



The Proven Zero Emissions Solution Electric TRU for Cold Chain Refrigerated Trailers

The New Standard





The U.S. Market is Coming Down on Transportation Emissions.

Regulators & local governments are requiring zero emissions TRUs.

Zero emission transportation (ZEV) refers to

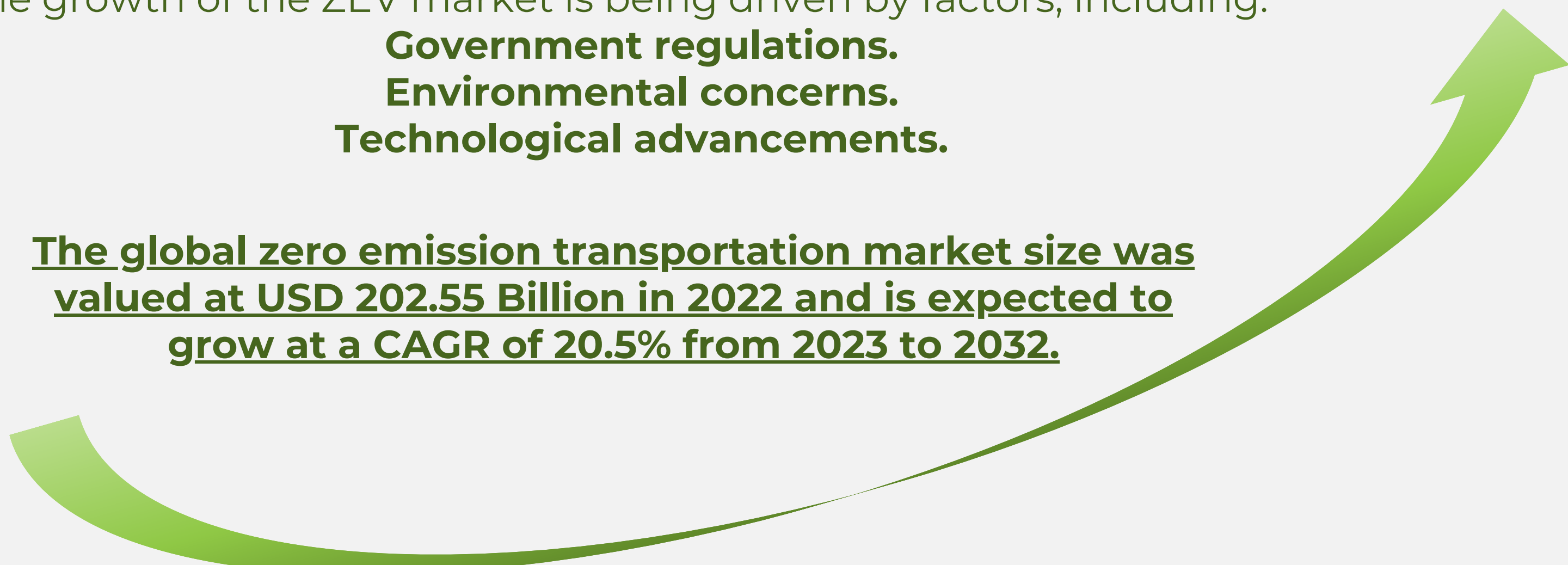
“all modes of transportation that do not produce tailpipe emissions.”

This includes EVs, battery electric vehicles (BEVs), plug-in hybrid electric vehicles (PHEVs), hybrid electric vehicles (HEVs), and fuel cell electric vehicles (FCEVs).

The growth of the ZEV market is being driven by factors, including:

- **Government regulations.**
- **Environmental concerns.**
- **Technological advancements.**

The global zero emission transportation market size was valued at USD 202.55 Billion in 2022 and is expected to grow at a CAGR of 20.5% from 2023 to 2032.





Validated by Actual Deliveries, & Data - Since 2012

- Over 10 million miles on-the-road.
- Over 2 million hours of proven reliability & safety.
- Millions of safe plugins & automatic charging pads
- Safe, low voltage DC (46V) microgrids

AEM has cracked the code on range anxiety

Bold, Yet Proudly TRU

EFFICIENT, Pretty, Clean, & Quiet
PLUS, All Safe 46 VOLT DC Human Interfaces

SolarTechTRU Refrigeration System



Solar Panels

Proprietary TRU

Battery

Wheel Regen System











New installs & conversions optimize route missions





CORE Annual User Report

- 260,190 hours run by the customer fleets 2021-2022 
- Over 22,550 trips - single temp and multi temp routes 
- 233,155 gallons of fuel avoided per year 
- \$1,310,340 in fuel and maintenance savings 
- 3,628 tons of CO2 avoided 
- 6,770 Estimate of trees to offset carbon in the air 
- Over 100 lives in CA saved per year, per TRU 
- 25.6 tons of NOX avoided 



Ample Validation: Reliable EV & ZE Achieved



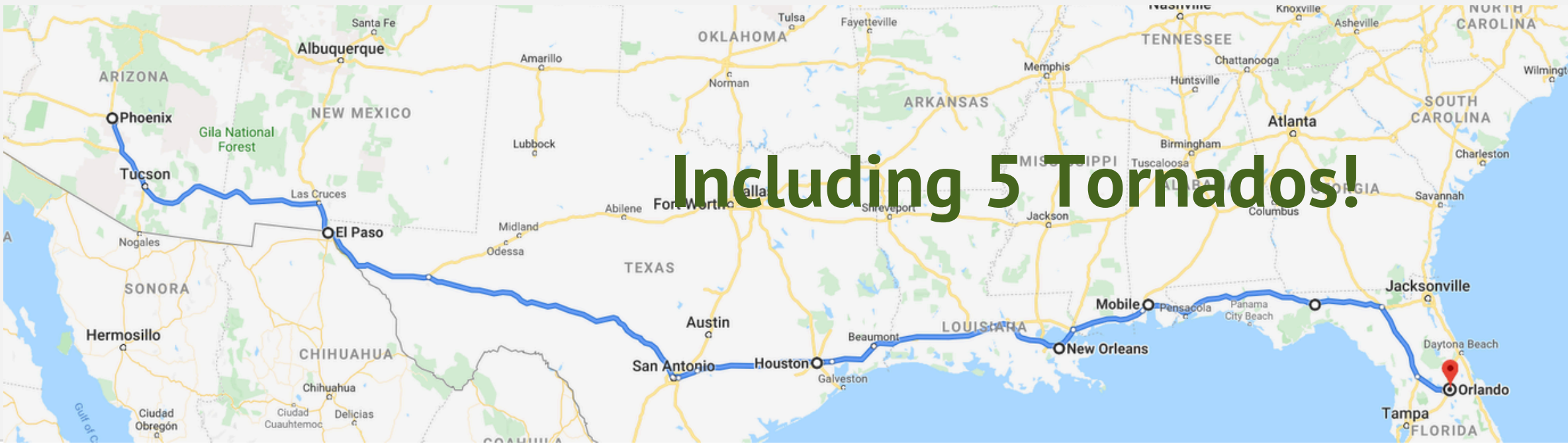
Common Cold Chain Operational Battery Statistics

- Battery Life Baseline at 88 degree ambient = 32 hours (no doors open)
- 8 pallets @ 0 degrees + 8 pallets @ 35 degrees bulkheaded

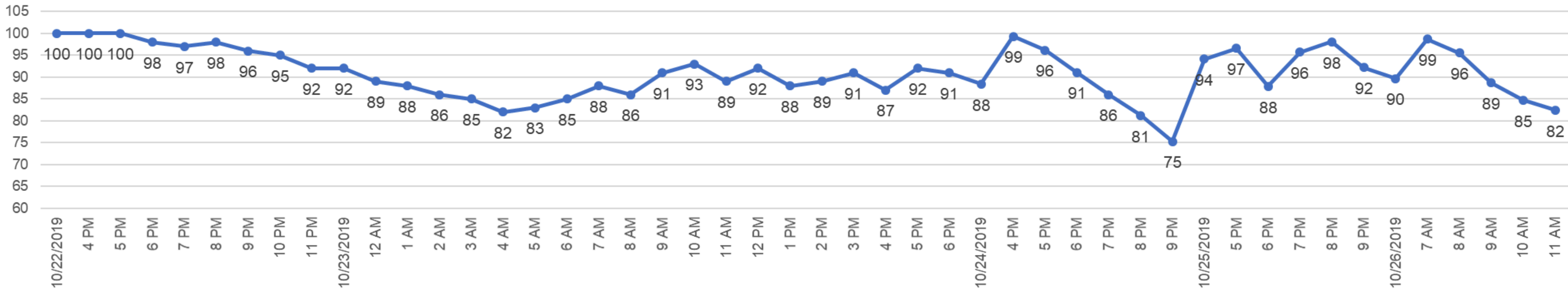


- 10/35 multi 12 stops, doors open, **16-hour** battery (52,214 hrs)
- 20 single temp, 24 pallets, 4 hours of doors open, **11-hour** battery (46,330 hrs)
- 35 degree, single 6 stops, doors open, **55-hour** battery (5,565 hrs)

Phoenix to Orlando – No Plugins Required!



Battery %Charge Available



- Zone 1 Temp: 0 Degrees, Zone 2 Temp: 40 Degrees
- 93 Hours Running, 2399 Miles
- Battery Available Never Dropped Below 75%



Real World 30 Trailer

Operation

8 Weeks of Runs	2/13-2/18	2/20-2/25	2/27-3/4	3/6-3/11	3/13-3/18	3/20-3/25	3/27-4/1	4/3-4/8
Battery Outbound Average	85%	91%	94%	85%	75%	81%	68%	58%
Battery Inbound Average	63%	54%	59%	60%	50%	53%	48%	46%
Cooling Issues	0	0	0	0	0	0	0	0
Average Ambient Temp	69	68	69	72	70	70	75	77



Proprietary Wheel Generator

Programmed for Zero Emission Operation.

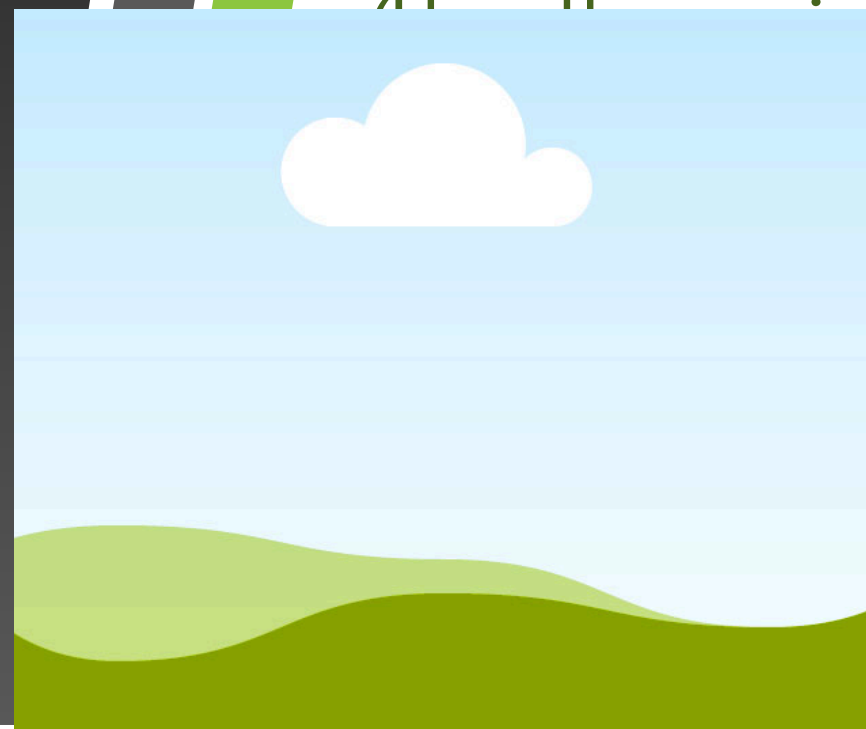


Delivering a Complete Infrastructure Design Solution



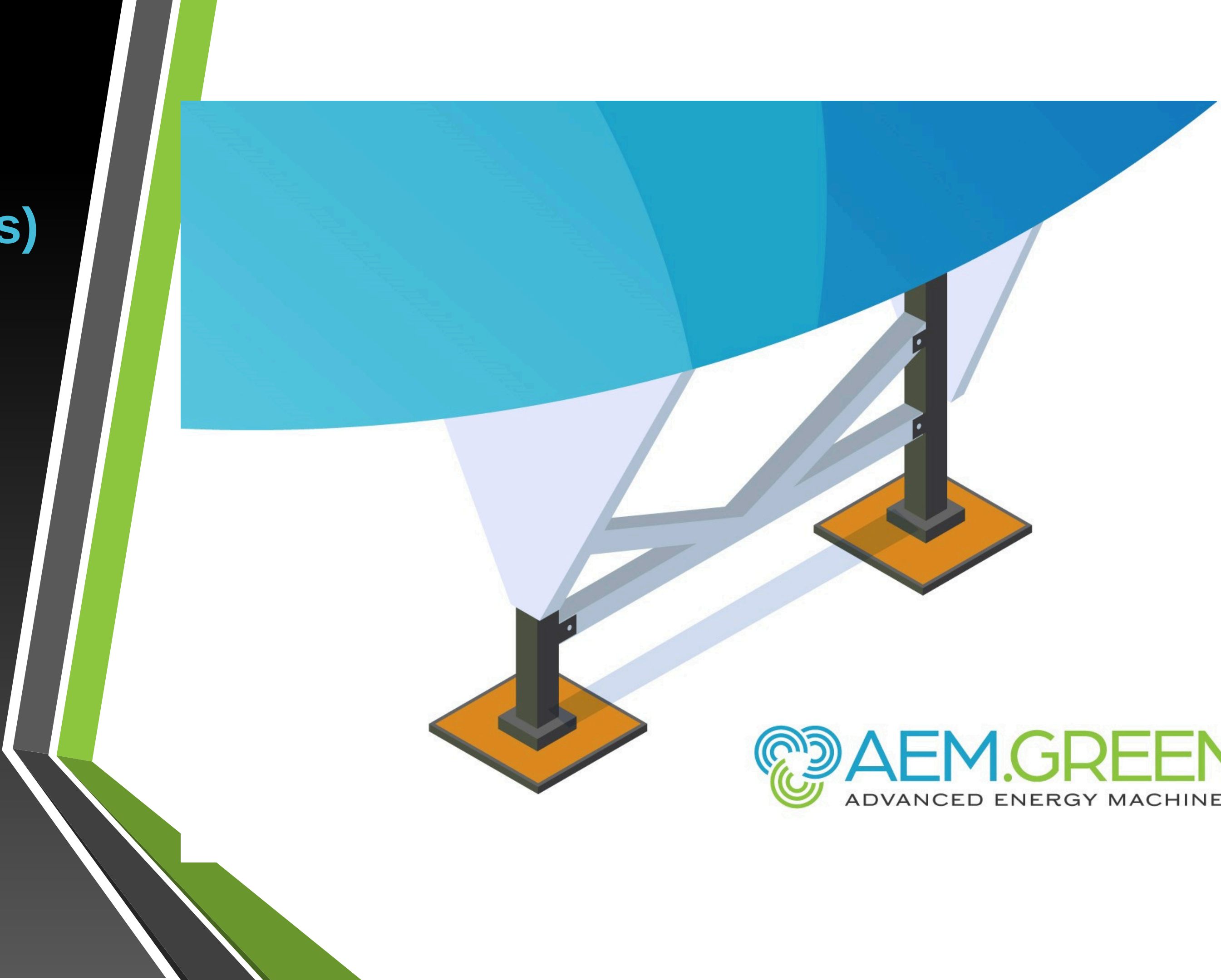
1. Customers provide existing facility costs & needs.
2. Project summary: Cost savings, leasing, & funding options.
3. Identify applicable grants & program funding for customers.
 - On-site assessment
 - Charging and staging network designed to fit into your facility operations.

(Minimum of 3 chargers for every TRU for the initial 20 trailers)



**Proprietary
Ai-Based
Wireless (Cordless)
Automatic
Charging Pads**

Plus, no human
risks of plugin
oversights
or electrocutions



Wireless
Cordless
AI-Based
Automatic Charging



Positive & Negative
Charging Pads

Low Voltage DC

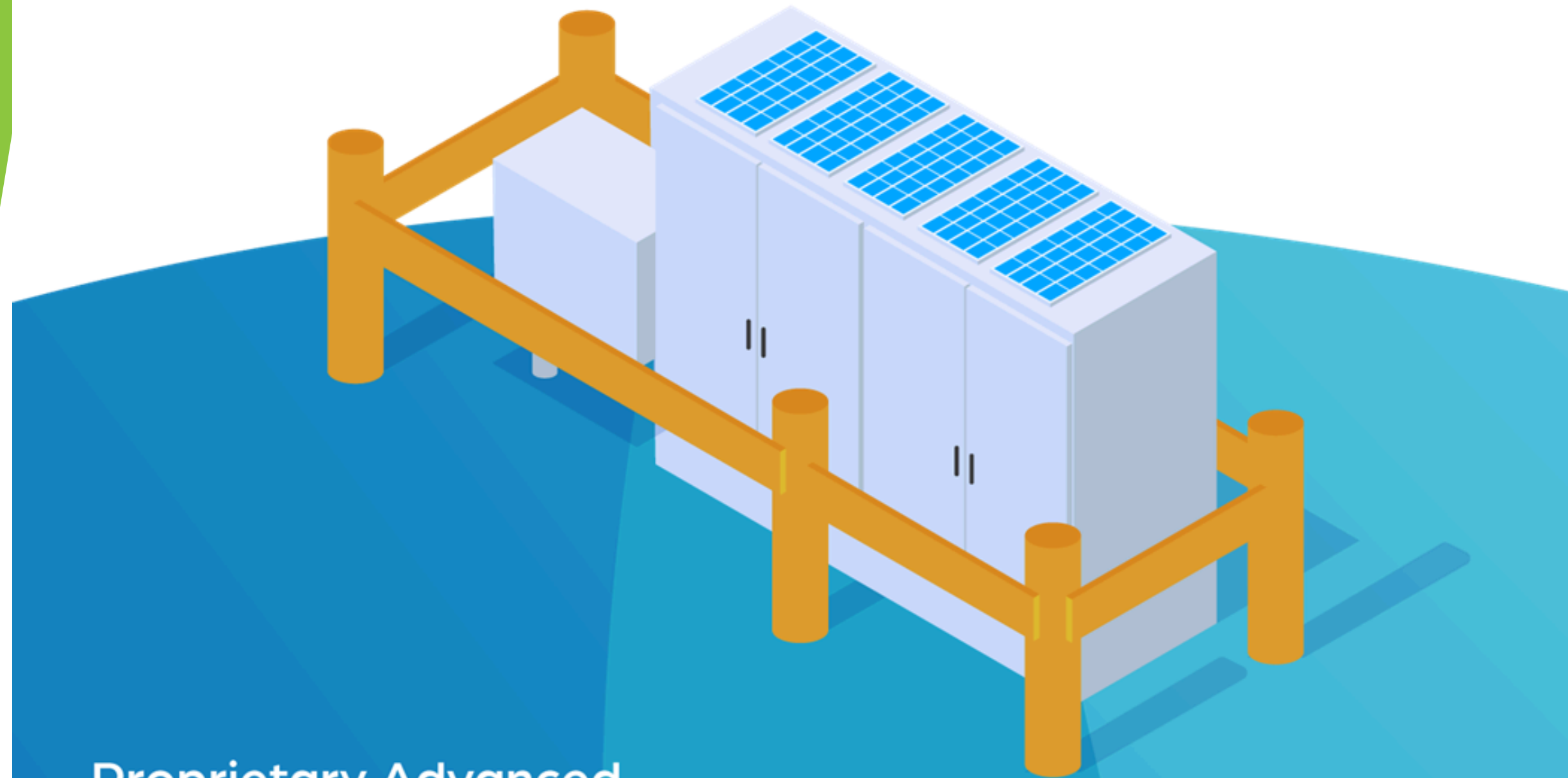
Completely
Safe
Human
Interface





Safe, Low-Voltage 46 V DC Charging

Plus, Cabinets Can Be Leveraged for Solar Microgrid



Proprietary Advanced Energy Machines (aem.green) Low Voltage DC





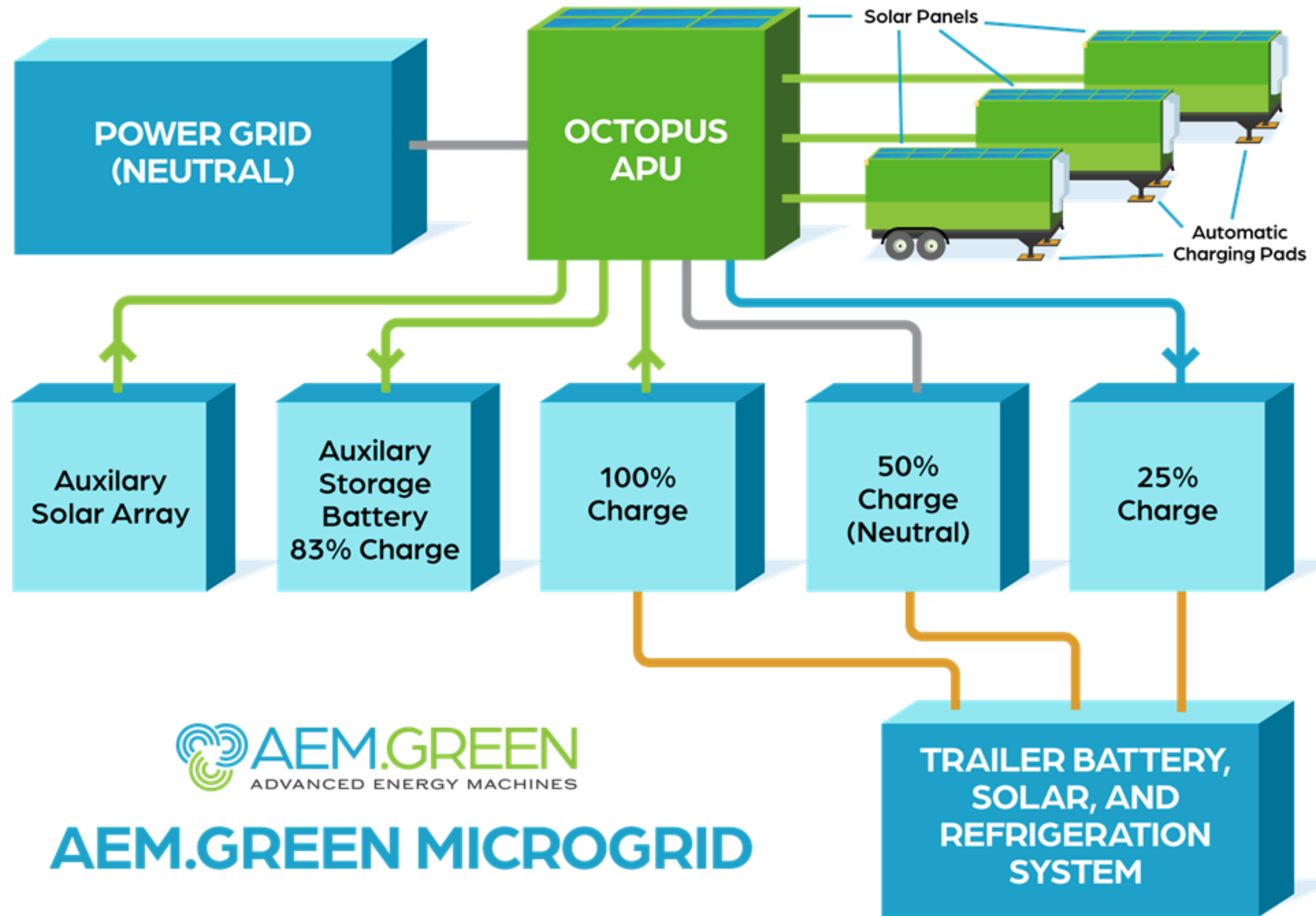
Transformer
Cabinets
Become Part of
AEM's
Proprietary Trailer
Microgrid
Low Voltage DC



AEM.GREEN Microgrid Schematic

Trailer Network
& Facility Roof
Can Create a
Solar Farm That
Keeps
Paying Back

Completely Safe

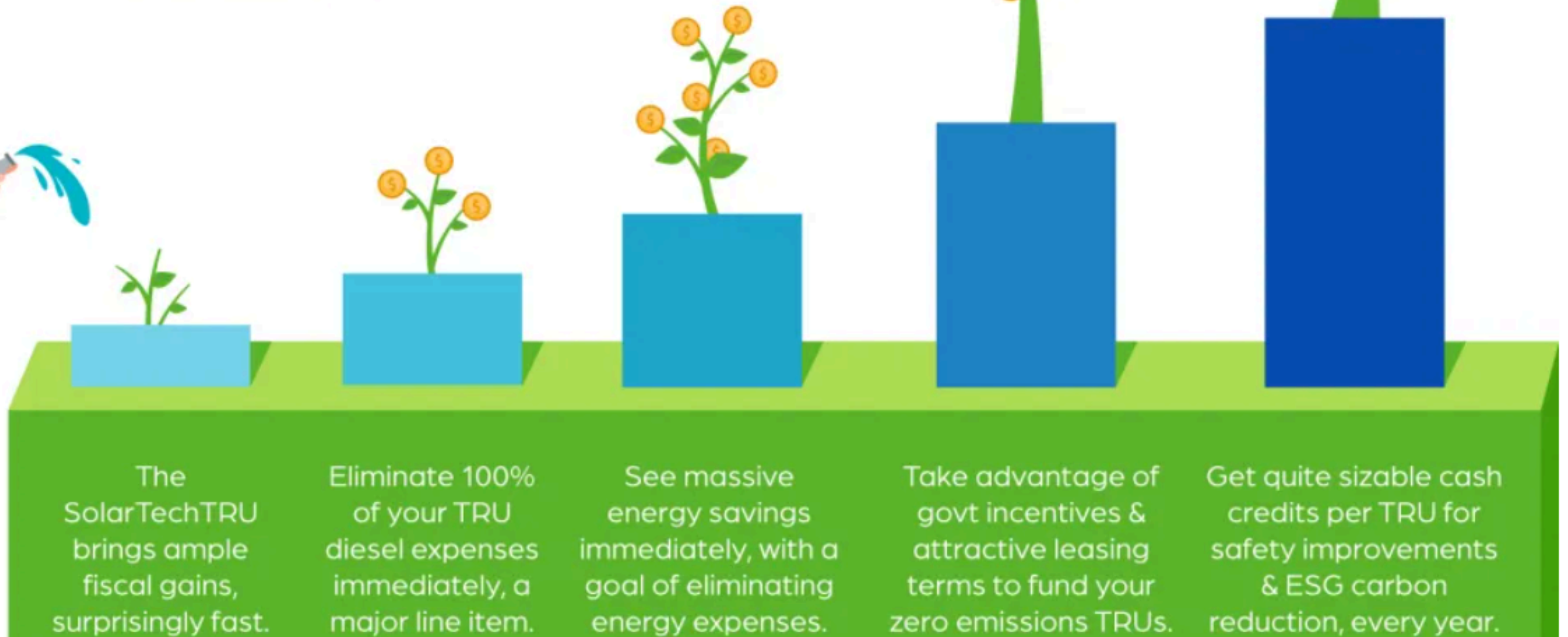


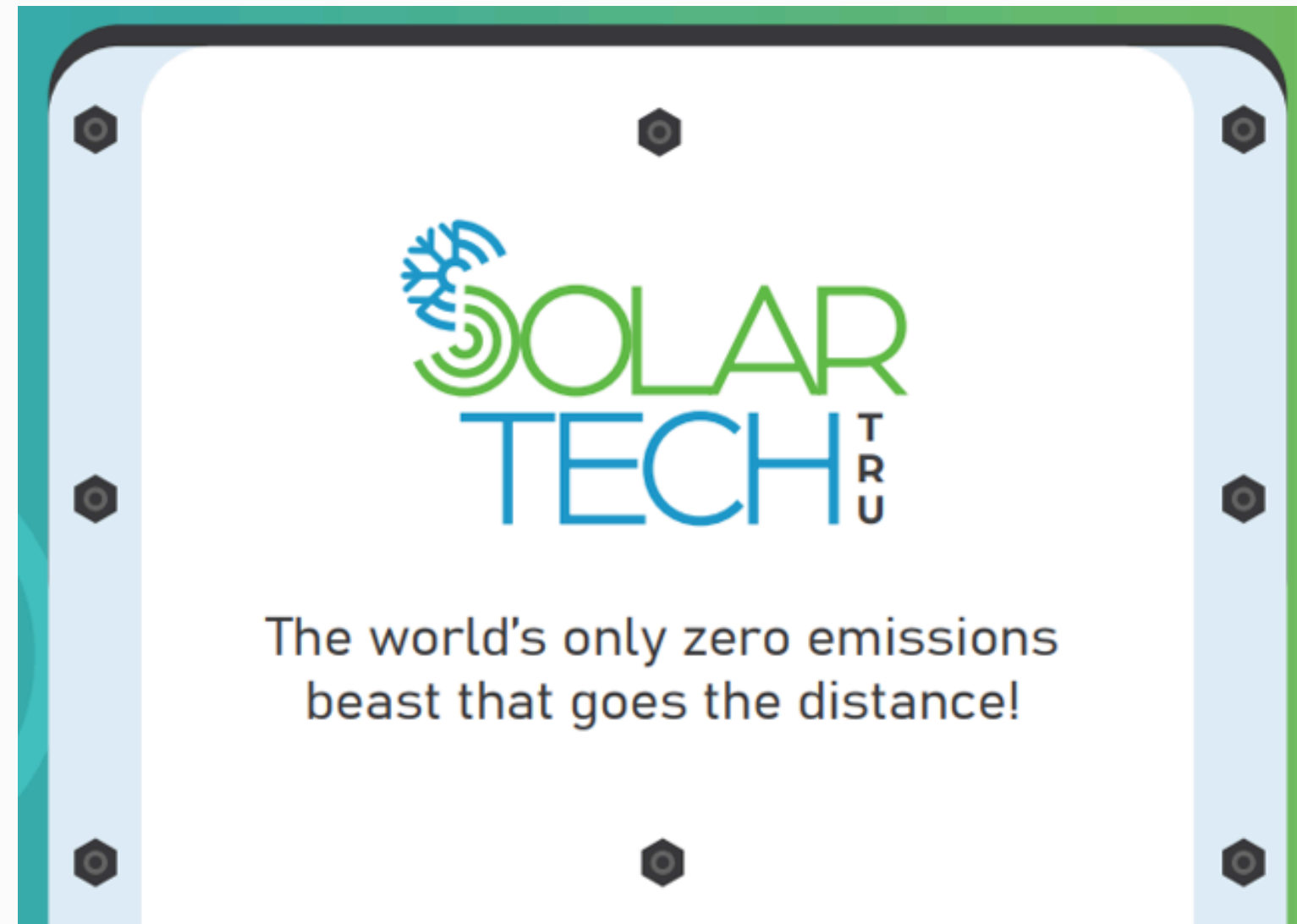
AEM.GREEN MICROGRID





Attention CFO's & Boards of Directors: Go zero emissions the right way, the first time.





+ Safe, Low Voltage DC Microgrids
+ Automatic, Cordless Charging Pads
ESG@AEM.GREEN