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**ROADMAP TO ZERO EMISSIONS RTG TRANSTAINER®**

**NEAR ZERO EMISSIONS TRANSTAINER®**



# BATTERY-ELECTRIC TRANSTAINER® RTG

## Do your terminal plans include cost reduction and zero emission yard cranes?

Since its introduction to the market in 2021, the PACECO-MITSUI Near Zero Emission (NZE®) Hybrid Transtainer® crane has delivered sustainable reliability and the performance you expect. It is equipped with a large capacity lithium-ion battery bank and a small diesel engine genset, to decrease fuel consumption, lower emission of CO2, NOx, and PM particles, and reduce maintenance cost without any impact to crane performance. The NZE® concept also provides a low-cost conversion path to a zero-emission solution once infrastructure for hydrogen or shore power are in place.

### NZE to Zero Emission (ZE) two-phase concept

Phase 1: Immediately lower emissions and operating expenses by procuring NZE® Transtainers and by upgrading conventional Transtainers to NZE.

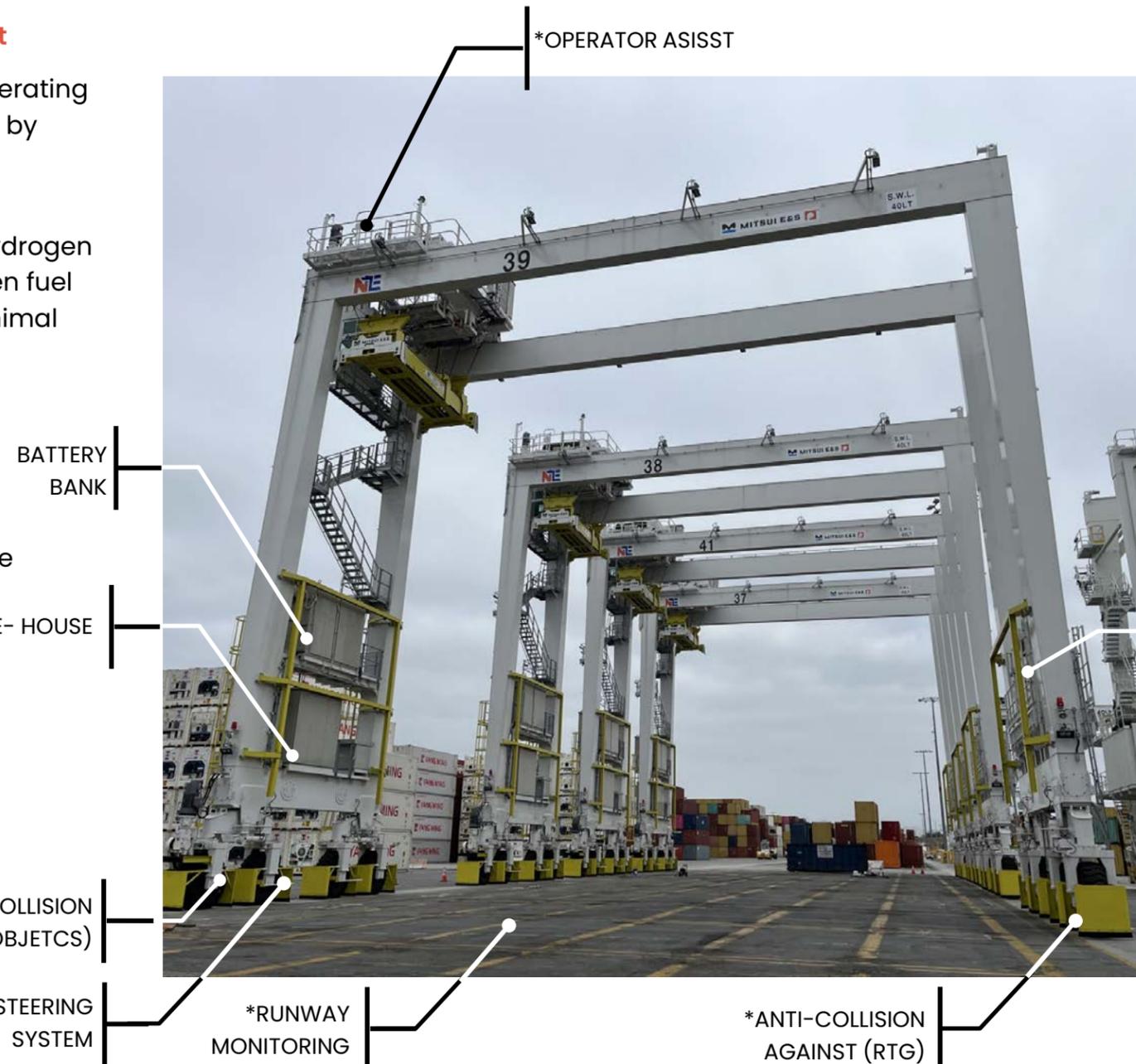
Phase 2: Easily swap the diesel genset with a hydrogen Fuel Cell (FCPP) Power pack and hydrogen tanks to achieve zero emission when hydrogen fuel supply is readily available in the terminal. Minimal changes to components or electrical system necessary for FC upgrade.

### UPGRADE OF PACECO CONVENTIONAL TRANSTAINERS TO NZE

PACECO conventional RTG Transtainers can be upgraded to an NZE® Transtainer® by adding battery banks, replacing the engine, and modifying the PLC software. Replacement of electrical components (i.e., PLC and Inverter) may be required, depending on the electrical system model.

Rest easy knowing your investment today will have a long service lifetime even as environmental regulations evolve.

Please contact PACECO for a proposal to upgrade to NZE® Transtainer®.



## MAIN PARTICULARS

Item	NZE Transtainer	Conventional RTG
Rated Load	40LT	Same
Hoist Speed (m/min)	No load: 52 Rated load: 23	Same
Traverse Speed (m/min)	70	Same
Travel Speed (m/min)	90 / 135	Same

### NZE POWER SYSTEM AT A GLANCE:

Engine output	Min. 60kW	Conventional RTG engine is about 500kW. Easy to swap with an FC module in the future
Battery bank	> 600%	Compared to PACECO existing Hybrid Transtainer
Co <sub>2</sub> emission	60~70% less	Compared with conventional RTG
Emergency recovery	Available	For several types

### Diesel Genset replacement

Upgrade an NZE® Transtainer® with a Fuel Cell Powerpack



### AT-A-GLANCE

- 60 kW Fuel Cell
- 64 kg Hydrogen on-board