DP WORLD

BEYOND THE PILOT

The real challenge of scaling electric container handling equipment

PREAMBLE: ELECTRIFICATION AT SCALE HAS BROADER IMPLICATIONS

DP World Driven by "Our World Our Future"

- At DP World, we handle 10% of world trade and are committed to net-zero by 2050 via SBTi Verification.
- Electrification & Alt Fuels Pilots…
  - 2023 eTTs / aeTTs
  - 2024 eSCs / eECHs / HVO / Biofuels
  - 2025 H2 / eRSs
- Scope 1 + 2 for CHE >40% for ports
- Global CHE fleet electrification <5%
- How will this impact port infrastructure? What reinforcement infrastructure should we invest in?

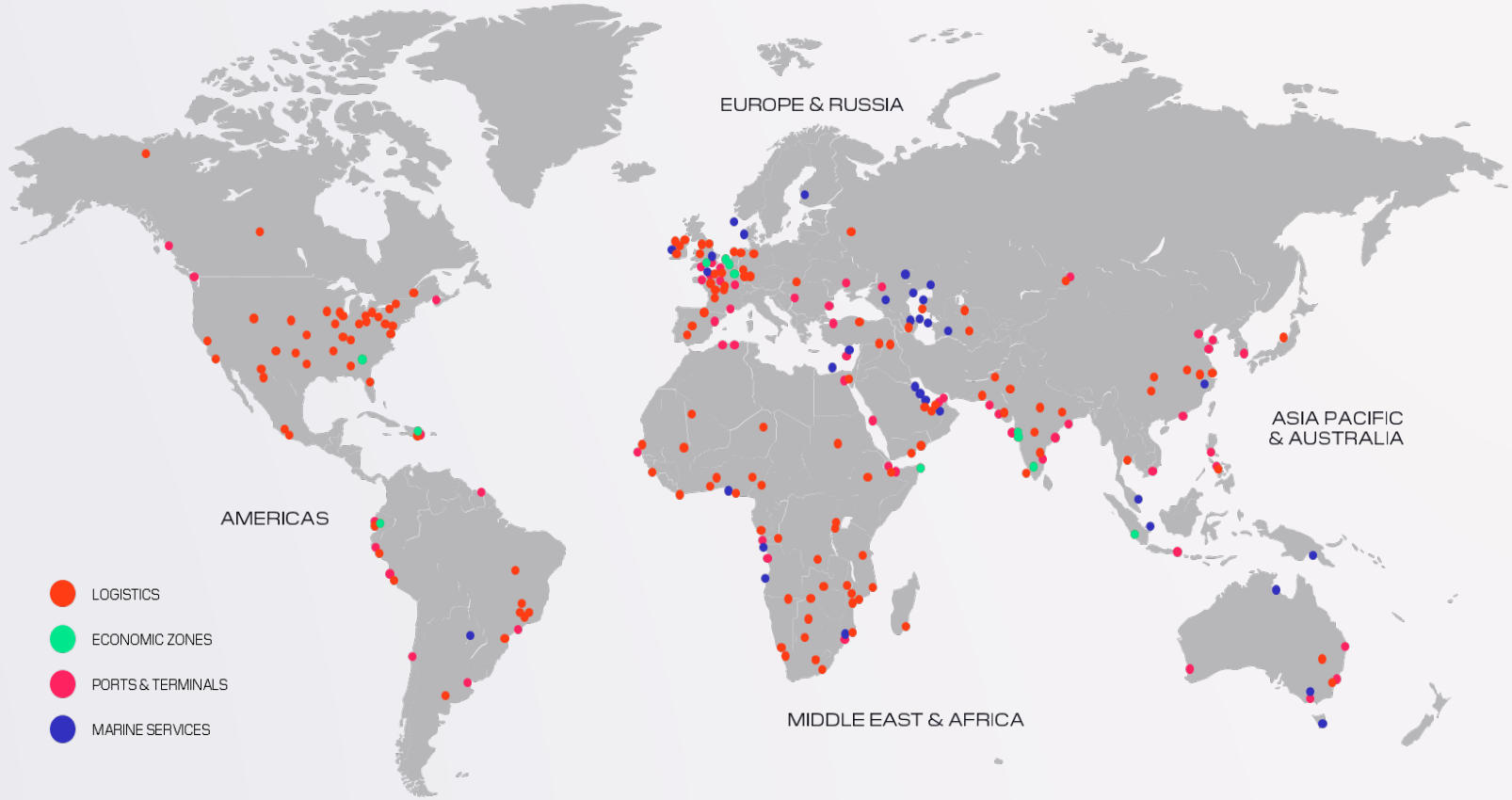
560+ BUSINESS UNITS

75+ COUNTRIES

115K+ EMPLOYEES

102M TEU GLOBAL CAPACITY

$42BN CAPITAL EMPLOYED



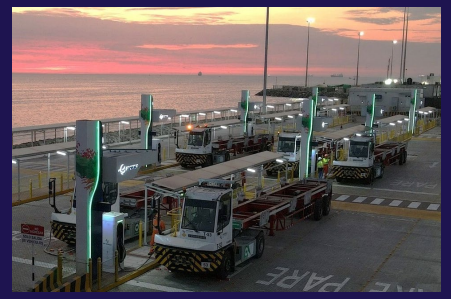
FEEDBACK ON ELECTRIFIED EQUIPMENT AT SCALE IS POSITIVE

Performance insights from full-fleet deployments

- Energy cost savings exceed 75% when fleets switch from diesel to electricity
- Fast charging plus smart scheduling maintains uptime on par with diesel while cutting noise and emissions
- Operator feedback highlights smoother handling and lower fatigue, supporting workforce retention

Terminal Tractors

- 20 electric tractors with 10 dual 200 kW fast chargers in Callao save about $500K USD per year, reducing energy cost by more than 75%
- One-hour fast charge delivers roughly 14 hours autonomy, averaging 13 kWh per operating hour across 6,500 hours per year
- Electricity-to-diesel energy cost ratio is approximately 1:5



Straddle Carriers

- 8 electric fast charge straddle carriers already in service, with a follow-up order for 12 more
- 4 hour autonomy without charging; 45min top-ups during meal breaks raise state of charge from 10–20% to 80% via a Kempower 350kW DC system
- Noise and vibration are lower, and operators report higher cabin comfort

Other

- Electric empty-container handlers are operating reliably across multiple terminals
- Reach-stacker pilots are under way in select locations
- Users welcome the quieter cabins, though some note an excess of touch screens

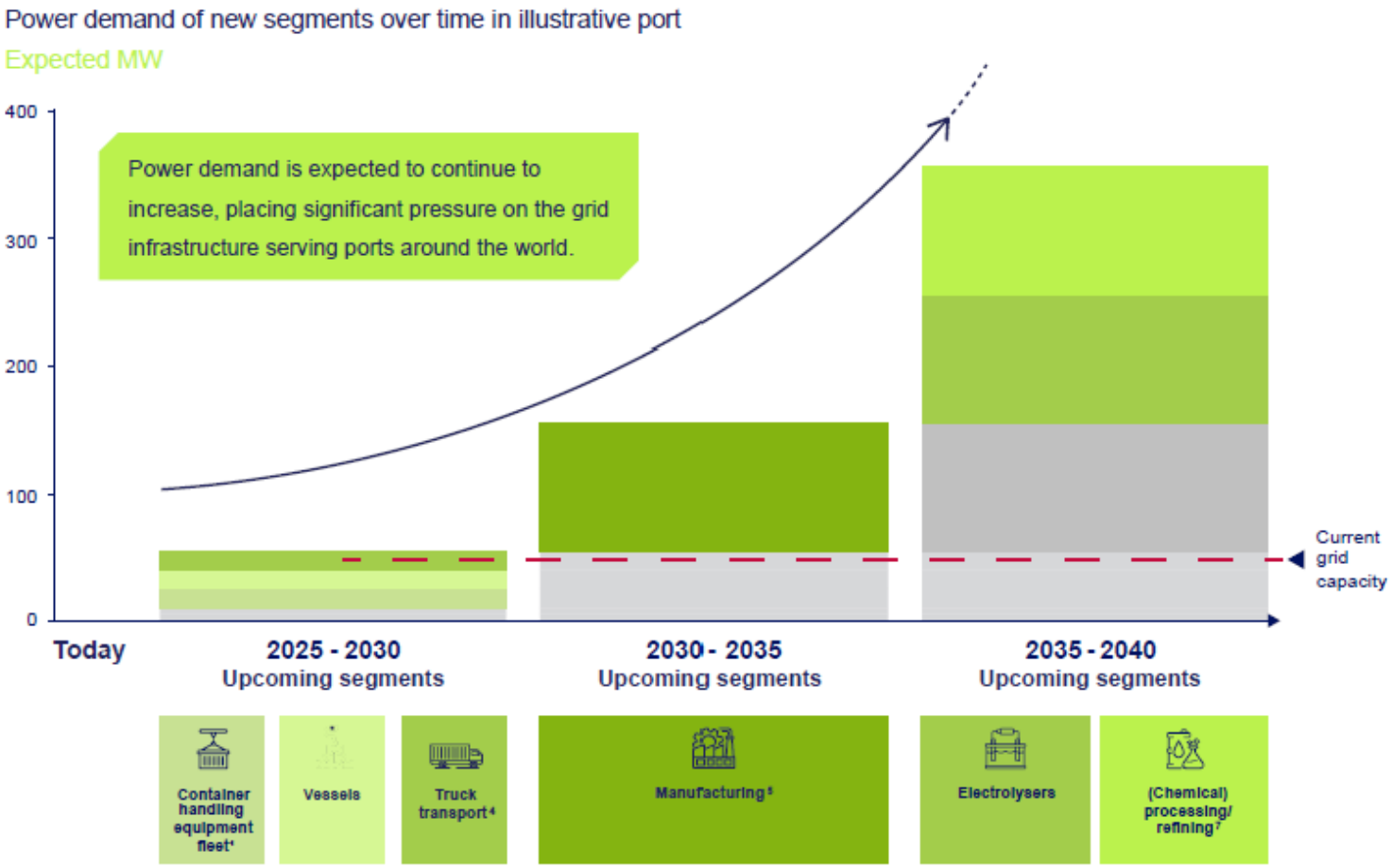
ELECTRIFICATION AT SCALE WILL REQUIRE GRID REINFORCEMENT

Cost of Energy Outpacing Inflation

- Energy Cost ~$2.5-5.0/TEU, ↑ at ~5% YOY
- Electrification will ↑ electricity prices as demand ↑, especially with electrification of residential /commercial / industrial assets
- There will be competition from other industries such as data centers who are willing to pay for faster deployment of power infrastructure

EXHIBIT A

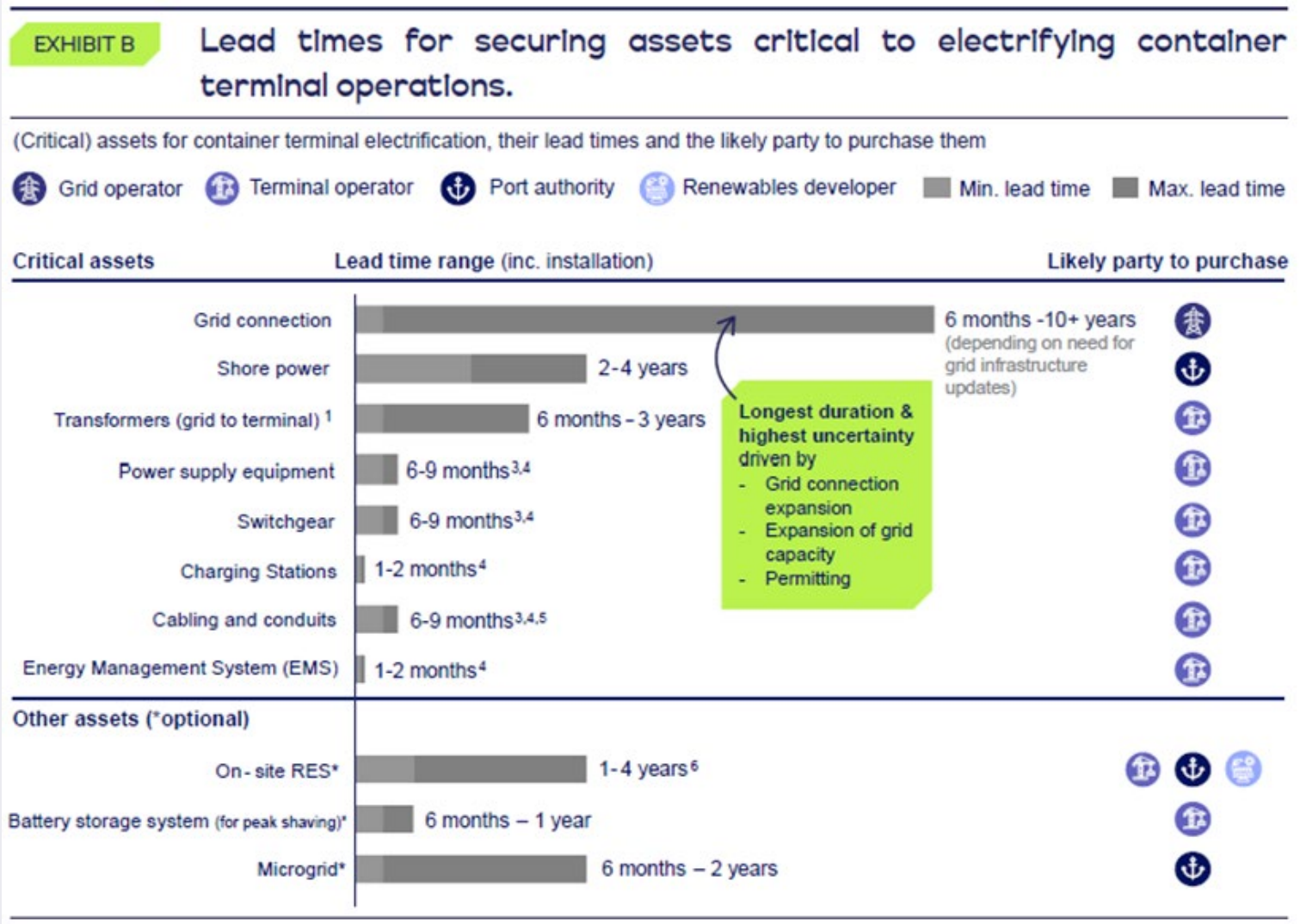
As the broader port electrifies, power demand will increase in each end-use sector, with container terminals as one of the first growth segments



ELECTRIFICATION AT SCALE WILL REQUIRE GRID REINFORCEMENT

Grid connection lead times may delay electrification

- Grid reinforcement (substations, feeders, P&C) at the port will be needed to account for ↑ capacity from electrification and shore power
- Grid connection upgrade lead times now 5-8 years in developed nations, not including upstream distribution / transmission network upgrades



PARTING THOUGHTS

Moving from pilots to platforms

- As ports, we should not just go through the energy transition, but we should transform into energy platforms capable of managing the power requirements for the port of the future
- Secure grid headroom early, file capacity requests now with local utility and pair with onsite renewables to defer expensive upgrades
- Consider a battery recycling strategy for second life battery applications to reduce power demand behind the meter

THANK YOU

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