# Publicly Available Specifications

STANDARDS NEW ZEALAND
PAEREWA AOTEAROA

TE TARI TIAKI PŪNGAO
ENERGY EFFICIENCY & CONSERVATION AUTHORITY
EECA

# PAS documents

A Publicly Available Specification (PAS) is a document responding to an urgent market need; subject to medium levels of review and consensus.

- They are recognised as having the status of a document developed and published by an independent national standards body while reflecting a need for urgency to market.
- They are a great way to develop consensus-based guidelines for good practice.
- They can provide ground work for later development of standards.

# How they are developed

A PAS follows a similar process to a full standard but on a faster trajectory.

- Form a balanced committee
- Draft the PAS
- Put out for public comment (1 month)
- Review comments, prepare final draft
- Submit to the New Zealand Standards Executive for approval
- After approval, Standards NZ publishes the PAS

# Development timelines

## PAS process


6-9* months on average

## Standard process


3 years on average

* relative to complexity, length, PC feedback and consensus

# Who is involved

For EECA's PAS projects, the following groups will be involved:

- EECA kaitiaki groups
- Committee members
  - Represent organisations (commercial, consumer, government, research)
  - Contribute to the development of the PAS
  - Vote on the final draft
- Stakeholders
- Public

# What this achieves

- Quick response to a need in the market
- A document developed, approved and published by an independent national standards body
- Guidance based on expert knowledge and developed through a multi-stakeholder process that id useable by the identified audience
- Consensus-based output
- A reference for government, industry and consumers – Standards solutions are used by a range of organisations to enhance their products and services, improve safety and quality, meet industry best practice, and support trade into existing and new markets.

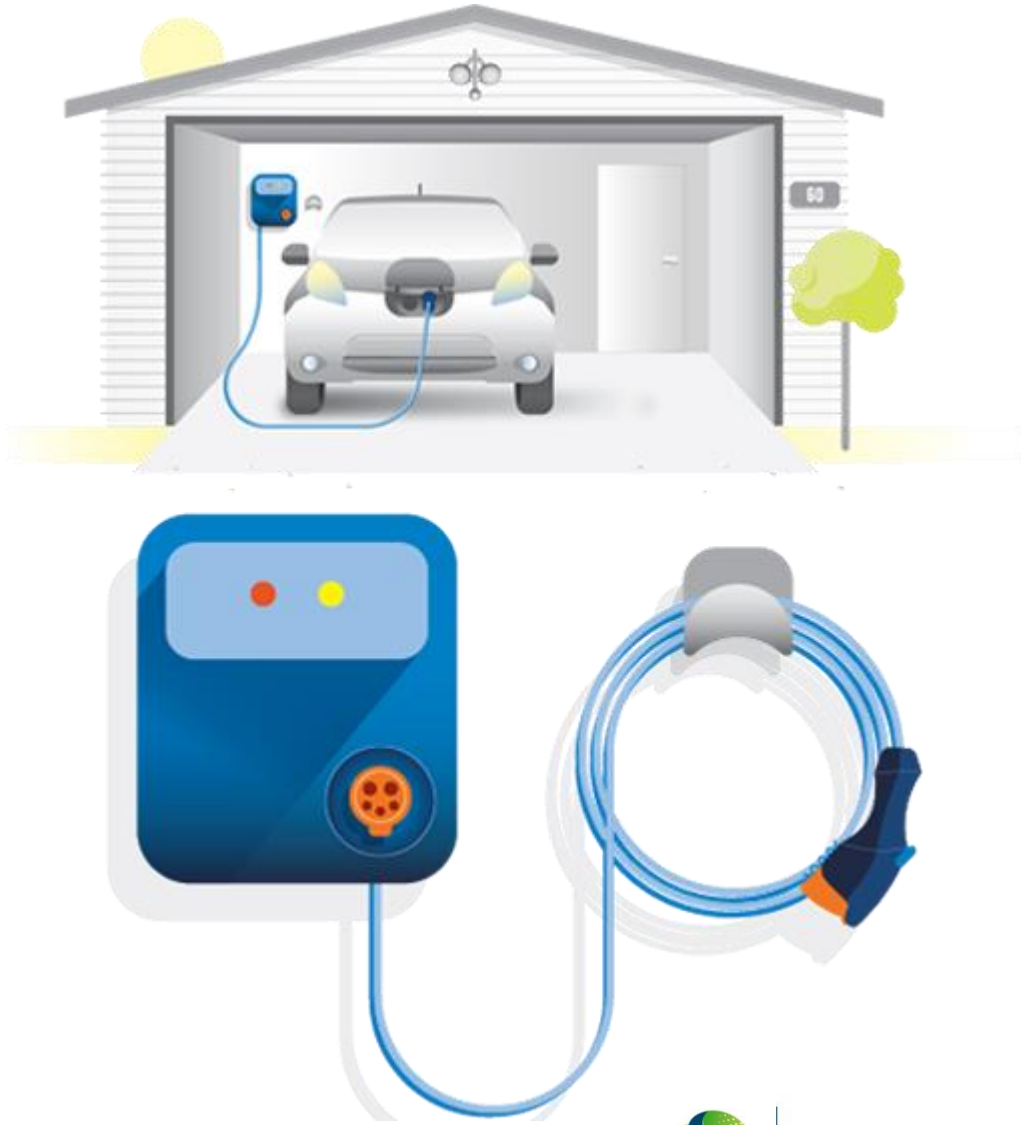
# EV Chargers PAS Projects

- An urgent need: EVs are a rapidly developing global market with no current NZ guidance on the energy efficiency or connectivity of chargers.
- International research indicates a great deal of energy can be lost through inefficient chargers. So you finally get a commitment to use the tech and it can cost you up to 35% more than it needs too….
- Expertise is available: the issue can be addressed using expertise available in NZ.
- Two PAS will be developed covering:
  - Residential applications
  - Commercial applications

# EV Chargers PAS Projects Scope

**Commercial and Residential use**

- Connectivity – smart features - ‘brain and ear’ capability
- Demand response/flexibility scenarios including communication protocols
- Examination of NZ fleet ‘in vehicle’ charging equipment and connection needs (physical and electronic)
- Charger kilowatt (kW) range – single and three phase
- Energy efficiency – delivered electricity/charge rates and durations
- Charging standards – e.g. CHAdeMO, CSS, Rapid AC, Supercharger

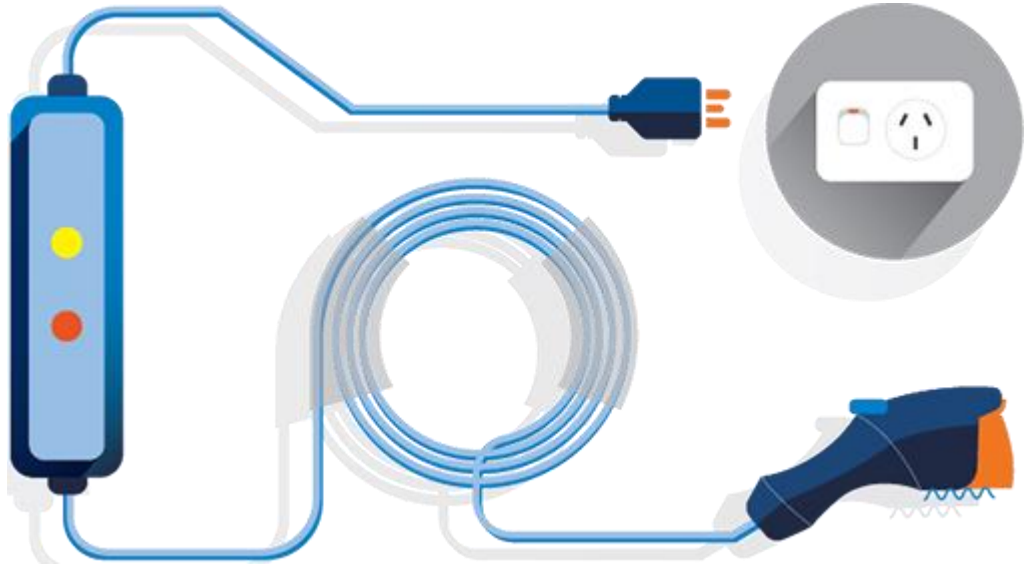


# Anticipated Outcomes

**Residential Use**

Guidance available to help inform:

- Consumer understanding of safe and efficient charging
- Installers and consumer understanding around WorkSafe NZ safety requirements and procedures for installation of a residential EV charger
- Manufacturers, importers and suppliers of residential EV chargers of mid to long term government goals regarding EV charger efficiency and connectivity
- Regulators and electricity suppliers of the size and potential impact of discretionary EV charging load

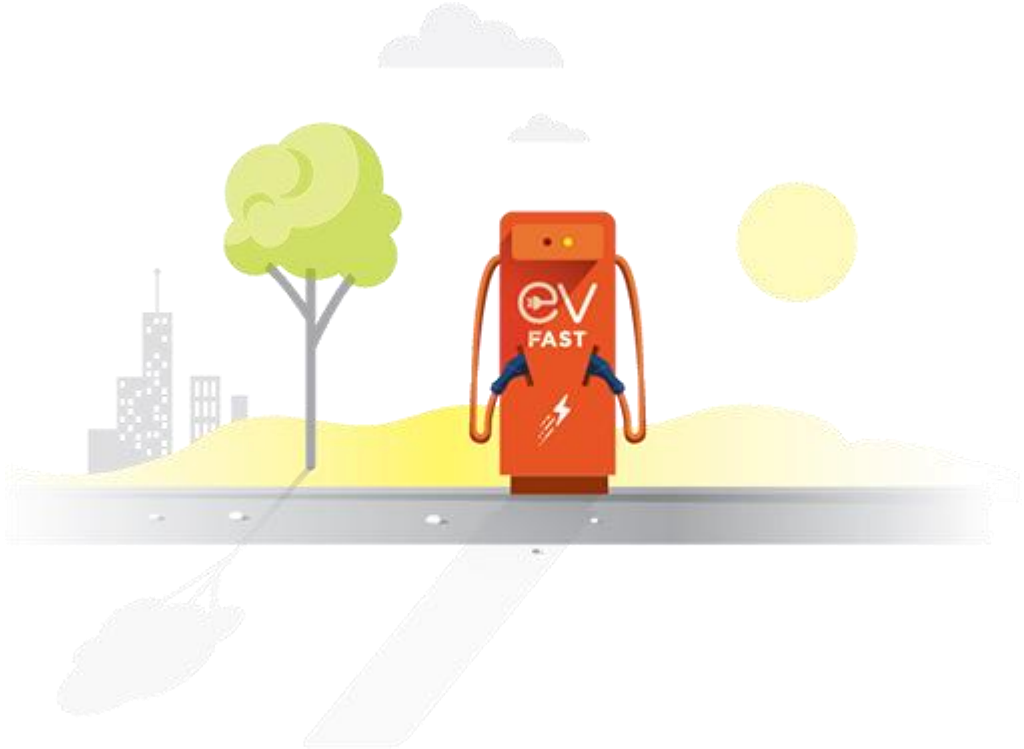


# Anticipated Outcomes

**Commercial Use**

Guidance available to help inform:

- Sector understanding of mid to long term government goals regarding commercial EV charger connectivity and communication. In terms of meeting mitigation commitments on our way to net zero, transport electrification is a massive target
- Government regulators' and electricity suppliers' understanding and ability to identify the size and potential impact of discretionary EV charging load from commercial EV chargers



# Toyota Global Strategy

**EV production is ramping up:**

- 1.5 trillion yen in R&D over the next four years. 50% dedicated to battery development.
- BEV production ramps up in earnest from 2020.
- By 2025, every model in the Toyota and Lexus line-up around the world will be available either as a dedicated electrified model or have an electrified option.
- By 2030 >50% of all vehicles will be electrified.