TxETRA

Texas Electric Transportation Resources Alliance

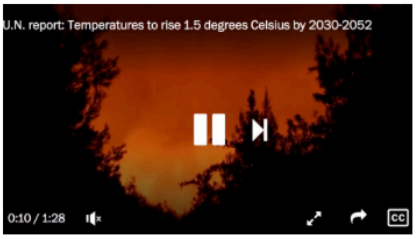
Join Us!

Help Texas
Become a Leader in the
Electric Transportation Future!

WELCOME to the TxETRA NEWSLETTER

October 2018

Highlights in this Issue



The United Nations calls for an EV transition - FAST after a frightening new report warns that the world has just over a decade to get climate change under control.

TxETRA Board and Member Policy Meeting Nov. 16th in Austin from 12-4 pm. Help determine our legislative & regulatory program. *Stay tuned for location details.*

Rise of the E-Bike. Electric Bikes are about to go mainstream and the media full of projections about these clean, two-wheeled vehicles.

Charging station standards, protocols, locations, consumer protections, pricing, and a 25% low-income set aside. Read

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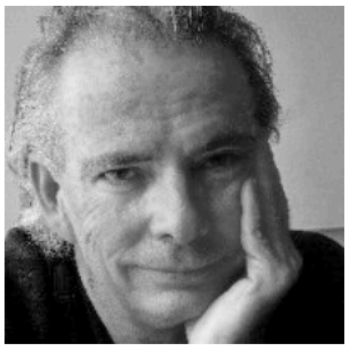


Message from TxETRA Board Chair, Michael Osborne

Our mission statement to "guide and accelerate the adoption of electric transportation in all its forms, in the most cost effective way, providing maximum benefit to the citizens of Texas," stands on its own whether or not you accept that humankind is changing the climate.

Moving to a transportation future that is unified with the stationary generation grid just makes good sense - with or without the issue of climate change.

But of course, there *is* climate change, and the new IPCC report is pretty blunt. Here is my deep edit on the actual report.

"Human activities are estimated to have caused approximately 1.0°C of global warming above pre-industrial levels. Global warming is likely to reach 1.5°C between 2030 and 2052, if it continues to increase at the current rate.

Reflecting the long-term warming trend since pre-industrial times, observed global mean surface temperature for the decade 2006–2015 was 0.87°C higher than the average over the 1850–1900 period. Estimated anthropogenic global warming matches the level of observed warming to within ±20%.

Estimated anthropogenic global warming is currently increasing at 0.2°C per decade due to past and ongoing emissions

Warming greater than the global annual average is being experienced in many land regions and seasons, including two to three times higher in the Arctic. Warming is generally higher over land than over the ocean.

Trends in intensity and frequency of some climate and weather extremes have been detected over time spans during which about 0.5°C of global warming occurred.

Warming from anthropogenic emissions from **the pre-industrial period to the present** will persist for centuries to millennia and will continue to cause further long-term changes in the climate system, such as sea level rise, with associated impacts, but **these emissions alone are unlikely to cause global warming of 1.5°C.**

Anthropogenic emissions up to the present are unlikely to cause further warming of more than 0.5°C over the next two to three decades or on a century time scale."

So the good news is, we have not cooked ourselves yet.

Join Us Now and help us keep it that way.

BREAKING NEWS

The World Has Just a Decade to Get Climate Change Under Control, U.N. Scientists Say

Photo Credit: NASA

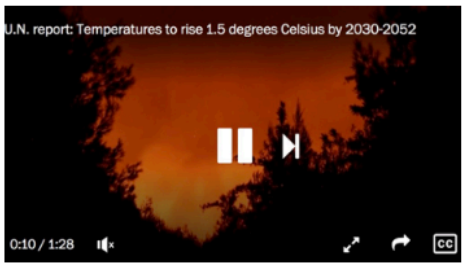
"Nations will need to take unprecedented actions" to cut their carbon emissions over the next decade, according to a landmark (IPCC) report by the **United Nations Intergovernmental Panel on Climate Change.**

"It's like a deafening, piercing smoke alarm going off in the kitchen. We have to put out the fire," said Erik Solheim, Executive Director of the U.N. Environment Program. "The need to either **stop emissions entirely by 2050 or find some way to remove as much carbon dioxide from the air** as humans put there means *net zero must be the new global mantra."*

Electrified Transportation is key in this new reality, according to the panel. **"Cars and other forms of transport need to shift strongly toward being electrified** and powered by these same renewable energy sources." Currently, **transportation is far behind** the power sector in the shift to low-carbon fuel sources.

The five major solutions listed by scientists include: (1) **energy efficiency**, (2) **electrifying transport (EVs),** (3) **pulling carbon dioxide out of the atmosphere** by reforesting regions and using carbon capture technology, (4) **rapid deployment of renewable energy** to provide at least 70% of global electricity in 2050, and (5) **coal use will essentially need to disappear.**

The *PBS News* Program *Here and Now* reported live from South Korea, where the report was released. Listen here.



What's required: **"Rapid and far-reaching transformation of human civilization** at a magnitude that has never happened before."

The Washington Post

"We're absolutely screwed unless we switch to electric vehicles (EVs) - if car buyers don't shift on their own to electrification."

- Jalopnik

The IPCC estimates the atmosphere will warm up by as much as 2.7 degrees degrees above preindustrial levels by 2040, inundating coastlines and intensifying droughts and poverty.

-NYTimes

Scientists & policymakers know how to address climate change and stave off the worst effects, but are political leaders are anywhere close to fully undertaking any of these steps?

- Time

TxETRA News

Executive Director, Tom "Smitty" Smith talks about
"Texas' Electric Transportation Future"
during TREIA's (Texas Renewable Energy Industries Alliance) Annual GridNEXT 2018 Conference.

"Sustainability:
The Journey to 50% Renewable Energy by 2030"

"So if we can come up with ways to electrify transportation and take advantage of our enormous amount of renewable resources, we could dramatically reduce the carbon in the transportation sector, and that's what's TxETRA is all about..."

Playing with Trucks and Buses

TxETRA Team Joins Other Zero-Emissions Advocates from Texas on a Tour to California To Learn About How Heavy-Duty Electric Vehicles are Changing the Transportation Paradigm.

TxETRA Policy and Communications Director **Stacey Abel**, Board Member **Janis Bookout,** and **Public Citizen** Media Officer, **Angel Amaya**, arrived to meet the rest of the Texas team at **BYD's EV bus factory in Lancaster, California.** We were greeted by **TxETRA Board Member (and BYD VP), Bobby Hill**, and other team leaders who generously took us on a tour to learn about the exciting world of zero-emissions vehicle manufacturing.

Funding for the trip was made possible by **Air Alliance Houston**, who generously hosted representatives from the **Houston City Council, Environmental Defense Fund, Earth Day ATX, Public Citizen Texas, Rice University, Houston Metro, Texas PIRG** and **TxETRA.** Public Citizen's **Stephanie Thomas** took charge of carefully planning the incredibly informative two-day, hands-on tour to help us get a handle on the world of medium and heavy-duty bus and truck manufacturing, finance, and policy.

In addition to **BYD**, we visited other heavy and medium duty manufacturers such as **TransPower, Orange EV, WAVE** (Wireless Advanced Vehicle Electrification), and **TTSI** (Total Transportation Services, Inc.), who all opened their company doors to welcome us, answer our questions, and give us a behind the scenes look at what the important work they are doing to reduce vehicle emissions.

We got new insights into issues and solutions regarding **range, financing and charging infrastructure**. We were also excited to hear how quickly the trucks made up for the up-front costs in fuel and maintenance savings. We learned first hand how much **truck drivers prefer driving electric** once they've made the transition. For example, in stop and go traffic, electric trucks are more responsive, and regenerative braking makes a big difference.

One of the most important things we can do for the the health of the planet is to transition diesel fleets to clean, zero-emission electric power. Walking away, we were left impressed by the innovations, volume of production and diversity of individuals, policymakers, and companies working hard to make this happen.

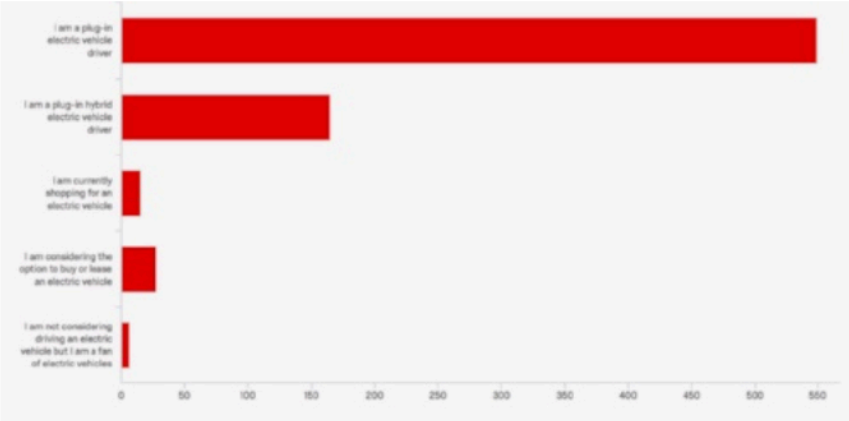
POLL RESULTS

What You Told Us About Range, Charging Locations & Fees

We asked you to give us valuable information to share with state regulators and legislators about how to prepare Texas for the rEVolution! **Over 700 individuals (*mostly EV Drivers - see below*) registered their opinions on key issues.** Here are some of the key takeaways.

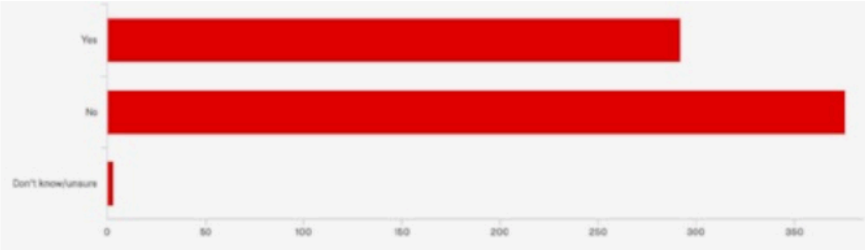
Q. Where You Are in the EV Process?

1. EV Driver 2. Hybrid Driver 3. Shopping 4. Considering EV 5. Not Considering)



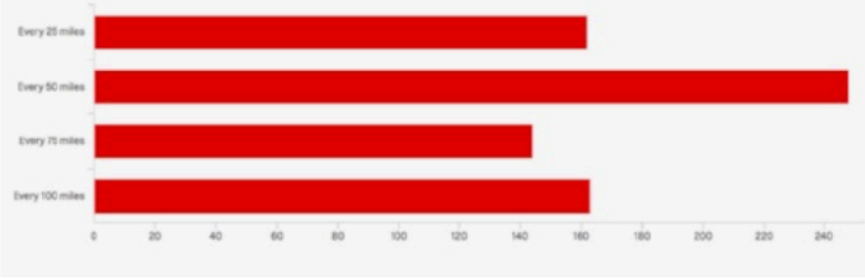
Q. Is the Stated Range of Your Fully-Charged EV Greater than 150 miles?

(Yes / No / Don't Know)



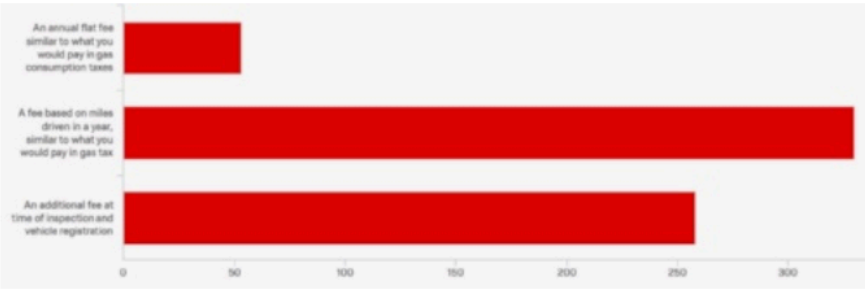
Q. What You Think is the Optimal Distance between DCFastcharging stations on Interstate Highways?

Every... 1) 25 miles 2) 50 miles 3) 75 miles 4) 100 miles



Q. Which is Your EV Owner Charging Fee Preference (to replace the Gas Tax to Fund Roads and Bridges).

1) Flat Fee based on your Gas Consumption Taxes 2) Miles Driven Per Year 3) Vehicle Inspection & Registration



The vast majority of those responding to our survey already drive EVs, with the second-largest segment made up of Hybrid drivers. Others were **shopping or considering an EV** for their ***next*** auto purchase. The majority of respondents reported their **EV range to be less than 150 miles,** with fewer reporting more than that. The overwhelming **vote for charging station frequency was every 50 miles,** followed by an equal comparison for those who preferred stations every 25, 75, and 100 miles, respectively. **The majority of participants preferred to pay an annual EV fee** (to replace the gas tax by which we fund roads and bridges) **in the form of a miles per driven per year model,** with a **Vehicle Inspection and Registration fee** as a second choice.

Thank you to everyone who took time to participate! **If you haven't yet voted, do so below - as the poll is ongoing,**

Take the Survey!

"Are You a Smoker?"

TxETRA Board Chair, Michael Osborne, asked a packed house last week at Solar Austin's monthly Meeting.

Comparing gasoline-fueled vehicles to cigarettes, he called them the "uncool smokers" of the 21st-century, insisting that we have the tools to be CARBON-FREE by 2050.

Industry News

September 2018 - Best Month Ever EV Sales Soared by Leaps & Bounds

September shattered records and went down in the history books, said Inside EVs but it will soon be surpassed. **Tesla was the #1 top selling American car "by a landslide"** in September, reported CleanTechnica, with only three car companies that sold more, though all were foreign models: Toyota Camry, Honda Accord, and Honda Civic.

Oil's March Toward $100 a barrel is just what electric cars need.

- Bloomberg

Volkswagen aims "to make electric vehicles for millions - not millionaires"

- Inside EVs

"EVs are at a convergent point," says U of Houston's Executive Director of Energy Management Institute. *(Listen)*

- Houston Public Media

Time to get ready for a flood of electric cars. September 2018 EV sales were double that of a year ago.

- Inside EVs

Despite Trump Tariffs, Electric Bike Use Takes Off

Electric Bikes are about to go mainstream, says the New York Times. "On any given day, as many as 50,000 bicycle delivery workers sweep through the city and, according to their advocates, more than half of them are on e-bikes.

This is heading in the right direction since Curbed reports that **"70% of the NYC transportation emissions come from private vehicles vs. the national average (60%)".** Shifting some of those trips to E-bikes would reduce emissions, take up significantly less space, and reduce traffic gridlock in one of the busiest cities in the world."

However, GeekWire reports that some U.S. electric bike companies are feeling the squeeze of the Trump Administration's **25% tariff on importing e-bikes** and scooters. Many have expressed concern that increased **passthrough price tag of about $250 per unit** could slow sales and adoption. Still, there's a lot of action going on in this arena.

Mate X Raises $10 Million for its foldable electric bike - the most successful European ebike campaign ever.

- Melbourne Tech City

Which e-bike is right for you?

1) Pedal-assist ("pedelecs),
2) Power on demand, or
3) TSpeed pedelecs.

- Lifehacker

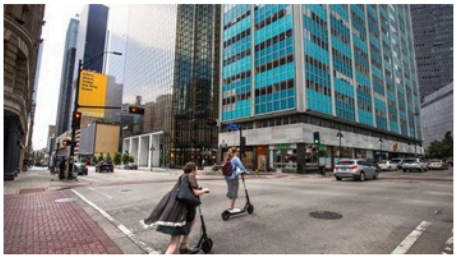
Your next UPS package could be delivered on an electric bike.

- Quartz

Cities risk ruining quality of life if they banish e-bikes and scooters.

- LA Times

Scooter Madness Continues



DALLAS -- **Are Razor Scooters here to stay?** Razor thinks so - and so does Dallas City Hall.

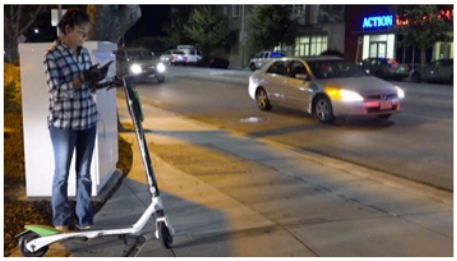
- Dallas Morning News

MEMPHIS -- **City Council approves scooters** with low-income requirement.

- USA Today

Vespa Electric Scooter - the first electric version of Piaggio's iconic two wheeler.

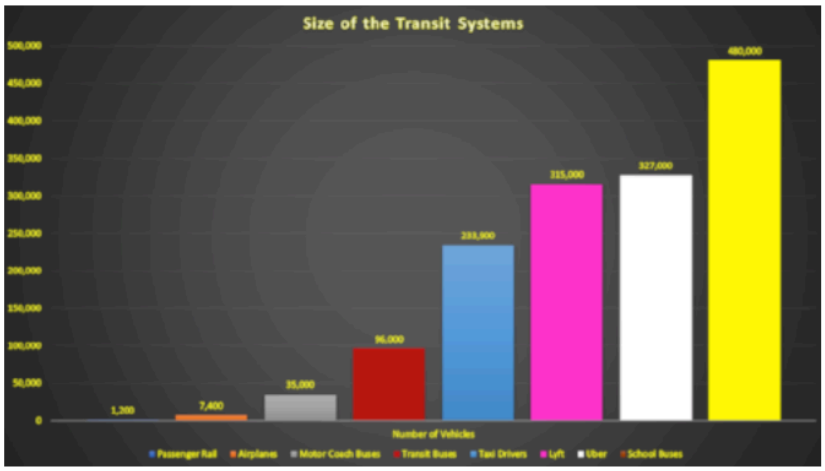
- Electrek



"Scooter Juicers" - Scooter popularity gives rise to a new line of work.

-VOA News

Why Should Texas - and the U.S. Prioritize Electric School Buses?



Did You Know?

School Buses are the Largest Form of Public Transportation in the U.S.?

Accordingly to the American School Bus Council, **each day 480,000 school buses carry 26 million children** (over half of the total) to and from U.S. schools.

The Good News is that **school buses are the most regulated** vehicles on the road - **which makes them 70% safer than cars**, reports EdgyLabs. Moreover, each school bus *eliminates an average of 36 cars from the road for every 1 bus transporting kids.*

The bad News - as we all know - is that while all sources of diesel pollution are dangerous to our health, pollution from **school buses are particularly dangerous because of the population they serve and where they operate.**

Transitioning our nation's school bus fleet to electric would make the single biggest reduction in diesel transit pollution. However, the problem faced by financially strapped school districts are the steep upfront costs. Diesel buses cost around $75,000, whereas electric models cost three times that amount, at $225,000. And while **school districts will reap immense savings in the long-term on no-longer-needed fuel**

and maintenance costs - tight district budgets in most areas preclude investing in what will ultimately wind up being the cheaper (EV) option. But this is changing. Both CleanTechnica and the Green California Summit report on several grant programs being created to give districts a jumpstart. Furthermore, many states are using **VW Settlement** funds to help with the cost of the capital outlay.

"Time to switch to electric school buses to save the planet and money," says U.S. PIRG (Public Interest Research Group)

- The Washington Post

Blue Bird's first all-electric school buses unveiled just in time for the new school year - with grants helping to foot the bill.

- Inside EVs

Electric Vehicles
Everything is Changing

November 14 - 15, 2018

Electric Vehicles: Everything is Changing will reveal the latest advances and newest roadmaps in this radically changing industry. We balance the presentations from the giants with new faces revealing important breakthroughs. **IDTechEx** finds the companies and researchers that break the mold.

Register

ACEEE 2018
National Convening on
Utilities and Electric Vehicles

Georgia Tech Global Learning Center
November 14, 2018
Atlanta, GA

ACEEE is hosting a one-day convening focused on helping utilities develop EV policies and practices. Utilities will learn how to broaden support for EVs from a full range of stakeholders by maximizing the **economic, environmental, consumer, and other societal benefits of EVs.** Participants will create connections across disciplines and will learn about new tools to enact promising **EV-grid integration** practices that address key challenges. National in scope, this conference is located in Atlanta to help highlight current developments in the southeast.

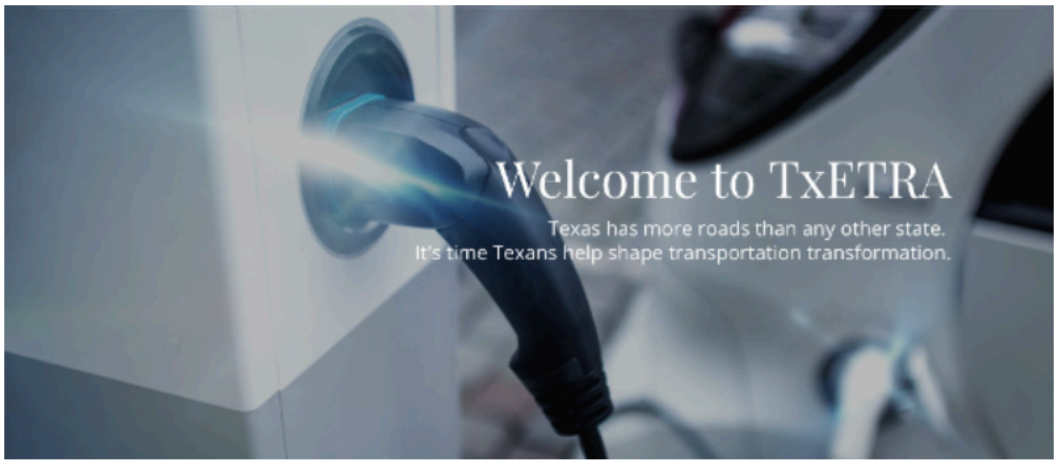
Register

SMARTMOBILITY CONGRESS

November 13-15, 2018
Barcelona

SMC is a co-located event with the **Smart City Expo World Congress.** This year the event focuses on **The Next Move,** showcasing new solutions and looking at h**ow smart mobility is reshaping our cities**, with its ultimate goal to **help accelerate development of mobility products, services and projects** and shorten their go-to-market time; and help tackle the **urban mobility challenges** faced by modern cities and economies.

Register



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