Demonstrate effective ways to **encourage and support public engagement** with electric vehicle to grid (V2G) arrangements as this emerging technology is rolled out in Australia, using key theories from behavioural economics in conjunction with empirical evidence.

Context

Addressing climate will require Australia to transition to **sustainable** but **unreliable** renewable energy sources.

By 2050, ENERGEIA estimates there will be **more than 13.6 million EVs** on Australian roads.

Our energy demands will drastically change and **a new network of energy storage systems** will be needed to support this change.

V2G technology will be crucial for this change.

Right now, technology restrictions mean there is minimal V2G presence in Australia. Despite this, our nudge is aimed at **initially supporting Australian's awareness of this exciting new technology**.

As V2G becomes more popular, our nudge will **continue to support people to consider purchasing** V2G compatible EVs.

Currently, there is a strong cultural bias against EVs. They are seen as a status symbol and are inaccessible to most Australian's. We were careful to **mitigate the 'backfire effect'** with a light tough intervention that avoids exacerbates negative attitudes towards the entire EV industry.

Our Target

People looking to purchase EVs	Consumers purchasing V2G compatible EVs

Key Barriers, COM-B Model and the Behaviour Change Wheel

Our comprehensive literature review identified six key barriers limiting the uptake of V2G technologies in Australia. Using the COM-B Model, we identified and categorised the two barriers that had strongest behavioural components: **lack of awareness** (capability – psychological) and **misperceptions** (motivational – reflective). From these two COM-B categories, we used the Behaviour Change Wheel to identify the most appropriate approach to address these barriers. Subsequently, we selected an **educational intervention.** With very low public awareness about V2G technologies, we have the opportunity to establish an evidence-based narrative for V2G rather than assumptions or misperceptions. This will reduce the prominence of misinformation and lack of awareness which could stunt the growth of EVs.

INTERVENTION - DECISION TOOL

We have designed a decision tool for potential EV buyers. This decision tool targets buyers when they are most receptive to new information. Furthermore, the tool selects our cohort, provides targeted information on V2G systems, and introduces a V2G compatibility stamp as a choice assistant.

The consumer answers five questions on EV preferences and car usage. Our decision tool outputs EV recommendations based upon these preferences and information designed to address lack of awareness and pre-bunk misperceptions of V2G. They are presented with a list of EVs that meet their EV preferences, and V2G compatible vehicles are identified by the stamp.

The decision aid introduces V2G technology using positive language to address priorities, rather than concerns, so consumers click through with a positive framing and engage with the information rather than jump to conclusions based on existing heuristics.

EAST FRAMEWORK

Our intervention makes our target behavior:

- **EASY:** Our intervention is quick and easy to complete using plain English. It will be a 'one stop shop' for trusted EV information
- **ATTRACTIVE:** Our intervention will use co-design principles harnessing simple diagrams and active language to promote V2G technology. Likewise, the use of our compatibility stamp highlights that V2G compatibility is a desirable additional quality, and signals a better value product.
- **TIMELY:** Our intervention will lean on industry partnerships with car dealers whilst also using annual government communication related to cars to promote the survey.

EVALUATION

The information banner on V2G is the crucial behaviour change element of the decision tool. We will evaluate this using an RCT to test that it improves engagement with V2G technology. For a 1 month trial period, each decision tool user is randomised to receive one of three information presentations:

- No V2G information banner (control)
- Standard information banner and all pre-bunking information
- Tailored information banner and only pre-bunking information that is relevant to their stated preferences from the decision tool.

These interventions would be evaluated on the proportion of users who clicked through to additional V2G system information and V2G compatible cars.