The background of the image is a dense, repeating pattern of green tropical leaves, including palm fronds and fan palms, creating a lush, naturalistic texture. The text is overlaid on this background in a clean, white, sans-serif font.

**Guangzhou Container Terminal
Adoption of Electric Prime
Movers Project**

In Guangzhou Container Terminal, Diesel Prime Mover contributes high CO₂ emission during combustion.



**CO₂ emission
by Diesel
Prime Mover
in 2020**

= 10,818,000kg CO₂

≈

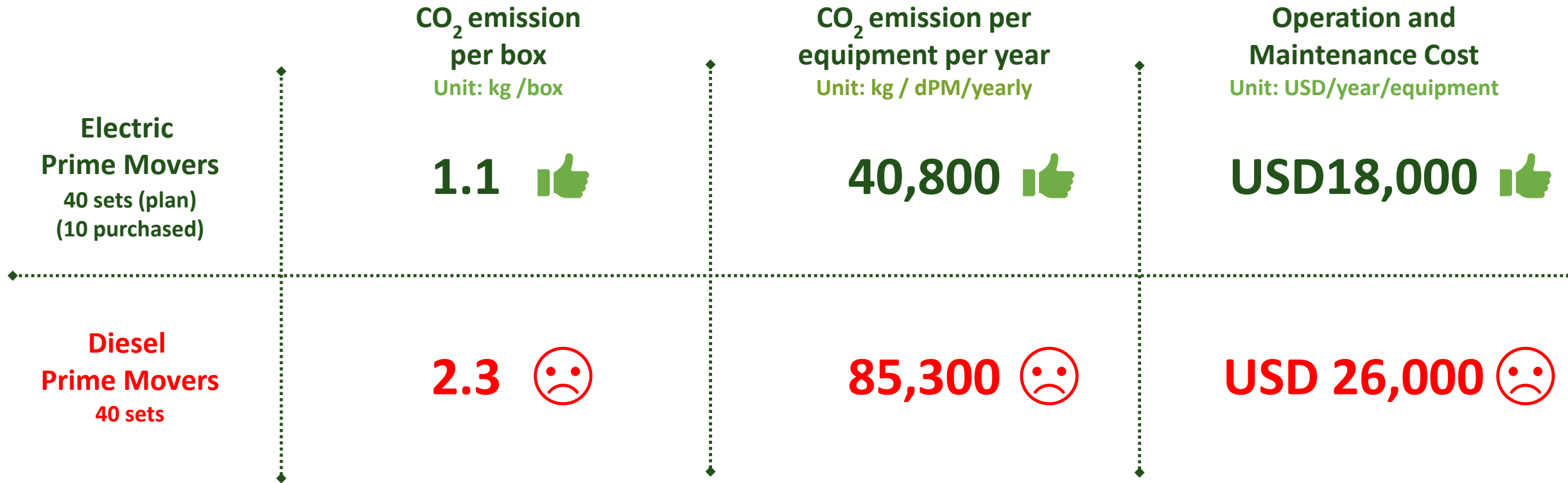


**About
5000
Tesla*.**

*Tesla Model S weight 1,961–2,250 kg

Comparison between Electric Prime Mover & Diesel Prime Mover

Electric Prime Mover is an Energy Efficient Port Equipment to Achieve sustainability objectives



- With the adoption of electric Prime Mover, a total of 44,500 kg CO₂ reduction per year per prime mover.
- Estimated at 1,780,000 kg reduction of CO₂ carbon emission in 2026.

Electric Prime Mover Advantages

Actual Deployment Data to ensure Measurable impact



Electric Prime Mover

Statistics is based on actual Electric Prime Mover Deployment

	Electric Prime Mover	Diesel Prime Mover	Comparison
CO ₂ Emission	1.1kg/Box	2.3kg/Box	↓ 50% 👍
Operation Efficiency	6.1Box/Hour	5.5Box/Hour	↑ 10% 👍
Equipment Failures	0.3 times/set	1.1 times/set	↓ 70% 👍
Noise	0	80-100dB	↓ 100% 👍

Financial Figures

Adoption of Energy Efficient Port Equipment is a Financial Viable Option.

	10X Electric Prime Movers (USD)	10X Electric Prime Movers (RMB)
Estimated Cost	10,707	70,300
NPV	442	2,900
IRR	9.87%	9.87%
Payback (yearly)	7.49	7.49
VIR	1.04	1.04

Change Management – An innovative Approach

- Traditionally, port workers can hear the diesel prime mover arrival by judging combustion engine's noise.
- Electric PM is silent during operation and "unnoticeable " especially at night as compare to diesel Prime Mover.
- We modify electric Prime Move with LED lighting & artificial sound to alert port workers

Installation of LED lighting to increase visibility at night.



Installation of sound simulator to give warning during operation.



Mouse-Over to play video

Engagement with Stakeholders

Invitation of Shipping Lines & Equipment Manufacturer on Adoption Ceremony to Promote Efficient Energy Port Equipment



Engagement of Prime Mover Drivers to buy in on Efficient Energy Port Equipment



Future Vision by Senior Management: Intelligent Charging Management System



System Function

01

Monitor to check the remaining battery

02

Monitor the status of charging piles

03

Intelligent analyst and match charging piles and PMs



Purpose

01

To protect the PM battery

02

To improve charging efficiency

03

To enhance the equipment utilization



THANK YOU