

RUN ON LESS – ELECTRIC DEPOT

WHAT IS IT?

BOOTCAMP

DEPOT
VISITS
PROFILES

DASHBOARD
DATA

STORIES
FROM
THE RUN

A real-world focus on
early electric truck deployments
in urban and
regional haul operations.

INDUSTRY
EVENTS

FINDINGS

DETAILED
REPORTS
IN 2024



COMMERCIAL EV MARKET

5.2M electrifiable trucks
saving 100M MT CO2E*
still valid
(Excluding long haul)

*2021 Run on Less - Electric infographic

121
candidates
representing
5200 EVs

10

Depots

operating 850 trucks in total

- 291 EVs
- 139 chargers
- 1044 MWh of power used
- 446,831 miles traveled
- 39 speakers in Bootcamp
- 122 interviews at depots

ROL-E DEPOT REPRESENTS THIS MARKET.

8 Charger
Companies

5
Utilities

11
OEMs



Total power
needed if all
trucks at all 10
depots were
electric

214

MWh
per day



SMALL ENERGY
DEPOTS ARE
READY NOW

Small energy depots are ones that require **less than 10 MWh per day** due to the small quantity of trucks and/or low miles traveled per day. This could be small urban depots or those that have very few trucks.

YEAH!

DON'T WAIT -

DEPLOY NOW!

For 100% EVs
at the site

Up to **10**
MWh/day

**LESS COST
AND TIME
TO ENERGIZE
THE DEPOT**



Many depots, especially those in urban settings, only allow daytime deliveries, causing trucks to sit overnight at the depot, allowing long, slow, more inexpensive charging.

Electric Vans and Step Vans
have up-front costs much closer
to parity with gas and diesel.

**LOW
TCO**

Slower speed chargers
using managed charging
significantly lowers costs.

LARGE ENERGY
DEPOTS ARE
GAINING
MOMENTUM

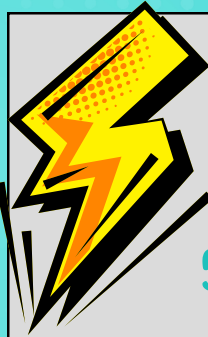
Large energy depots are ones that require a **high amount of power - exceeding 35 MWh per day** - due to a large number of total trucks operating that are going long distances, sometimes being driven during two shifts.

HOLDING
OFF ON EVS?
TIME TO
RE-EVALUATE
YOUR PLANS.

Range is increasing:

250 to 1000 miles per day

Pepsi Sacramento depot demonstrated ranges of **410 miles on a single charge** and **1076 miles in 24 hours**.



Fast charging and overnight charging

360 kW to 1 MW

WOW!

Vehicle Efficiency
for HD Tractors

**1.7 to 2.3
kWh/mi**

CONSIDER
RANGE IN
MILES PER
DAY, NOT
MILES PER
CHARGE

Slip Seating &
Opportunity
Charging

Return-to-base or
en route charging

Total Site Power

35+ MWh

Schneider S. El Monte
depot projected at
52 MWh per day.

ZAP!



ENERGIZING
THE SITES
TAKES
TOO LONG



AARGH!

Due diligence is needed to ensure reliability of power and to avoid brownouts.

For the 10
depots in the
Run it took...

**9 to 36
months**

to energize the
infrastructure



TEMPORARY/
PORTABLE
CHARGERS CAN
HELP

Trucks are
arriving before
charging is in
place, sometimes
months earlier.



Large Power Demand

Small depots require less, but power is a significant issue for medium or large energy depots.

TACTICS TO MITIGATE INCLUDE:

- Use a consultant with experience
- Add an early phase to get started
- But, get to 100% complete electrification quickly and possibly in a single effort

Roadblocks to Energizing

Site planning, utility approvals, site permitting, etc. all contributing to too much time to energize the depots.



UTILITIES MUST
SHORTEN
ENERGIZING
TIMELINES



Small depots are ready for electrification now and electrification at large depots is gaining momentum.

There have been big improvements in trucks and chargers since Run on Less - Electric in 2021.



The industry needs cost and weight reductions to improve the total cost of ownership.




It's still taking too long for power to be delivered and infrastructure to be installed which is driving the use of portable/temporary charging.



FINDINGS

Range can be extended with multiple charges per shift at the depot and en route.



The diversity, passion and capability of the people involved is helping to scale electric trucks.



GULP