

# CLEAN FUELS MARKET UPDATE

NOVEMBER 2022



**SRECTrade**  
AN XPANSIV COMPANY

## CARB HOLDS WORKSHOPS TO DISCUSS SIGNIFICANT CHANGES TO LCFS PROGRAM

Workshops proposed stricter carbon intensity targets, including as high as 35% by 2030 and 90% by 2045.

### Streamlining Fuel Pathways and Expanding Verification to Electricity

The California Air Resources Board (CARB) held a public workshop on August 18 to discuss changes to the Low Carbon Fuel Standard (LCFS):

- streamlining fuel pathway review and approvals processes
- creating standardized hydrogen pathways and enabling book-and-claim accounting to better enable the increase of hydrogen reporting expected in coming years
- expanding verification requirements to include electricity reporting

## Compliance Target Modeling

On November 9, CARB introduced three modeling scenarios that each meet a 90% reduction in carbon intensity by 2045 with 25%, 30%, and 35% targets for 2030. The 2030 target is currently 20%.

CARB's model evaluates fuel market and policy assumptions to optimize for costs and meeting policy targets including:

- Limiting crop-based biofuels
- Phasing out of avoided methane crediting and harmonizing RNG deliverability requirements
- Limiting the infrastructure crediting pool to either 5% or 10% of deficits
- Limiting/phasing out electric forklift credit generation
- Adding intrastate fossil jet fuel as a deficit generator
- Phasing out project-based petroleum crediting

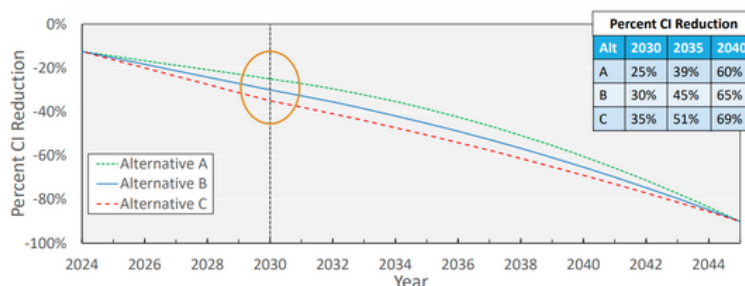
More workshops are anticipated for 2023 with a targeted implementation by 2024.

To learn more about CARB public workshops and proposed program changes, reach out to SRECTrade.

## IN THIS ISSUE

SRECTrade Begins Canada Program Registrations	2
CARB Releases Q2 Report	3
SPOTLIGHT: EV Charging Under CA LCFS	4
Clean Fuel Market Updates	5
Oregon Adopts Stricter CFP Targets	6
Washington Program Begins Next Year	6
Grant Program Updates	7

### Scenario Design: Carbon Intensity Benchmark Schedules



Source: California Air Resources Board

## WEBINAR: Join SRECTrade to learn about Canada's new clean fuel regulations

**What: Get Paid For Deploying Electric Vehicles in Canada**

**When: December 13 at 10:00 AM PST.**

**How: Register [here](#). Contact SRECTrade with questions at [CleanFuels@SRECTrade.com](mailto:CleanFuels@SRECTrade.com)**

# CLEAN FUELS MARKET UPDATE



## CANADA CLEAN FUEL REGULATIONS OPEN FOR REGISTRATION

SRECTrade is helping fleets with existing assets in Canada act quickly to get registered in time for initial credit generation in 2023.

### What is the Canadian CFR?

The Canadian Clean Fuel Regulation (CFR) is a market-based compliance program designed to reduce the carbon intensity of fuels in Canada. Fundamentally similar to existing clean fuel programs such as California's LCFS program and Oregon's Clean Fuel Program (CFP), the Canadian CFR allows low-carbon fuel producers, importers, and fleet owners to generate credits, providing additional and ongoing financial support to cleaner fuel alternatives.

SRECTrade provides full management services to generate and monetize credits under clean fuel programs across Canada including the CFR and British Columbia's LCFS program.

### Who Can Generate Credits?

Charging Network Operators

Charging Station and Fleet Owners

Fueling Station Owners

Fuel Producers/Importers

### Estimating Annual Proceeds With SRECTrade

Credit generation under CFR will vary by fuel type and utilization. While there is no credit pricing data available yet, the ranges below assume a price of CAD 100 per credit and common ranges for annual electricity usage.

#### Light Duty Electric Vehicle



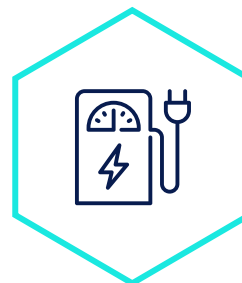
**CAD 700 - 1,000**  
per year

#### Heavy Duty Electric Vehicle



**CAD 5,000 - 8,000**  
per year

#### Public Charging Station



**CAD 500 - 800**  
per year

### How to Participate

**Act now to register in Canada's CFR with SRECTrade.**

**There is no retroactive crediting!**

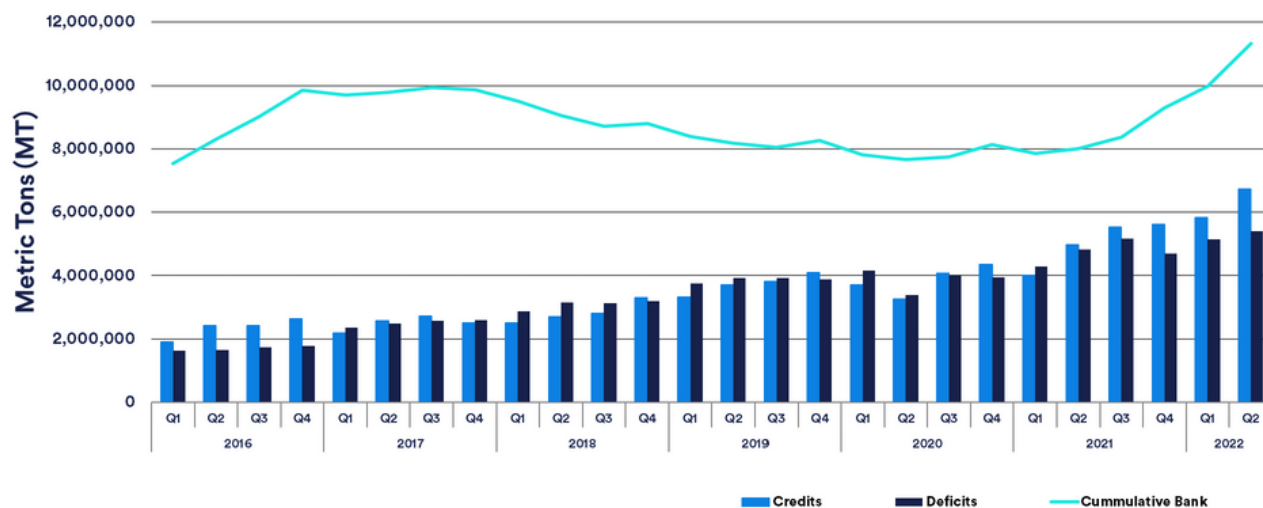
**Contact [cleanfuels@SRECTrade.com](mailto:cleanfuels@SRECTrade.com) to get registered today.**

## CARB RELEASES Q2 2022 CREDIT AND DEFECIT REPORT

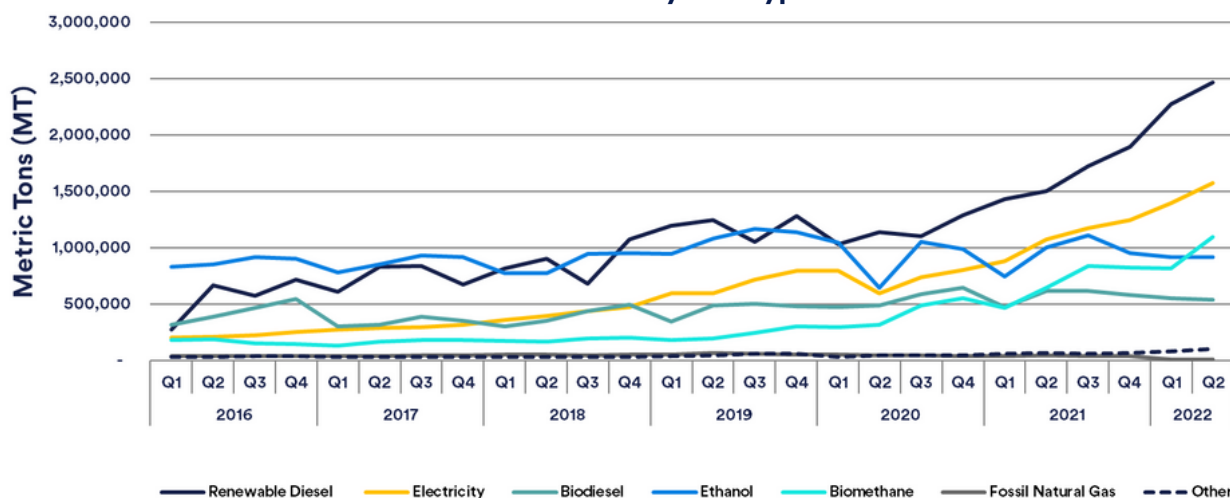
CARB released Q2 2022 program data on October 31, 2022. In Q2, 6.74 million credits were issued, the largest credit generation in a single quarter under the program to-date, a 15% increase over the previous quarter and a 36% increase from Q2 2021. Reported deficits grew by just 5% from last quarter, at 5.39 million. 1.35 million credits were added to the cumulative bank, now at over 11 million and the highest in program history.

- Renewable diesel (RD) was again the largest source of credits (36%) and the second largest contributor to quarterly credit growth (21%).
- Credits from EV charging grew by 13% and represented one-fourth of the quarterly growth this period.
- Renewable natural gas (RNG) surpassed ethanol as the third largest source of credits (16%) and the largest source of quarterly credit growth (31%). The primary driver of RNG credit growth is carbon intensity (CI), not volume. RNG volume increased by 4% from last quarter, while the average CI for RNG fell below -100 g/MJ after hovering around -60 g/MJ since Q3 2021.
- CARB also reported an administrative adjustment for Q1 2022, removing 234,791 credits from the cumulative bank. Administrative adjustments represent corrections that were either self-reported or the result of an audit. Comparatively, the net adjustment for the preceding four quarters was negative 125,000 credits.

CA-LCFS Credits and Deficits



CA-LCFS Credits By Fuel Type

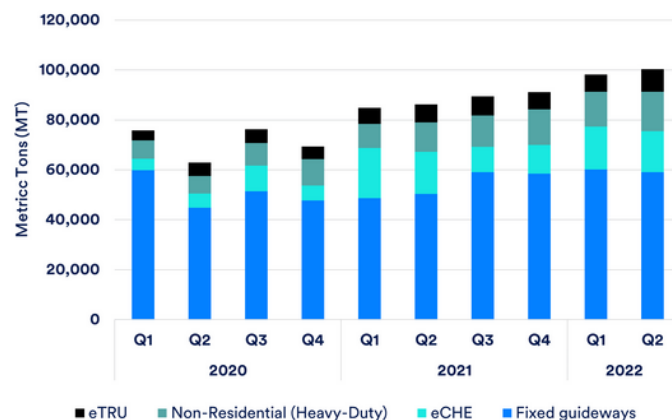
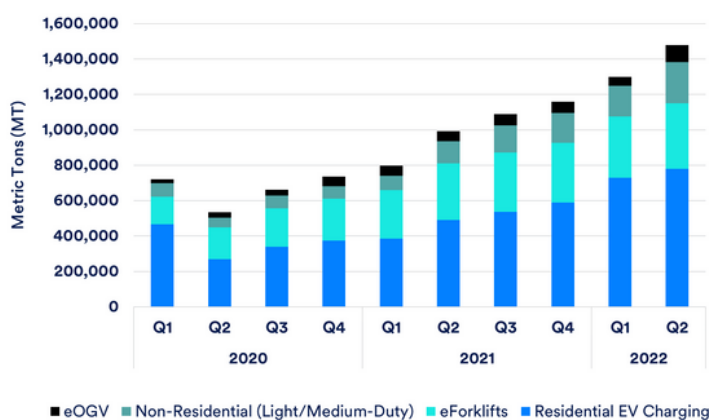


# CLEAN FUELS MARKET UPDATE

## SPOTLIGHT: EV CHARGING UNDER CA LCFS

Electricity is the second largest source of credits and one of the fastest growing. Consistent with previous quarters, almost 90% of credits from EV charging came from three categories: residential (49%), eForklifts (23%), and non-residential light/medium-duty (15%). However, credits from eTRUs, eOGVs, and heavy-duty charging continue to increase.

LCFS Credits by Electricity Type



Many types of equipment can generate credits under clean fuel programs. Eligibility varies by program. [Contact SRECTrade](#) to learn more.

### ELECTRIC VEHICLE CHARGING



- Public
- Workplace
- Transit Fleets
- Commercial and Industrial Fleets (eg. Yard Trucks & Spotters)
- Residential Charging

### ELECTRIC FIXED GUIDEWAYS



- Light Rail
- Heavy Rail
- Cable Car
- Street Car
- Trolley Bus

### ELECTRIC CARGO HANDLING



- Bulldozers
- Loaders
- Cranes (e.g. RTG & RMG)
- Stackers
- Lifters
- Excavators

### ELECTRIC LIFT TRUCKS



- Motor Ride Trucks Like Forklifts
- Narrow Aisle Trucks
- Pallet Jacks
- Tow Tractors and Tuggers
- Class I, II, and III Lifts

### ELECTRIC COOLING & HEATING

- eTRU Vans and Semi Trailers
- Shipping Containers at Terminal
- Rail Cars at Depot
- Transit Cold Storage

### SHORE POWER

Fueling station that provides electric shore power to an eligible ocean-going vessel at-berth

### HYDROGEN FUEL CELL VEHICLES

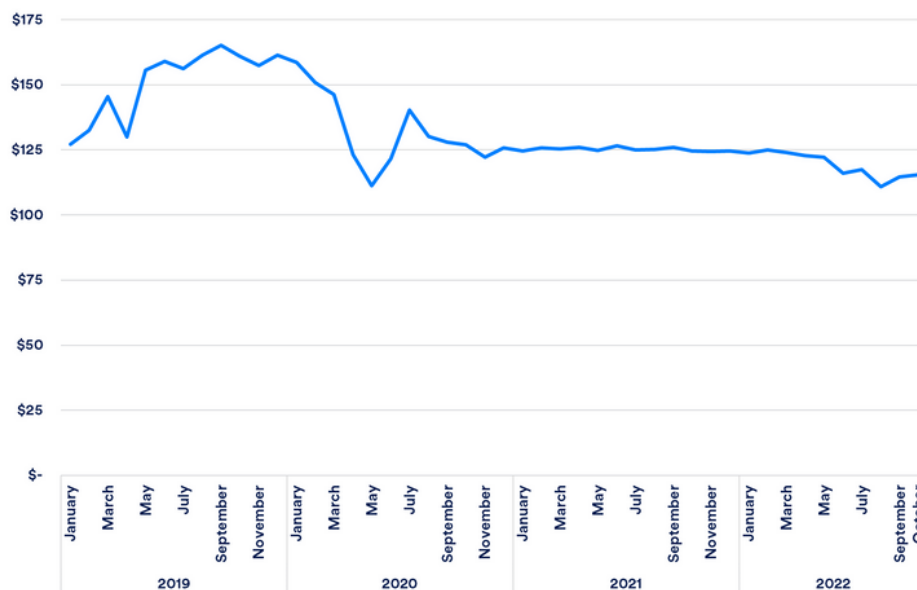
Hydrogen stations can service various types of hydrogen-powered vehicles.

## MARKET UPDATES

### OR Clean Fuels Program Pricing Remains Steady

OR CFP credit pricing continued to remain steady around \$120-\$125/MT for most of 2021 and the first half of 2022. Pricing fell below \$110/MT in July, as indicated by transactions reported to DEQ. The monthly average for October was \$115/MT.

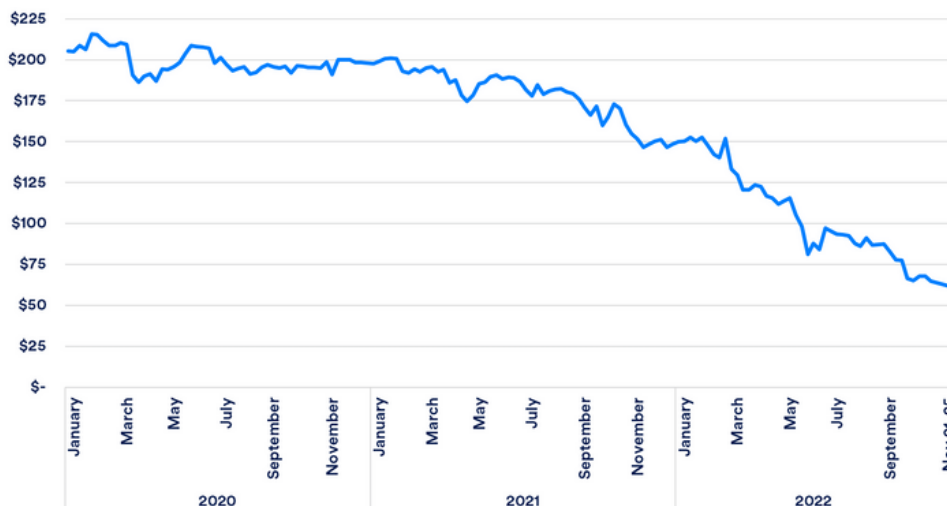
**OR-CFP Monthly Weighted Average Price**



### CA LCFS Credit Bank Builds As Prices Remain Low

CA LCFS credit values declined as credit generation outpaced deficits for several reporting quarters. Trading remained active with over 5 million credits transferred in October, the most in a single month this year. Average credit price for 2022 year-to-date was about \$100/MT compared to the 2021 year-average price of \$178/MT. Weekly-average credit prices declined to the mid \$60/MT range through October, with credit prices closing the week of November 21-25 around \$62/MT.

**CA-LCFS Credit Weekly Weighted Average Price**



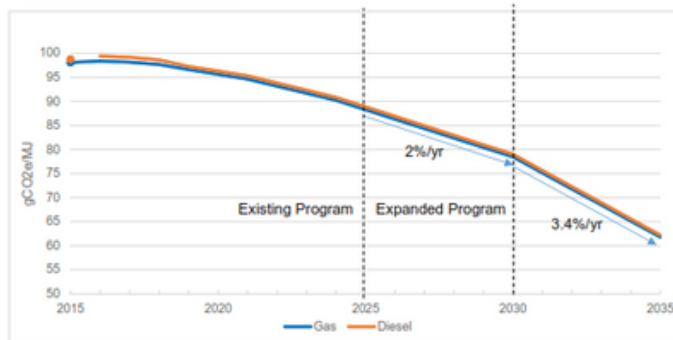
## OREGON ADOPTS STRICTER CFP TARGETS

Oregon adopted stricter carbon intensity targets during a Department of Environmental Quality Commission meeting on September 23.

The new targets will require a 20% reduction by 2030 and a 37% reduction by 2035. Such stricter targets are intended to stimulate greater investment in low carbon fuels and electrification.

Oregon now has the steepest approved reduction in carbon intensity for transportation fuels across all clean fuel programs to-date.

Approved Oregon CFP CI Targets

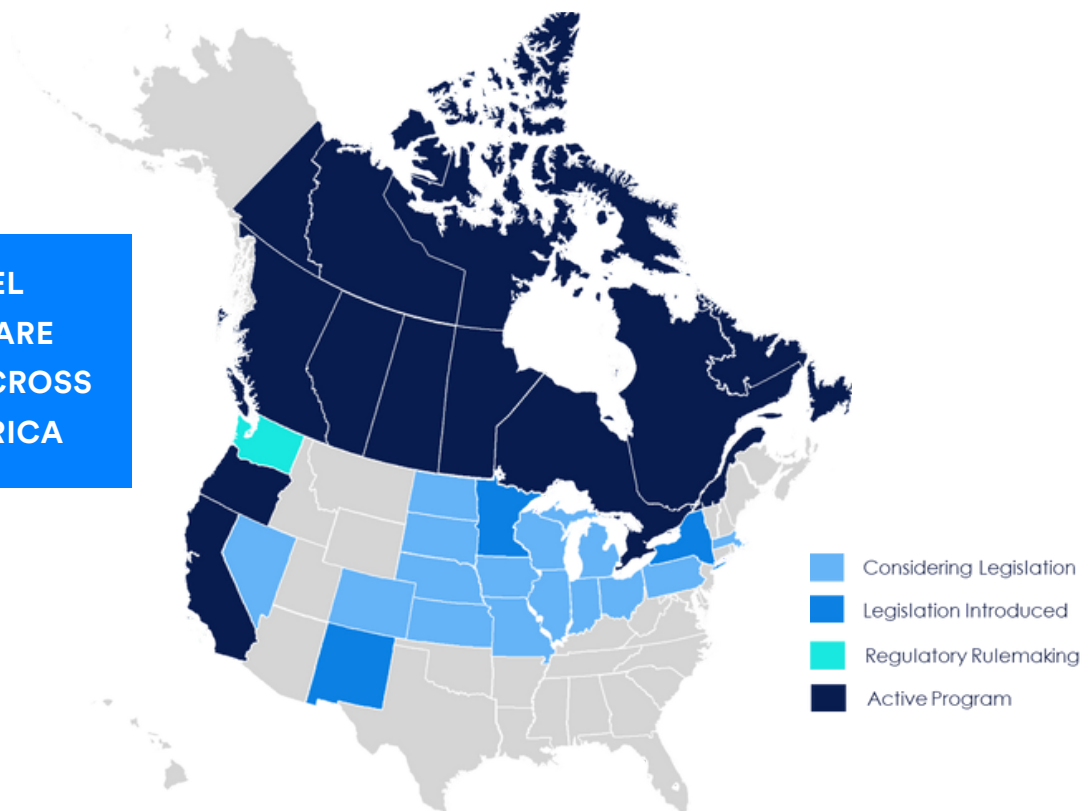


Source: Oregon Department of Environmental Quality

## WASHINGTON CLEAN FUELS STANDARD SET TO BEGIN IN NEW YEAR

The Washington Department of Ecology published its draft of the Clean Fuel Standard rule, proposing a 20% reduction in carbon intensity of transportation fuels in the state by 2034. The final rule is set to be approved this month and will formally launch in January 2023.

**CLEAN FUEL  
PROGRAMS ARE  
EXPANDING ACROSS  
NORTH AMERICA**



**SRECTrade supports you everywhere these programs exist. Contact SRECTrade today at [cleanfuels@SRECTrade.com](mailto:cleanfuels@SRECTrade.com) to learn more and start benefitting from clean fuel regulation.**

## GRANT PROGRAMS UPDATE

### HVIP Provides \$5 Million in Funding for Port of Los Angeles Drayage Trucks

The [Zero-Emission Truck and Bus Voucher Incentive Project \(HVIP\)](#) has \$5 million in funding allocated for Class 8 zero-emission drayage trucks at the Port of Los Angeles. Funding is available on a first-come, first-served basis. Check HVIP's website for funding updates.

### The Golden State Priority Projects Opens January 2023

In 2023, CAL eVip will initiate the [Golden State Priority Project \(GSPP\)](#), which will have \$30 million in funding for DC fast chargers in disadvantaged communities (DAC) or low-income communities (LIC) in California. Funding applications will open January 24, 2023.

### The EPA has \$3 Billion To Reduce Port Emissions

The Inflation Reduction Act (IRA) has allocated \$3 billion to help U.S. ports deploy zero-emission equipment. If you want to provide feedback to improve the IRA Ports Funding program, join the [EPA webinar](#) on December 6, 2022 at 10 am PST.

### CORE Still Has \$16.3 million in Funding For Heavy-Duty Equipment

The [California Off-Road Equipment Voucher Incentive Project \(CORE\)](#) still has \$16.3 million available in funds for heavy-duty equipment. Check to see if your assets are applicable in the [eligible equipment catalog](#).

### The CRISI Program Has \$1.4 Billion in Funding

In September 2022, the U.S. Department of Transportation allocated [\\$1.4 billion in funding to the Consolidated Rail Infrastructure and Safety Improvement \(CRISI\) Program](#). Funding will be used to improve both freight and passenger railroads. Applications are due December 1 by 5:00 pm. Learn more about [eligibility requirements](#).

### Inflation Reduction Act Programs Accept Input

On November 4, the Environmental Protection Agency (EPA) announced that it would begin [accepting feedback for various climate-focused Inflation Reduction Act programs](#). The Inflation Reduction Act will provide an estimated \$370bn for climate change and energy security to reduce carbon emissions.

**Meet SRECTrade in Toronto, Canada at the CUTRIC Low Carbon Smart Mobility Conference November 28-30!**



## CONTACT US

[cleanfuels@srectrade.com](mailto:cleanfuels@srectrade.com)



# SRECTrade

AN XPANSIV COMPANY

## ABOUT US

SRECTrade is the single partner to source, manage, and transact environmental commodities globally. Founded in 2008, SRECTrade is the largest agent manager of electric (EV) and renewable energy assets across the U.S. With a 99% annual client retention rate, the firm has generated almost a billion dollars in value across more than 64,000 clients while managing over 185,000 clean energy assets on its technology platform. SRECTrade partners with commercial and public entities across a variety of market segments including manufacturing, freight and logistics, warehouse and distribution, maritime, EV charging networks, transit fleets, municipalities, universities, property management companies and others. SRECTrade is a wholly owned subsidiary of Xpansiv, the premier market-based infrastructure platform for environmental commodities.

## DISCLAIMER

This document, data, and/or any of its components (collectively, the “Materials”) are for informational purposes only. The Materials are not intended as investment, tax, legal, or financial advice, or as an offer or solicitation for the purpose or sale of any financial instrument. SRECTrade, Inc. does not warranty or guarantee the market data or other information included herein, as to its completeness, accuracy, or fitness for a particular purpose, express or implied, and such market data and information are subject to change without notice. Past performance should not be taken as an indication or guarantee of future performance, and no representation or warranty, express or implied, is made regarding future performance. Any comments or statements made herein do not necessarily reflect those of SRECTrade, Inc. SRECTrade, Inc. may have issued, and may in the future issue, other communications, data, or reports that are inconsistent with, and reach different conclusions from, the information presented herein.

## COPYRIGHT

This document is protected by copyright laws and contains material proprietary to SRECTrade, Inc. This document, data, and/or any of its components (collectively, the “Materials”) may not be reproduced, republished, distributed, transmitted, displayed, broadcasted or otherwise disseminated or exploited in any manner without the express prior written permission of SRECTrade, Inc. The receipt or possession of the Materials does not convey any rights to reproduce, disclose, or distribute its contents, or to manufacture, use, or sell anything that it may describe, in whole or in part. If consent to use the Materials is granted, reference and sourcing must be attributed to the Materials and to SRECTrade, Inc. If you have questions about the use or reproduction of the Materials, please contact SRECTrade, Inc.