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UQ CHARGE-EV PROJECT

BASELINE REPORT

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April 2023

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Citation
La Nauze, A., Philip, T., Lim, K., Friesen, L., Menezes, F., & Page, L. (2023), *UQ CHARGE-EV Project Baseline Report*. The University of Queensland, Australia.

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Project Overview

The UQ CHARGE-EV Project will study the driving and charging behaviour of current electric vehicle owners in Australia, and their attitudes and responses to incentives to shift the time of their charging. It leverages the successful UQ Teslascope project launched in 2021.

UQ partnered with the analytics platform Teslascope to recruit Tesla users in Australia. Teslascope collects data from consenting Tesla owners and this data is shared with the research team at UQ.

Recruitment of participants for UQ Teslascope project began in November 2021. Recruitment of participants for the UQ CHARGE-EV Project began in November 2022.

The UQ Teslascope project was funded by Advance Queensland and iMOVE Cooperative Research Australia. The UQ CHARGE-EV Project is funded by Energy Consumer's Australia's Grants Program.

The UQ research team appreciates the participants who made this unique and important research possible.

Purpose

The purpose of this report is to document preliminary findings from the baseline survey of owners Tesla and non-Tesla electric vehicles conducted as part of the UQ CHARGE-EV Project, funded by Energy Consumer's Australia's Grants Program.

This data was collected from November 2022 – March 2023. Participants were recruited for the study via mass and social media, user groups and forums and word of mouth.

Insights

Table 1. Demographic characteristics of Tesla and non-Tesla samples

	Non-Tesla Owners (%)	Tesla Owners (%)
Sample size	165	289
Age		
Below 45	23.03	44.98
45 and above	76.97	55.02
Gender		
Male	67.27	59.86
Female	30.30	38.76
Non-binary/Prefer not to say	2.43	1.38
House ownership		
Own	95.15	90.66
Rent	4.85	9.34
Home Battery		
Yes	27.27	23.18
No, but interested	20	22.15
No	52.73	54.67
EV Tariff		
Flat rate	53.94	49.48
Time-of-Use (ToU)	46.06	50.52
Number of years owning an EV		
1 year or less	59.39	30.8
1 to 2 years	24.25	22.13
3 years or more	16.36	47.07
Residence type		
Apartment	5.46	5.88
Free standing house	89.09	86.51
Townhouse	5.45	7.61

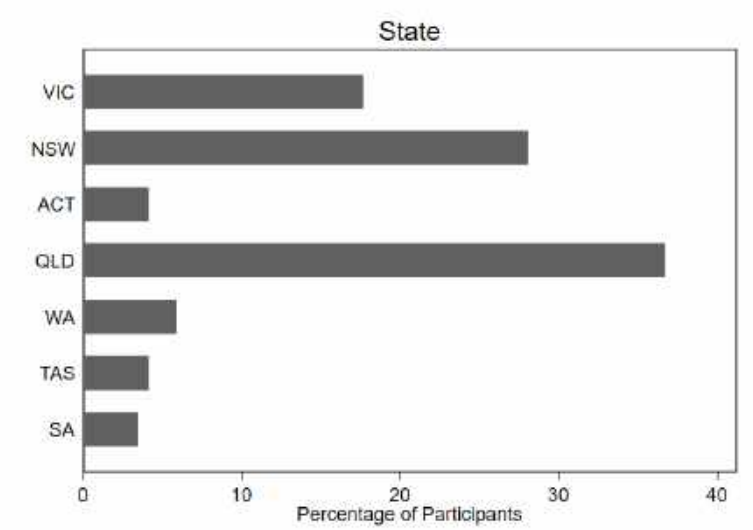
Insight

Comparing the sample of Tesla and non-Tesla vehicle owners in Table 1 reveals some differences in characteristics of respondents, for example along dimensions of age and years of electric vehicle ownership.

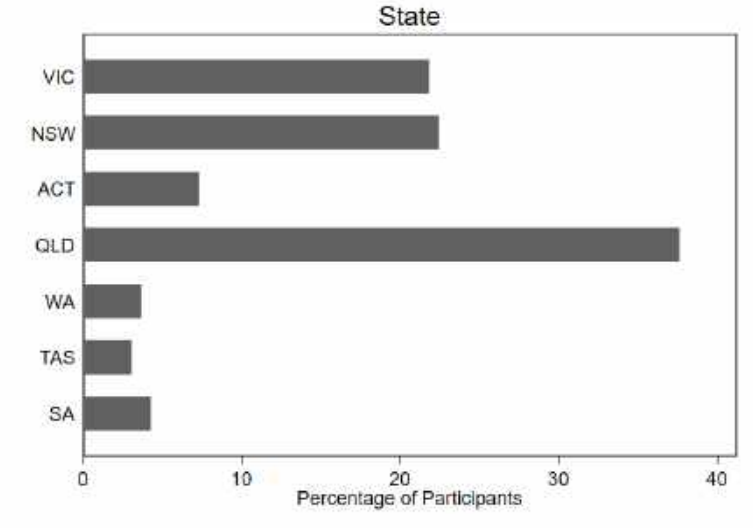
- People aged 45 or below constitute 45 percent of Tesla owners sample but only 23 percent of the Non-Tesla owners sample.
- Nearly half of the sample of Tesla owners have owned an EV for more than 3 years. Compared to this, 59 percent of non-Tesla EV owners in the sample have owned an EV only for a year or less.

Figure 1 . Distribution of Tesla and non-Tesla vehicles by state

Tesla owners



Non-Tesla owners

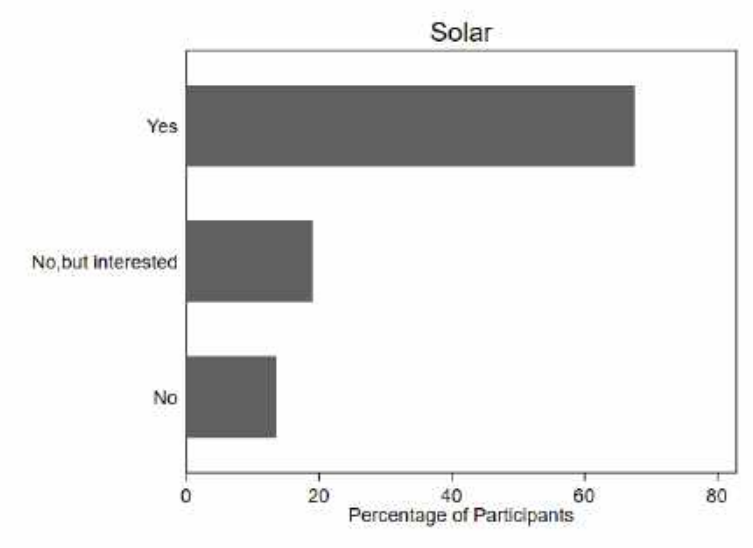


Insight

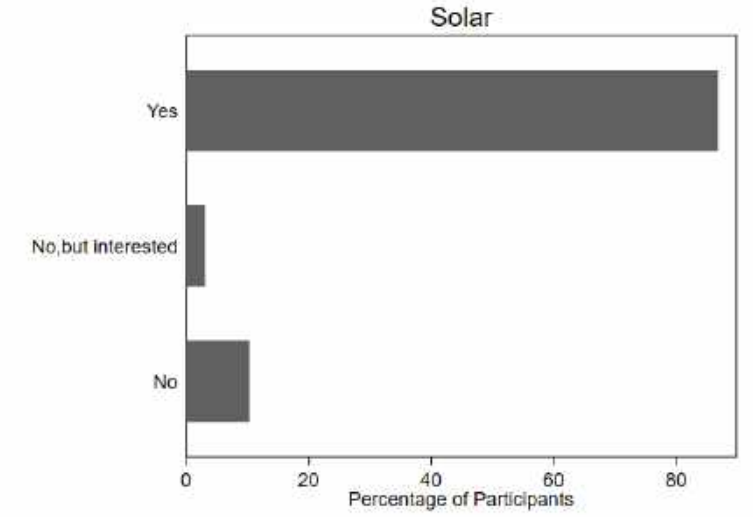
The distribution of participants by state in Figure 1 is comparable in both Tesla and non-Tesla samples.

Figure 2. Proportion with rooftop solar Tesla and non-Tesla owners

Tesla owners



Non-Tesla owners

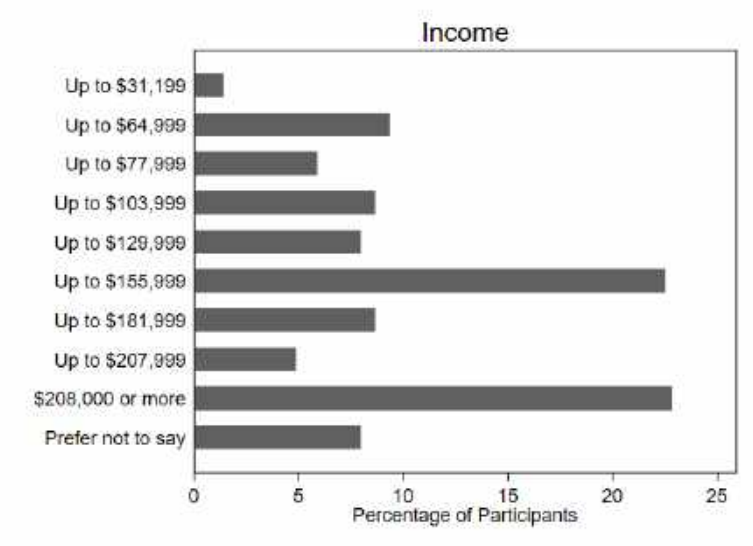


Insight

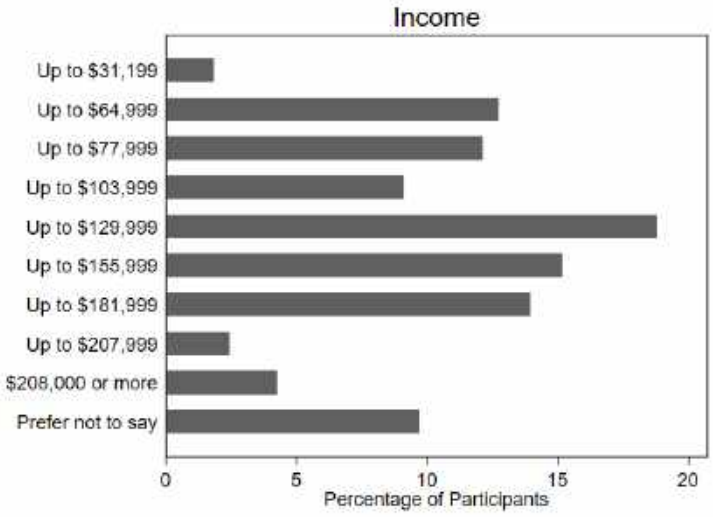
Figure 2 shows that more than 80 percent of the non-Tesla owners and more than 60 percent of Tesla owners have rooftop solar installed in our samples.

Figure 3 . Proportion income Tesla and non-Tesla owners

Tesla owners



Non-Tesla owners

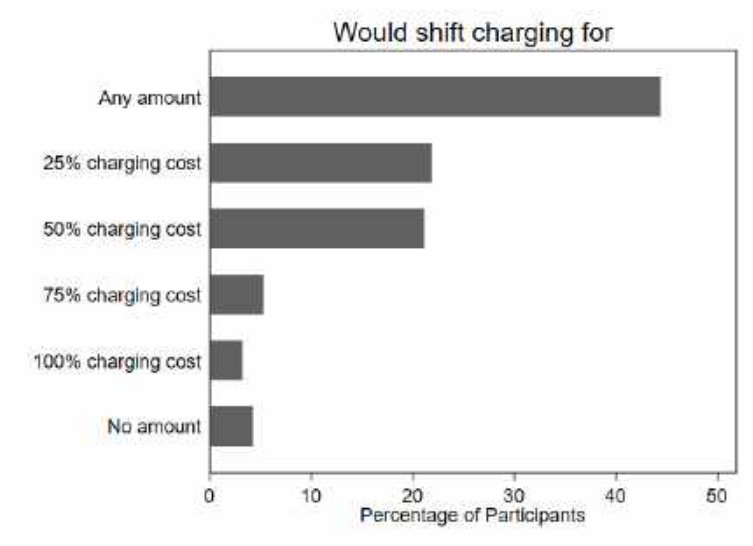


Insight

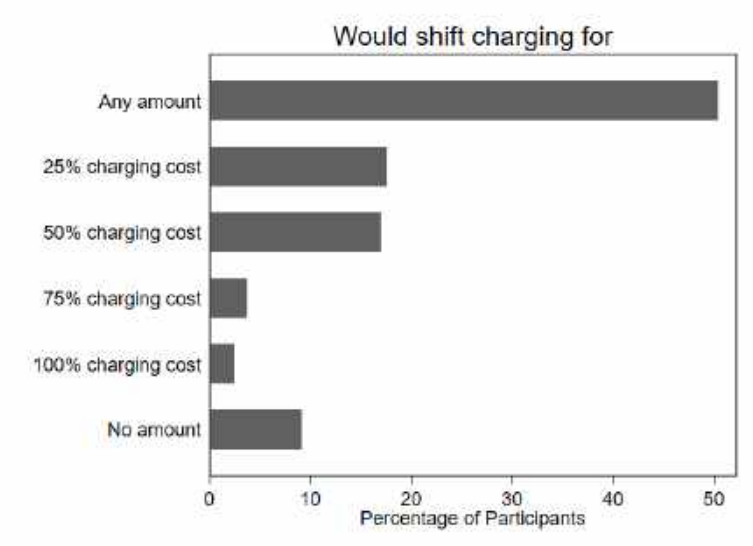
Figure 3 shows that more than 20 percent of Tesla owners reported an annual income of AUD 208,000 or more whereas less than 5 percent of the non-Tesla EV owners reported to be in the same income group. A higher proportion non-Tesla owners reported income below AUD 130,000 compared to Tesla owners.

Figure 4 . Likelihood of shifting charging Tesla and non-Tesla owners

Tesla owners



Non-Tesla owners

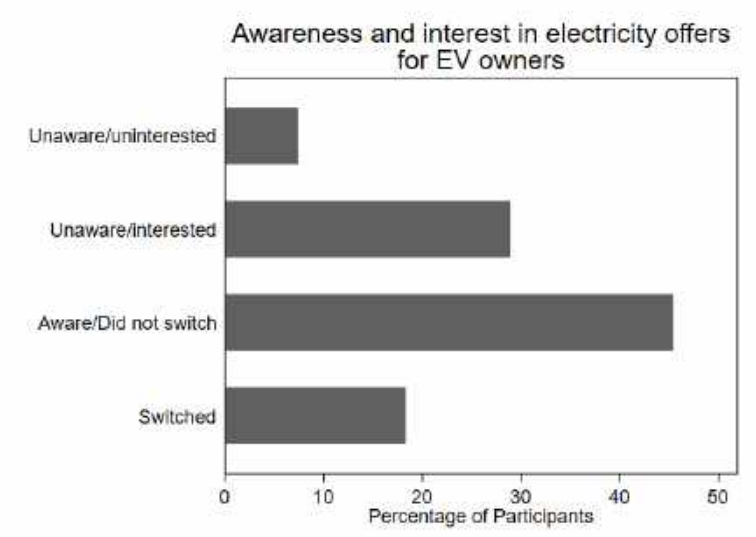


Insight

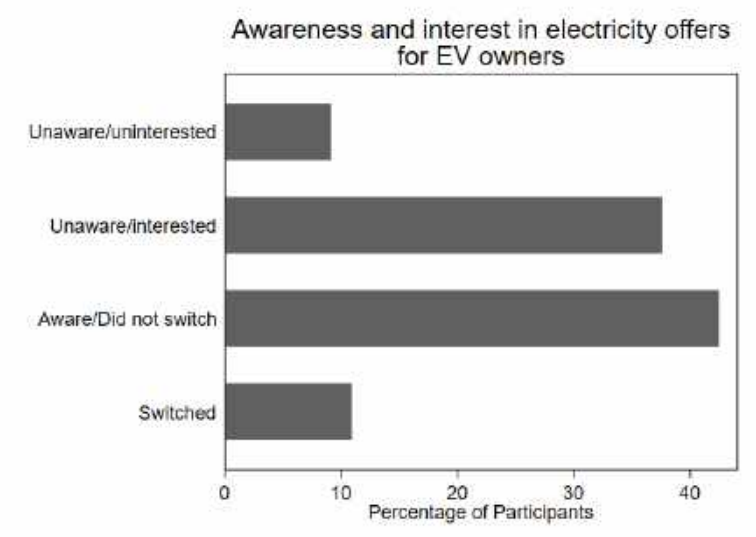
Figure 4 shows that almost 50 percent of participants (both Tesla and non-Tesla) stated that they would consider shifting their EV charging times in return for any reduction in their charging costs. Less than 10 percent from both groups reported that they wouldn't shift their charging times for any amount of money.

Figure 5 . Awareness and interest in EV tariffs Tesla and non-Tesla owners

Tesla owners



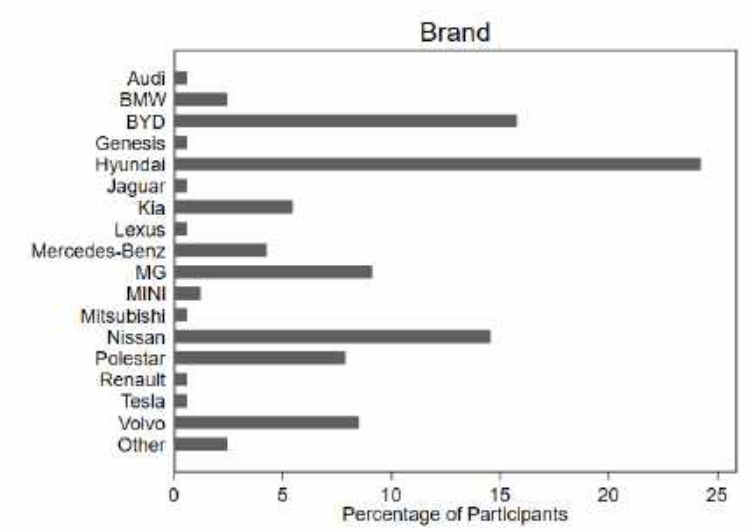
Non-Tesla owners



Insight

Figure 5 shows that over 40 percent of the sample are aware of electricity tariffs designed for EV owners but decided not to switch to one of these offers. A slightly higher proportion of non-Tesla EV owners reported to be unaware but interested to know about existing electricity tariffs for EV owners.

Figure 6 . Distribution of vehicle make of Non-Tesla owners



Insight

Figure 6 shows that the most popular non-Tesla EVs in our sample were Hyundais followed by BYD and Nissan.

Acknowledgments

On behalf of the research team, we would like to express our heartfelt appreciation to all the individuals and organisations who have contributed to the successful completion of this research to date.

First and foremost, we would like to express our sincere appreciation to the research participants who generously shared their time, experiences, and perspectives with us. Their invaluable contributions have provided important insights and evidence, enriching the quality and relevance of our findings.

We would also like to thank our research partner Teslascope and Mr Tyler Corsair who provided essential support and resources throughout the project.

We extend our deepest appreciation to the research funders of the UQ Teslascope Project (Advance Queensland and iMOVE CRC), and the UQ CHARGE-EV Project (Energy Consumers Australia) whose support has made this project possible. Their investment in our work has enabled us to undertake rigorous research, develop innovative methodologies, and disseminate our findings widely. We are grateful for their commitment to advancing knowledge.