



Utility Transportation Electrification Opportunities & Programs

Austin Energy, City of Austin

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Utility EV Investment Portfolio

Union of
Concerned Scientists

FACT SHEET

Principles for Utility Investment in Electric Vehicles

HIGHLIGHTS

For more than a century, our cars and trucks have been fueled almost exclusively by oil. Today, electric vehicles give us the potential to power our vehicles with a diverse set of energy sources, including clean and renewable energy.

Working together, policymakers, regulators, communities, and utilities can help accelerate the transition to electric vehicles. With the right utility investments and policies, utilities will be able to serve new markets; electric vehicle drivers will have convenient charging options wherever they go; utility customers could benefit from lower rates and a more efficient grid; and all residents will benefit from cleaner air, a healthier community, and a more stable climate.

Electric vehicles (EVs) represent both an enormous opportunity and a significant challenge for our utilities. Converting our vehicle fleet to electricity could add as much as 1,000 terawatt-hours of demand onto our electric grid, an increase of about 25 percent of current levels (Fitzgerald and Nelder 2017). If managed correctly, this large and flexible load could significantly increase the efficiency of our electric system, which would benefit not only EV drivers but also all ratepayers, providing lower costs. In the long run, widespread deployment of EVs could also be a source of energy storage, filling a critical need as our electricity system moves away from fossil fuels toward intermittent sources of power, such as wind and solar. Without proper management of EV charging, however, the additional power needed to fuel EVs will require significant new capacity, reducing pollution benefits and imposing additional costs on ratepayers.

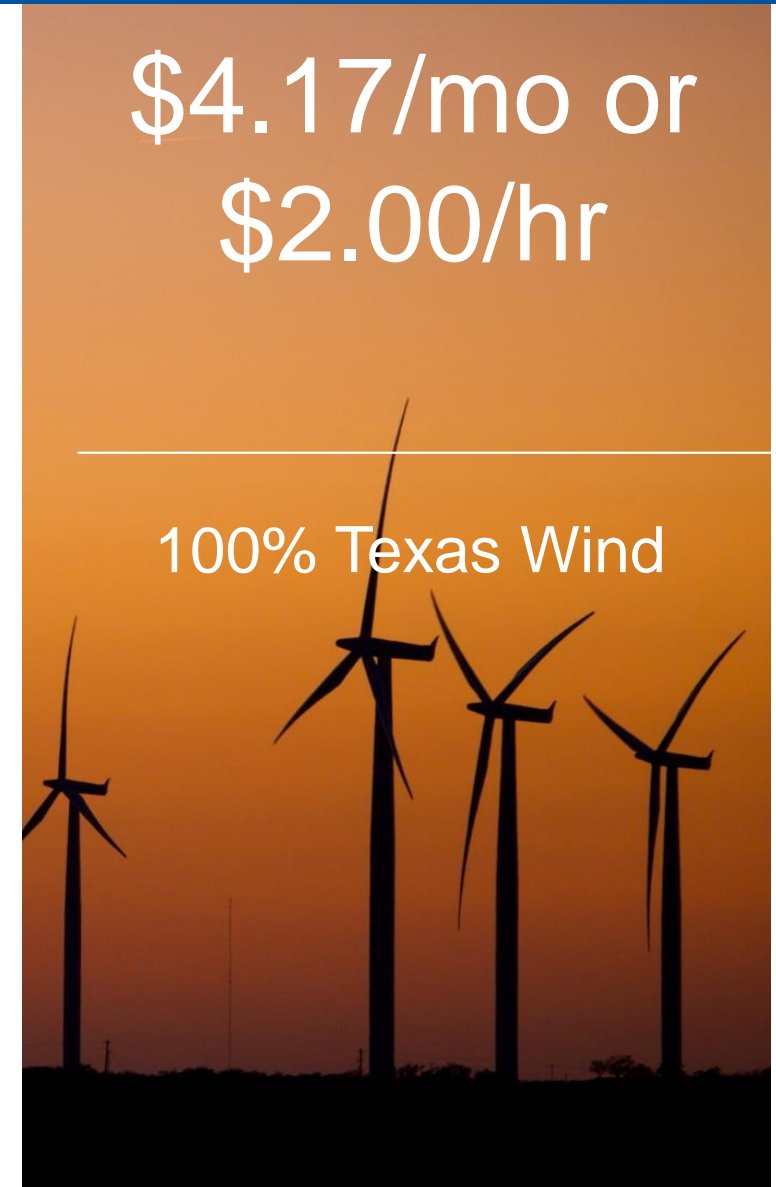
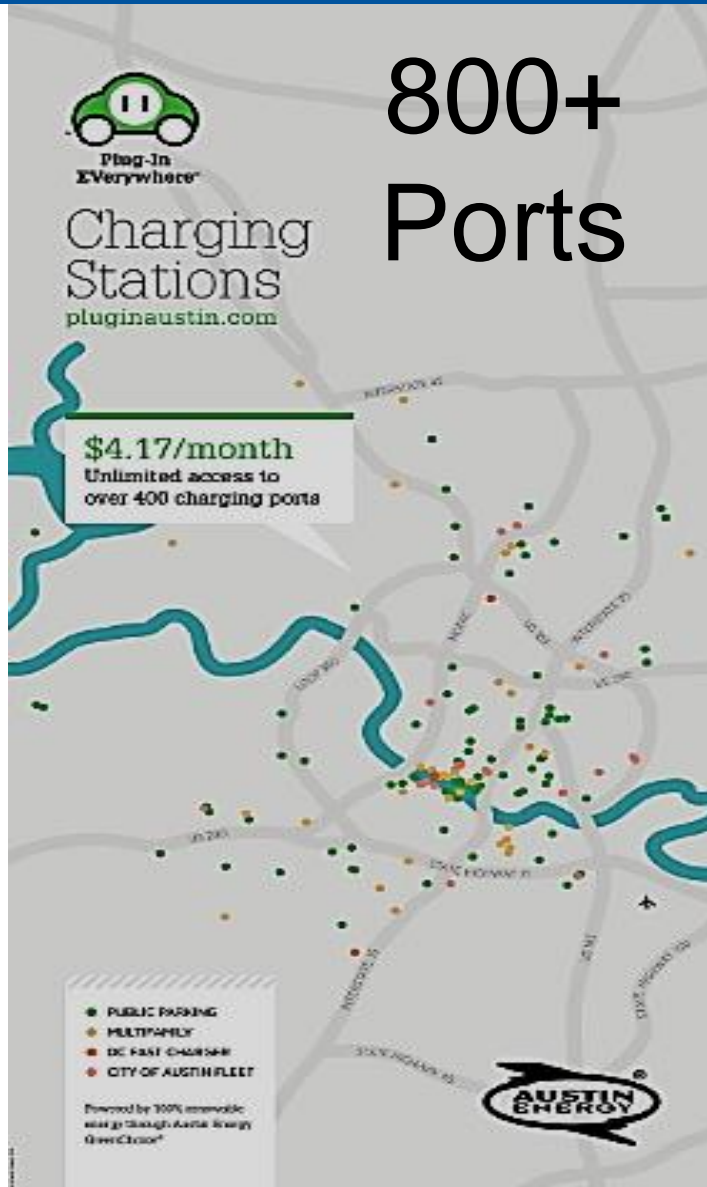
Building more EV infrastructure will help more people make the switch to an EV, saving money and reducing emissions. Consumer studies have consistently found that inadequate access to charging infrastructure remains one of the most pressing obstacles to EV adoption. We have had more than a hundred years to build the massive infrastructure necessary to support our gasoline and diesel vehicles, including more than 100,000 gas stations fed by million of miles of pipeline. Creating an EV charging network that can compete with our oil infrastructure will require tens of thousands of new charging stations.



Austin Energy has over 38 initiatives categorized by:

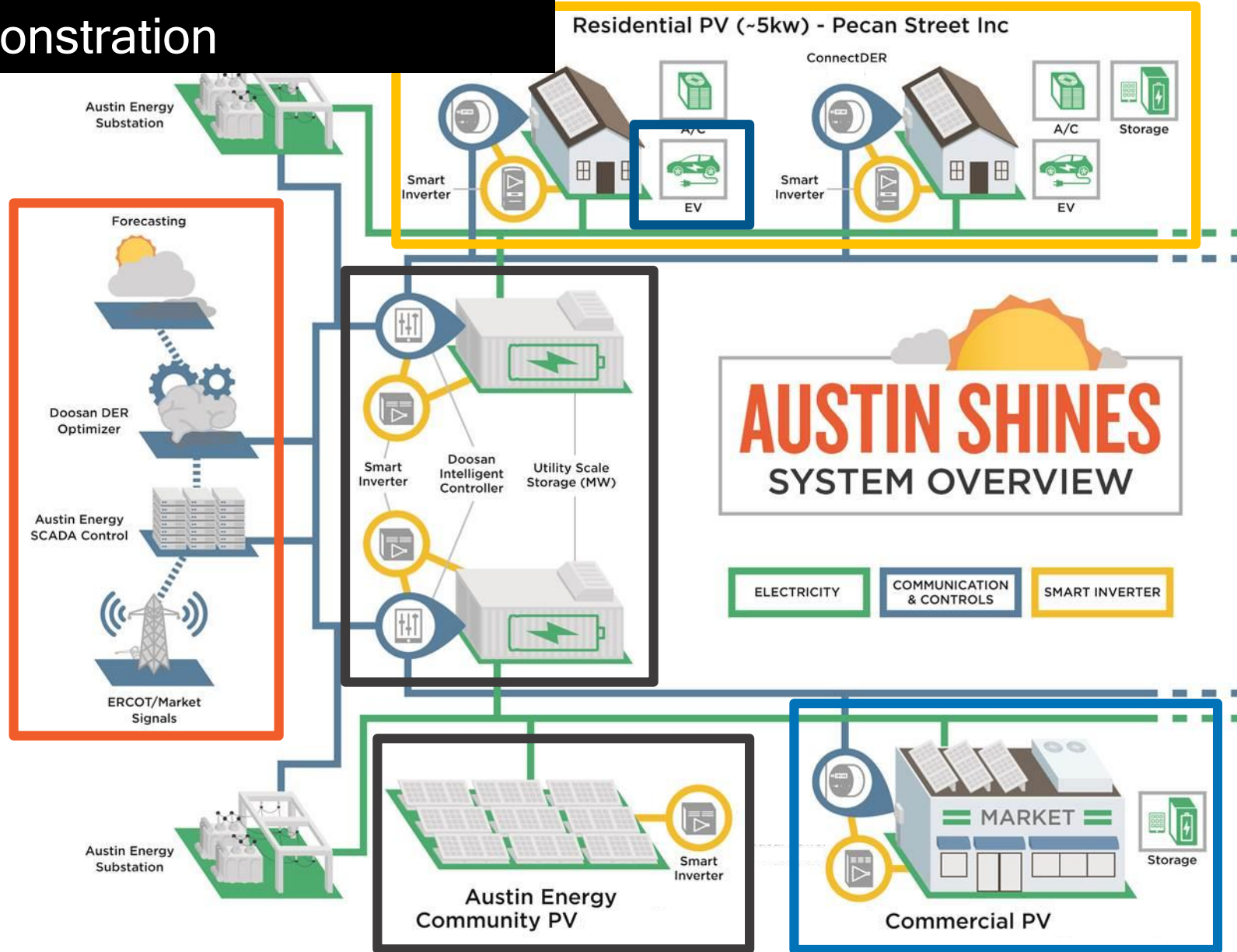
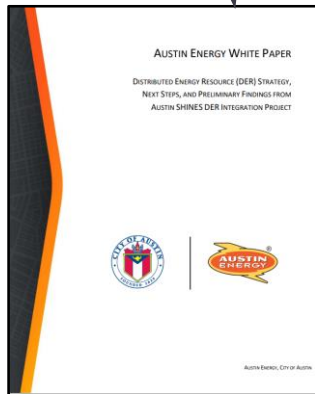
- ✓ EV Chargers Live/Work
- ✓ High-Speed Chargers
- ✓ Ratepayer/Grid Benefits
- ✓ Fair Electric Rates
- ✓ Truck/Bus
- ✓ New Mobility Services
- ✓ Low-Income Community Benefits
- ✓ Open/Competitive EV Charging Market
- ✓ Engage Stakeholders
- ✓ Educate the Public

Public Charging



Austin SHINES is a “Virtual Power Plant” demonstration

White-Paper
Available



1. Distributed
2. Renewable
3. Integrated
4. Real-time
5. Open Stand.

Utility Scale Energy
Storage + PV

Commercial Energy
Storage + PV

Residential Energy
Storage + PV

Vehicle to Grid
(V2G)

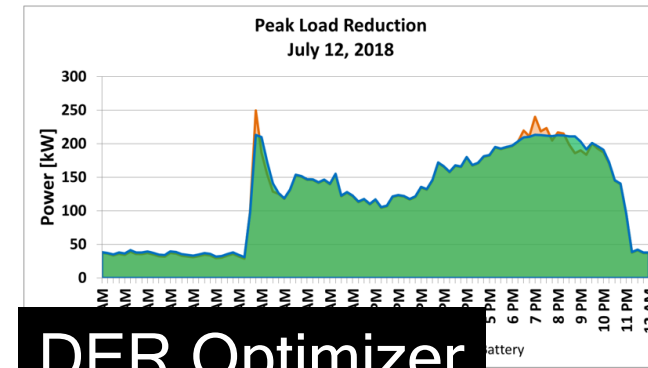
DER Management
Platform

“Virtual power plant”, Austin SHINES, integrates PV Solar and storage with real-time controls.



Commercial Storage

Austin SHINES Deployment



Residential Storage & PV Solar



V2G



Grid Storage & PV Solar



CASE STUDY
FIFTH & WEST RESIDENCES

100% ELECTRIC VEHICLE READINESS



"The comforts of home are evolving with new technology, from the living room to the garage. Whether they drive electric vehicles today or sometime in the future, we are ready to help each owner charge with ease."

— John L. Needham, Principal, Riverside Resources



EV Readiness Green Building Codes & Multifamily Program



Cap Metro Says This Lot Will House The Electric Bus Facility 'Of The Future'

By MOSE BUCHELE, KUT • 16 HOURS AGO

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 TRANSIT

Tuesday, April 23, 2019 by Ryan

Capital Metro to buy last wave of diesel, first electric buses





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BLOGS / SEPTEMBER 21, 2018

THAT TIME I TRIED TO BUY AN ELECTRIC VEHICLE... AND NO ONE WOULD SELL IT TO ME





Browse Electric Vehicles



Discover Incentives



Locate Charging Stations

There are 16 electric vehicles available in the Austin area. Discover yours.

Volvo XC60



Kia Niro Plug-In Hybrid



Toyota Prius Prime



CBS | AUSTIN

Austin a winner in Bloomberg American Cities Climate Challenge



Austin American-Statesman

Thanks to ambitious goals, Austin wins Bloomberg climate change challenge

Austin pedicabs get boost with electric motors just in time for SXSW

METRO-STATE



2

By Mary Huber - American-Statesman Staff

Austin rolls out electric pedicab pilot in time for SXSW



12 seconds left



BikeTexas gets Austin rebate for fleet of new e-bikes

By: Andy Jechow



Posted: Aug 02, 2016 05:28 AM CDT

Updated: Aug 02, 2016 05:28 AM CDT



BikeTexas gets first of its kind rebate for fleet of new e-bikes (Mayor Adler Twitter Photo)

City Fleet – 330 EV rollout plan over 3.5 years



- City Fleet EV plan expected to save the city \$3.5M Total Cost of Ownership (TCO) over 10 years
- Over their 10 year lifetime, 330 EVs will avoid 12,000 metric tons of Carbon Dioxide



Virtual Reality

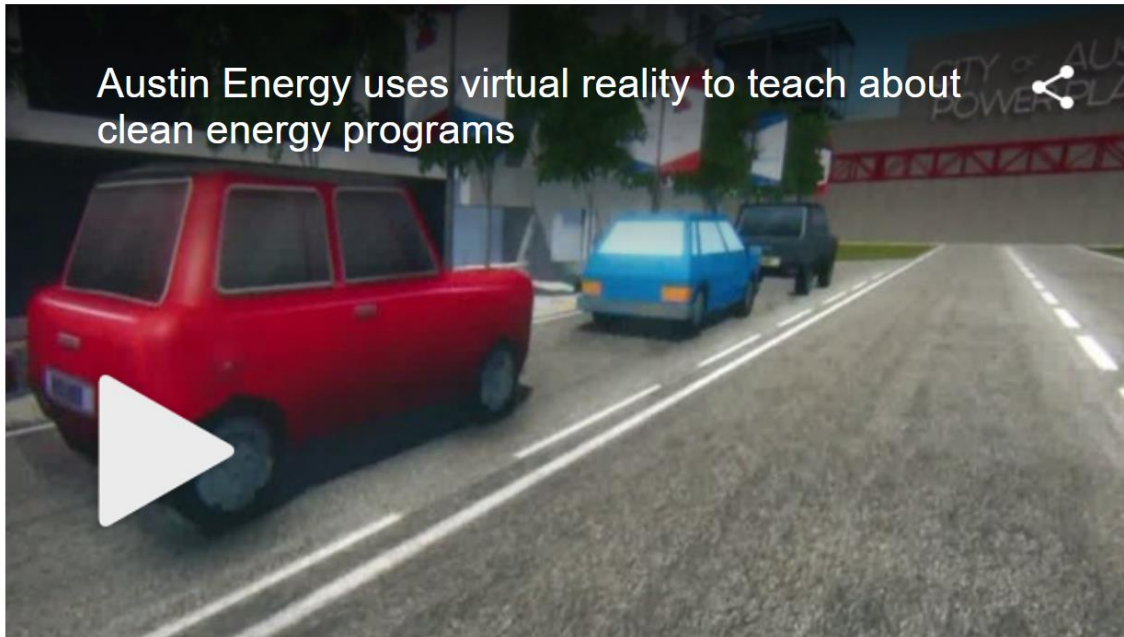


Austin Energy uses virtual reality to teach about clean energy programs

Updated: Mar 27, 2018 06:58 PM CDT



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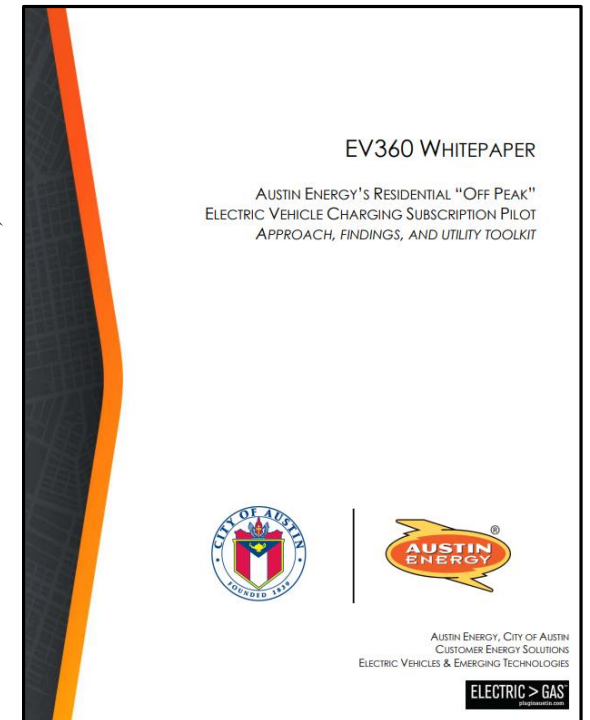
AUSTIN ENERGY TO USE VIRTUAL REALITY TO SPREAD ENERGY EDUCATION

Residential Program



- Tiered Level 2 rebate - \$1,200/\$900 based on WiFi enabled
- EV360 Time of Use (TOU) pilot underway - \$30/month “home & away”

White-Paper
Available



“EVs are for EVeryone” Program

30.2% of a low-income family's income goes to transportation vs.
13% for middle-income families - TxETRA



“ I can take my kids to school and then get to the store.”

“It's been so much fun biking around our neighborhood. We've even been getting to know more neighbors and everyone is always so curious (and jealous) of our bikes. We are so happy there was a rebate! It definitely made the decision to get e bikes even sweeter.”



Austin American-Statesman

**Charging stations at schools to power electric vehicles,
student minds**



"EVs for Schools" Program



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www.pluginAustin.com &
austinenenergy.com/go/shines



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