

# DIGITAL

## New Energy Landscape: How eMobility and microgrids shape the future of energy

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# Australian Climate Challenge

**Commitment to reduce  
Green House gas  
Emissions by 2030 by**

**43%**

**The emissions in 2022  
compared to 2005  
decreased by**

**21%**

**32%**

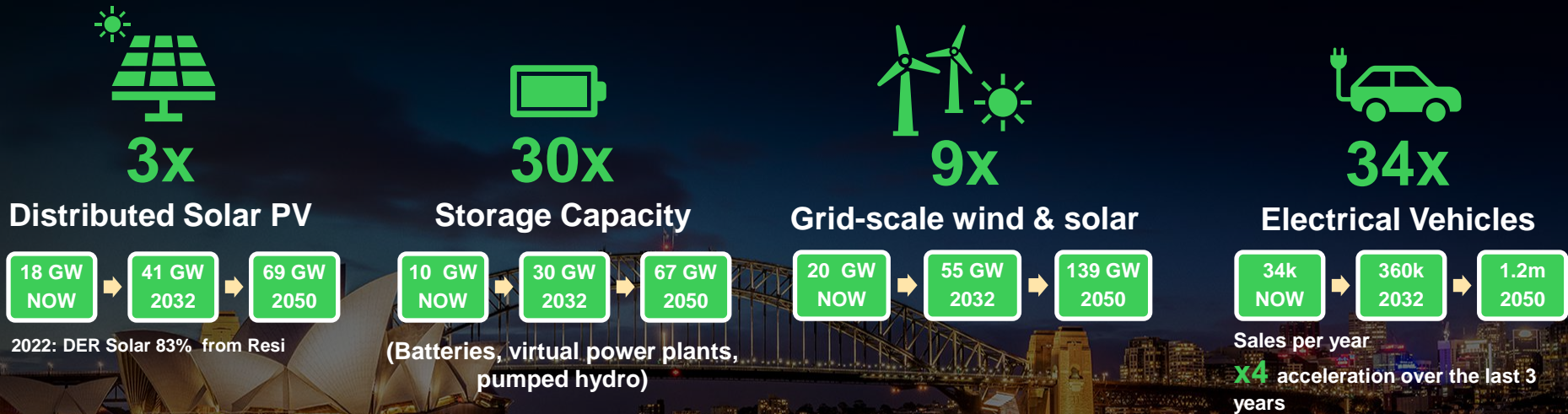
**21%**

**of the emissions comes  
from Electricity  
generation**

**of the emissions  
comes from  
Stationary energy\***

\*includes emissions from direct combustion of fuels, predominantly from the manufacturing, mining, residential and commercial sub-sectors

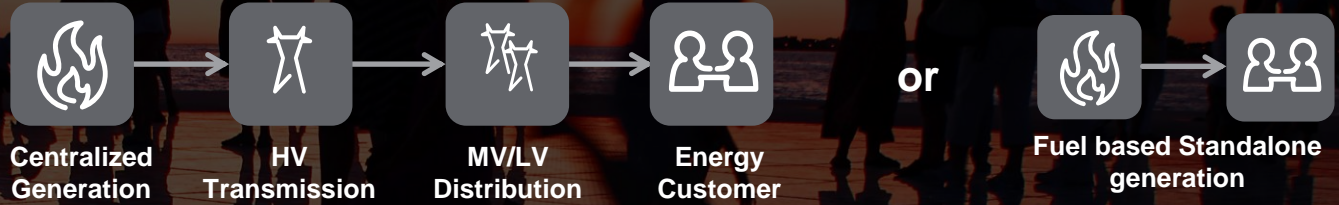
# Australia's Energy Transition will continue to see the acceleration of DERs representing ~half of the total energy by 2050



**319MW** behind the meter controlled by 39 Virtual Power Plants as of 2023

# The Energy Value Chain Transition

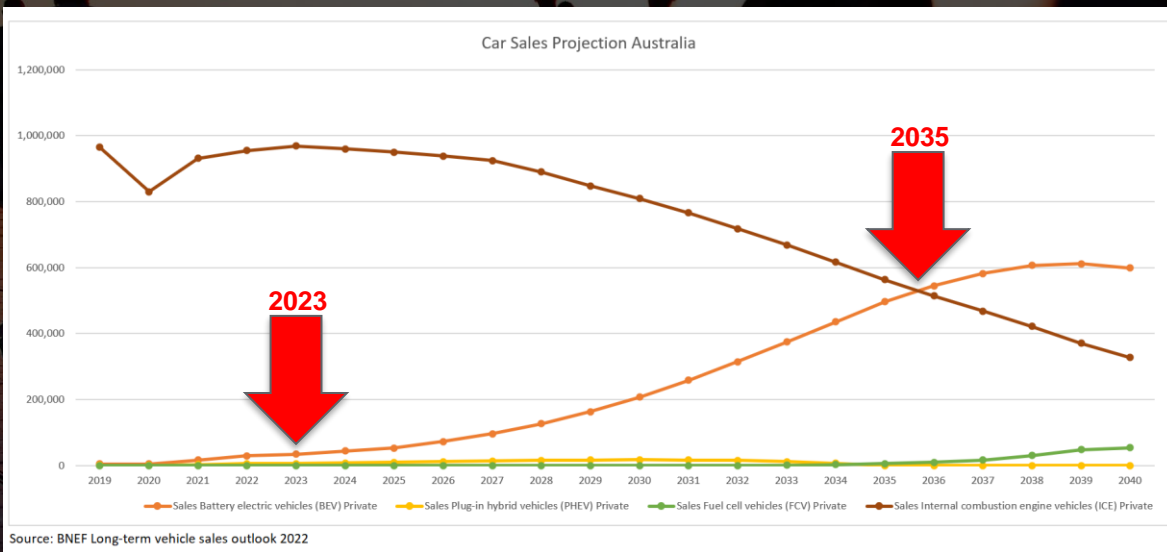
## Historical Energy Value Chain



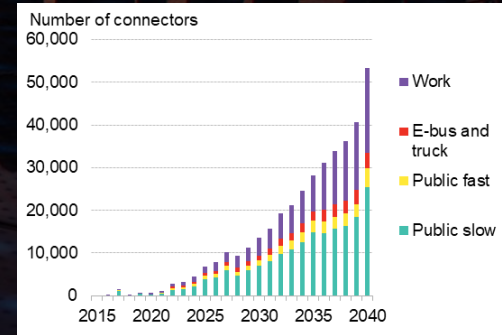
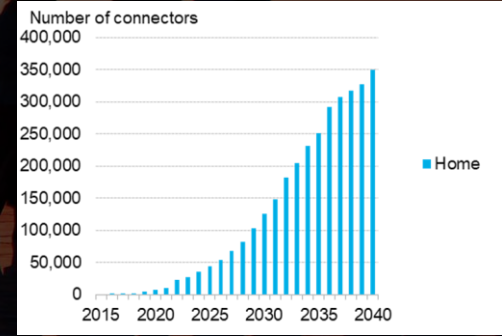
## The New Value Chain



# eMobility - Market trends in Australia



Annual EV sales (cars)	2023	2024	2025	2026	2027	2028	2029	2030
Australia	43,300	57,900	73,300	98,586	126,264	160,470	201,365	250,334



National Construction Code – NCC 2022  
Section J9D4 – Infrastructure for EV charging

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# eMobility – EVlink Pro AC chargers



From 7 to 22 kW

Mode-3 Charging

Highly reliable, flexible, and sustainable smart charging for buildings of the future, optimizing energy use, maximizing uptime and efficiency, and ensuring a seamless user experience for installers, operators, and EV drivers

## Key Features



### Connected

Advanced connectivity and interoperability



### User-friendly

Simple and intuitive to install, commission, use, operate and maintain



### Sustainable

Sustainable product, Green Premium labelled



### Reliable

Robust tested and certified products by 3<sup>rd</sup> party (IEC 61851 ed3)



### Safe compliant

Reinforced safety thanks to embedded protection



### Flexible

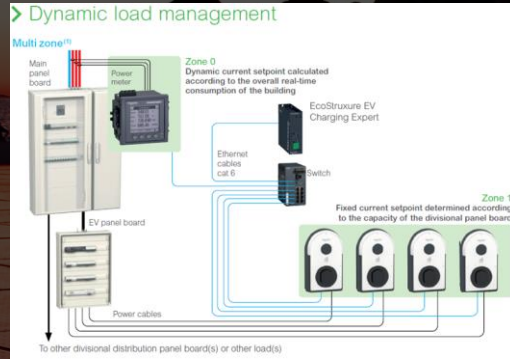
Scalable, interoperable, modular and customizable look and feel



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# eMobility – EV Charging Expert (Load Management System)



## Understand our solution

One of the challenges faced by building owners is to size the EV charging infrastructure properly in order to limit the impact on the energy costs of the building while providing high service level to the EV drivers. The solution is EcoStruxure EV Charging Expert.

This edge control software solution

- **Distribute available power** in your building among charging stations with flexible, smart rules defined by the system algorithms.
- **Maximize building continuity of service** all while offering fair EV charging capabilities to EV users
- **Manage user access & authentication** via RFID/NFC badges
- Remote control of charging stations (start, stop, reboot, etc.)
- Consumption **data visualization and export for analytics**
- Integration into upper supervision systems and backends
- **Configuration assistant** to support easy commissioning
- Centralized Configuration to Manage **up to 100 charging stations**
- Central supervision from **embedded webserver** user interface dashboard



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# Microgrids to serve the energy transition

A microgrid provides a decentralized, digitized & decarbonized alternative...



... delivering integrated outcomes



## Microgrid

- A group OF INTERCONNECTED LOADS ...
- ... and DISTRIBUTED ENERGY RESOURCES within clearly defined electrical boundaries
- acting as a SINGLE CONTROLLABLE ENTITY with respect to the grid



# Microgrids to serve the energy transition



## Off-grid

Designed and engineered reduce carbon footprint, deliver resilient energy and reduce operational cost.

## Grid-tied

Optimise electrical bill & sustainability footprint.

## Island-able

Manage blackouts while optimizing your electrical bill. Designed and engineered to transition to and from on and off grid.

# EcoStruxure Microgrid Solutions for flexible systems



**EMS**  
Energy Management System

**EcoStruxure Microgrid Advisor**

Forecast and Optimize when to consume, produce, Store, or Sell Energy



**PMS**  
Power Management System

**EcoStruxure Microgrid Operation**

Ensure stability and safety of energy supply in all grid conditions



**ED**  
Electrical Distribution

**Power Meter, Circuit Breaker, LV panel, MV etc.**

Core offers of SE, ensure easy integration and management of DER



**DER**  
Distributed Energy Resources

**BESS, PV inverter, BMS, EV chargers**

Build your microgrid with core DER



## Services

- DER sizing
- Power System Engineering
- Financing**

# Thank you

## Get in touch



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## Learn more



### EVlink Pro AC



### EV Charging Expert (LMS)



### EcoStruxure Microgrid Solutions



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