

# YARRA ENERGY FOUNDATION



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# What is a community battery?

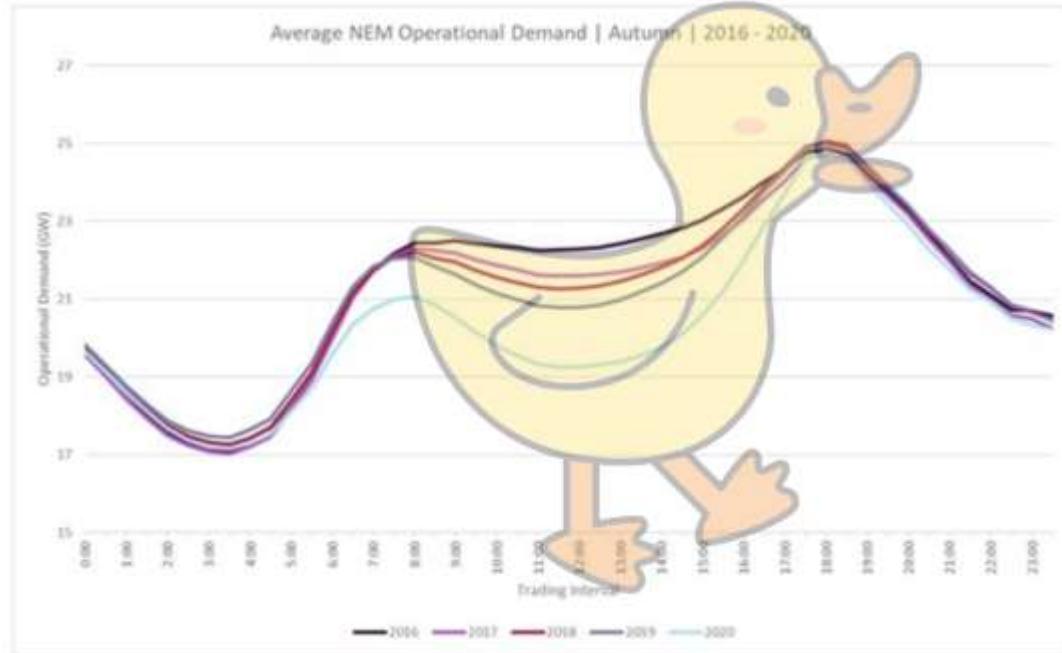
***A mid-scale energy storage unit embedded into the electricity network and allows for energy storage.***

And “community” = ownership / benefit / involvement.

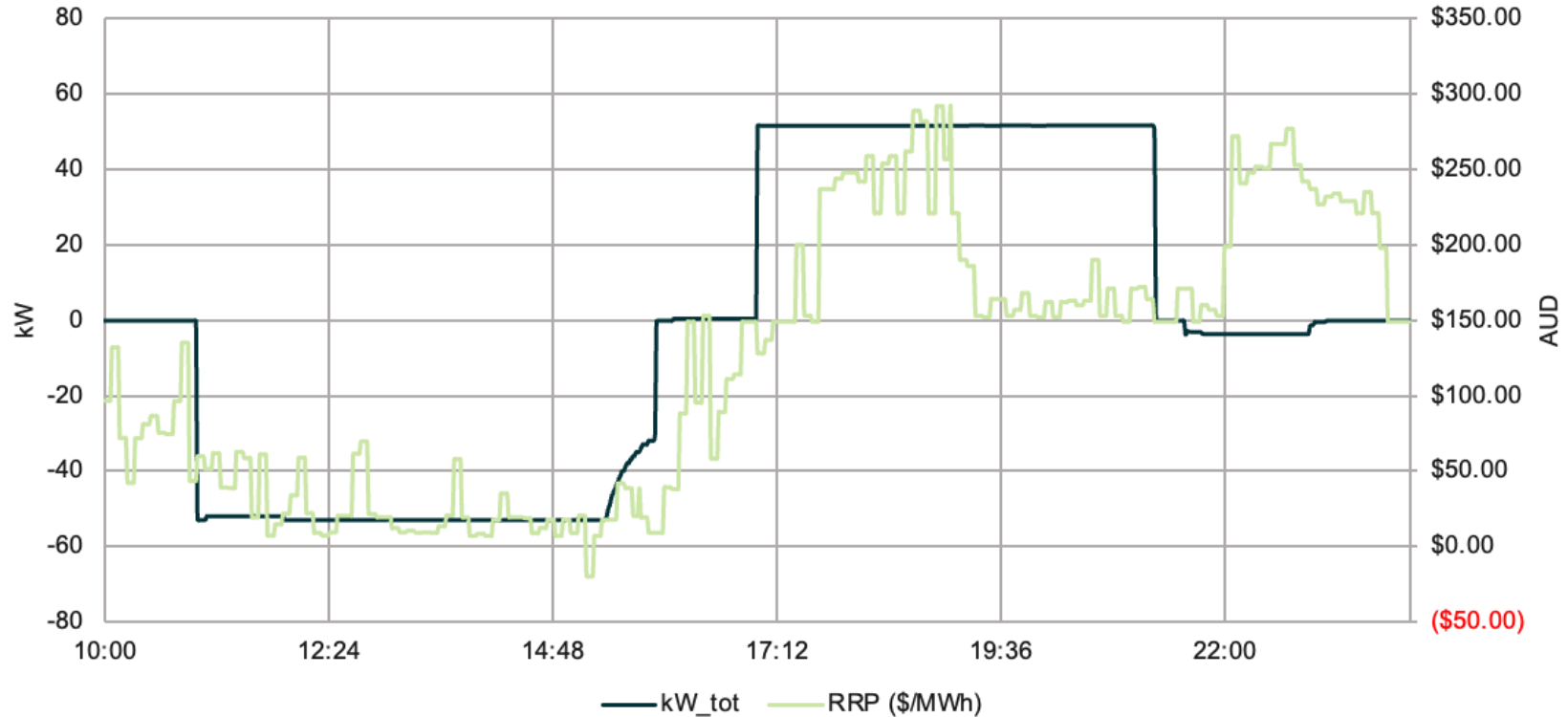
Open: June 2022  
Capacity: 110/309kWh  
System: Pixii Power  
Shaper  
Size: 4 fridges - 5m<sup>2</sup>  
Connection: FOM  
LV: 200 properties



Wow, it's  
the duck  
curve!



# 'Solar soaker' dispatch



# Community battery network tariffs (CitiPower)

Community battery network tariffs			
Time band	Fixed (cents/day)	Import rate (cents/kWh)	Export rate (cents/kWh)
10am – 3pm	45	-1.5	0
4pm – 9pm		25	-1.0
All other times		0	0

## FN1 Revenue - 1st Year Operation (excl. GST)



Figure 9. Summary of year 1 revenue



- ✓ NBI \$800k
- ✓ YEF/CitiPower \$150k (in kind and cash or just)
- ✓ \$1000 per kWh
- ✓ Bespoke software



YARRA  
ENERGY  
FOUNDATION

What's the future for  
community batteries?

SOLUTIONS	Home Battery	EVs	Neighbourhood Battery	Medium Voltage	Grid-Scale
Low-voltage regulation	✓	✓ <i>When day-time charging</i>	✓	✗	✗
Low-voltage peak demand reduction	✓	✓	✓	✗	✗
Minimise reverse flow to transmission network	✓	✓	✓	✓	✗
Frequency control	✓ <i>In a VPP</i>	■	✓	✓	✓
Firming by time shifting variable renewable energy	✓ <i>By exception</i>	■	✓	✓	✓
Firming the output of a renewable energy generator	✗	✗	✗	✗	✓ <i>If front-ending generator</i>



= can do



= can't do



= not currently

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