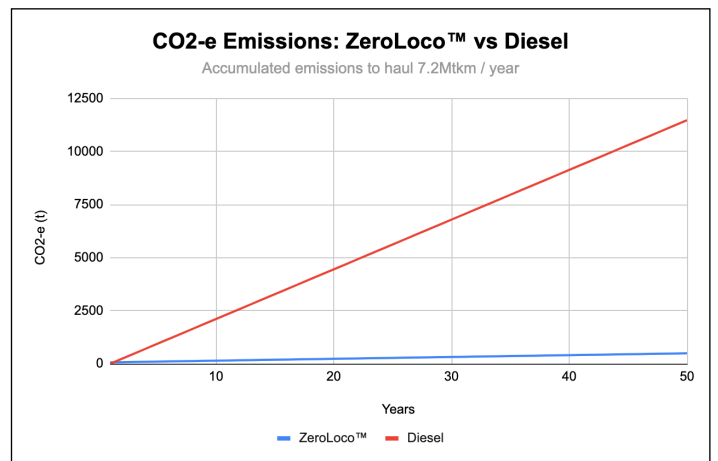
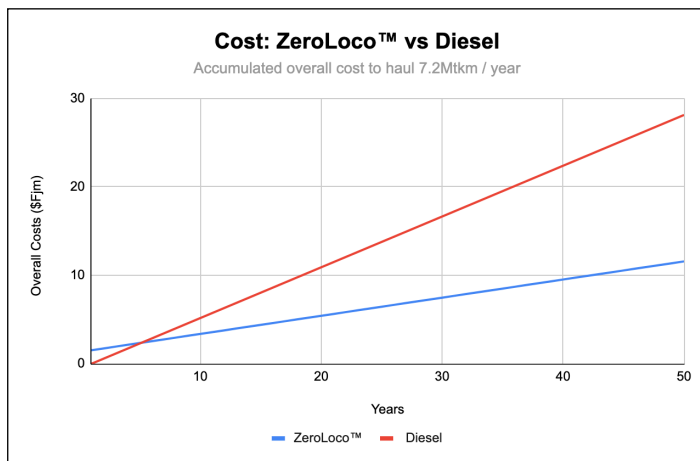
The pilot project will cost **US\$1 - 1.2m**. FSC is only expected to cover the cost of facilities, biomass and crew.

Memorandum of Understanding

Signing will facilitate joint efforts to secure third party support for this project.

With a signed MoU demonstrating FSC's support, MLC and GET.Invest* will seek third party funding to cover the capital cost.

*GET.Invest is a European programme that mobilises investment in renewable energy in developing countries. MLC have received GET.Invest's free of charge advisory services since 27/06/2022.



Supported by:



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