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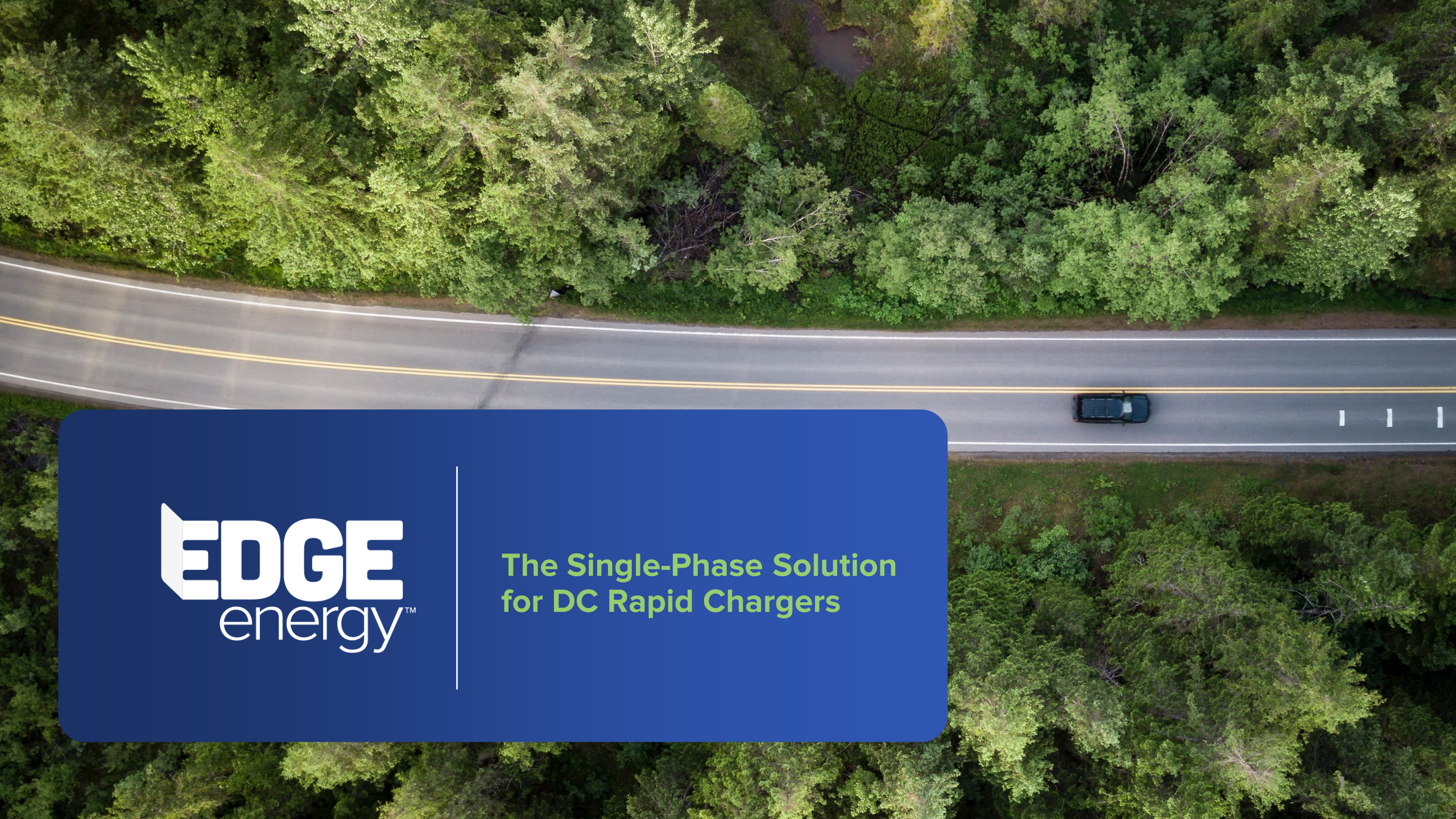

EDGE
energy™
The Single-Phase Solution
for DC Rapid Chargers

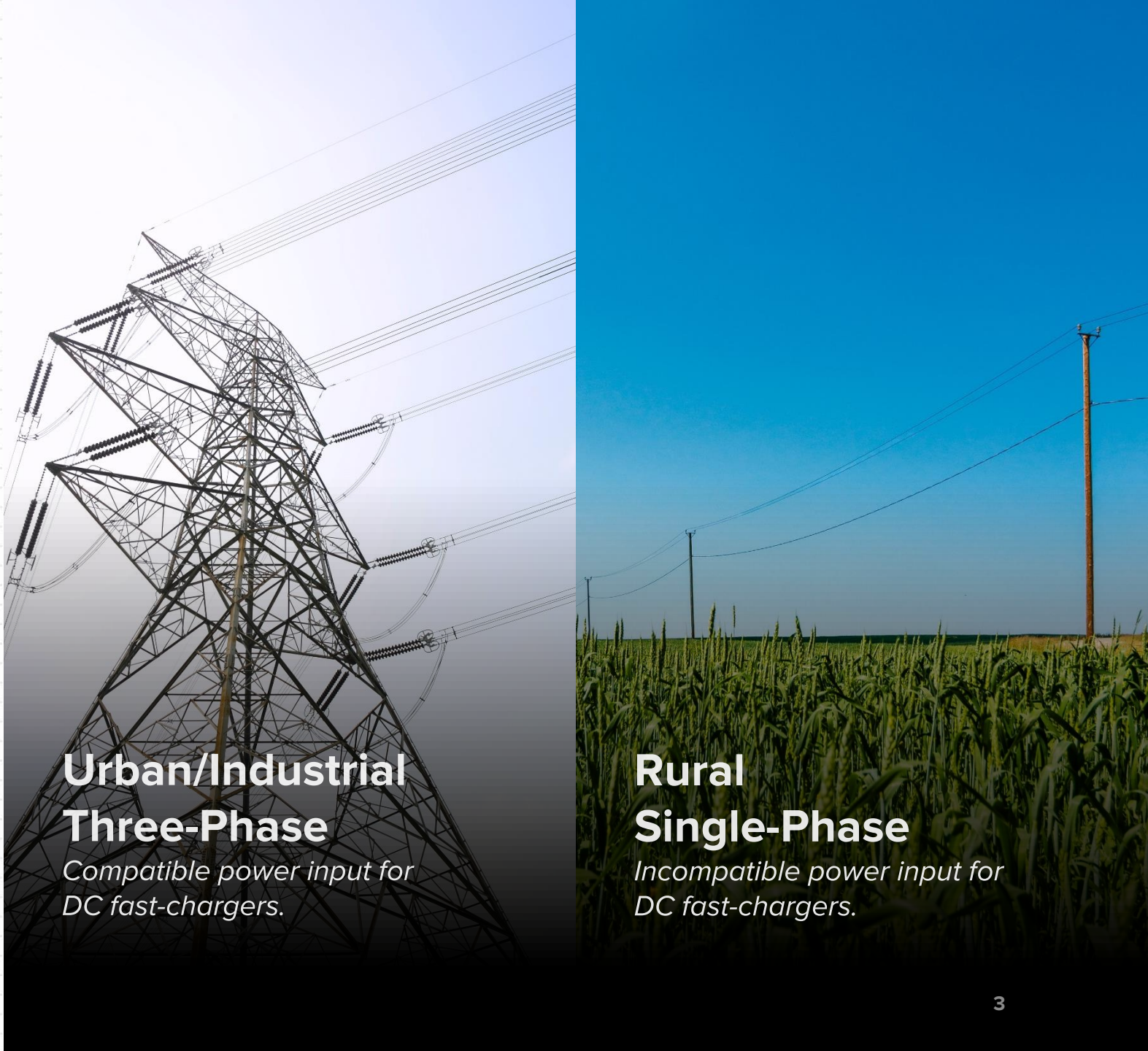
EdgeEnergy is addressing the #1 barrier to EV adoption – range anxiety.

The EdgeEV70™ system provides clean reliable three-phase power from a single-phase source – allowing for the installation of Direct Current Fast Chargers for EVs in rural locations without being limited by the electric grid.

Rural Power Grids Limit Charger Deployment

56% of America's Landmass is powered by rural electrical cooperatives – largely built on single-phase power.

***Source**: National Rural Electric Cooperative Association, 2021*



2022 Ford F-150 Lightning

New infrastructure dollars have funded 50,000 new fast chargers. 15,000 - 20,000 of those will not have access to 3-Phase.

The introduction of electric trucks and SUVs by major car manufacturers and increasing fuel prices have increased the demand for charging infrastructure in rural America.

Sources:
BloombergNEF, 2021 Electric Vehicle Outlook
National Rural Electric Cooperative Association (NRECA)
U.S. Department of Energy

The future of charging networks requires a solution for single-phase.

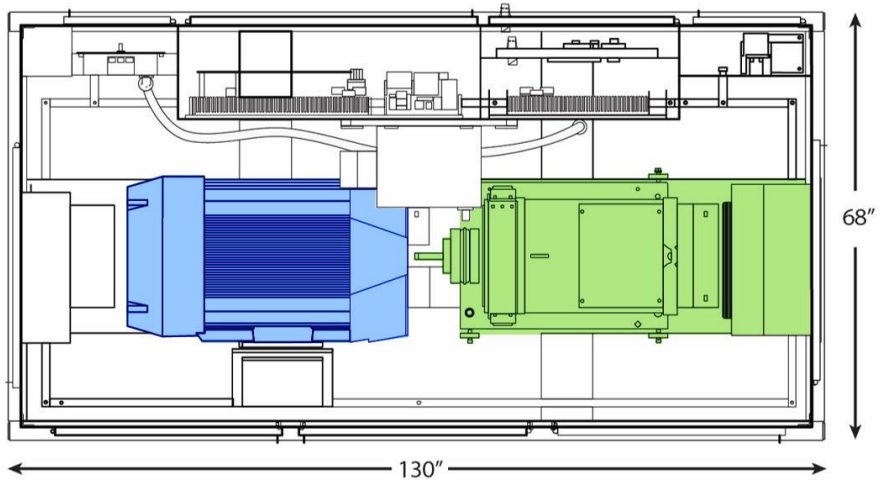
Addressing the power limitations of DCFCs and eliminating range anxiety will encourage EV adoption and increase demand for charging infrastructure while opening up access to rural and back country destinations, becoming an economic driver, and providing a path to EV ownership for rural residents.

THE SOLUTION:

EdgeEV70™

The EdgeEV70™ uses a proprietary motor system coupled with a 3-phase generator to provide isolated and balanced 3-phase power for DC fast chargers on a single-phase input.

- **Universal** – Compatible with all brands of fast-chargers
- **Continuous** – Power for fast-charging is always available
- **Rugged** – Low Maintenance and deployable anywhere
- **Easily Set Up** – Less infrastructure upgrades and permitting
- **Flexible** – Easily transportable to avoid stranded assets
- **Economical** – Often cheaper than building out other infrastructure and longer life span than battery storage solutions



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EdgeEV70™

System Specifications

Power Output	480V / 70 kW / 3Φ
Power Input	480V / 200A / 1Φ
Max DCFC Size	70 kW
Unit Efficiency	89%
Electrical Isolation	100%
Harmonic Distortion	0
Enclosure Rating	NEMA 3R

Edge vs The Paradigm

Comparing the deployment costs of one $50k ChargePoint charger five miles from a three-phase access point.

EdgeEV70™		VS	Direct Three-Phase Power with line extensions
Timeline	4-6 Weeks		12-150 Weeks
Site Costs	$10k		$20k
Power Source	$99k		$500k
Total	**$109k**		**$520k**

"The beta unit showed our chargers cannot differentiate between the EdgeEV70 and direct three-phase."

- A North Carolina Electric Cooperative

Market Overview

“40-50% of cars sold by 2030 will be electric vehicles”
Ford, GM, Stellantis (Chrysler)
Joint Statement from the White House, August 5, 2021

- Global electric vehicle sales have risen at a 47% CAGR since 2015
- In 2019, 320,000 EVs were sold in the U.S., rising at a 30% CAGR since 2015
- The global EV market is expected to grow at a 30% CAGR through 2030
- OEMs have committed $300 billion to EV development
- There will be 400+ EV models on the road by 2025

Source: Bloomberg NEF, May 2020

$100B+
Global EV Charging Infrastructure Market by 2030

$3.0B
U.S. Single-Phase DCFC Power Supply Market 2021-2030 based on current DOE estimates

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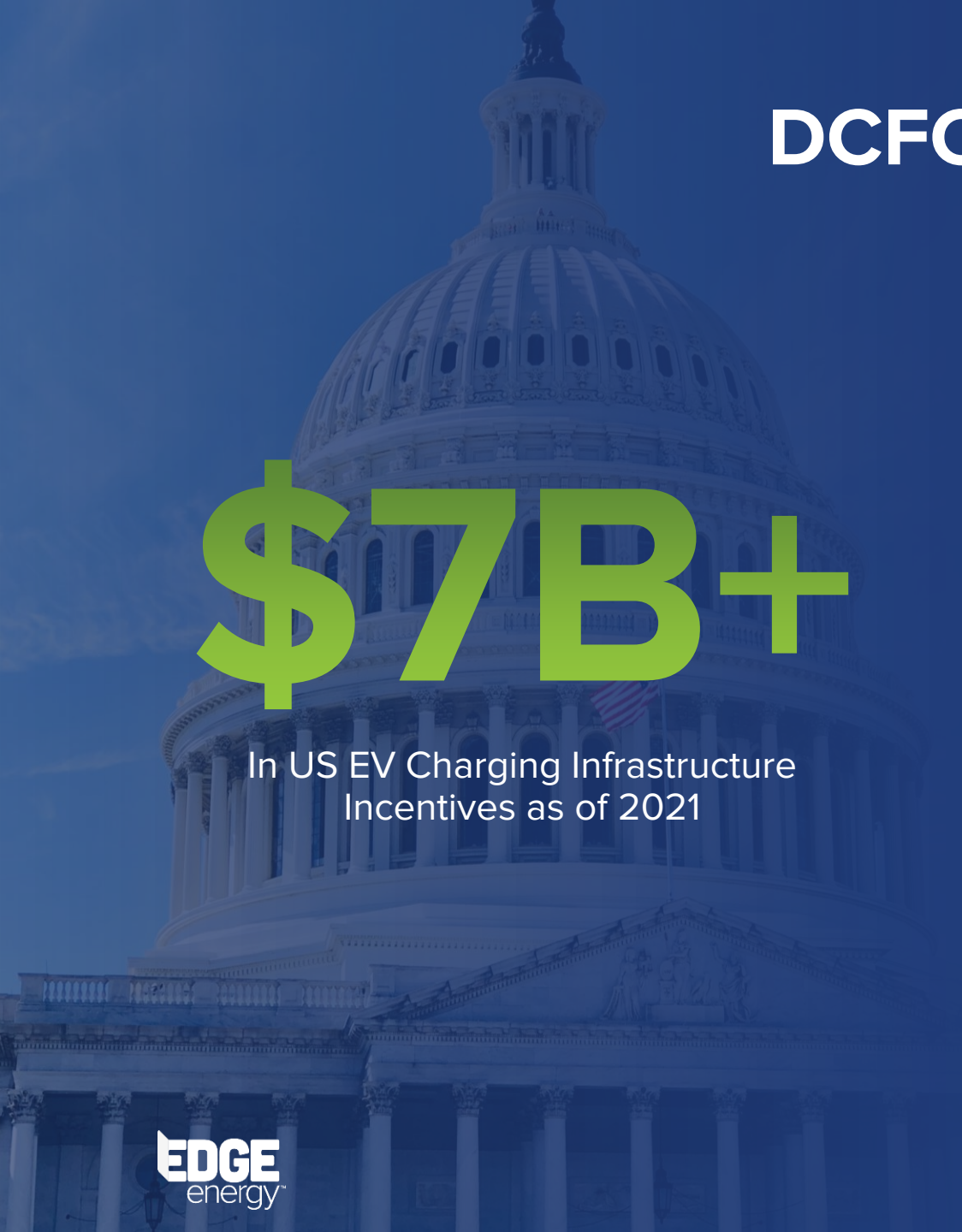
DCFC Incentives



$7B+

In US EV Charging Infrastructure Incentives as of 2021

Notable Programs:

$2B through Electrify America through 2026

$5B Granted to States Through New Infrastructure Bill

30% Federal Project Cost Tax Credit*

$785M Volkswagen Settlement Funds

$750M New York State Incentives

$400M California State Incentives

**Current maximum of $30,000 per charger installation. Expected to increase as new legislation goes into place.*

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OEMs are Committed to Go “All In” on EVs

40+ EV models are currently available with more being announced each quarter. Improved EV battery technologies and scale continue to reduce EV prices.

Increased driving range and a solution for Range Anxiety will increase EV adoption.

REUTERS

“Ford plans $11 billion investment, 40 electrified vehicles by 2022”

FORTUNE

“The number of electric vehicles on the road is predicted to expand to 125 million worldwide by 2030.”

The New York Times

“BMW expects electric cars and hybrids to make up 25 percent of its sales by 2025”

USA TODAY

“Porsche’s U.S. CEO: We anticipate roughly half of our vehicles sold by 2025 will be plug-in hybrids or battery electric vehicles.”

NBC NEWS

“GM is going all electric, ditch gas and diesel-powered cars”

THE WALL STREET JOURNAL.

“VW accelerates electric car effort with $40 billion investment”

blink

“The scalable opportunity for your company is massive, unfathomable.”

chargepoint

“We see an opportunity for as many as 1 in 10 of our DC Fast Charger installations needing your single-phase solution.”

EdgeEnergy Competition

	EDGE energy	BEAM	FREEWIRE
Continuous	✓		
Lowest Cost	✓		
Any Brand of DCFC	✓	✓	
Easy/Fast Installation	✓	✓	✓
Fast Charging	✓	✓	✓
Small Footprint	✓		✓
Low Maintenance	✓	✓	✓

See appendix for cost comparison tables.

The Power to go further

The EdgeEV70™ is the superior edge-of-grid solution for EV Rapid Chargers. Delivering on-demand energy and the most e-miles of any solution on the market.

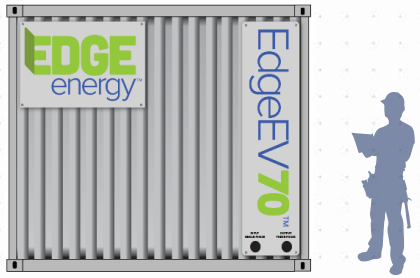
Based on 8-hour time frame and EV battery size of 80 kWh.

Edge-of-Grid Comparison

	EDGE energy™	BEAM	FREEWIRE
Constant Rate (kW)	70	24	27
Battery Size (kWh)	N/A	130	160
Peak Charging Rate (kW)	70	75	150
Max Energy Delivered (kWh)	560	280	347
e-Miles Delivered (per 8 hrs.)	2100	1052	1302
Number of Vehicles	10	5	6

Product Development

Originally spun-out of Single-Phase Power Solutions in 2020, EdgeEnergy continues to innovate its DCFC power source offerings.



EdgeEV70™ Beta
(Q2, 2021)

EdgeEV70™ Production
(Q2 2022)

EdgeEV100™ Production
(Q4 2022)

EdgeEV200™ Production
(Q1 2023)

Size (cubic feet)	**800**	**250**	**70**	**140**
Price	**N/A**	**$99,000**	**$120,000**	**$150,000**
Power Output	**70kW**	**70kW**	**100kW**	**200kW**
Efficiency	**89%**	**90%**	**96%**	**96%**

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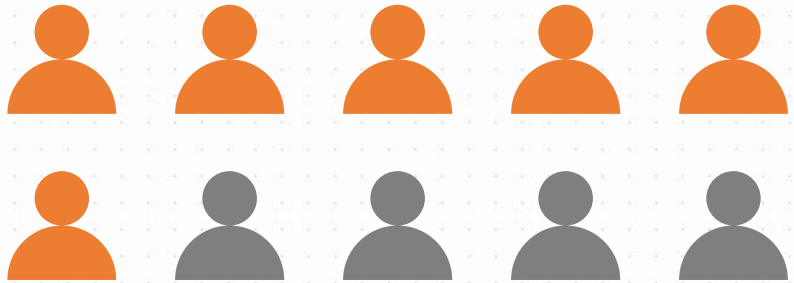
Appendix: The Range Anxiety Problem

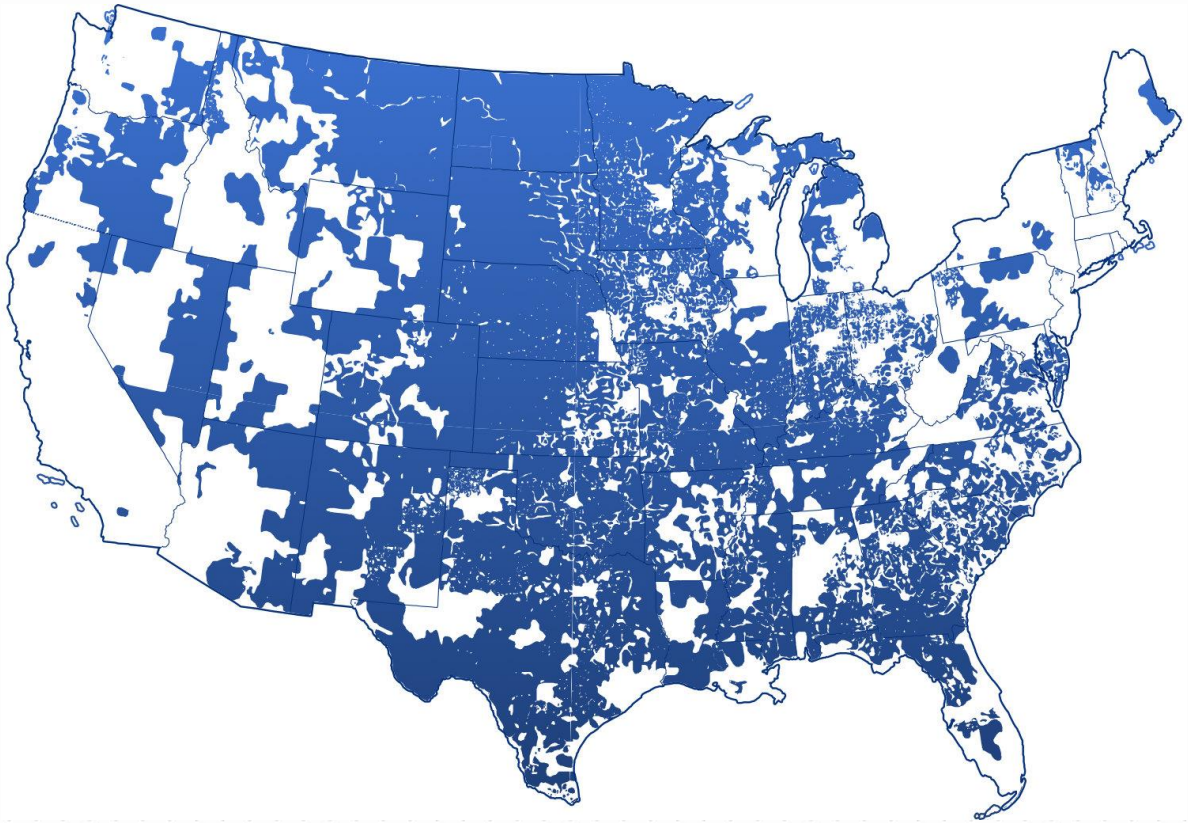


6 out of 10 Americans don't believe there are enough places to charge an electric car.

AAA Survey, 2020

Appendix: A Widespread Issue

Deploying fast-chargers in rural America requires a single-phase solution.



56%

Of America's Landmass is powered by rural electrical cooperatives – largely built on single-phase power.

***Source**: National Rural Electric Cooperative Association, 2021*

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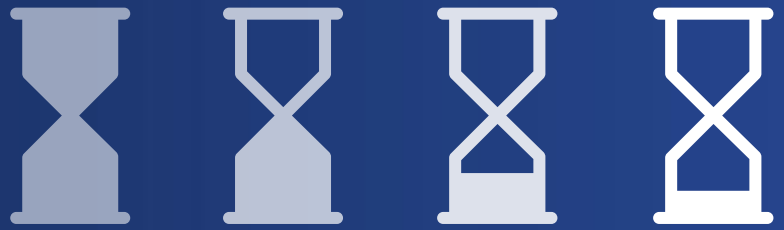
Appendix: Where the Industry is Going

Increasing Charge Rates



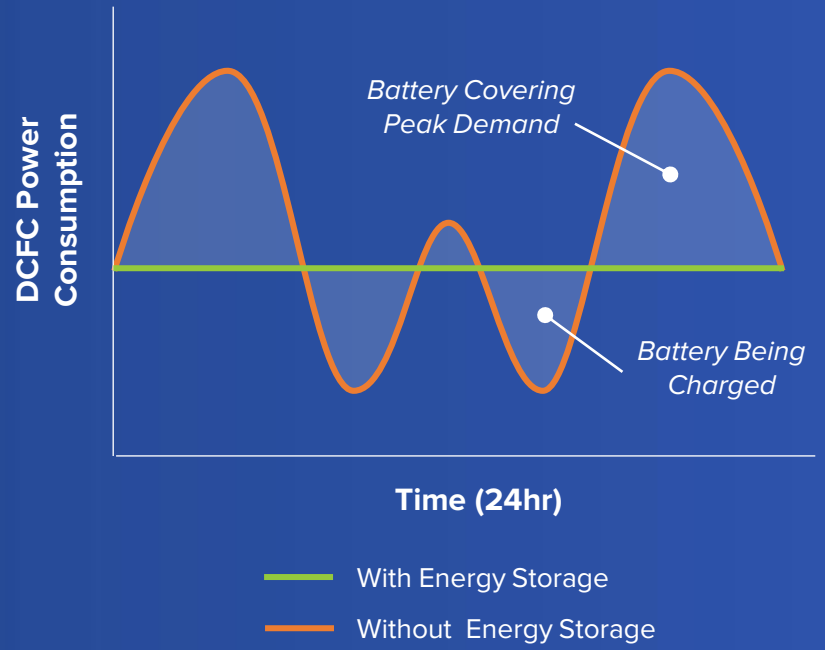
25kW **2 hours**

50kW **1 hour**

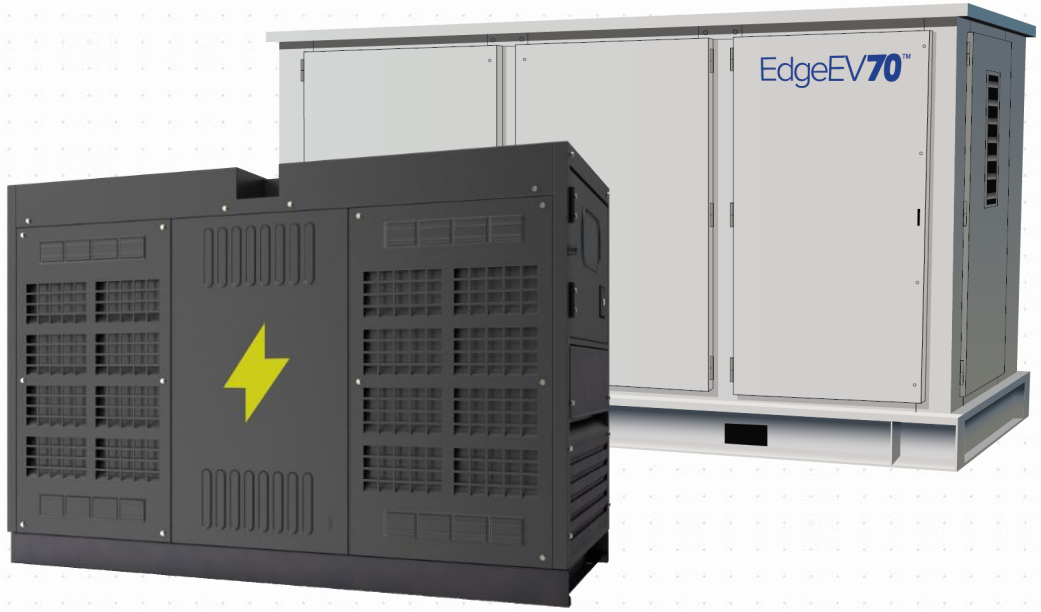
150kW **20 minutes**

200kW **15 minutes**

Reducing Peak Demand



Appendix: Reducing Peak Demand and Boosting Charging Rates



By integrating off-the-shelf energy storage systems, EdgeEnergy will simultaneously reduce peak grid demands and vehicle charge times.

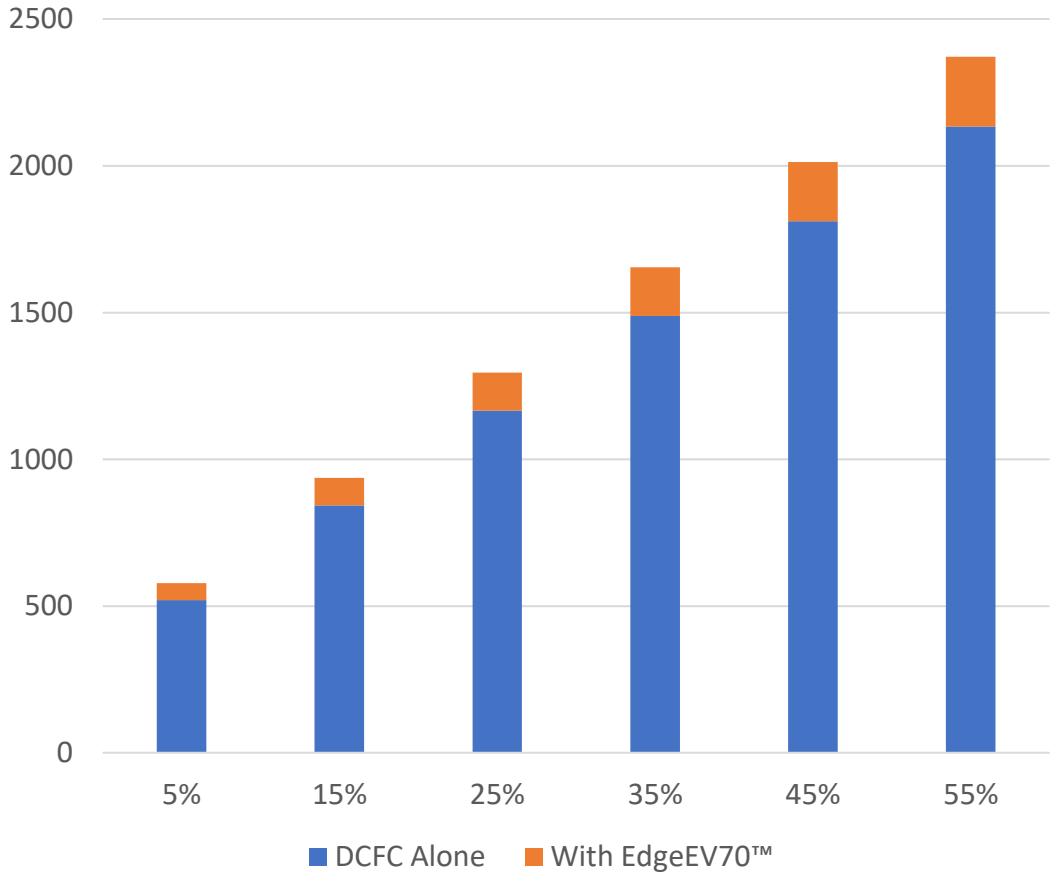
Utility Friendly:

- Protects charger from grid fluctuations
- High operating efficiency

Appendix: Station Losses / Incremental Cost

The EdgeEV70™ increases energy usage by just 10%

On average, that is only $97/month more than a charger using traditional 3-phase*

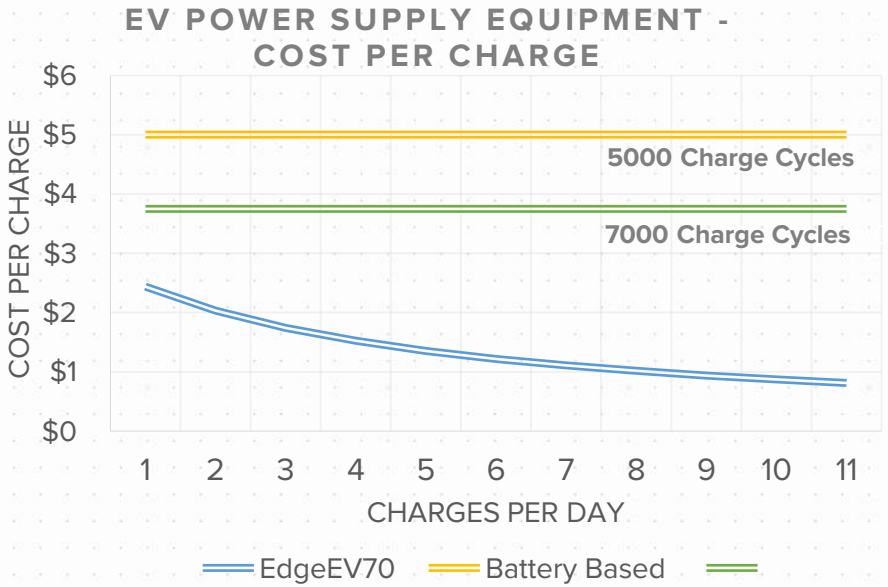


* Based on 35% usage of ChargePoint Express 250 Charger.

Appendix: EdgeEV70 Cost Comparisons

EdgeEV70	
Time (Years):	5
Avg. Cars per Day:	5
Cars Charged over period:	9,125
Price of Equipment over time frame:	$22,250
Equipment Cost per Charge:	$2.44
Time (Years):	5
Avg. Cars per Day:	10
Cars Charged over period:	18,250
Price of Equipment over time frame:	$22,250
Equipment Cost per Charge:	$1.22
Time (Years):	10
Avg. Cars per Day:	5
Cars Charged over period:	18,250
Price of Equipment over time frame:	$44,500
Equipment Cost per Charge:	$2.44
Time (Years):	10
Avg. Cars per Day:	10
Cars Charged over period:	36,500
Price of Equipment over time frame:	$44,500
Equipment Cost per Charge:	$1.22

Li-Ion	
Time (Years):	5
Avg. Cars per Day:	5
Cars Charged over period:	9,125
Price of Equipement over time frame:	$45,625
Equipment Cost per Charge:	$5.00
Time (Years):	5
Avg. Cars per Day:	10
Cars Charged over period:	18,250
Price of Equipment over time frame:	$91,250
Equipment Cost per Charge:	$5.00
Time (Years):	10
Avg. Cars per Day:	5
Cars Charged over period:	18,250
Price of Equipement over time frame:	$91,250
Equipment Cost per Charge:	$5.00
Time (Years):	10
Avg. Cars per Day:	10
Cars Charged over period:	36,500
Price of Equipement over time frame:	$182,500
Equipment Cost per Charge:	$5.00



Assumptions

EdgeEV70 Price:	$99,000
EdgeEV70 Lifespan (Years):	20
Li-Ion Solution Price:	$100,000
Li-ion Lifespan (Cycles):	5,000
Cars Charged per cycle:	4

***Note**: Some battery-based solutions are limited to 6 charges per day*