



# Next Generation Energy Storage

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# Overview

- ACT's Climate Change and Renewable Energy Agenda
- Key elements of the Next Gen Energy Storage program
- Early outcomes
- Supporting initiatives

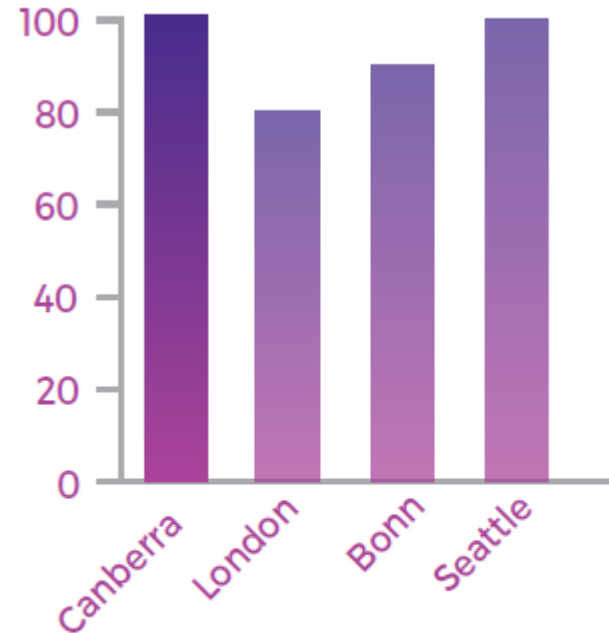
# Greenhouse Gas Reduction Targets

## 2020

- 40% reduction in greenhouse gas emissions on 1990 levels

## 2050

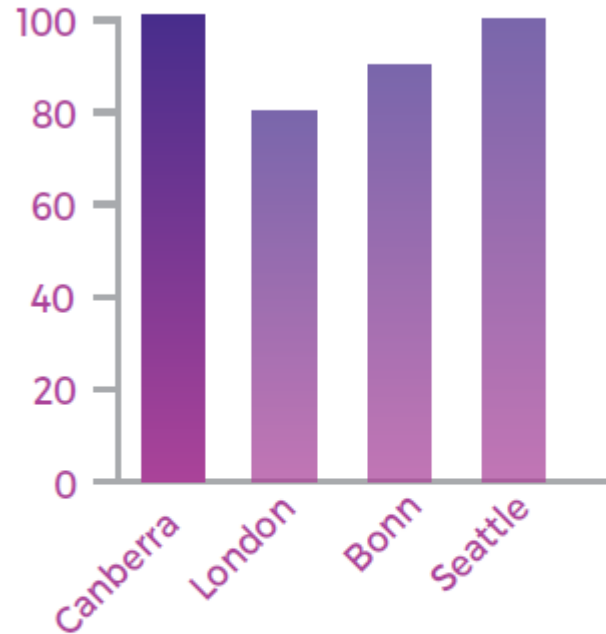
- Zero net emissions



Canberra's **2050 zero net emissions target compares well against the world's climate change leaders**

# Greenhouse Gas Reduction Targets

100%  
Renewable  
Electricity by  
2020

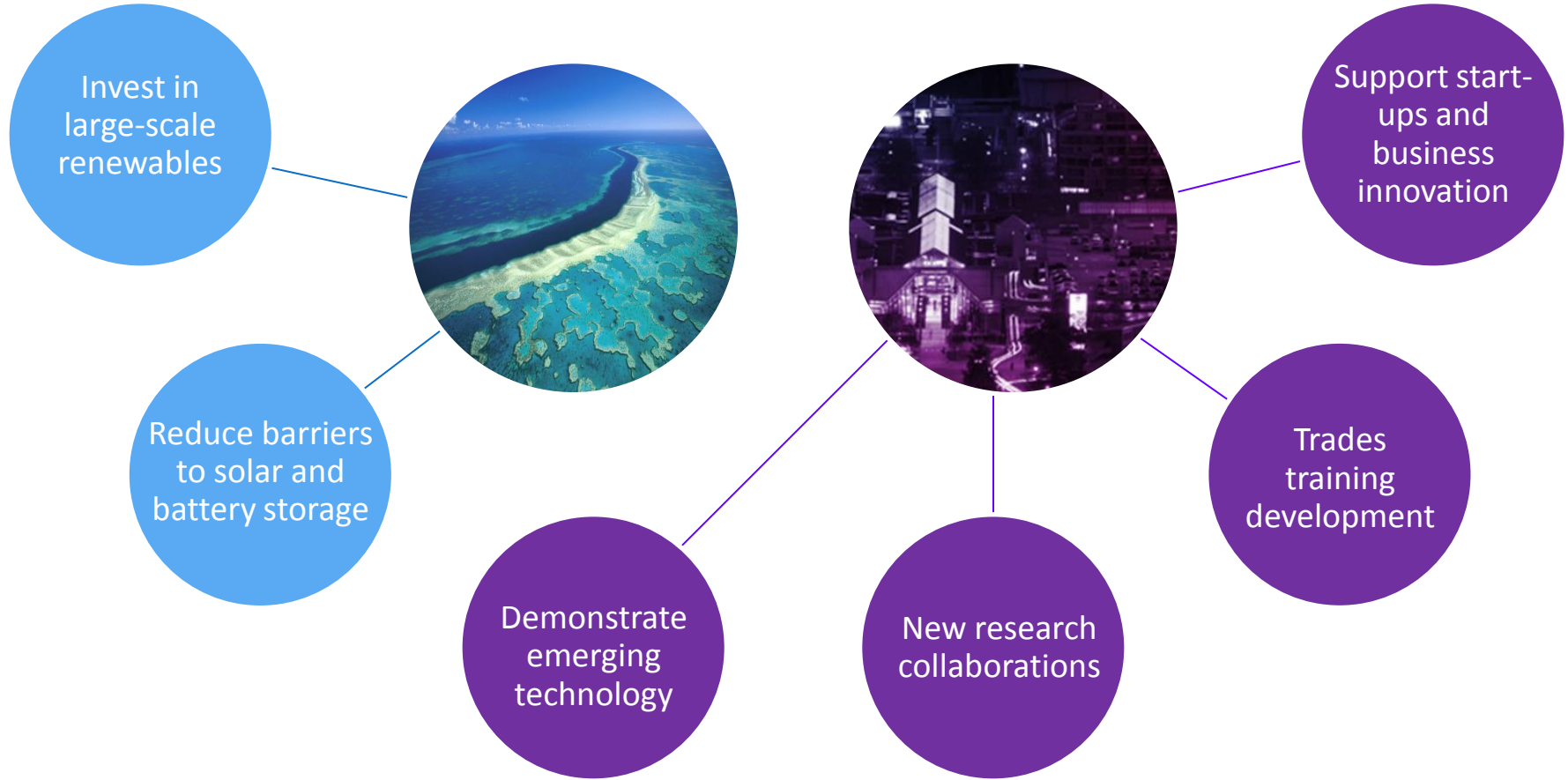


Canberra's **2050 zero net emissions target compares well against the world's climate change leaders**

# Renewable energy policy objectives

Reduce greenhouse gas emissions

CBR as a national energy innovation hub



Emerging  
Trillion  
Dollar  
Industry

Intermittent  
Renewables

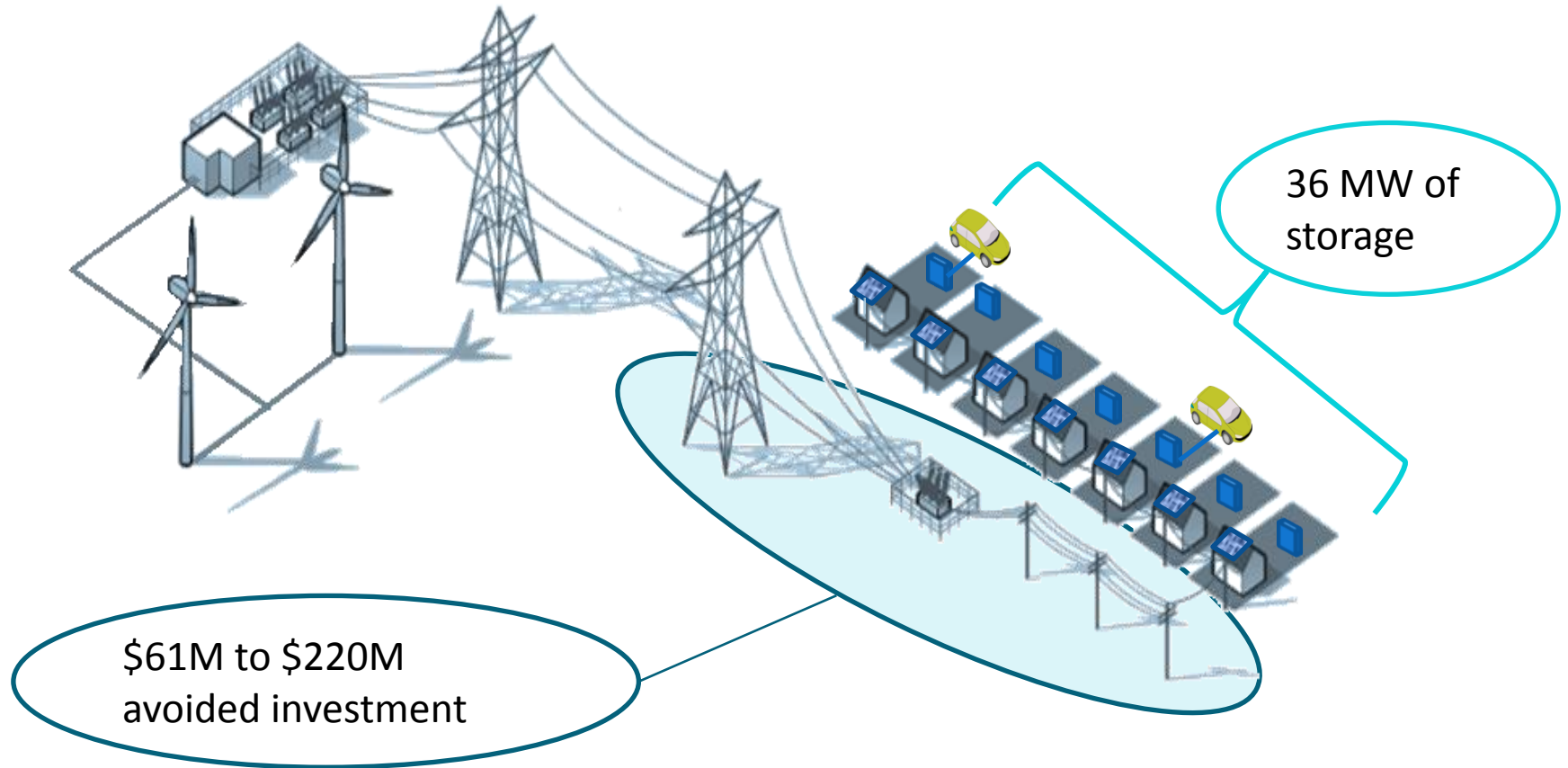
Demand  
Inertia  
Frequency  
Voltage

# ACT small customer load characteristics



Net system load profile maximum demand: 391MW

# Total value of reduced peak demand

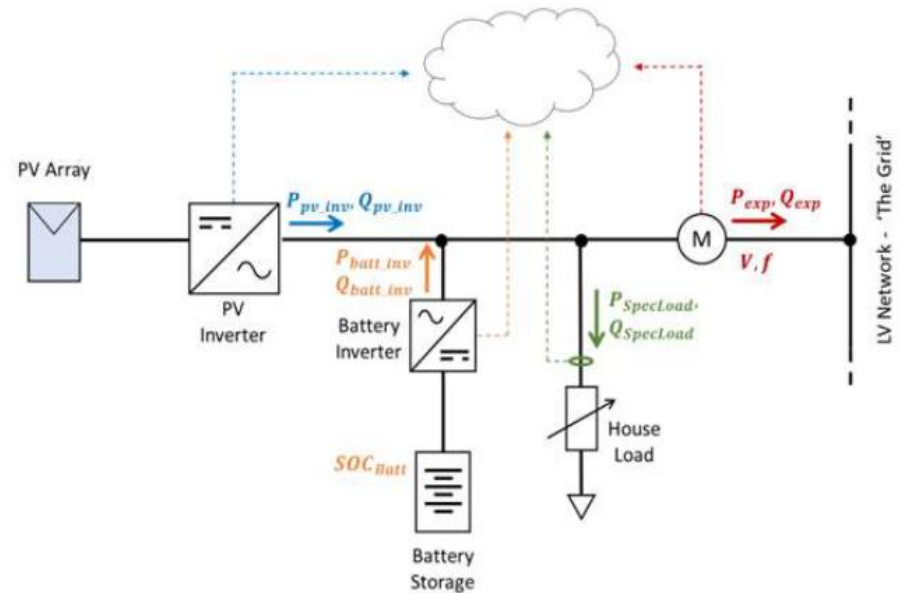




# Next Gen Energy Storage Grants

**\$25 million in funding**

- 5000+ homes
- 36MW
- Competitive grants
- Focus on 'peak output'
- Industry development
- Data Capture



# Elements of the competitive process

## Minimum requirements

- 'Smart' batteries
- Demonstrated in Australia
- Warranty terms
- Ability to collect data

## Must demonstrate

- Corporate capability
- End-of life arrangements
- Clear local benefits



# Grant Assessment

## Execution risks (50%)

- Corporate capability
- Projects risk
- Product risk

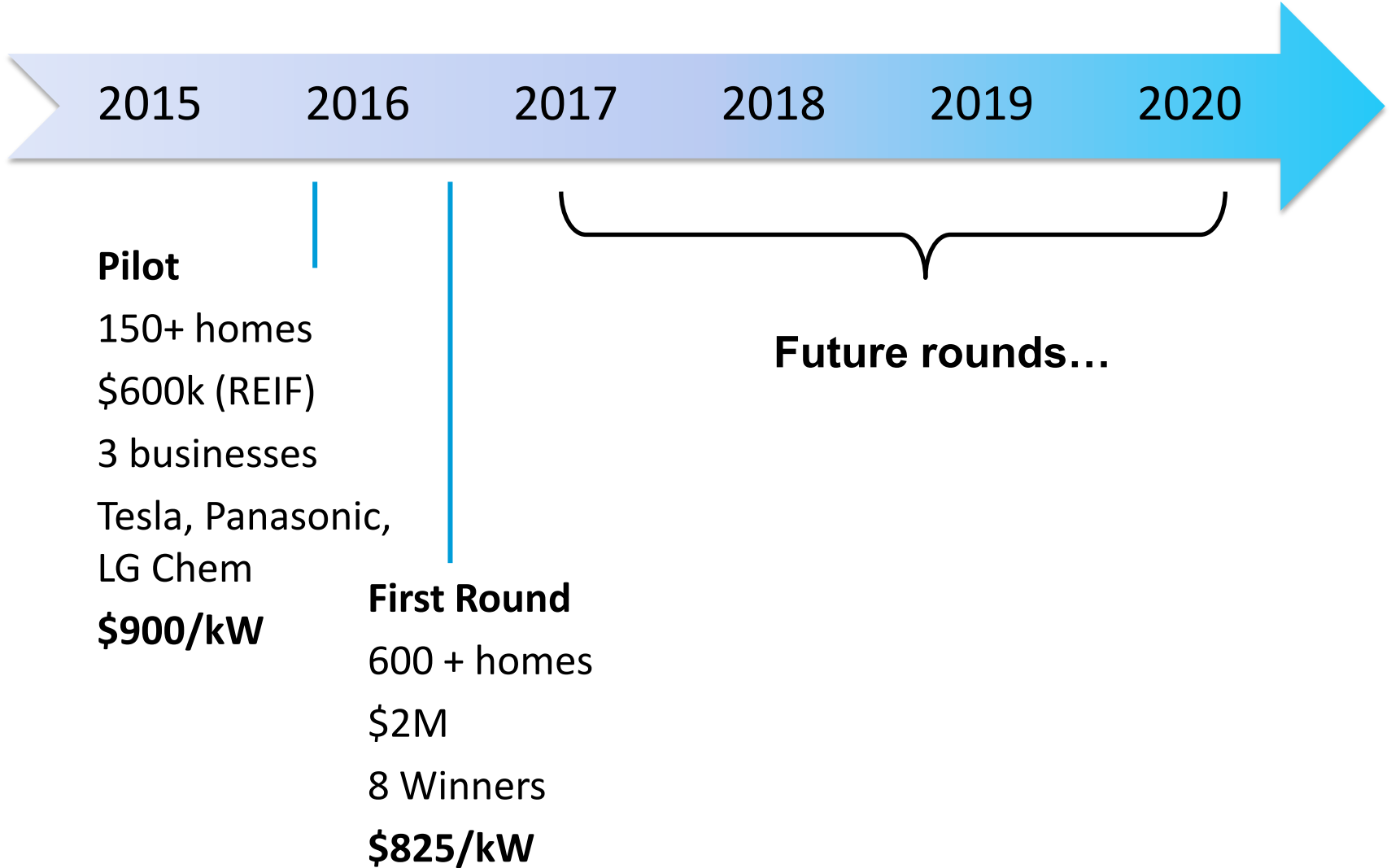
## Local benefits (50%)

- R&D, Trades

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Grant price requested (\$/kW Peak Sustained Output)

# Storage roll-out



# Successful Providers

ActewAGL Retail

Origin Energy

ITP Renewables

Power Saving Centre

SolarHub

Energy Matters

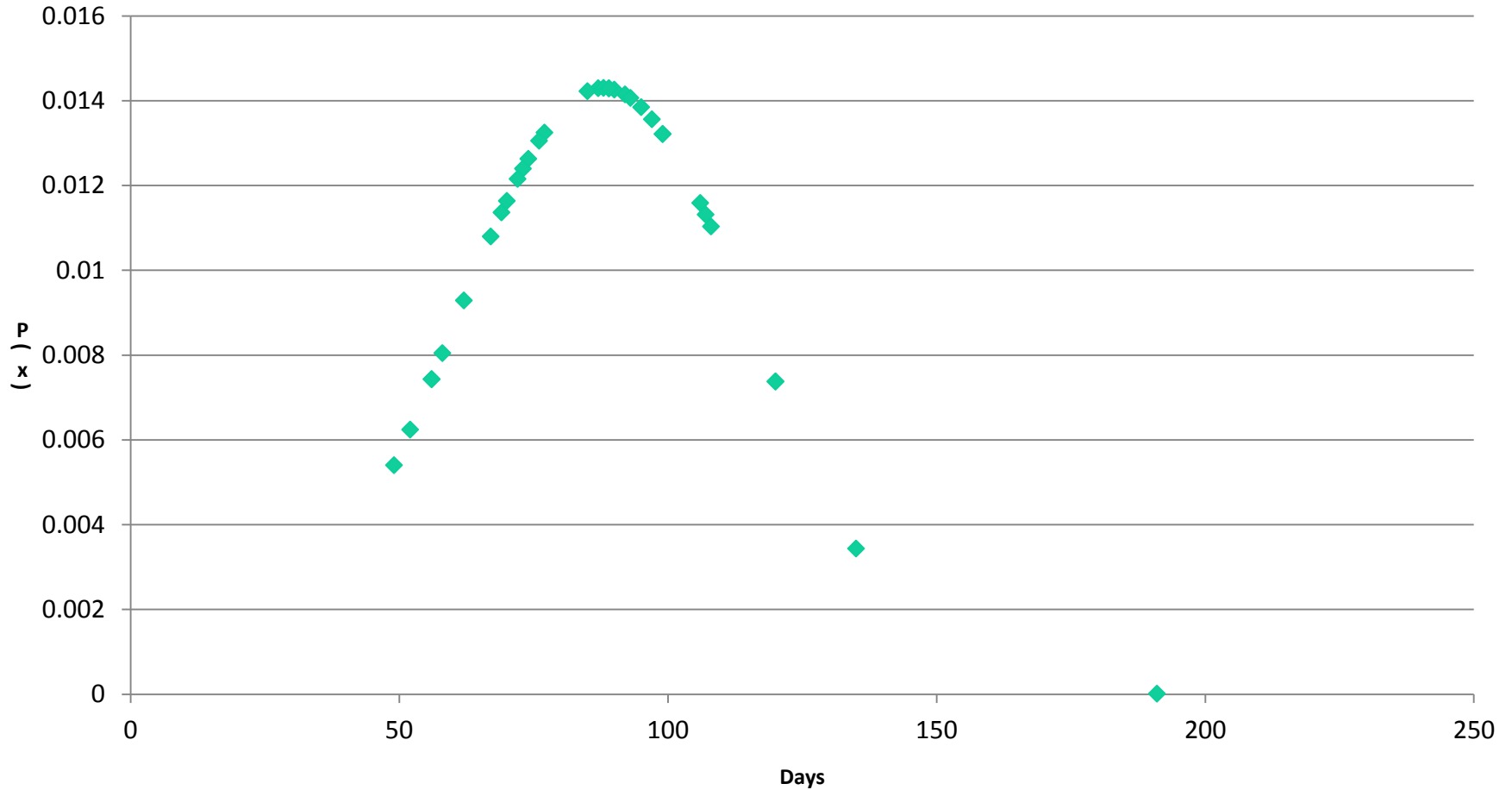
EPC Solar

Evergen

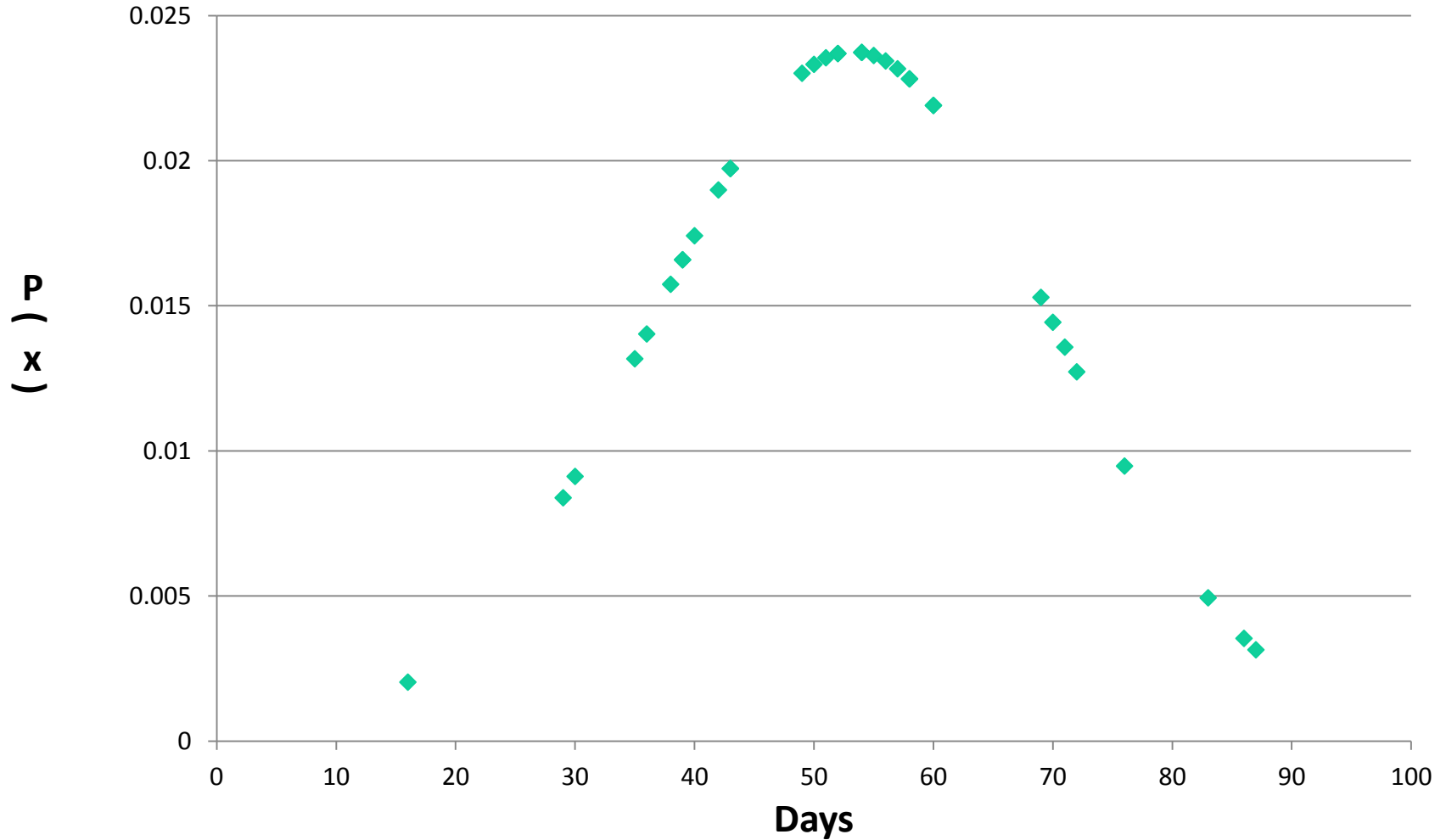
# Early outcomes

- Around 130 systems sold
  - 80 installed
- 370kW peak sustained output
  - Average Peak Sustained Output 3.1kW
- 850kW rated capacity
- Approx 16% are retrofits

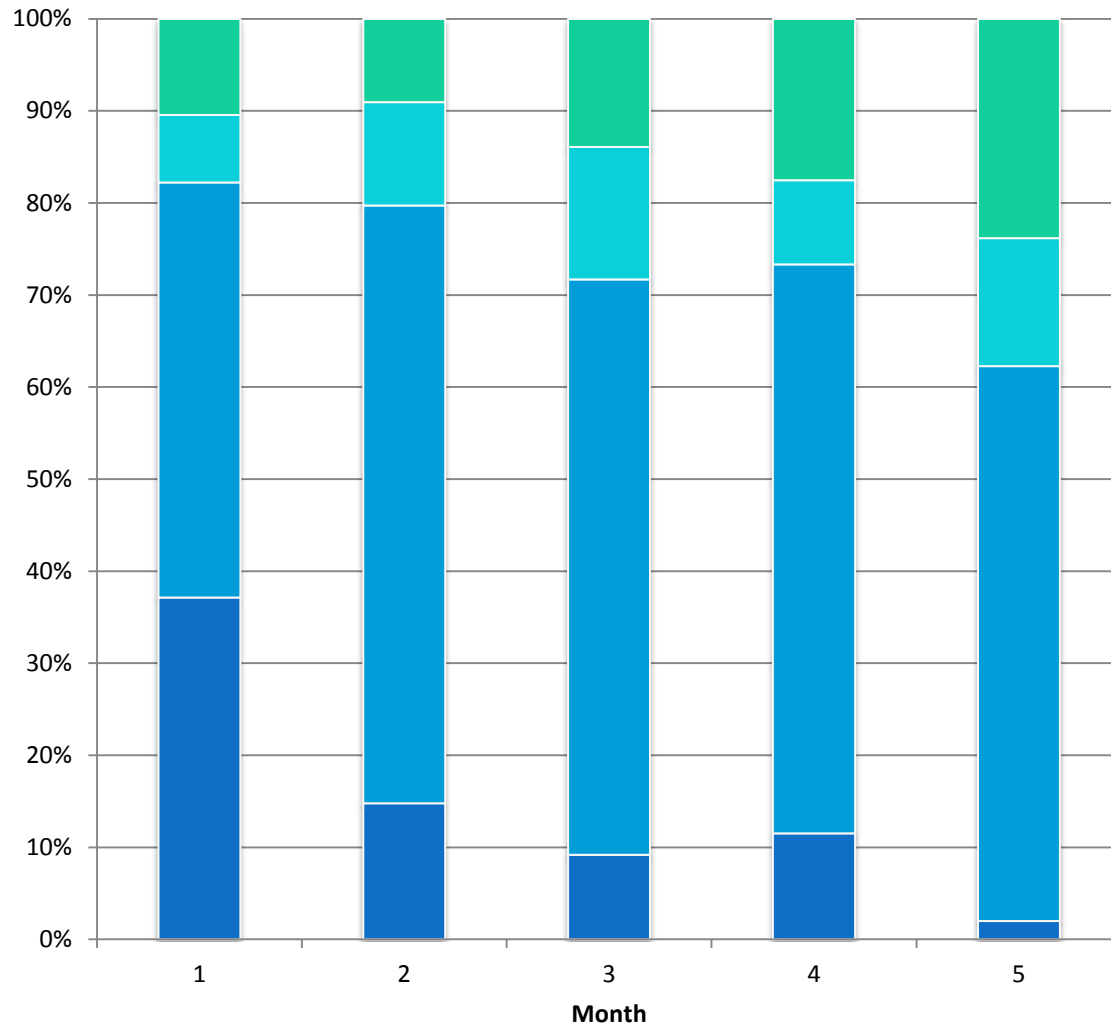
# Time from customer contact to complete approval



# Days between customer order and installation



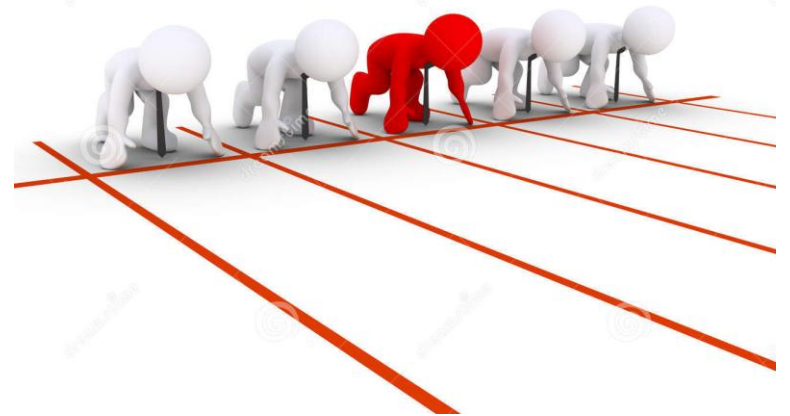




- Days between Certificate and Approval
- Days between installation and Certificate lodge
- Days between order and installation
- Days between 1st contact and cust. order

# Challenges

- Balancing data collection with cost
- Introducing new technology (balancing risk)
- Timing and funding amount for each grant round
- Maximising local benefits



# Supporting activities

- Data Platform procurement
- \$12 M Renewable Energy Innovation Fund  
ANU Battery Storage and Integration Research  
<2degrees Renewables Innovation Hub



# Thank you

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