

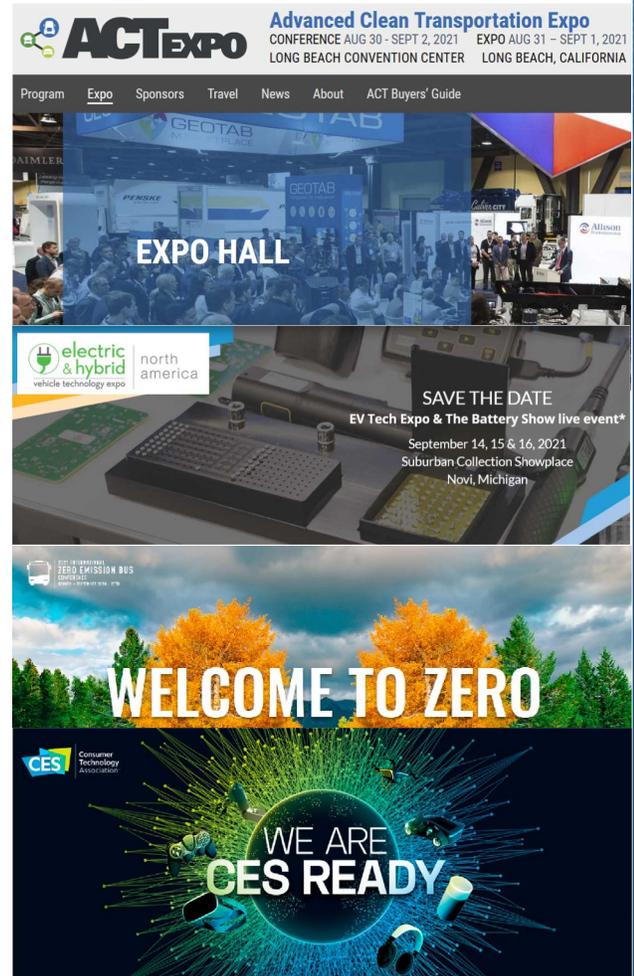


Tradeshows are Back! And Rhombus Energy Solutions Will be There!

As COVID incidences continue to wane, live in-person tradeshows are on their way back, and EV and clean energy tradeshows are no different! Rhombus will be at a number of these tradeshows through 2021 and into early 2022:

- **Advanced Clean Tech (ACT) Expo - Aug 30-Sep 2 in Long Beach, CA:** Rhombus will be in Booth 1807 at the [ACT Expo](#). We will be announcing some new product info, so definitely stop by Booth 1807 and hear about what we have going on!
- **Electric and Hybrid Vehicle Technology Expo - Sep 14-16 in Novi, MI:** We will be following up the ACT Expo with an appearance at the [E/HV Tech Expo](#) in Booth 810. Since Novi is near the Rhombus Dearborn facility, we would be happy to host you for a tour and refreshments (see below on how to arrange meetings or a visit).
- **Zero Emission Bus (ZEB) Conference - Sep 15-17 in Denver, CO:** The same week as the Novi show, Rhombus will be a Platinum Sponsor of the [ZEB Conference](#). Come by and hear about how we are helping the electrification of public transit and school buses.
- **Consumer Electronics Show (CES) 2022 – Jan 5-8 in Las Vegas, NV:** Our big show of this season will be [CES 2022](#), where we will have a variety of product announcements. Rhombus will be in the “Smart City” portion of North Hall in booth 9040, a 20 x 20 booth where you can have a hands-on experience with a number of our products.

In addition to these “live” shows, Rhombus will also have a digital booth at the **virtual [FORTH Roadmap Conference](#) on June 14-16!** We will be adding more events as the season progresses. If you want to find out the latest info, go to the [Events](#) blade on the Rhombus website. You can also set up meetings with us by clicking on the “READ MORE” link for a particular event, and then clicking on the “MEET WITH RHOMBUS...” button. You can also email us at news@rhombusenergy.com – just let us know which show you would like to meet us at. Thanks!



Rhombus 30/60kW Dual-Port Smart Inverter Gains HECO Certification!

Last month, the Rhombus Energy Solutions 30/60kW dual-port inverter was added to the Hawaiian Electric Power Company (HECO) [certified equipment list](#) of bidirectional smart chargers. The Rhombus PCS 30-60 Smart Inverter is one of the few 3-phase inverters in the power range of 10kw-100kW.

The multi-port feature of the Rhombus multi-port smart inverter allows it to accommodate both battery and solar feeds in a single inverter. This is an attractive feature for Hawaii as the state works to improve grid resiliency. It is the perfect product for small and medium sized commercial and industrial installations, as it minimizes battery costs.

The PCS 30-60 has two channels with a capacity of 30kW each, one of which is bidirectional. The unit supports power input/output ranges of 530VDC to 1100VDC, and can be positioned up to 400 feet from the energy storage and PV solar arrays. It is certified to UL 1741-SA, IEEE 1547, and CSA22.2, in addition to being HECO certified.

Will Your Next Pickup Truck be Electric? Ford Believes That It Will...

On May 19th, Ford [announced](#) something that, as late as a few years ago was thought to be unlikely – an electric pickup truck. For 44 years, the Ford F-Series pickup trucks have been the highest-selling vehicles in the US, and in 2022 you can get an electric version of the F-150 – the F-150 Lightning. The Lightning will



have 775 ft-lbs of torque (the most ever for an F-150) and 563 HP. It will be powered by two motors and will have 4x4 drive standard. The entry-level Lightning's MSRP will be \$39,974, and federal/state tax credits could drive it lower than current gas or diesel-powered versions of the F-150, a trend that will warm the hearts of pickup truck owners.

And the transition to electric will provide the F-150 Lightning with some interesting features like the ability to power jobsites (don't forget that a LOT of those F-series trucks are sold for construction and similar uses). Even more interesting, the Lightning will be able to provide up to 9.6kW of power to a home during power interruptions (with enough battery capacity for roughly 3 days of power!). This capability requires the Ford Charge Station Pro, which can provide 80A of **bi-directional charging** – one of the first bi-directional residential chargers for a consumer EV. Certainly would have been attractive for people in Texas last February...

Electric School Buses Continue to Gain Momentum!

One of the biggest beneficiaries of the Biden Administration's push on vehicle electrification is school buses, and the districts that operate them. Long one of the larger polluters, the movement from diesel to electric continues to attract new vehicle OEMs into the market. One of these is [BYD](#), a major manufacturer of electric buses.



BYD [recently announced](#) its Type-D electric school bus. The bus is available in three lengths (35 foot, 38 foot, and 40 foot), and can carry up to 84 passengers. Using lithium iron phosphate batteries and dual in-wheel traction motors, the BYD Type D bus has a range of up to 155 miles. It sports safety features like automatic stability control, a collision avoidance system, and 360 degrees of sensors to "see" pedestrians (including small children) around the bus. The bus is also fully capable of bi-directional charging, allowing it to work with vehicle-to-grid (V2G) and vehicle-to-building (V2G) solutions to improve grid stability.

A [recent study](#) estimated that the transit fleet for the entire United States could be electrified for between \$42B and \$89B. This would significantly reduce air pollution, as well as upgrading the public transportation experience for many Americans who rely on buses to get around. Certainly room for a large number of vehicle manufacturers, right?

CHAdeMO – France Walks Away From Requiring It In DC Fast Chargers

When CHAdeMO emerged in 2010 from a consortium of Japanese power companies and auto manufacturers, it was hailed as a potential global standard for DC fast charging of electric vehicles (EVs). Now, slightly over a decade later, CHAdeMO may be drawing its last breaths, being replaced by the CCS standard and upcoming standards such as the Megawatt Charging System (MCS).

The first step away was when Nissan [announced](#) last year that they would utilize CCS for their cars in Europe



and the US. In another sign of erosion of support for CHAdeMO, the government of France has now [announced](#) that it will no longer require DC fast charging stations to support CHAdeMO. While there will still be CHAdeMO chargers on the market, this move (and likely similar moves by other countries and charging network operators) will definitely simplify the building of charging systems going forward for charger manufacturers.

Quick Notes from the Electric Vehicle (EV) / Energy Storage Ecosystem

- [SAE WPT Task Force Urges FCC to support wireless charging standard](#)
- [U.S. Senate panel advanced EV tax credit of up to \\$12,500](#)
- [Texas Wants to Charge Tesla and Other EV Owners ~\\$400 in Annual Fees for Owning an EV](#)
- [Republicans include \\$4B for EVs in 2nd counteroffer to Biden infrastructure plan](#)
- [Ford raises its EV game: 40% pure EVs by 2030, new platforms, new battery initiatives and more](#)
- [Mazda MX-30 coming to US market in fall 2021](#)
- [FirstGroup Plans to Sell First Student, First Transit for \\$4.6 Billion](#)
- [WattEV's E-Truck Stop to offer 40 charging bays with 25MW of power, microgrid, and battery storage](#)

About Rhombus Energy Solutions

Rhombus develops and manufactures next-generation bi-directional electric vehicle charging infrastructure, high-efficiency power conversion systems and energy management system (EMS) software for vehicle-to-grid (V2G) capable electric vehicle fleet charging, energy storage and microgrid applications. The high reliability of our solutions is the result of decades of experience developing high-power systems for a variety of applications and deployment scenarios, including UL-1741-SA system-to-grid solutions. For more information, please visit www.rhombusenergy.com.

