

MEDIA RELEASE

For Immediate Release

SA Government and Chargefox trial shows what drives EV charging behaviour.

6th November 2024 - Electric vehicle drivers in Adelaide's west have helped shape future pricing strategies for EV charging across Australia, with the conclusion of a ground-breaking study of driver behaviour.

The results follow a series of innovative pricing experiments at an EV charging station at Port Adelaide Plaza. Delivered in partnership between Australia's largest electric vehicle (EV) charging platform, Chargefox, and South Australia's Department for Energy and Mining, this study set out to discover if EV charging behaviour could be influenced to support the energy grid and maximise the use of renewables.

Utilising purpose-built functionality within the Chargefox app and advanced data analysis techniques, the trial aimed to explore whether time-of-use pricing strategies could encourage drivers to shift their charging habits to periods when solar energy is abundant and wholesale energy prices are at their lowest.

The study revealed that time-of-use pricing could indeed influence driver behaviour, though with certain conditions. It was found that price signals are more effective when:

- A per-kWh pricing model is used rather than a per-minute pricing strategy.
- The pricing strategy is simple, easy to understand, and presents a noticeable price gap between different time periods.
- The pricing aligns with drivers' perceived "reasonable" price based on their home energy rates, plus a margin for infrastructure and convenience.
- The charging station meets or exceeds drivers' expectations in terms of availability, reliability, speed, and convenience.

The trial also identified two distinct segments among EV drivers: those who "need to charge" and those who "want to charge." The "want to charge" segment, which



has the flexibility to choose where and when to charge, was found to be more responsive to price signals, whereas the "need to charge" drivers prioritised maintaining mobility over pricing considerations.

Chargefox Lead Researcher Miles Menegon said "The Smart Charge Trial revealed that EV drivers aren't just looking for the cheapest charge. Factors like location, convenience, and charging speed also play a big role."

Based on the findings, pricing strategies should be designed with simplicity in mind, focusing on per-kWh pricing with limited complexity and variability. Additionally, charging stations should offer multiple connectors, particularly CCS2 connectors, to maximise usage during grid-favourable times. It was also noted that premium pricing for faster charging is acceptable, provided that the charging station's capacity is not artificially limited during peak demand periods.

Funded through the South Australian government's EV Smart Charging Trial program, the trial—one of the first of its kind anywhere in the world—incorporated several experiments relating to the price of charging, the proportion of renewable energy on the grid, and drivers' motivations for charging.

As an increasing number of electric vehicles hit Australian roads every month, there is a growing realisation that they will play a significant role in the country's energy future.

The Hon Tom Koutsantonis MP, Minister for Energy and Mining said "I'm excited by the potential for these findings to make a difference to the state's electricity grid as a whole. This government prioritises initiatives that maximise the benefits of electric vehicles for all South Australians, including those who cannot afford an EV."

For more information, please download the full report at www.chargefox.com/SASmartCharge.



About Chargefox:

Chargefox is Australia's leading EV charging platform, dedicated to making EV charging simple, affordable, and accessible for all. With a vast network of charging stations and a commitment to innovation, Chargefox is driving the transition to clean transportation in Australia.

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