Smart Charging: The Future of Residential EV Charging
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Field Research

Our Approach

- 1,000 homes
- Real-time, unique data
- Expanding into CA, NY, and MI: 100 homes per state

Data Collection and Access

- The world’s largest residential energy research database
- Innovative data privacy & security processes
- All available to academic and corporate researchers

Testing & Verification Lab

- Affordable concept and prototype testing center for smart residential energy solutions
- Allows for rapid product and market verification testing
- Texas’s first grid-connected V2G testing center
High Resolution, Disaggregated Data

One-Minute, Circuit Level Data
Get in touch!

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Daily Average Charging Load Vs. Average ERCOT Price by Season

- **Summer**
  - EV Charger Load
  - ERCOT Price

- **Shoulder**
  - Avg EV Charger Load (kW)
  - Avg ERCOT Real-Time Price (USD)

- **Winter**
  - 6AM, Noon, 6PM, Midnight
Distribution of Maximum Charger Power Level

Weighted Average of Maximum Charger Level
Average Daily Charging Load vs Status Quo with ERCOT Price

- Upgrade EV Charger Power Level Only: 6% cost delta from Status Quo
- Shift Daytime Charging to Overnight: 22% cost delta from Status Quo
- Shift Overnight Charging to Evening: 18% cost delta from Status Quo
- Shift Top 20th Percentile Cost Charging to Overnight: 23% cost delta from Status Quo
Shifting Charging Patterns Impact Utility Costs

Summer Average Charging Load vs Status Quo

Scenario Cost Difference from Status Quo
Policy Recommendations

Utility Pricing Signals

Smart Charging Technologies

Consumer Education
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Thank You