



The NewVolt Network.

Fast truck charging with 100% renewable energy across a national network

QTLC Webinar - Flicking the Switch - Where are we on Electric Trucks?
Rainer Knobloch - NewVolt Co-Founder

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Prepared by NewVolt Infrastructure
Pty. Ltd.



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NewVolt's Purpose:

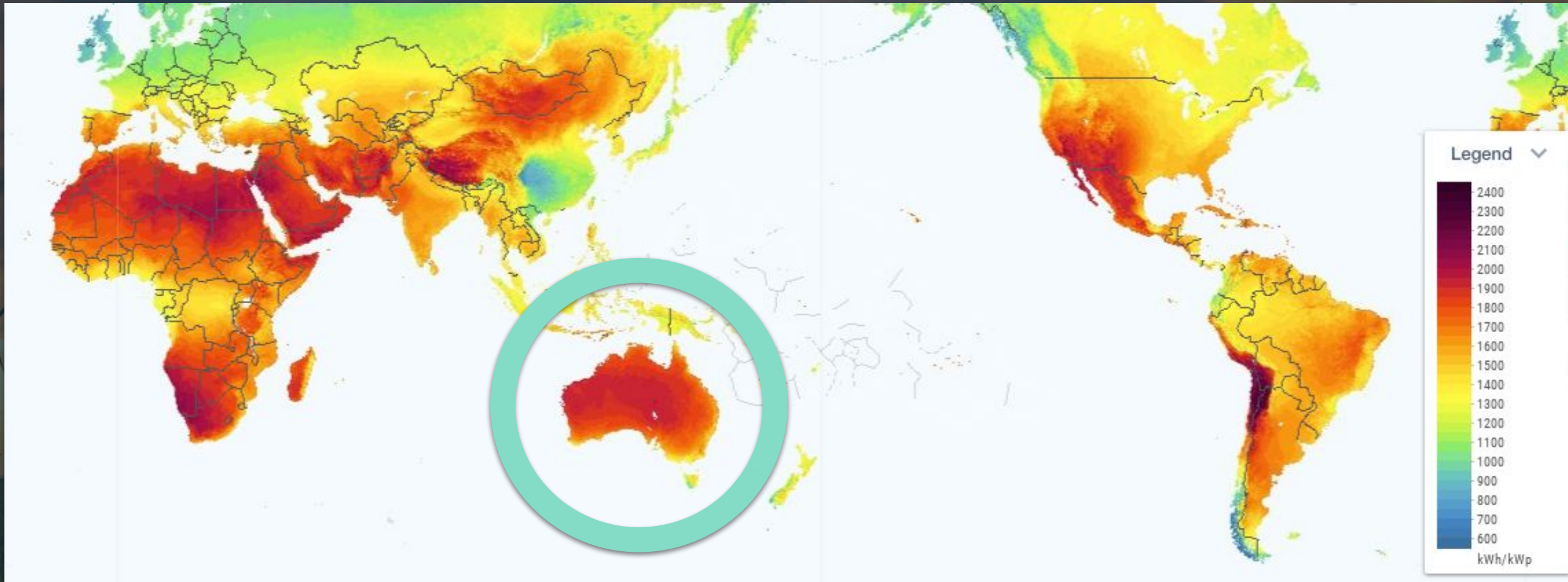
We want to provide **freight efficiency & supply chain security** for Australian industry in a **net zero world**.

NewVolt's Vision:

We are delivering price certain, reliable energy through a **national network** of shared charging infrastructure, exclusively for the transport industry.



We have a **unique** energy opportunity.



Source: <https://globalsolaratlas.info/map> (World Bank)

The World Bank and the International Finance Corporation, collectively The World Bank Group, have provided this Global Solar Atlas in addition to a series of global, regional and country GIS data layers and poster maps, to support the scale-up of solar power in our client countries.



Back-at-Base / Depot



CapEx costs worn by operators or end buyers

The energy & charging infrastructure requirements will be split.

Shared-Use Hubs & Networks

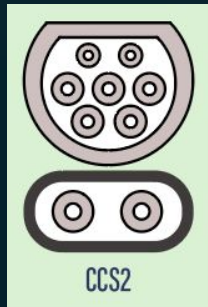


CapEx costs worn by mix of predominantly private (and public) investment



Fast charging status today - Megawatt charging is on the horizon.

Fast Charging



TODAY

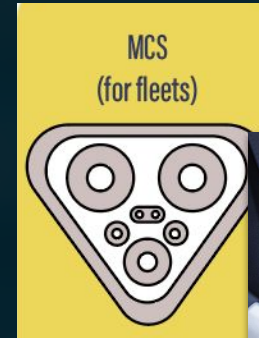
up to ~50-250 kW



TOMORROW (next 12 months)

up to 450 kW

Megawatt Charging (MCS)



SOON (2025/2026)

up to ~3.5 MW

Charging Time

HOURS

MINUTES

You will have choices.

**Back-at-base charging
will support many
applications.**

**...But there are
considerations &
potential constraints,
especially at scale.**

**Site
Constraints**

**Grid Capacity
Limits, Cost**

**Investment
& Technology**

**Site Lease
Infra costs.**

**Operational
Complexity**

**Design &
Layout,
Electrical**

**Performance
& Risk**

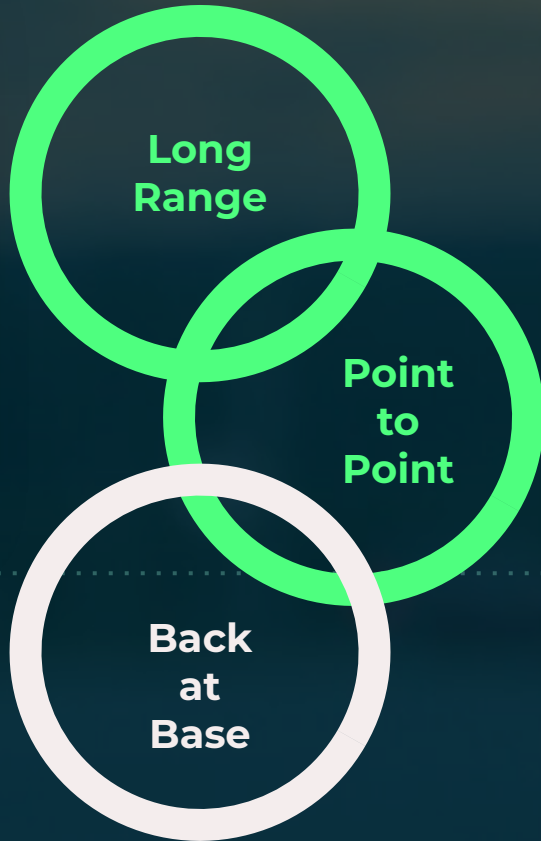
**Availability,
reliability,
flexibility**



Shared-Use charging will play a critical role.



Shared Use



En Route Highway & Corridor Sites

Intermodals, Ports, Hub & Spoke

Operator & Depot Sites

Shared-Use Hub Benefits

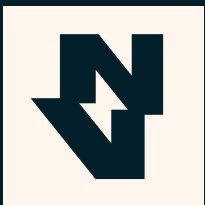
Access to Fast Charging
(Significant energy is required)

Guaranteed Availability
(Long term contracts)

Contracts not Capex
(Efficient utilisation of infrastructure)

Price locked energy
(Cost Certainty)

Private



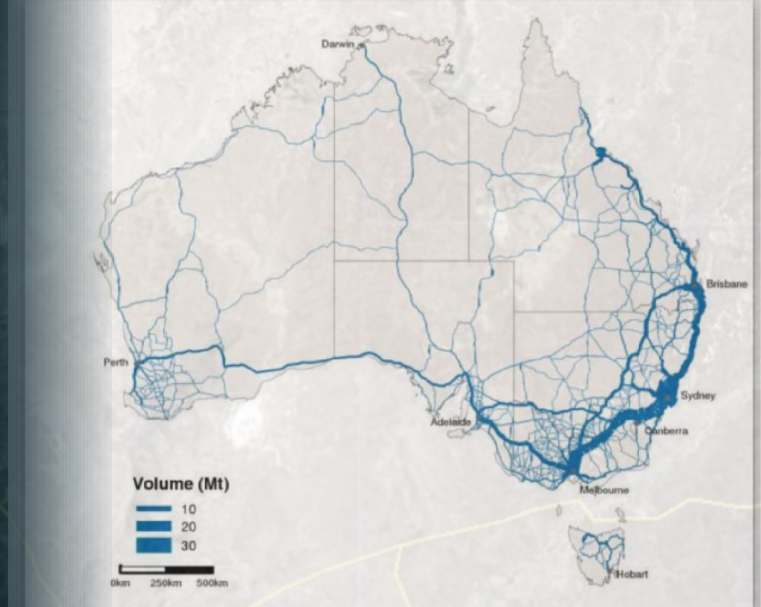
**NewVolt
Network**

A national network of **shared-use** charging hubs.

Low-cost **renewable energy** & co-located fast-charging.

At the **right** strategic locations locally, regionally and nationally.

Creating **value** for all users of electrified road freight in Australia.



PROJECT#1

Melb-West Q2-2025

PHASE 1



14⁺ Sites
by 2027

PHASE 2

40⁺ Sites
by 2030

PHASE 3

60⁺ Sites
by 2040

-  Hub & spoke site
-  En route site

We are seeing the shared-use model emerge in other markets

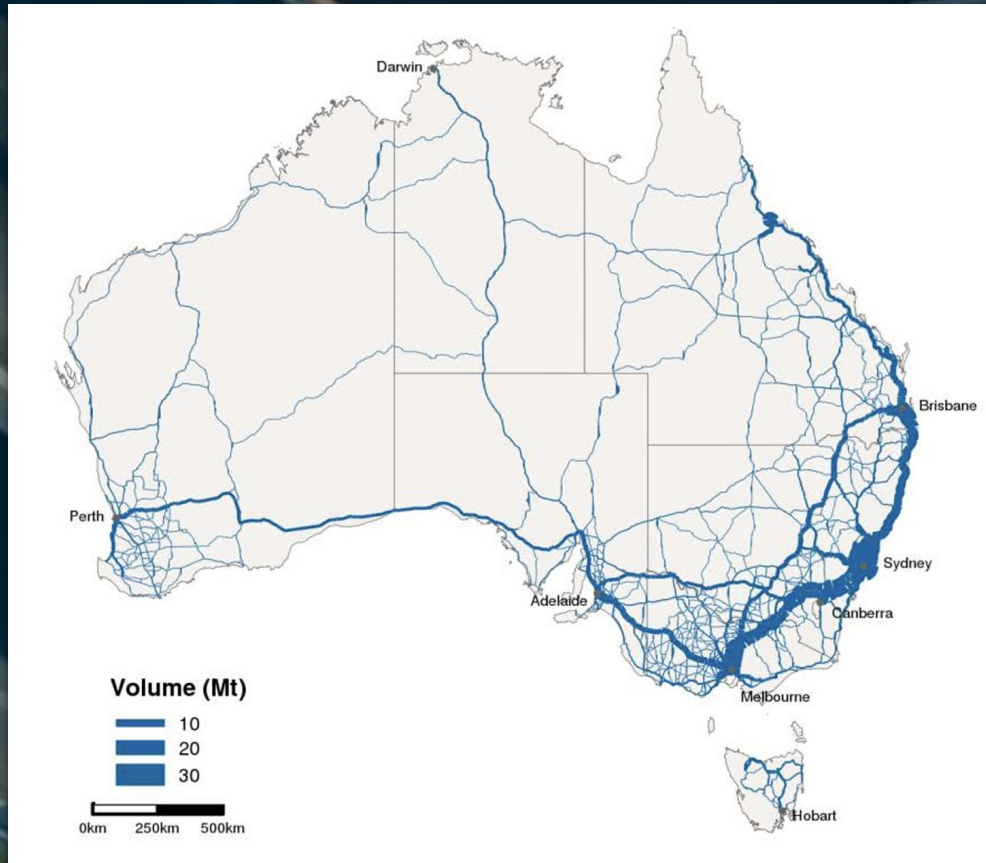




Our road freight network is **simple.**

The freight task is highly **concentrated.**

The challenge is to deliver that **low cost energy where it is needed.**





**Activation
Precincts
offer a logical
place to start.**

Grid & energy capacity,
alongside road network

INFRASTRUCTURE

DENSITY

Established industry
clustering, with high
volume potential
energy (fuel) demand.

**ACTIVATION
PRECINCTS**

**STAKE-
HOLDER**

Supportive environment
including regulation,
policy, ESG, or other
drivers.

**TECHNOLOGY
& ECONOMICS**

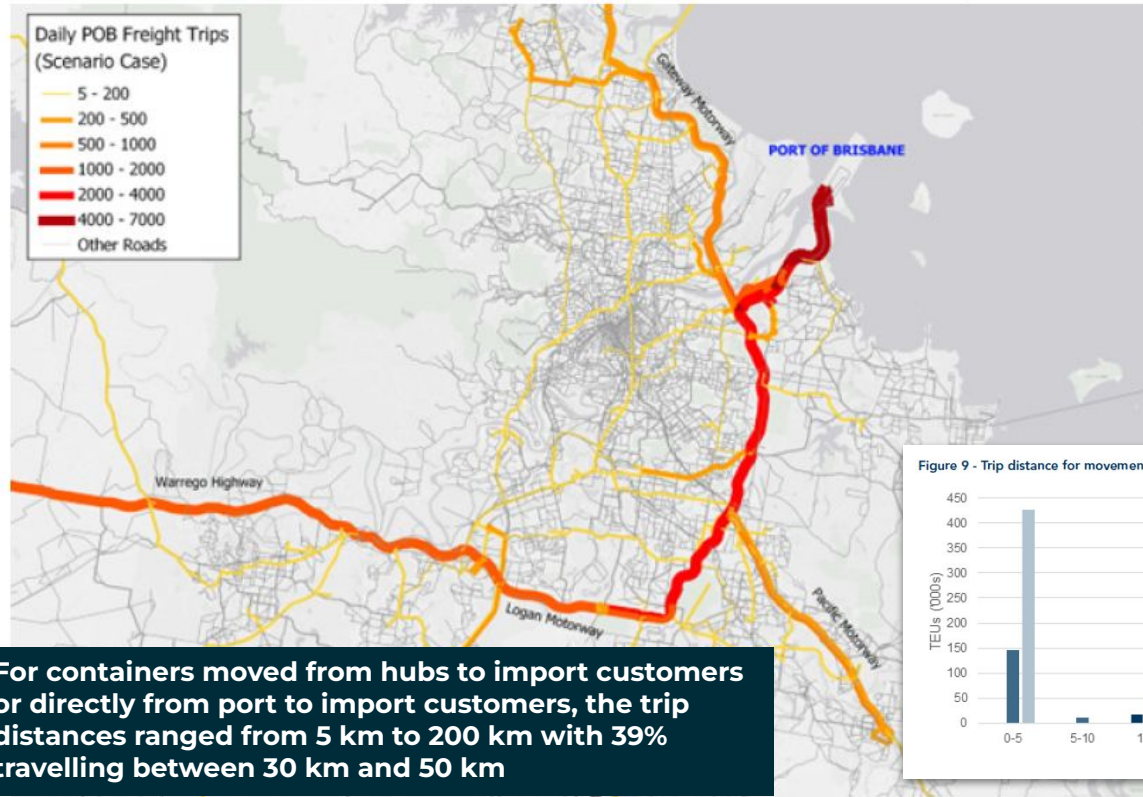
TCO, truck & charging
capability, & duty cycle



Port of Brisbane Container Movements Example (GHD - 2023 OD Study)

PBPL Origin-Destination Study - <https://www.portbris.com.au/documents/d/port-of-brisbane/pbpl-origin-destination-study-2023-1-pdf?download=true>

Figure 29 - Forecast container vehicle routes to and from the Port in 2040 (average weekday trips)



For containers moved from hubs to import customers or directly from port to import customers, the trip distances ranged from 5 km to 200 km with 39% travelling between 30 km and 50 km



Figure 3 - Map of import container destinations— Brisbane suburbs²

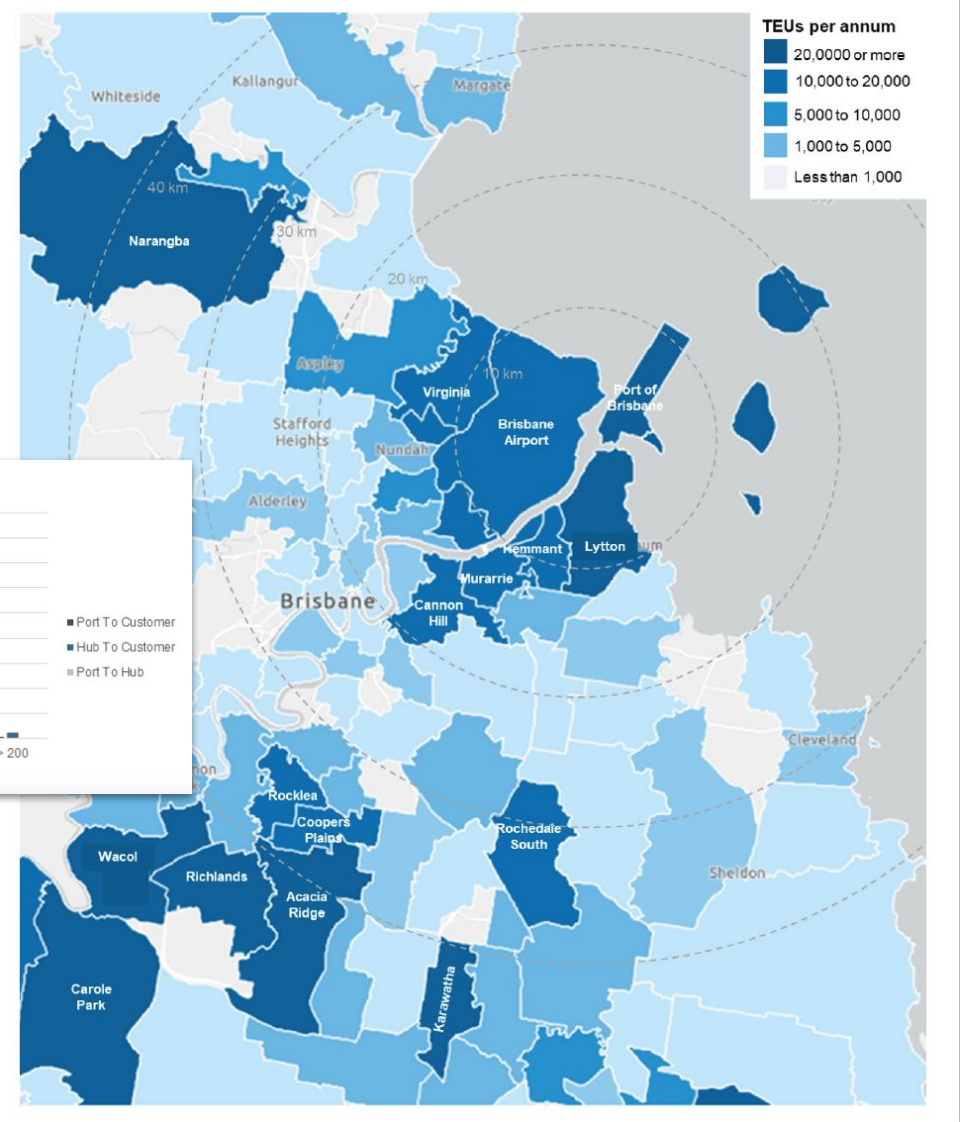
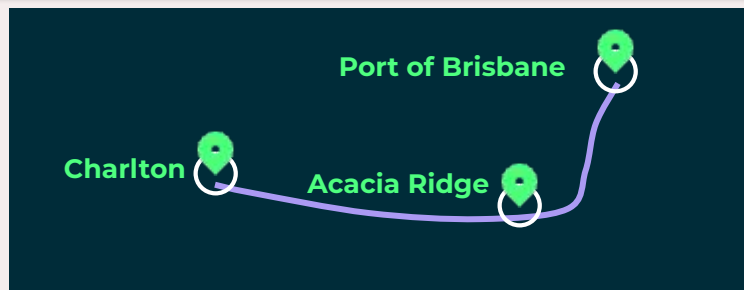
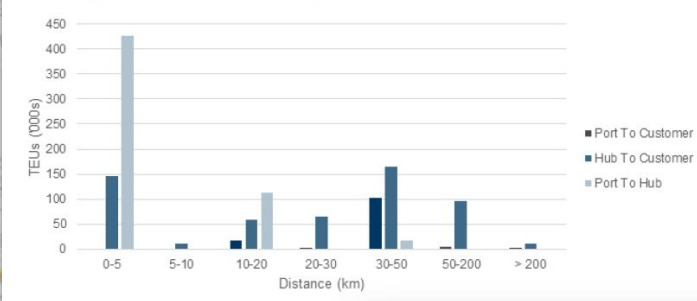


Figure 9 - Trip distance for movements of full import containers



- 1.** | **Funded BEV *cost offset* (vs diesel equivalent) for ~20 heavy / medium BEV trucks.**
- 2.** | **Guaranteed, reliable *fast & slow charging* (8x400kW Charging Bays + 22x175kw bays)**
- 3.** | ***Strategically located* secure, logistics-dedicated facility**
- 4.** | ***Secure*, gated 24-7 operated site with amenities & facilities for drivers**
- 5.** | ***Live Q2-2025* - Planned operational commencement date.**

**Melbourne
West**

**Electrified
Freight Hub**

Want to learn more?
altona@newvolt.com.au



How to stay informed & get involved...

Stay
educated
on
technology

Stay
up-to-date
with
trends

Embrace &
participate
in
trial projects



DATA FOR TESLA 1



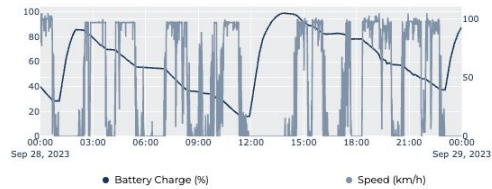
Total Kilometers **1040**

Average Kilometers/Day **1040**

Estimated Deliveries **7**

Average Deliveries/Day **7**

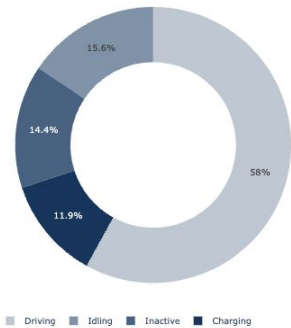
Battery Charge (%) & Speed (kmh)



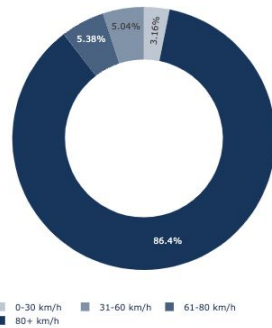
Battery Charge (%) & Distance (km)



Truck Activity



Distance By Speed



Energy In



Energy Out



DATA FOR ECASCADIA



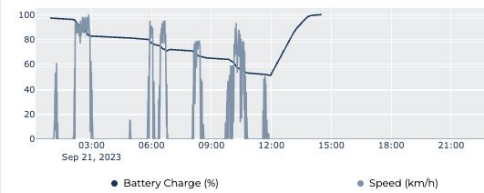
Total Kilometers **216**

Average Kilometers/Day **216**

Estimated Deliveries **0**

Average Deliveries/Day **0**

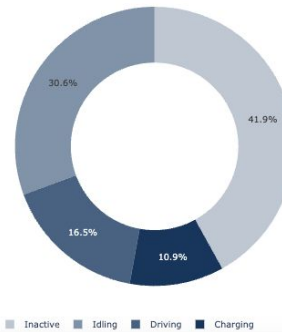
Battery Charge (%) & Speed (kmh)



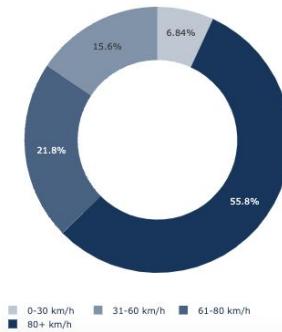
Battery Charge (%) & Distance (km)



Truck Activity



Distance By Speed



Energy In



Energy Out



We want to hear from you as we plan, develop & prioritise our network.

www.newvolt.com.au

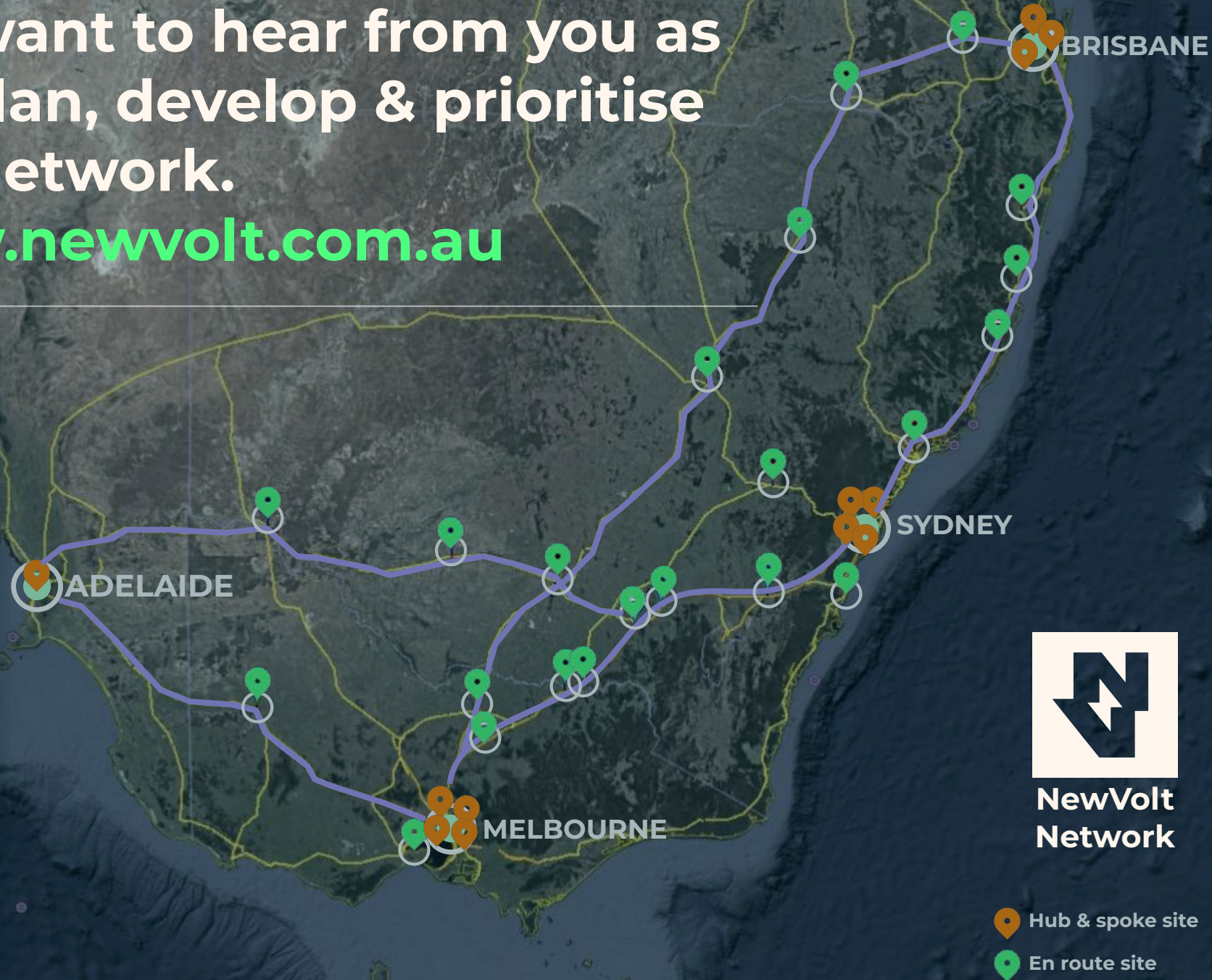


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- En route site