Supporting the uptake of energy efficient vehicles

The transport sector is the second largest source of greenhouse gas emissions in New South Wales

The efficiency of Australia's vehicles lags behind other major economies and, without interventions, emissions will rise as populations and the economy grow.

Major changes in technology and fuel sources, rather than incremental improvements to conventional vehicle technologies, are an exciting opportunity to reorient the transport sector on a path to net zero emissions.

Australian consumers are increasingly interested in hybrid and electric vehicles. However, there are barriers to widespread uptake such as limited charging infrastructure.

The technology of fuel-efficient vehicles is progressing swiftly, so transition faces some uncertainties. By understanding them and the factors that influence vehicle purchasing behaviour, we can take steps to improve the market penetration of energy efficient vehicles.

In support of the objectives under the NSW Climate Change Policy Framework, we are investigating ways to make it easier for households and businesses to purchase fuel efficient vehicles and thus put downward pressure on household energy costs and reduce carbon emissions.
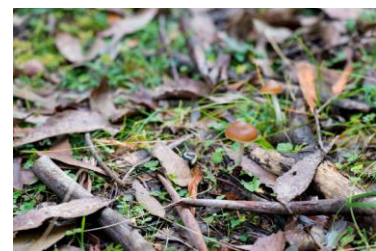
The impact of action

Improving the fuel efficiency of the passenger and light commercial vehicles is one of the lowest-cost emissions reduction opportunities across our economy. Benefits include:

- Reducing households' fuel costs
- Improved energy security
- Health benefits by reductions in noise and air pollution
- Greater consumer choice
- Helping NSW transition to net zero emissions for NSW

Coordinated by the CRC for Low Carbon Living, the NSW Energy Efficiency Decision Making Node is part of the Energy Efficiency Research Hub. The Node is a research collaboration between CSIRO and the Universities of Wollongong and UNSW. With a track record of high-quality, rigorous and end-user driven research, it is delivering research outcomes to help reduce greenhouse gases and improve energy efficiency. Key research areas are:

- Energy efficiency investment decisions
- Efficient products, technologies and services
- Practical and achievable energy-saving actions

FURTHER INFORMATION

For more information about this project, please contact:

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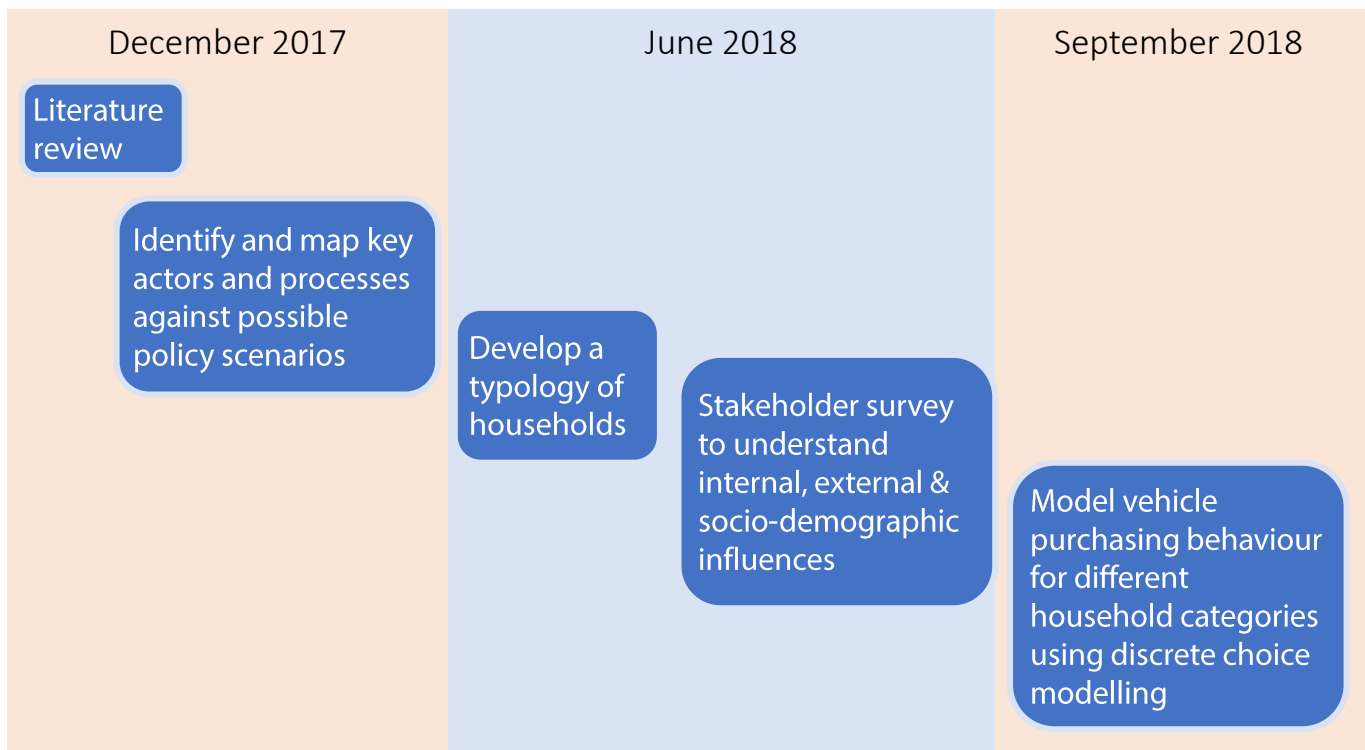W: lowcarbonlivingcrc.com.au

Research outcomes

Our research will deliver an understanding of:

- The internal and external factors that influence a household's purchasing decisions around a new or second-hand vehicle including when and what brand and features

- The types of households that need to be considered to predict the purchasing of fuel efficient vehicles

- How households are likely to react to various policy incentives that aim to support a transition to fuel efficient vehicles

Steps

December 2017	June 2018	September 2018

Literature review

Identify and map key actors and processes against possible policy scenarios

Develop a typology of households

Stakeholder survey to understand internal, external & socio-demographic influences

Model vehicle purchasing behaviour for different household categories using discrete choice modelling

What excites us

We will understand the lenses through which we make decisions about buying cars. We will learn about the influence of price, running costs and the non-economic factors such as car features, brand allegiance, performance, and environmental credentials. This knowledge will highlight levers the NSW Government can use to incentivise greater uptake of fuel efficient vehicles.